52 13 396 Remove and install/replace the head restraint guide on the front left or right

NOTICE

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

PRELIMINARY WORK

1 – Remove front head restraint



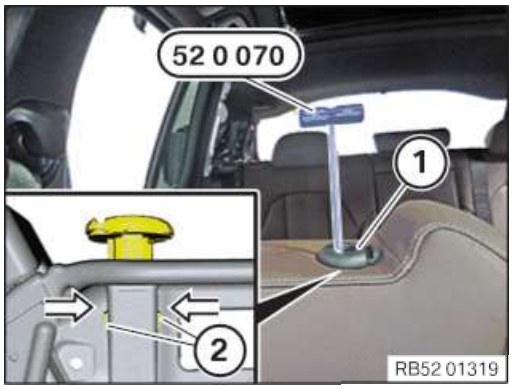
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

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2 – Remove the guide sleeve for the front head restraint

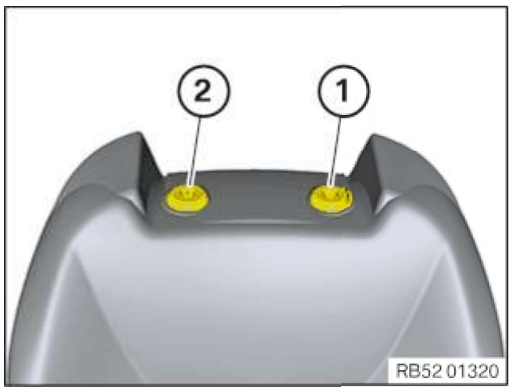
NOTICE

The description is for one component only. The procedure is identical for all further components.



- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

3 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

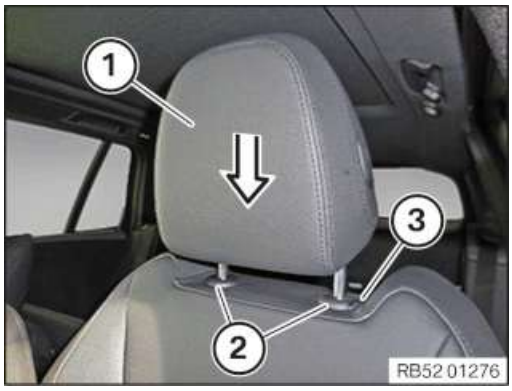
The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

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4 – Install the front head restraint



- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

Additional Information

Overview of Special Tools

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52 13 390 Removing and installing or replacing front left or right head restraint

NOTICE

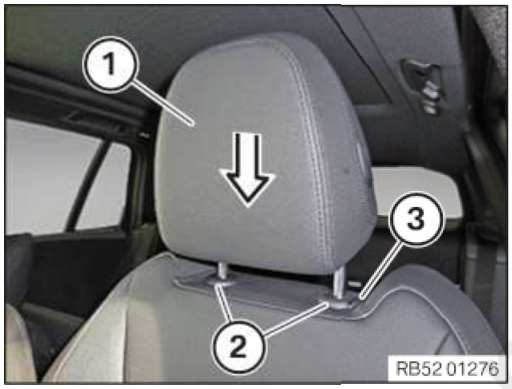
Description is for left component only. Procedure on the right side is identical.

1 – Remove front head restraint



- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

2 – Install the front head restraint



- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

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52 14 001 Removing and installing driver's seat

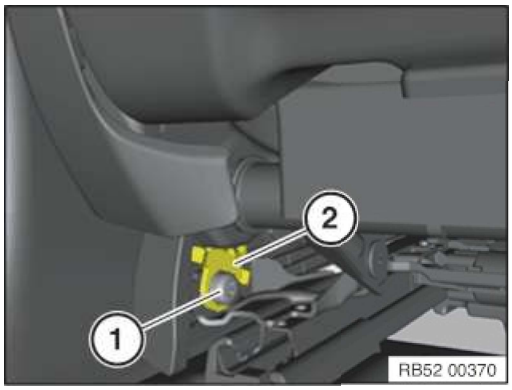
1 – Remove front seat

WARNING

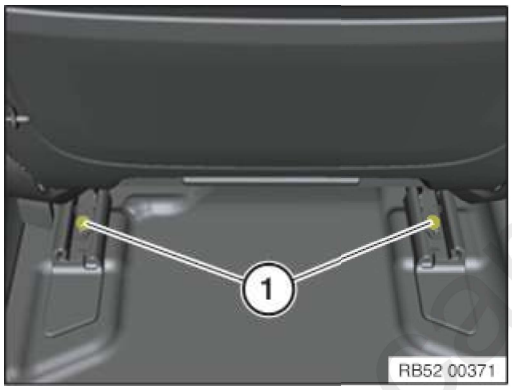
Pyrotechnic components.

Danger! Life-threatening injuries!

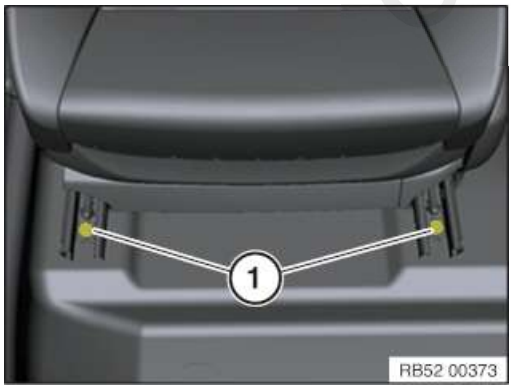
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

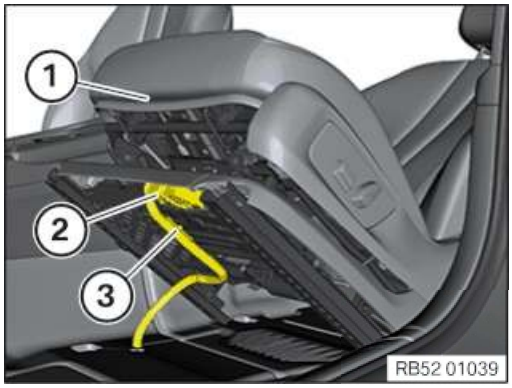
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Install front seat

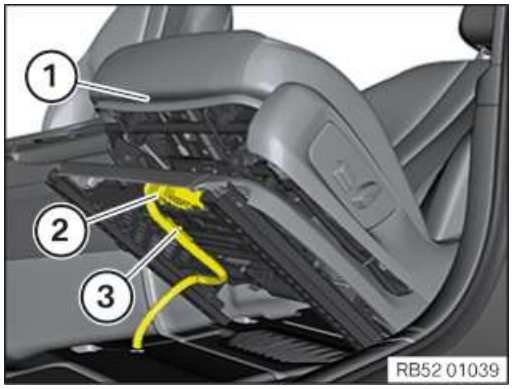
WARNING

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

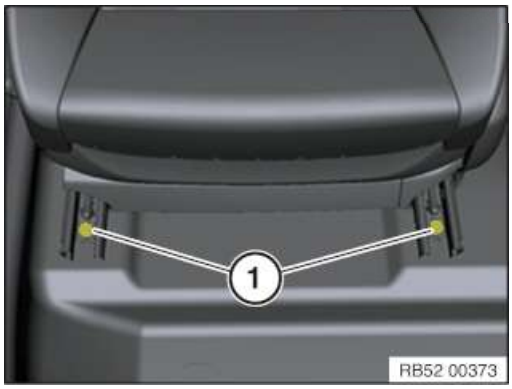
- Remove and install heavy components with the aid of another person/other persons.

- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

▸ **Disconnecting all battery earth leads**



- See additional information.



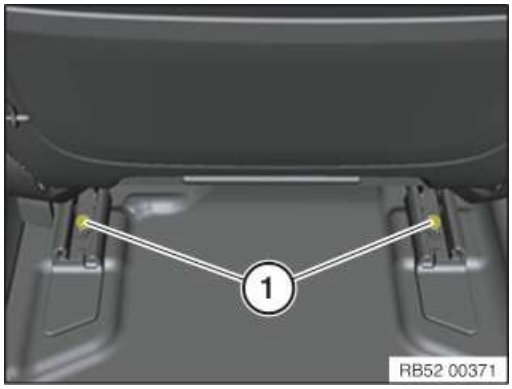
- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

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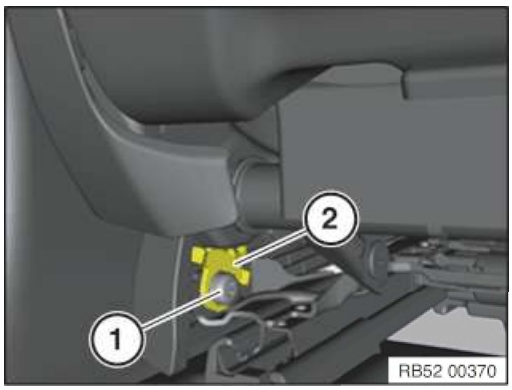


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Seat to body Used in step 2

M10	Renew screw.	Tightening torque	42 Nm

End fitting to seat mechanism Used in step 2

M10	Renew screw.	Tightening torque	42 Nm

Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	12

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	12
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	12
61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	12
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	12
61 20 900 Disconnecting and connecting battery earth lead	12

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61 20 900 Disconnecting and connecting battery earth lead	12
61 20 900 Disconnecting and connecting battery earth lead	12
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61 20 900 Disconnecting and connecting battery earth lead	12

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52 14 041 Removing and installing or replacing inner cover on left or right front seat

NOTICE

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

PRELIMINARY WORK

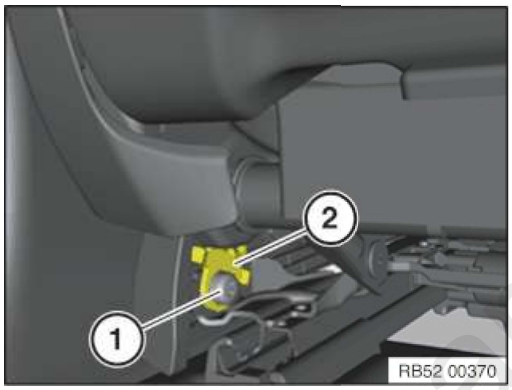
1 – Remove front seat

WARNING

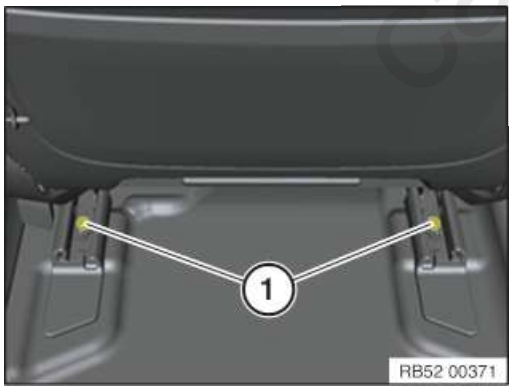
Pyrotechnic components.

Danger! Life-threatening injuries!

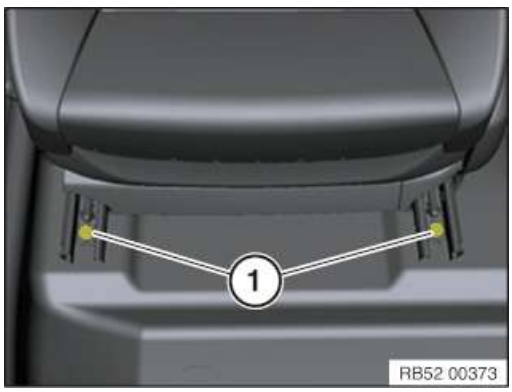
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

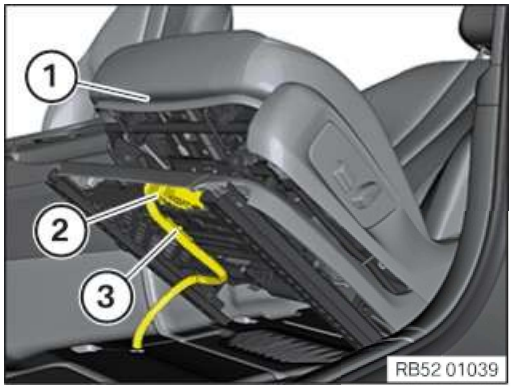
  Adjust the steering column completely upwards.

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▶ **Disconnecting all battery earth leads**



- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

MAIN WORK

POSTPROCESSES

2 – Install front seat

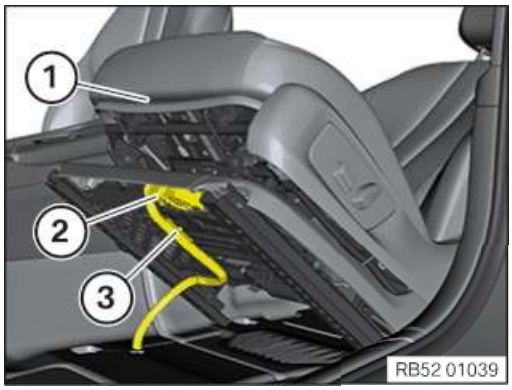
cardiagn.com

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

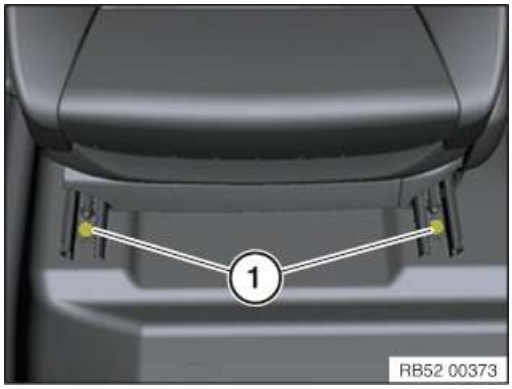
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

▶ **Disconnecting all battery earth leads**

- See additional information.



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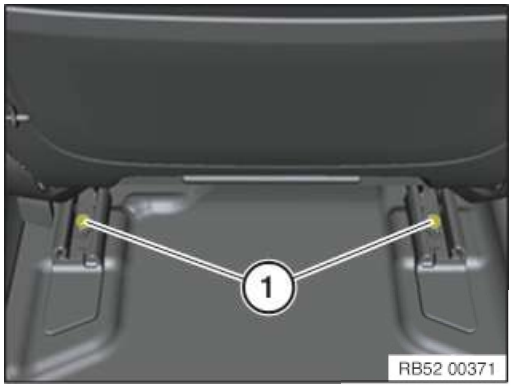


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

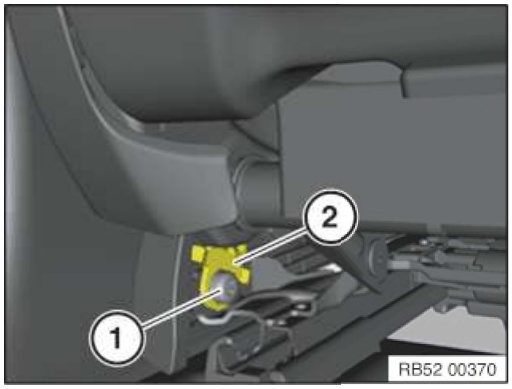


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Seat to body Used in step 2

M10	Renew screw.	Tightening torque	42 Nm

End fitting to seat mechanism Used in step 2

M10	Renew screw.	Tightening torque	42 Nm

Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	12

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	12
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	12
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	12
61 20 900 Disconnecting and connecting battery earth lead	12
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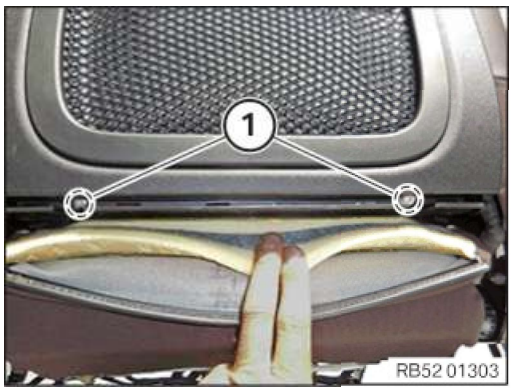
cardiagn.com

52 14 198 Removing and installing or replacing rear panel on left or right front seat backrest

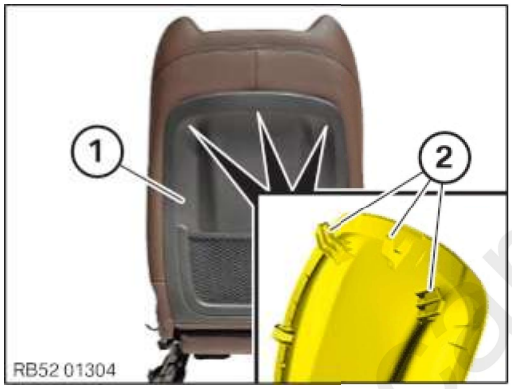
1 – Removing rear panel of front seat backrest



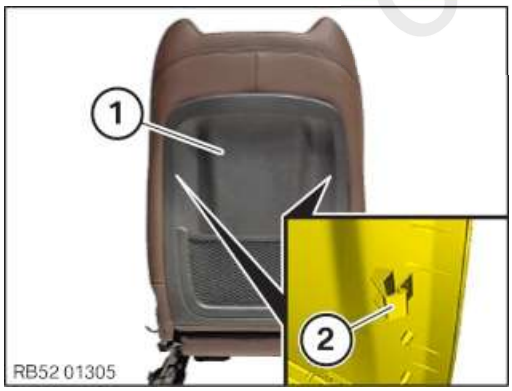
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



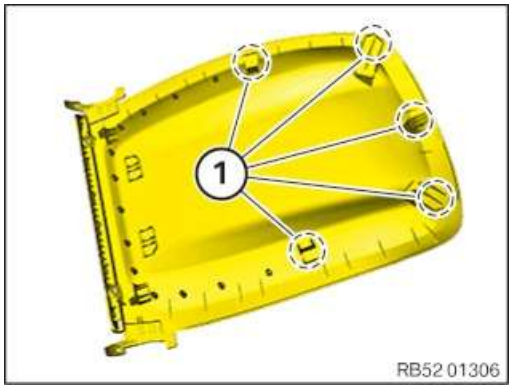
- Slide the rear panel (1) down and guide it out at the guides (2).



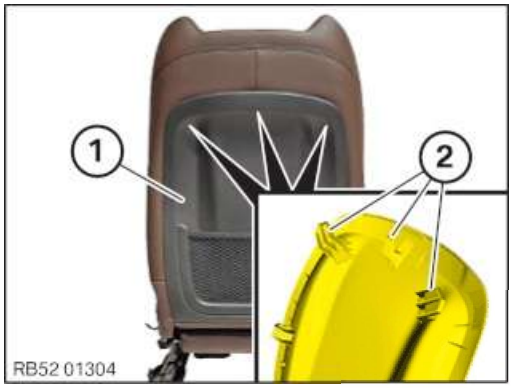
- Unclip the rear panel (1) from the clamps (2) and remove.

2 – Mount the rear panel on the front seat backrest

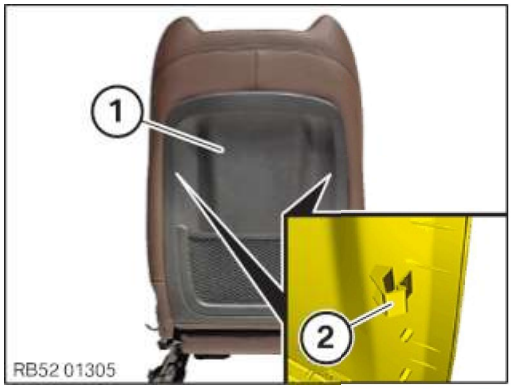
cgrdiagn.com



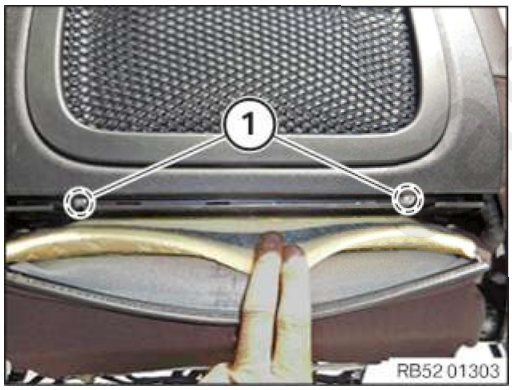
- Check the guides and clamps (1) for damage and renew the cover as needed.



- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).



- Tighten down screw (1).

Rear panel to seat frame

Sheet metal screw	Tightening torque		3 Nm



- Attach the edge stripping of the seat cover in this area (1).

Additional Information

Overview of Tightening Torques

Overview of Tightening Torques

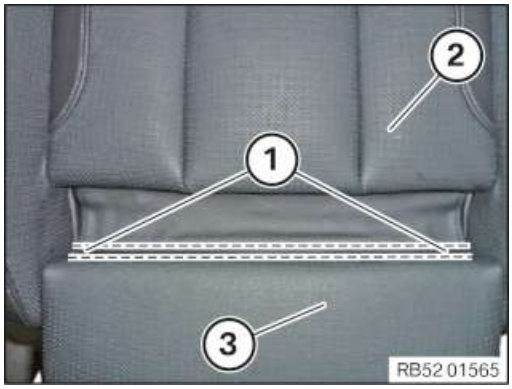
Rear panel to seat frame Used in step 2

Sheet metal screw	Tightening torque		3 Nm

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52 16 048 Removing and installing thigh support on left or right front seat

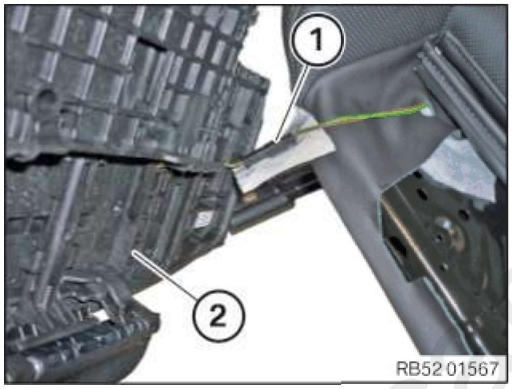
1 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).



- Loosen screws (1).
- Feed the thigh support (2) out.



- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

2 – Install thigh support

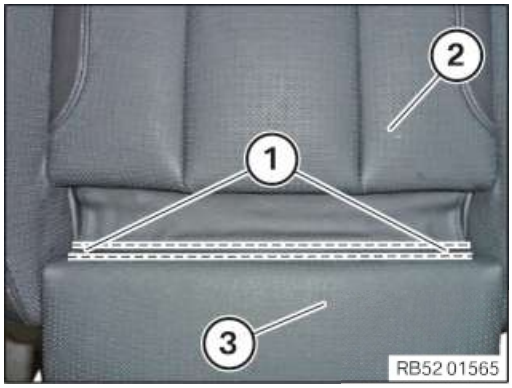


- Position the thigh support (2).
- Connect connectors (1) and lock.

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- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).



- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

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52 16 062 Removing and installing/replacing backrest width adjustment with valve on front seat

PRELIMINARY WORK

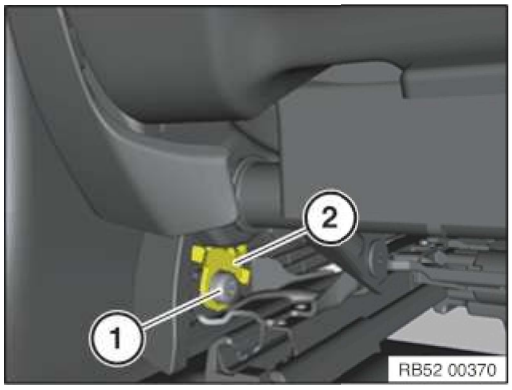
1 – Remove front seat

WARNING

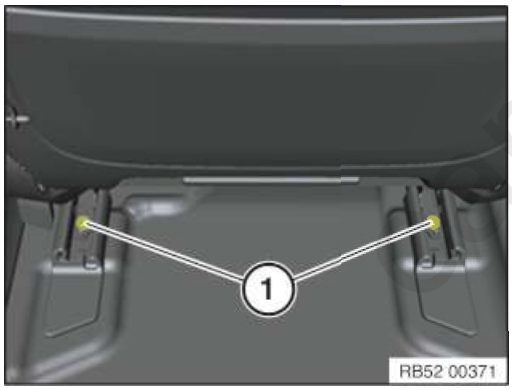
Pyrotechnic components.

Danger! Life-threatening injuries!

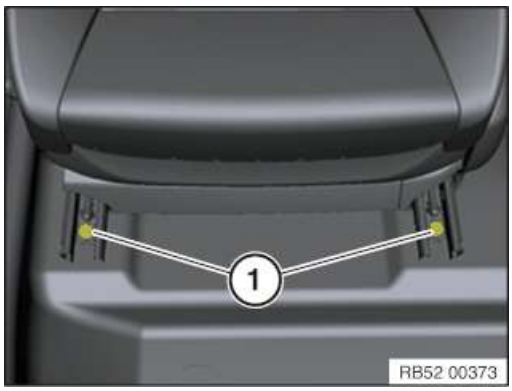
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

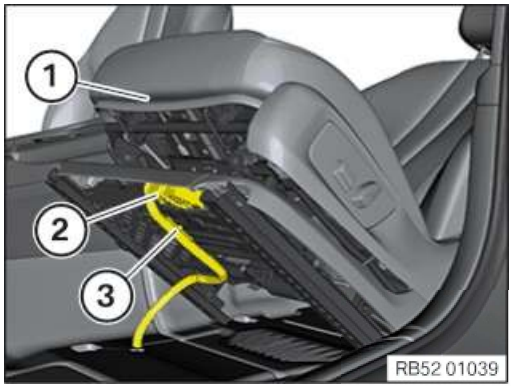
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



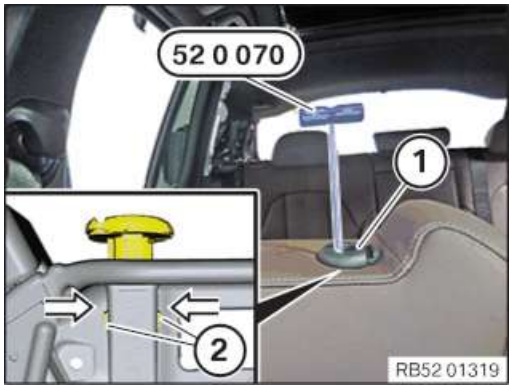
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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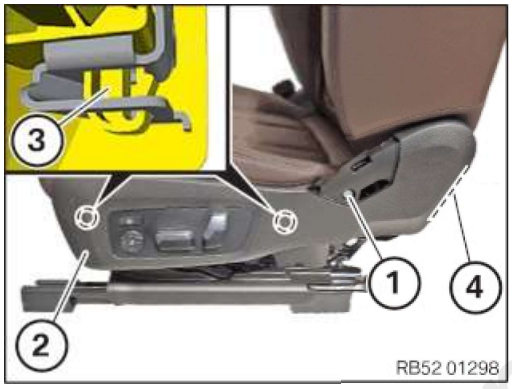


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

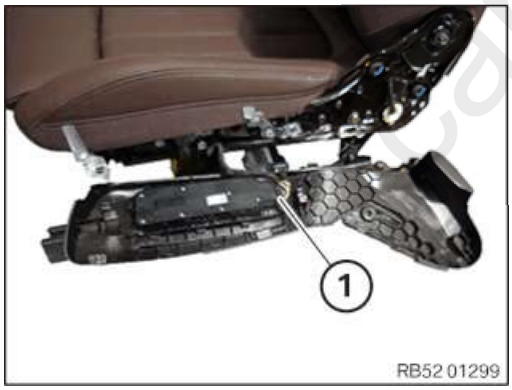
4 – Remove outer cover on front seat



- Unclip the cover (1).

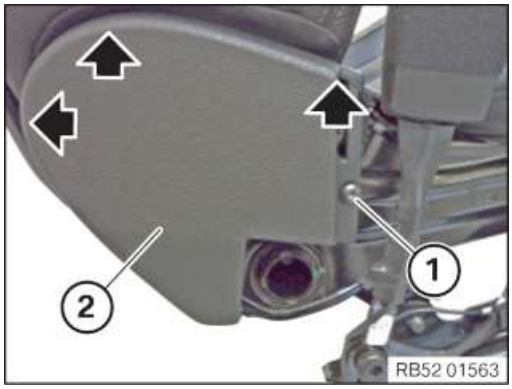


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



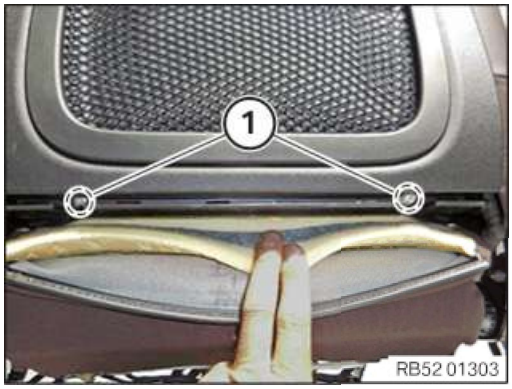
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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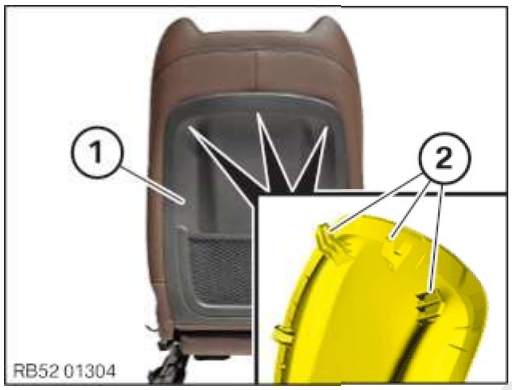
6 – Removing rear panel of front seat backrest



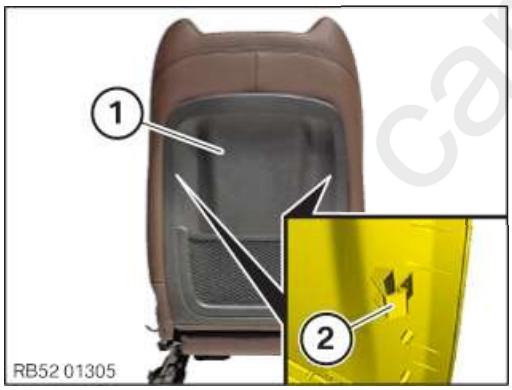
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

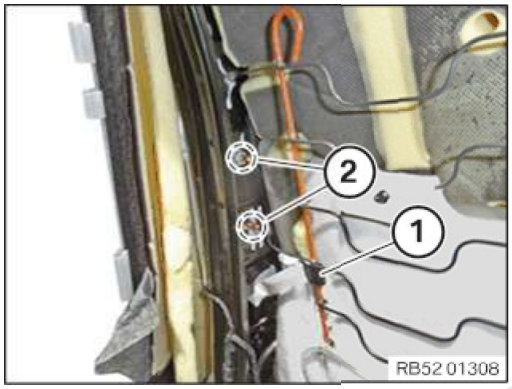
Pyrotechnic components.

Danger! Life-threatening injuries!

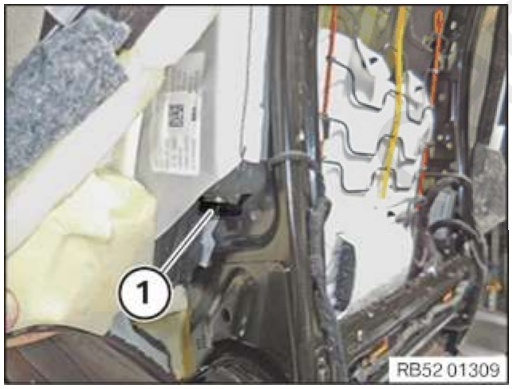
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



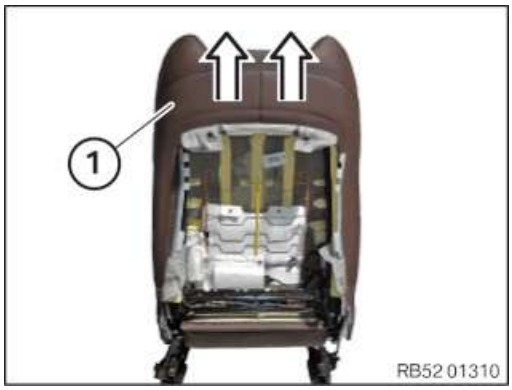
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).



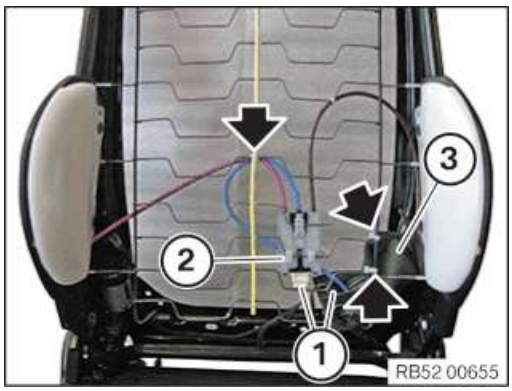
- Unlock plug connection (1) and disconnect.



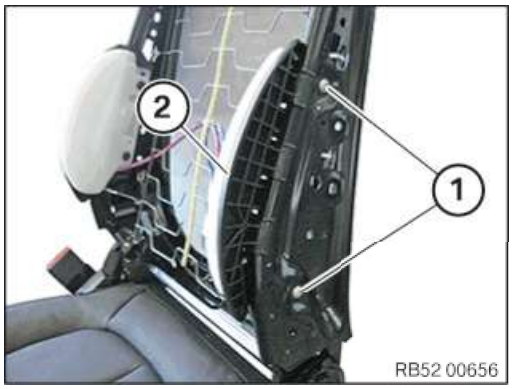
- Guide out the backrest cover (1) complete with the side airbag toward the top.

MAIN WORK

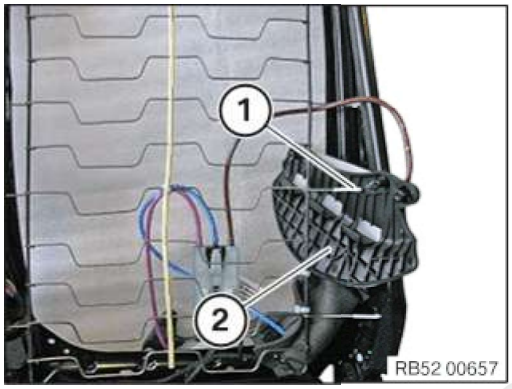
8 – Remove backrest width adjustment with valve



- Release cable strap (arrows).
- Unlock and disconnect plug connections (1).
- Release valve units (2) from spring wire.
- Feed out the pump (3).



- Release the screws (1) on the left and right air cushion (2).

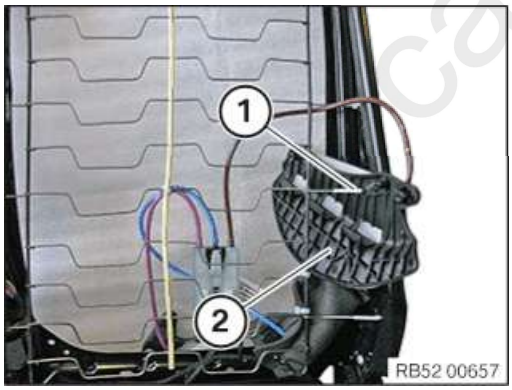


NOTICE

Perform the operations on the left and right side.

- Detach the spring wire (1) from the backrest frame.
- Feed out the air cushion (2) towards the rear.

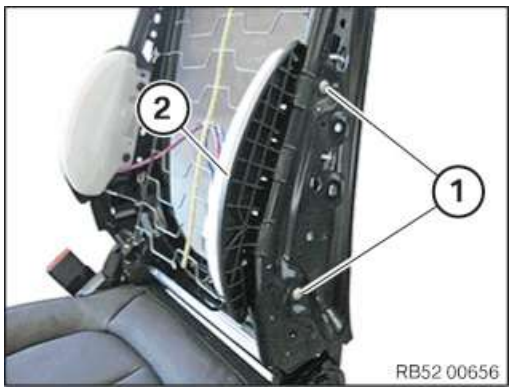
9 – Install backrest width adjustment with valve



NOTICE

Perform the operations on the left and right side.

- Insert the air cushion (2) from the rear.
- Attach the spring wire (1) to the backrest frame.



- Renew screws (1).

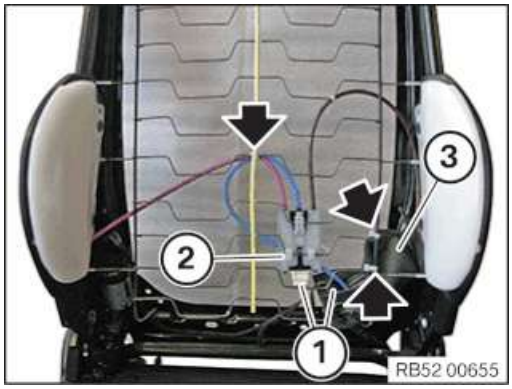
  Parts: Screw

- Tighten screws (1) on the left and right air cushion (2).

Backrest width adjustment to backrest frame

Oval-head screw	Renew screw.	Tightening torque	1,7 Nm

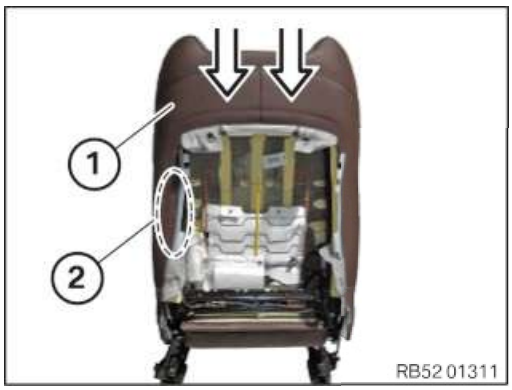
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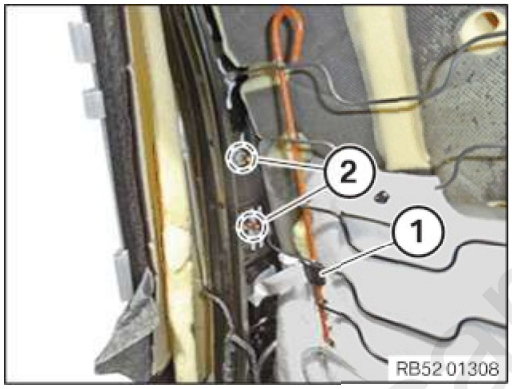
- Thread in the pump (3).
- Attach the valve unit (2) on the spring wire.
- Connect connectors (1) and lock.
- Mount the cable strap (arrows).

POSTPROCESSES

10 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).

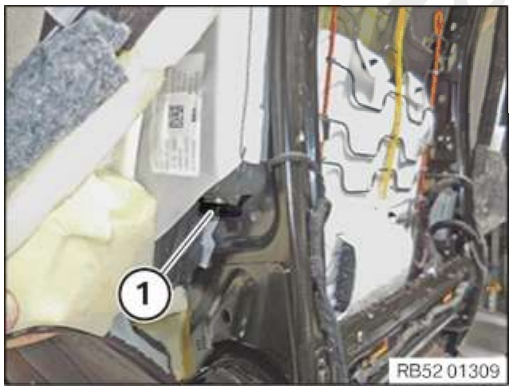


- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm



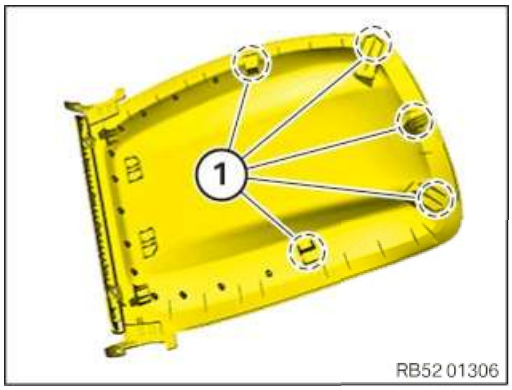
- Connect plug connection (1) and lock.

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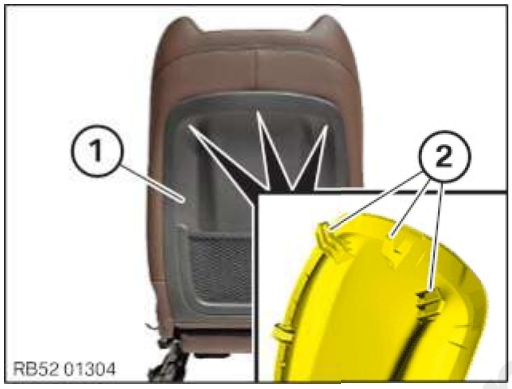


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

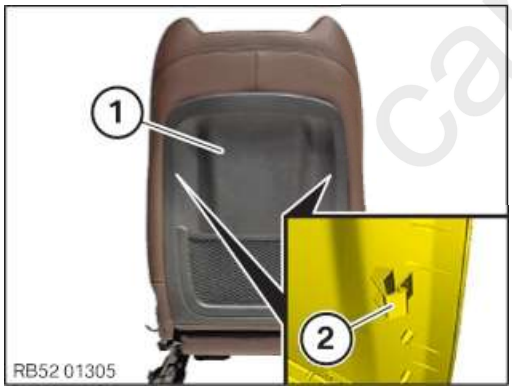
11 – Mount the rear panel on the front seat backrest



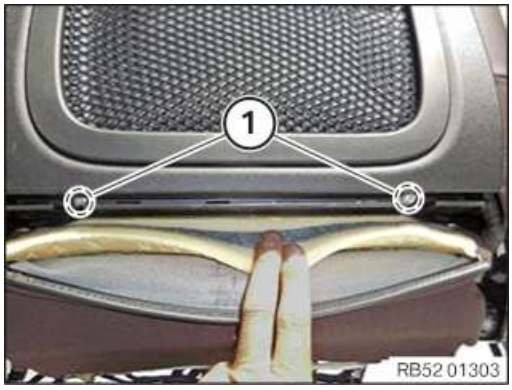
- Check the guides and clamps (1) for damage and renew the cover as needed.



- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).



- Tighten down screw (1).

Rear panel to seat frame

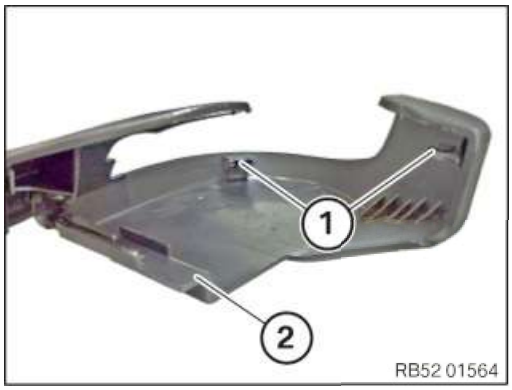
Sheet metal screw	Tightening torque		3 Nm

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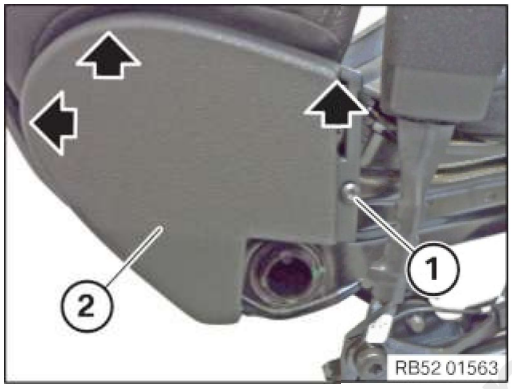


- Attach the edge stripping of the seat cover in this area (1).

12 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

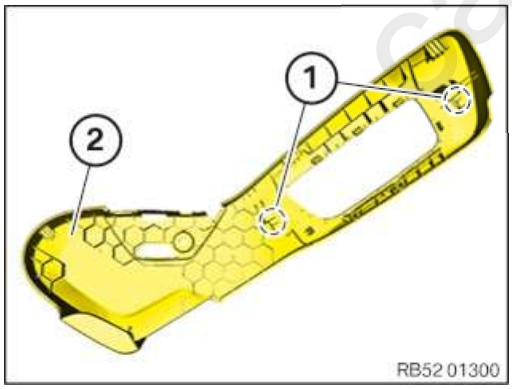


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

Inner cover on seat frame

Screw	Tightening torque	2.5 Nm

13 – Install outer cover on front seat



- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.

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- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

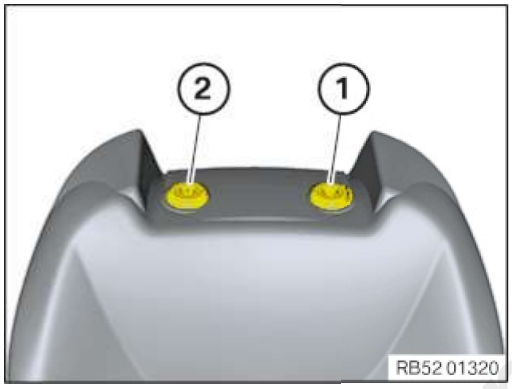
Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

14 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

15 – Install the front head restraint



- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

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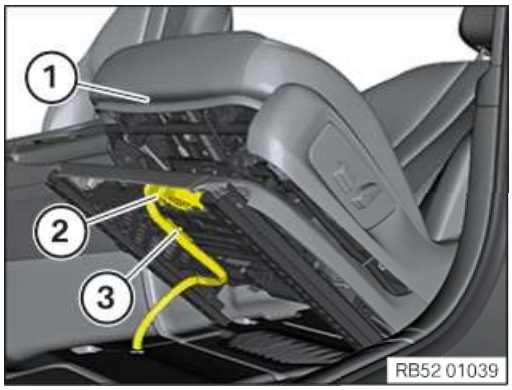
16 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

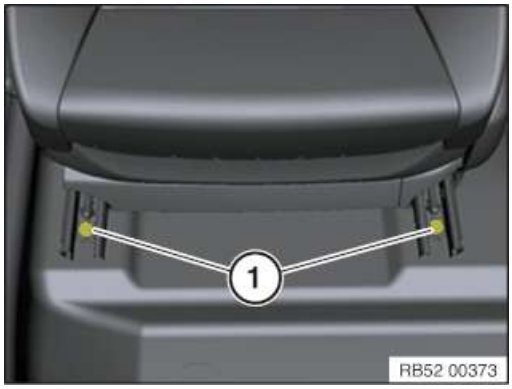
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

► **Disconnecting all battery earth leads**

- See additional information.



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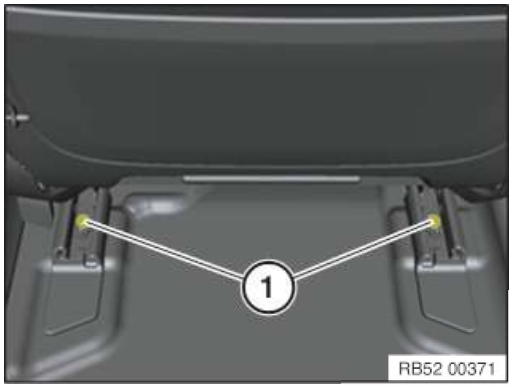


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

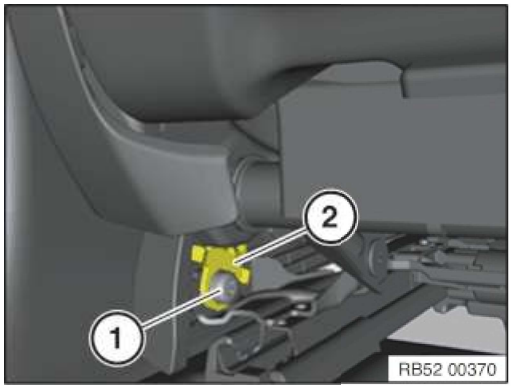


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Backrest width adjustment to backrest frame Used in step 9

Oval-head screw	Renew screw.	Tightening torque	1,7 Nm

Airbag on backrest frame Used in step 10

Nut	Renew nut.	Tightening torque	6,5 Nm

Rear panel to seat frame Used in step 11

Sheet metal screw	Tightening torque		3 Nm

Inner cover on seat frame Used in step 12

Screw		Tightening torque	2.5 Nm

Seat trim to seat frame Used in step 13

Sheet metal screw		Tightening torque	2.5 Nm

Seat to body Used in step 16

M10	Renew screw.	Tightening torque	42 Nm

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End fitting to seat mechanism			Used in step 16
M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	116

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	116
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	116
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
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61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116
61 20 900 Disconnecting and connecting battery earth lead	116

52 16 040 Removing and installing/replacing outer cover on left or right front seat

NOTICE

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

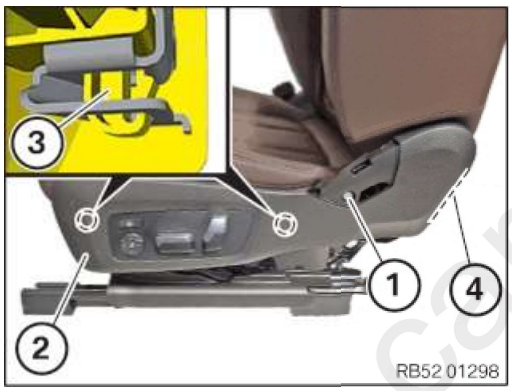
NOTICE

For a better overview the removed condition is shown here.

1 – Remove outer cover on front seat



- Unclip the cover (1).



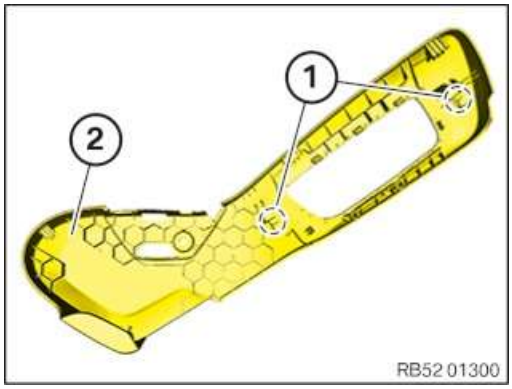
- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

2 – Install outer cover on front seat

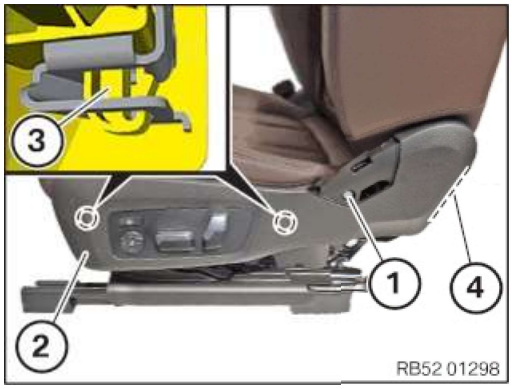
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- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

Additional Information

Overview of Tightening Torques

Seat trim to seat frame Used in step 2

Sheet metal screw		Tightening torque	2.5 Nm

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52 16 026 Removing/installing/replacing driver's seat and backrest frame

PRELIMINARY WORK

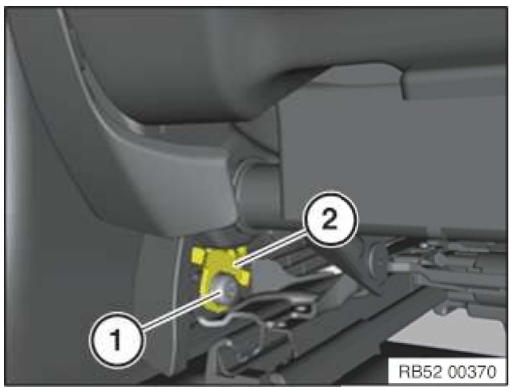
1 – Remove front seat

WARNING

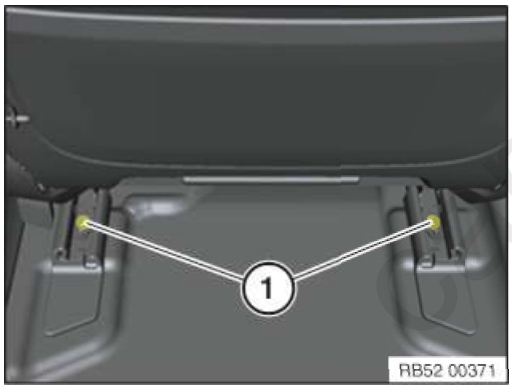
Pyrotechnic components.

Danger! Life-threatening injuries!

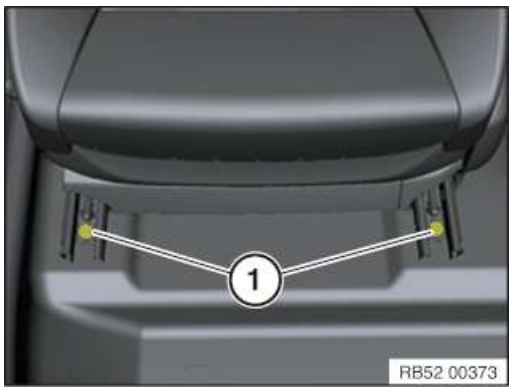
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

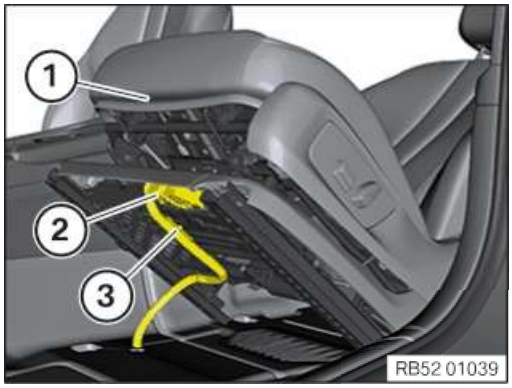
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



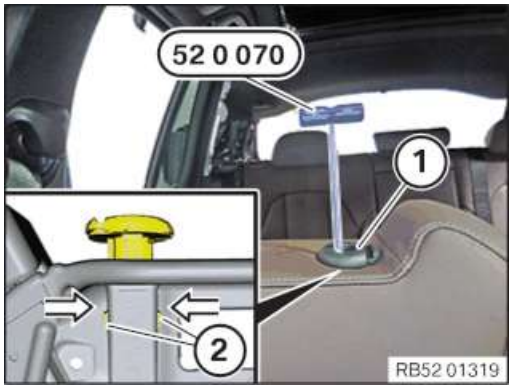
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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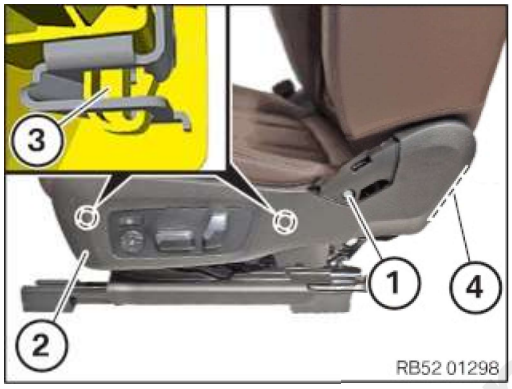


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

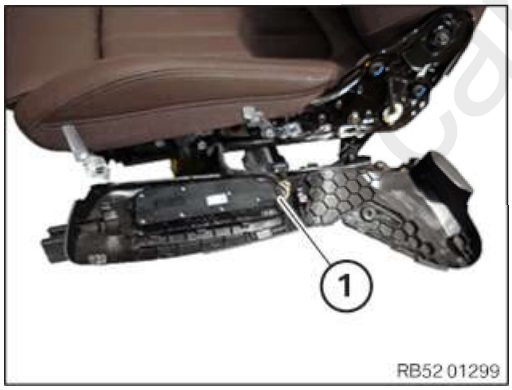
4 – Remove outer cover on front seat



- Unclip the cover (1).

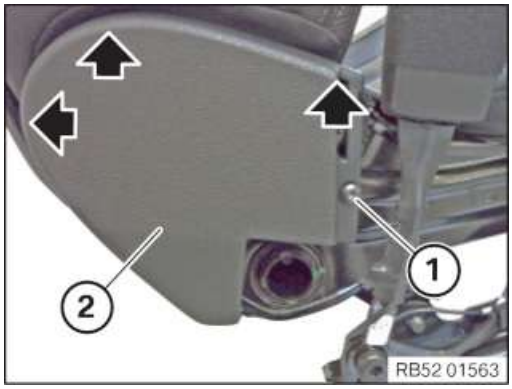


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



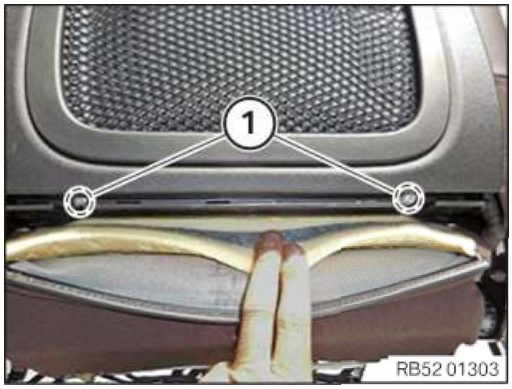
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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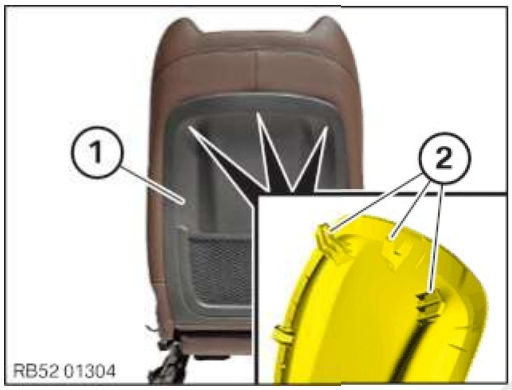
6 – Removing rear panel of front seat backrest



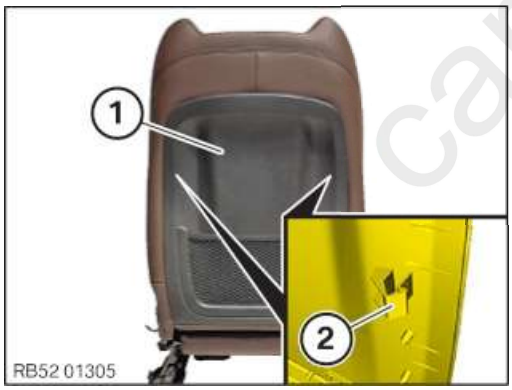
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

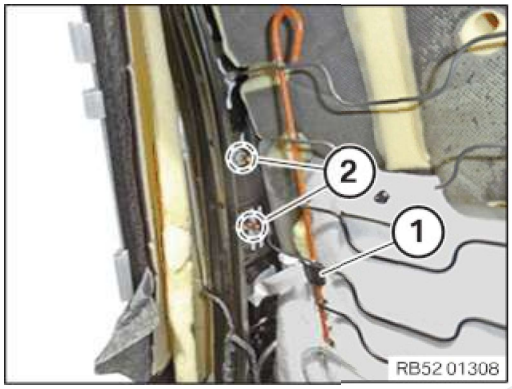
Pyrotechnic components.

Danger! Life-threatening injuries!

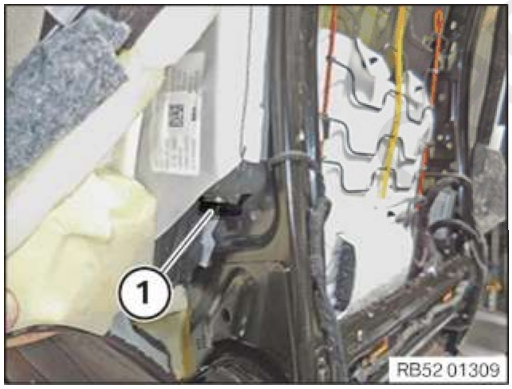
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



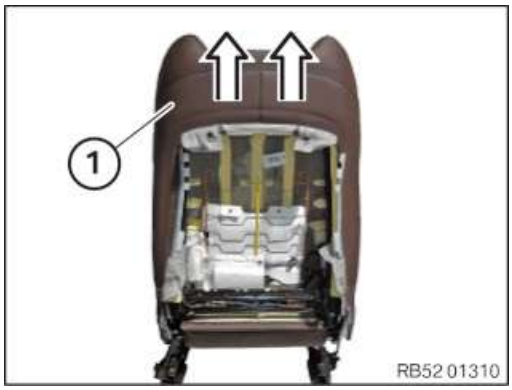
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).

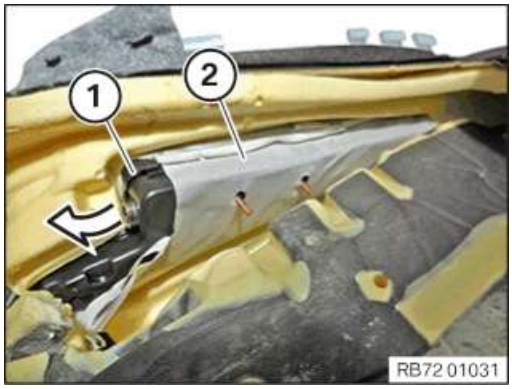


- Unlock plug connection (1) and disconnect.



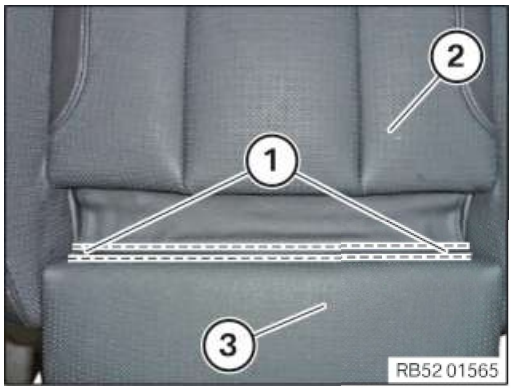
- Guide out the backrest cover (1) complete with the side airbag toward the top.

8 – Remove side airbag from front seat



- Guide the side airbag (1) out of the fabric pocket (2) on the backrest cover.

9 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).

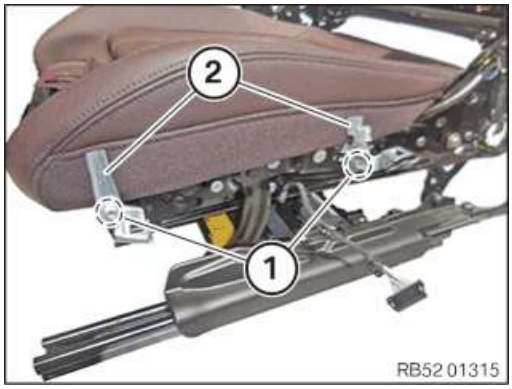


- Loosen screws (1).
- Feed the thigh support (2) out.

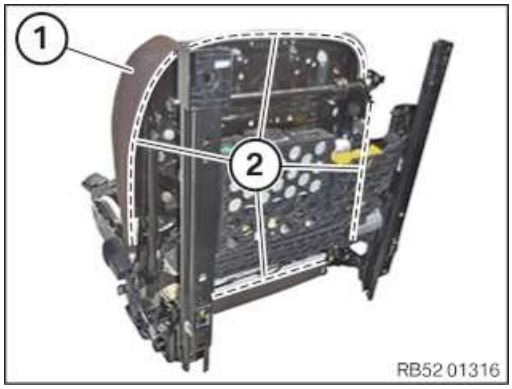


- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

10 – Remove seat cover with padding for driver's seat



- Loosen screws (1) and remove holder (2).



- Detach the seat cover (1) in the areas (2).
- Feed out the seat cover (1) with the cushion and remove.
- Disconnect the existing plug connection where required and unclip the cable clips.

MAIN WORK

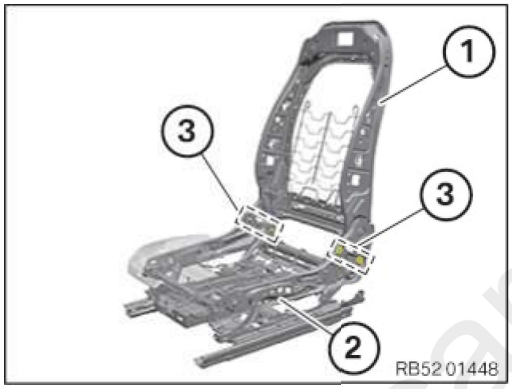
11 – Replacing the complete seat frame with the backrest frame



TECHNICAL INFORMATION

Different variants may be installed depending on the vehicle equipment.

- Remove all mounted parts of the seat frame to be replaced and the backrest frame (1).



TECHNICAL INFORMATION

When replacing the seat frame, the entire seat frame must be replaced with the backrest frame.

Replacement of individual parts (e.g. only the backrest frame) is not permitted.

- Renew seat frame (2) with backrest frame (1).

  Parts: Seat frame and backrest frame
- Position seat frame (2) and backrest frame (1) correctly.
- Renew screws (3).

  Parts: Bolts
- Tighten the screws (3).

Backrest frame to seat frame

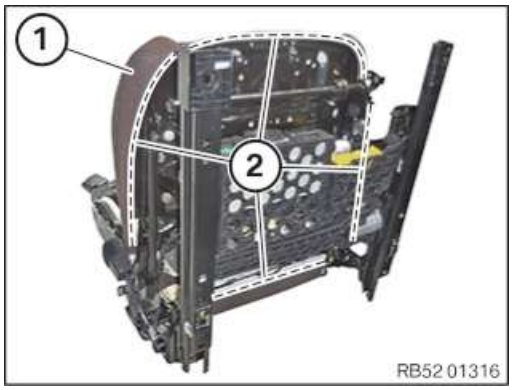
M10 screw	Renew screw.	Tightening torque	42 Nm



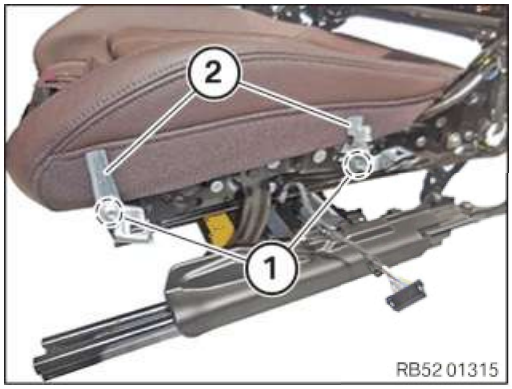
- Position and secure all the mounted parts on the seat frame and backrest frame (1).

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12 – Installing seat cover with cushion for driver's seat



- Feed in the seat cover (1) with the cushion and position.
- Attach the seat cover (1) in the areas (2).
- Where applicable, connect the existing plug connections and clip in the cable clips.

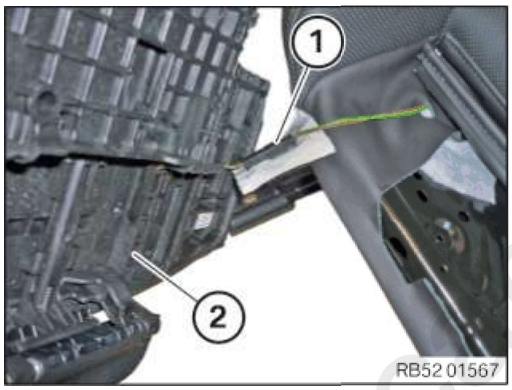


- Position holder (2) and tighten screws (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

13 – Install thigh support

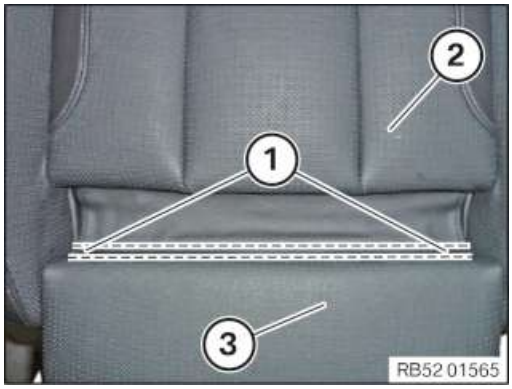


- Position the thigh support (2).
- Connect connectors (1) and lock.



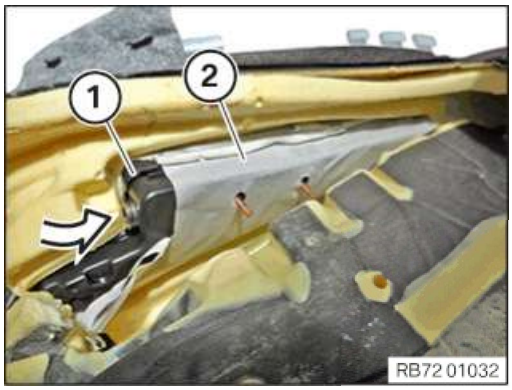
- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).

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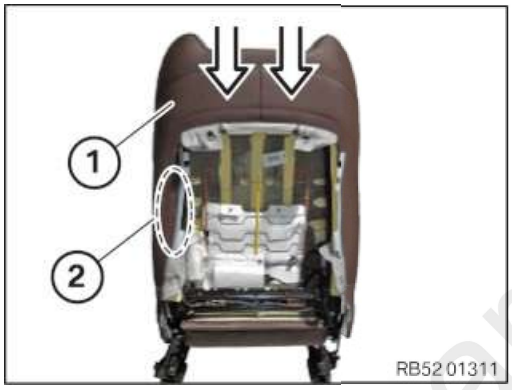
- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

14 – Install side airbag on front seat

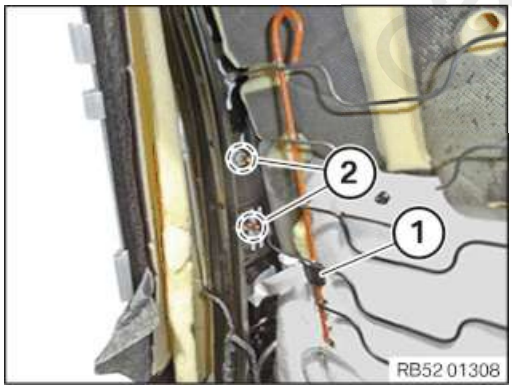


- Guide the side airbag (1) into the fabric pocket (2) on the backrest cover and position it.

15 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).

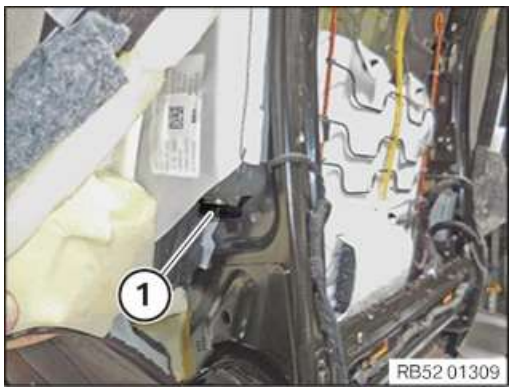


- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm



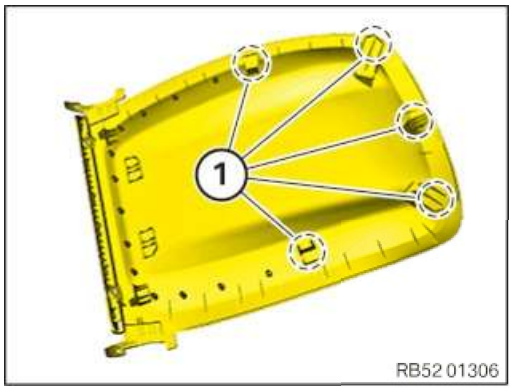
- Connect plug connection (1) and lock.

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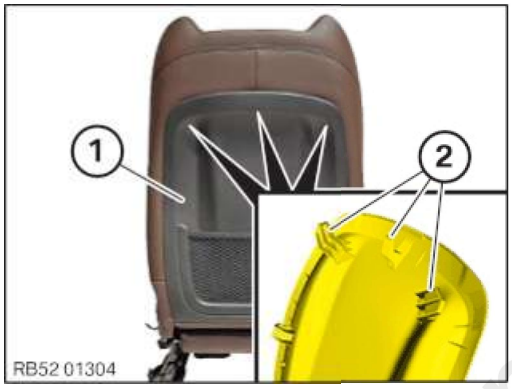


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

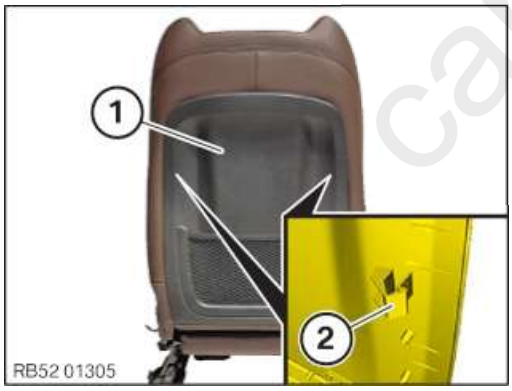
16 – Mount the rear panel on the front seat backrest



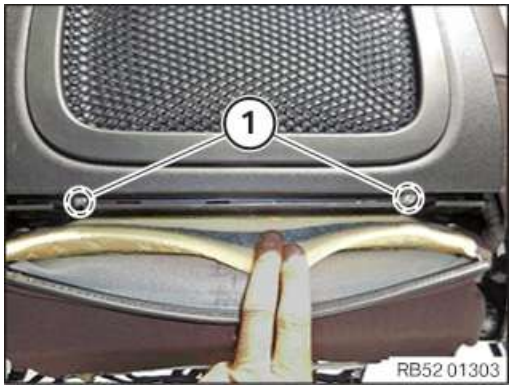
- Check the guides and clamps (1) for damage and renew the cover as needed.



- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).



- Tighten down screw (1).

Rear panel to seat frame

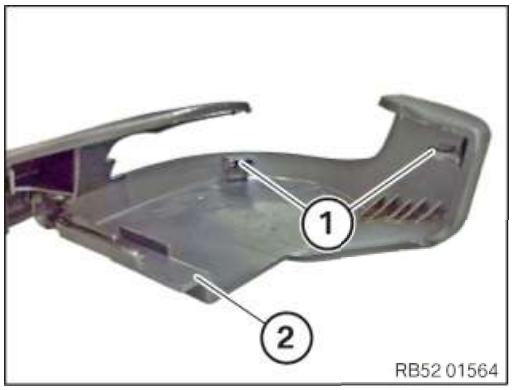
Sheet metal screw	Tightening torque		3 Nm

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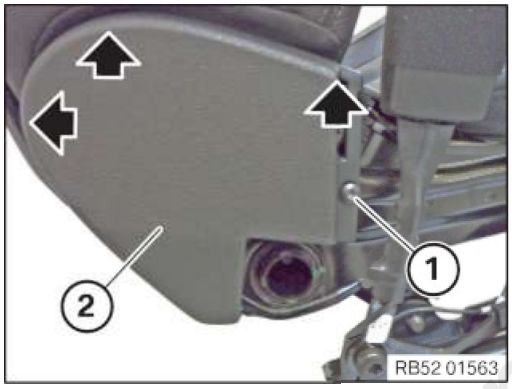


- Attach the edge stripping of the seat cover in this area (1).

17 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

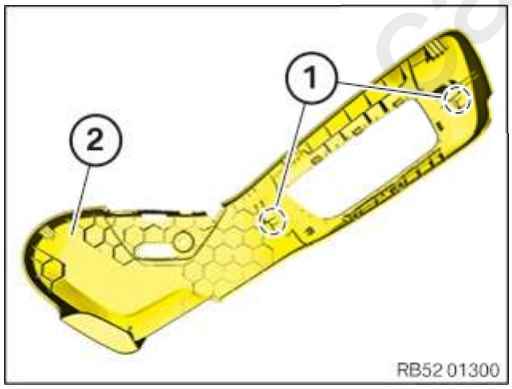


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

Inner cover on seat frame

Screw	Tightening torque	2.5 Nm

18 – Install outer cover on front seat



- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.

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- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

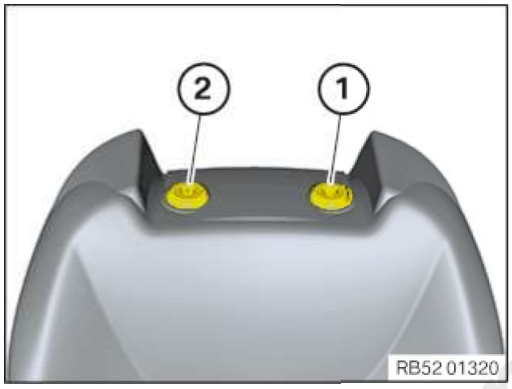
Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

19 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

20 – Install the front head restraint



- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

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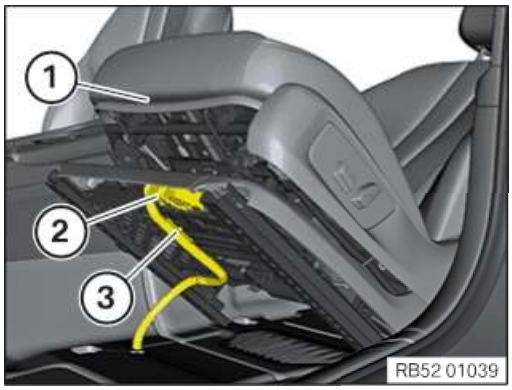
21 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

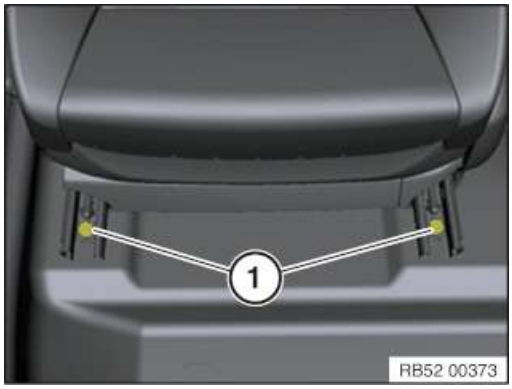
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

► **Disconnecting all battery earth leads**

- See additional information.



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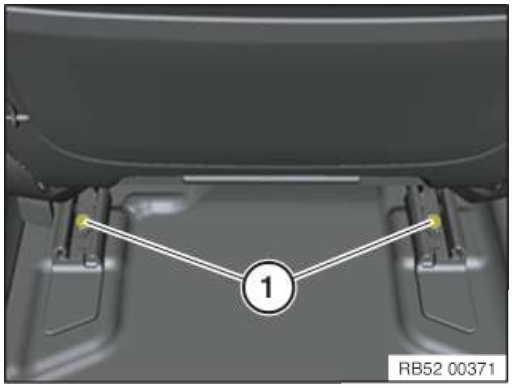


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

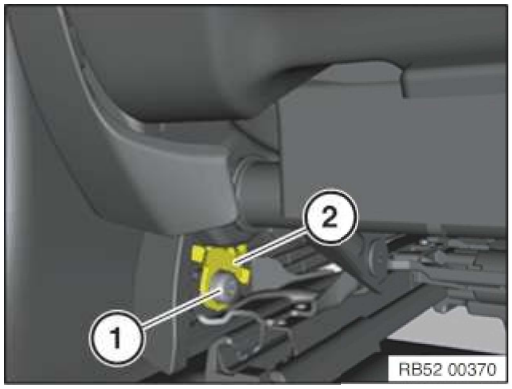


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Backrest frame to seat frame Used in step 11

M10 screw	Renew screw.	Tightening torque	42 Nm

Seat trim to seat frame Used in step 1218

Sheet metal screw		Tightening torque	2.5 Nm

Airbag on backrest frame Used in step 15

Nut	Renew nut.	Tightening torque	6,5 Nm

Rear panel to seat frame Used in step 16

Sheet metal screw	Tightening torque		3 Nm

Inner cover on seat frame Used in step 17

Screw		Tightening torque	2.5 Nm

Seat to body Used in step 21

M10	Renew screw.	Tightening torque	42 Nm

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End fitting to seat mechanism			Used in step 21
M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	121

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
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61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	121
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	121
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
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61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	121
61 20 900 Disconnecting and connecting battery earth lead	121
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61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121
61 20 900 Disconnecting and connecting battery earth lead	121

52 16 407 Replacing backrest cover for driver's seat

PRELIMINARY WORK

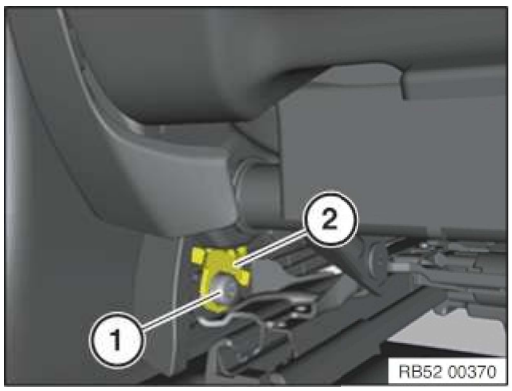
1 – Remove front seat

WARNING

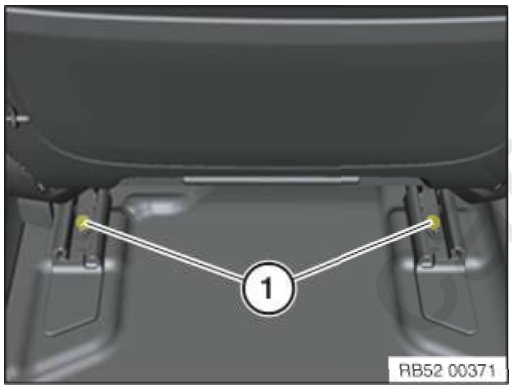
Pyrotechnic components.

Danger! Life-threatening injuries!

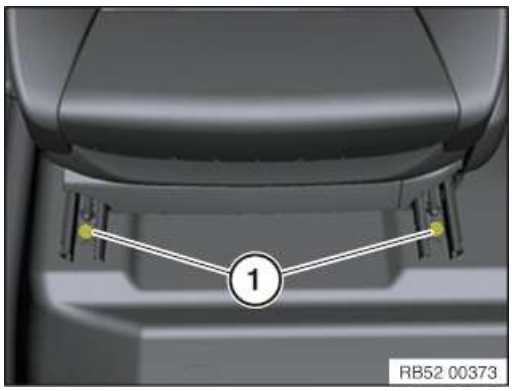
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

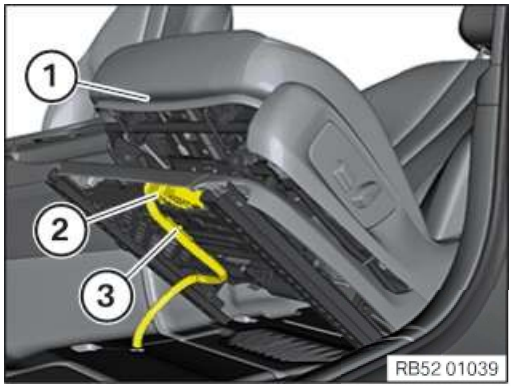
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



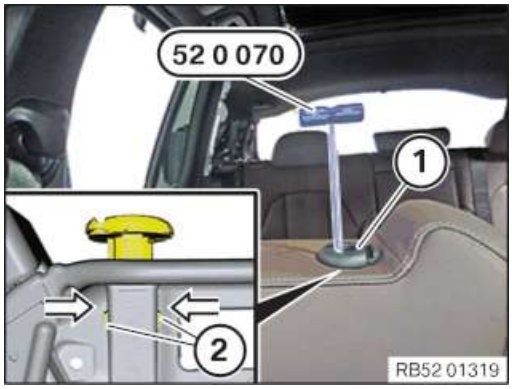
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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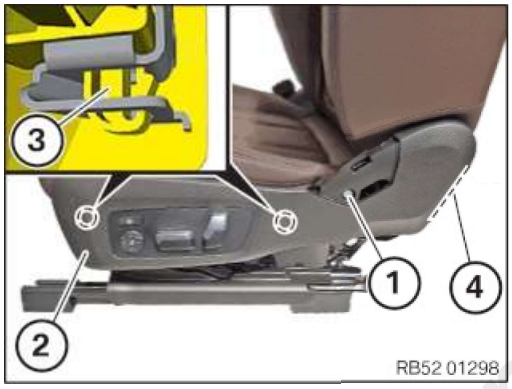


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

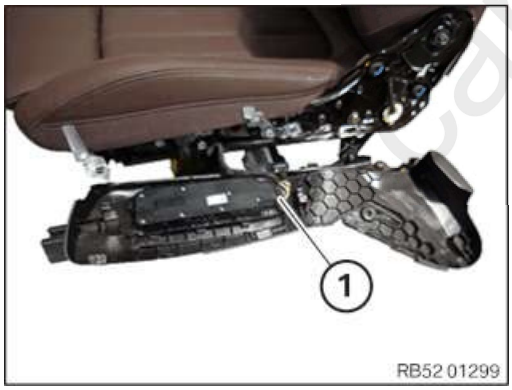
4 – Remove outer cover on front seat



- Unclip the cover (1).

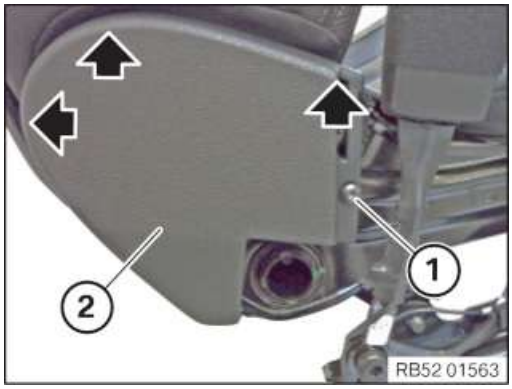


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



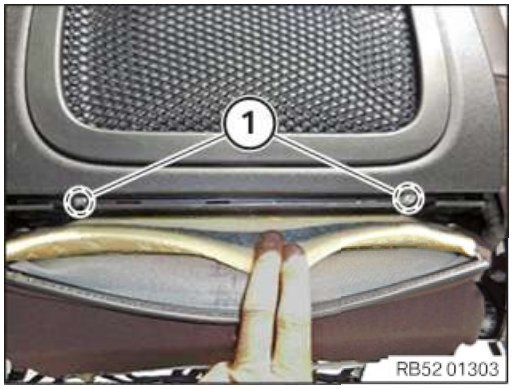
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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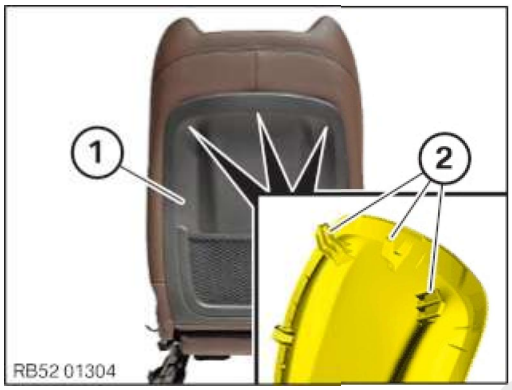
6 – Removing rear panel of front seat backrest



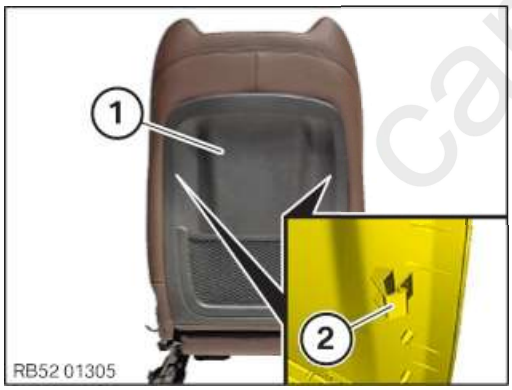
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

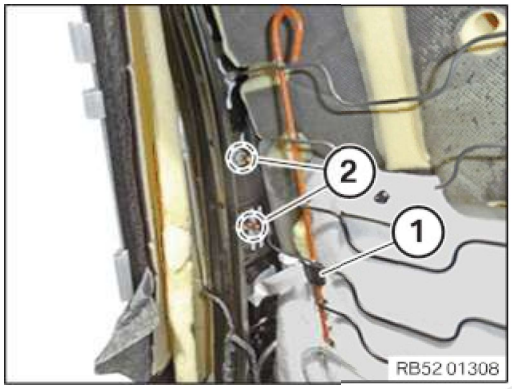
Pyrotechnic components.

Danger! Life-threatening injuries!

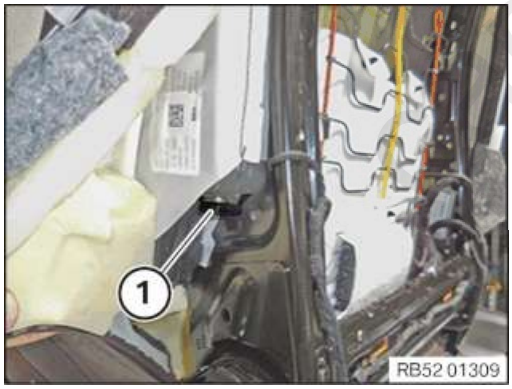
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



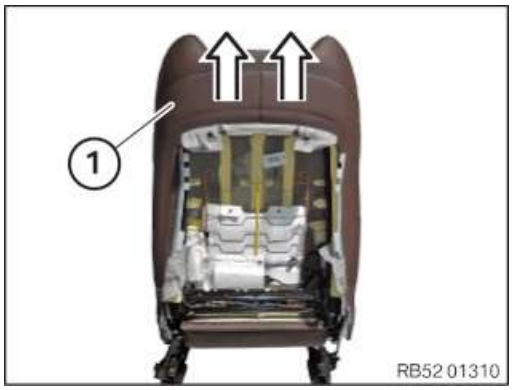
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).

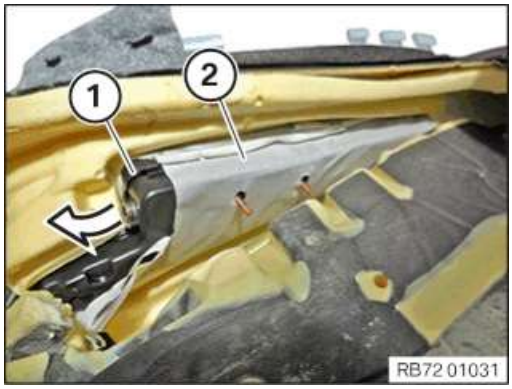


- Unlock plug connection (1) and disconnect.



- Guide out the backrest cover (1) complete with the side airbag toward the top.

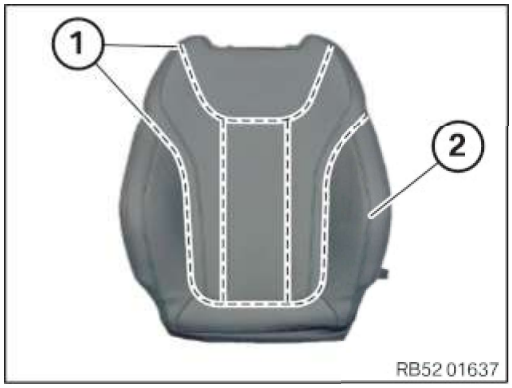
8 – Remove side airbag from front seat



- Guide the side airbag (1) out of the fabric pocket (2) on the backrest cover.

MAIN WORK

9 – Remove the backrest cover from front seat-backrest

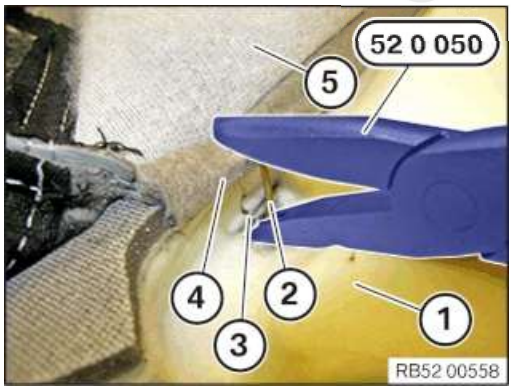


- Loosen all clamp on the trim wires (1).
- Remove the backrest cover (2) from the upholstery.
- Completely remove clamps from the backrest cover (2) and the cushion.

10 – Install the backrest cover of the front seat backrest



- Place the backrest cover (2) onto the upholstery.
- Secure all trim wires (1) with the clamps.



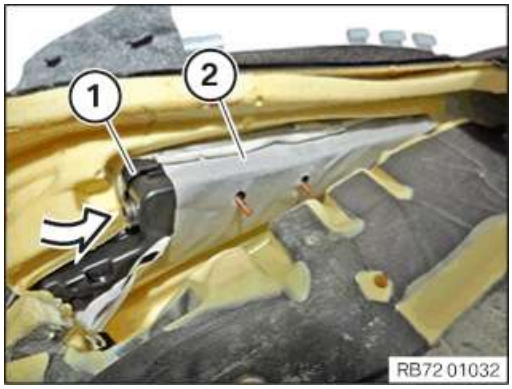
- Renew the clamps (2).

  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover (5) with the clamp (2) and bend the clamp (2) to close it.

POSTPROCESSES

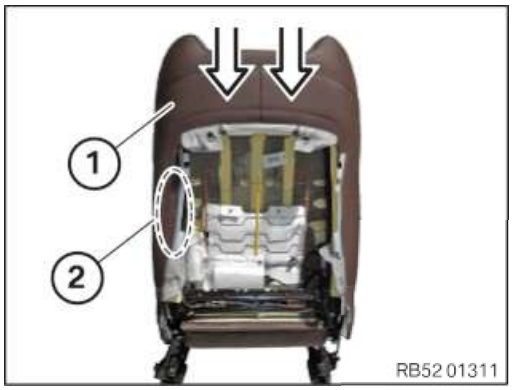
11 – Install side airbag on front seat

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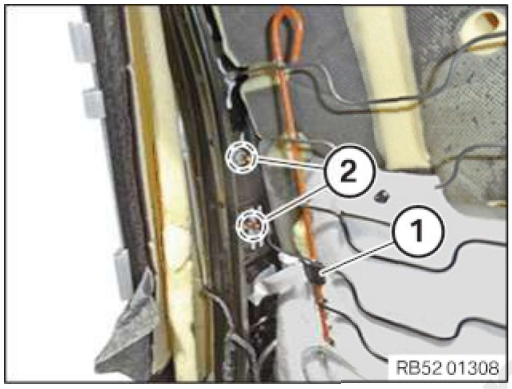


- Guide the side airbag (1) into the fabric pocket (2) on the backrest cover and position it.

12 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).

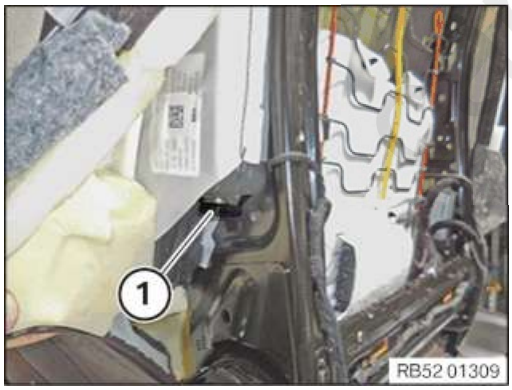


- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm

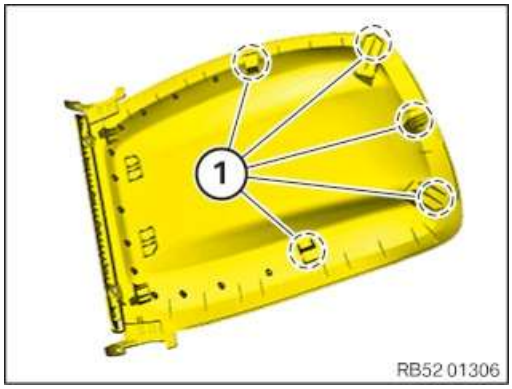


- Connect plug connection (1) and lock.

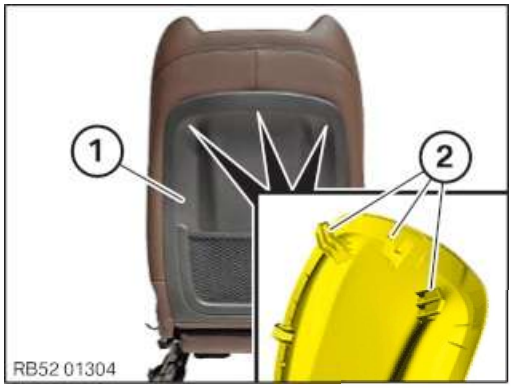


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

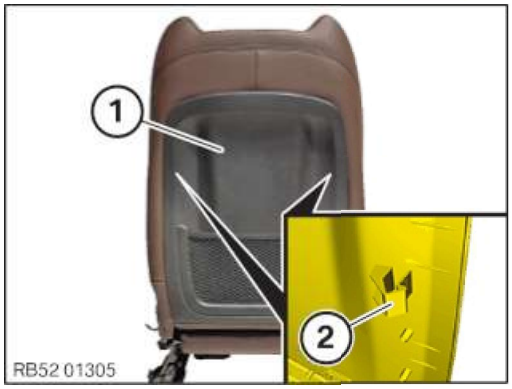
13 – Mount the rear panel on the front seat backrest



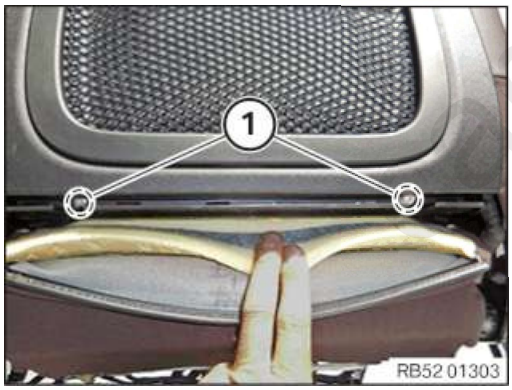
- Check the guides and clamps (1) for damage and renew the cover as needed.



- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).



- Tighten down screw (1).

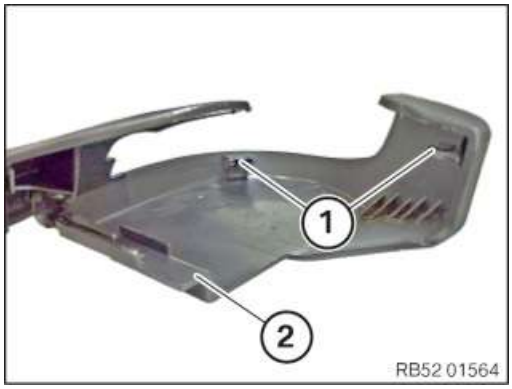
Rear panel to seat frame

Sheet metal screw	Tightening torque		3 Nm

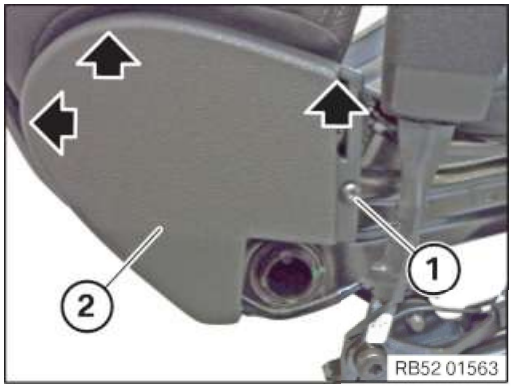


- Attach the edge stripping of the seat cover in this area (1).

14 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

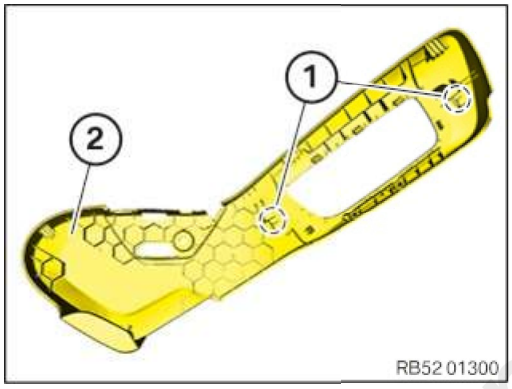


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

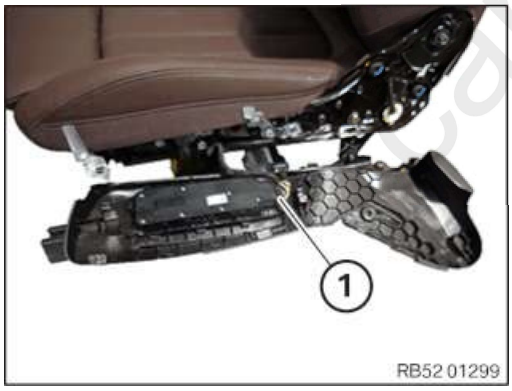
Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

15 – Install outer cover on front seat



- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

Seat trim to seat frame

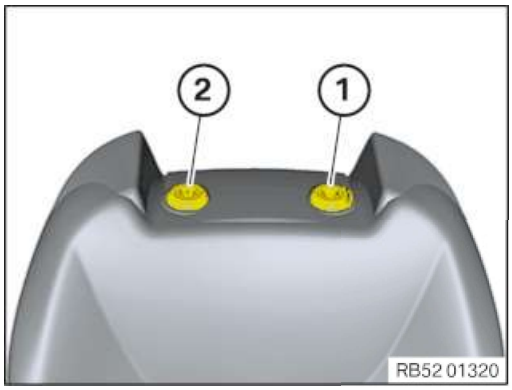
Sheet metal screw		Tightening torque	2.5 Nm

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- Clip in the cover (1).

16 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

17 – Install the front head restraint



- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

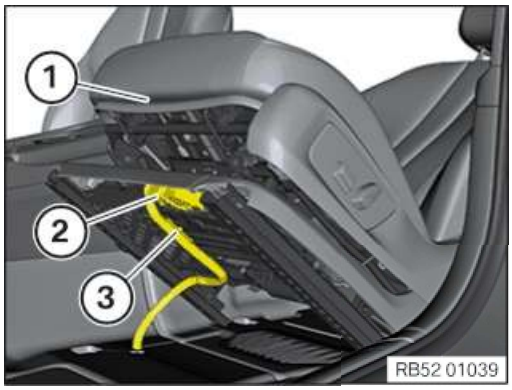
18 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

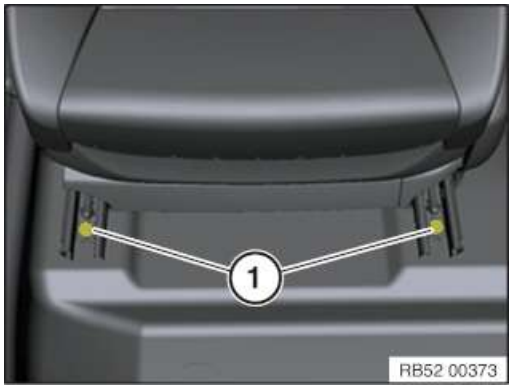
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

▶ **Disconnecting all battery earth leads**

- See additional information.



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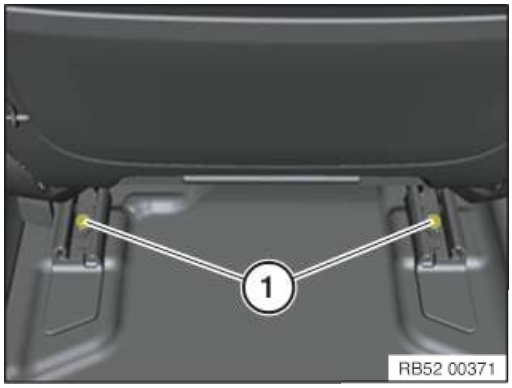


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

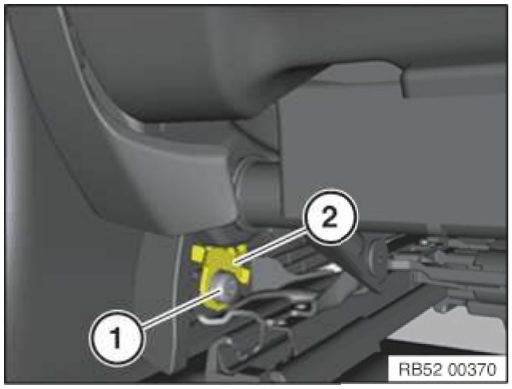


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Airbag on backrest frame Used in step 12

Nut	Renew nut.	Tightening torque	6,5 Nm

Rear panel to seat frame Used in step 13

Sheet metal screw	Tightening torque		3 Nm

Inner cover on seat frame Used in step 14

Screw		Tightening torque	2.5 Nm

Seat trim to seat frame Used in step 15

Sheet metal screw		Tightening torque	2.5 Nm

Seat to body Used in step 18

M10	Renew screw.	Tightening torque	42 Nm

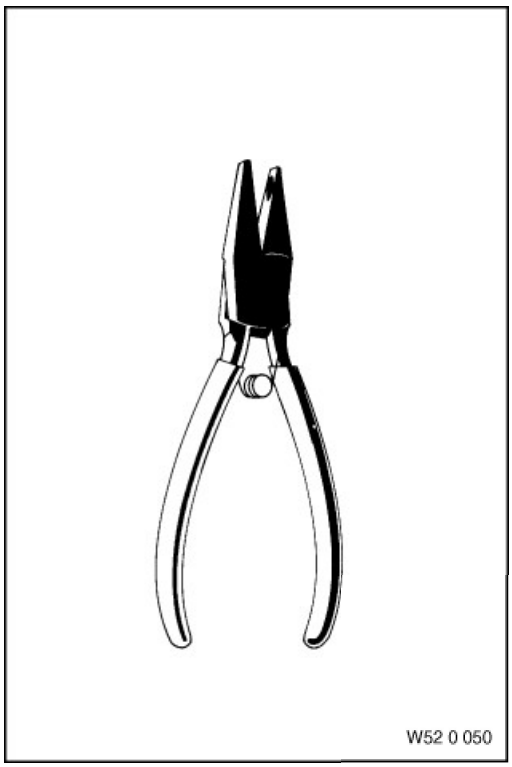
End fitting to seat mechanism Used in step 18

M10	Renew screw.	Tightening torque	42 Nm

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Overview of Special Tools

0 492 668 (52 0 050) Pliers



Common	Used in step 10
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

Links

General repair instructions	Used in step
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Repair instructions	Used in step
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61 20 900 Disconnecting and connecting battery earth lead	118
61 20 900 Disconnecting and connecting battery earth lead	118
61 20 900 Disconnecting and connecting battery earth lead	118
61 20 900 Disconnecting and connecting battery earth lead	118

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52 16 408 Replacing backrest cover for front passenger seat

PRELIMINARY WORK

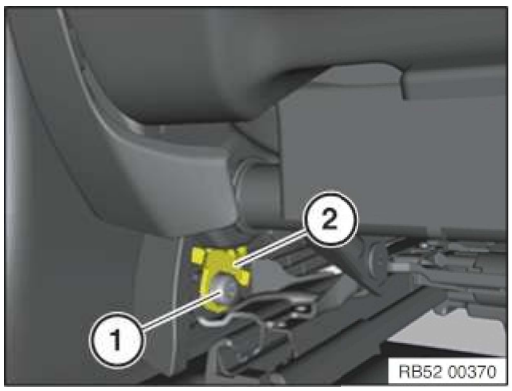
1 – Remove front seat

WARNING

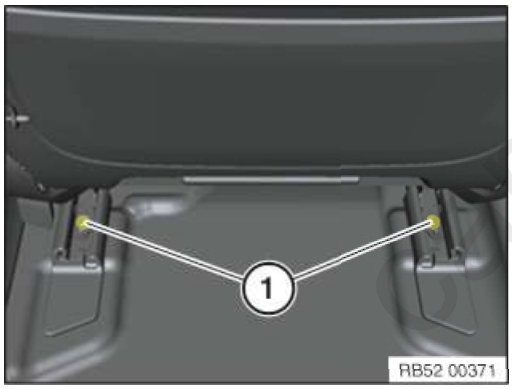
Pyrotechnic components.

Danger! Life-threatening injuries!

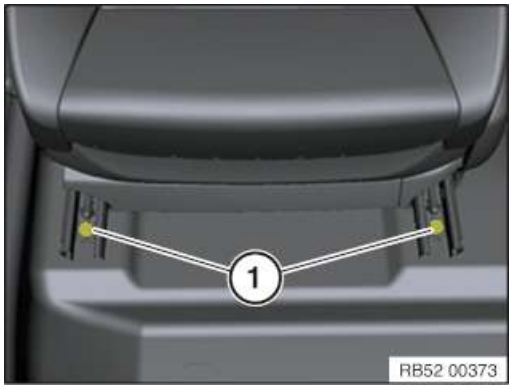
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

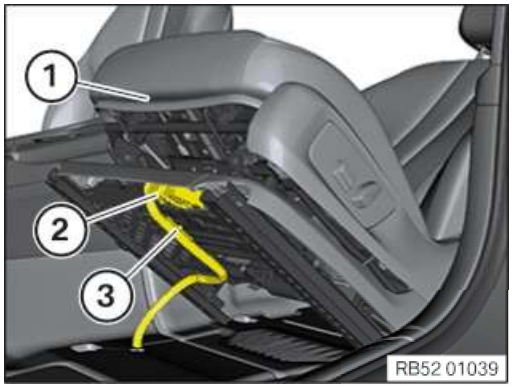
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

.com



- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



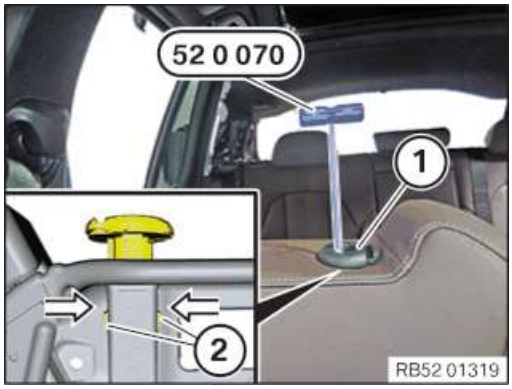
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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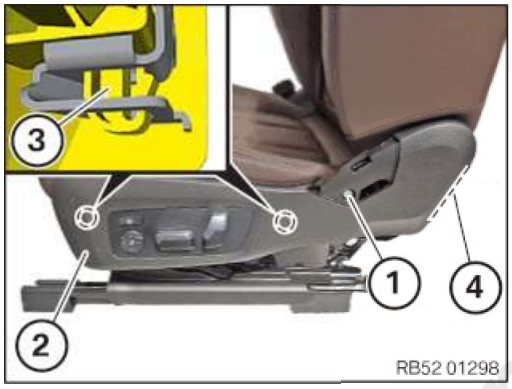


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

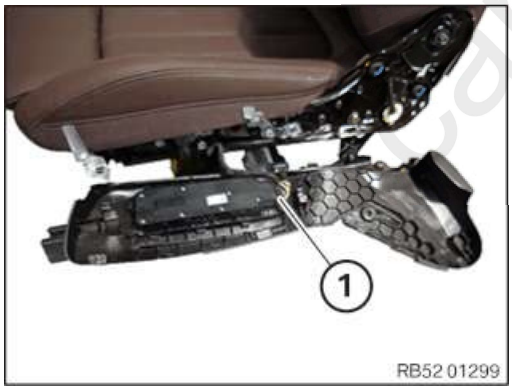
4 – Remove outer cover on front seat



- Unclip the cover (1).

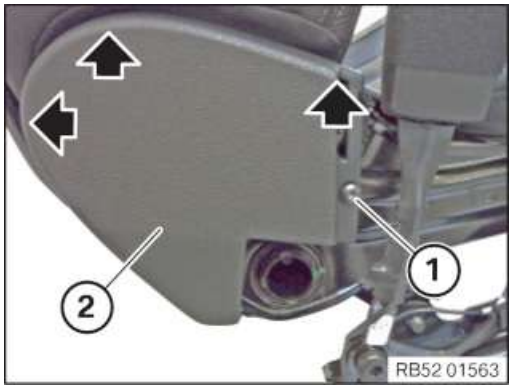


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



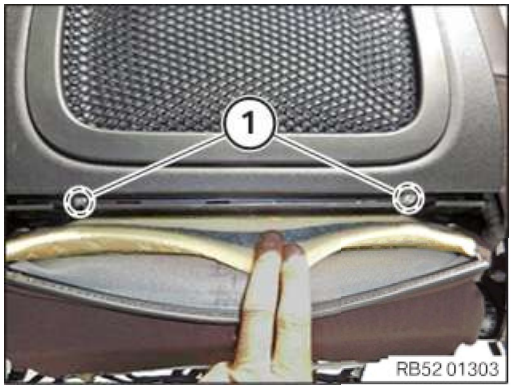
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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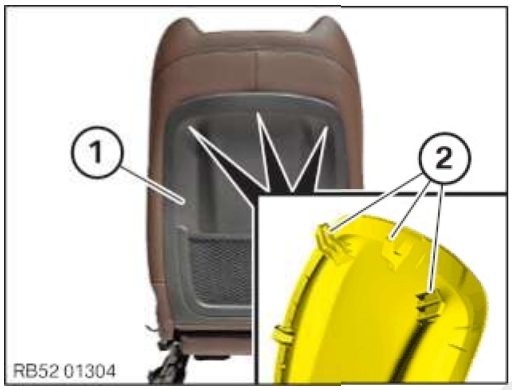
6 – Removing rear panel of front seat backrest



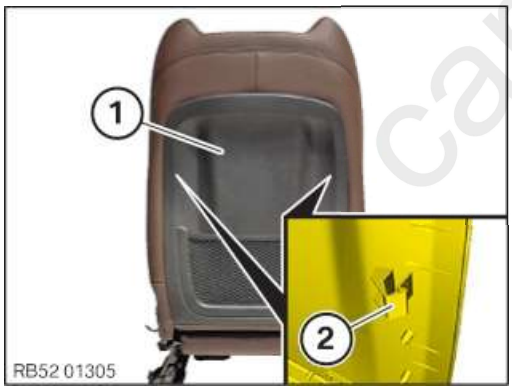
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

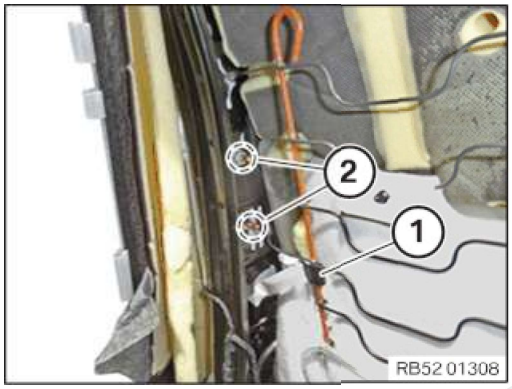
Pyrotechnic components.

Danger! Life-threatening injuries!

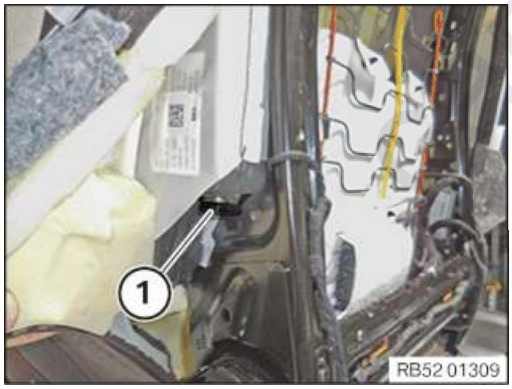
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



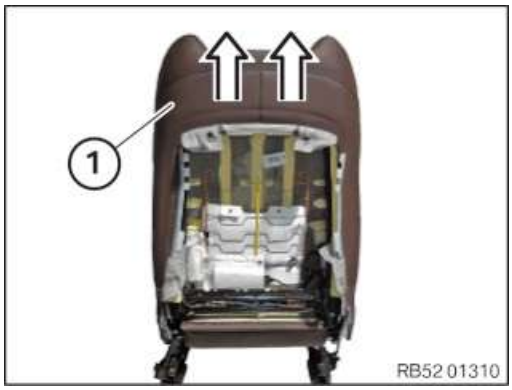
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).

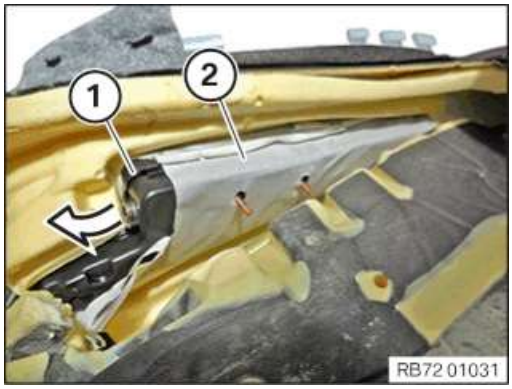


- Unlock plug connection (1) and disconnect.



- Guide out the backrest cover (1) complete with the side airbag toward the top.

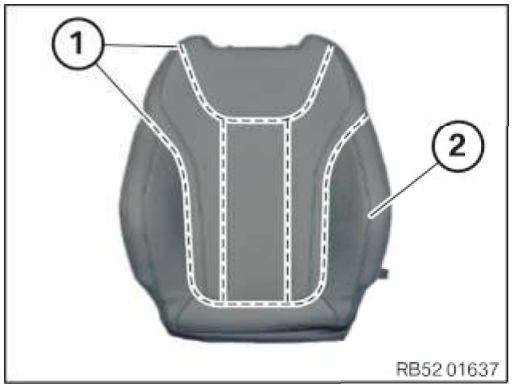
8 – Remove side airbag from front seat



- Guide the side airbag (1) out of the fabric pocket (2) on the backrest cover.

MAIN WORK

9 – Remove the backrest cover from front seat-backrest

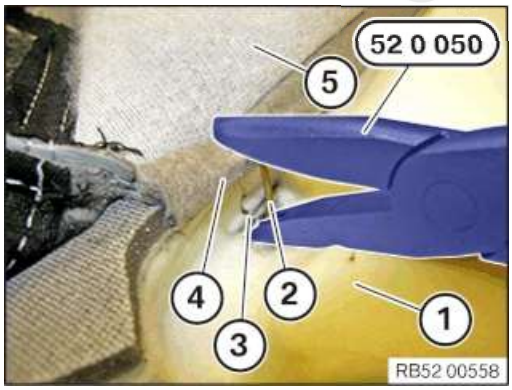


- Loosen all clamp on the trim wires (1).
- Remove the backrest cover (2) from the upholstery.
- Completely remove clamps from the backrest cover (2) and the cushion.

10 – Install the backrest cover of the front seat backrest



- Place the backrest cover (2) onto the upholstery.
- Secure all trim wires (1) with the clamps.



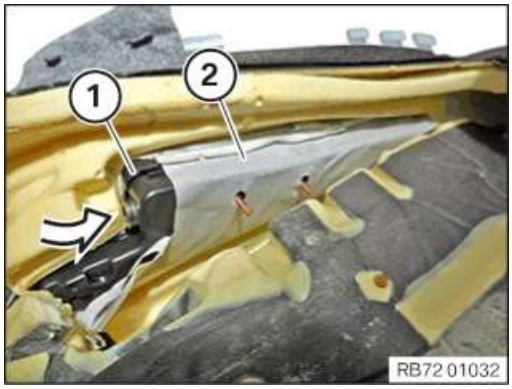
- Renew the clamps (2).

  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover (5) with the clamp (2) and bend the clamp (2) to close it.

POSTPROCESSES

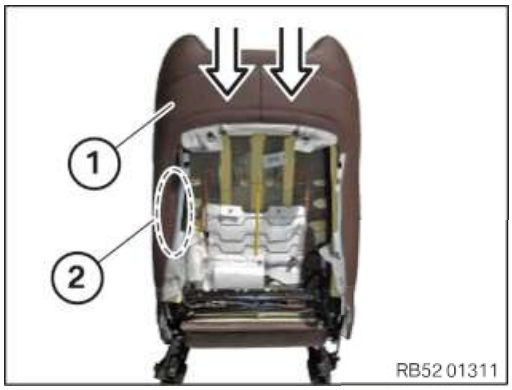
11 – Install side airbag on front seat

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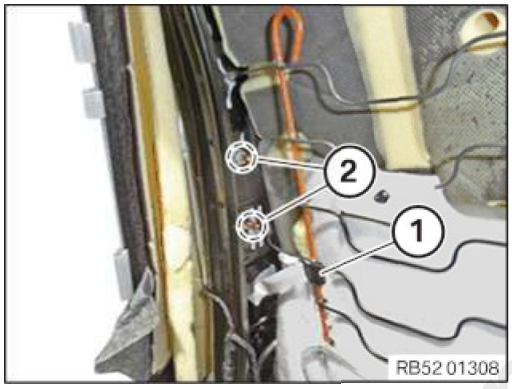


- Guide the side airbag (1) into the fabric pocket (2) on the backrest cover and position it.

12 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).

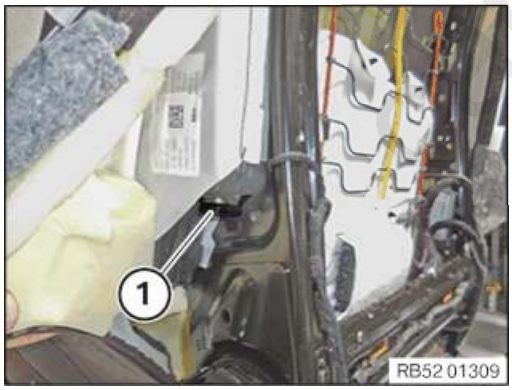


- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm

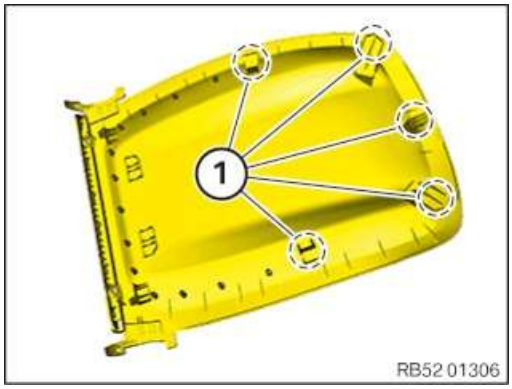


- Connect plug connection (1) and lock.

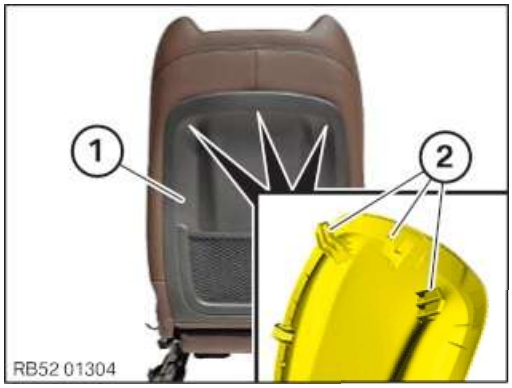


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

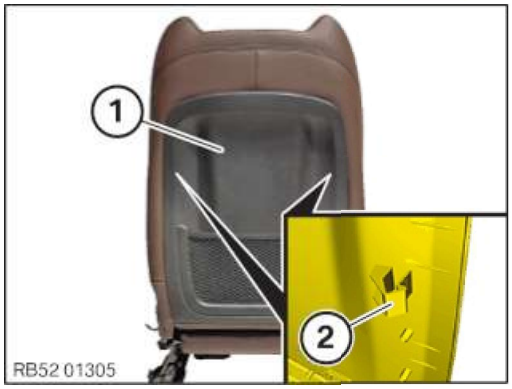
13 – Mount the rear panel on the front seat backrest



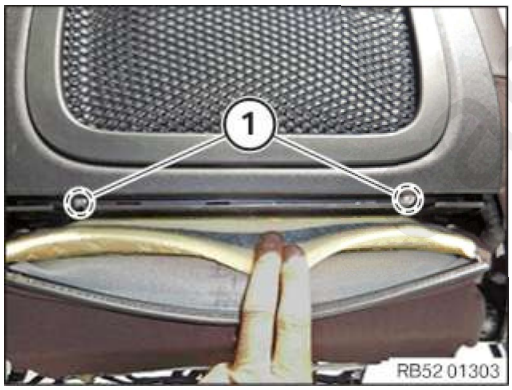
- Check the guides and clamps (1) for damage and renew the cover as needed.



- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).



- Tighten down screw (1).

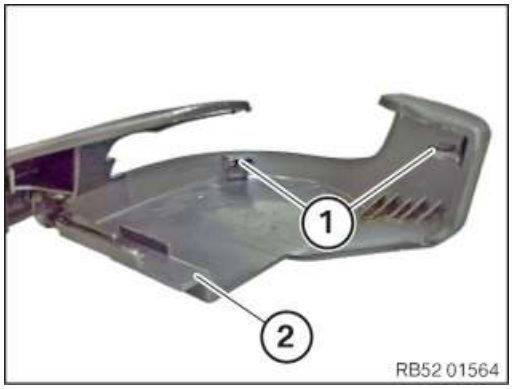
Rear panel to seat frame

Sheet metal screw	Tightening torque		3 Nm

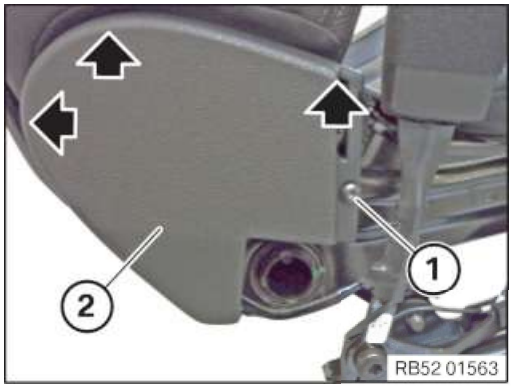


- Attach the edge stripping of the seat cover in this area (1).

14 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

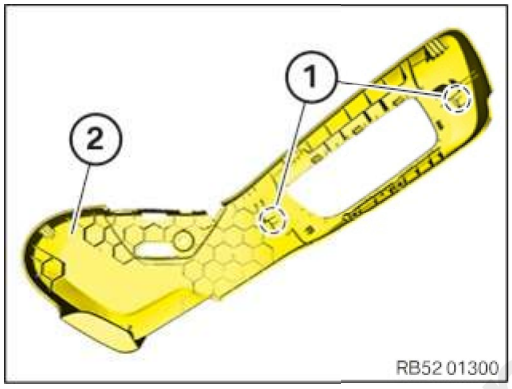


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

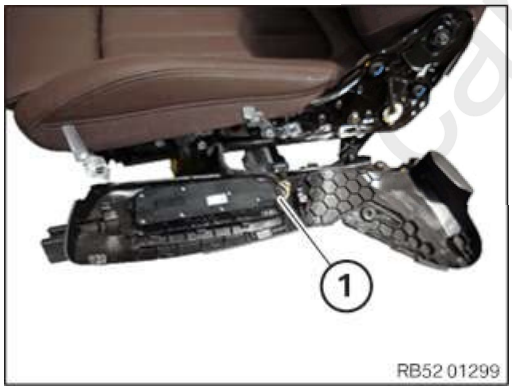
Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

15 – Install outer cover on front seat



- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

Seat trim to seat frame

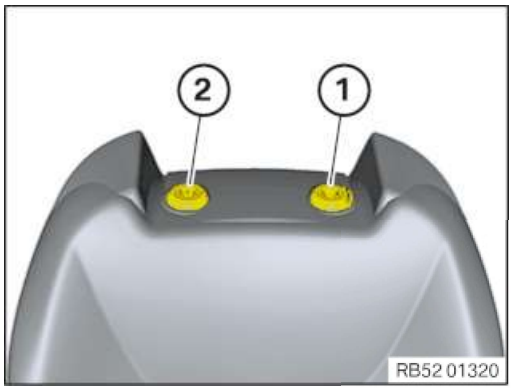
Sheet metal screw		Tightening torque	2.5 Nm

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- Clip in the cover (1).

16 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

17 – Install the front head restraint



- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

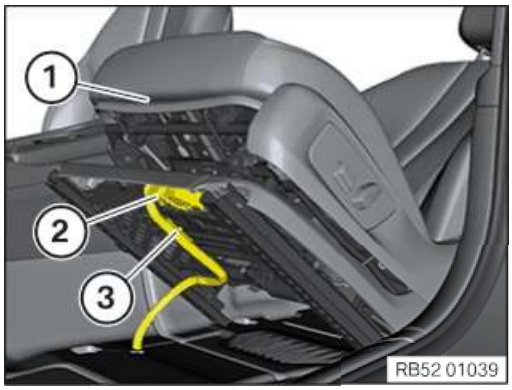
18 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

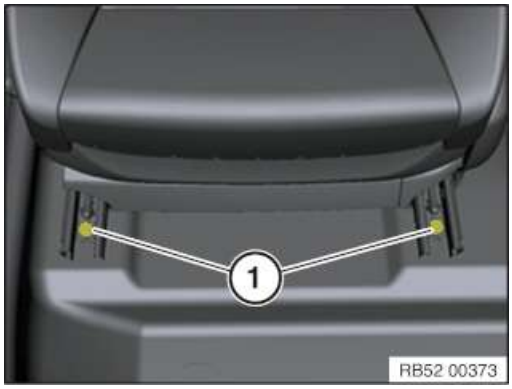
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

▶ **Disconnecting all battery earth leads**

- See additional information.



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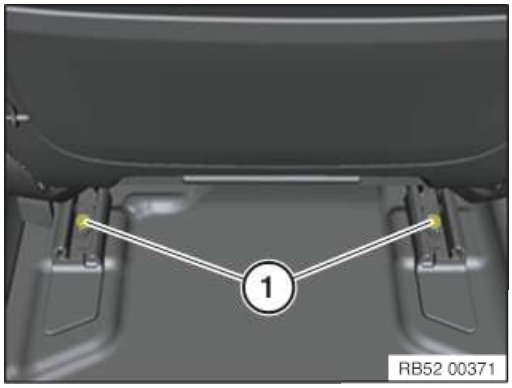


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

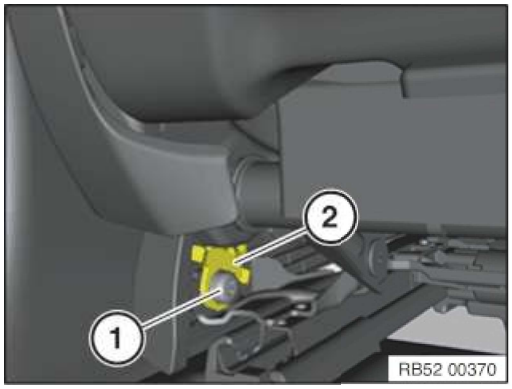


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Airbag on backrest frame Used in step 12

Nut	Renew nut.	Tightening torque	6,5 Nm

Rear panel to seat frame Used in step 13

Sheet metal screw	Tightening torque		3 Nm

Inner cover on seat frame Used in step 14

Screw		Tightening torque	2.5 Nm

Seat trim to seat frame Used in step 15

Sheet metal screw		Tightening torque	2.5 Nm

Seat to body Used in step 18

M10	Renew screw.	Tightening torque	42 Nm

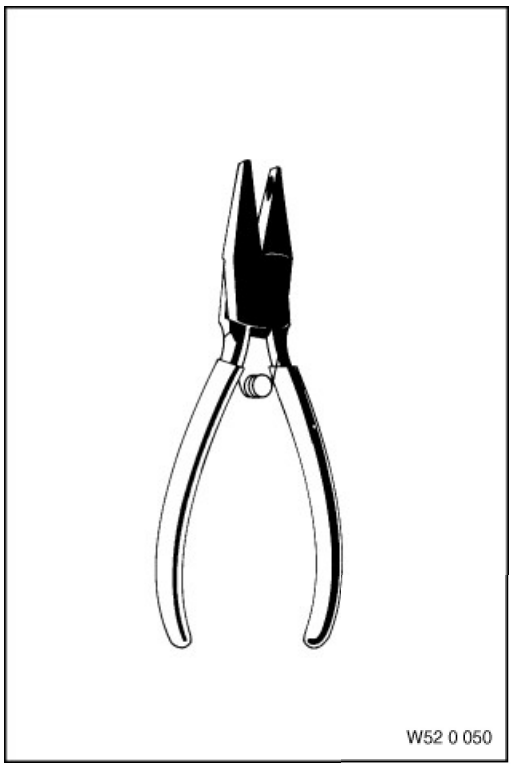
End fitting to seat mechanism Used in step 18

M10	Renew screw.	Tightening torque	42 Nm

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Overview of Special Tools

0 492 668 (52 0 050) Pliers



Common	Used in step 10
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	118

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	118
61 20 900 Disconnecting and connecting battery earth lead	118
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	118
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	118
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	118
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52 16 427 Replacing facing for driver's seat and backrest

PRELIMINARY WORK

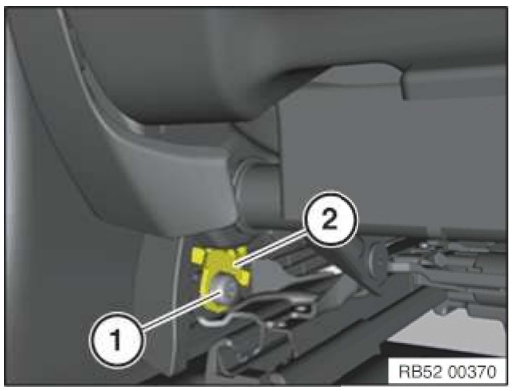
1 – Remove front seat

WARNING

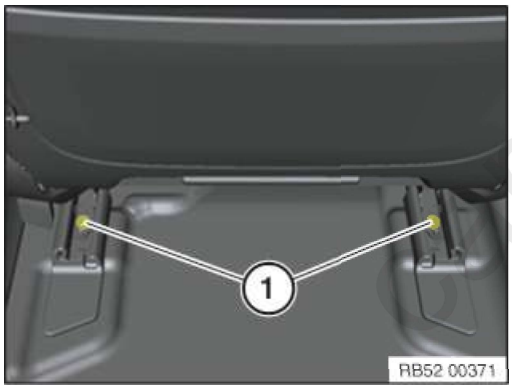
Pyrotechnic components.

Danger! Life-threatening injuries!

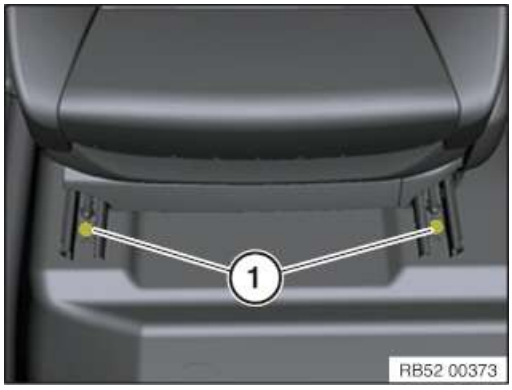
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

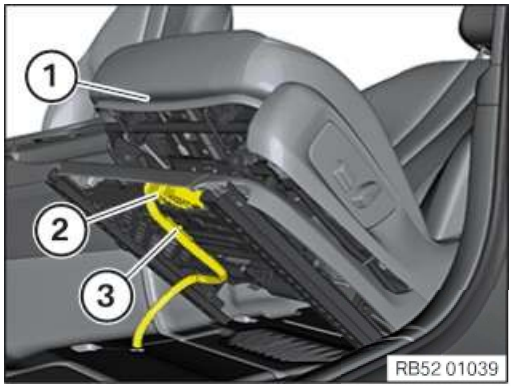
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



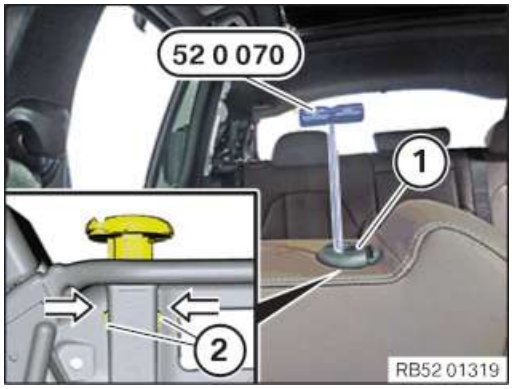
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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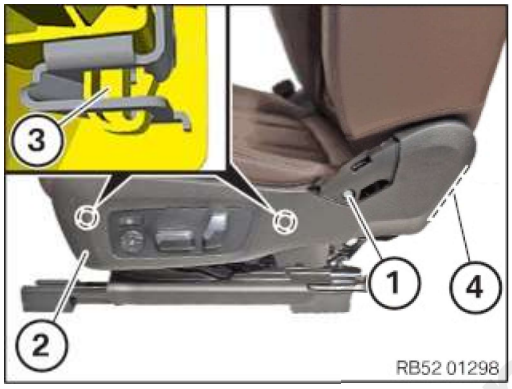


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

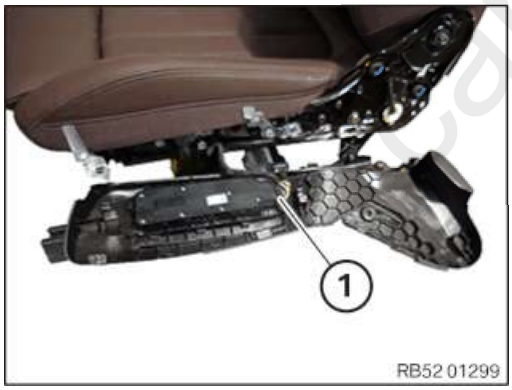
4 – Remove outer cover on front seat



- Unclip the cover (1).

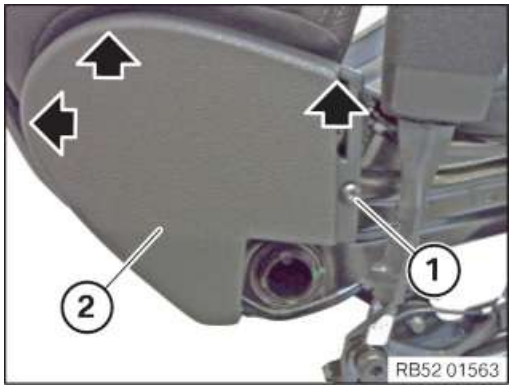


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



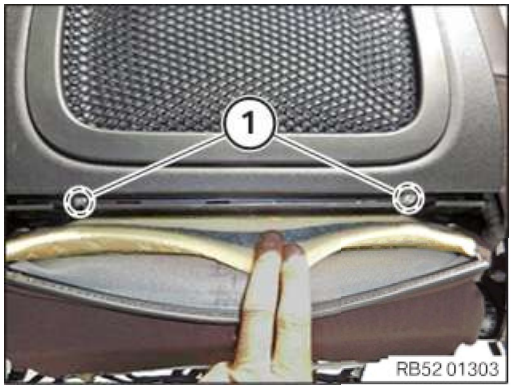
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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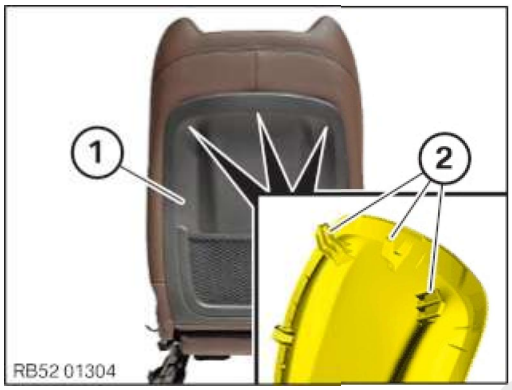
6 – Removing rear panel of front seat backrest



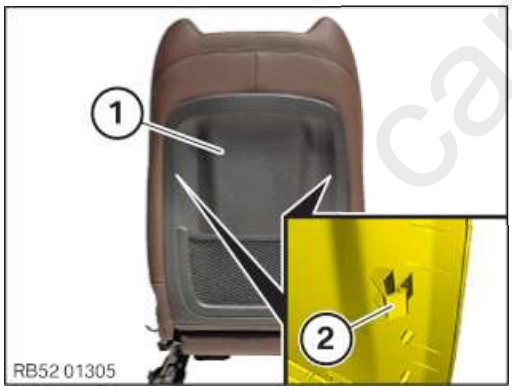
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

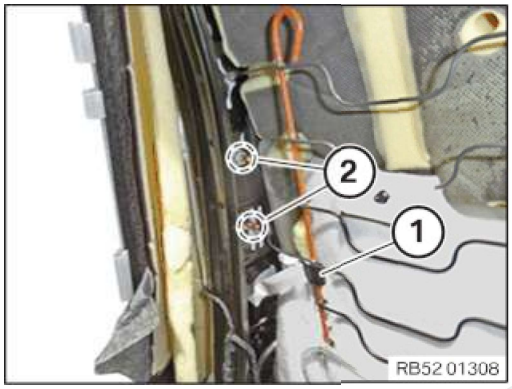
Pyrotechnic components.

Danger! Life-threatening injuries!

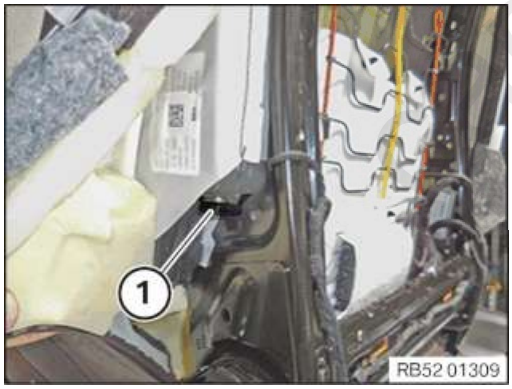
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



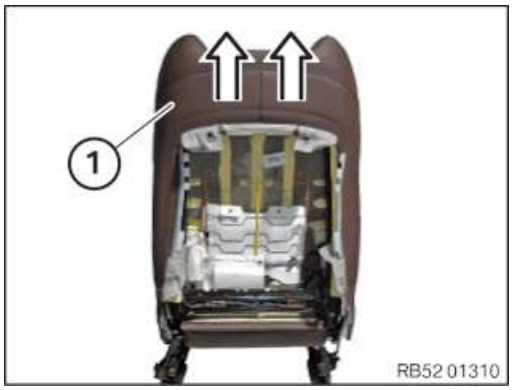
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).

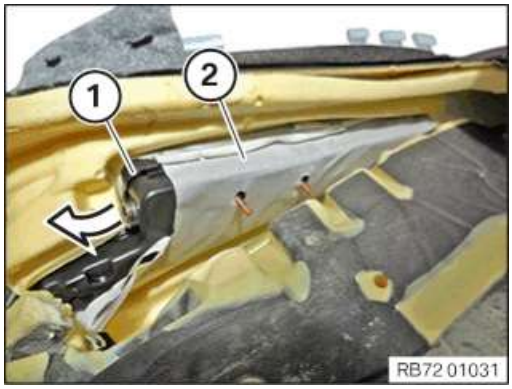


- Unlock plug connection (1) and disconnect.



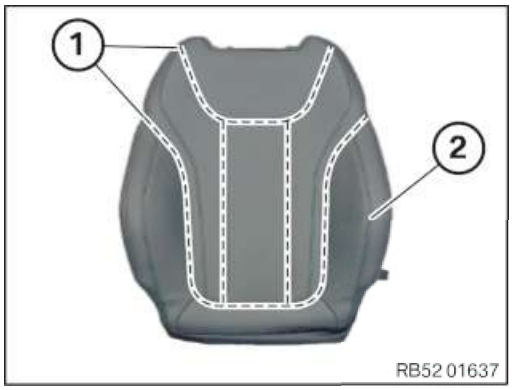
- Guide out the backrest cover (1) complete with the side airbag toward the top.

8 – Remove side airbag from front seat



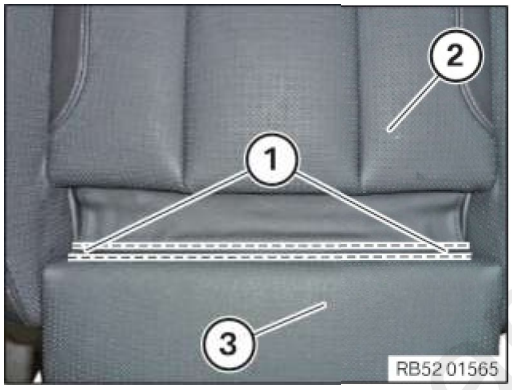
- Guide the side airbag (1) out of the fabric pocket (2) on the backrest cover.

9 – Remove the backrest cover from front seat-backrest



- Loosen all clamp on the trim wires (1).
- Remove the backrest cover (2) from the upholstery.
- Completely remove clamps from the backrest cover (2) and the cushion.

10 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).



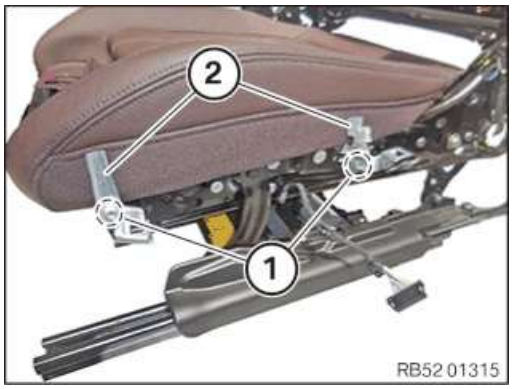
- Loosen screws (1).
- Feed the thigh support (2) out.



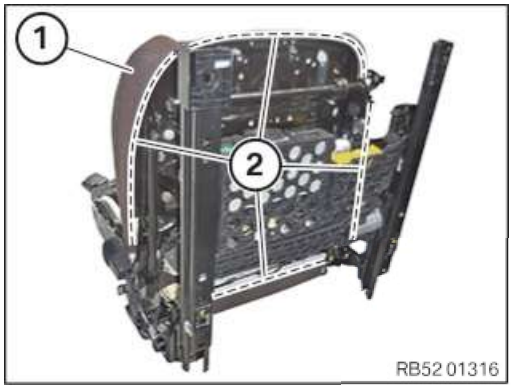
- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

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11 – Remove seat cover with padding for driver's seat



- Loosen screws (1) and remove holder (2).



- Detach the seat cover (1) in the areas (2).
- Feed out the seat cover (1) with the cushion and remove.
- Disconnect the existing plug connection where required and unclip the cable clips.

12 – Remove the seat cover for the front seat

NOTICE

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



- Loosen all clamp on the trim wires (1).
- Remove any remaining clamp from the seat cover and the upholstery.
- Thread out the rubber band (2).



- Detach all clamps on the trim wires 1.
- Remove any remaining clamp from the seat cover (2) and the upholstery.
- Remove the seat cover (2) from the upholstery.

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MAIN WORK

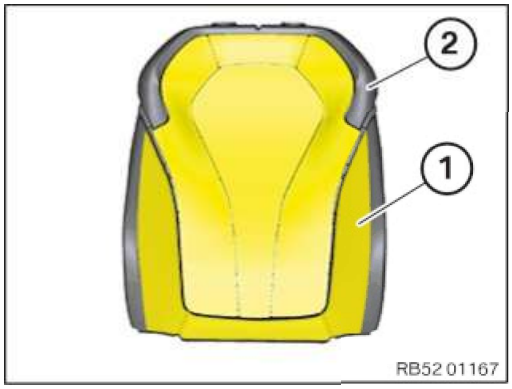
13 – Renewing the cushion for the front seat backrest

TECHNICAL INFORMATION

The heating element is bonded to the upholstery and it cannot be removed without destroying it.
When replaced, a new heating element must always be fitted with new upholstery.

NOTICE

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



- **Equipment specification with seat heating**

  Position and align the heating mat (1) on the upholstery (2).

  Bond the heating mat (1) with the upholstery (2).

14 – Renewing the cushion for the driver's seat

TECHNICAL INFORMATION

The heating element is bonded to the upholstery and it cannot be removed without destroying it.
When replaced, a new heating element must always be fitted with new upholstery.

NOTICE

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



- **Equipment specification with seat heating**

  Position the heating mat (1) on the cushion and align.

  Bond the heating mat (1) to the cushion in these areas (2).

POSTPROCESSES

15 – Install the seat cover for the front seat

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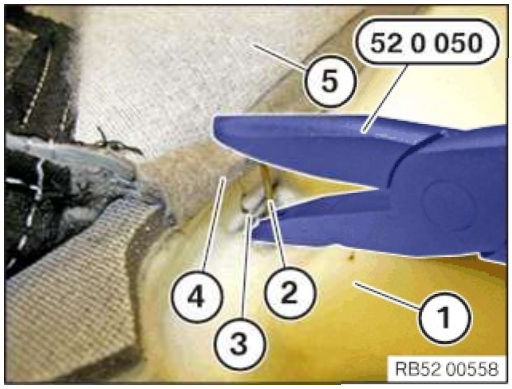
15 – Install the seat cover for the front seat

NOTICE

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



- Place the seat cover (2) on the cushion.
- Secure all trim wires (1) with clamps.



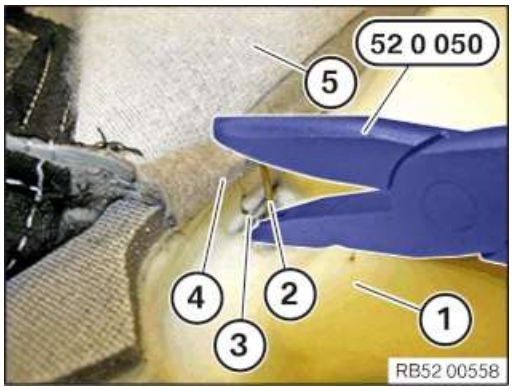
- Renew the clamps (2).

  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover



- Attach the trim wire (1) with clamps.
- Position the rubber band (2).

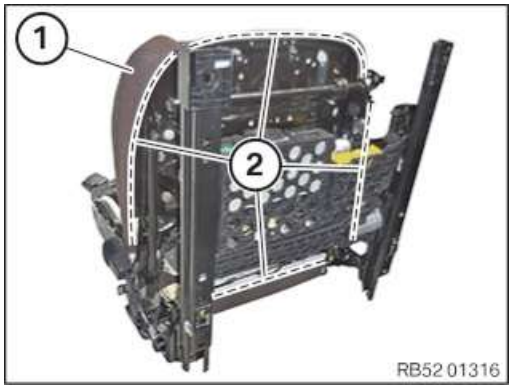


- Renew the clamps (2).

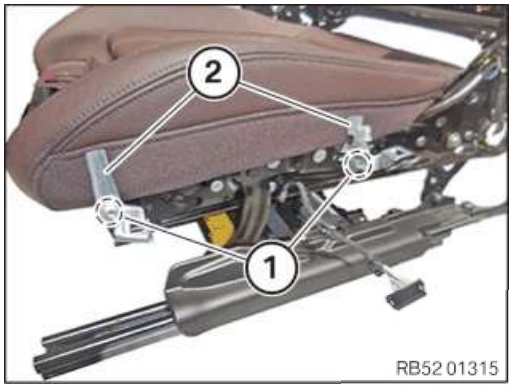
  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover

16 – Installing seat cover with cushion for driver's seat



- Feed in the seat cover (1) with the cushion and position.
- Attach the seat cover (1) in the areas (2).
- Where applicable, connect the existing plug connections and clip in the cable clips.

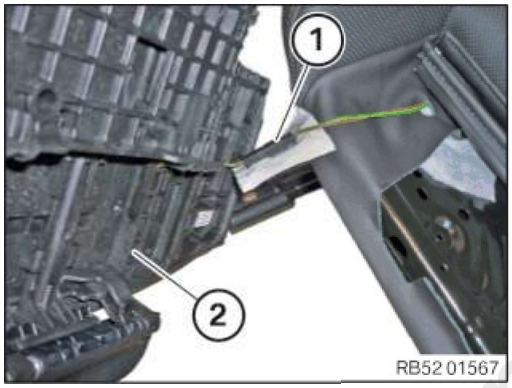


- Position holder (2) and tighten screws (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

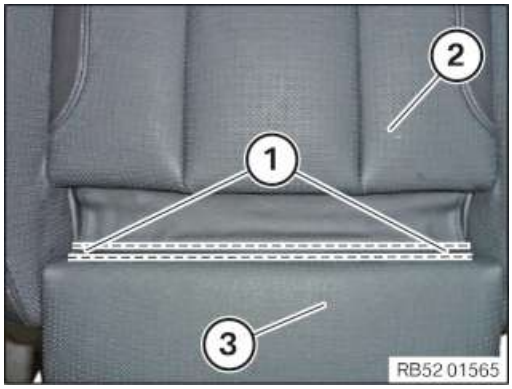
17 – Install thigh support



- Position the thigh support (2).
- Connect connectors (1) and lock.



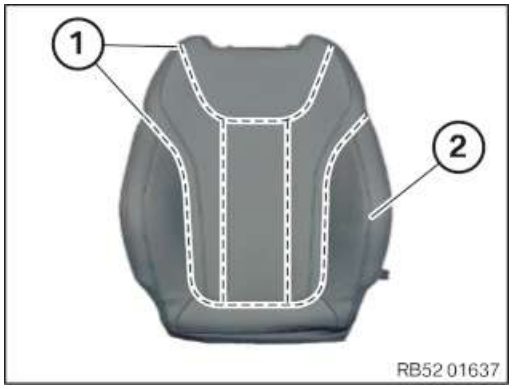
- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).



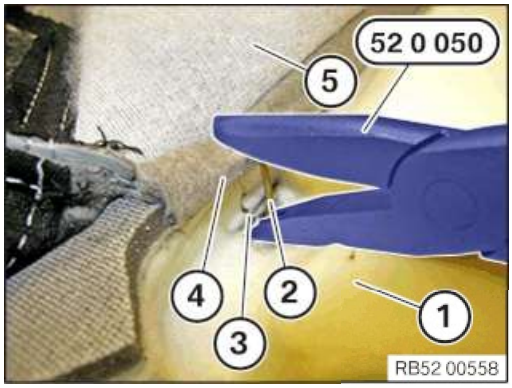
- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

18 – Install the backrest cover of the front seat backrest

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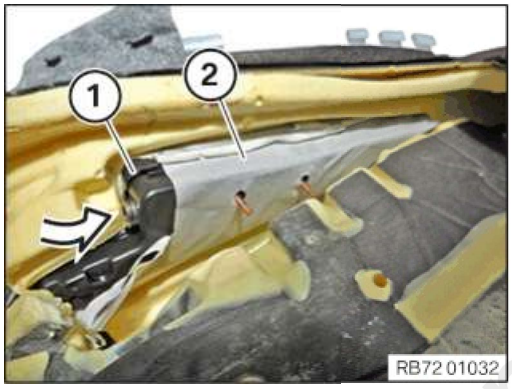
- Place the backrest cover (2) onto the upholstery.
- Secure all trim wires (1) with the clamps.



- Renew the clamps (2).

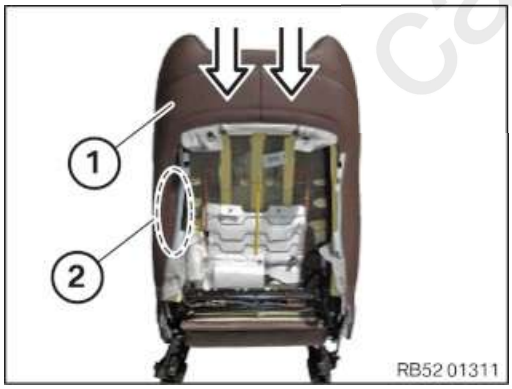
  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover (5) with the clamp (2) and bend the clamp (2) to close it.

19 – Install side airbag on front seat

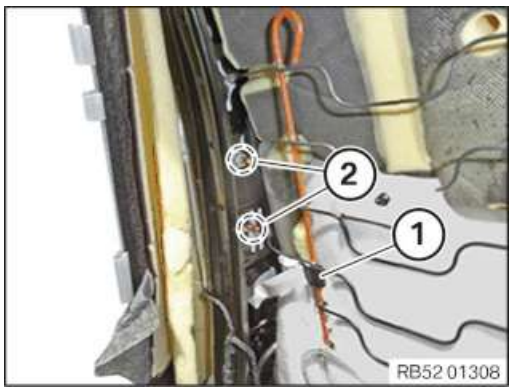


- Guide the side airbag (1) into the fabric pocket (2) on the backrest cover and position it.

20 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).



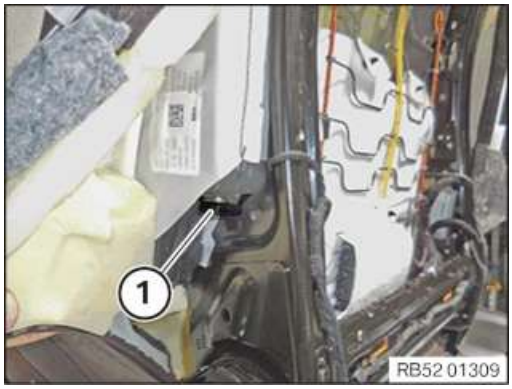
- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm

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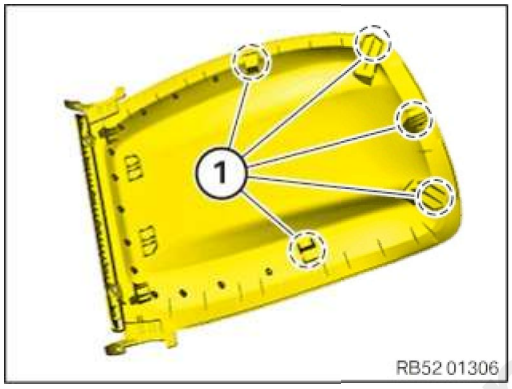


- Connect plug connection (1) and lock.

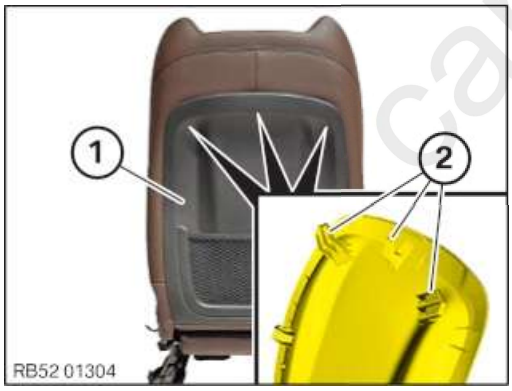


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

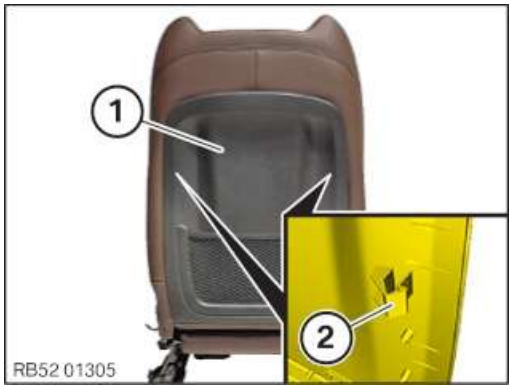
21 – Mount the rear panel on the front seat backrest



- Check the guides and clamps (1) for damage and renew the cover as needed.

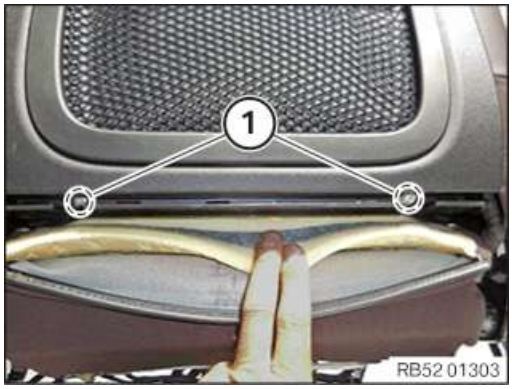


- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).

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- Tighten down screw (1).

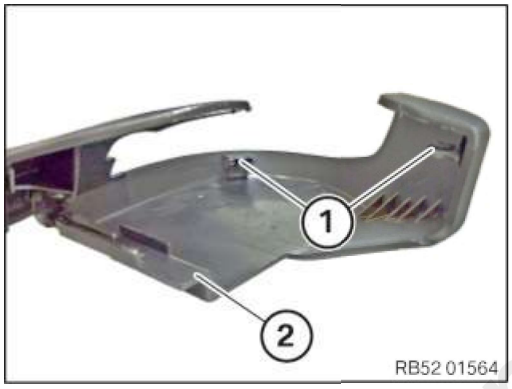
Rear panel to seat frame

Sheet metal screw	Tightening torque		3 Nm

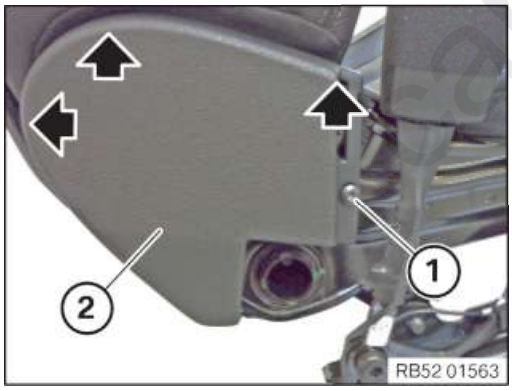


- Attach the edge stripping of the seat cover in this area (1).

22 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

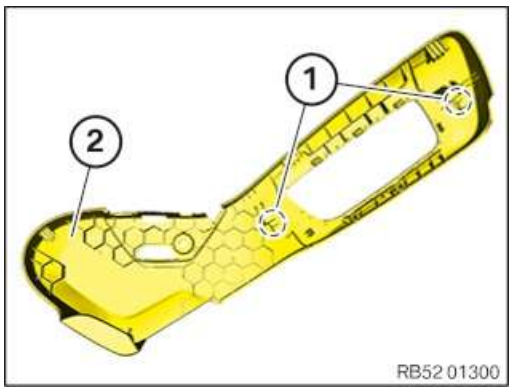


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

23 – Install outer cover on front seat

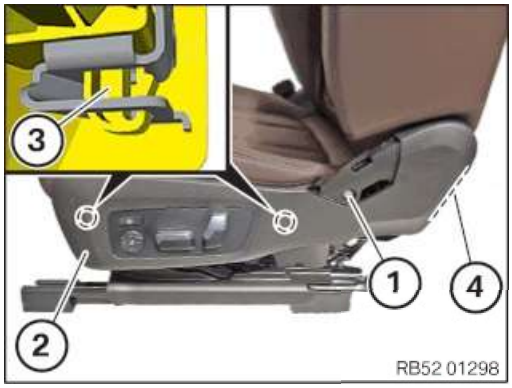


- Check the locking units (1) for damages, and replace the cover if necessary (2).

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- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

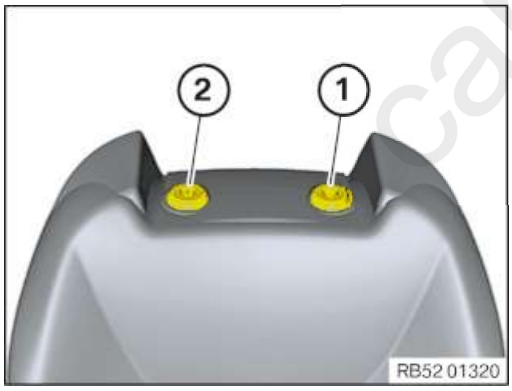
Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

24 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

25 – Install the front head restraint

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- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

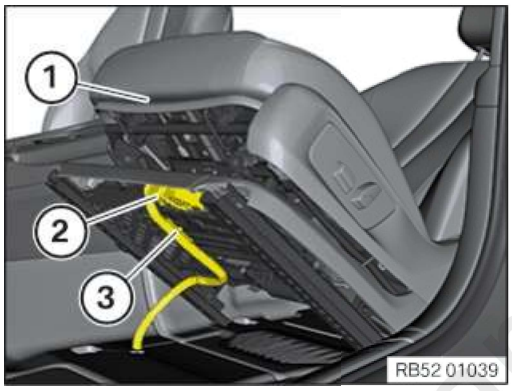
26 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

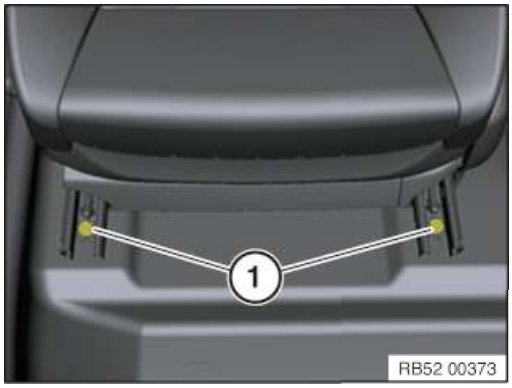
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

► **Disconnecting all battery earth leads**

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- See additional information.

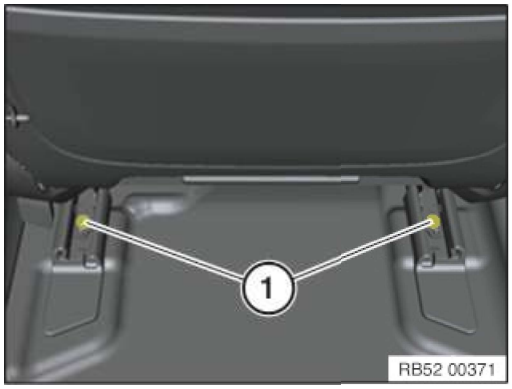


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

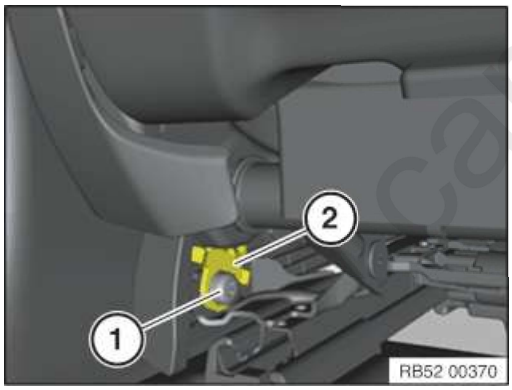


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Seat trim to seat frame Used in step 1623

Sheet metal screw		Tightening torque	2.5 Nm

Airbag on backrest frame Used in step 20

Nut	Renew nut.	Tightening torque	6,5 Nm

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Rear panel to seat frame			Used in step 21
Sheet metal screw	Tightening torque		3 Nm

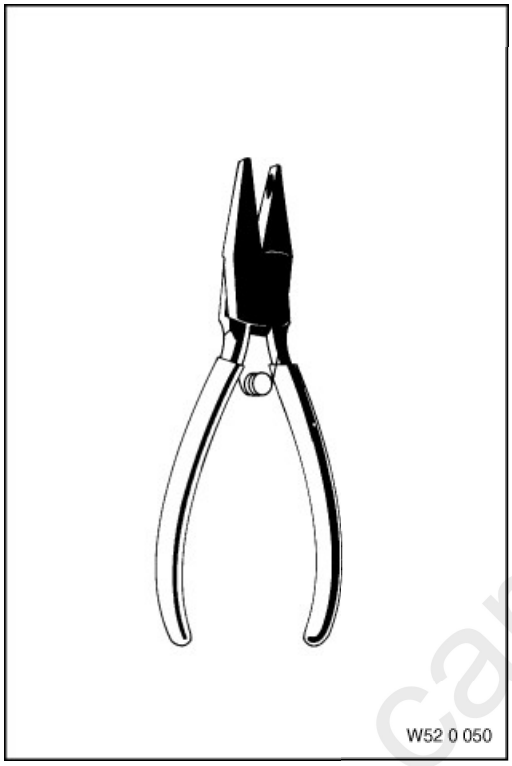
Inner cover on seat frame			Used in step 22
Screw		Tightening torque	2.5 Nm

Seat to body			Used in step 26
M10	Renew screw.	Tightening torque	42 Nm

End fitting to seat mechanism			Used in step 26
M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 492 668 (52 0 050) Pliers



Common		Used in step 1518
Usage	For securing clamps on seat cover	
Included in the tool or work		
Storage location	C14	
Replaced by		
In connection with		
SI-Number	52 06 87 (808)	

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Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	126

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	126
61 20 900 Disconnecting and connecting battery earth lead	126
61 20 900 Disconnecting and connecting battery earth lead	126
61 20 900 Disconnecting and connecting battery earth lead	126
61 20 900 Disconnecting and connecting battery earth lead	126
61 20 900 Disconnecting and connecting battery earth lead	126
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	126
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	126

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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	126
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	126
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61 20 900 Disconnecting and connecting battery earth lead	126

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52 16 412 Replacing seat and backrest cover for driver's seat

PRELIMINARY WORK

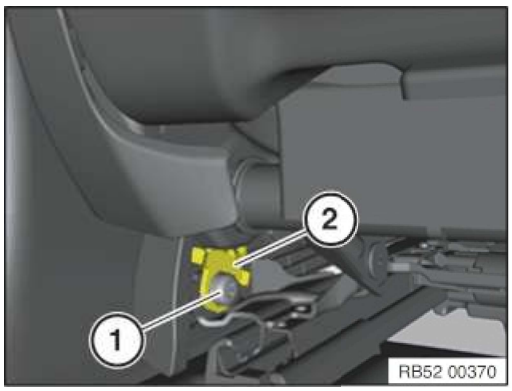
1 – Remove front seat

WARNING

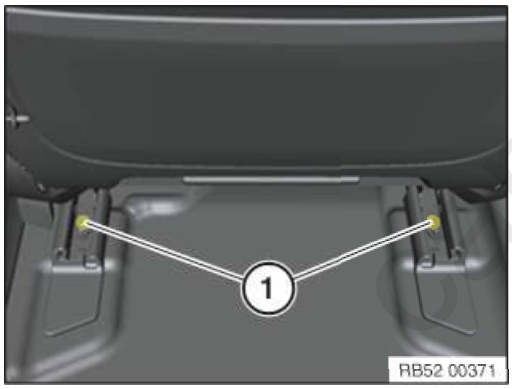
Pyrotechnic components.

Danger! Life-threatening injuries!

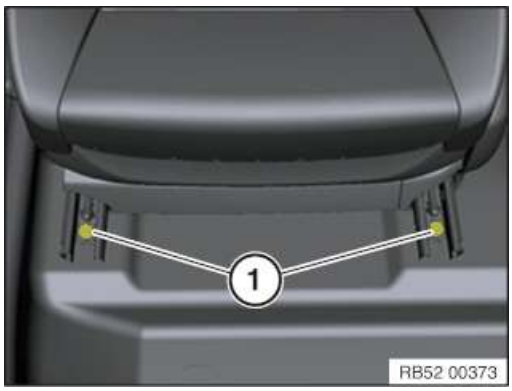
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

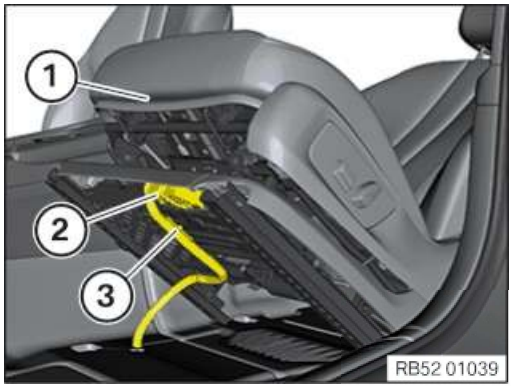
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



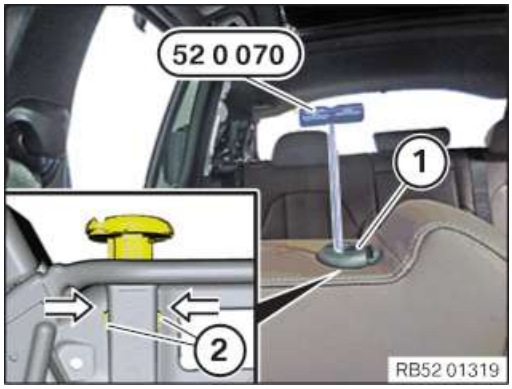
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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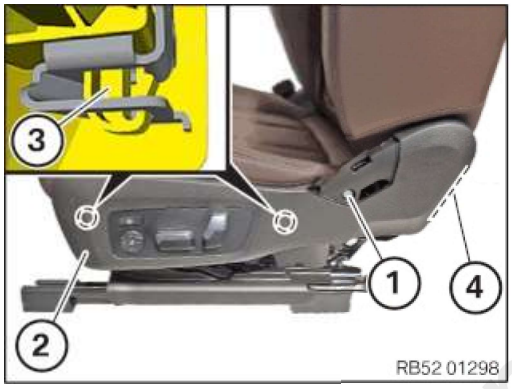


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

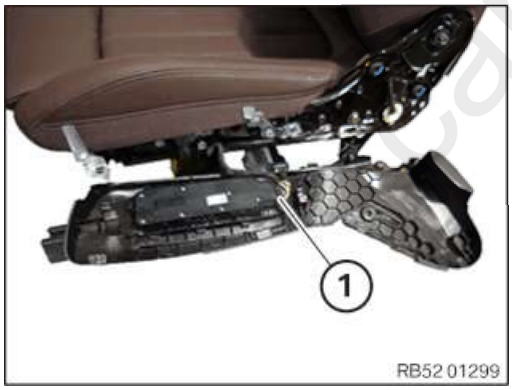
4 – Remove outer cover on front seat



- Unclip the cover (1).

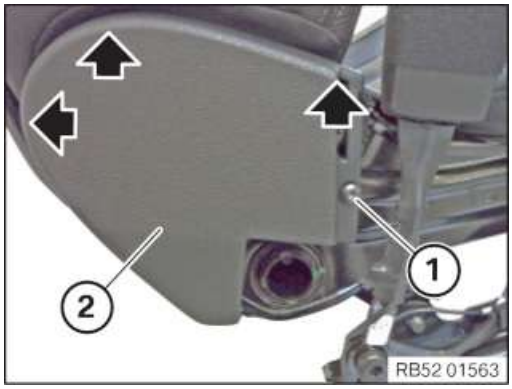


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



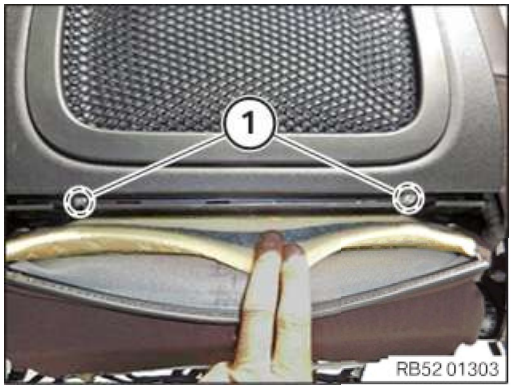
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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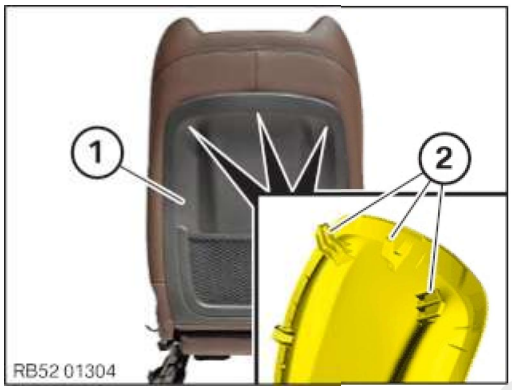
6 – Removing rear panel of front seat backrest



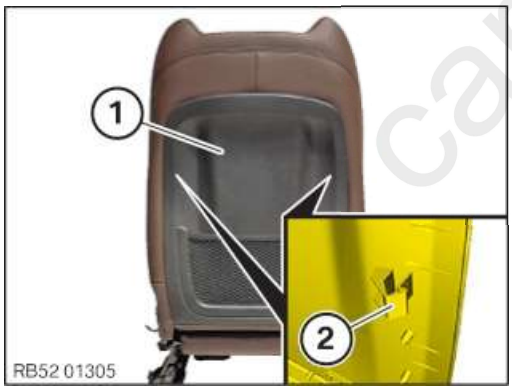
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

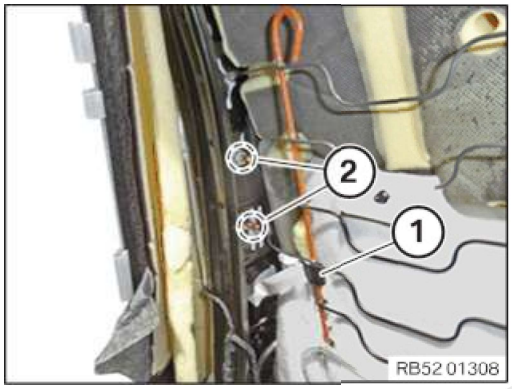
Pyrotechnic components.

Danger! Life-threatening injuries!

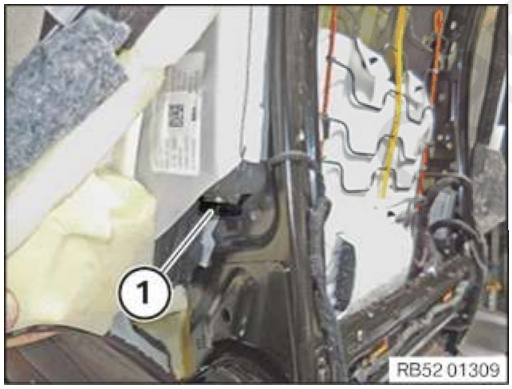
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



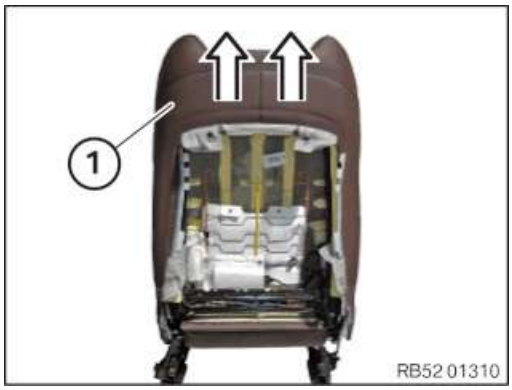
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).

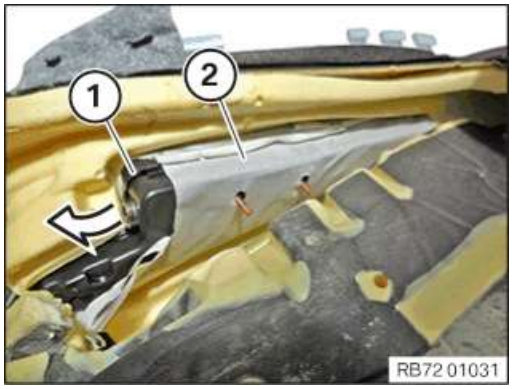


- Unlock plug connection (1) and disconnect.



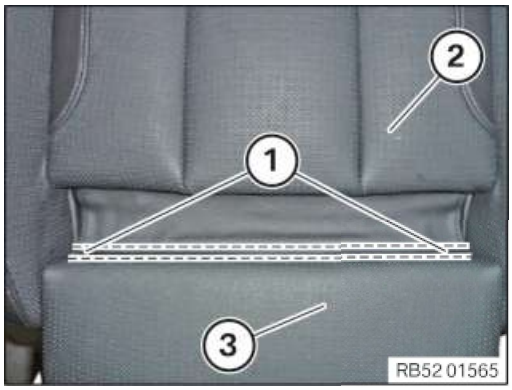
- Guide out the backrest cover (1) complete with the side airbag toward the top.

8 – Remove side airbag from front seat



- Guide the side airbag (1) out of the fabric pocket (2) on the backrest cover.

9 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).

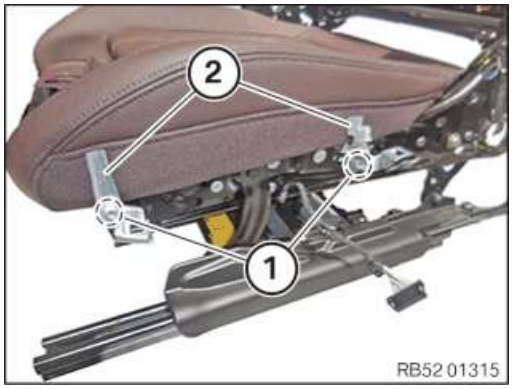


- Loosen screws (1).
- Feed the thigh support (2) out.

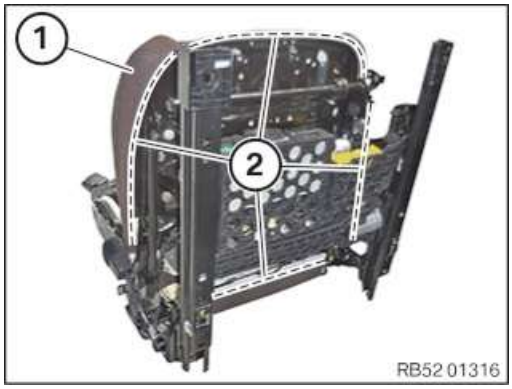


- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

10 – Remove seat cover with padding for driver's seat



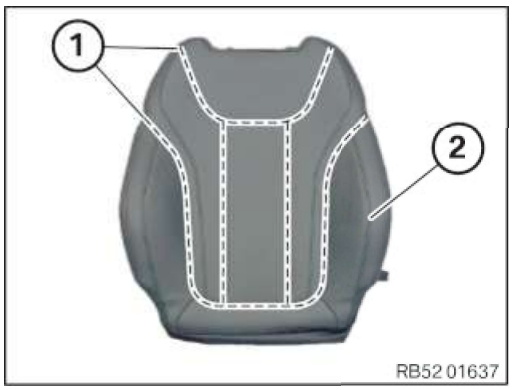
- Loosen screws (1) and remove holder (2).



- Detach the seat cover (1) in the areas (2).
- Feed out the seat cover (1) with the cushion and remove.
- Disconnect the existing plug connection where required and unclip the cable clips.

MAIN WORK

11 – Remove the backrest cover from front seat-backrest



- Loosen all clamp on the trim wires (1).
- Remove the backrest cover (2) from the upholstery.
- Completely remove clamps from the backrest cover (2) and the cushion.

12 – Remove the seat cover for the front seat

NOTICE

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



- Loosen all clamp on the trim wires (1).
- Remove any remaining clamp from the seat cover and the upholstery.
- Thread out the rubber band (2).



- Detach all clamps on the trim wires 1.
- Remove any remaining clamp from the seat cover (2) and the upholstery.
- Remove the seat cover (2) from the upholstery.

13 – Install the seat cover for the front seat

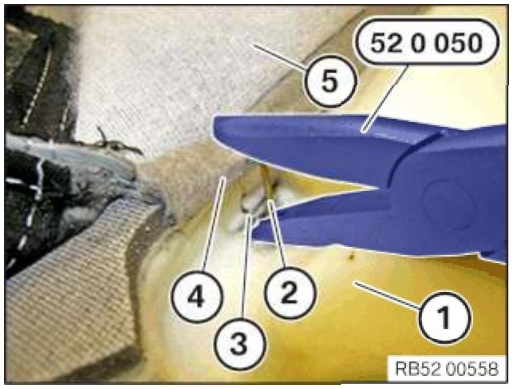
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NOTICE

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



- Place the seat cover (2) on the cushion.
- Secure all trim wires (1) with clamps.



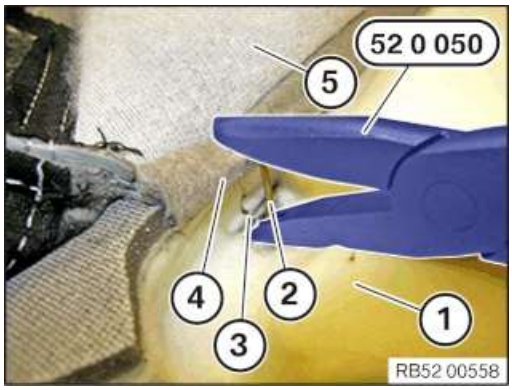
- Renew the clamps (2).

  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover



- Attach the trim wire (1) with clamps.
- Position the rubber band (2).

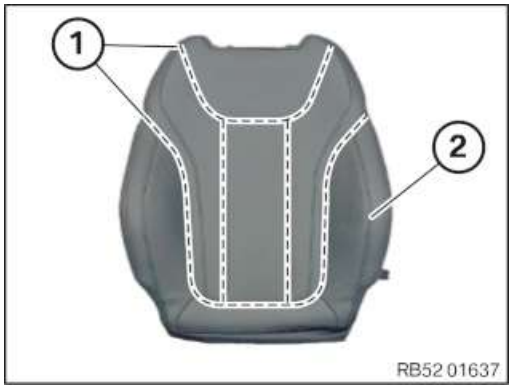


- Renew the clamps (2).

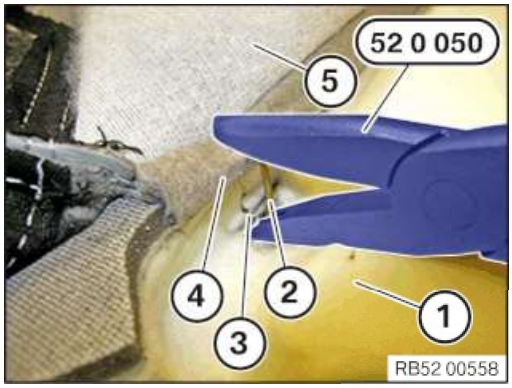
  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover

14 – Install the backrest cover of the front seat backrest



- Place the backrest cover (2) onto the upholstery.
- Secure all trim wires (1) with the clamps.

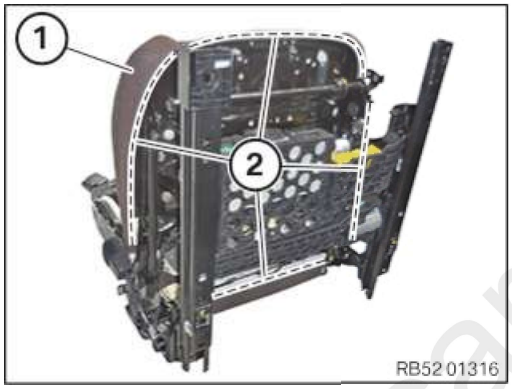


- Renew the clamps (2).

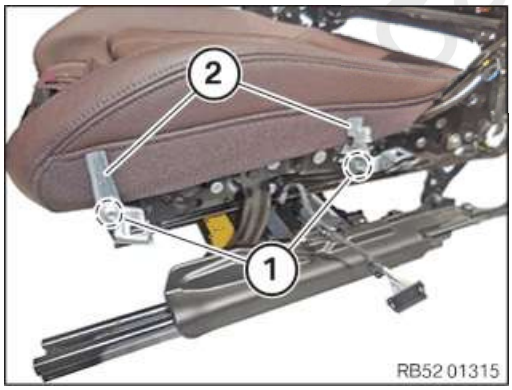
  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover (5) with the clamp (2) and bend the clamp (2) to close it.

POSTPROCESSES

15 – Installing seat cover with cushion for driver's seat



- Feed in the seat cover (1) with the cushion and position.
- Attach the seat cover (1) in the areas (2).
- Where applicable, connect the existing plug connections and clip in the cable clips.



- Position holder (2) and tighten screws (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

16 – Install thigh support

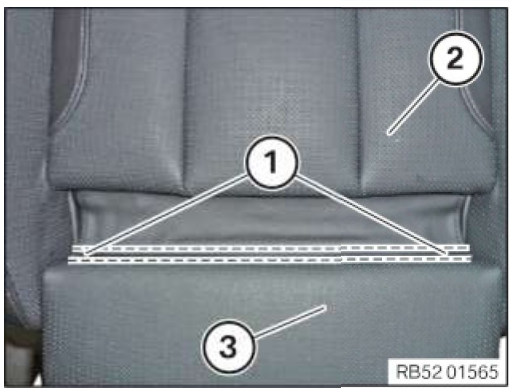
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- Position the thigh support (2).
- Connect connectors (1) and lock.

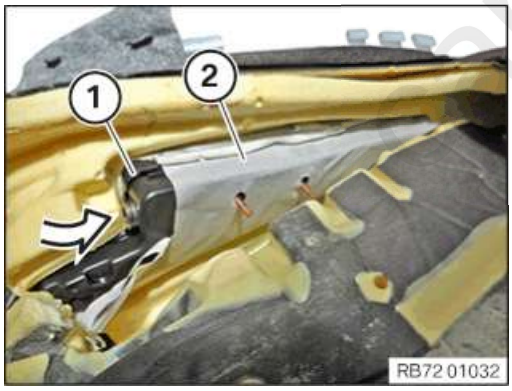


- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).



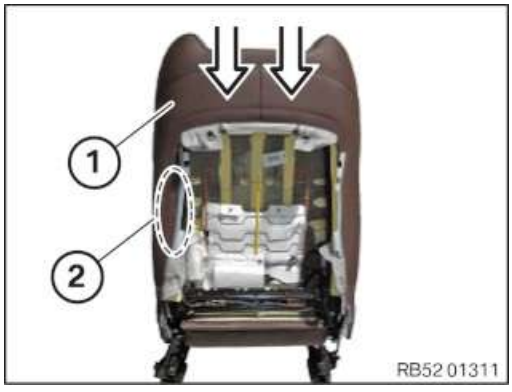
- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

17 – Install side airbag on front seat



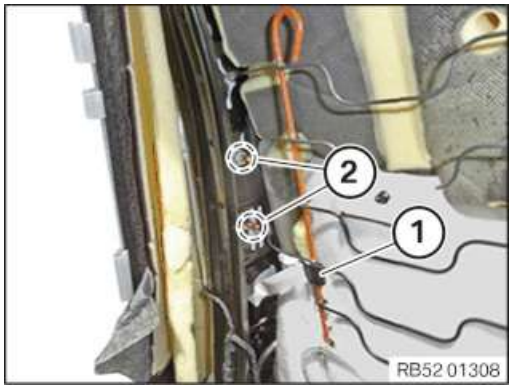
- Guide the side airbag (1) into the fabric pocket (2) on the backrest cover and position it.

18 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).

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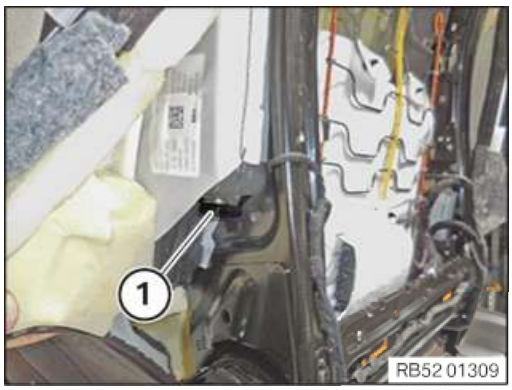


- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm

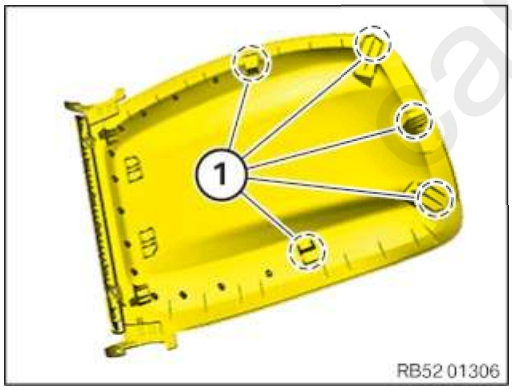


- Connect plug connection (1) and lock.

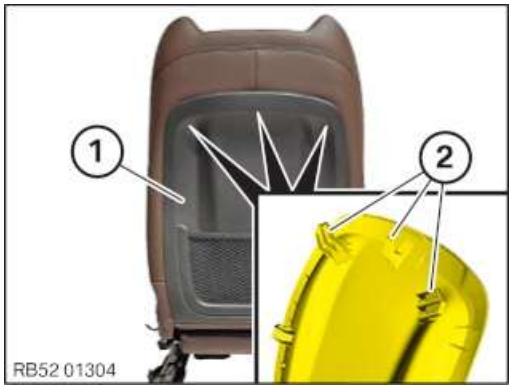


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

19 – Mount the rear panel on the front seat backrest

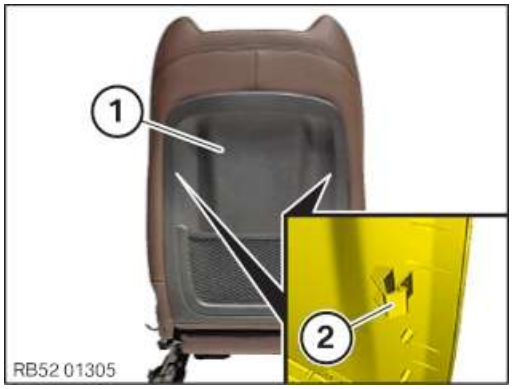


- Check the guides and clamps (1) for damage and renew the cover as needed.

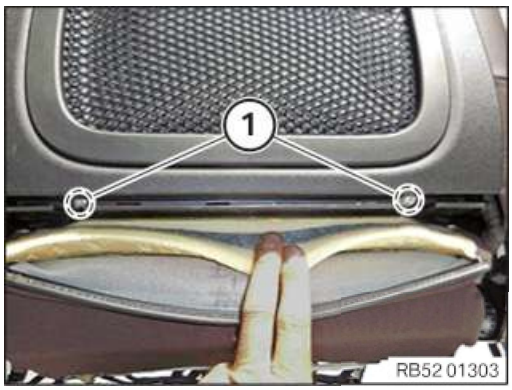


- Thread the rear panel (1) in at the clamps (2).

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- Position the rear panel (1) and clip it in at the clamps (2).



- Tighten down screw (1).

Rear panel to seat frame

Sheet metal screw	Tightening torque		3 Nm

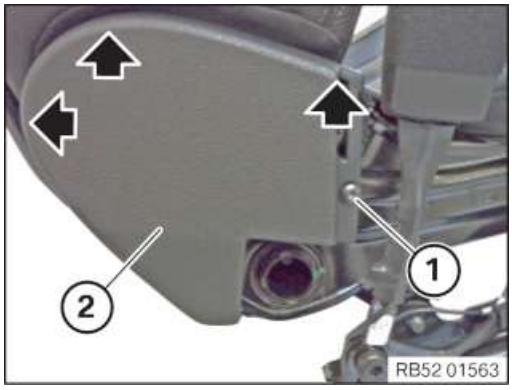


- Attach the edge stripping of the seat cover in this area (1).

20 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.



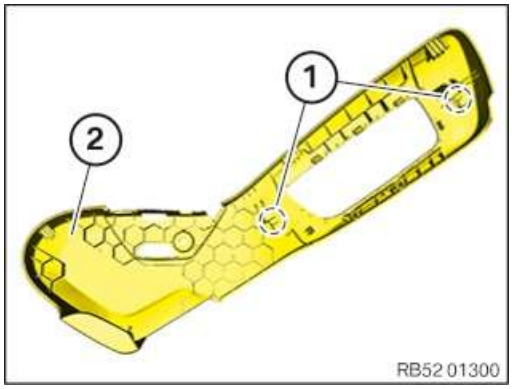
- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

21 – Install outer cover on front seat

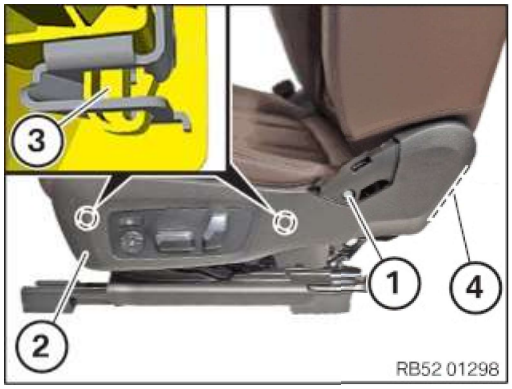
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- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

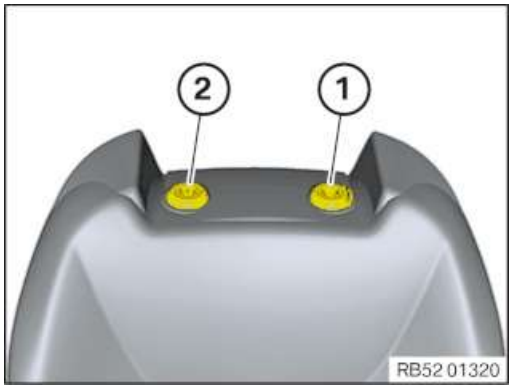
Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

22 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.

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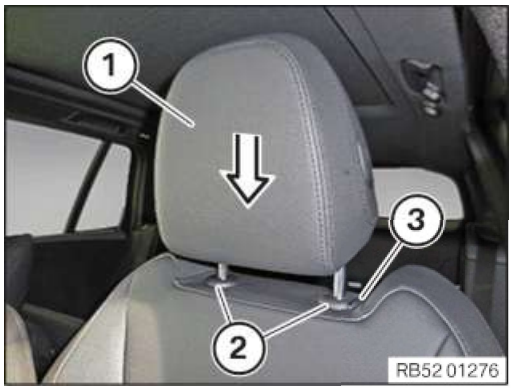
NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

23 – Install the front head restraint



- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

24 – Install front seat

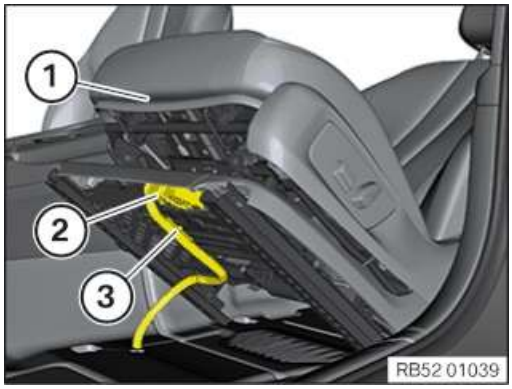
WARNING

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

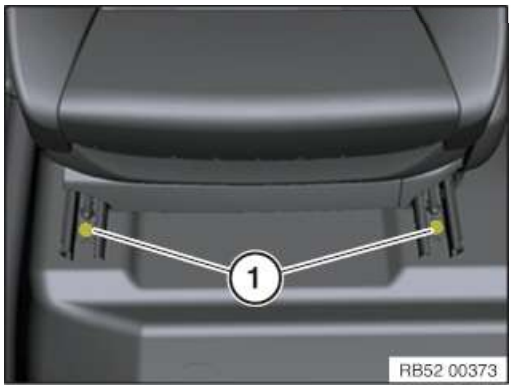
- Remove and install heavy components with the aid of another person/other persons.

- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

▸ **Disconnecting all battery earth leads**



- See additional information.



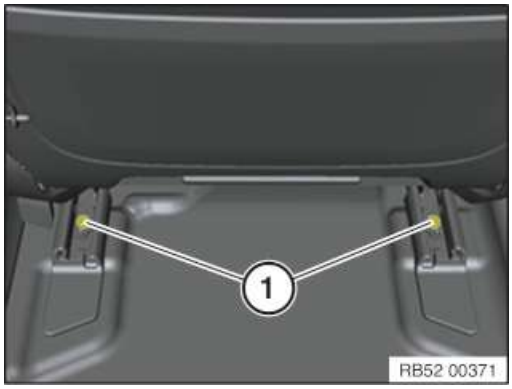
- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

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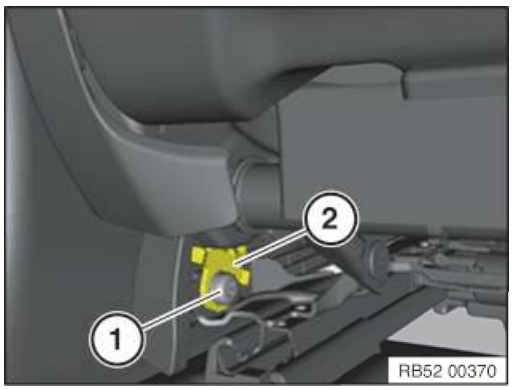


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Seat trim to seat frame — Used in step 1521

Sheet metal screw		Tightening torque	2.5 Nm

Airbag on backrest frame — Used in step 18

Nut	Renew nut.	Tightening torque	6,5 Nm

Rear panel to seat frame — Used in step 19

Sheet metal screw	Tightening torque		3 Nm

Inner cover on seat frame — Used in step 20

Screw		Tightening torque	2.5 Nm

Seat to body — Used in step 24

M10	Renew screw.	Tightening torque	42 Nm

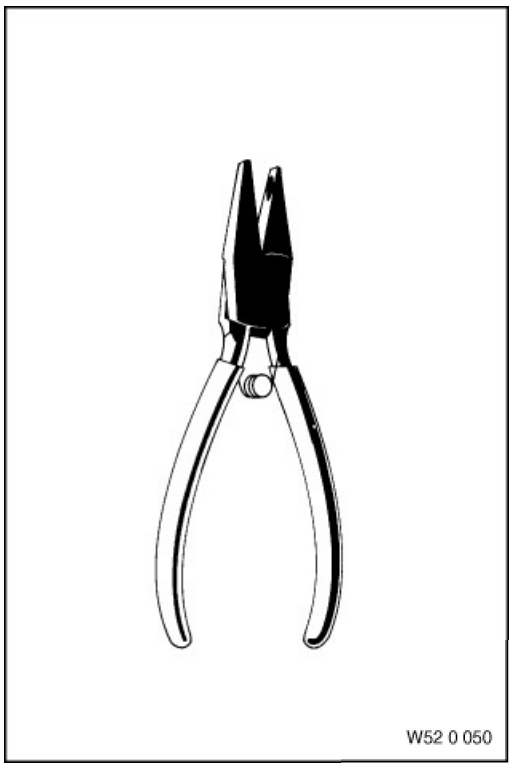
End fitting to seat mechanism — Used in step 24

M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

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0 492 668 (52 0 050) Pliers



Common	Used in step 1314
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

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Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	124

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	124
61 20 900 Disconnecting and connecting battery earth lead	124
61 20 900 Disconnecting and connecting battery earth lead	124
61 20 900 Disconnecting and connecting battery earth lead	124
61 20 900 Disconnecting and connecting battery earth lead	124
61 20 900 Disconnecting and connecting battery earth lead	124
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	124
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	124
61 20 900 Disconnecting and connecting battery earth lead	124
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	124

61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle) 124
61 20 900 Disconnecting and connecting battery earth lead 124
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52 16 402 Replacing seat cover for driver's seat

PRELIMINARY WORK

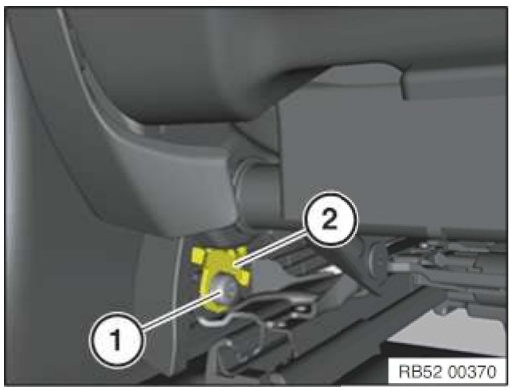
1 – Remove front seat

WARNING

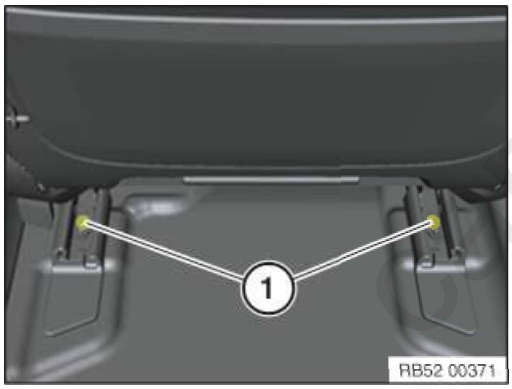
Pyrotechnic components.

Danger! Life-threatening injuries!

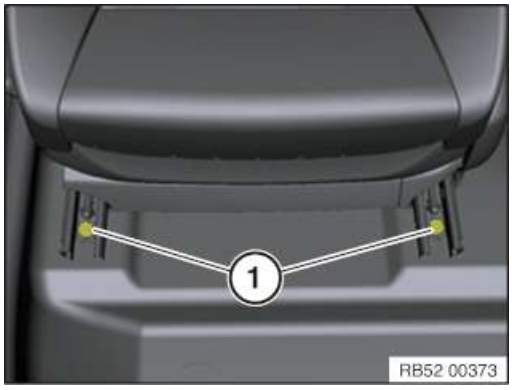
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

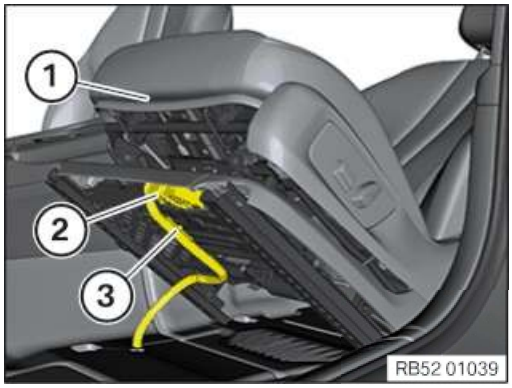
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove outer cover on front seat



- Unclip the cover (1).

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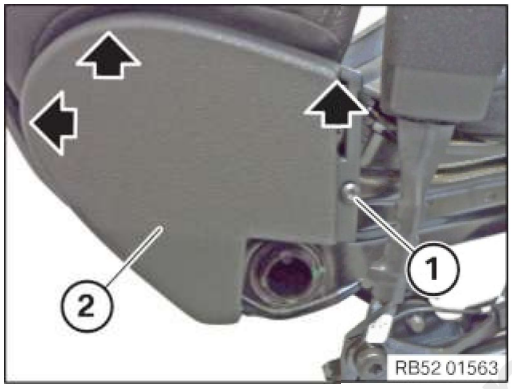


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



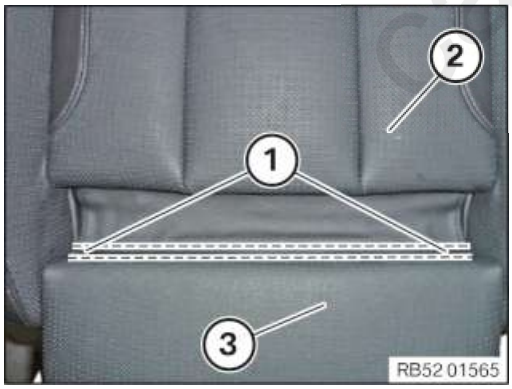
- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

3 – Remove inner cover on front seat



- Loosen screw (1).
- Guide out the cover (2) at the arrows.

4 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).



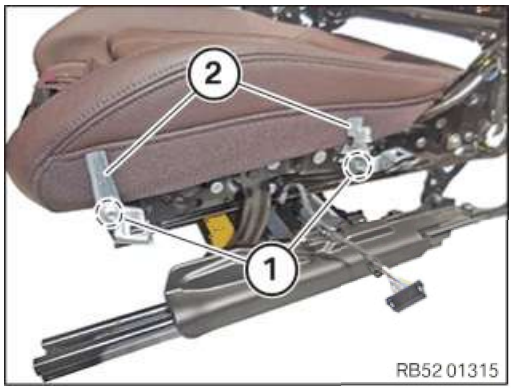
- Loosen screws (1).
- Feed the thigh support (2) out.

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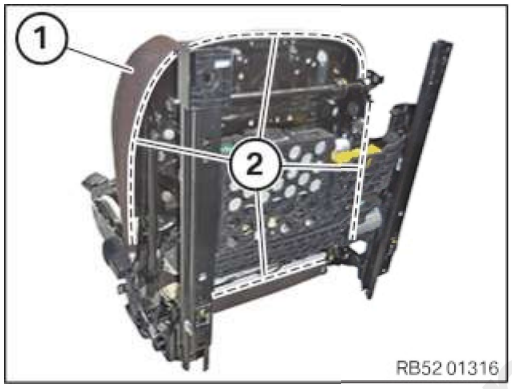


- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

5 – Remove seat cover with padding for driver's seat



- Loosen screws (1) and remove holder (2).



- Detach the seat cover (1) in the areas (2).
- Feed out the seat cover (1) with the cushion and remove.
- Disconnect the existing plug connection where required and unclip the cable clips.

MAIN WORK

6 – Remove the seat cover for the front seat

NOTICE

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



- Loosen all clamp on the trim wires (1).
- Remove any remaining clamp from the seat cover and the upholstery.
- Thread out the rubber band (2).

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- Detach all clamps on the trim wires 1.
- Remove any remaining clamp from the seat cover (2) and the upholstery.
- Remove the seat cover (2) from the upholstery.

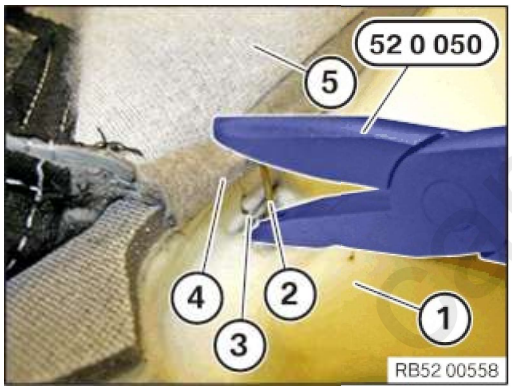
7 – Install the seat cover for the front seat

NOTICE

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



- Place the seat cover (2) on the cushion.
- Secure all trim wires (1) with clamps.



- Renew the clamps (2).

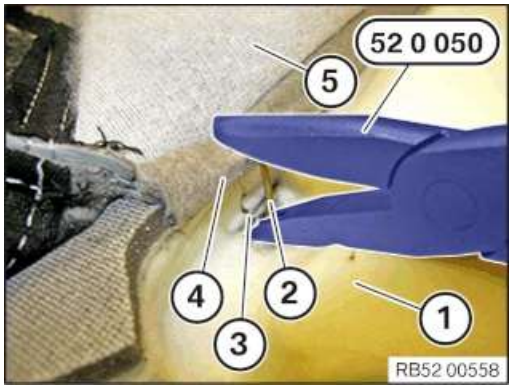
  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover



- Attach the trim wire (1) with clamps.
- Position the rubber band (2).

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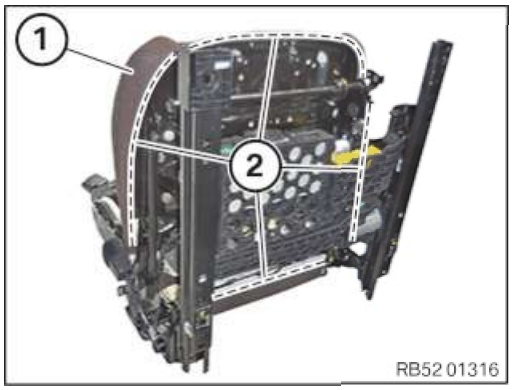
- Renew the clamps (2).

  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

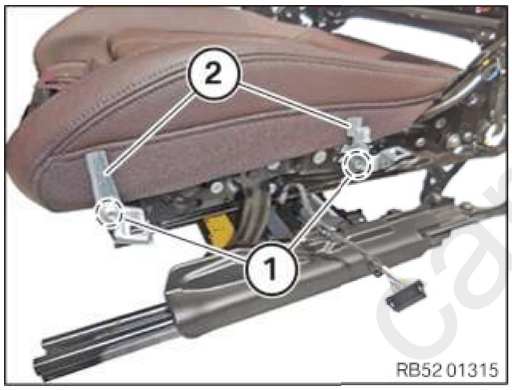
1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover

POSTPROCESSES

8 – Installing seat cover with cushion for driver's seat



- Feed in the seat cover (1) with the cushion and position.
- Attach the seat cover (1) in the areas (2).
- Where applicable, connect the existing plug connections and clip in the cable clips.



- Position holder (2) and tighten screws (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

9 – Install thigh support

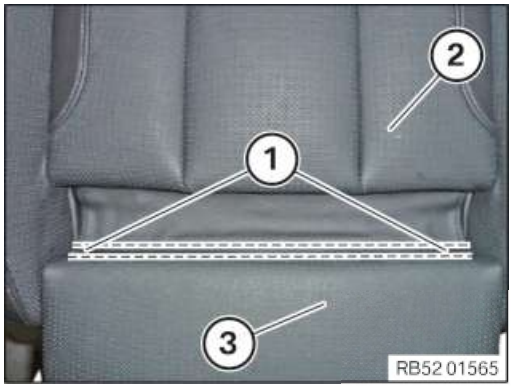


- Position the thigh support (2).
- Connect connectors (1) and lock.

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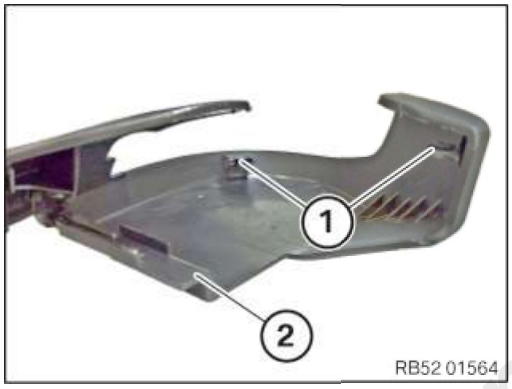


- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).

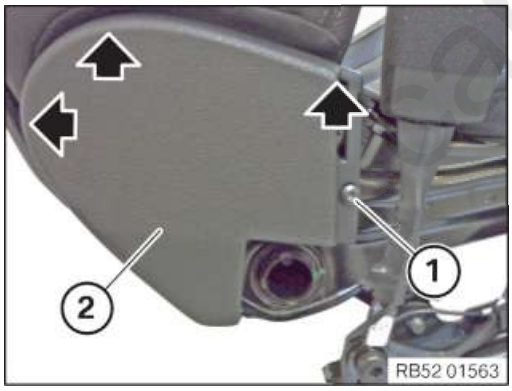


- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

10 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

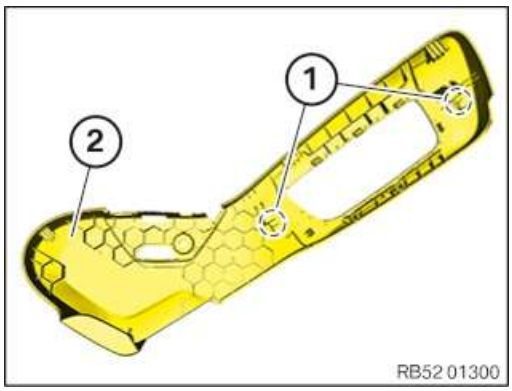


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

11 – Install outer cover on front seat

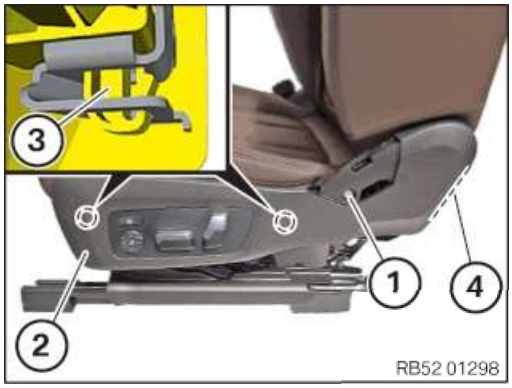


- Check the locking units (1) for damages, and replace the cover if necessary (2).

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- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

12 – Install front seat

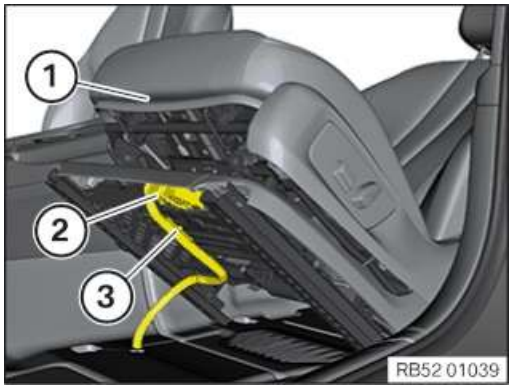
WARNING

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

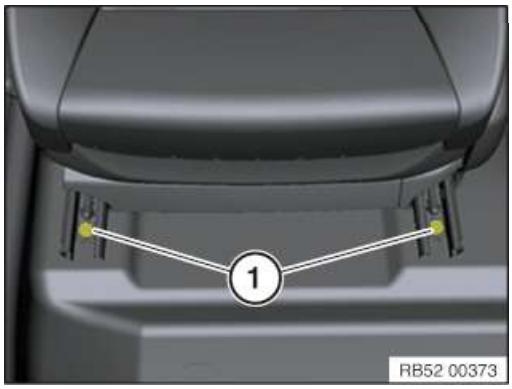
- Remove and install heavy components with the aid of another person/other persons.

- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

▶ **Disconnecting all battery earth leads**



- See additional information.



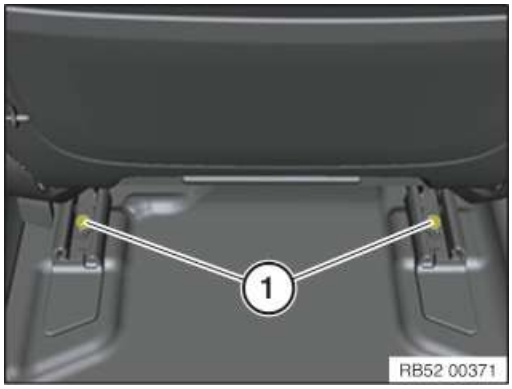
- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

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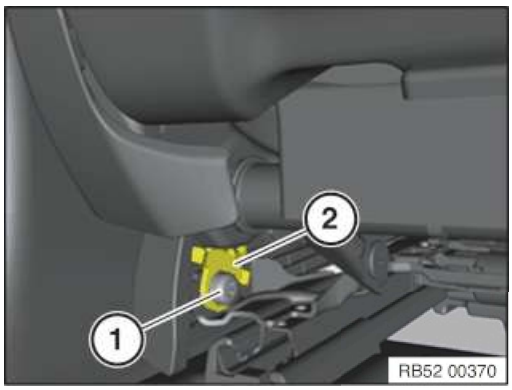


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Seat trim to seat frame — Used in step 811

Sheet metal screw		Tightening torque	2.5 Nm

Inner cover on seat frame — Used in step 10

Screw		Tightening torque	2.5 Nm

Seat to body — Used in step 12

M10	Renew screw.	Tightening torque	42 Nm

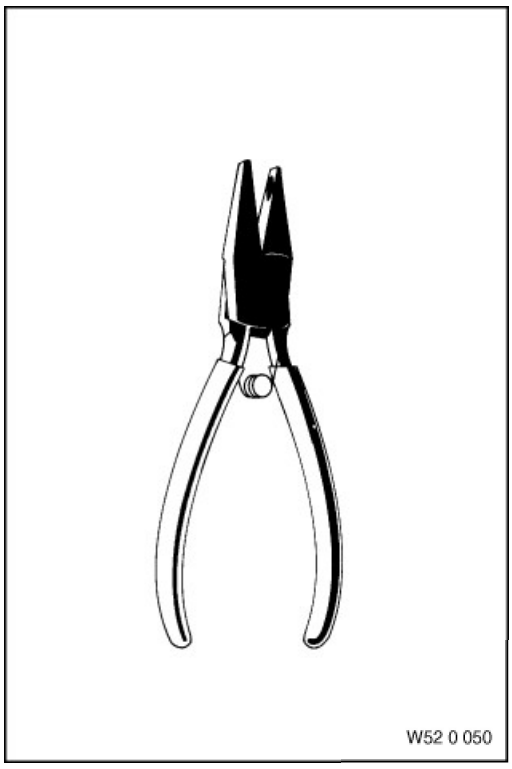
End fitting to seat mechanism — Used in step 12

M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

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0 492 668 (52 0 050) Pliers



Common	Used in step 7
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

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Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	112

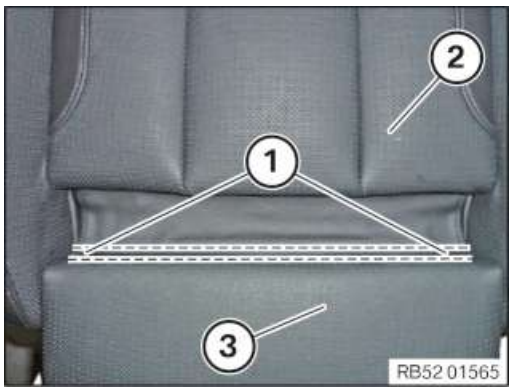
Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	112
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	112
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
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61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
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61 20 900 Disconnecting and connecting battery earth lead	112
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61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112
61 20 900 Disconnecting and connecting battery earth lead	112

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52 16 417 Replacing the facing for the thigh support on the left or right front seat

PRELIMINARY WORK

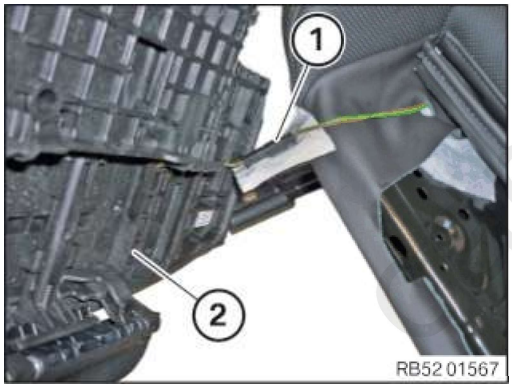
1 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).



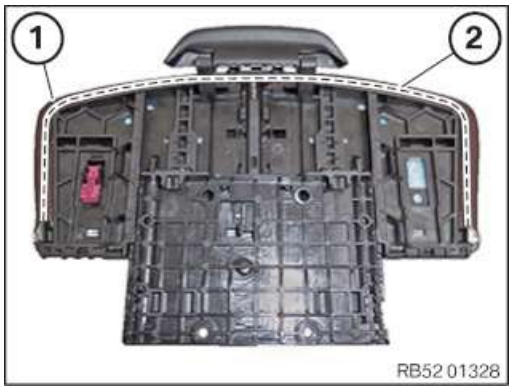
- Loosen screws (1).
- Feed the thigh support (2) out.



- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

MAIN WORK

2 – Removing the cushion for the front seat thigh support

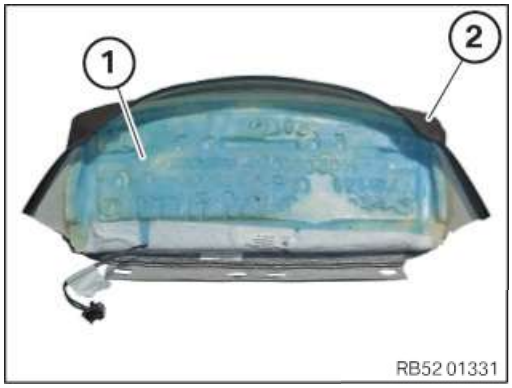


- Unhook the thigh support cover (1) in the area (2).

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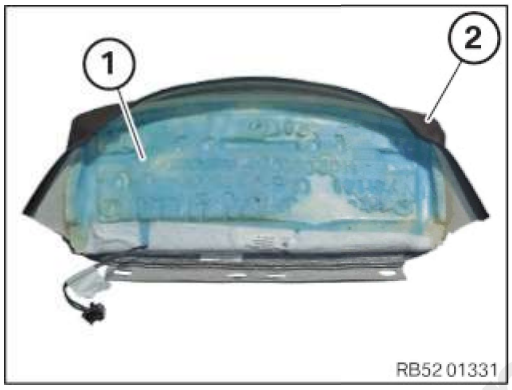


- Guide out the connector (1) and fold the thigh support cover (2) upwards.
- Detach the thigh support cover (2) in the area (3).



- Feed the cushion (1) out of the seat cover (2).

3 – Installing the cushion for the thigh support of the front seat



- Guide the upholstery (1) into the cover (2).



- Guide in the connector (1) and position the thigh support cover (2).
- Attach the thigh support cover (2) in area (3).



- Attach the thigh support cover (1) in area (2).

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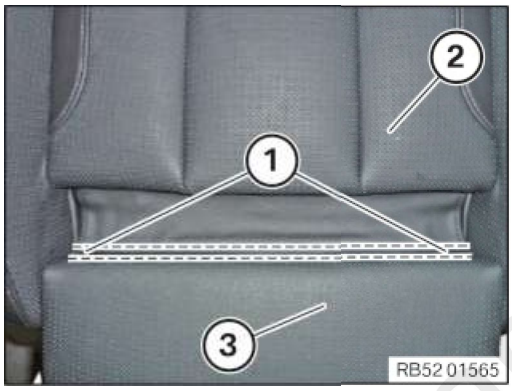
4 – Install thigh support



- Position the thigh support (2).
- Connect connectors (1) and lock.



- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).



- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

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52 16 425 Replacing upholstery for driver's seat

PRELIMINARY WORK

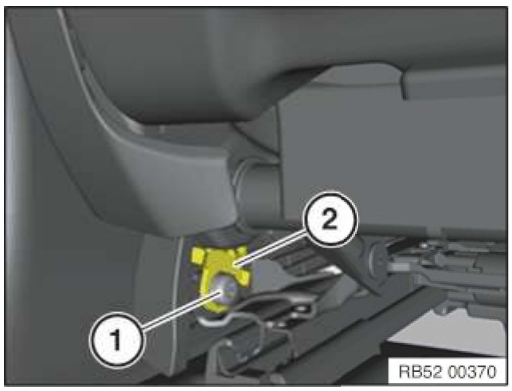
1 – Remove front seat

WARNING

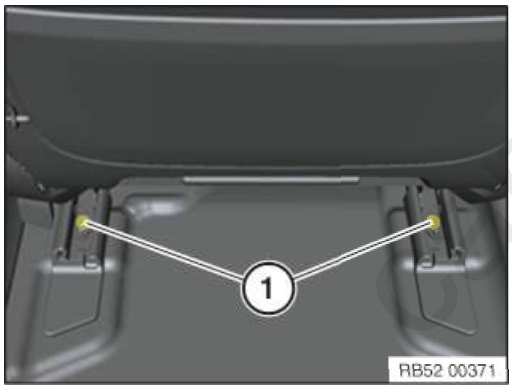
Pyrotechnic components.

Danger! Life-threatening injuries!

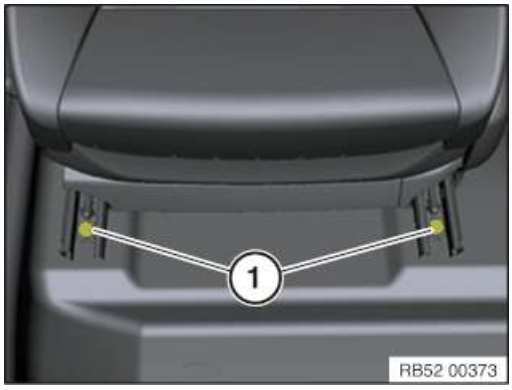
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

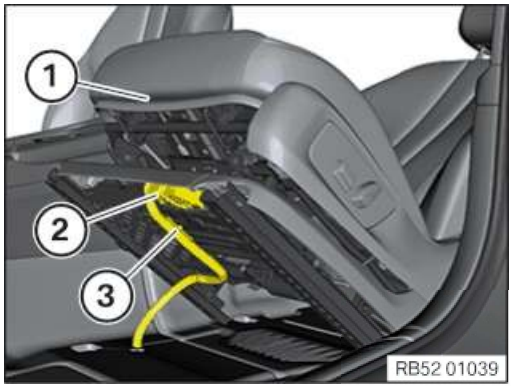
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove outer cover on front seat



- Unclip the cover (1).

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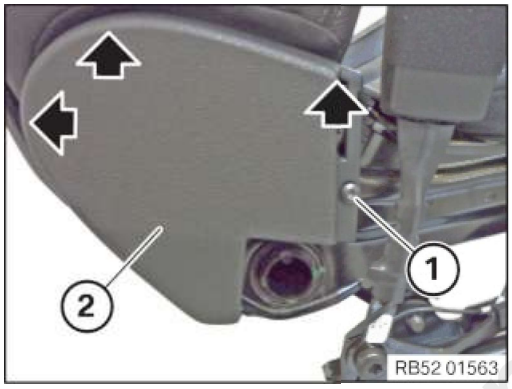


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



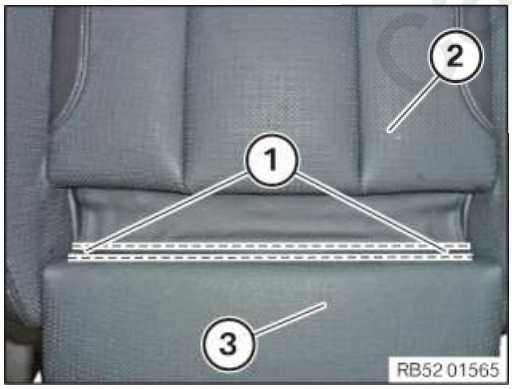
- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

3 – Remove inner cover on front seat



- Loosen screw (1).
- Guide out the cover (2) at the arrows.

4 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).



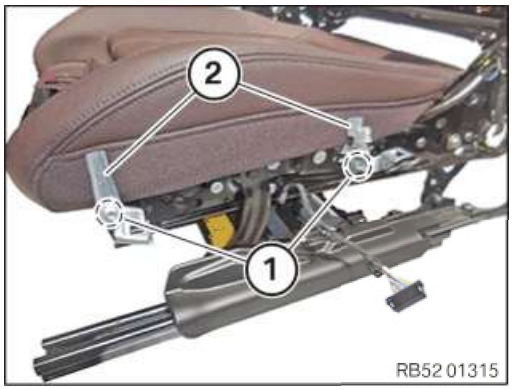
- Loosen screws (1).
- Feed the thigh support (2) out.

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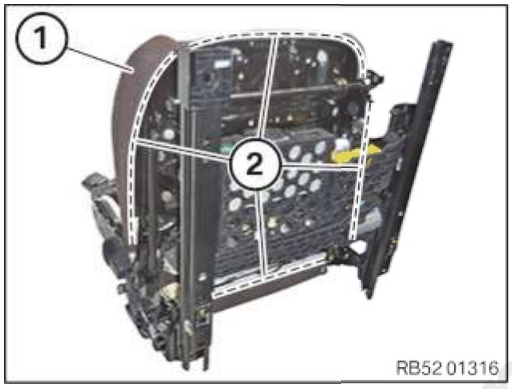


- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

5 – Remove seat cover with padding for driver's seat



- Loosen screws (1) and remove holder (2).



- Detach the seat cover (1) in the areas (2).
- Feed out the seat cover (1) with the cushion and remove.
- Disconnect the existing plug connection where required and unclip the cable clips.

6 – Remove the seat cover for the front seat

NOTICE

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



- Loosen all clamp on the trim wires (1).
- Remove any remaining clamp from the seat cover and the upholstery.
- Thread out the rubber band (2).

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- Detach all clamps on the trim wires 1.
- Remove any remaining clamp from the seat cover (2) and the upholstery.
- Remove the seat cover (2) from the upholstery.

MAIN WORK

7 – Renewing the cushion for the driver's seat

TECHNICAL INFORMATION

The heating element is bonded to the upholstery and it cannot be removed without destroying it.
When replaced, a new heating element must always be fitted with new upholstery.

NOTICE

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



- **Equipment specification with seat heating**

  Position the heating mat (1) on the cushion and align.

  Bond the heating mat (1) to the cushion in these areas (2).

POSTPROCESSES

8 – Install the seat cover for the front seat

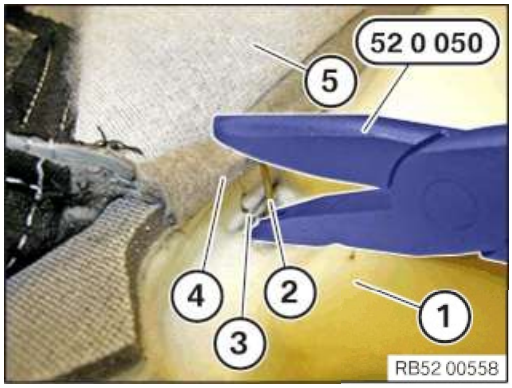
NOTICE

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

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- Place the seat cover (2) on the cushion.
- Secure all trim wires (1) with clamps.



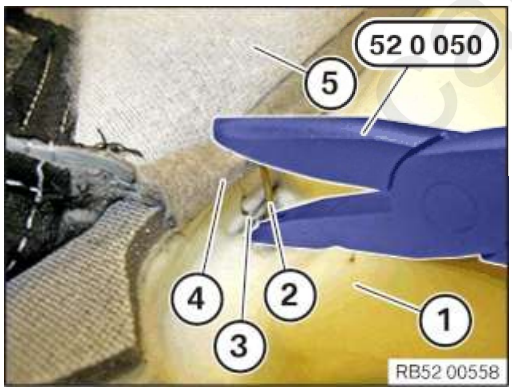
- Renew the clamps (2).

  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover



- Attach the trim wire (1) with clamps.
- Position the rubber band (2).



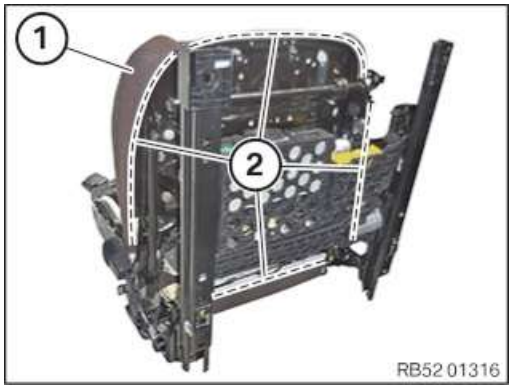
- Renew the clamps (2).

  Parts: Clamps
- Insert the new clamp (2) with the special tool 0 492 668 (52 0 050).
- Put the clamp around the trim wire (3) of the cushion (1) and the trim wire (4) of the cover (2) and bend the clamp (2) to close it.

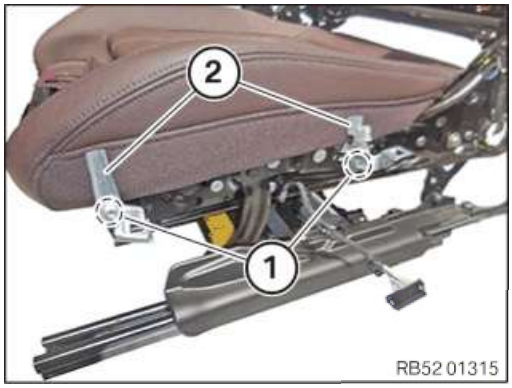
1	Upholstery
2	Clamp
3	Trim wire in upholstery
4	Trim wire in cover
5	Seat cover

9 – Installing seat cover with cushion for driver's seat

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- Feed in the seat cover (1) with the cushion and position.
- Attach the seat cover (1) in the areas (2).
- Where applicable, connect the existing plug connections and clip in the cable clips.

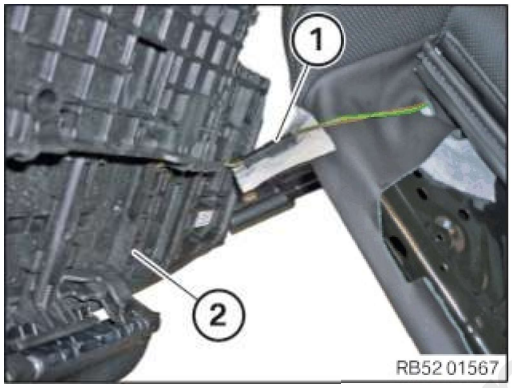


- Position holder (2) and tighten screws (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

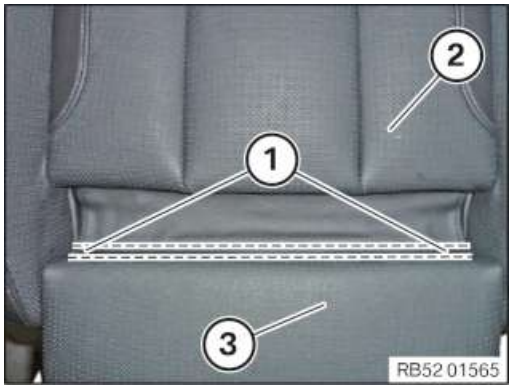
10 – Install thigh support



- Position the thigh support (2).
- Connect connectors (1) and lock.



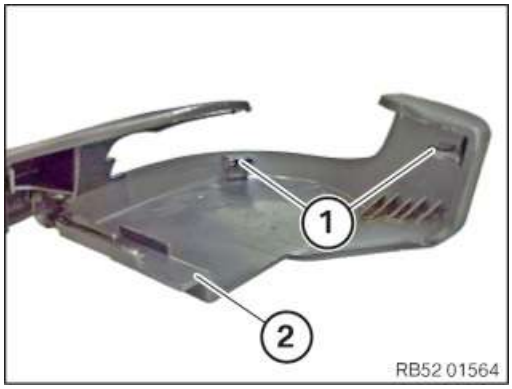
- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).



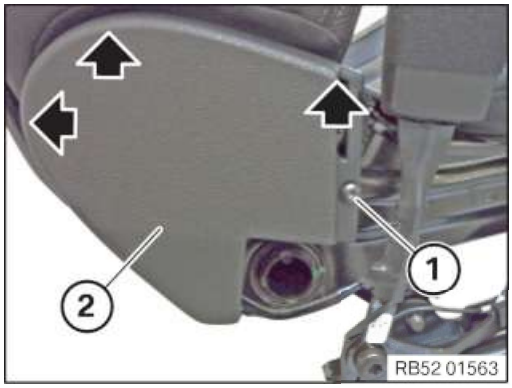
- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

11 – Installing the inner cover on the front seat

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- Check the guides (1) of the cover (2) for damage and replace if necessary.

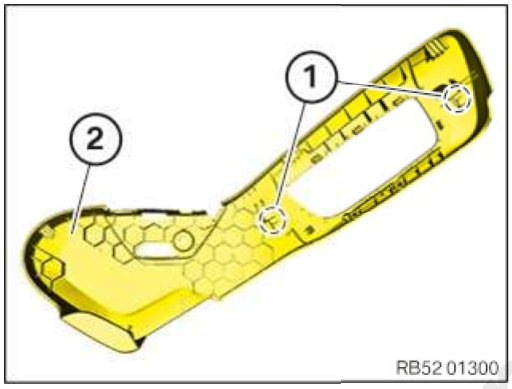


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

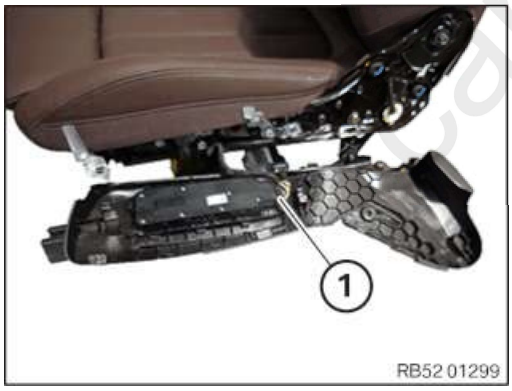
Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

12 – Install outer cover on front seat



- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

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- Clip in the cover (1).

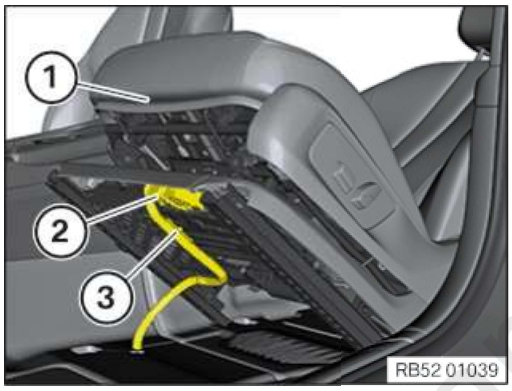
13 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

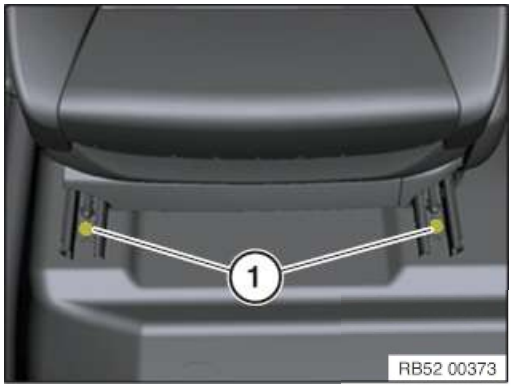
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

► **Disconnecting all battery earth leads**

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- See additional information.

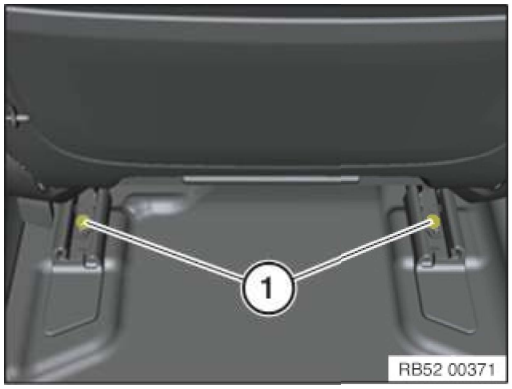


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

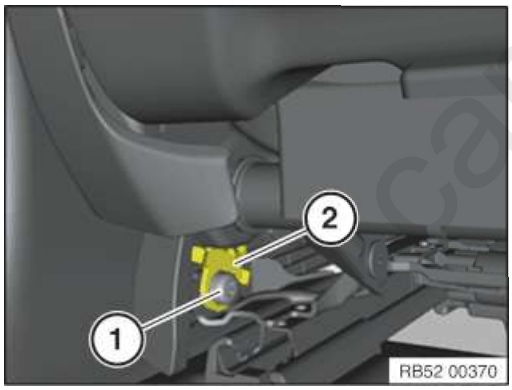


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Seat trim to seat frame Used in step 912

Sheet metal screw		Tightening torque	2.5 Nm

Inner cover on seat frame Used in step 11

Screw		Tightening torque	2.5 Nm

Seat to body Used in step 13

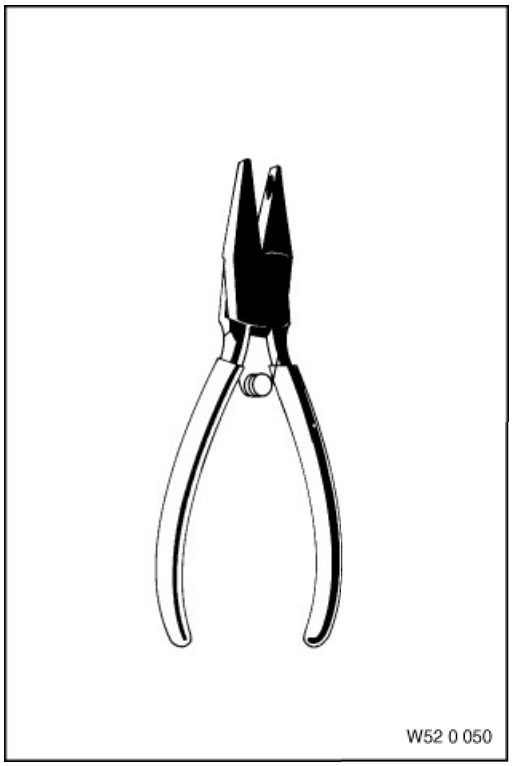
M10	Renew screw.	Tightening torque	42 Nm

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End fitting to seat mechanism			Used in step 13
M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 492 668 (52 0 050) Pliers



Common		Used in step 8
Usage	For securing clamps on seat cover	
Included in the tool or work		
Storage location	C14	
Replaced by		
In connection with		
SI-Number	52 06 87 (808)	

Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	113

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	113
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	113
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	113
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61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113
61 20 900 Disconnecting and connecting battery earth lead	113

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52 16 422 Replacing upholstery for driver's seat backrest

PRELIMINARY WORK

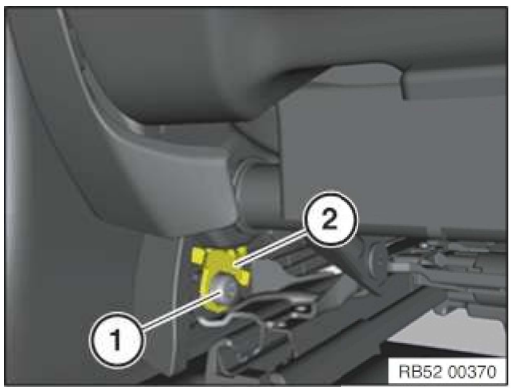
1 – Remove front seat

WARNING

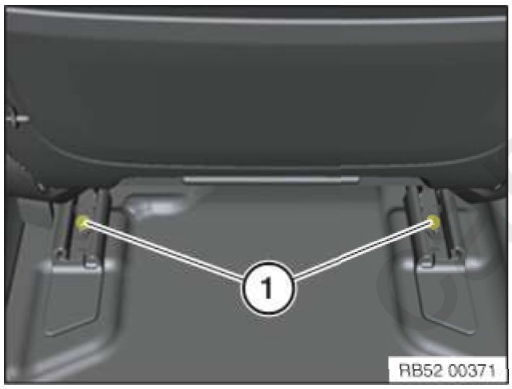
Pyrotechnic components.

Danger! Life-threatening injuries!

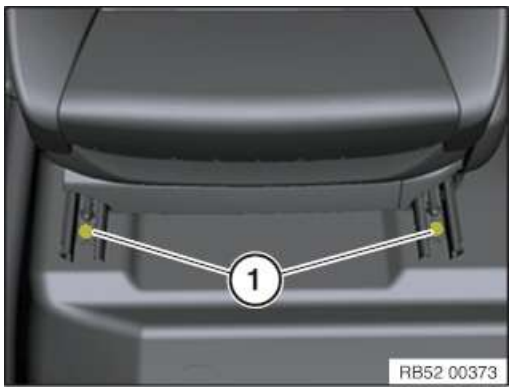
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

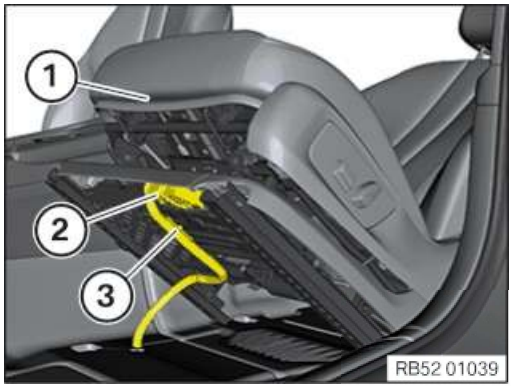
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



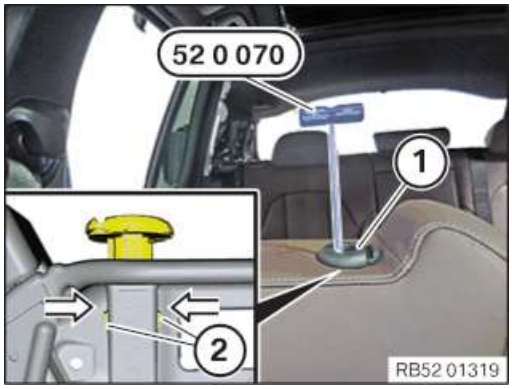
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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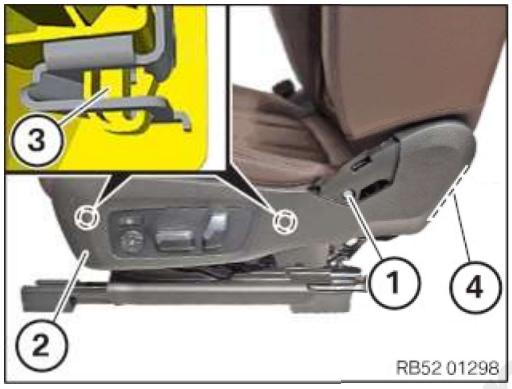


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

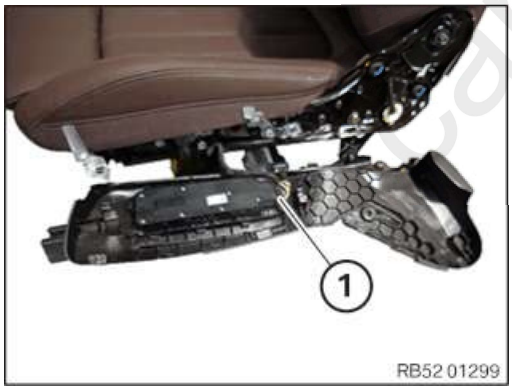
4 – Remove outer cover on front seat



- Unclip the cover (1).

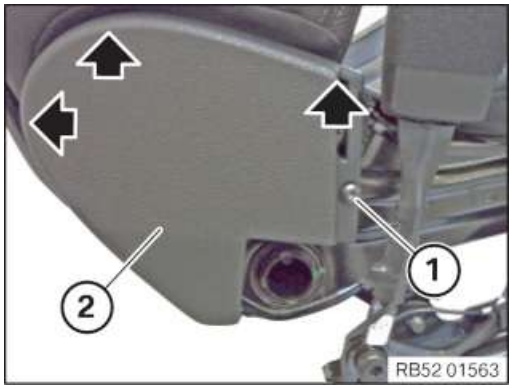


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



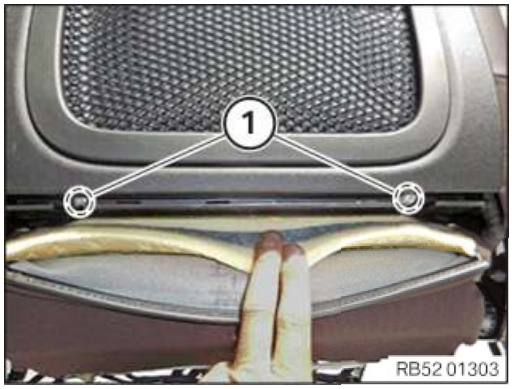
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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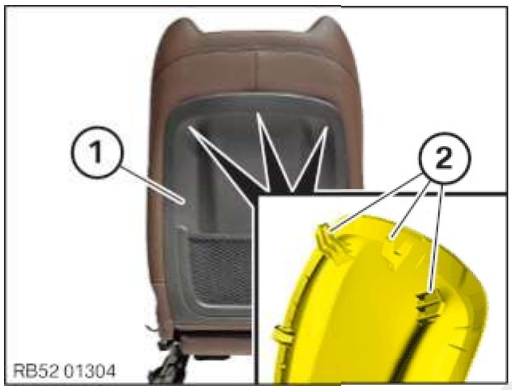
6 – Removing rear panel of front seat backrest



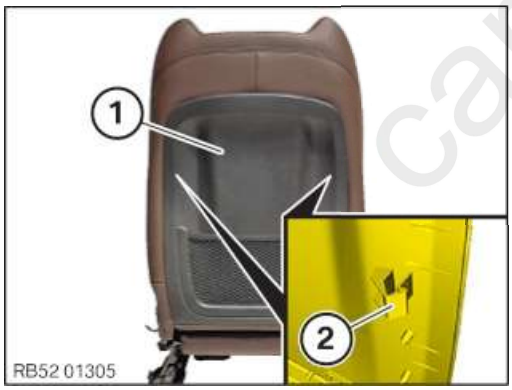
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

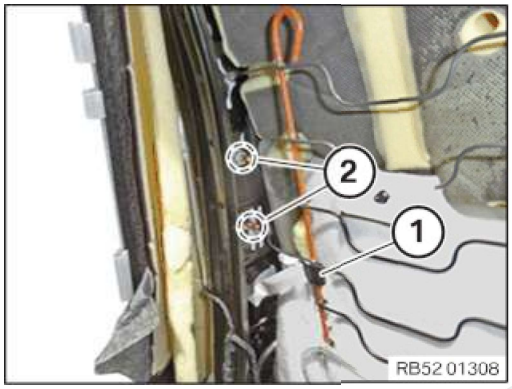
Pyrotechnic components.

Danger! Life-threatening injuries!

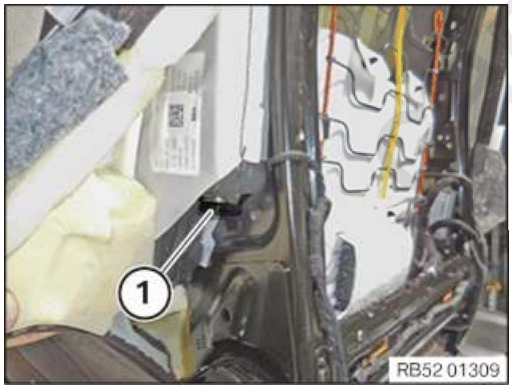
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



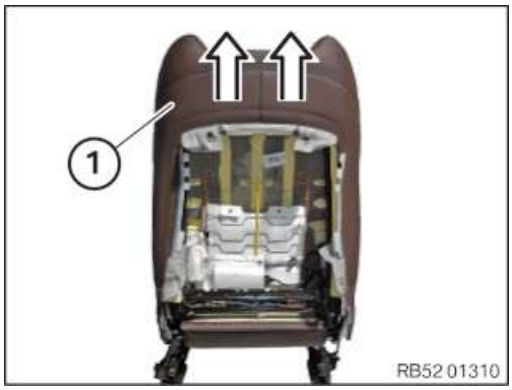
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).

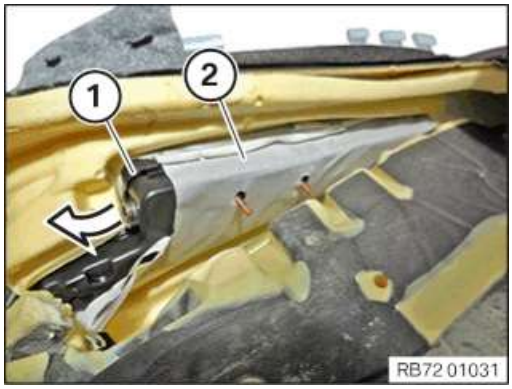


- Unlock plug connection (1) and disconnect.



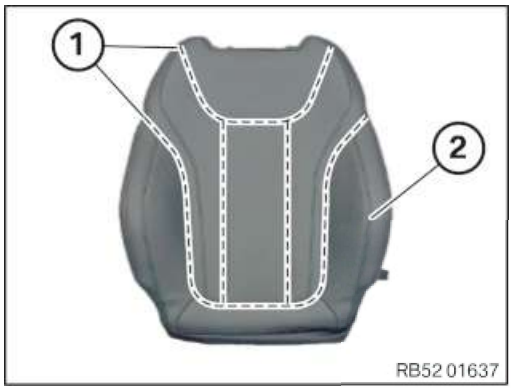
- Guide out the backrest cover (1) complete with the side airbag toward the top.

8 – Remove side airbag from front seat



- Guide the side airbag (1) out of the fabric pocket (2) on the backrest cover.

9 – Remove the backrest cover from front seat-backrest



- Loosen all clamp on the trim wires (1).
- Remove the backrest cover (2) from the upholstery.
- Completely remove clamps from the backrest cover (2) and the cushion.

MAIN WORK

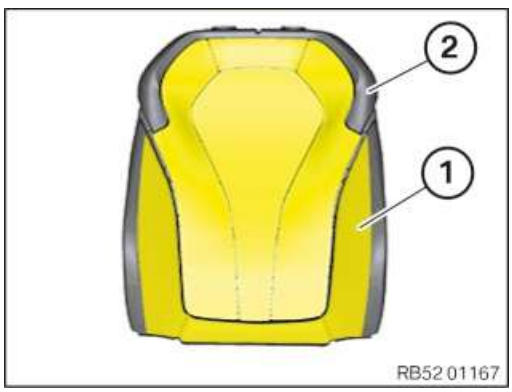
10 – Renewing the cushion for the front seat backrest

TECHNICAL INFORMATION

The heating element is bonded to the upholstery and it cannot be removed without destroying it.
When replaced, a new heating element must always be fitted with new upholstery.

NOTICE

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



- **Equipment specification with seat heating**

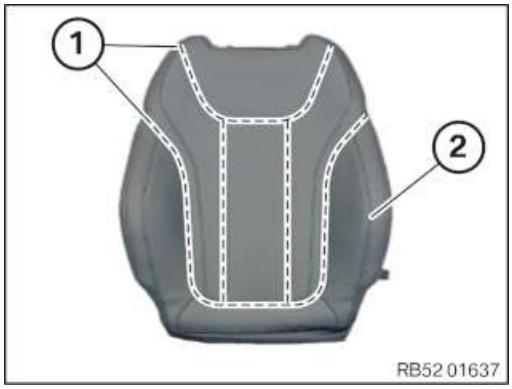
  Position and align the heating mat (1) on the upholstery (2).

  Bond the heating mat (1) with the upholstery (2).

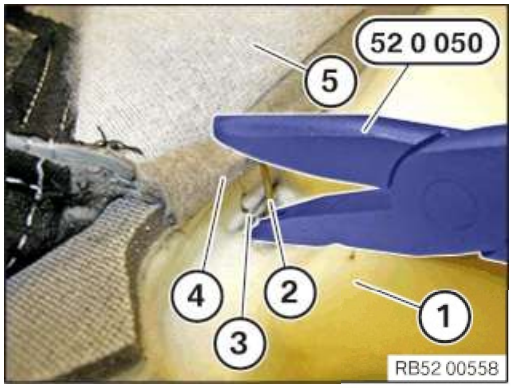
POSTPROCESSES

11 – Install the backrest cover of the front seat backrest

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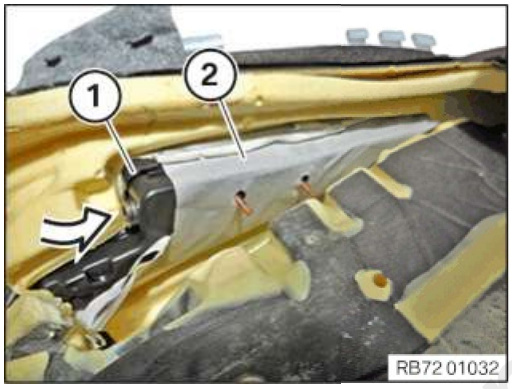
- Place the backrest cover (2) onto the upholstery.
- Secure all trim wires (1) with the clamps.



- Renew the clamps (2).

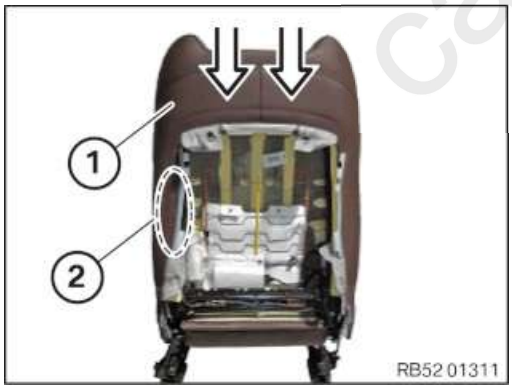
  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover (5) with the clamp (2) and bend the clamp (2) to close it.

12 – Install side airbag on front seat

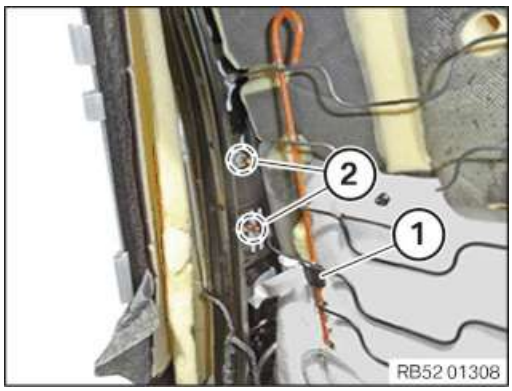


- Guide the side airbag (1) into the fabric pocket (2) on the backrest cover and position it.

13 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).



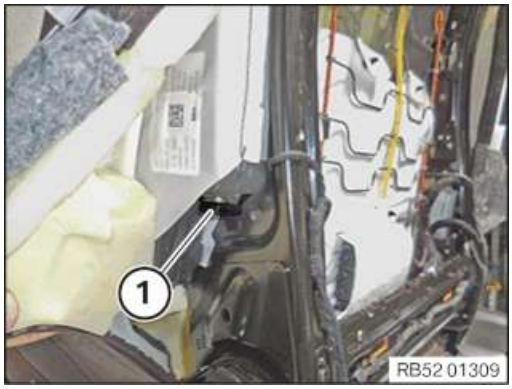
- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm

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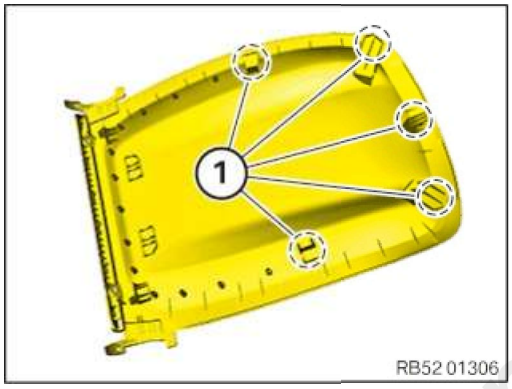


- Connect plug connection (1) and lock.

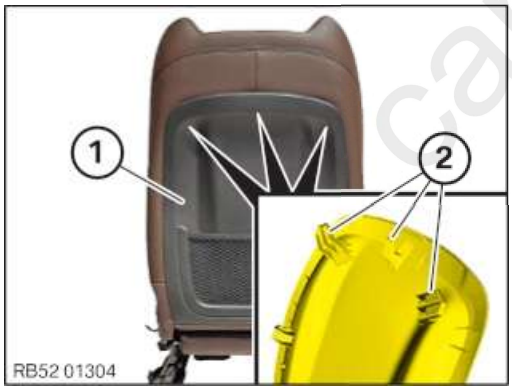


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

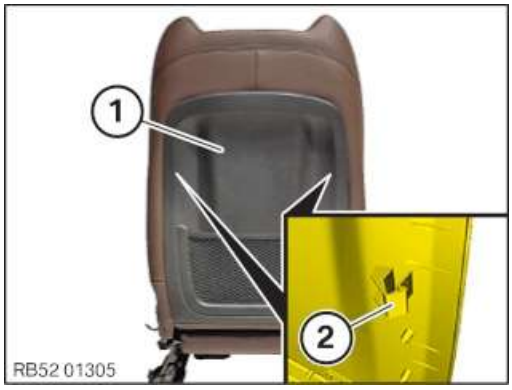
14 – Mount the rear panel on the front seat backrest



- Check the guides and clamps (1) for damage and renew the cover as needed.

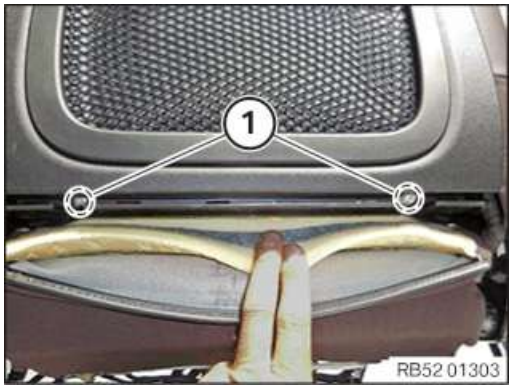


- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).

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- Tighten down screw (1).

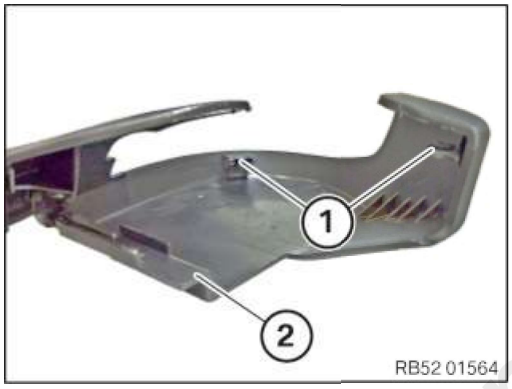
Rear panel to seat frame

Sheet metal screw	Tightening torque		3 Nm

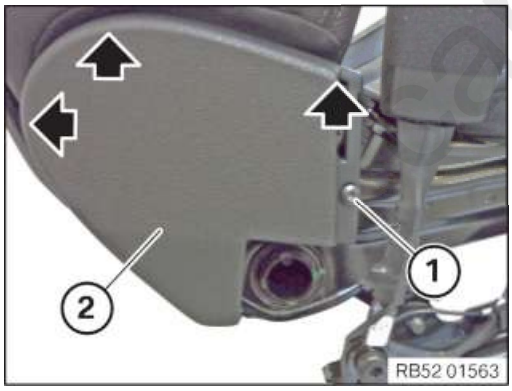


- Attach the edge stripping of the seat cover in this area (1).

15 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

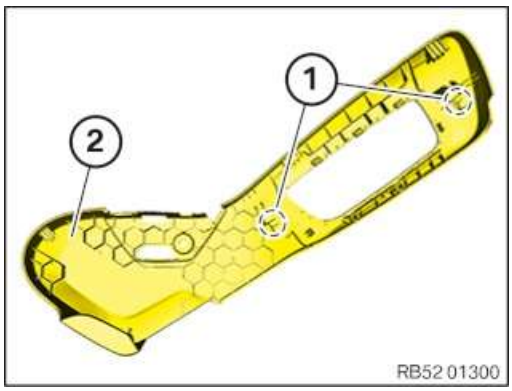


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

16 – Install outer cover on front seat

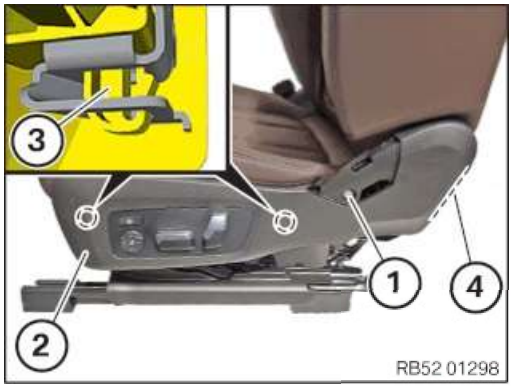


- Check the locking units (1) for damages, and replace the cover if necessary (2).

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- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

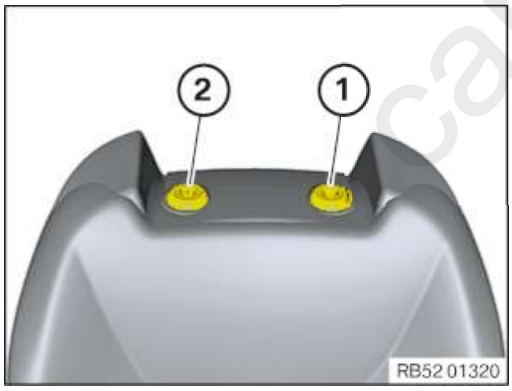
Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

17 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

18 – Install the front head restraint

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- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

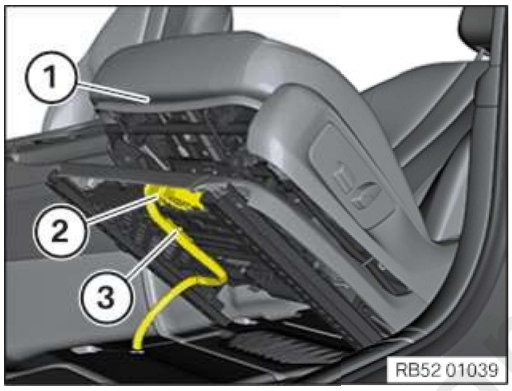
19 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

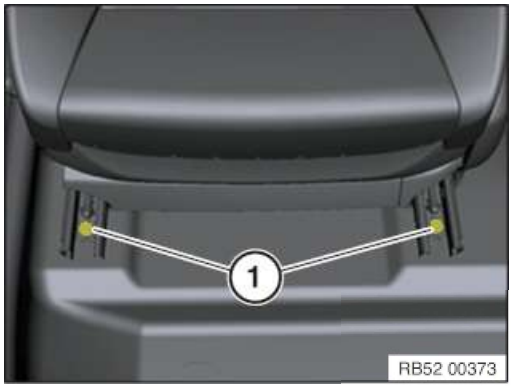
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

► **Disconnecting all battery earth leads**

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- See additional information.

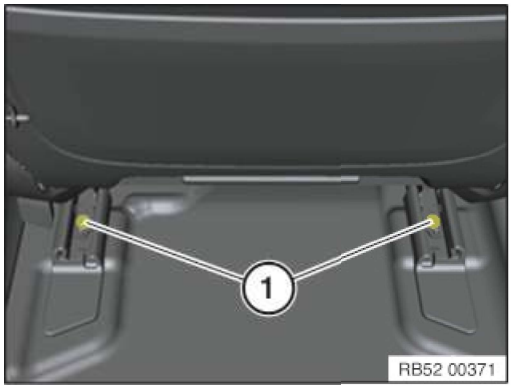


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

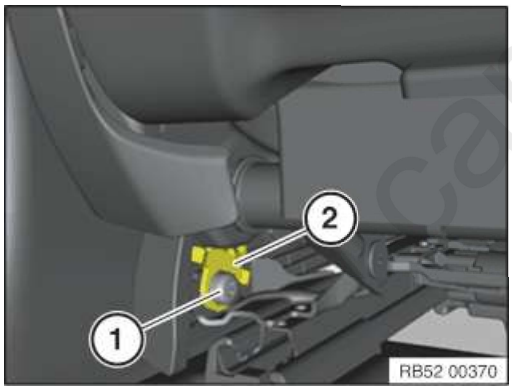


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Airbag on backrest frame Used in step 13

Nut	Renew nut.	Tightening torque	6,5 Nm

Rear panel to seat frame Used in step 14

Sheet metal screw	Tightening torque		3 Nm

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Inner cover on seat frame			Used in step 15
Screw		Tightening torque	2.5 Nm

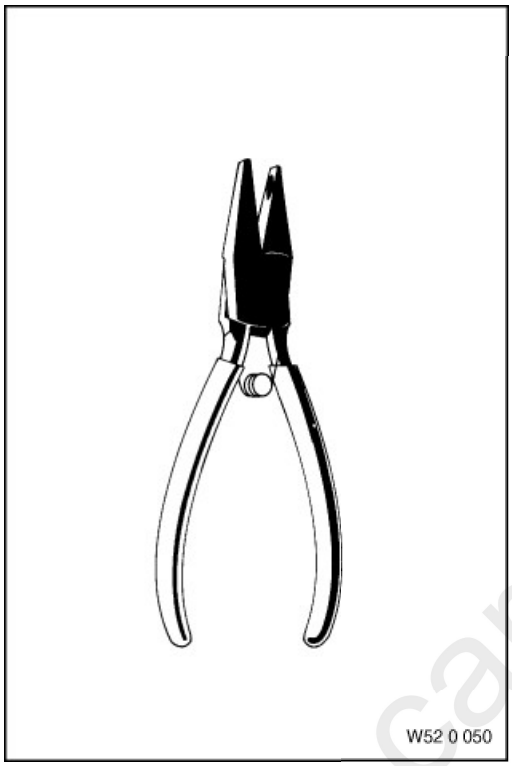
Seat trim to seat frame			Used in step 16
Sheet metal screw		Tightening torque	2.5 Nm

Seat to body			Used in step 19
M10	Renew screw.	Tightening torque	42 Nm

End fitting to seat mechanism			Used in step 19
M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 492 668 (52 0 050) Pliers



Common		Used in step 11
Usage	For securing clamps on seat cover	
Included in the tool or work		
Storage location	C14	
Replaced by		
In connection with		
SI-Number	52 06 87 (808)	

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Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	119

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119

61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119
61 20 900 Disconnecting and connecting battery earth lead	119
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61 20 900 Disconnecting and connecting battery earth lead	119

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52 16 426 Replacing upholstery for front passenger seat

NOTICE

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

PRELIMINARY WORK

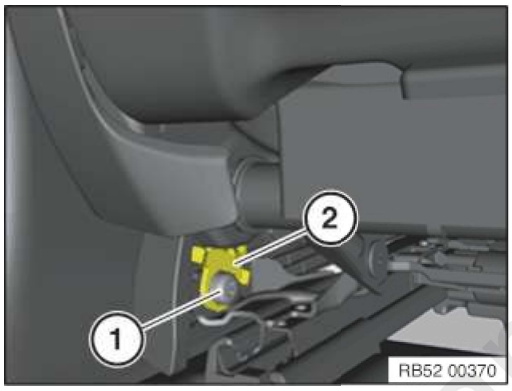
1 – Remove front seat

WARNING

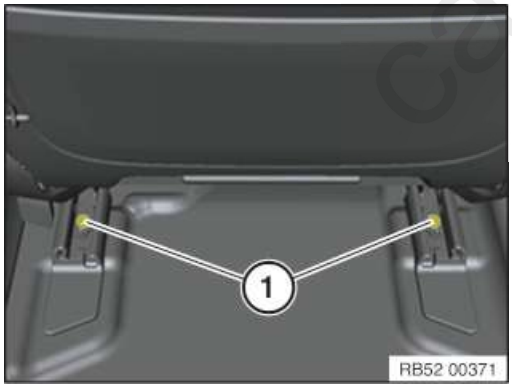
Pyrotechnic components.

Danger! Life-threatening injuries!

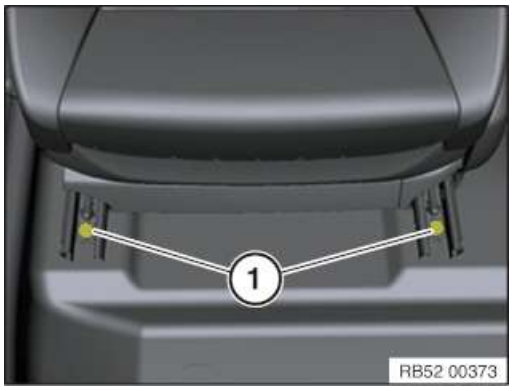
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

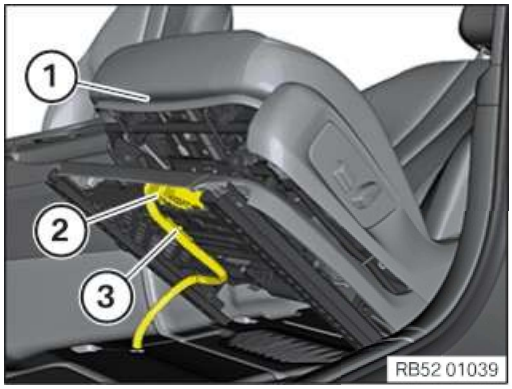
  Adjust the steering column completely upwards.

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▶ **Disconnecting all battery earth leads**



- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove outer cover on front seat



- Unclip the cover (1).

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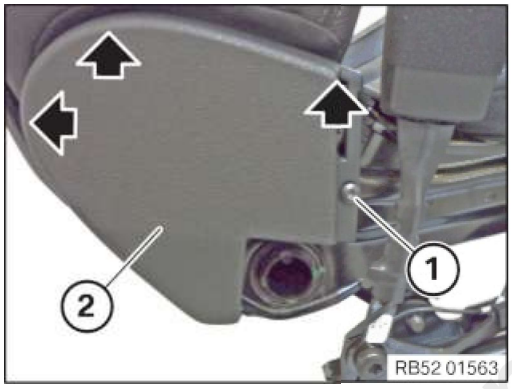


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



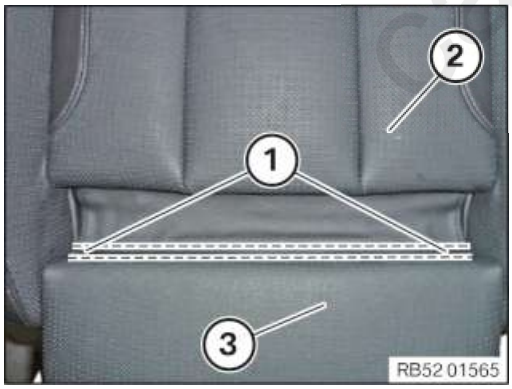
- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

3 – Remove inner cover on front seat



- Loosen screw (1).
- Guide out the cover (2) at the arrows.

4 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).



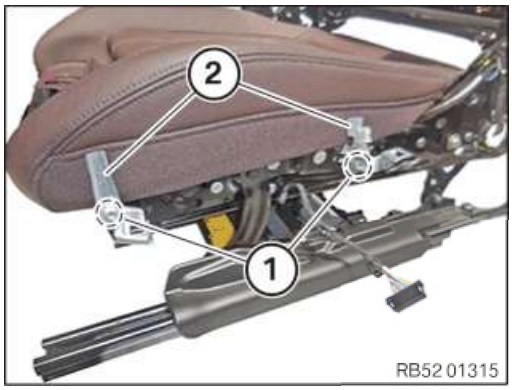
- Loosen screws (1).
- Feed the thigh support (2) out.

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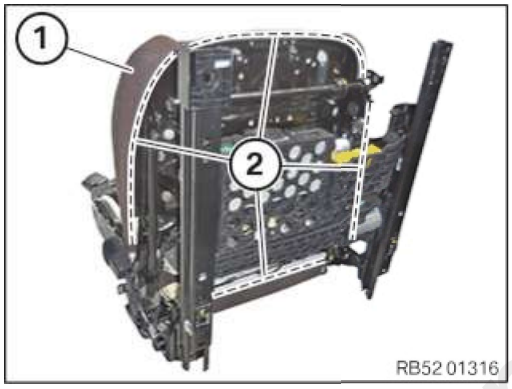


- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

5 – Removing the seat cover including cushion for the front passenger seat



- Loosen screws (1) and remove holder (2).



- Detach the seat cover (1) in the areas (2).
- Feed out the seat cover (1) with the cushion and remove.
- Disconnect the existing plug connection where required and unclip the cable clips.

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MAIN WORK

6 – Renewing the upholstery for the front passenger seat

TECHNICAL INFORMATION

Only US/Canadian version of front passenger seat with seat occupancy mat (CIS):

The seat occupancy mat is bonded to the entire surface of the upholstery and can only be replaced together with the upholstery.

If the seat occupancy mat or upholstery is defective, both parts must always be replaced together.

Full operability can only be guaranteed with the Original BMW replacement part.

After fitting the seat cover, enable the seat occupancy mat using the BMW programming system.

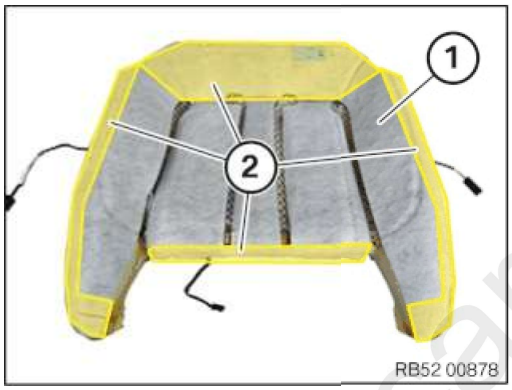
TECHNICAL INFORMATION

The heating element is bonded to the upholstery and it cannot be removed without destroying it.

When replaced, a new heating element must always be fitted with new upholstery.

NOTICE

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



- **Equipment specification with seat heating**

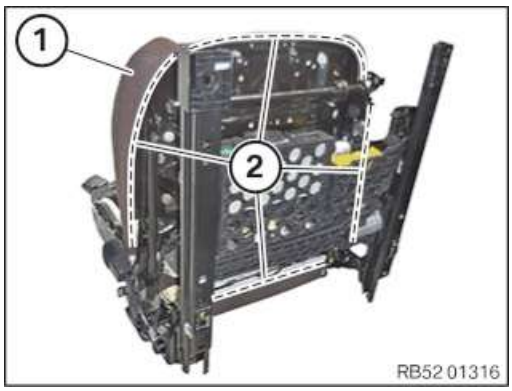
  Position the heating mat (1) on the cushion and align.

  Bond the heating mat (1) to the cushion in these areas (2).

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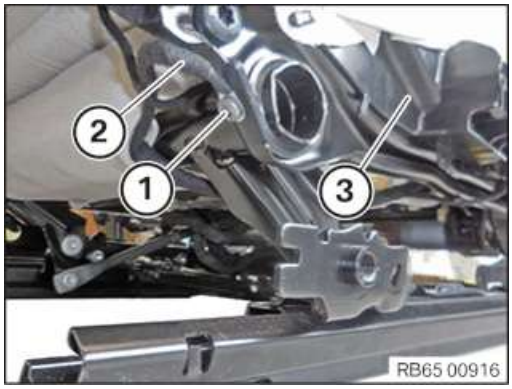
POSTPROCESSES

7 – Installing the seat cover including cushion for the front passenger seat



- Feed in the seat cover (1) with the cushion and position.
- Attach the seat cover (1) in the areas (2).
- Where applicable, connect the existing plug connections and clip in the cable clips.

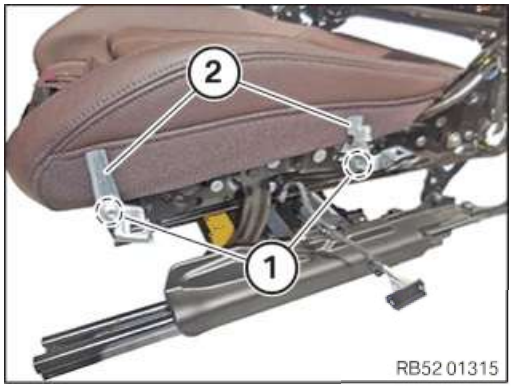
▸ **Securing ground cable of the seat occupancy mat (CIS)**



- Correctly position ground cable (2) for the seat occupancy mat on the seat mechanism (3).
- Tighten down screw (1).

Ground cable of the seat occupancy mat (CIS) on seat

Screw		Tightening torque	7,5 Nm

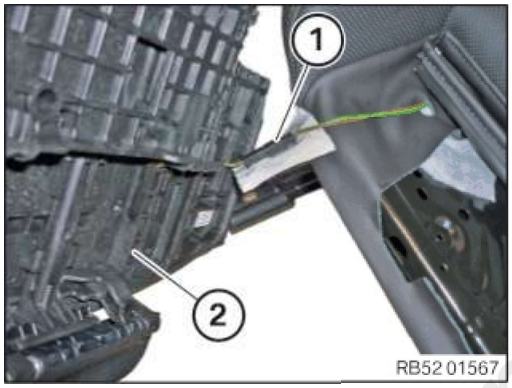


- Position holder (2) and tighten screws (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

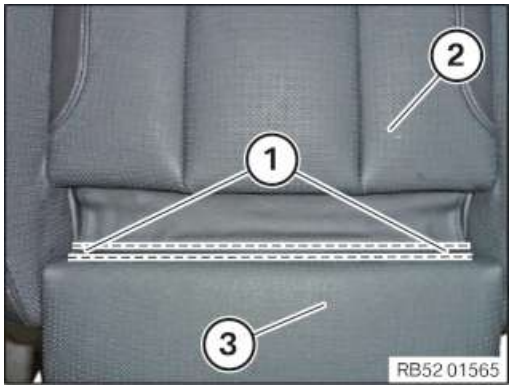
8 – Install thigh support



- Position the thigh support (2).
- Connect connectors (1) and lock.



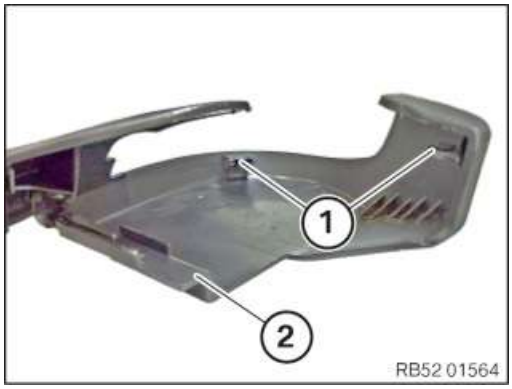
- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).



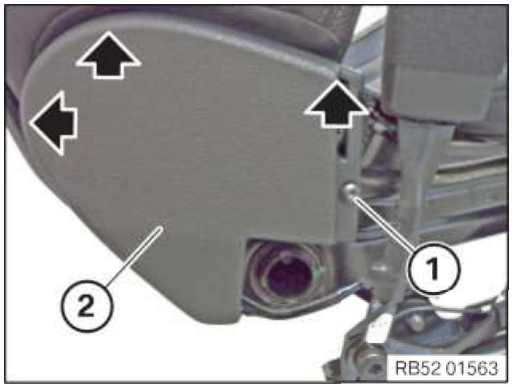
- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

9 – Installing the inner cover on the front seat

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- Check the guides (1) of the cover (2) for damage and replace if necessary.

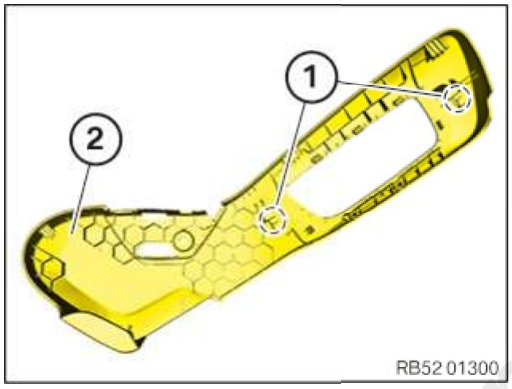


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

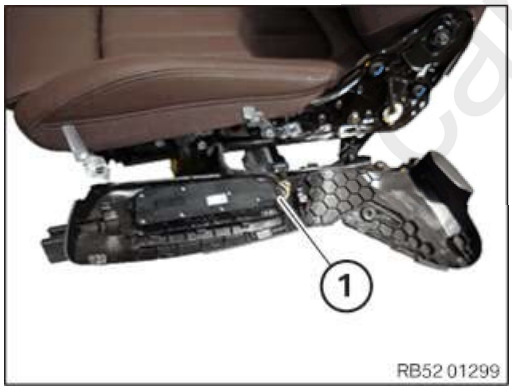
Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

10 – Install outer cover on front seat



- Check the locking units (1) for damages, and replace the cover if necessary (2).



- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm

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- Clip in the cover (1).

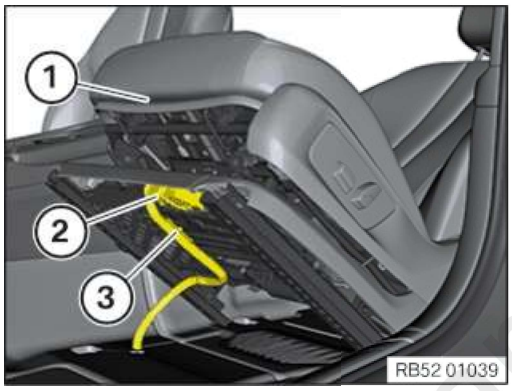
11 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

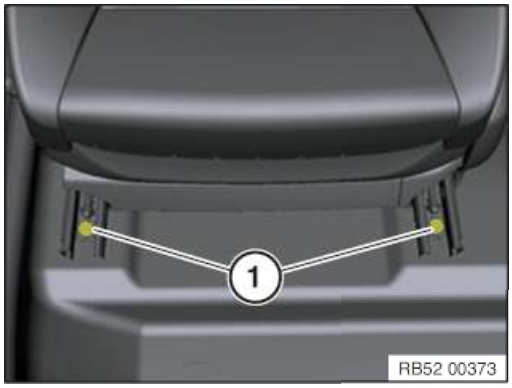
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

► **Disconnecting all battery earth leads**

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- See additional information.

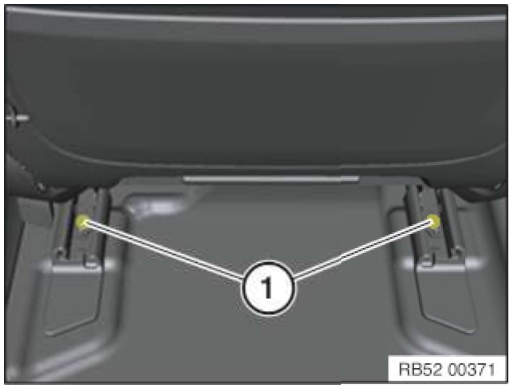


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

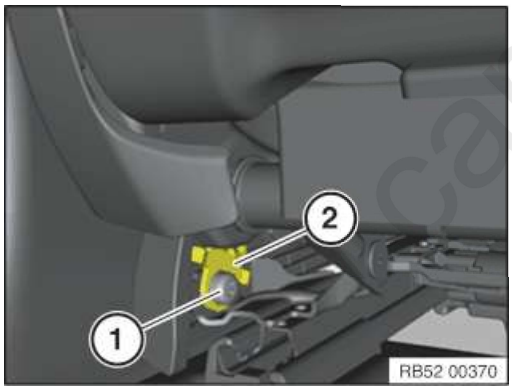


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Ground cable of the seat occupancy mat (CIS) on seat Used in step 7

Screw		Tightening torque	7,5 Nm

Seat trim to seat frame Used in step 710

Sheet metal screw		Tightening torque	2.5 Nm

Inner cover on seat frame Used in step 9

Screw		Tightening torque	2.5 Nm

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Seat to body			Used in step 11
M10	Renew screw.	Tightening torque	42 Nm

End fitting to seat mechanism			Used in step 11
M10	Renew screw.	Tightening torque	42 Nm

Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	111

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	111
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	111
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
61 20 900 Disconnecting and connecting battery earth lead	111
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	111
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61 20 900 Disconnecting and connecting battery earth lead	111
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61 20 900 Disconnecting and connecting battery earth lead	111

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52 16 423 Replacing upholstery for front passenger seat backrest

PRELIMINARY WORK

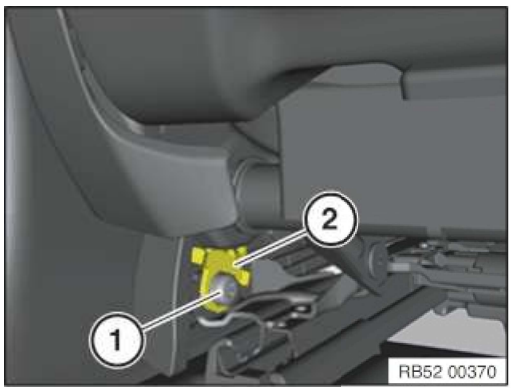
1 – Remove front seat

WARNING

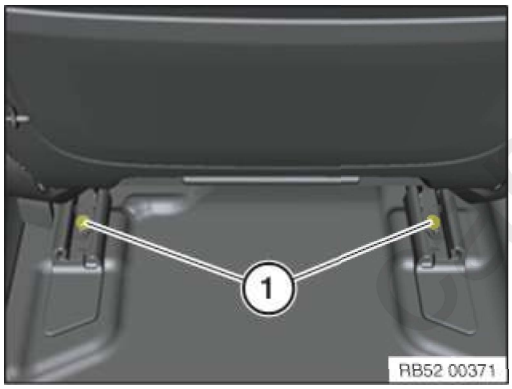
Pyrotechnic components.

Danger! Life-threatening injuries!

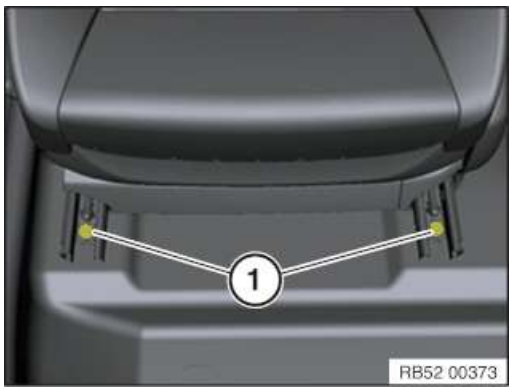
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



- Fully adjust the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



- Loosen screws (1).



- Loosen screws (1).
- Adjust the front seat to the centre position.
- **When removing the driver's seat:**

  Completely retract the steering column

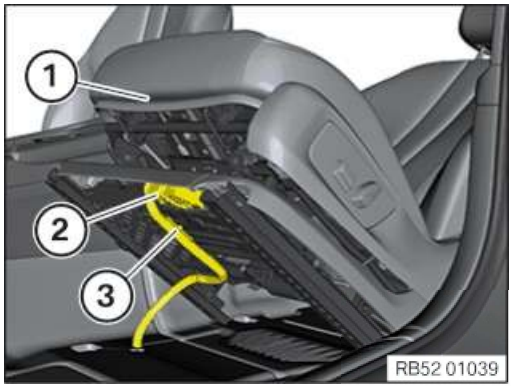
  Adjust the steering column completely upwards.

▸ **Disconnecting all battery earth leads**

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- See additional information.



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.
- Place front seat (1) to the rear.
- Unlock plug connection (2) and disconnect.
- Loosen the cable clip (3).

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Lift out front seat (1) with the assistance of a second person.

2 – Remove front head restraint



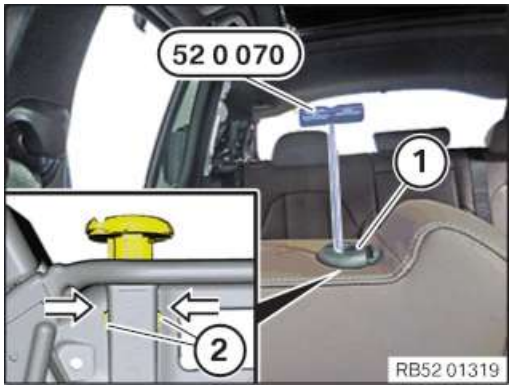
- Press the lock (2) and remove the head restraint (1) from the backrest toward the top.

3 – Remove the guide sleeve for the front head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.

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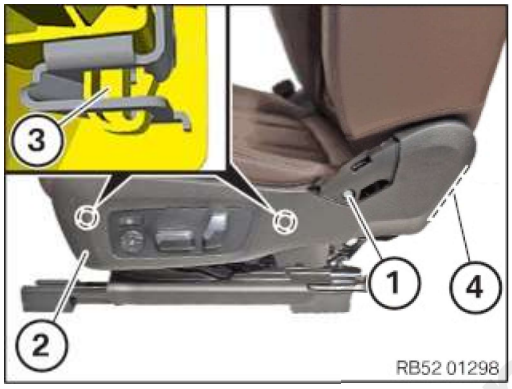


- Push the latch mechanism (2) inward with the special tool .
- Remove the guide sleeve (1) towards the top.

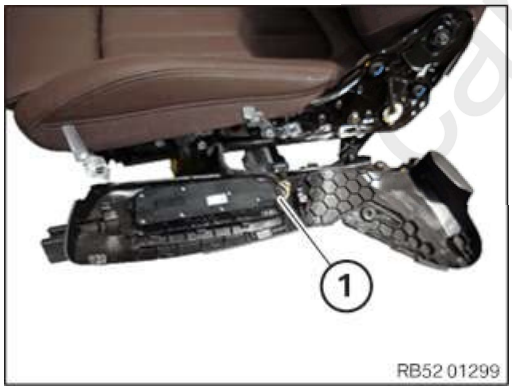
4 – Remove outer cover on front seat



- Unclip the cover (1).

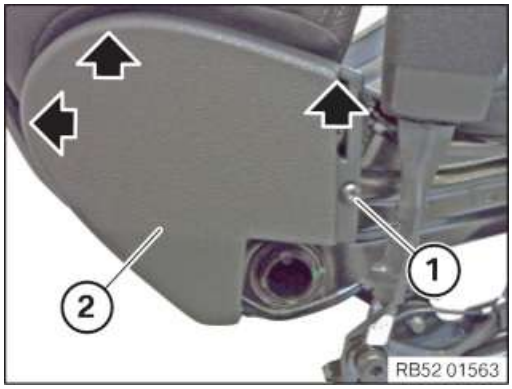


- Loosen screw (1).
- Disengage the cover (2) at the latch mechanisms (3) toward the top.
- Guide out and remove the cover (2) in the area (4).



- Disconnect plug connection (1) and, if necessary, unclip the cable clip.

5 – Remove inner cover on front seat



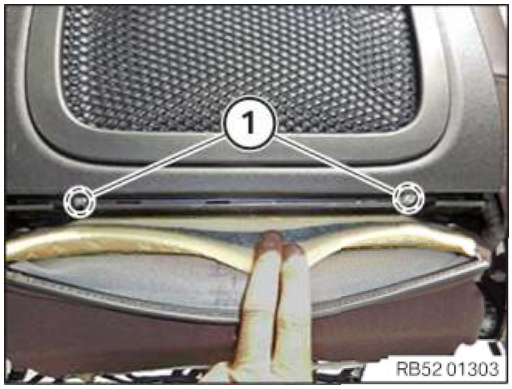
- Loosen screw (1).
- Guide out the cover (2) at the arrows.

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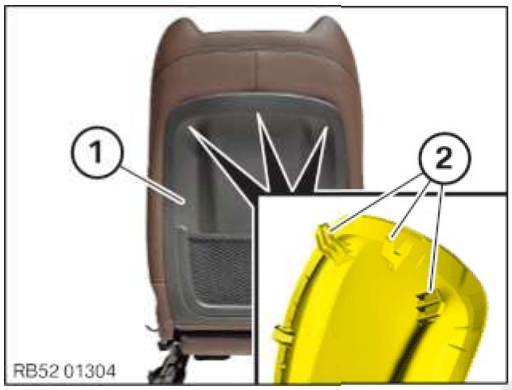
6 – Removing rear panel of front seat backrest



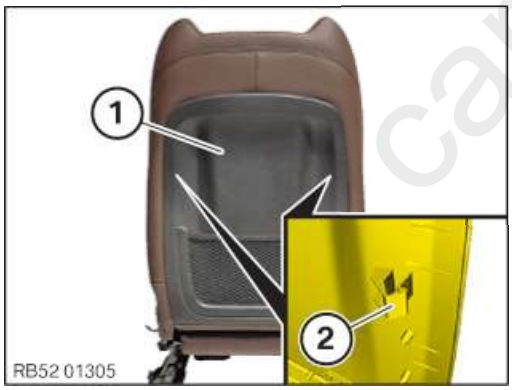
- Unclip the welts of the seat cover in area (1) with a suitable tool.



- Loosen screw (1).



- Slide the rear panel (1) down and guide it out at the guides (2).



- Unclip the rear panel (1) from the clamps (2) and remove.

7 – Remove the backrest cover with the cushion for the front seat

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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WARNING

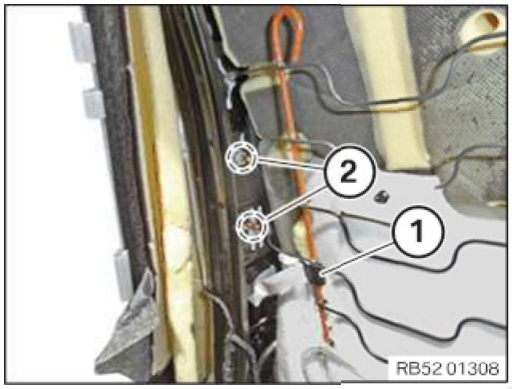
Pyrotechnic components.

Danger! Life-threatening injuries!

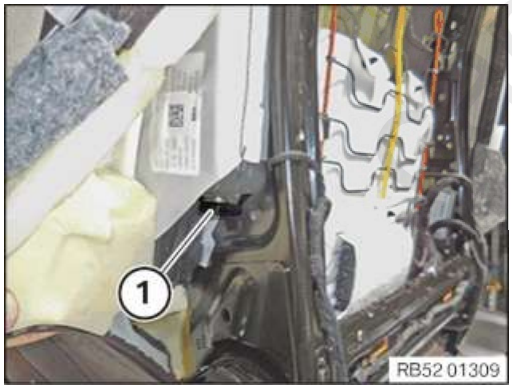
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.



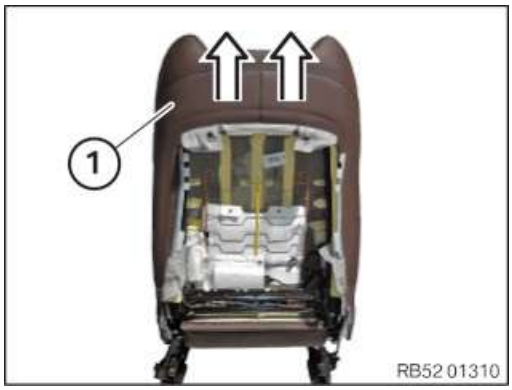
- Detach the backrest cover (1) in this area (2).
- Disconnect the plug connection (3) and unclip the existing cable clips.



- Detach the holder (1).
- Loosen nuts (2).

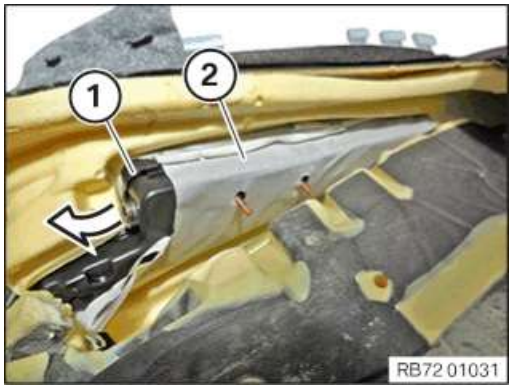


- Unlock plug connection (1) and disconnect.



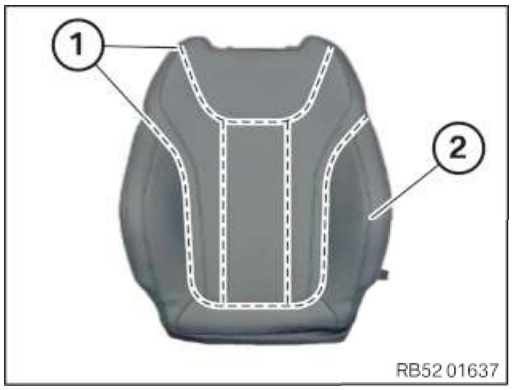
- Guide out the backrest cover (1) complete with the side airbag toward the top.

8 – Remove side airbag from front seat



- Guide the side airbag (1) out of the fabric pocket (2) on the backrest cover.

9 – Remove the backrest cover from front seat-backrest



- Loosen all clamp on the trim wires (1).
- Remove the backrest cover (2) from the upholstery.
- Completely remove clamps from the backrest cover (2) and the cushion.

MAIN WORK

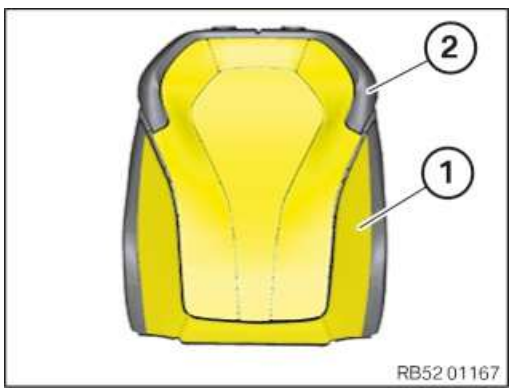
10 – Renewing the cushion for the front seat backrest

TECHNICAL INFORMATION

The heating element is bonded to the upholstery and it cannot be removed without destroying it.
When replaced, a new heating element must always be fitted with new upholstery.

NOTICE

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



- **Equipment specification with seat heating**

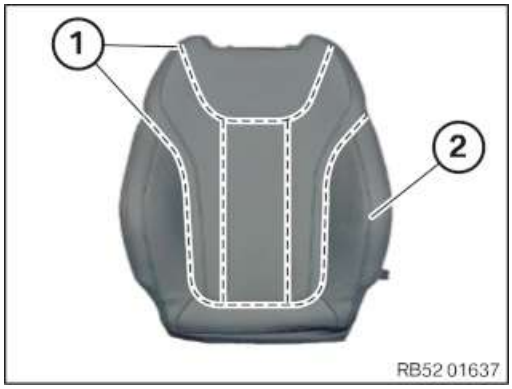
  Position and align the heating mat (1) on the upholstery (2).

  Bond the heating mat (1) with the upholstery (2).

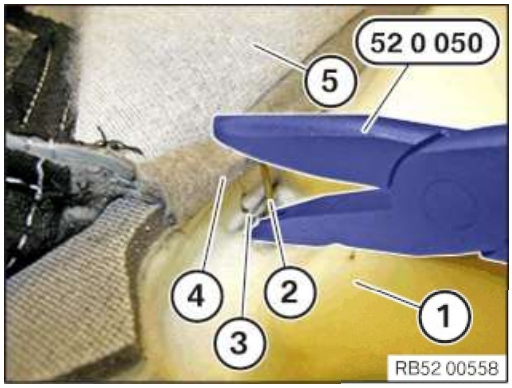
POSTPROCESSES

11 – Install the backrest cover of the front seat backrest

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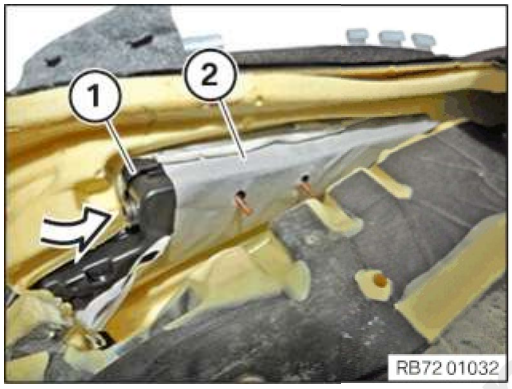
- Place the backrest cover (2) onto the upholstery.
- Secure all trim wires (1) with the clamps.



- Renew the clamps (2).

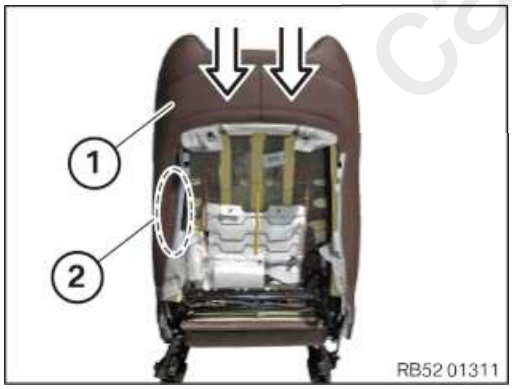
  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover (5) with the clamp (2) and bend the clamp (2) to close it.

12 – Install side airbag on front seat

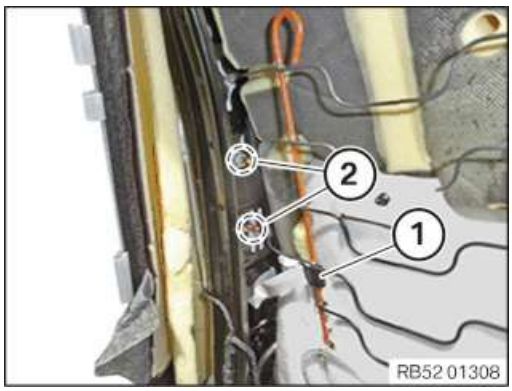


- Guide the side airbag (1) into the fabric pocket (2) on the backrest cover and position it.

13 – Install the backrest cover with the cushion for the front seat



- Guide in the backrest cover (1) complete with the side airbag in the direction of the arrow.
- Make sure that the stud bolts of the side airbag are correctly positioned in the area (2).



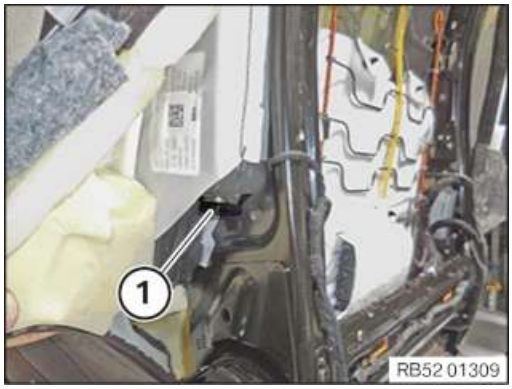
- Attach the holder (1).
- Renew nuts (2).

  Parts: Nuts
- Tighten nuts (2).

Airbag on backrest frame

Nut	Renew nut.	Tightening torque	6,5 Nm

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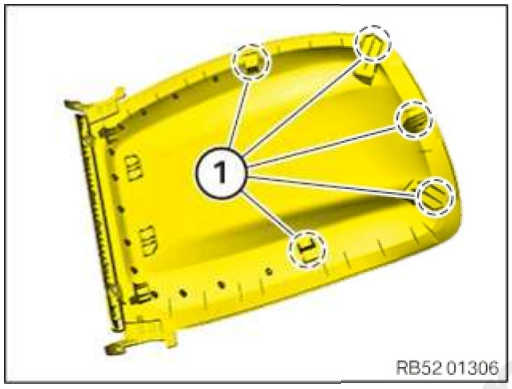


- Connect plug connection (1) and lock.

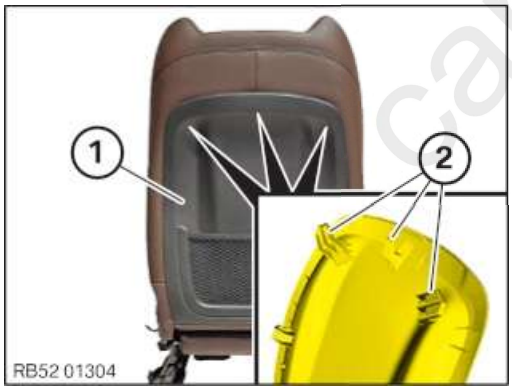


- Attach the backrest cover (1) in this area (2).
- Connect the plug connection (3) and clip in the existing cable clips.

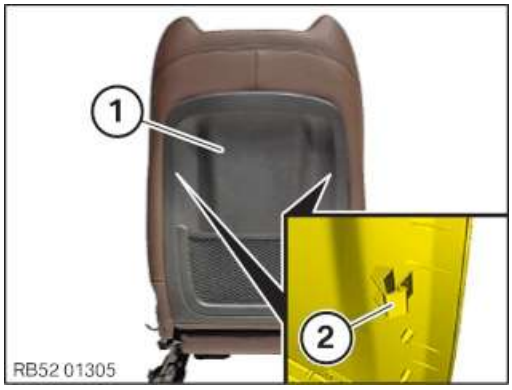
14 – Mount the rear panel on the front seat backrest



- Check the guides and clamps (1) for damage and renew the cover as needed.

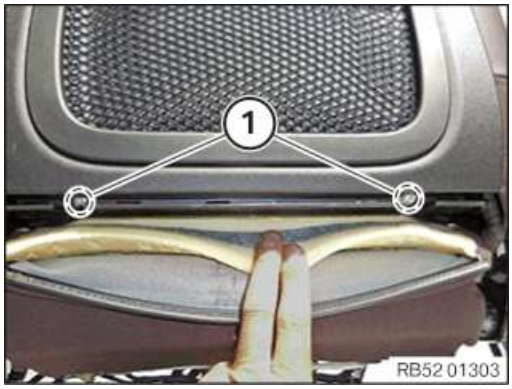


- Thread the rear panel (1) in at the clamps (2).



- Position the rear panel (1) and clip it in at the clamps (2).

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- Tighten down screw (1).

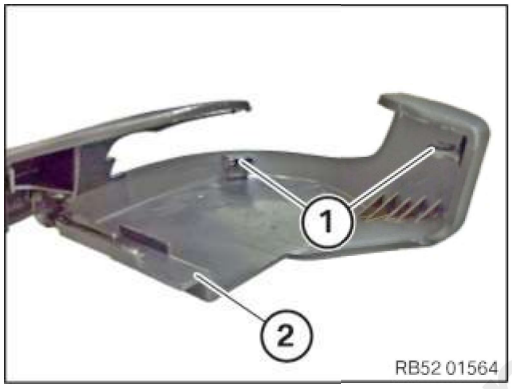
Rear panel to seat frame

Sheet metal screw	Tightening torque		3 Nm

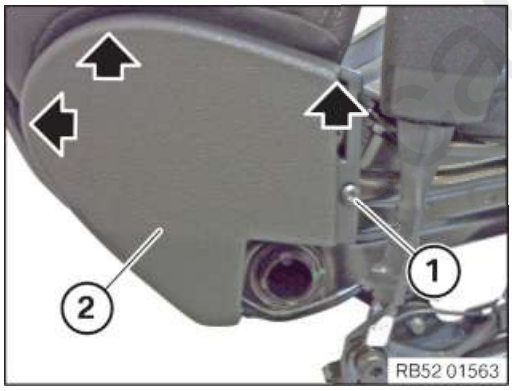


- Attach the edge stripping of the seat cover in this area (1).

15 – Installing the inner cover on the front seat



- Check the guides (1) of the cover (2) for damage and replace if necessary.

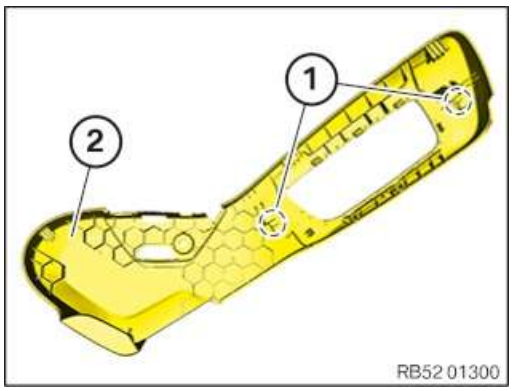


- Guide in the cover (2) on the arrows and position correctly.
- Tighten down screw (1).

Inner cover on seat frame

Screw		Tightening torque	2.5 Nm

16 – Install outer cover on front seat

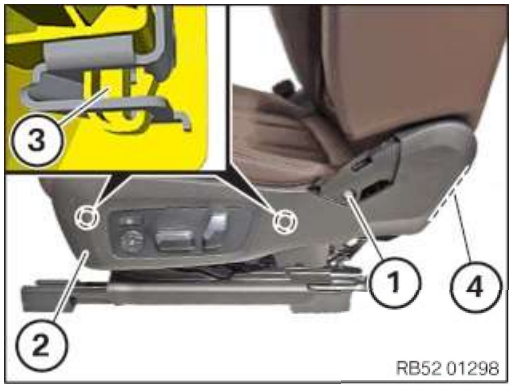


- Check the locking units (1) for damages, and replace the cover if necessary (2).

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- Connect the connector (1) and if necessary clip the cable holder in.



- Insert the cover (2) in the area (4) and position it.
- Engage the cover (2) at the latch mechanisms (3).
- Tighten down screw (1).

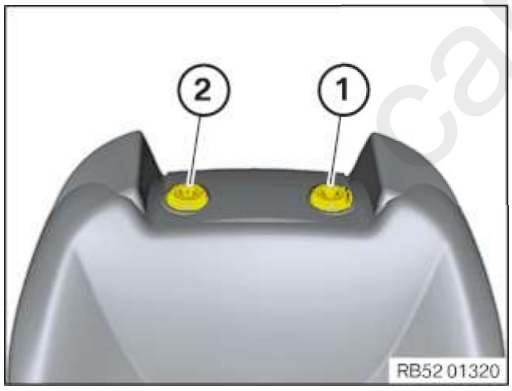
Seat trim to seat frame

Sheet metal screw		Tightening torque	2.5 Nm



- Clip in the cover (1).

17 – Install the guide sleeve for the front head restraint



- Pay attention to the installation position:

  Guide sleeve with the unlocking (1) in the direction of travel to the left.

  Guide sleeve without the unlocking (2) in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  The engaging of the guide sleeve (1) must be felt.

18 – Install the front head restraint

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- Guide the head restraint (1) into the guides (2).
- Continue to slide the head restraint (1) in until the lock (3) is securely engaged.

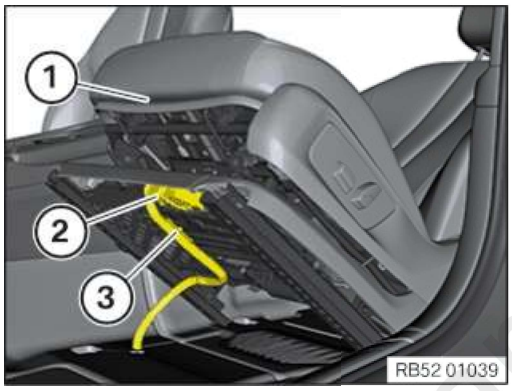
19 – Install front seat

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

Scratches.

Tools and sharp-edged components can cause scratches.

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

- Cover the door sill using protective covers.

RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

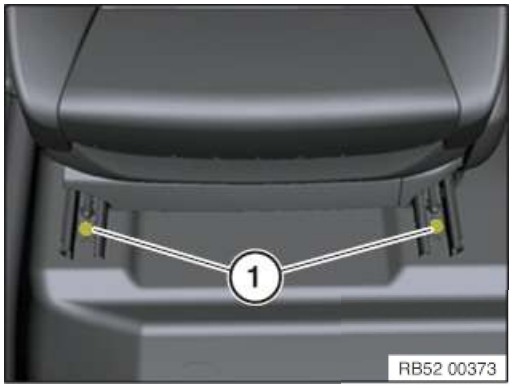
- Lift front seat (1) into the vehicle with the assistance of a second person.
- Place front seat (1) to the rear.
- Connect connector (2).
- Attach the cable clip (3).

► **Disconnecting all battery earth leads**

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- See additional information.

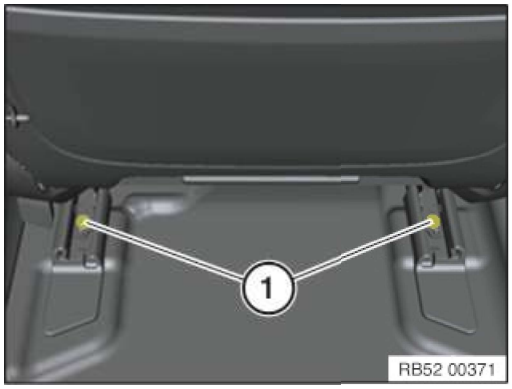


- Adjust the front seat to the rear.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm

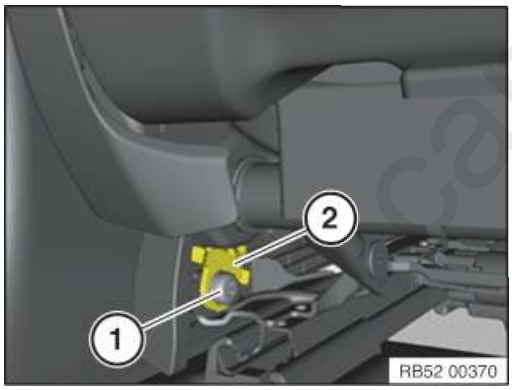


- Move front seat forwards.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Seat to body

M10	Renew screw.	Tightening torque	42 Nm



- Fully adjust the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

M10	Renew screw.	Tightening torque	42 Nm

Additional Information

Overview of Tightening Torques

Airbag on backrest frame Used in step 13

Nut	Renew nut.	Tightening torque	6,5 Nm

Rear panel to seat frame Used in step 14

Sheet metal screw	Tightening torque		3 Nm

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Inner cover on seat frame			Used in step 15
Screw		Tightening torque	2.5 Nm

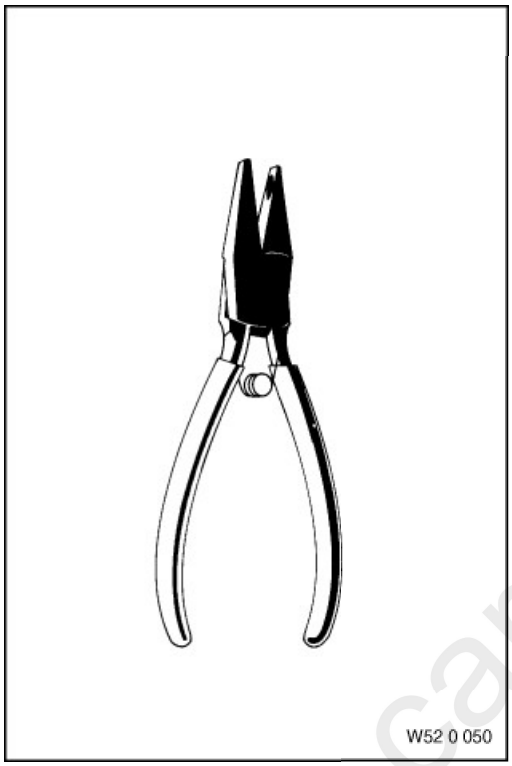
Seat trim to seat frame			Used in step 16
Sheet metal screw		Tightening torque	2.5 Nm

Seat to body			Used in step 19
M10	Renew screw.	Tightening torque	42 Nm

End fitting to seat mechanism			Used in step 19
M10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 492 668 (52 0 050) Pliers



Common		Used in step 11
Usage	For securing clamps on seat cover	
Included in the tool or work		
Storage location	C14	
Replaced by		
In connection with		
SI-Number	52 06 87 (808)	

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Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	119

Repair instructions	Used in step
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119

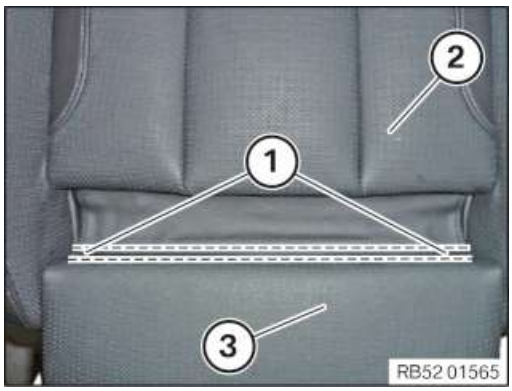
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119
61 20 900 Disconnect and connect battery earth lead (Plug-in Hybrid Electric Vehicle)	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	119
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61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119
61 20 900 Disconnecting and connecting battery earth lead	119

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52 17 409 Removing and installing / replacing thigh support cover on the left or right front seat

PRELIMINARY WORK

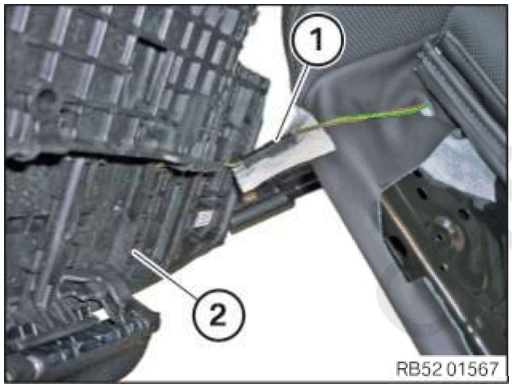
1 – Remove thigh support



- Move the thigh support (3) completely to the front.
- Unhook the piping (1) on the seat cover (2) from the thigh support (3).



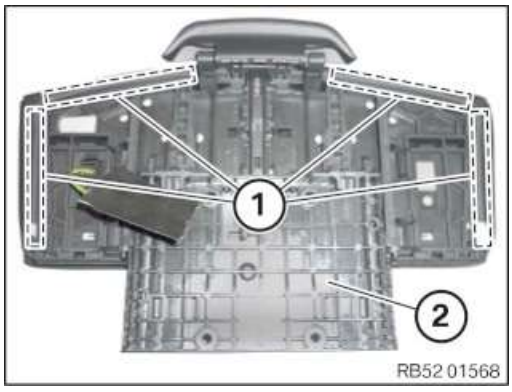
- Loosen screws (1).
- Feed the thigh support (2) out.



- Unlock plug connection (1) and disconnect.
- Remove thigh support (2).

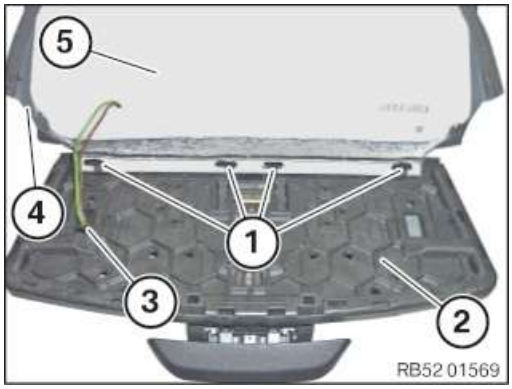
MAIN WORK

2 – Remove thigh support cover

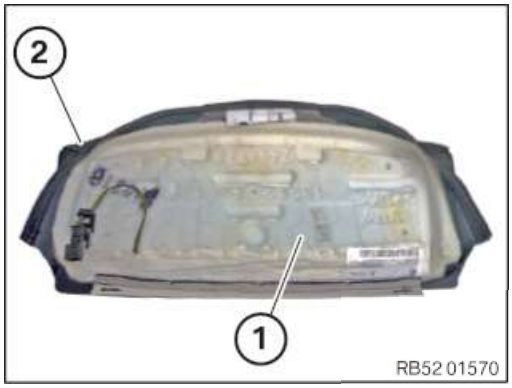


- Remove the welt (1) from the thigh support holder (2).

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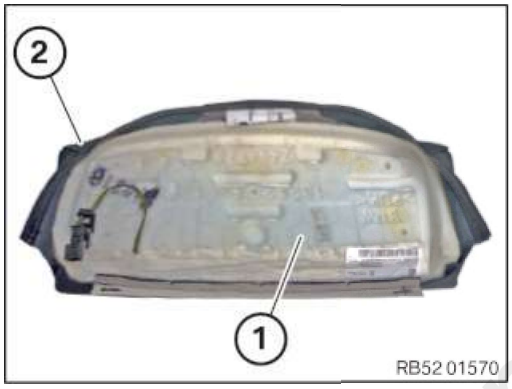


- Remove the thigh support holder (2) from the guides (1).
- Unclip the cable clip (3).
- Remove the thigh support cover (4) with cushion for the thigh support (5).

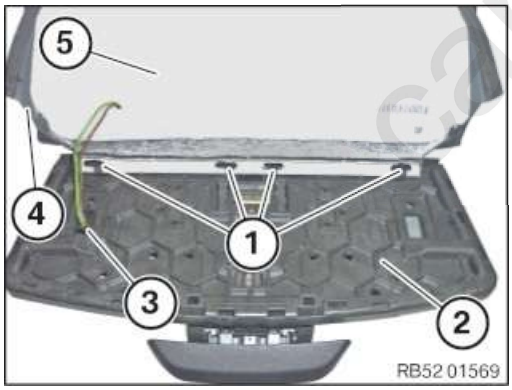


- Remove the cushion for the thigh support (1) from the thigh support cover (2).

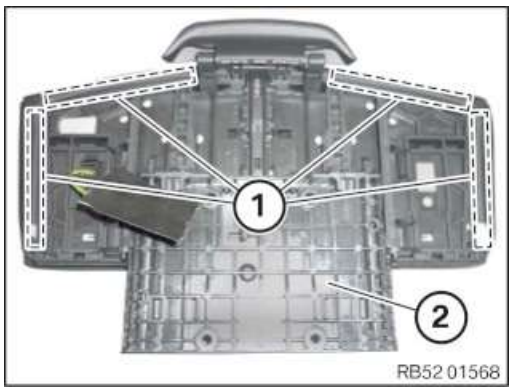
3 – Install thigh support cover



- Feed the cushion for the thigh support (1) into the thigh support cover (2).



- Position the thigh support cover (4) with cushion for the thigh support (5).
- Fit the thigh support holder (2) on the guides (1).
- Clip in the cable clip (3).
- Correctly position the thigh support cover (4) with cushion (5).



- Hang the welt (1) from the thigh support holder (2).

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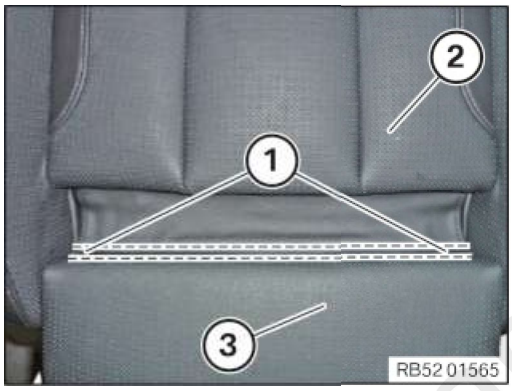
4 – Install thigh support



- Position the thigh support (2).
- Connect connectors (1) and lock.



- Guide in the thigh support (2) and position correctly.
- Tighten the screws (1).



- Attach the edge stripping (1) of the seat cover (2) on the thigh support (3).

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52 24 010 Remove and install or replace the rear seat backrest

PRELIMINARY WORK

1 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.



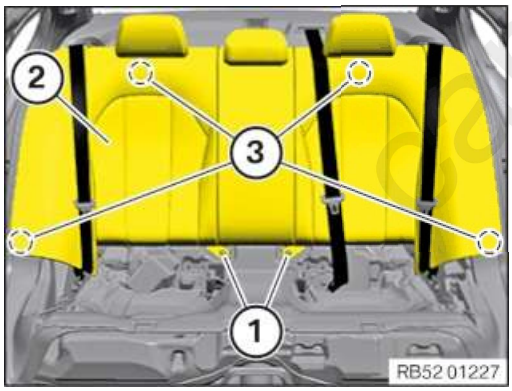
- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

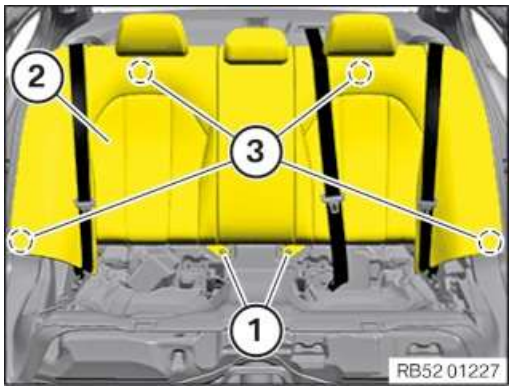
MAIN WORK

2 – Remove rear seat backrest



- Loosen screws (1).
- Detach the rear seat backrest (2) upwards out of the guides (3).
- Guide the rear seat backrest (2) out of the seat belts and remove it.

3 – Remove rear seat backrest



- Guide the rear seat backrest (2) into the seat belts and position it.
- Attach the rear seat backrest (2) in the guides (3) from the top.
- Renew screws (1).

  Parts: Bolts

- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

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4 – Installing rear seat bench



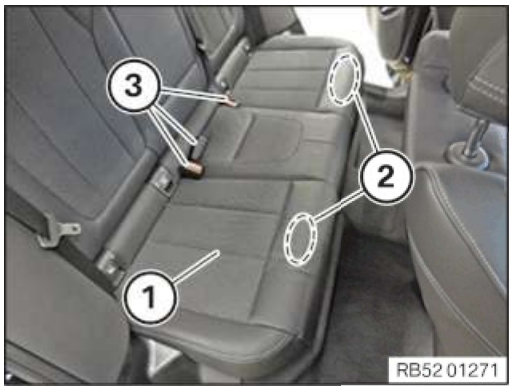
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

Additional Information

Overview of Tightening Torques

Rear seat backrest on body — Used in step 3

Screw	Renew screw.	Tightening torque	42 Nm

Rear upper seat belt to bottom body — Used in step 4

Screw	Renew screw.	Tightening torque	42 Nm

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52 26 005 Removing and installing / replacing rear seat

1 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.



- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

2 – Installing rear seat bench



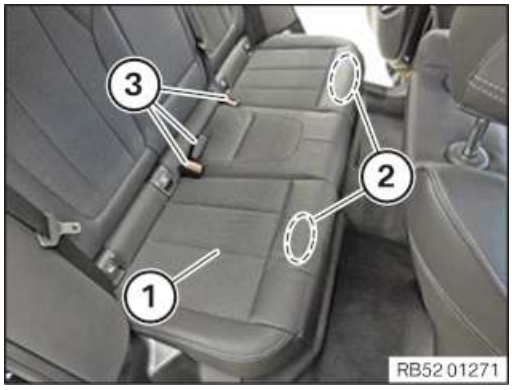
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

Additional Information

Overview of Tightening Torques

carldiagn.com

Rear upper seat belt to bottom body Used in step 2

Screw	Renew screw.	Tightening torque	42 Nm

cardiagn.com

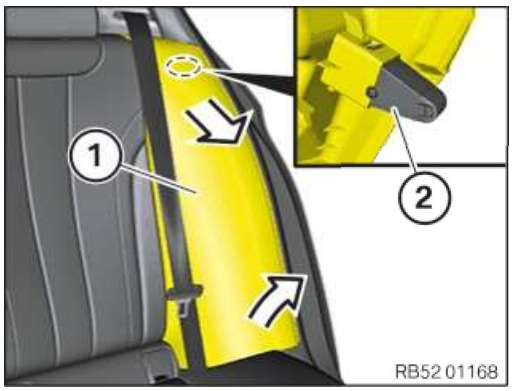
52 26 012 Removing and installing / replacing the right rear seat backrest

PRELIMINARY WORK

1 – Remove right backrest side section

NOTICE

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



▸ **Remove armrest side section**

- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

MAIN WORK

2 – Remove the right rear seat backrest



- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

3 – Install the rear seat backrest



- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

	Renew screw.	Tightening torque	42 Nm

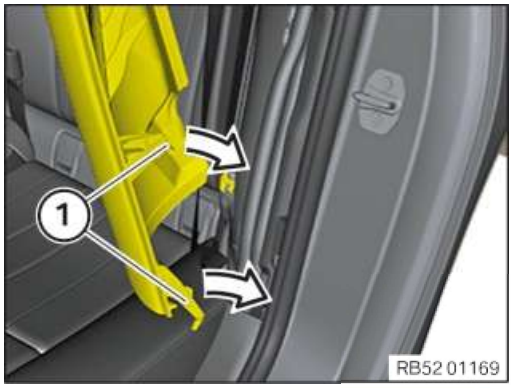
strugn.com

4 – Install right backrest side section

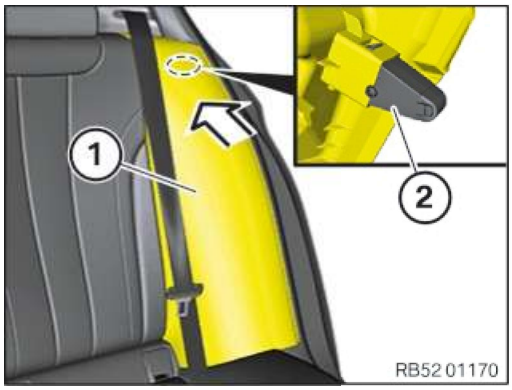
NOTICE

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

▶ **Install backrest side section**



- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

Additional Information

Overview of Tightening Torques

Rear seat backrest on body Used in step 3

	Renew screw.	Tightening torque	42 Nm

cardiagn.com

52 26 081 Removing and installing/replacing backrest frame for centre rear seat

PRELIMINARY WORK

1 – Removing the luggage compartment floor trim panel



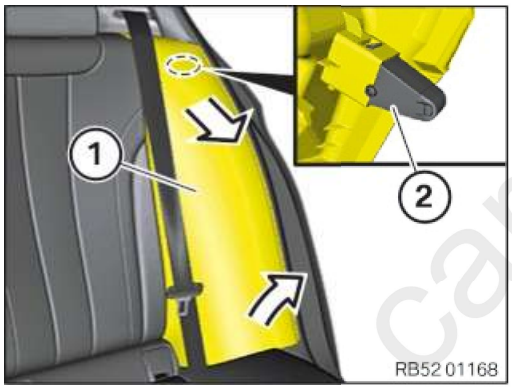
- Remove luggage compartment floor trim panel (1).

2 – Remove backrest side section on left and right

NOTICE

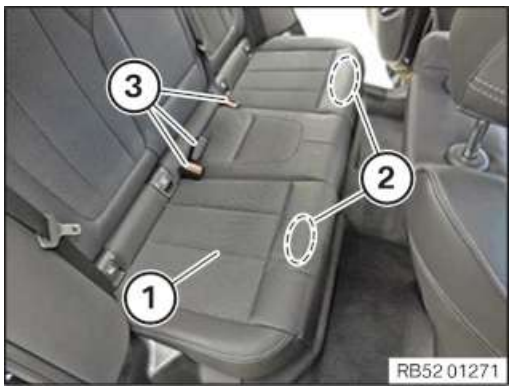
Description is for left component only. Procedure on the right side is identical.

▸ **Remove armrest side section**



- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

3 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.

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- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

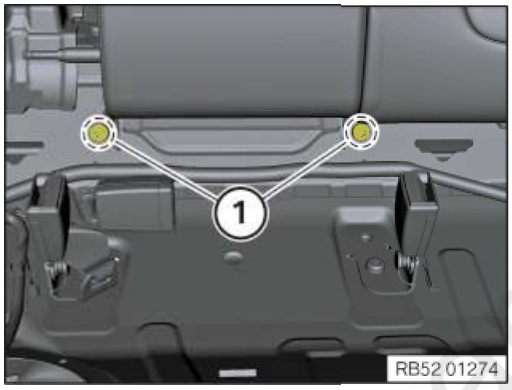
- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

4 – Remove the right rear seat backrest

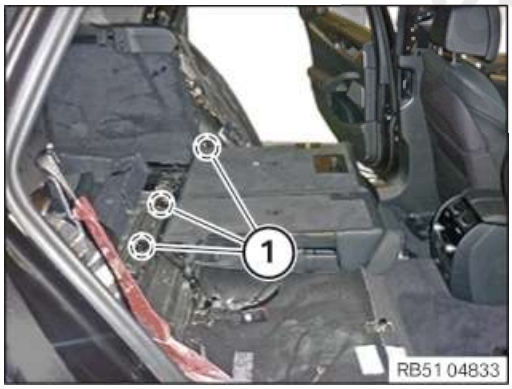


- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

5 – Remove rear seat backrest, left



- Loosen screws (1).



- Release screws (1) and remove the rear seat backrest from the vehicle.

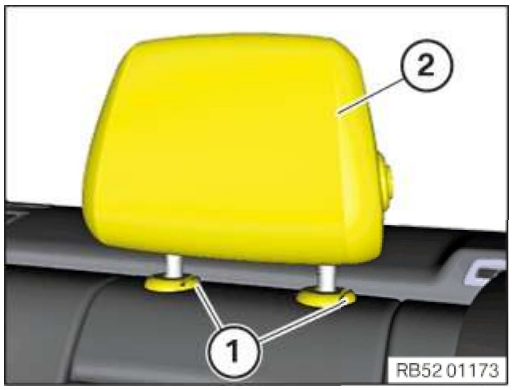
6 – Remove the centre rear seat backrest

mydiagn.com



- Rotate the centre rear seat backrest (1) forward by 90° and remove it in the direction of the arrow.

7 – Removing the rear middle head restraint



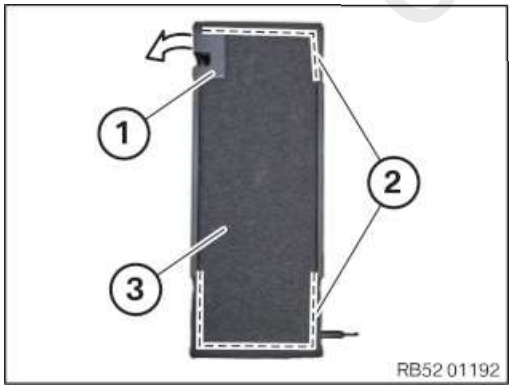
- Press the locks (1) and remove the head restraint (2) towards the top.

8 – Remove rear centre armrest



- Fold the centre rear seat down.
- Loosen screws (1) and (2).
- Fold the centre rear seat up and remove the centre armrest.

9 – Remove rear panel on the centre rear seat backrest



- Unclip the trim (1).
- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (2).
- Remove the rear panel (3).

MAIN WORK

10 – Remove the backrest frame for the centre rear seat backrest

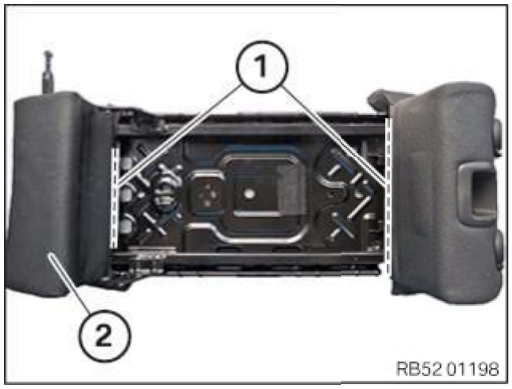
cardiagn.com



- Unclip the trim (1) from the backrest frame.



- Remove the trim (1) in the direction of the arrow.

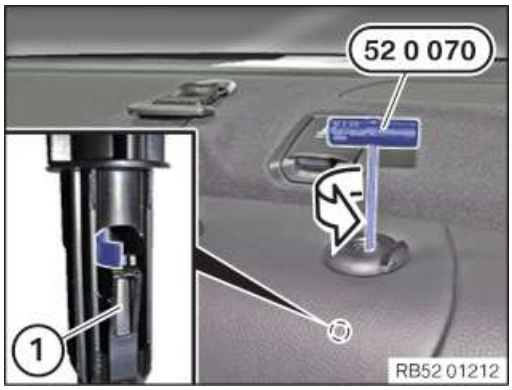


- Detach the seat cover in the marked area (1).
- Feed the cushion (2) out and remove.

▸ **Remove the guide sleeve for the rear head restraint**

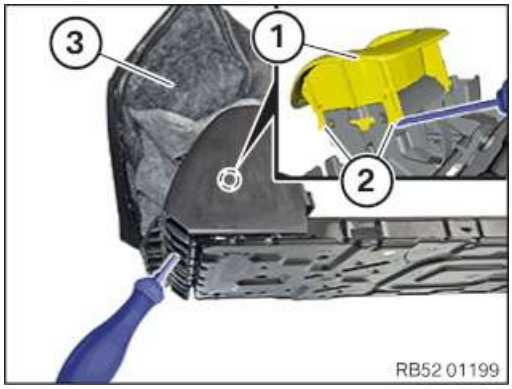
NOTICE

The description is for one component only. The procedure is identical for all further components.



- Push the latch mechanism (1) inward with the special tool .
- Remove the guide sleeve towards the top.

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- Unclip the trim (1) from the bottom on the left and right retaining lugs (2).
- Remove the trim (1) and the seat cover (3).

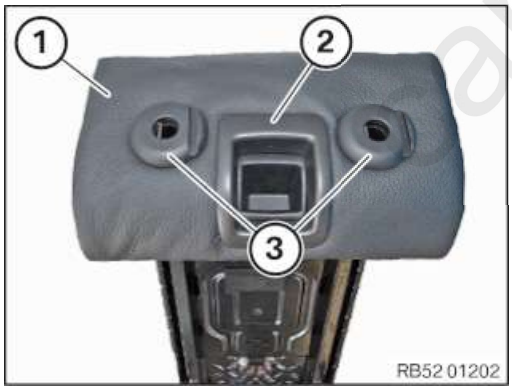


- Loosen screws (1).
- Remove the insert (2).

11 – Install the backrest frame for the centre rear seat backrest

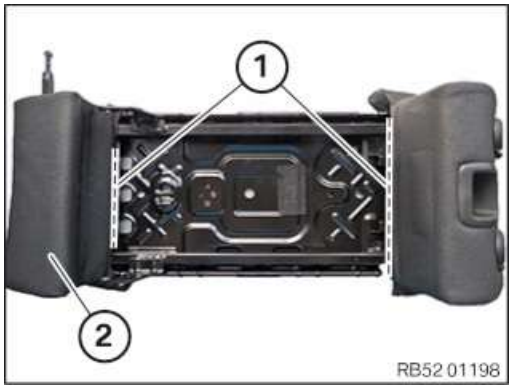


- Position the insert (2).
- Tighten the screws (1).



- Position the seat cover (1).
- Clip in the trim (2) and the guide sleeves (3).

  The locks of the guide sleeves point in the direction of travel to the left.



- Insert the cushion (2).
- Attach the seat cover in the marked area (1).

ar-diagn.com



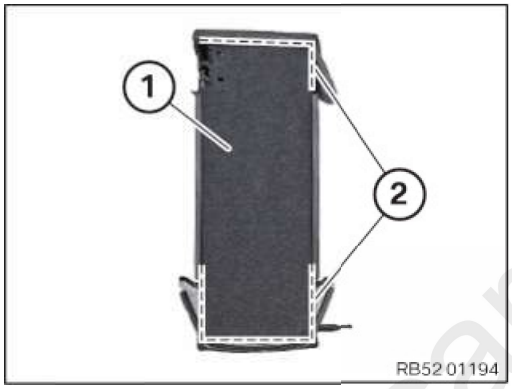
- Clip in the trim (1).



- Check the trim (1) for correct fit on the backrest frame.

POSTPROCESSES

12 – Install the rear panel on the rear seat backrest in the centre



- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).



- Clip in the trim (1).

13 – Install the rear centre armrest

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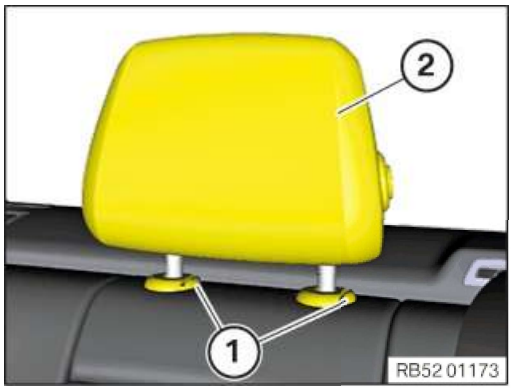


- Position the centre armrest.
- Tighten down screws (1) and (2).

Rear centre armrest to backrest frame

			8 Nm

14 – Installing the head restraint at the rear centre



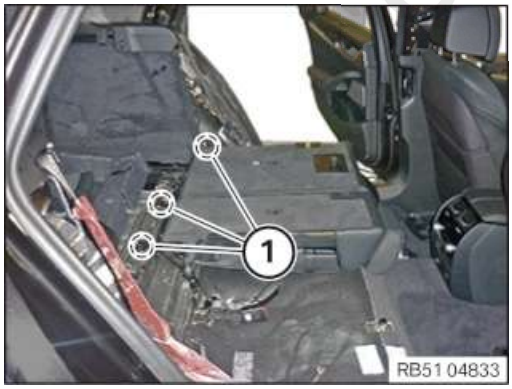
- Install the head restraint (2) from the top.
- Make sure the head restraint (2) is correctly fitted at the locks (1).

15 – Install the centre rear seat backrest



- Check the centre mount (2) is fitted correctly.
- Install the centre rear seat backrest (1) in the direction of the arrow and turn by 90°.

16 – Install the left rear seat backrest



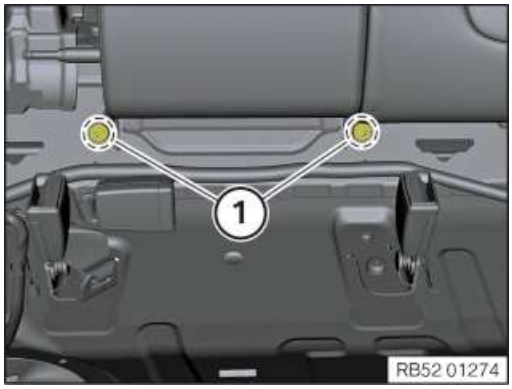
- Position the rear seat backrest in the vehicle.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

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- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

17 – Install the rear seat backrest



- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

	Renew screw.	Tightening torque	42 Nm

18 – Installing rear seat bench



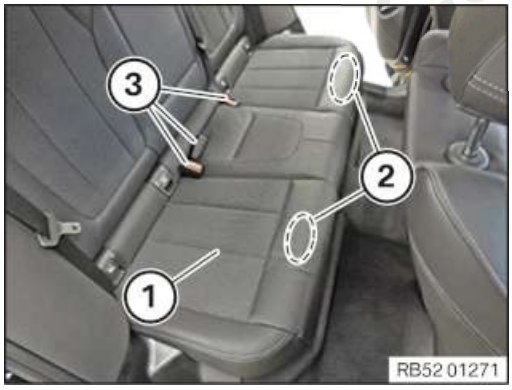
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



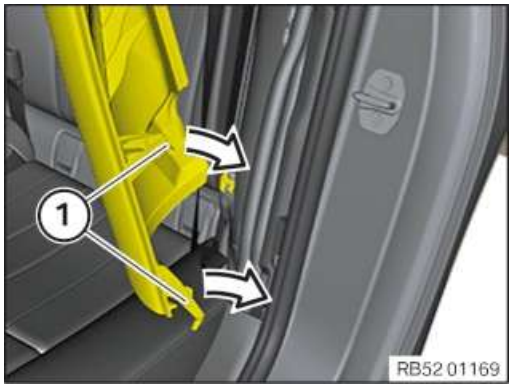
- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

19 – Install the backrest side section on the left and right

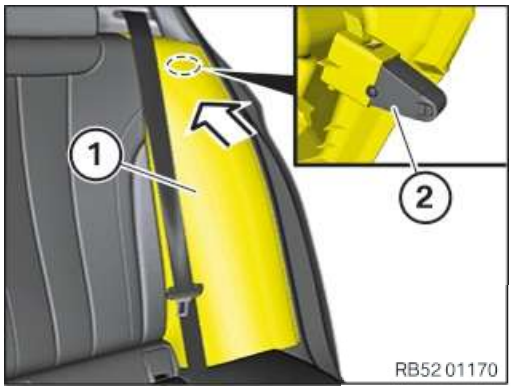
NOTICE

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

▸ **Install backrest side section**

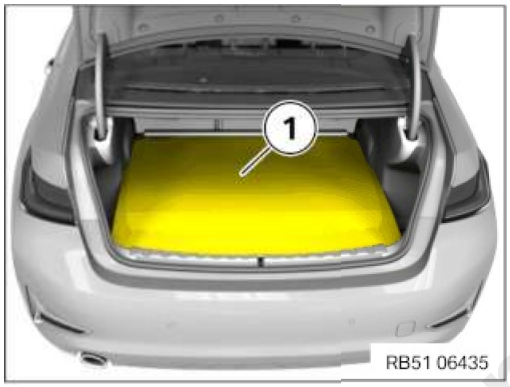


- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

20 – Installing the luggage compartment floor trim panel



- Insert the luggage compartment floor trim panel (1).

Additional Information

Overview of Tightening Torques

Rear centre armrest to backrest frame			Used in step 13
			8 Nm

Rear seat backrest on body			Used in step 16
Screw	Renew screw.	Tightening torque	42 Nm

Rear seat backrest on body			Used in step 17
	Renew screw.	Tightening torque	42 Nm

Rear upper seat belt to bottom body			Used in step 18
Screw	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

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0 496 569 (00 9 325) Wedge



Common Used in step 912

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

cardiagn.com

52 26 080 Removing and installing/replacing backrest frame for left rear seat

PRELIMINARY WORK

1 – Removing the luggage compartment floor trim panel



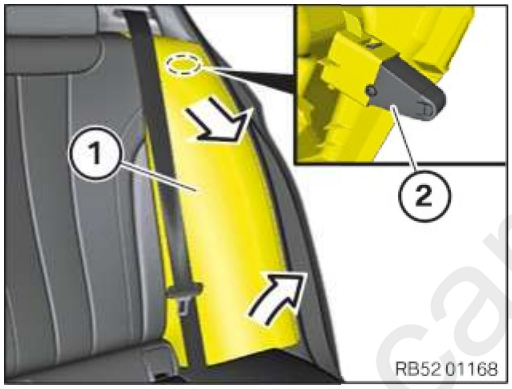
- Remove luggage compartment floor trim panel (1).

2 – Remove backrest side section on left and right

NOTICE

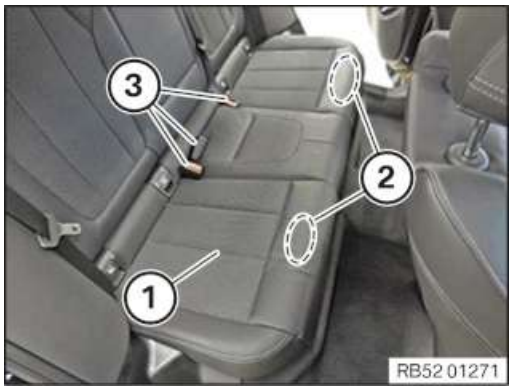
Description is for left component only. Procedure on the right side is identical.

▶ **Remove armrest side section**



- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

3 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.

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- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

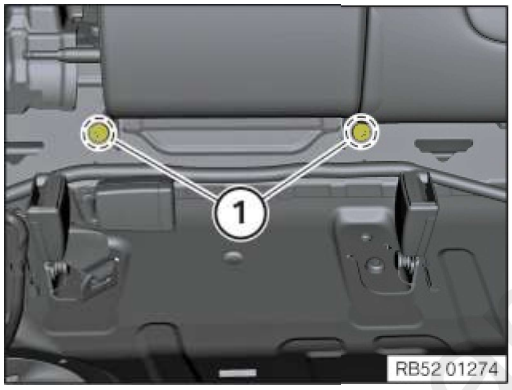
- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

4 – Remove the right rear seat backrest

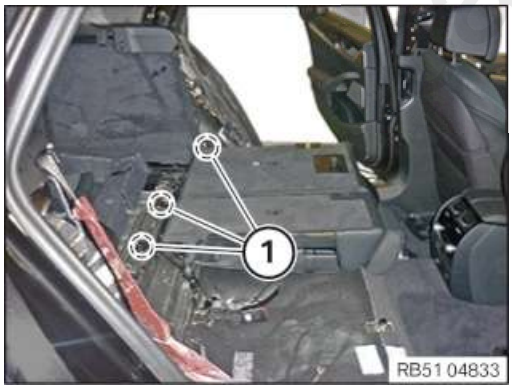


- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

5 – Remove rear seat backrest, left



- Loosen screws (1).



- Release screws (1) and remove the rear seat backrest from the vehicle.

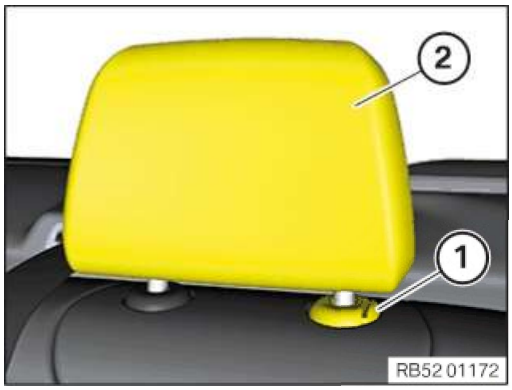
6 – Remove the centre rear seat backrest

mydiagn.com



- Rotate the centre rear seat backrest (1) forward by 90° and remove it in the direction of the arrow.

7 – Remove the rear head restraint on the side

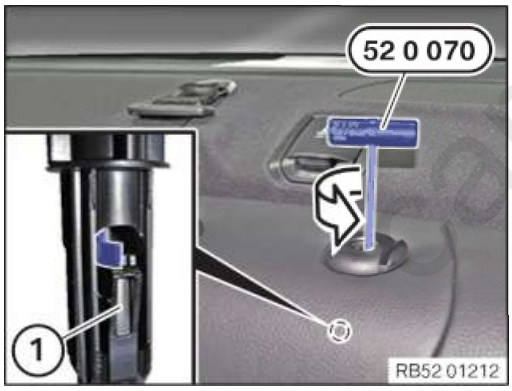


- Press the lock (1) and remove the head restraint (2) towards the top.

8 – Remove the guide sleeve for the rear head restraint

NOTICE

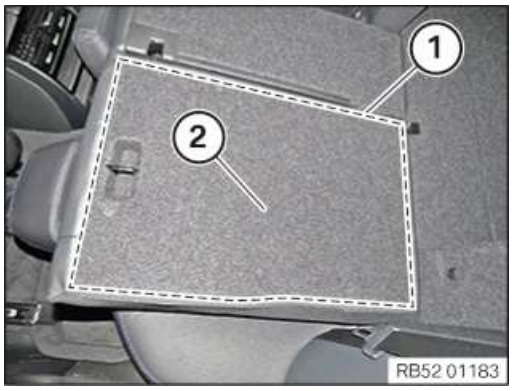
The description is for one component only. The procedure is identical for all further components.



- Push the latch mechanism (1) inward with the special tool .
- Remove the guide sleeve towards the top.

9 – Remove the rear panel on the left rear seat backrest

▶ **Remove the rear panel from the rear seat backrest**



- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (1).
- Remove the rear panel (2).

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MAIN WORK

10 – Remove the backrest frame for the left rear seat backrest

▶ **Remove the backrest frame for the rear seat backrest**



- Loosen screw (1).
- Remove the outer mount (2).



- Feed out and remove the backrest frame (1).

11 – Install the backrest frame for the rear seat backrest on the left

▶ **Install the backrest frame for the rear seat backrest**



- Insert and position the backrest frame (1).



- Position the outer mount (2).
- Tighten down screw (1).

Outer mount to backrest frame

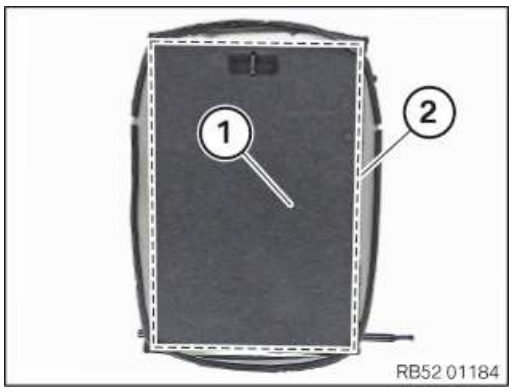
Screw		Tightening torque	36 Nm

POSTPROCESSES

12 – Install the rear panel on the left rear seat backrest

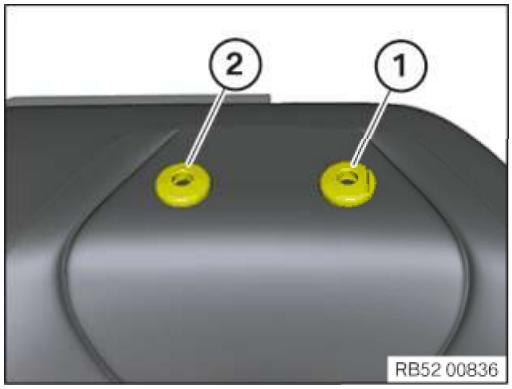
cardiagn.com

▶ **Install the rear panel on the rear seat backrest**



- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).

13 – Install the guide sleeve for the rear head restraint



- Pay attention to installation position.

  The guide sleeve with unlocking (1) must be toward the left in the direction of travel.

  The guide sleeve without the unlocking (2) must be in the direction of travel to the right.



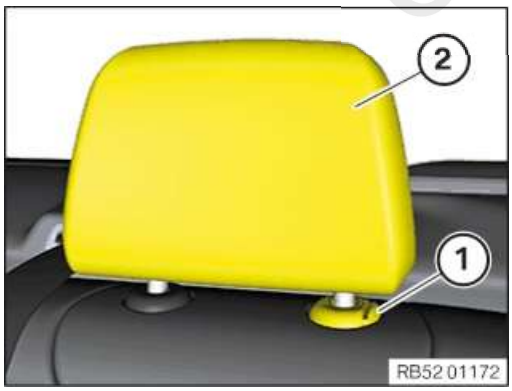
NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  You have to feel the guide sleeve (1) engage.

14 – Install the head restraint at rear side



- Insert the head restraint (2) from the top.
- Check for correct fit of the head restraint (2) on the lock (1).

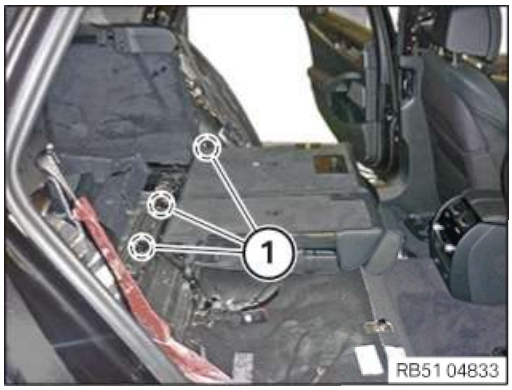
15 – Install the centre rear seat backrest

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- Check the centre mount (2) is fitted correctly.
- Install the centre rear seat backrest (1) in the direction of the arrow and turn by 90°.

16 – Install the left rear seat backrest

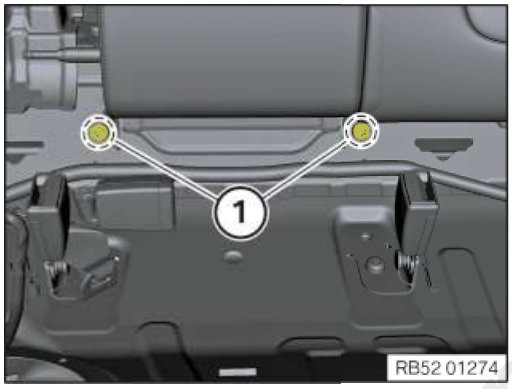


- Position the rear seat backrest in the vehicle.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm



- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

17 – Install the rear seat backrest



- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

	Renew screw.	Tightening torque	42 Nm

18 – Installing rear seat bench

eldiagr.com



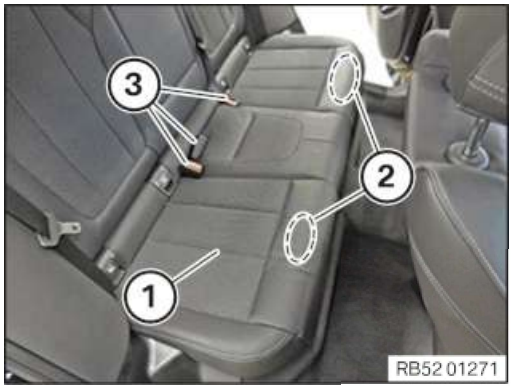
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



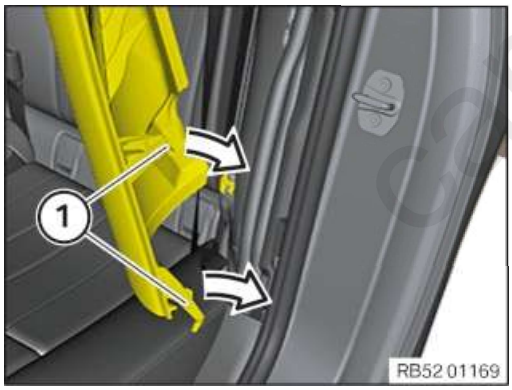
- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

19 – Install the backrest side section on the left and right

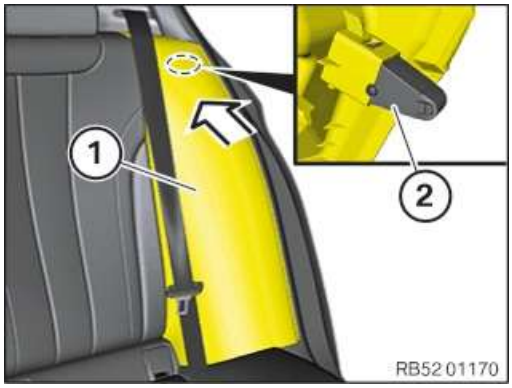
NOTICE

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

▸ **Install backrest side section**



- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

20 – Installing the luggage compartment floor trim panel

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- Insert the luggage compartment floor trim panel (1).

Additional Information

Overview of Tightening Torques

Outer mount to backrest frame			Used in step 11
Screw		Tightening torque	36 Nm

Rear seat backrest on body			Used in step 16
Screw	Renew screw.	Tightening torque	42 Nm

Rear seat backrest on body			Used in step 17
	Renew screw.	Tightening torque	42 Nm

Rear upper seat belt to bottom body			Used in step 18
Screw	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 496 569 (00 9 325) Wedge



Common	Used in step 912
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

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52 26 085 Removing and installing/replacing backrest frame for right rear seat

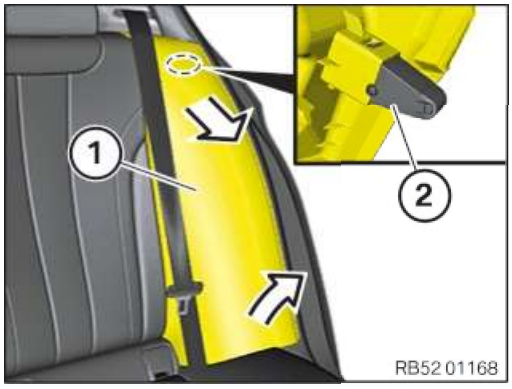
PRELIMINARY WORK

1 – Remove right backrest side section

NOTICE

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

▶ **Remove armrest side section**



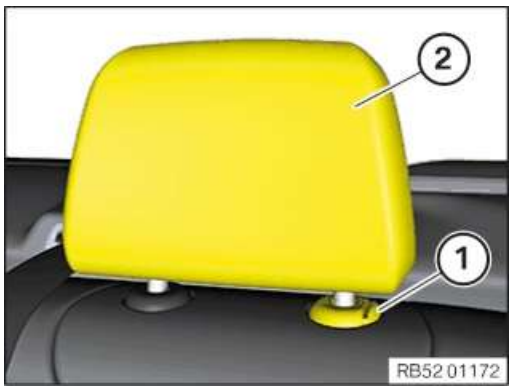
- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

2 – Remove the right rear seat backrest



- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

3 – Remove the rear head restraint on the side



- Press the lock (1) and remove the head restraint (2) towards the top.

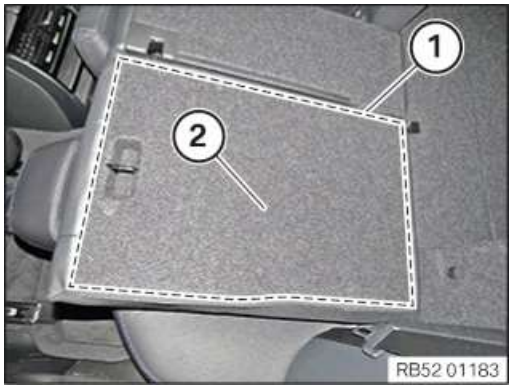
4 – Remove the rear panel from the right rear seat backrest

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NOTICE

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

▸ **Remove the rear panel from the rear seat backrest**

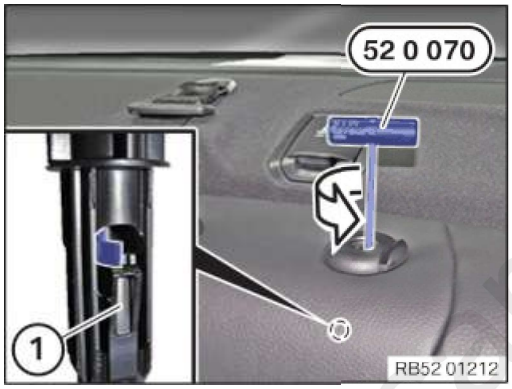


- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (1).
- Remove the rear panel (2).

5 – Remove the guide sleeve for the rear head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.



- Push the latch mechanism (1) inward with the special tool .
- Remove the guide sleeve towards the top.

MAIN WORK

6 – Remove the backrest frame for the right rear seat backrest

NOTICE

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

▸ **Remove the backrest frame for the rear seat backrest**

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- Loosen screw (1).
- Remove the outer mount (2).



- Feed out and remove the backrest frame (1).

7 – Install the backrest frame for the right rear seat backrest

NOTICE

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

▸ **Install the backrest frame for the rear seat backrest**



- Insert and position the backrest frame (1).



- Position the outer mount (2).
- Tighten down screw (1).

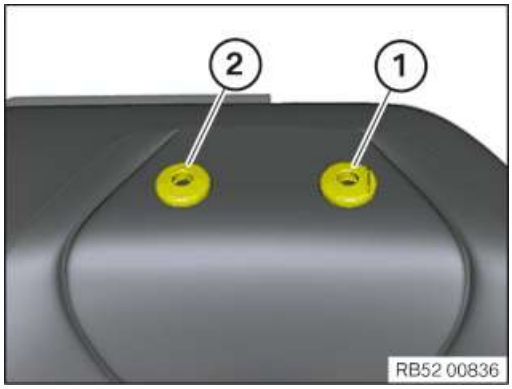
Outer mount to backrest frame

Screw		Tightening torque	36 Nm

POSTPROCESSES

8 – Install the guide sleeve for the rear head restraint

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- Pay attention to installation position.

  The guide sleeve with unlocking (1) must be toward the left in the direction of travel.

  The guide sleeve without the unlocking (2) must be in the direction of travel to the right.



NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  You have to feel the guide sleeve (1) engage.

9 – Install the rear panel on the rear seat backrest on the right

NOTICE

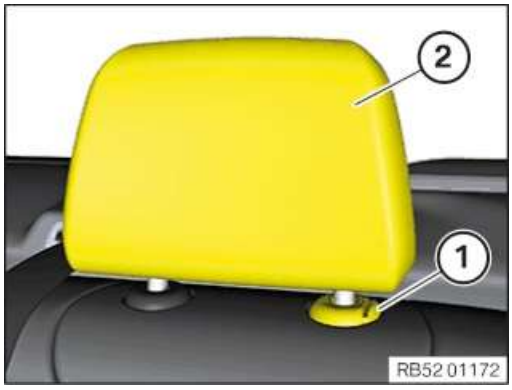
Description is for left component only. Procedure on the right side is identical.

▶ **Install the rear panel on the rear seat backrest**



- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).

10 – Install the head restraint at rear side



- Insert the head restraint (2) from the top.
- Check for correct fit of the head restraint (2) on the lock (1).

11 – Install the rear seat backrest



- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

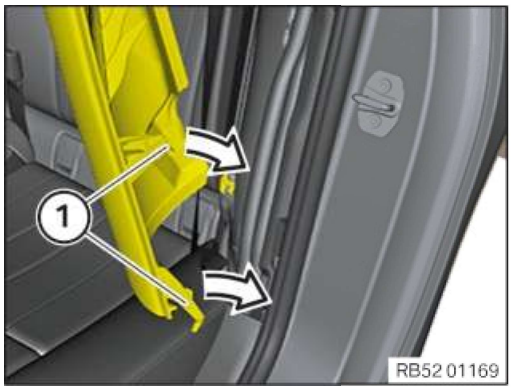
	Renew screw.	Tightening torque	42 Nm

12 – Install right backrest side section

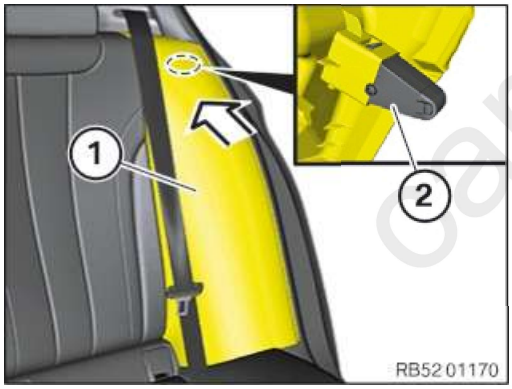
NOTICE

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

▸ **Install backrest side section**



- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

Additional Information

Overview of Tightening Torques

Outer mount to backrest frame Used in step 7

Screw		Tightening torque	36 Nm

Rear seat backrest on body Used in step 11

	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

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0 496 569 (00 9 325) Wedge



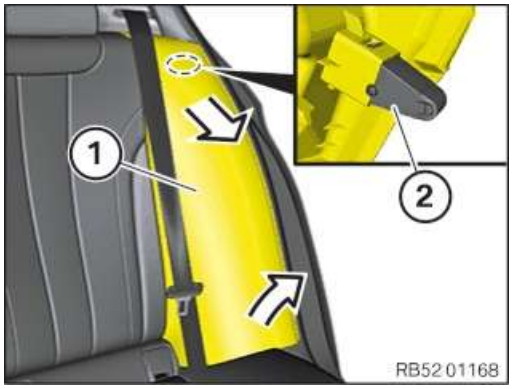
Common Used in step 49

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

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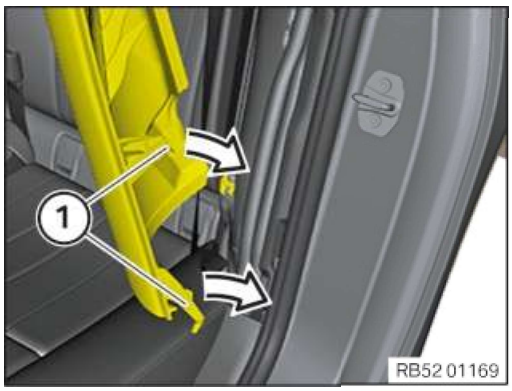
52 26 008 Removing and installing/replacing backrest side section on left or right rear seat backrest

1 – Remove armrest side section

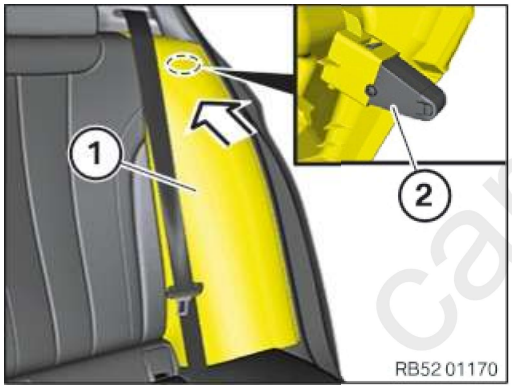


- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

2 – Install backrest side section



- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

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52 26 030 Removing and installing/replacing centre armrest

1 – Remove rear centre armrest



- Fold the centre rear seat down.
- Loosen screws (1) and (2).
- Fold the centre rear seat up and remove the centre armrest.

2 – Install the rear centre armrest



- Position the centre armrest.
- Tighten down screws (1) and (2).

Rear centre armrest to backrest frame

			8 Nm

Additional Information

Overview of Tightening Torques

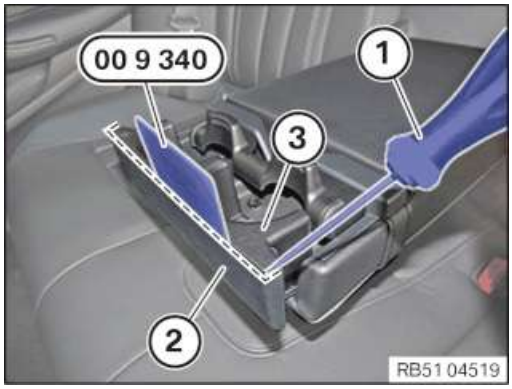
Rear centre armrest to backrest frame Used in step 2

			8 Nm

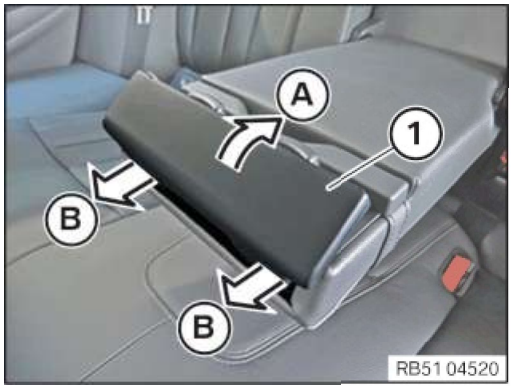
cardiagn.com

52 26 032 Removing and installing/replacing drinks holder in armrest for rear seat backrest

1 – Remove cupholder



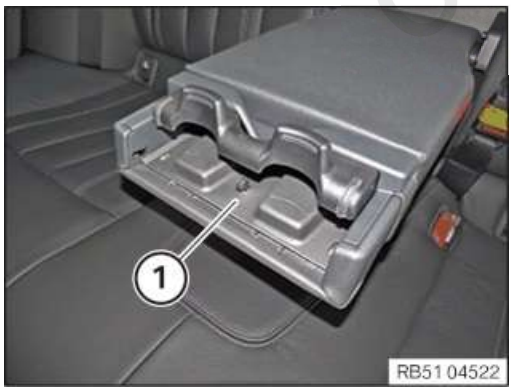
- Insert the screwdriver (1) on the side between the lid (2) and the insert (3).
- Raise the insert (3) slightly with the screwdriver (1).
- Insert the special tool 0 493 687 (00 9 340) in front and detach the insert (3) from the latch mechanisms toward the top.
- Remove the insert (3) completely.



- First, fold the lid (1) toward the back (A) and then remove it toward the front (B).

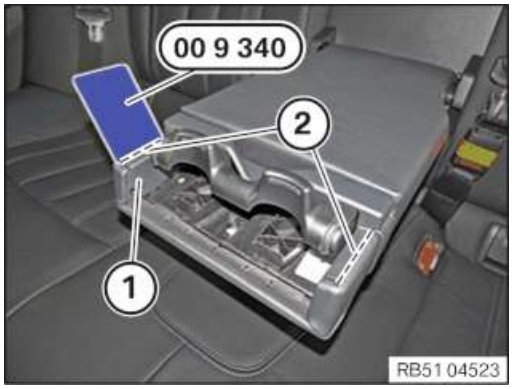


- Remove the hinges (1) inward.



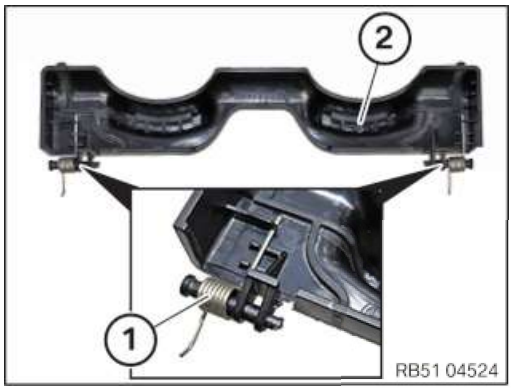
- Guide out the rubber mat (1).

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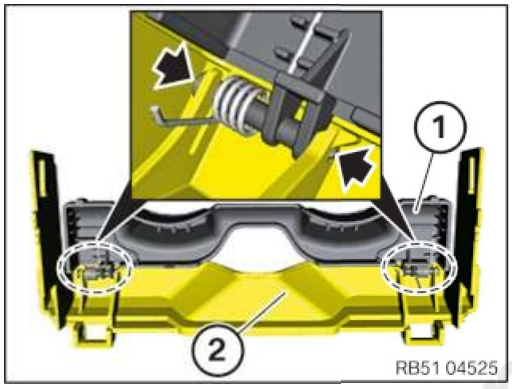


- Unclip the frame (1) with the special tool 0 493 687 (00 9 340) in the area (2) toward the top.
- Feed the frame (1) out toward the front.

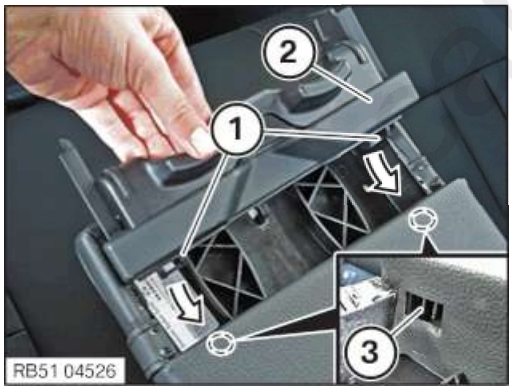
2 – Install the cup holder



- Insert the springs (1) on the left and right in the front section (2).
- Make sure the springs (1) are positioned correctly.



- Clip in the front section (1) in the frame (2).



- Insert the guides (1) of the frame (2) in the associated mountings (3).



- Clip in the frame (1) in the marked area completely in the centre armrest.

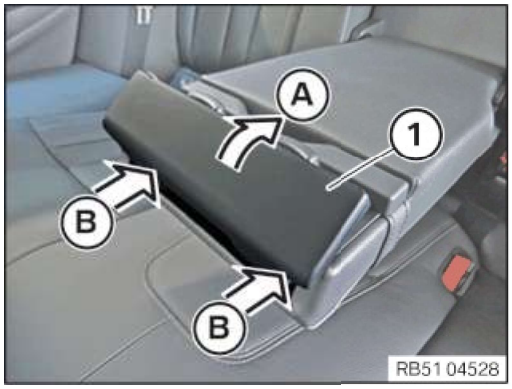
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- Insert the rubber mat (1).



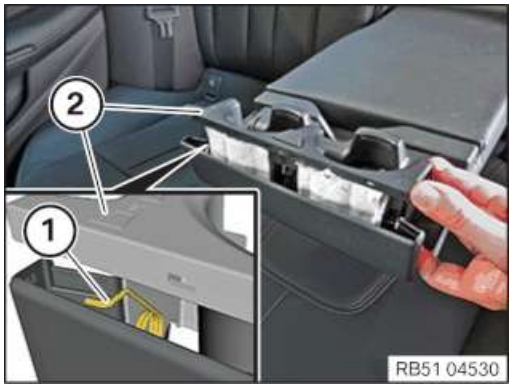
- Insert the right hinge (1) with the associated spring.
- Insert the left hinge (1) without spring.



- Insert the lid (1) folded back (A) in the hinge (B).

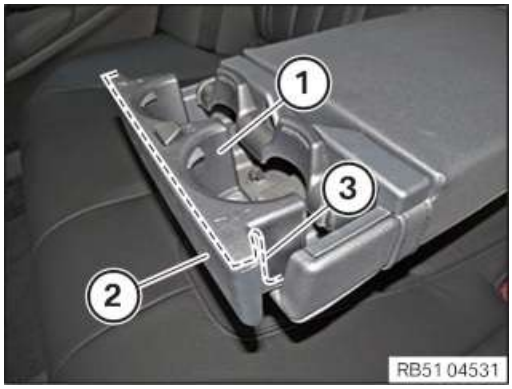


- Open the lid (1) and check for correct fit at the hinges (2).



- Fold the spring (1) forward and guide in the insert (2) from the top.
- Ensure that the spring (1) is threaded under the insert (2).

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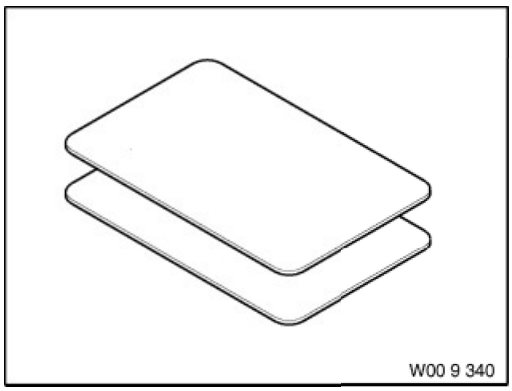


- Clip the insert (1) completely into the lid (2).
- Make sure the latch mechanism and gap in the area (3) are correct.

Additional Information

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



Common		Used in step 1
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.	
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).	

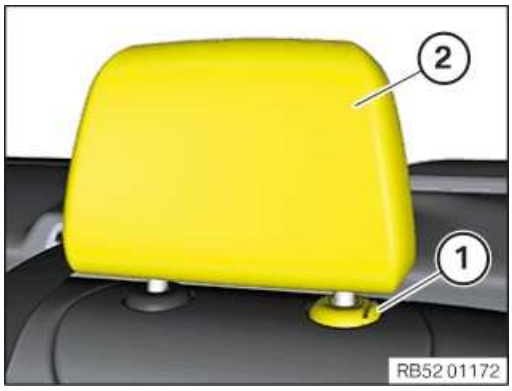
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52 26 210 Removing and installing/replacing headrest for left or right rear seat

Prerequisite

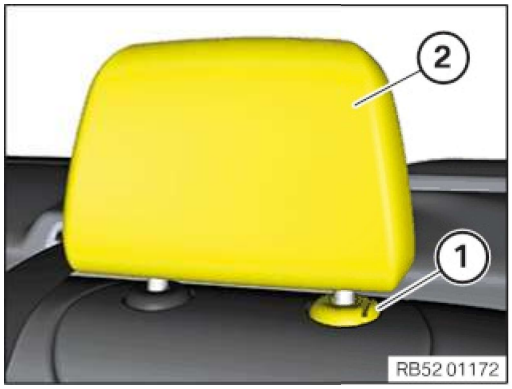
- Rear seat backrest is folded down.

1 – Remove the rear head restraint on the side



- Press the lock (1) and remove the head restraint (2) towards the top.

2 – Install the head restraint at rear side



- Insert the head restraint (2) from the top.
- Check for correct fit of the head restraint (2) on the lock (1).

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52 26 011 Removing and installing/replacing left rear seat backrest

PRELIMINARY WORK

1 – Removing the luggage compartment floor trim panel



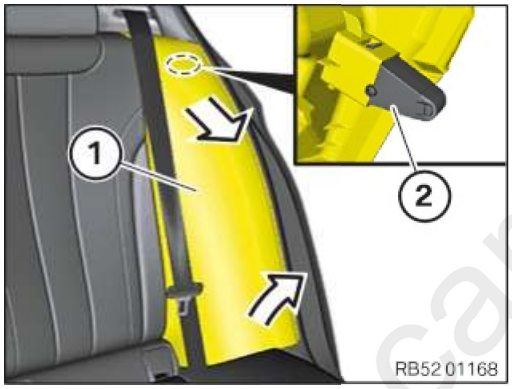
- Remove luggage compartment floor trim panel (1).

2 – Remove backrest side section on left and right

NOTICE

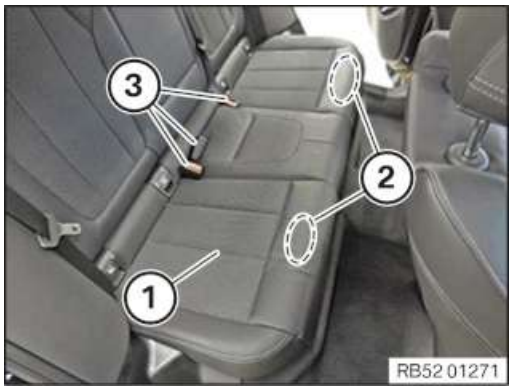
Description is for left component only. Procedure on the right side is identical.

▶ **Remove armrest side section**



- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

3 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.

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- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

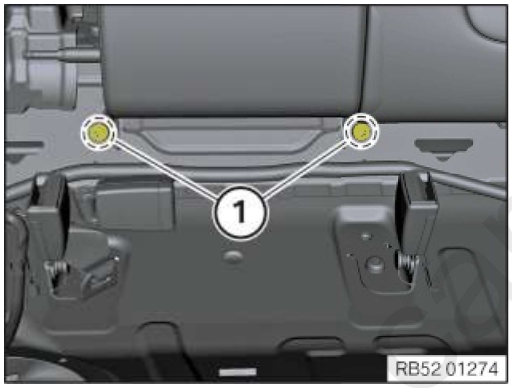
4 – Remove the right rear seat backrest



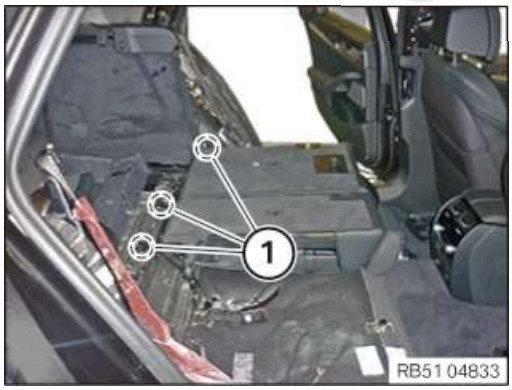
- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

MAIN WORK

5 – Remove rear seat backrest, left



- Loosen screws (1).



- Release screws (1) and remove the rear seat backrest from the vehicle.

6 – Remove the centre rear seat backrest

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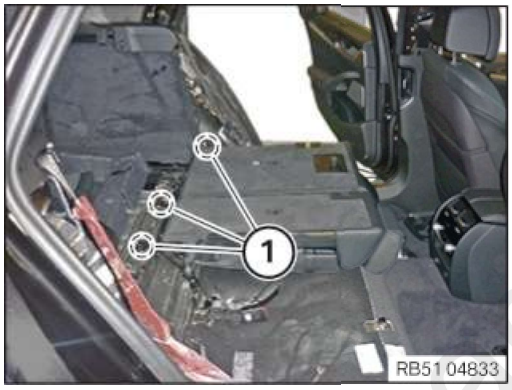
- Rotate the centre rear seat backrest (1) forward by 90° and remove it in the direction of the arrow.

7 – Install the centre rear seat backrest



- Check the centre mount (2) is fitted correctly.
- Install the centre rear seat backrest (1) in the direction of the arrow and turn by 90°.

8 – Install the left rear seat backrest

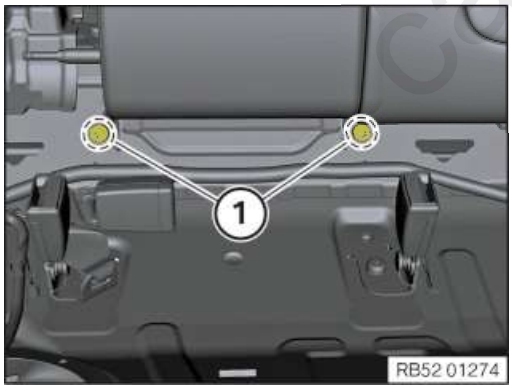


- Position the rear seat backrest in the vehicle.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm



- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

POSTPROCESSES

9 – Install the rear seat backrest

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- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

	Renew screw.	Tightening torque	42 Nm

10 – Installing rear seat bench



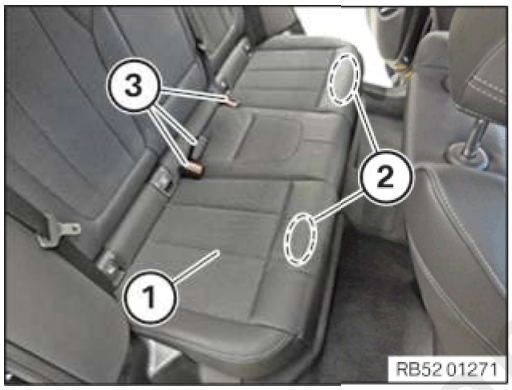
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



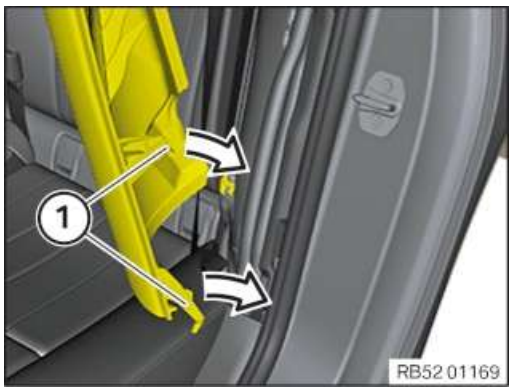
- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

11 – Install the backrest side section on the left and right

NOTICE

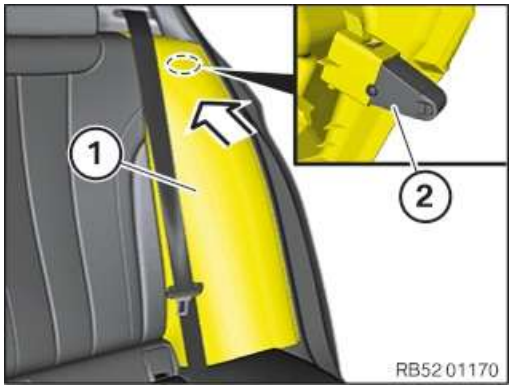
Description is for left component only. Procedure on the right side is identical.

▸ **Install backrest side section**



- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.

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- Clip in the top backrest side section (1) at the latch mechanism (2).

12 – Installing the luggage compartment floor trim panel



- Insert the luggage compartment floor trim panel (1).

Additional Information

Overview of Tightening Torques

Rear seat backrest on body			Used in step 8
Screw	Renew screw.	Tightening torque	42 Nm

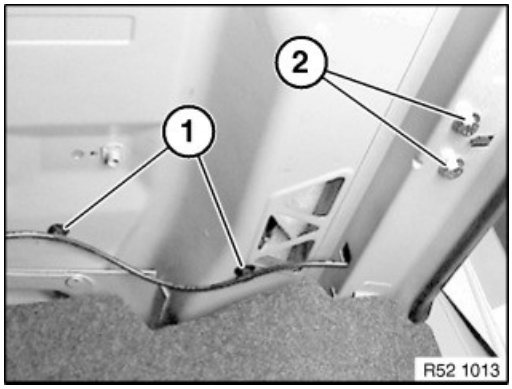
Rear seat backrest on body			Used in step 9
	Renew screw.	Tightening torque	42 Nm

Rear upper seat belt to bottom body			Used in step 10
Screw	Renew screw.	Tightening torque	42 Nm

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52 26 311 Removing and installing/replacing lock for left or right rear seat backrest

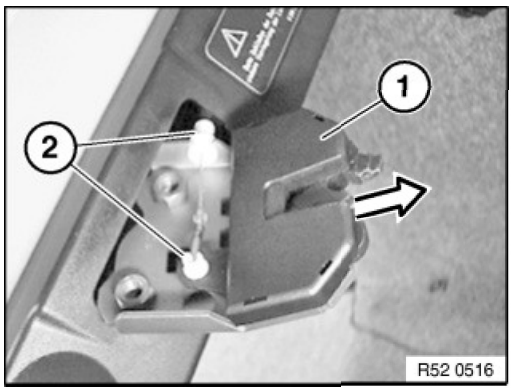
1 – Remove the backrest lock



- Unlock and fold back rear seat backrest.

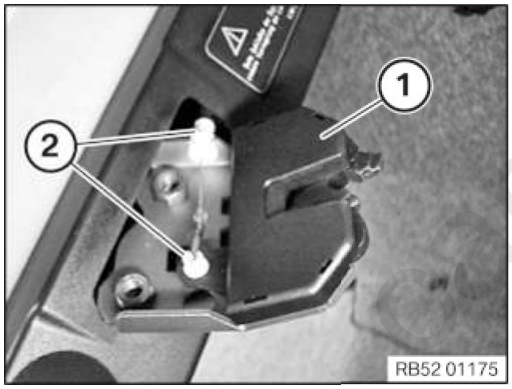
Note: If the rear seat backrest cannot be unlocked, operate the emergency release.

- Unclip the Bowden cable from the holders (1).
- Loosen screws (2).



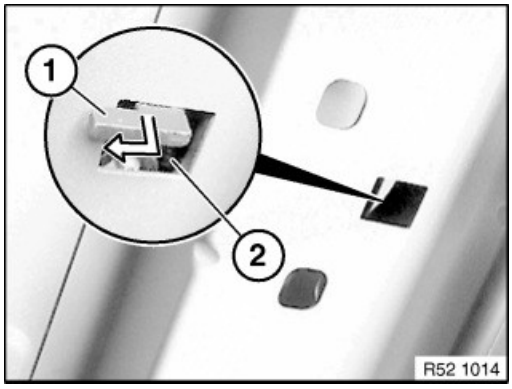
- Guide the backrest lock (1) out slightly and unclip the Bowden cable (2).

2 – Install the backrest lock



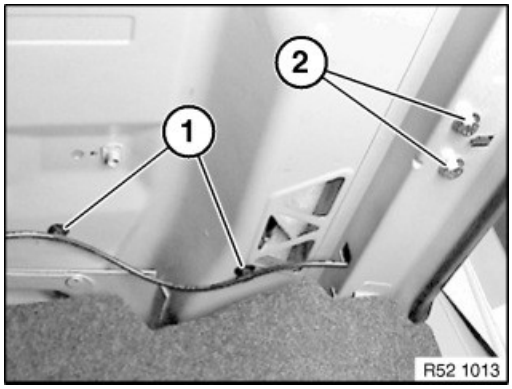
- Clip in the Bowden cable (2) in the backrest lock (1).

  Check for correct fit of the Bowden cable (2) on the backrest lock (1).



- Insert the backrest lock into the body and feed in the guide (1) into the recess (2).

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- Screw in the screws (2) several rotations.
- Clip in the Bowden cable into the holder (1).
- Lock the rear seat backrest and press back hard.
- Tighten the screws (1).

Backrest lock to body

M8		19 Nm

Additional Information

Overview of Tightening Torques

Backrest lock to body Used in step 2

M8		19 Nm

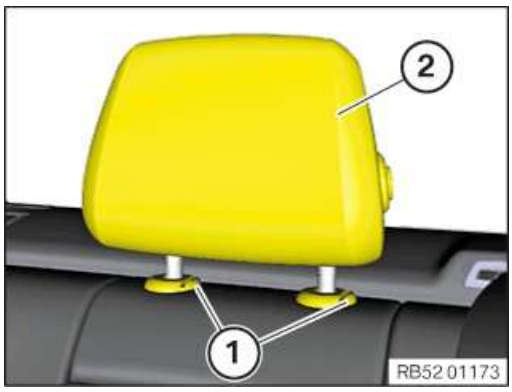
cardiagn.com

52 26 388 Removing and installing/replacing rear middle head restraint

Prerequisite

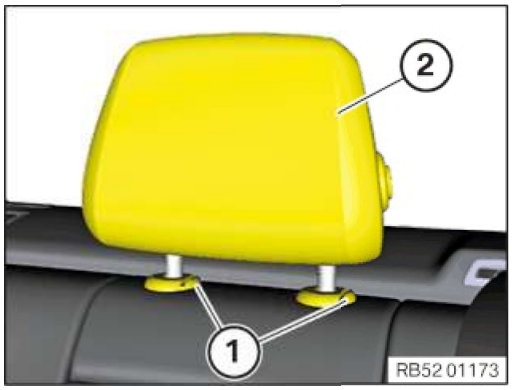
- Rear seat backrest is folded down.

1 – Removing the rear middle head restraint



- Press the locks (1) and remove the head restraint (2) towards the top.

2 – Installing the head restraint at the rear centre

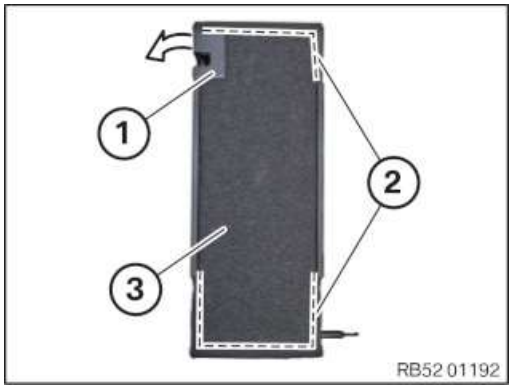


- Install the head restraint (2) from the top.
- Make sure the head restraint (2) is correctly fitted at the locks (1).

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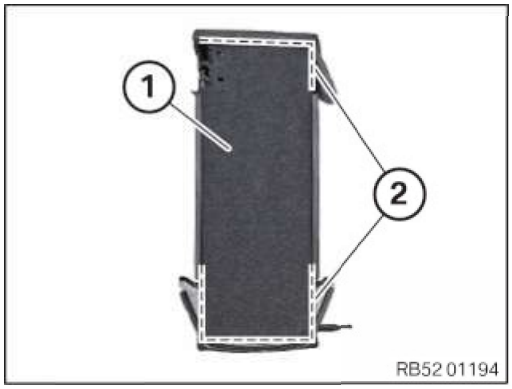
52 26 202 Removing and installing/replacing rear panel on central rear seat backrest

1 – Remove rear panel on the centre rear seat backrest



- Unclip the trim (1).
- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (2).
- Remove the rear panel (3).

2 – Install the rear panel on the rear seat backrest in the centre



- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).



- Clip in the trim (1).

Additional Information

Overview of Special Tools

0 496 569 (00 9 325) Wedge

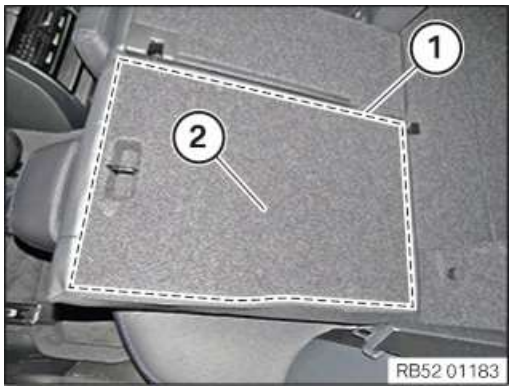


Common	Used in step 12
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

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52 26 199 Removing and installing/replacing rear panel on left rear seat backrest

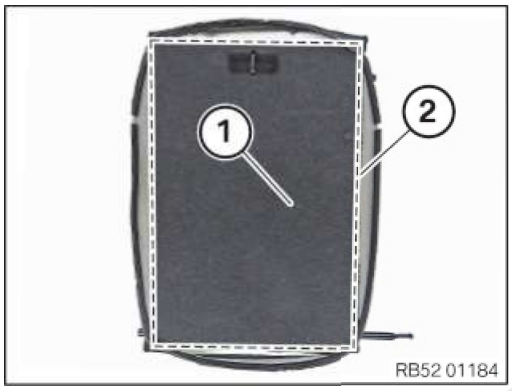
1 – Remove the rear panel on the left rear seat backrest



▸ **Remove the rear panel from the rear seat backrest**

- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (1).
- Remove the rear panel (2).

2 – Install the rear panel on the left rear seat backrest



▸ **Install the rear panel on the rear seat backrest**

- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).

Additional Information

Overview of Special Tools

0 496 569 (00 9 325) Wedge



Common	Used in step 12
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

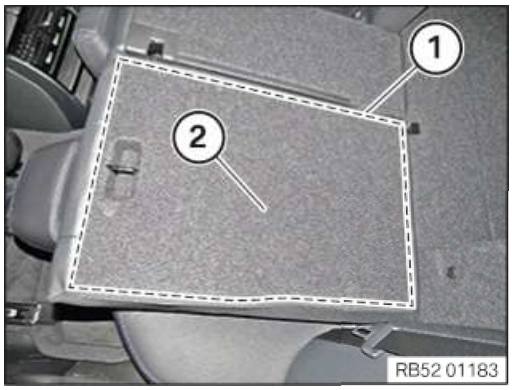
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52 26 200 Removing and installing/replacing rear panel on right rear seat backrest

1 – Remove the rear panel from the right rear seat backrest

NOTICE

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



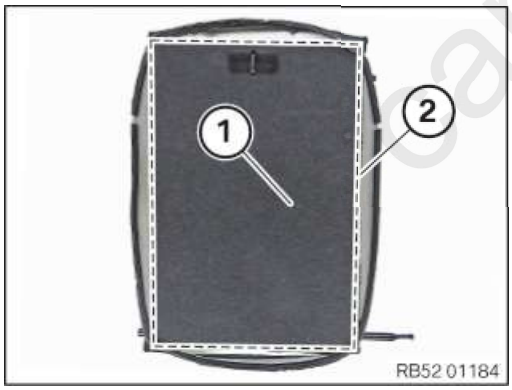
▸ **Remove the rear panel from the rear seat backrest**

- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (1).
- Remove the rear panel (2).

2 – Install the rear panel on the rear seat backrest on the right

NOTICE

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



▸ **Install the rear panel on the rear seat backrest**

- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).

Additional Information

Overview of Special Tools

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0 496 569 (00 9 325) Wedge



Common	Used in step 12
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

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52 26 315 Removing and installing/replacing tailgate lock for centre rear seat backrest

PRELIMINARY WORK

1 – Removing the luggage compartment floor trim panel



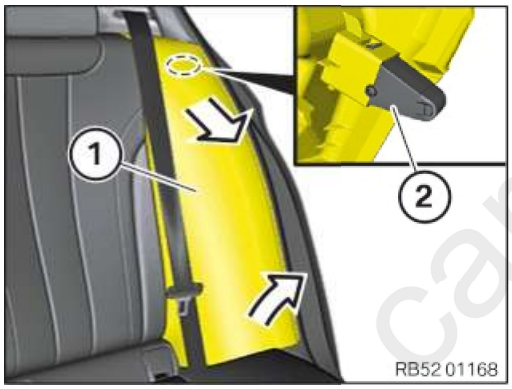
- Remove luggage compartment floor trim panel (1).

2 – Remove backrest side section on left and right

NOTICE

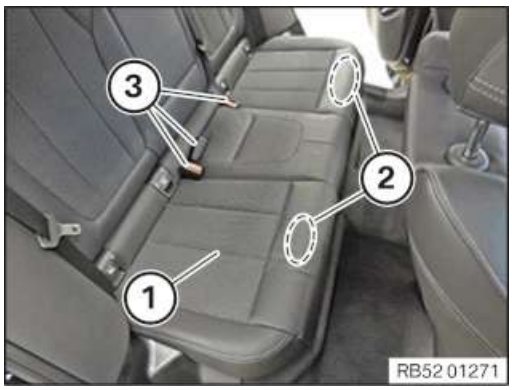
Description is for left component only. Procedure on the right side is identical.

▸ **Remove armrest side section**



- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

3 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.

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- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

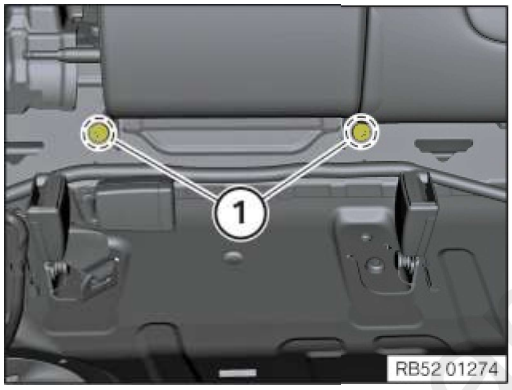
- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

4 – Remove the right rear seat backrest

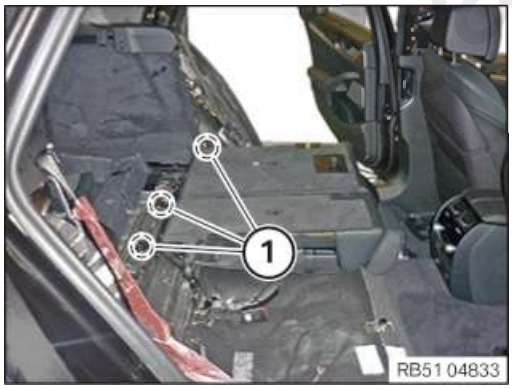


- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

5 – Remove rear seat backrest, left



- Loosen screws (1).



- Release screws (1) and remove the rear seat backrest from the vehicle.

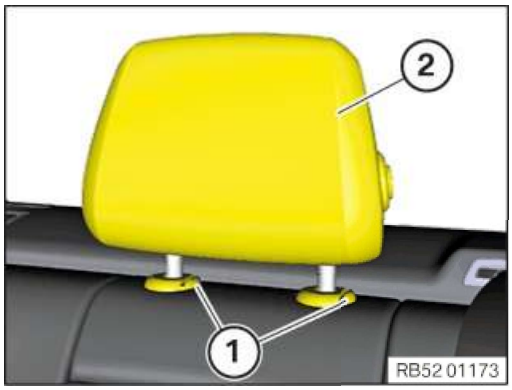
6 – Remove the centre rear seat backrest

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- Rotate the centre rear seat backrest (1) forward by 90° and remove it in the direction of the arrow.

7 – Removing the rear middle head restraint



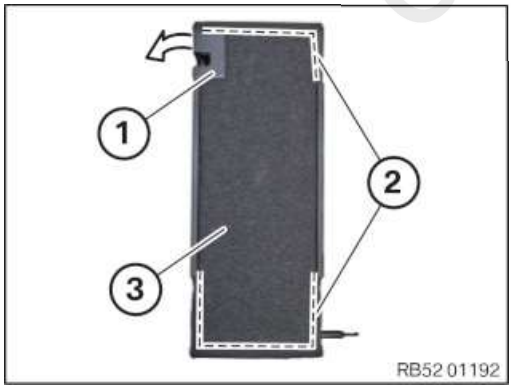
- Press the locks (1) and remove the head restraint (2) towards the top.

8 – Remove rear centre armrest



- Fold the centre rear seat down.
- Loosen screws (1) and (2).
- Fold the centre rear seat up and remove the centre armrest.

9 – Remove rear panel on the centre rear seat backrest



- Unclip the trim (1).
- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (2).
- Remove the rear panel (3).

10 – Remove the backrest frame for the centre rear seat backrest

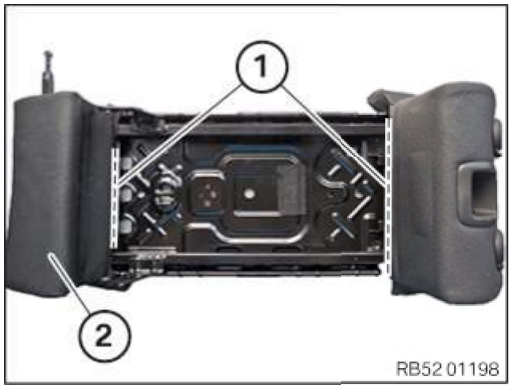
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- Unclip the trim (1) from the backrest frame.



- Remove the trim (1) in the direction of the arrow.

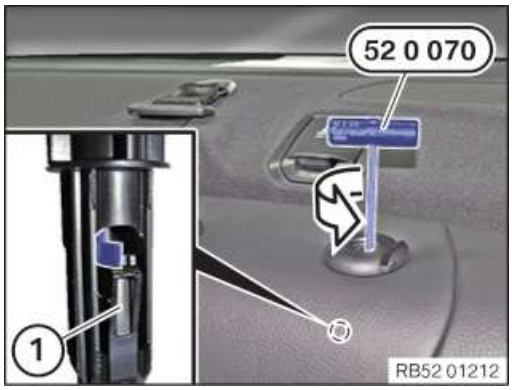


- Detach the seat cover in the marked area (1).
- Feed the cushion (2) out and remove.

▸ **Remove the guide sleeve for the rear head restraint**

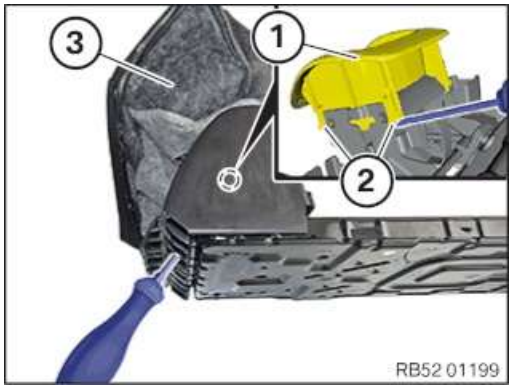
NOTICE

The description is for one component only. The procedure is identical for all further components.



- Push the latch mechanism (1) inward with the special tool .
- Remove the guide sleeve towards the top.

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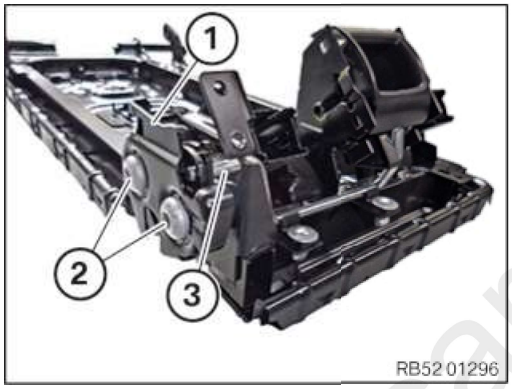
- Unclip the trim (1) from the bottom on the left and right retaining lugs (2).
- Remove the trim (1) and the seat cover (3).



- Loosen screws (1).
- Remove the insert (2).

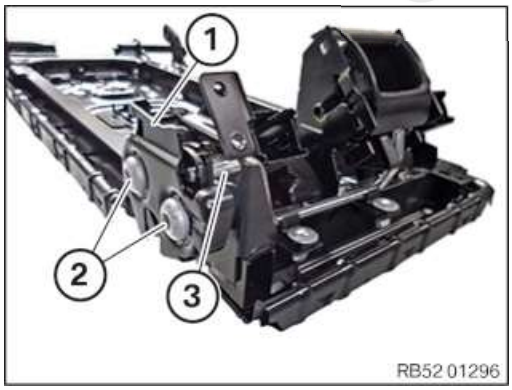
MAIN WORK

11 – Remove the centre backrest lock



- Loosen screws (2).
- Guide out the backrest lock (1) on the operating rod (2) and remove.

12 – Install the centre backrest lock



- Guide in the backrest lock (1) at the operating rod (3) and position it.
- Tighten the screws (2).

Backrest lock on backrest frame

Screw		Tightening torque	15 Nm

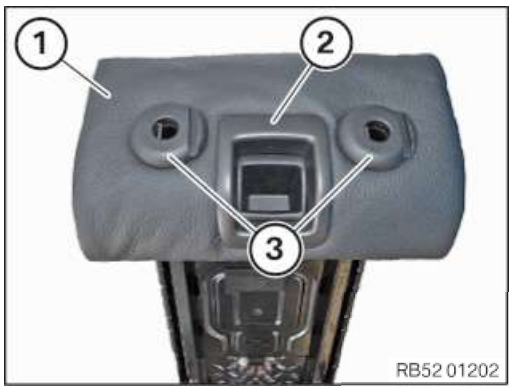
POSTPROCESSES

13 – Install the backrest frame for the centre rear seat backrest

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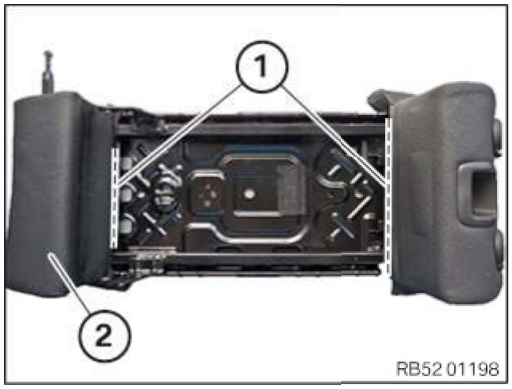


- Position the insert (2).
- Tighten the screws (1).

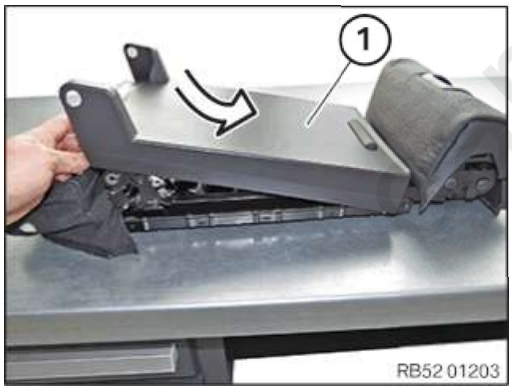


- Position the seat cover (1).
- Clip in the trim (2) and the guide sleeves (3).

  The locks of the guide sleeves point in the direction of travel to the left.



- Insert the cushion (2).
- Attach the seat cover in the marked area (1).

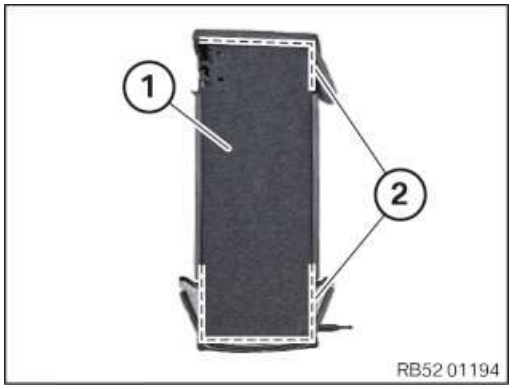


- Clip in the trim (1).



- Check the trim (1) for correct fit on the backrest frame.

14 – Install the rear panel on the rear seat backrest in the centre



- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).



- Clip in the trim (1).

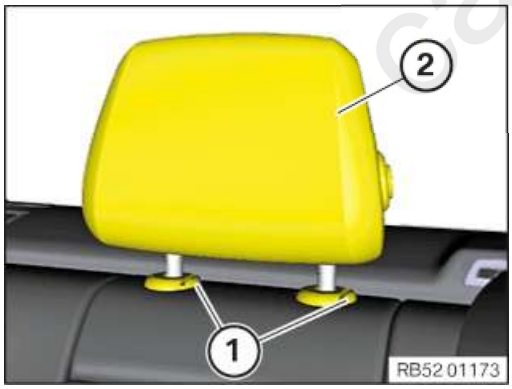
15 – Install the rear centre armrest



- Position the centre armrest.
- Tighten down screws (1) and (2).

Rear centre armrest to backrest frame		
		8 Nm

16 – Installing the head restraint at the rear centre



- Install the head restraint (2) from the top.
- Make sure the head restraint (2) is correctly fitted at the locks (1).

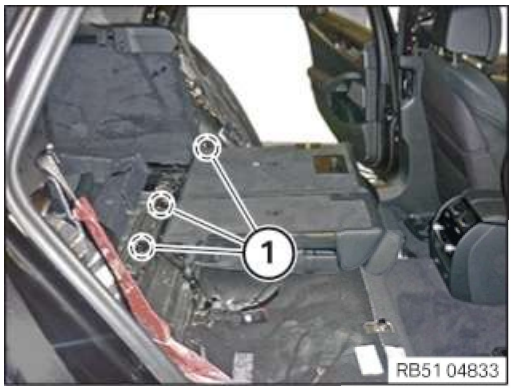
17 – Install the centre rear seat backrest

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- Check the centre mount (2) is fitted correctly.
- Install the centre rear seat backrest (1) in the direction of the arrow and turn by 90°.

18 – Install the left rear seat backrest

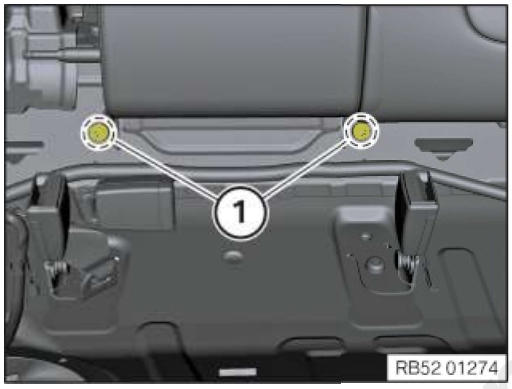


- Position the rear seat backrest in the vehicle.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm



- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

19 – Install the rear seat backrest



- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

	Renew screw.	Tightening torque	42 Nm

20 – Installing rear seat bench



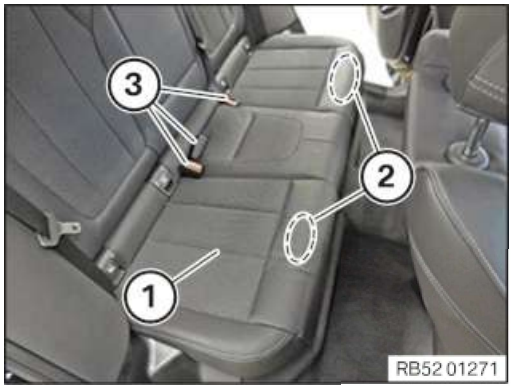
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



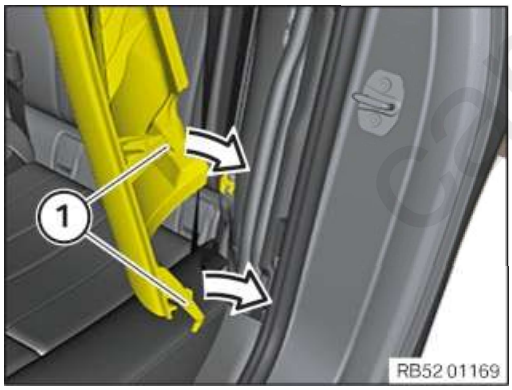
- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

21 – Install the backrest side section on the left and right

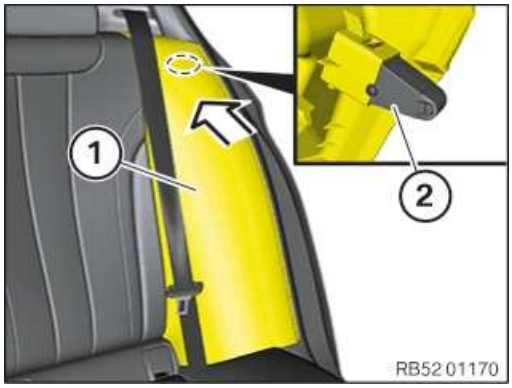
NOTICE

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

▸ **Install backrest side section**



- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

22 – Installing the luggage compartment floor trim panel

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- Insert the luggage compartment floor trim panel (1).

Additional Information

Overview of Tightening Torques

Backrest lock on backrest frame — Used in step 12

Screw		Tightening torque	15 Nm

Rear centre armrest to backrest frame — Used in step 15

			8 Nm

Rear seat backrest on body — Used in step 18

Screw	Renew screw.	Tightening torque	42 Nm

Rear seat backrest on body — Used in step 19

	Renew screw.	Tightening torque	42 Nm

Rear upper seat belt to bottom body — Used in step 20

Screw	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 496 569 (00 9 325) Wedge



Common — Used in step 914

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

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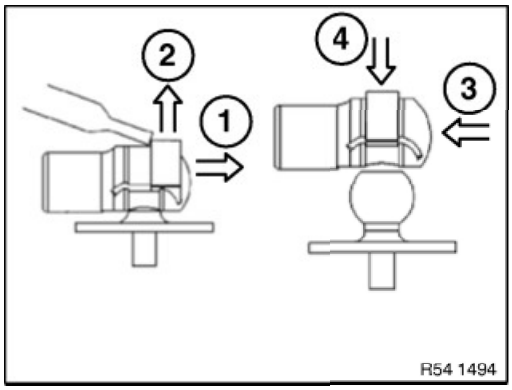
51 23 ... Removing/installing ball sockets with clip

Warning!

Danger of injury! When installed, the gas pressurised shock absorber is under preload. Minimise preload as far as possible before removing.

Important!

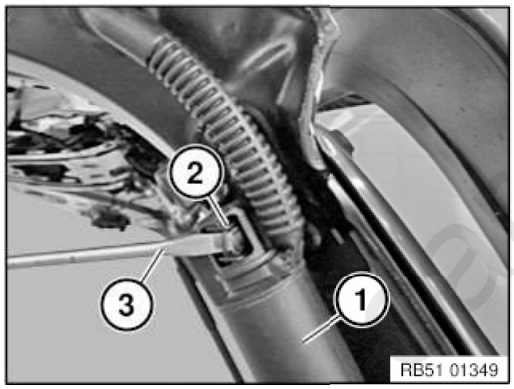
Never lift off ball socket with engaged clamp.



Version A:

1. Push on clamp in direction of groove with screwdriver
2. Lift off ball socket from ball pin
3. Slide clamp back
4. Fit ball socket on ball stud and snap into place with force

Installation note:
Pack grease into two opposite positions in socket. The grease spreads after installation on the ball pin all round in the ball socket.



Version B:

Important!

Risk of damage!

If you are not careful, retaining spring (2) may be bent to such an extent that the entire drive spindle will have to be replaced.

Press drive spindle (1) against ball pin in order to relieve strain on retaining spring (2) at ball pin.

Pull out retaining spring (2) approx. 2-3 mm with screwdriver (3).

Pull off spindle foot.

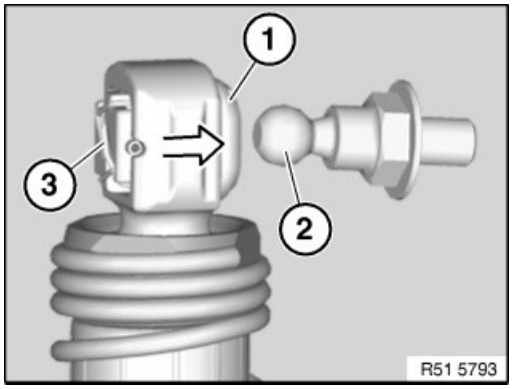
Warning!

Observe warning notices on the damper.

Electrical spindle drive for tailgate is under mechanical spring load!

The component must be secured against falling down.

eldiagn.com

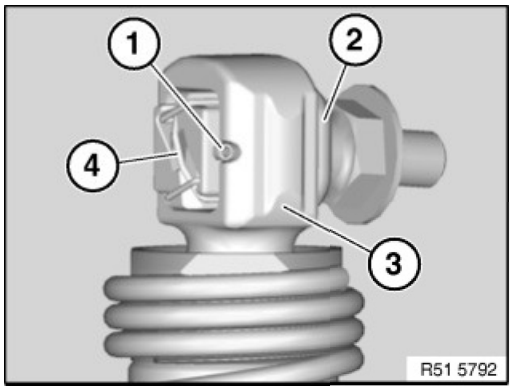


Attention!

Risk of damage!

Do not press on spindle drive at an angle or twisted.

Installation note:
Press ball socket (1) onto ball pin (2) until retaining spring (3) engages correctly (clicking sound).



Important!

If retaining spring (4) is damaged!

Release pin (1).

Remove spindle drive (3).

Remove ball socket (2).

Remove retaining spring (4) and replace if necessary.

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52 26 411 Replacing backrest cover for left rear seat

PRELIMINARY WORK

1 – Removing the luggage compartment floor trim panel



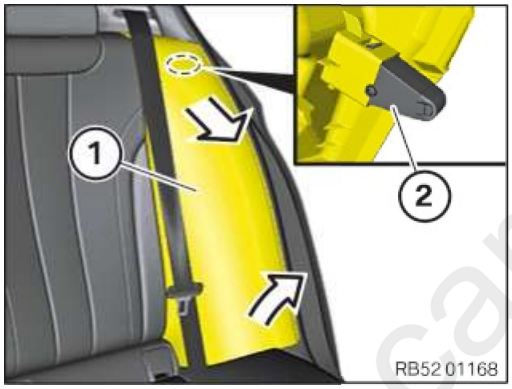
- Remove luggage compartment floor trim panel (1).

2 – Remove backrest side section on left and right

NOTICE

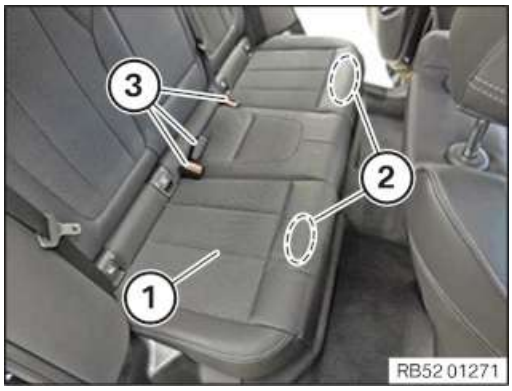
Description is for left component only. Procedure on the right side is identical.

▶ **Remove armrest side section**



- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

3 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.

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- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

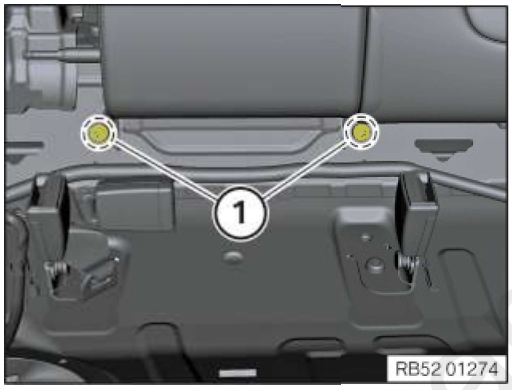
- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

4 – Remove the right rear seat backrest

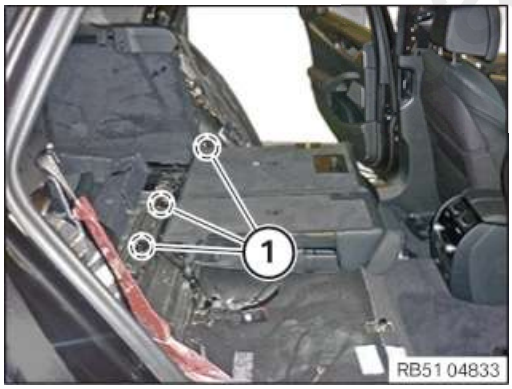


- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

5 – Remove rear seat backrest, left



- Loosen screws (1).



- Release screws (1) and remove the rear seat backrest from the vehicle.

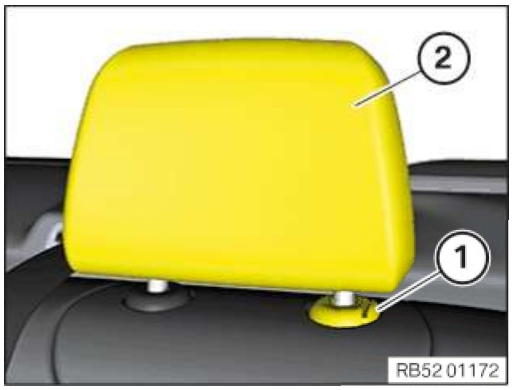
6 – Remove the centre rear seat backrest

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- Rotate the centre rear seat backrest (1) forward by 90° and remove it in the direction of the arrow.

7 – Remove the rear head restraint on the side

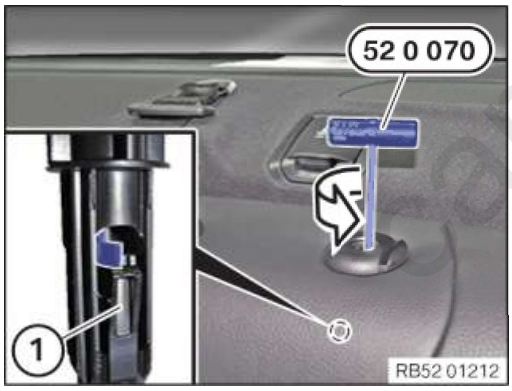


- Press the lock (1) and remove the head restraint (2) towards the top.

8 – Remove the guide sleeve for the rear head restraint

NOTICE

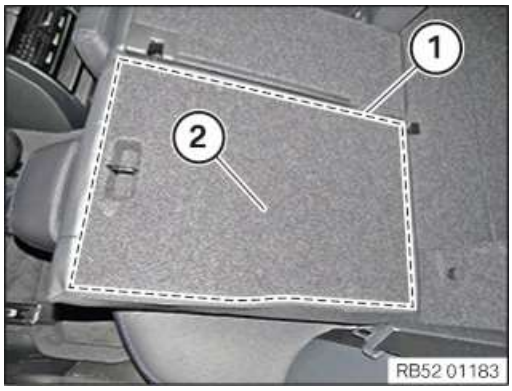
The description is for one component only. The procedure is identical for all further components.



- Push the latch mechanism (1) inward with the special tool .
- Remove the guide sleeve towards the top.

9 – Remove the rear panel on the left rear seat backrest

▶ **Remove the rear panel from the rear seat backrest**



- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (1).
- Remove the rear panel (2).

10 – Remove the backrest frame for the left rear seat backrest

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10 – Remove the backrest frame for the left rear seat backrest

▸ **Remove the backrest frame for the rear seat backrest**



- Loosen screw (1).
- Remove the outer mount (2).



- Feed out and remove the backrest frame (1).

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11 – Remove the backrest cover from the rear seat backrest

NOTICE

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



- Loosen all clamps on the trim wires.
- Remove the backrest cover from the upholstery.
- Completely remove the clamps from the backrest cover and the cushion.

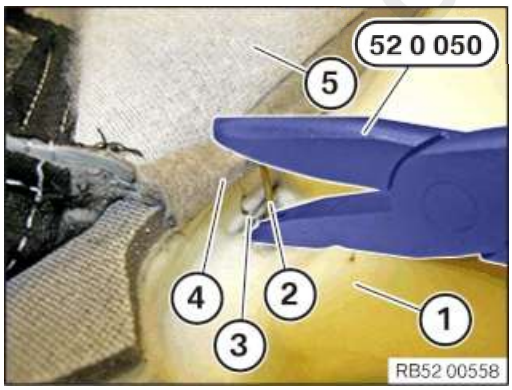
12 – Install the backrest cover of the rear seat backrest

NOTICE

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



- Position the backrest cover on the cushion.
- Secure all trim wires with clamps.



- Renew the clamps (2).

  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover with the clamp (2) and bend the clamp (2) to close it.

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13 – Install the backrest frame for the rear seat backrest on the left

▶ **Install the backrest frame for the rear seat backrest**



- Insert and position the backrest frame (1).



- Position the outer mount (2).
- Tighten down screw (1).

Outer mount to backrest frame

Screw		Tightening torque	36 Nm

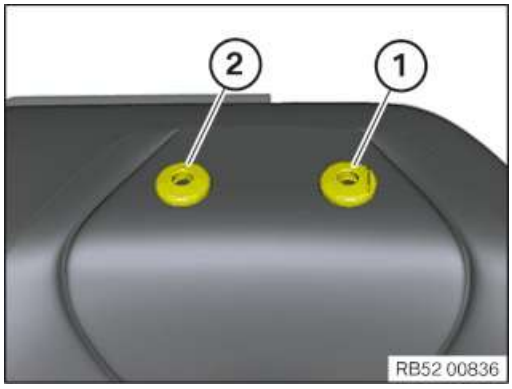
14 – Install the rear panel on the left rear seat backrest

▶ **Install the rear panel on the rear seat backrest**



- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).

15 – Install the guide sleeve for the rear head restraint



- Pay attention to installation position.

  The guide sleeve with unlocking (1) must be toward the left in the direction of travel.

  The guide sleeve without the unlocking (2) must be in the direction of travel to the right.

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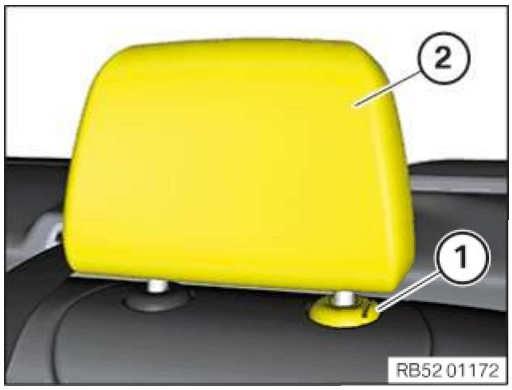
NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

  You have to feel the guide sleeve (1) engage.

16 – Install the head restraint at rear side



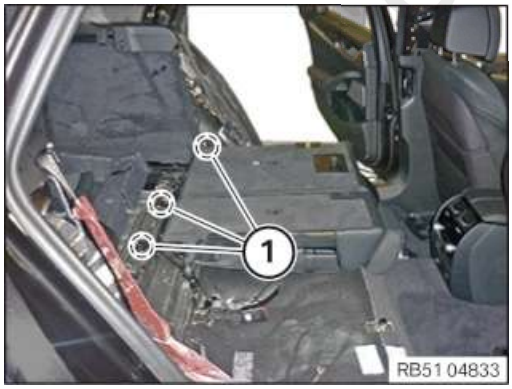
- Insert the head restraint (2) from the top.
- Check for correct fit of the head restraint (2) on the lock (1).

17 – Install the centre rear seat backrest



- Check the centre mount (2) is fitted correctly.
- Install the centre rear seat backrest (1) in the direction of the arrow and turn by 90°.

18 – Install the left rear seat backrest



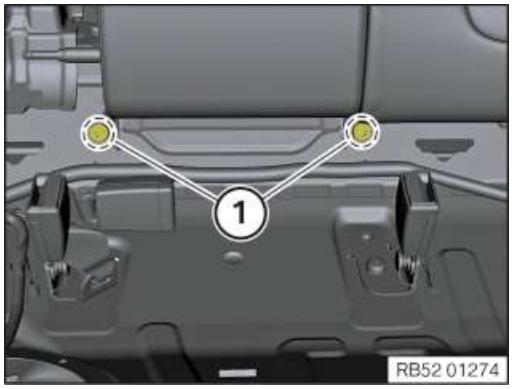
- Position the rear seat backrest in the vehicle.
- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

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- Renew screws (1).

  Parts: Bolts
- Tighten the screws (1).

Rear seat backrest on body

Screw	Renew screw.	Tightening torque	42 Nm

19 – Install the rear seat backrest



- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

	Renew screw.	Tightening torque	42 Nm

20 – Installing rear seat bench



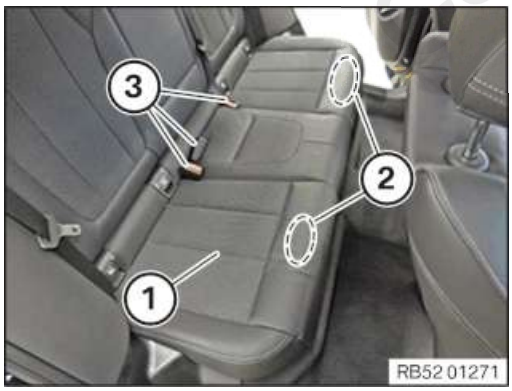
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



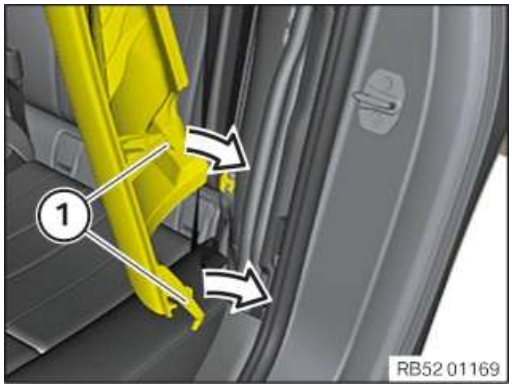
- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

21 – Install the backrest side section on the left and right

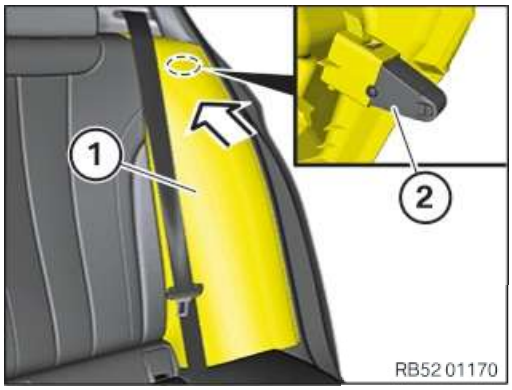
NOTICE

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

▸ **Install backrest side section**

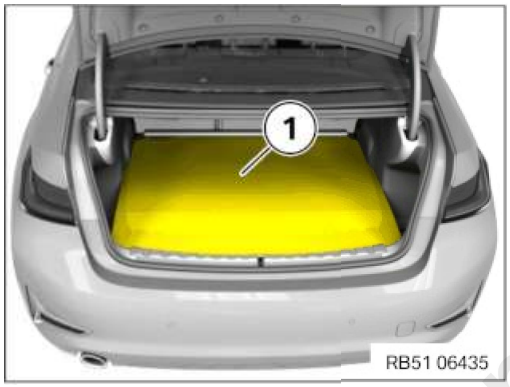


- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

22 – Installing the luggage compartment floor trim panel



- Insert the luggage compartment floor trim panel (1).

Additional Information

Overview of Tightening Torques

Outer mount to backrest frame			Used in step 13
Screw		Tightening torque	36 Nm

Rear seat backrest on body			Used in step 18
Screw	Renew screw.	Tightening torque	42 Nm

Rear seat backrest on body			Used in step 19
	Renew screw.	Tightening torque	42 Nm

Rear upper seat belt to bottom body			Used in step 20
Screw	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

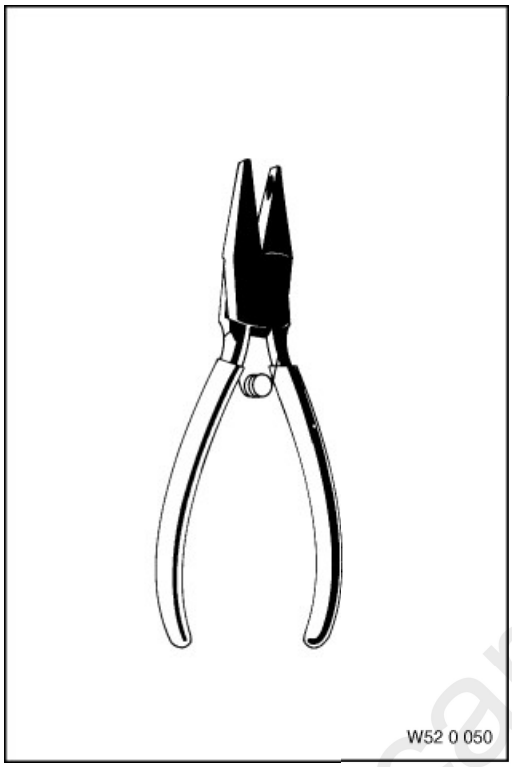
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0 496 569 (00 9 325) Wedge



Common	Used in step 914
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

0 492 668 (52 0 050) Pliers



Common	Used in step 12
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

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52 26 412 Replacing backrest cover for right rear seat

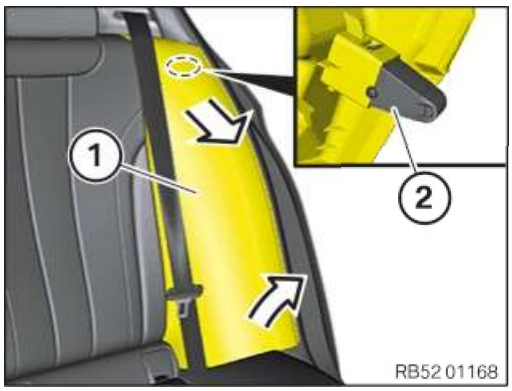
PRELIMINARY WORK

1 – Remove right backrest side section

NOTICE

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

▶ **Remove armrest side section**



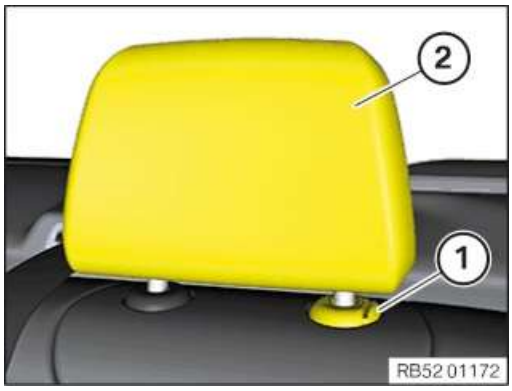
- Reach behind the backrest side section (1) from the top and unclip the backrest side section from the latch mechanism (2) to the front.
- Remove the backrest side section (1) from the rear seat in direction of arrow.

2 – Remove the right rear seat backrest



- Loosen screw (1).
- Remove the rear seat backrest in direction of arrow out of the centre mount toward the outer front.

3 – Remove the rear head restraint on the side



- Press the lock (1) and remove the head restraint (2) towards the top.

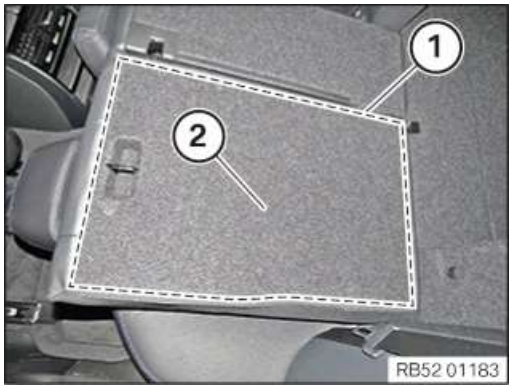
4 – Remove the rear panel from the right rear seat backrest

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NOTICE

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

▶ **Remove the rear panel from the rear seat backrest**

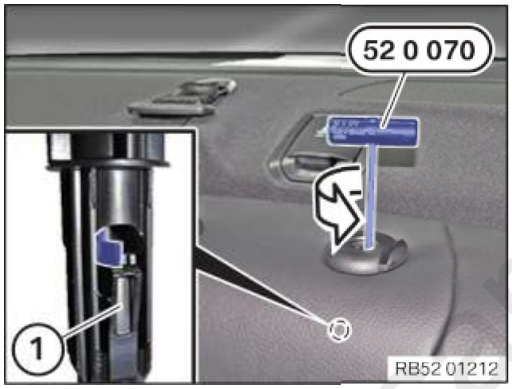


- Unclip the welt of the backrest cover with the special tool 0 496 569 (00 9 325) along the broken line (1).
- Remove the rear panel (2).

5 – Remove the guide sleeve for the rear head restraint

NOTICE

The description is for one component only. The procedure is identical for all further components.



- Push the latch mechanism (1) inward with the special tool .
- Remove the guide sleeve towards the top.

6 – Remove the backrest frame for the right rear seat backrest

NOTICE

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

▶ **Remove the backrest frame for the rear seat backrest**



- Loosen screw (1).
- Remove the outer mount (2).

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- Feed out and remove the backrest frame (1).

MAIN WORK

7 – Remove the backrest cover from the rear seat backrest

NOTICE

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



- Loosen all clamps on the trim wires.
- Remove the backrest cover from the upholstery.
- Completely remove the clamps from the backrest cover and the cushion.

8 – Install the backrest cover of the rear seat backrest

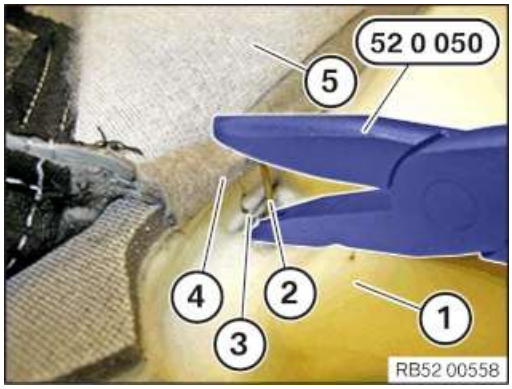
NOTICE

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



- Position the backrest cover on the cushion.
- Secure all trim wires with clamps.

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- Renew the clamps (2).

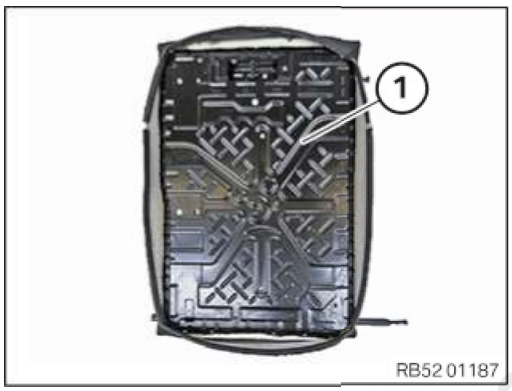
  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the backrest cover with the clamp (2) and bend the clamp (2) to close it.

POSTPROCESSES

9 – Install the backrest frame for the right rear seat backrest

NOTICE

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



▸ **Install the backrest frame for the rear seat backrest**

- Insert and position the backrest frame (1).

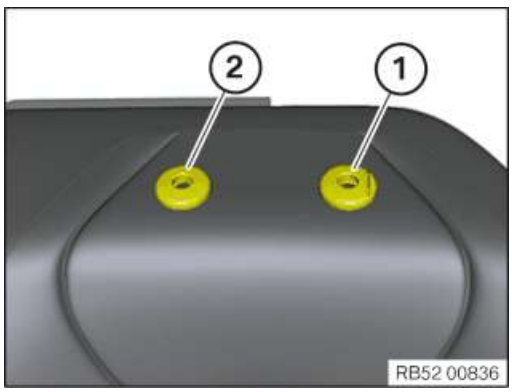


- Position the outer mount (2).
- Tighten down screw (1).

Outer mount to backrest frame

Screw		Tightening torque	36 Nm

10 – Install the guide sleeve for the rear head restraint



- Pay attention to installation position.

  The guide sleeve with unlocking (1) must be toward the left in the direction of travel.

  The guide sleeve without the unlocking (2) must be in the direction of travel to the right.

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NOTICE

The description is for one component only. The procedure is identical for all further components.

- Insert the guide sleeve (1) into the rear seat backrest from the top and lock it.

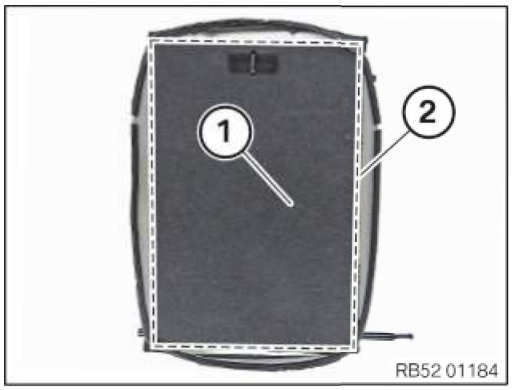
  You have to feel the guide sleeve (1) engage.

11 – Install the rear panel on the rear seat backrest on the right

NOTICE

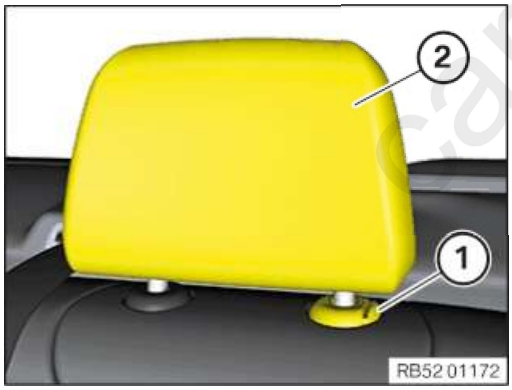
Description is for left component only. Procedure on the right side is identical.

▶ **Install the rear panel on the rear seat backrest**



- Position the rear panel (1).
- Clip the welt of the backrest cover in with the special tool 0 496 569 (00 9 325) along the broken line (2).

12 – Install the head restraint at rear side



- Insert the head restraint (2) from the top.
- Check for correct fit of the head restraint (2) on the lock (1).

13 – Install the rear seat backrest



- Guide the rear seat backrest into the centre mount in the direction of the arrow.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

Rear seat backrest on body

	Renew screw.	Tightening torque	42 Nm

14 – Install right backrest side section

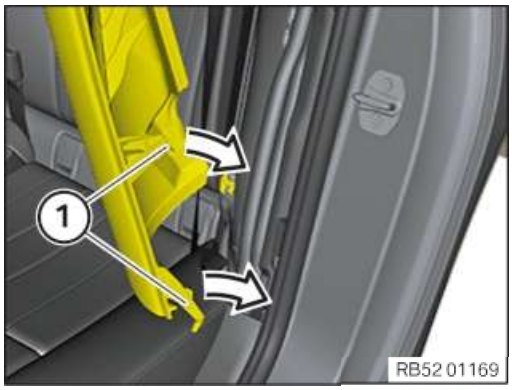
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14 – Install right backrest side section

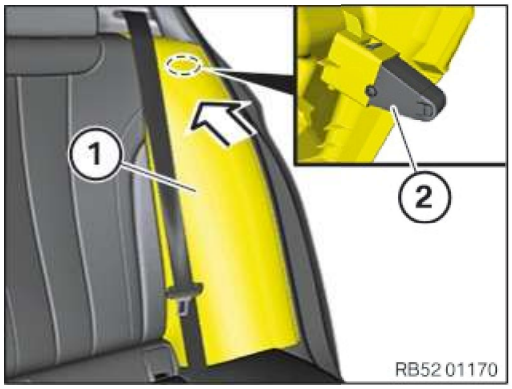
NOTICE

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

▶ **Install backrest side section**



- Slide the guides (1) of the backrest side section in direction of arrow at the bottom.



- Clip in the top backrest side section (1) at the latch mechanism (2).

Additional Information

Overview of Tightening Torques

Outer mount to backrest frame — Used in step 9

Screw		Tightening torque	36 Nm

Rear seat backrest on body — Used in step 13

	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 496 569 (00 9 325) Wedge

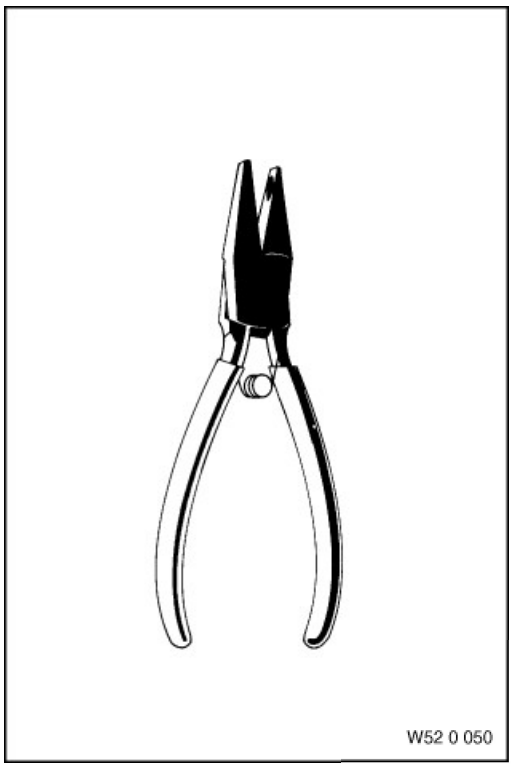


Common — Used in step 411

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

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0 492 668 (52 0 050) Pliers



Common	Used in step 8
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

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52 26 400 Replacing seat cover for rear seat

PRELIMINARY WORK

1 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.



- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

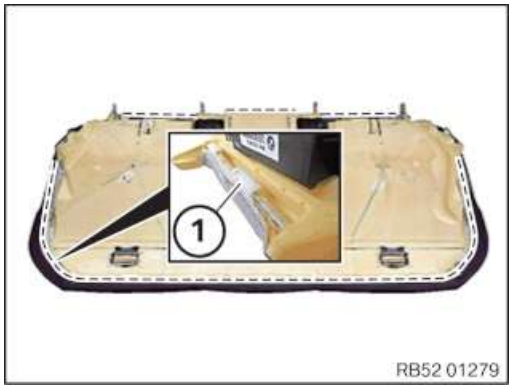
- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

MAIN WORK

2 – Remove the seat surface cover for the seat bench

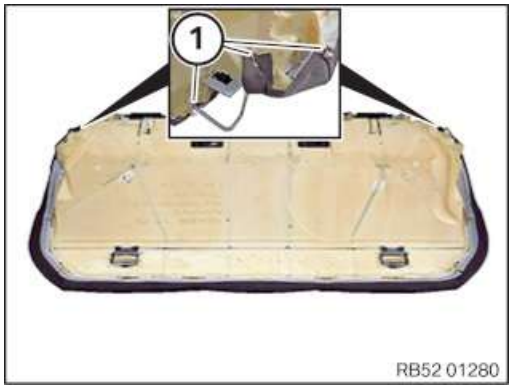


- Unclip the ISOFIX cover cap (1).



- Detach the seat surface cover from the cushion at the holders (1).

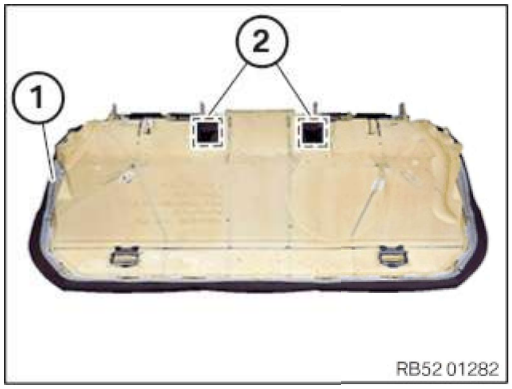
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- Release the clamps (1) on the left/right.

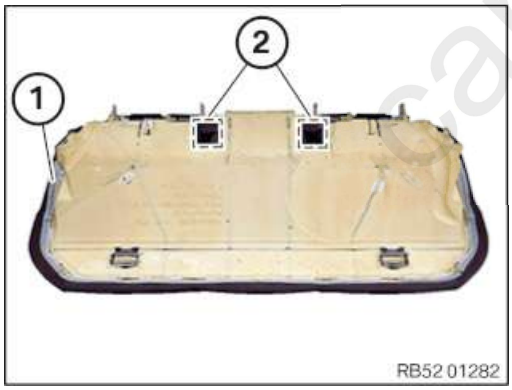


- Release all clamps along the trim wires.
- Completely remove the clamps from the seat surface cover and the cushion.



- Guide out and remove the seat surface cover (1) in the area (2).

3 – Install the seat surface cover for the seat bench

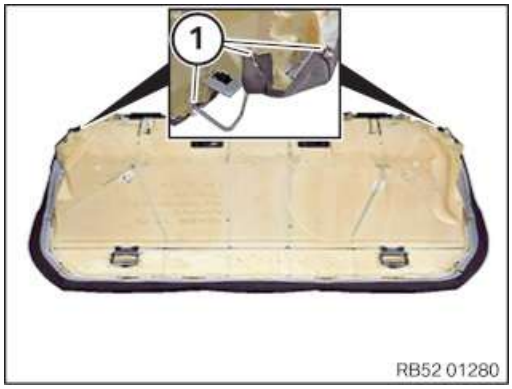


- Position the seat surface cover (1) and thread it in in the area (2).

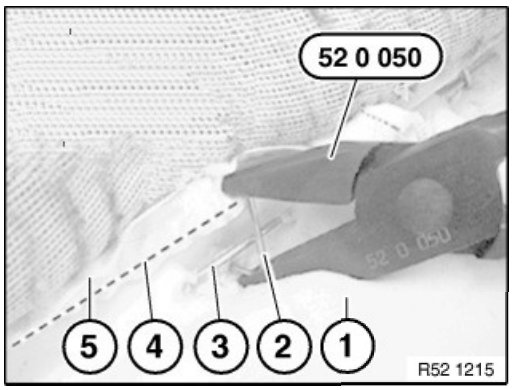


- Secure all trim wires with the clamps.

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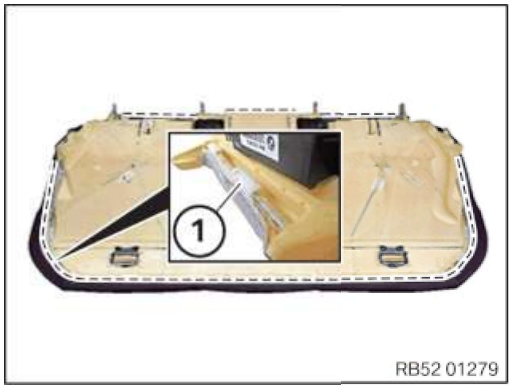
- Install the clamps (1) on the left/right.



- Renew the clamps (2).

  Parts: Clamps

- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the seat surface cover (5) with the clamp (2) and bend the clamp (2) to close it.



- Attach the seat surface cover on the holders (1) on the cushion.



- Clip in the ISOFIX cover caps (1).

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4 – Installing rear seat bench



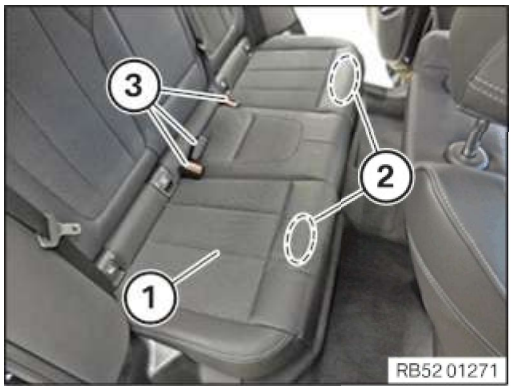
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

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Additional Information

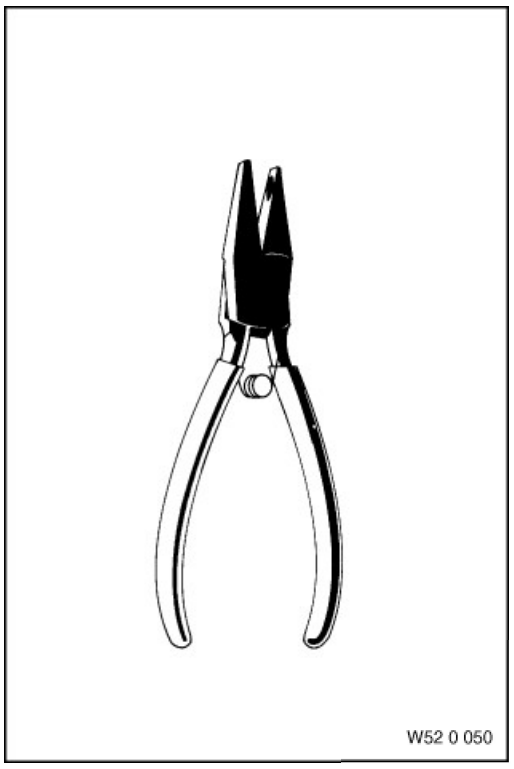
Overview of Tightening Torques

Rear upper seat belt to bottom body Used in step 4

Screw	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

0 492 668 (52 0 050) Pliers



Common	Used in step 3
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

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52 26 450 Replacing upholstery for rear seat

PRELIMINARY WORK

1 – Removing seat bench



- Disengage the seat bench (1) in area (2) in an upward direction.
- Feed out the seat belt buckle (3) from the seat bench.



- Pull the seat bench (1) further forward.
- Release screw (2) on the end fitting and guide out belt (3).

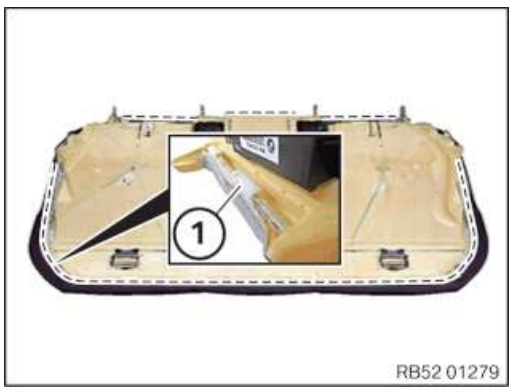
Note: If there is a belt lock on the belt, the screw on the end fitting must not be released.

- If necessary, disconnect the present plug connections.
- Lift the seat bench (1) out of the vehicle.

2 – Remove the seat surface cover for the seat bench

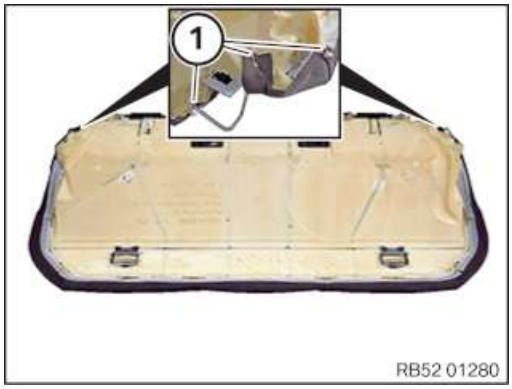


- Unclip the ISOFIX cover cap (1).



- Detach the seat surface cover from the cushion at the holders (1).

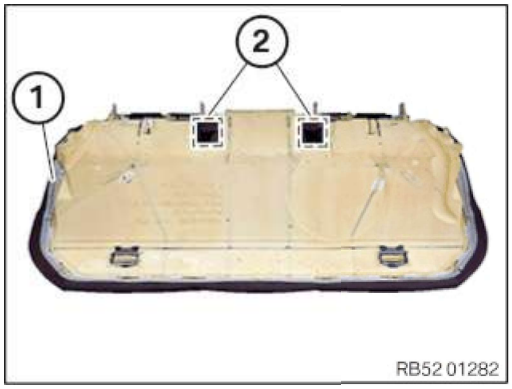
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- Release the clamps (1) on the left/right.



- Release all clamps along the trim wires.
- Completely remove the clamps from the seat surface cover and the cushion.



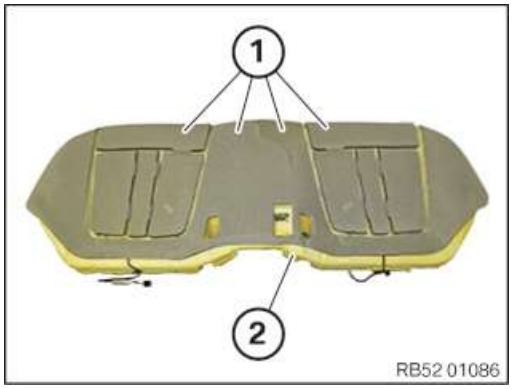
- Guide out and remove the seat surface cover (1) in the area (2).

MAIN WORK

3 – Renewing the cushion for the rear seat

NOTICE

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



TECHNICAL INFORMATION

The heating element is bonded to the upholstery and it cannot be removed without destroying it.

When replaced, a new heating element must always be fitted with new upholstery.

- **Equipment specification with seat heating**

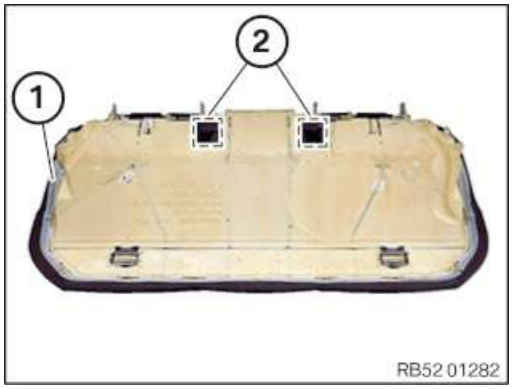
  Position the heating elements (1) on the cushion (2) and align.

  Bond the heating elements (1) to the cushion (2).

POSTPROCESSES

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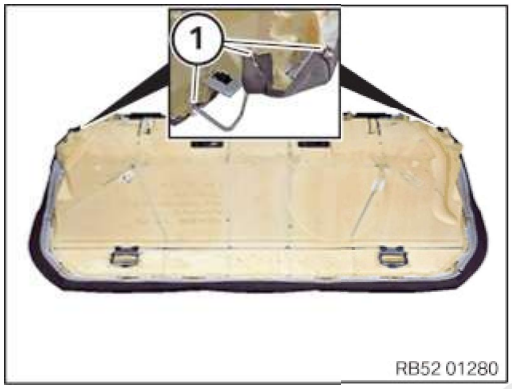
4 – Install the seat surface cover for the seat bench



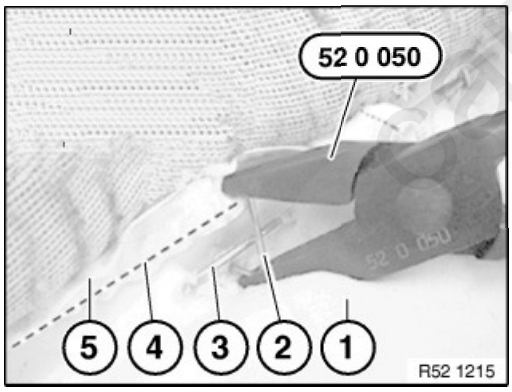
- Position the seat surface cover (1) and thread it in in the area (2).



- Secure all trim wires with the clamps.

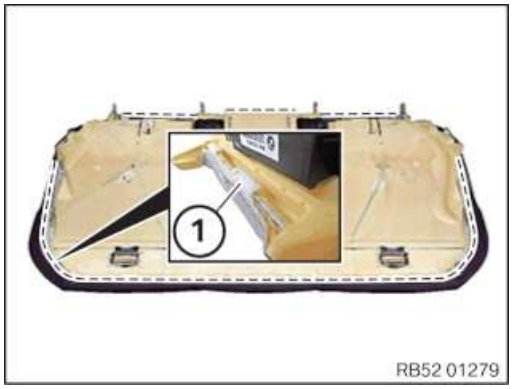


- Install the clamps (1) on the left/right.



- Renew the clamps (2).

  Parts: Clamps
- Insert the clamp (2) with the special tool 0 492 668 (52 0 050).
- Surround the trim wire (3) of the cushion (1) and the trim wire (4) of the seat surface cover (5) with the clamp (2) and bend the clamp (2) to close it.



- Attach the seat surface cover on the holders (1) on the cushion.

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- Clip in the ISOFIX cover caps (1).

5 – Installing rear seat bench



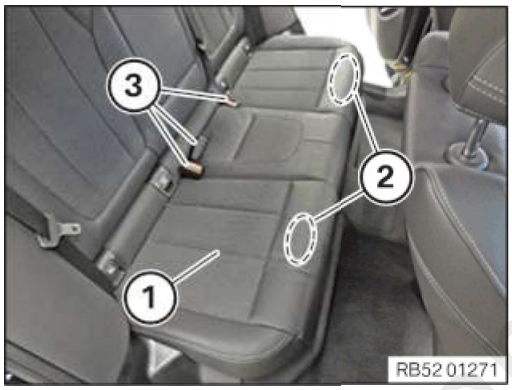
- Lift the seat bench (1) into the vehicle.
- Insert the seat belt (3).
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Rear upper seat belt to bottom body

Screw	Renew screw.	Tightening torque	42 Nm

- Connect available connectors.



- Insert seat bench (1).
- Thread seat belt buckles (3) into the seat bench.
- Engage the seat bench (1) in the area (2).

Additional Information

Overview of Tightening Torques

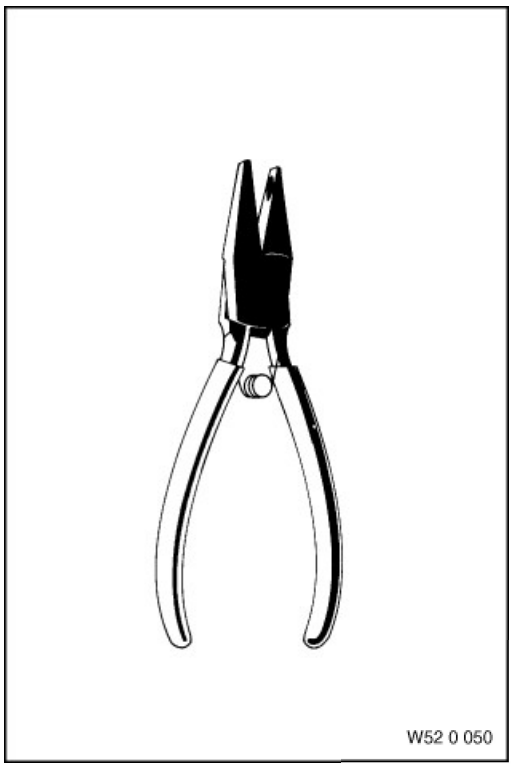
Rear upper seat belt to bottom body Used in step 5

Screw	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

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0 492 668 (52 0 050) Pliers



Common	Used in step 4
Usage	For securing clamps on seat cover
Included in the tool or work	
Storage location	C14
Replaced by	
In connection with	
SI-Number	52 06 87 (808)

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72 11 ... Checklist for front seat

Event		Check	Action
Has at least one belt tensioner and/or one side airbag been activated?	**Yes**	**Check 1 (when installed):** Check all seat adjustment options of both front seats. There must be no stiff movement, sticking or other functional problems or noises across the entire adjustment range of all the seat adjustment options. Check head restraints for damage. Check crash-active headrest for activation. **Only 2-door model:** Check backrest lock. Backrest must unlock and lock easily without any great physical effort.	If components are OK with regard to checks 1 and 2, only replace activated belt tensioner or side airbag. Otherwise, replace faulty parts on the seat/body. Replace belt tensioner, seat belt and, if necessary, side airbag.
		Check 2 (when dismounted): Check for deformation/damage on the following components: 1. All seat cross members on the body 2. Threaded support sleeves in the seat cross members 3. End fittings on the seat mechanism. Check for visible damage or deformation.	
	No	Check all adjustment options of the head restraints. Check crash-active headrest for activation.	Replace faulty parts.
Only seat with integrated seat belt:			
Does the backrest indicator light turn on when the backrest is locked and also when the backrest is shaken?	**Yes**	Check microswitch of backrest lock and renew if necessary. Check electrical lines and repair if necessary.	If there is still a fault, replace the entire seat
	No	No further action necessary.	

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00 00 ... Microencapsulated screws



Screw securing adhesive is a means of preventing a screwed connection from being loosened by external influences.

Once the screw has been coated with adhesive, the adhesive remains inactive until such time that it is activated by the encapsulation breaking when the screw is inserted and then cures (hardens) at room temperature.



Installation note:

- Screw connection must be completed within 20 mins. (start of curing)
- Microencapsulated screws must not be retightened
- Thread of nut must be cleaned beforehand in event of repeated use

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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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41 00 ... Notes on the water drain hose of the slide/tilt sunroof

The water drain hoses for the slide/tilt sunroof are partially permanently integrated in the body and cannot be replaced individually.

These water drain hoses can only be completely replaced with extensive body repair work (e. g. after an accident).

Component	Vehicle	Individually replaceable
Water drain hose, front	All BMW All MINI	No
Rear water drain hose	E60, F34	No
	All other BMWs	Yes
	All MINI	Yes

An individual solution is required for damage that was not caused by an accident.

Contact national hotline.

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54 10 ... Repair instructions for bonded seals



Special tools required:

- 00 9 327

1 General remarks on handling rubber seal profiles:

- If seals reveal partly detached protective film on delivery, they must not be bonded.
- Store seals at 5 °C to 40 °C.
- If, during the handling, the protective film has come off before bonding, it can still be bonded.
- Bonding at room and object temperature 25° ±5° C. Temperatures between 40 and 50 °C significantly increase initial adhesion.
- Seals, which are subjected to temperatures above 80 °C after bonding, will be very difficult to remove.
- Maximum storage time for replacement: see identification of the expiry date on packaging

2 Damage pattern, repair and replacement

A partially released bonding (rubber part adhesive tape or adhesive tape paint) up to 120 mm may be finished. Continue with Point 2.1.

A partially released bonding (rubber part adhesive tape or adhesive tape paint) above 120 mm may **not** be finished. Gasket must be replaced. Continue with Point 2.2.

2.1 Repair of partially released bonding (adhesive tape rubber part or adhesive tape paint

2.1.1 Clean faulty areas

- Release adhesive area of paint side from recesses and degrease with cleaning agent R2. Stick to air drying time > of 1 minute. Never use paint thinner!
- This will usually partially destroy intact edge adhesive areas.
- When removing, it is important to wipe off the adhesive area of the adhesive tape with a lint-free disposable cloth. (e.g. blue Kimtex)
- Carefully wipe off the adhesive areas.

Note:

Use necessary cotton- or fluff-free paper towel once only.

Do not touch the adhesive area after cleaning.

2.1.2 Apply adhesive

- Apply profile rubber adhesive evenly as a thin layer first on the gasket and then on the painted surface.
- Stick to air drying time of 2 to 3 minutes.

Attention:

Avoid contact with skin!

Do not apply adhesive to visible painted surfaces.

2.1.3 Press in rubber seal

- Press down gasket using contact pressure (forced pressure not necessary) for > 1 minute.

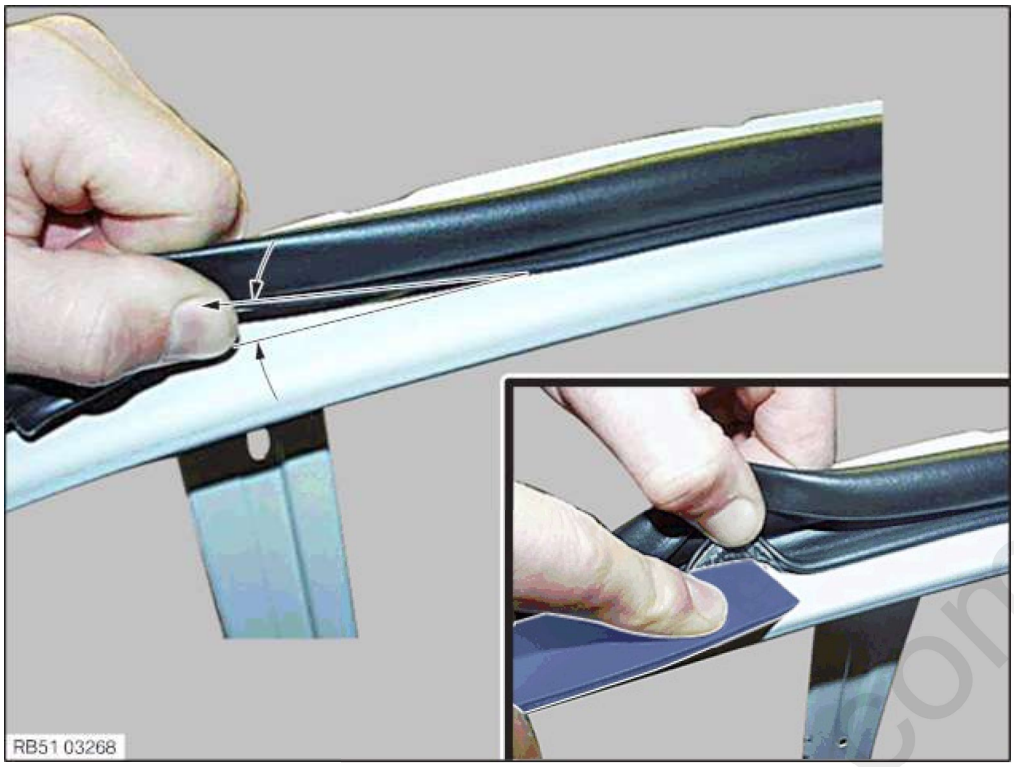
Attention:

Load can be applied to the bonding only after a period of 2 minutes. This waiting time is absolutely essential.

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2.2 Replacement

2.2.1 Peeling off the faulty rubber seal



- Remove bonded connection with fingers or cleaning agent liner 00 9 327.
- Overstretch gasket below an angle of maximum 20° very slowly under even tensile stress.
  If the gasket is pulled off too quickly, the adhesive tape can tear off and remain on the painted surface.
  The adhesive tape remaining on the painted surface must be removed with high cleaning costs.

Note:

When the adhesive tape separates from the gasket, the adhesive tape remaining on the paint must be fully separated at one location by approx. 10 mm until it is easy to grip.

Pull off the adhesive tape by pulling strongly at an angle of approx. 20°.

When existing gaskets are being peeled off with a hot air blower: Do not damage paintwork.

2.2.2 Clean bonding surface

- if required, remove adhesive remains with eraser disk or cleaning agent R2. do not damage paint. Stick to air drying time > of 1 minute.
- Before a new bond, treat the entire adhesive area with Sika Aktivator 205. Stick to air drying time > of 1 minute.

Note:

Use necessary cotton- or fluff-free paper towel once only.

Do not touch the adhesive area after cleaning.

2.2.3 Pull off protective film of the bonding surface

- Pull off the protective film off of the new gasket by approx. 15 cm using the tab.

Attention:

Once the protective film has been removed, do not under any circumstances touch the exposed bonding surface.

2.2.4 Apply rubber seal

- Press on the gasket by hand continuously while pulling off the liner slightly at the same time.

Note:

If positioned incorrectly, the gasket can still be pulled off, repositioned and pressed on again.

Always ensure that you do not touch the bonding surface with your fingers or contaminate it in any way.

- Press gasket while moving in a straight line without compression or over-stretching.
- Compress the gasket the corners; never stretch it. (critical area)

2.2.5 Establish sealing joint

- Where the beginning and end meet, a mark is created from pressing the loose end onto the beginning of the gasket.
  Cut off the gasket vertically along the marked line (use sharp knife or special scissors) and press in place.
- Visually check the pre-bonded gasket.

Note:

Small areas of gasket can remain stuck to adhesive tape of loose end.

2.2.6 Press gasket

- Always press gasket vertically to the bonding surface
- Press gasket by hand or hand roller
- Adhesive tape width up to 5 mm, contact pressure > 5 N/cm^2
- Adhesive tape width up to 10 mm, contact pressure > 10 N/cm^2

Note:

Firm thumb pressure has approx. 35 N/cm^2

3 Checking the rubber seal

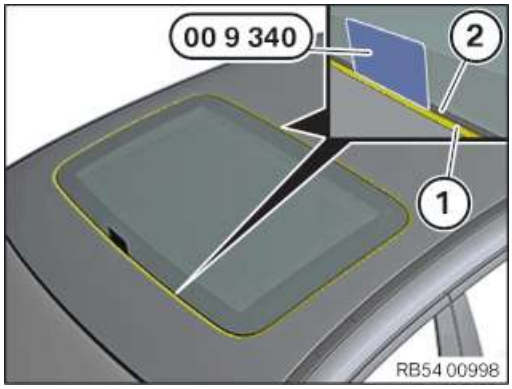
- Check the bonded gaskets for correct positioning and perfect adhesion. The bonding can be checked by pressing back the sealing lip.
- The peel strength of the gasket must be greater than 10 N/cm^2 for about 15 min after bonding.

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54 12 003 Adjusting glass slide/tilt sunroof panel

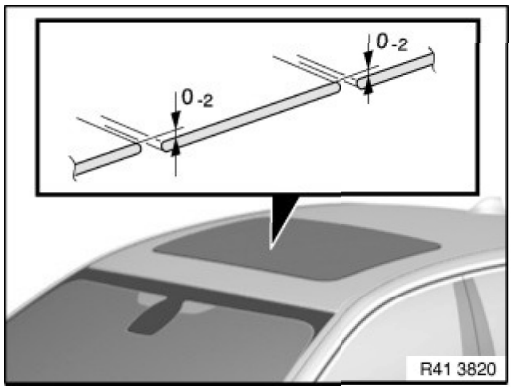
PRELIMINARY WORK

1 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

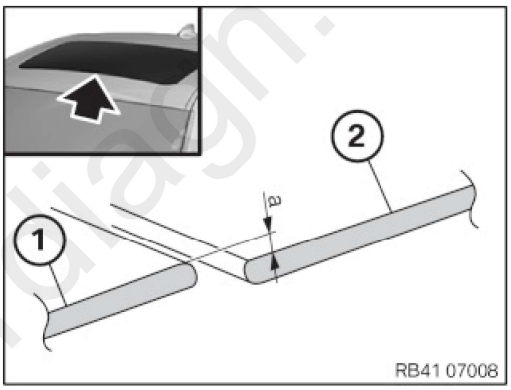
  The resistance when moving the special tool must be the same at the front and rear.



- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

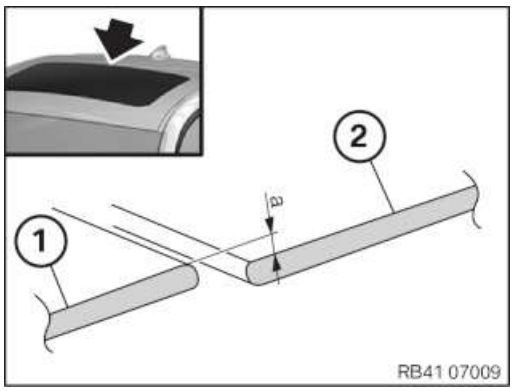
Gap dimension roof outer skin to glass slide/tilt sunroof panel

1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm

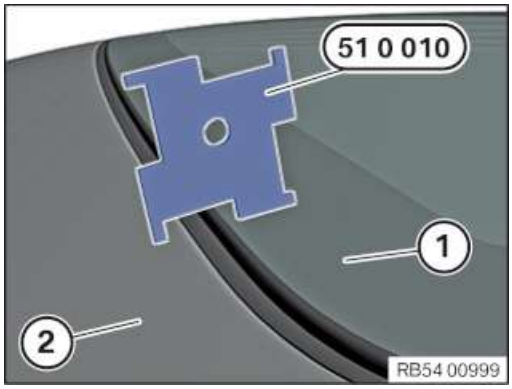


Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

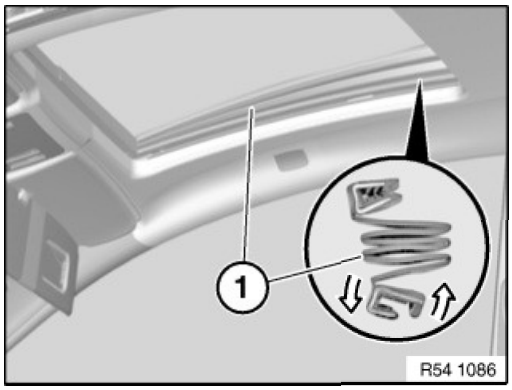


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- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

2 – Remove the gaiter for the glass slide/tilt sunroof



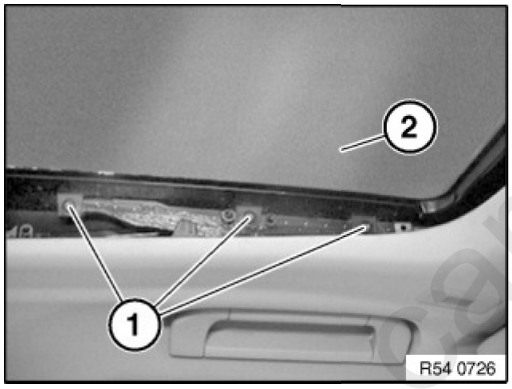
NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

MAIN WORK

3 – Adjusting glass slide/tilt sunroof panel



- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

M5	Replace screws.	4,5 Nm

POSTPROCESSES

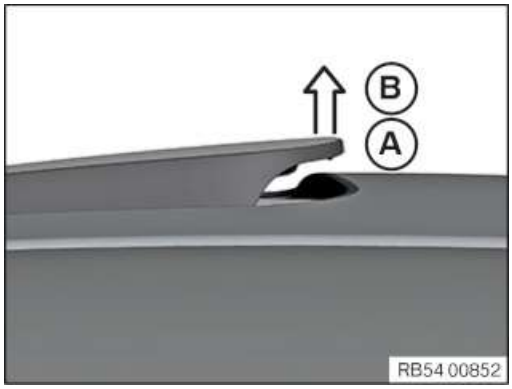
4 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.

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- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

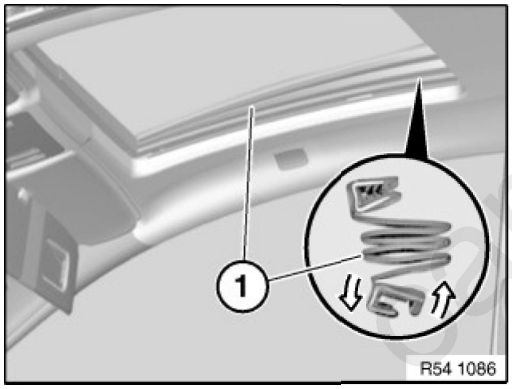
  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

5 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

Additional Information

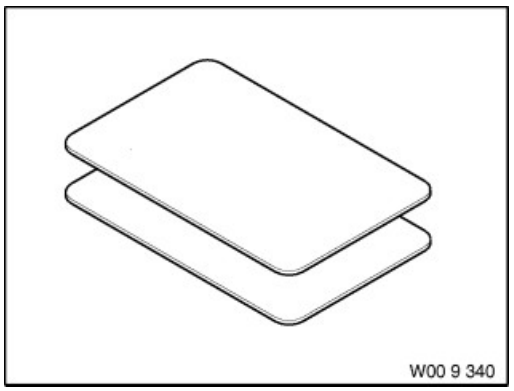
Overview of Tightening Torques

Glass slide/tilt sunroof panel to mechanics		Used in step 3
M5	Replace screws.	4,5 Nm

Overview of Special Tools

bmwfaq.com

0 493 687 (00 9 340) Removal aid



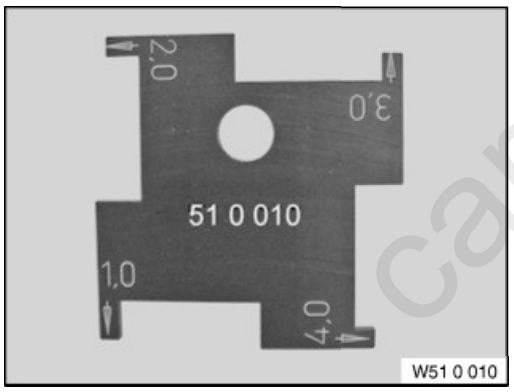
Common Used in step 1

Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
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).	

0 495 259 (51 0 010) Gauge



Common Used in step 1

Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

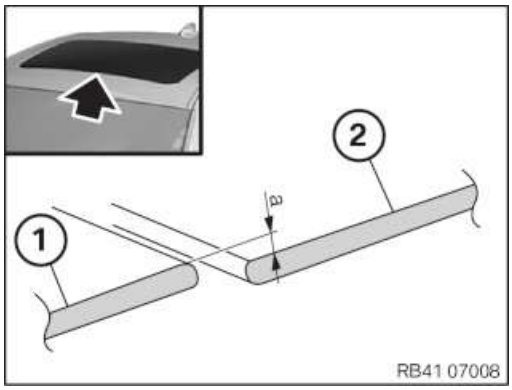
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 1

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1 roof outer skin; 2 glass slide/tilt sunroof panel

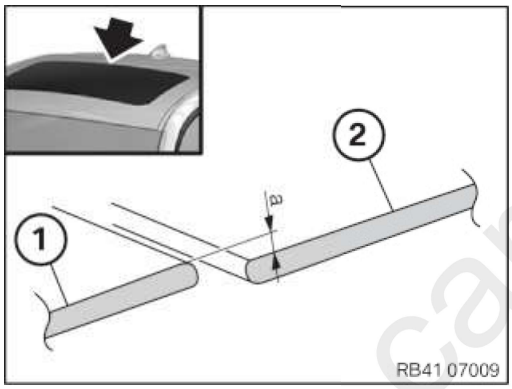
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin Used in step 1

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



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54 12 211 Removing and installing complete glass slide/tilt sunroof

RISK OF DAMAGE

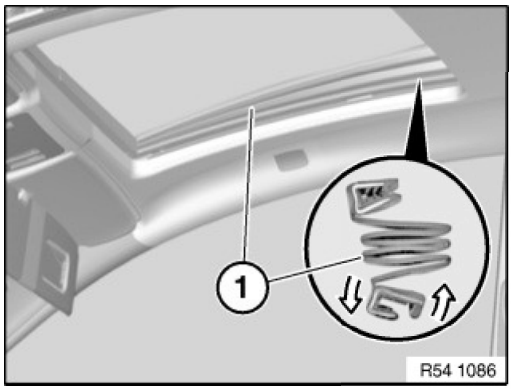
Fold the headlining.

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 – Remove the gaiter for the glass slide/tilt sunroof

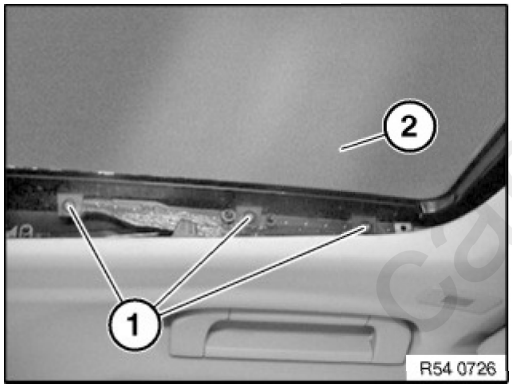


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

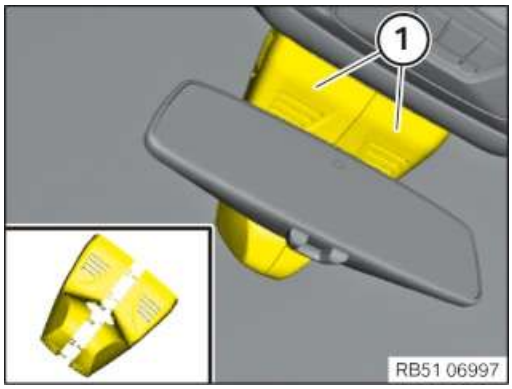
2 – Remove glass slide/tilt sunroof panel



- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Removing the covers for the interior mirror

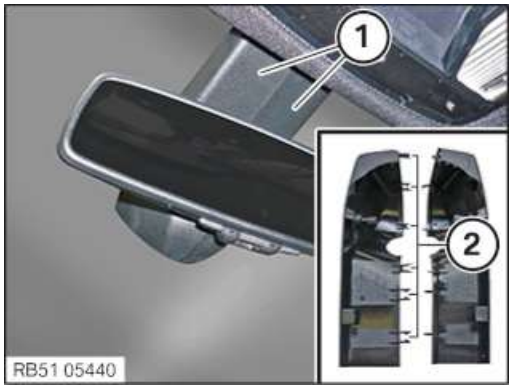
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

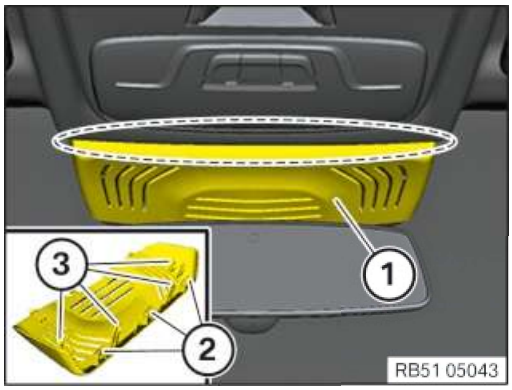
- **Version B:**

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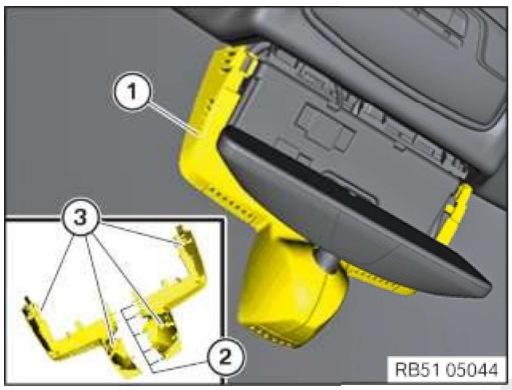


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**



- Detach cover (1) from the clamps (2) in the marked area using a suitable plastic wedge and pull down a certain distance.
- Release cover (1) at the retaining lugs (3) and remove from the guides to the rear.



- Release cover (1) from the latch mechanisms (2) and (3) and remove sideways.
- Remove cover (1) from mirror base (2).

4 – Remove both A-pillar trim panels

NOTICE

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

▸ **Remove the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

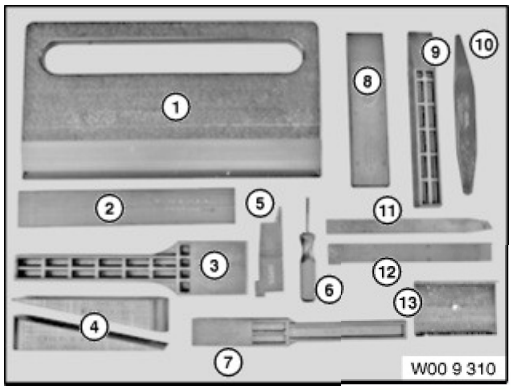
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WARNING

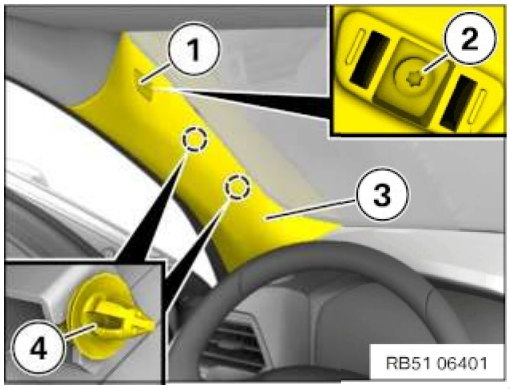
Pyrotechnic components.

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.



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



- Unclip the cover (1) with suitable tools.
- Loosen screw (2).
- Unclip A-pillar trim panel (3) with clips (4) and guide it out upwards.

5 – Remove both sun visors

NOTICE

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

▶ **Remove sun visor**



- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

6 – Remove both counter supports for the sun visors

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NOTICE

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

▸ **Remove the counter support for the sun visor**

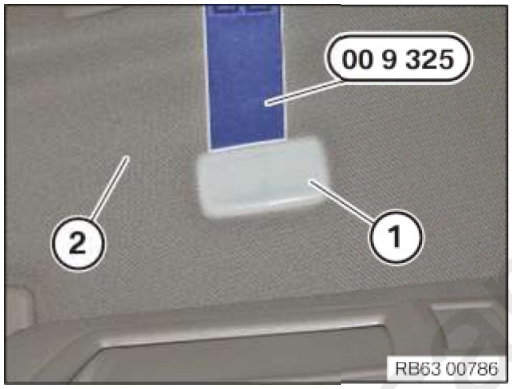


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

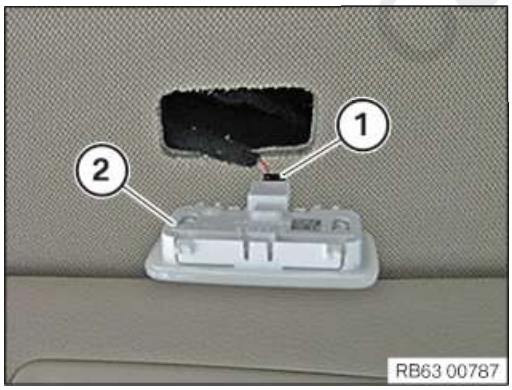
7 – Removing front vanity mirror light

NOTICE

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



- Lever out the front vanity mirror light (1) using special tool 0 496 569 (00 9 325) from the headlining (2).



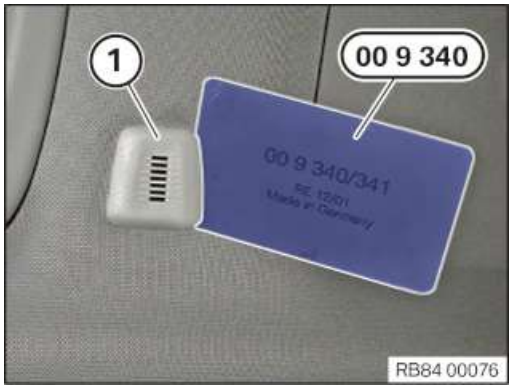
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

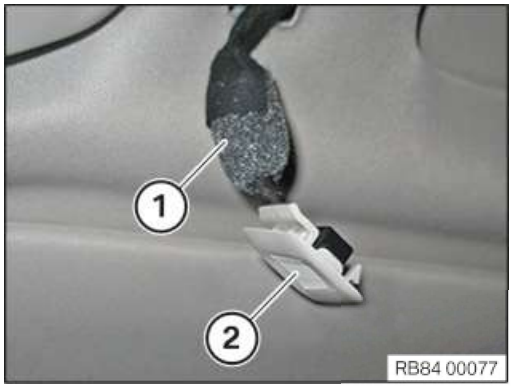
NOTICE

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).

9 – Removing the roof function centre (FZD)



- Unclip the cover (1).

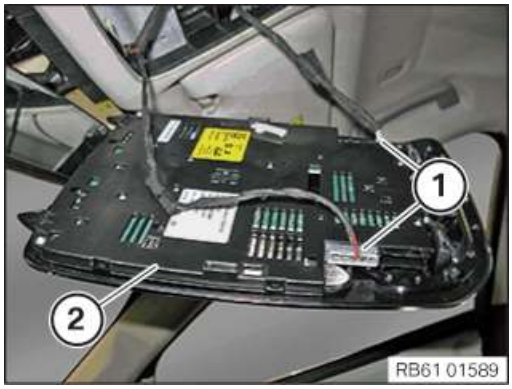


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

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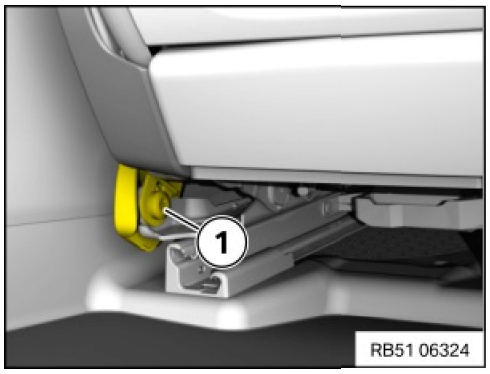
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

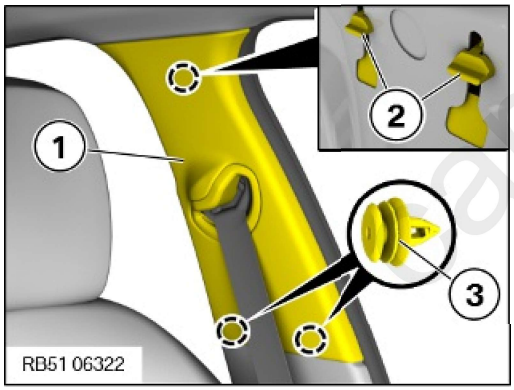
NOTICE

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

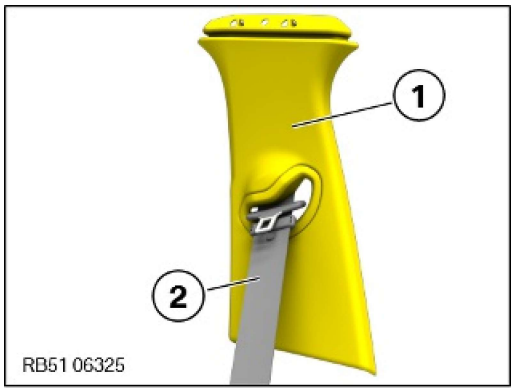
▶ **Remove the B-pillar trim panel**



- Fully position the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



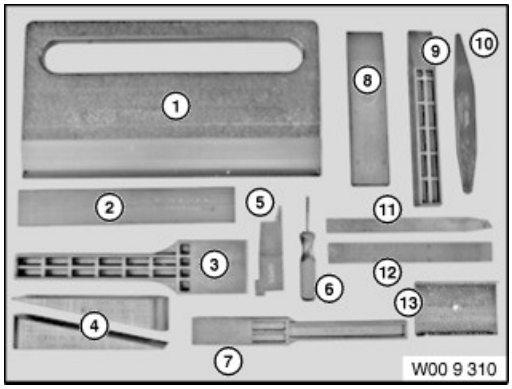
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



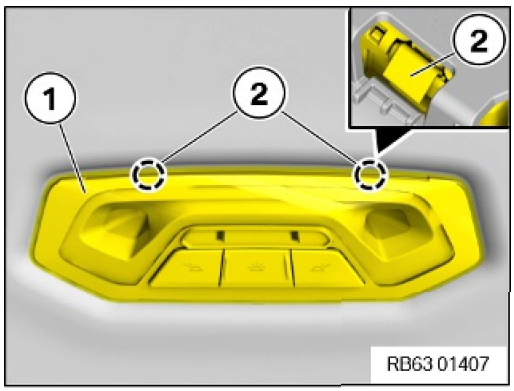
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

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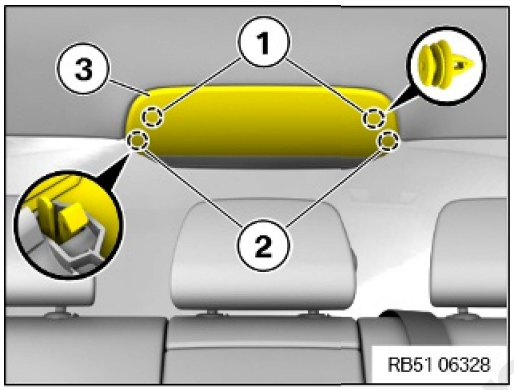


- Have the set of special tools 0 493 752 (00 9 329) ready.



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

12 – 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).

13 – Remove both C-pillar trim panels

NOTICE

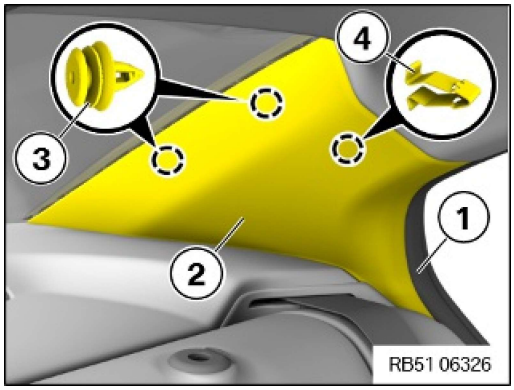
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

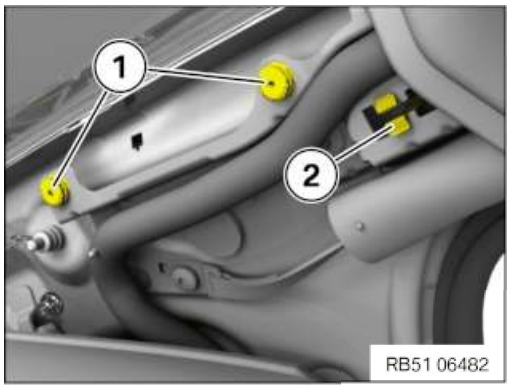
NOTICE

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

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- Unclip clamp (4).
- Unclip clips (3).
- Feed out C-pillar trim panel (2) from the guides to the front.
- Thread out C-pillar trim panel (2) from the lip of edge protection (1).



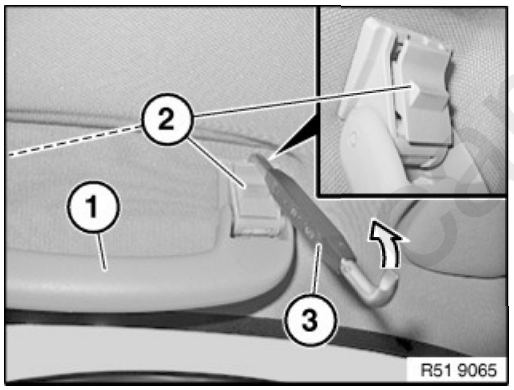
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

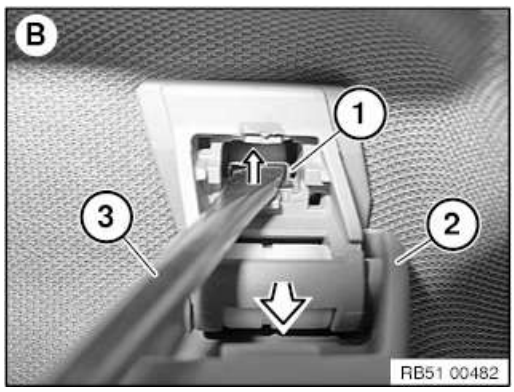
NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Removing the grab handle**



- Expand the grab handle (1) towards the bottom.
- Disengage and remove the locking insert (2) with an angle screwdriver (3) as shown.



- Pull the grab handle (2) slightly to the inside and hold it.
- Use a suitable screwdriver (3) to detach the upper and lower release tabs (1).
- Guide the grab handle (2) out.
- Repeat the operation on the other side of the grab handle (2).

15 – Lower the headlining (with SHD)

Prerequisite

The front seats have been fully adjusted towards the bottom.

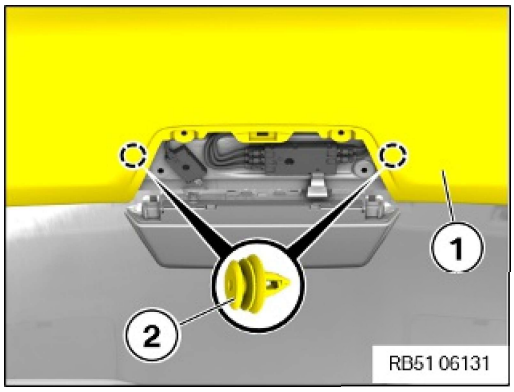
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

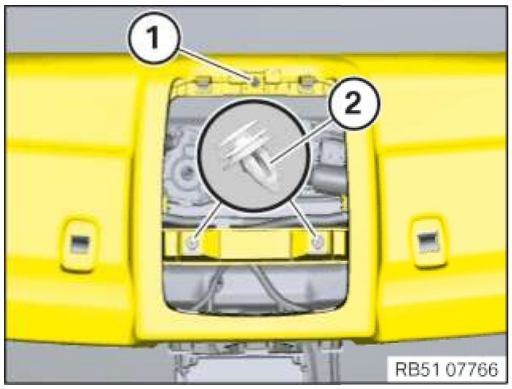
Fold the headlining.

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.



- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.



- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

16 – Removing the mounting plate for the rear left and right grab handle

NOTICE

Perform the operations on the left and right side.

▸ **Removing the mounting plate for the rear grab handle**

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RISK OF DAMAGE

Damage due to swarf.

Contamination can lead to malfunctions and damage.

- Cover working area.
- Draw off swarf during drilling using a vacuum cleaner.

NOTICE

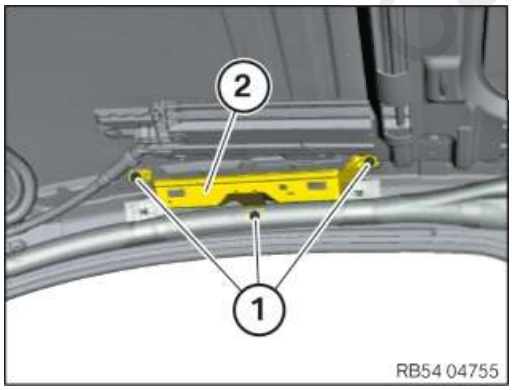
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.



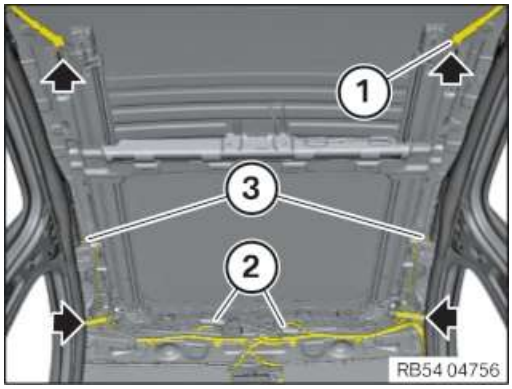
- Protect the working area with a suitable cover (1) to protect against falling swarf.



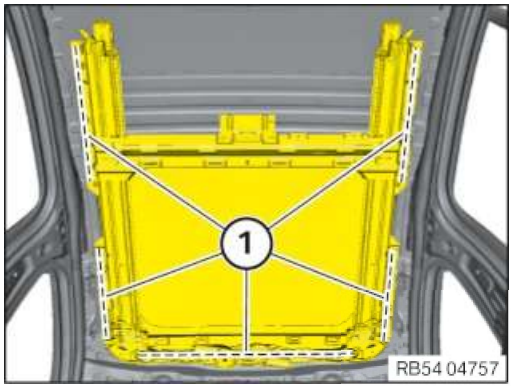
- Drill out blind rivets (1) and remove both rear holders (2).

MAIN WORK

17 – Remove slide/tilt sunroof completely



- Pull off all four water drain hoses (1) (arrows).
- Disconnect the plug connections of engine (2) and unclip the corresponding cable.
- Disconnect the plug connections (3) of head airbag and unclip the corresponding cable and tie to the side.



RISK OF DAMAGE

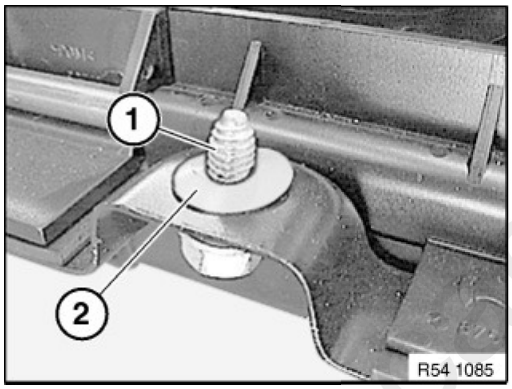
Heavy component.

Heavy components can lead to injury or damage.

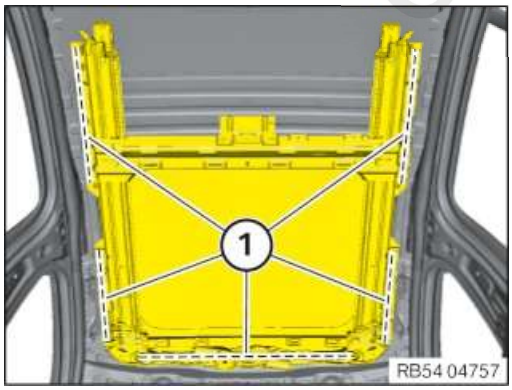
- Remove and install heavy components with the aid of another person/other persons.

- Secure slide/tilt sunroof from falling with the help of an auxiliary person.
- Release all screws along the areas (1).
- Lower the slide/tilt sunroof with the assistance of an auxiliary person and remove from the vehicle through the front passenger door.

18 – Completely installing the slide/tilt sunroof



- In order to prevent groaning noises, all bolts (1) must be secured with the plastic washers (2) prior to installation.



RISK OF DAMAGE

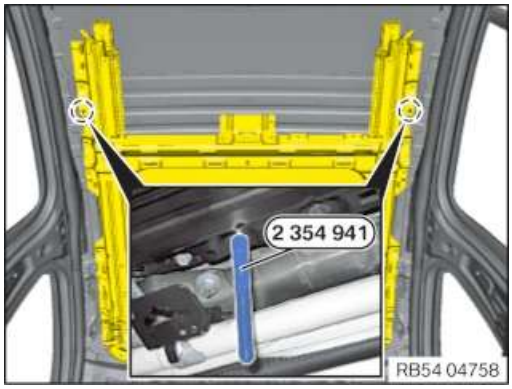
Heavy component.

Heavy components can lead to injury or damage.

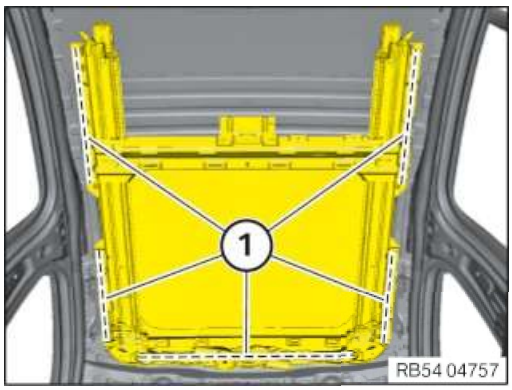
- Remove and install heavy components with the aid of another person/other persons.

- Insert the slide/tilt sunroof through the front passenger door into the vehicle with the help of an auxiliary person and position it.
- When installing it, ensure that no cables are clamped.
- Screw in all screws along the line (1) by several turns.

mydiag.com



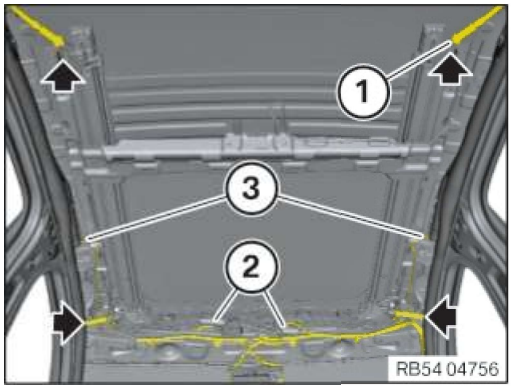
- Insert the special tool and align the panorama glass roof (1) with the roof.



- Tighten all screws along the marked areas (1) .

Slide/tilt sunroof frame to body

M6		5,4 Nm



- Connect all four water drain hoses (1) (arrows).
- Connect the head air-bag plug connections (3) and clip in the corresponding cables.
- Connect plug connections 2 of the engines and clip in the corresponding cables.

Note: Route airbag wiring harness without tension or kinks.

POSTPROCESSES

19 – Installing the mounting plate for the left and right grab handle

NOTICE

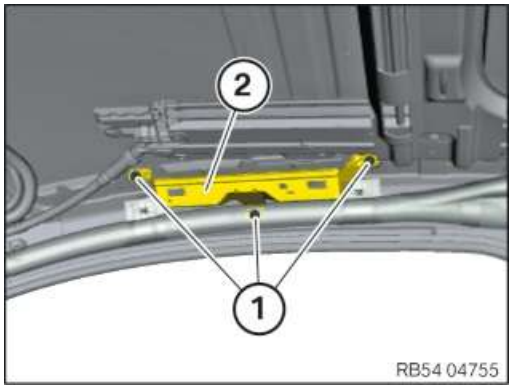
Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

NOTICE

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

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- Position the holder (2) and set blind rivets in the area (1).

20 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

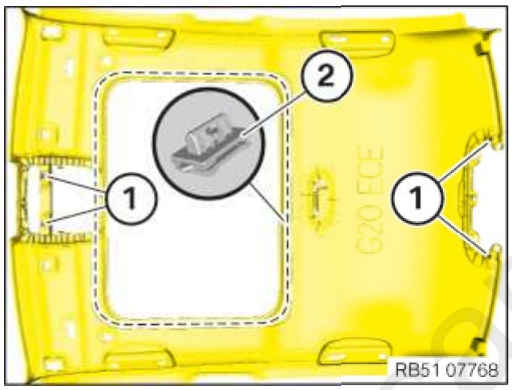
The front seat backrests have been fully adjusted towards the rear.

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.



- Check the clips (1) on the headlining (2) for damage.

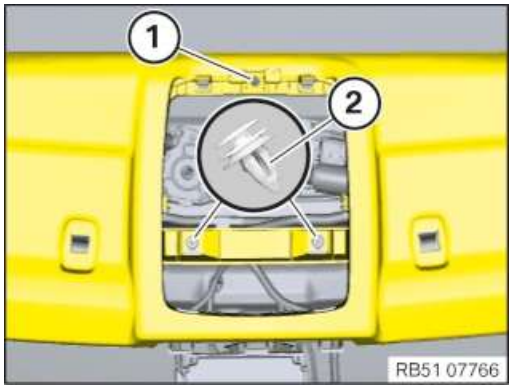
  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) *into the slide/tilt sunroof unit* and clamps (2) in the area of the dotted line.

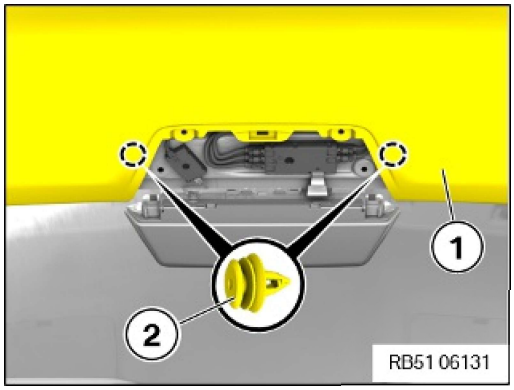
carldiag.com



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

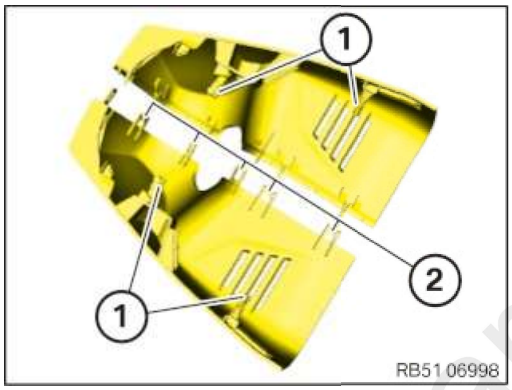
Oval-head screw		Tightening torque	1,5 Nm



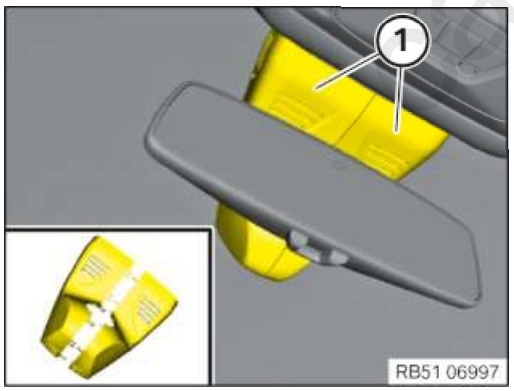
- Clip headlining (1) to the clips (2).

21 – Installing the covers for the interior mirror

- **Version A:**

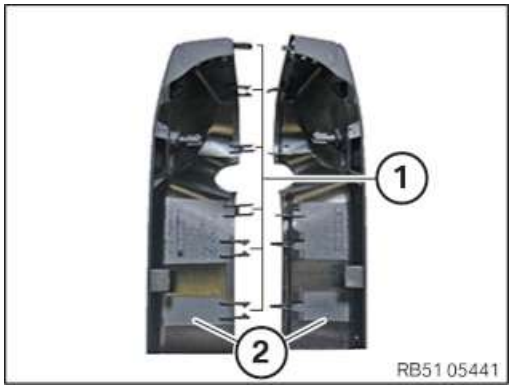


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



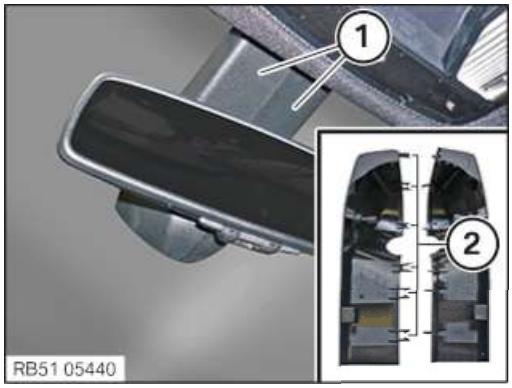
- Feed cover (1) in and lock.
- **Version B:**

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- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

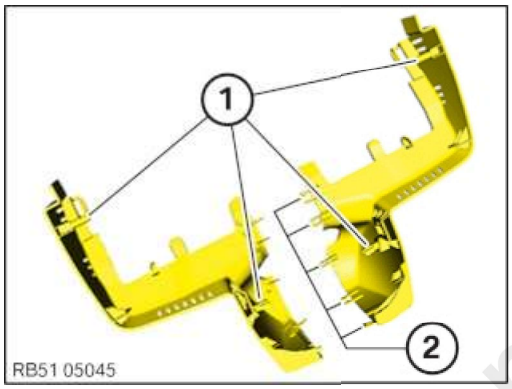
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



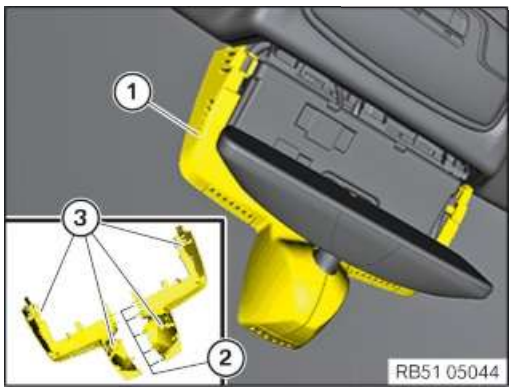
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

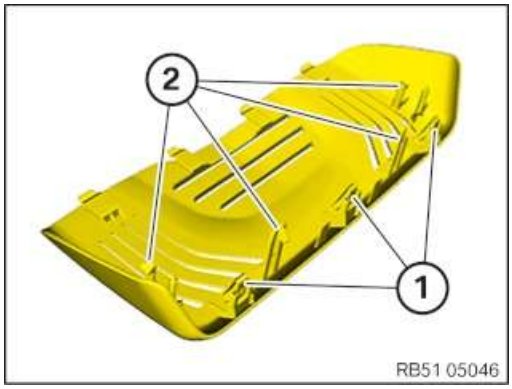
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

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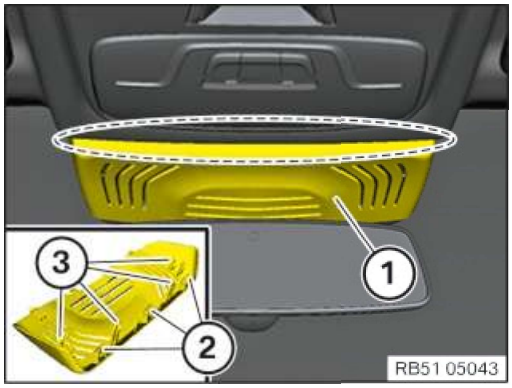
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

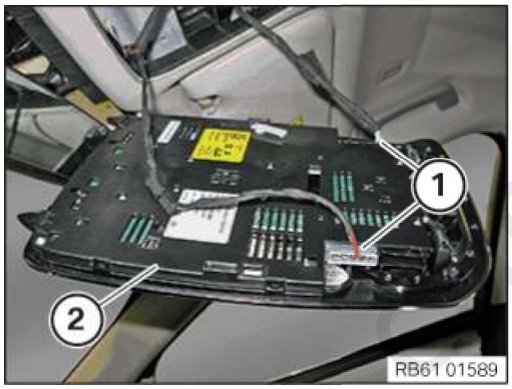
Measure

- Renew the cover.

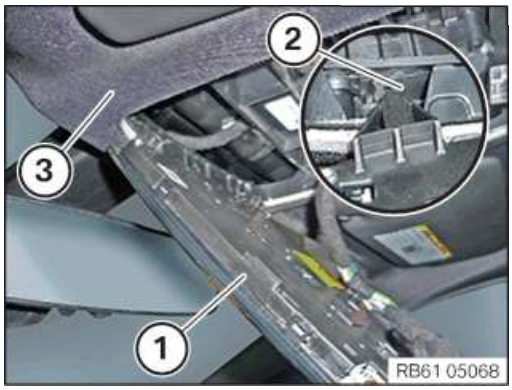


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

22 – Installing roof function centre (FZD)



- Connect connectors (1) and lock.
- Clip in the cable for the roof function centre (FZD) (2) in the cable clip.



- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

  Make sure the headlining is not deformed during this operation.

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- Clip the roof function centre (FZD) (1) upwards into the clamps (2).



- Pass through the FZD frame and headlining with the special tool 2 298 505 and adjust the headlining correctly.



- Tighten the screws (1).

Roof function centre

	Tightening torque	1,2 Nm



- Clip in the cover (1).

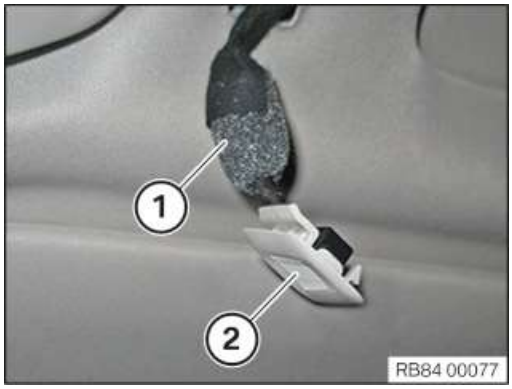
23 – Install both microphones

NOTICE

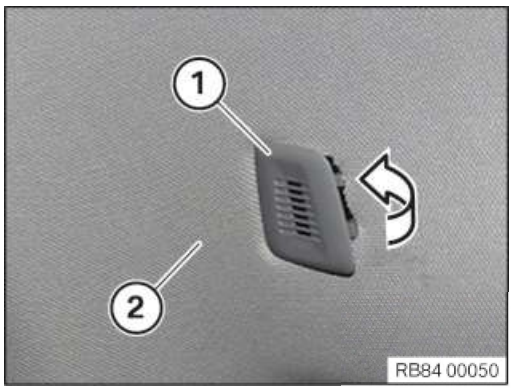
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

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

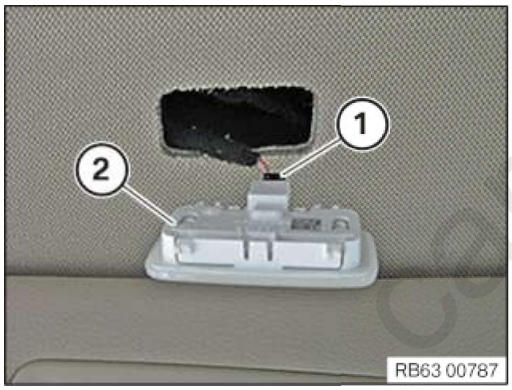


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

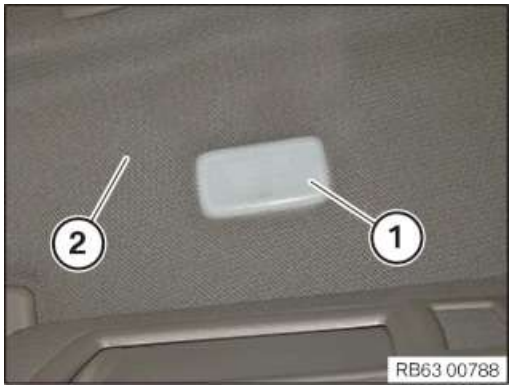
24 – Installing front vanity mirror light

NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).



- Position the front vanity mirror light (1) in the headlining (2).

25 – Install both counter supports for the sun visors

NOTICE

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

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▸ **Install the counter support for the sun visor**



- Insert the counter support (3) into the headlining.
- Make sure the clamps (2) are engaged correctly.
- Use cover (1).

26 – Install both sun visors

NOTICE

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

▸ **Install the sun visor**



- Connect the sun visor (2) with the corresponding connector.
- Guide the sun visor (2) into the headlining.
- Use cover (1).
- Attach the sun visor (2) on the counter support.

27 – Install both A-pillar trim panels

NOTICE

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

▸ **Installing the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

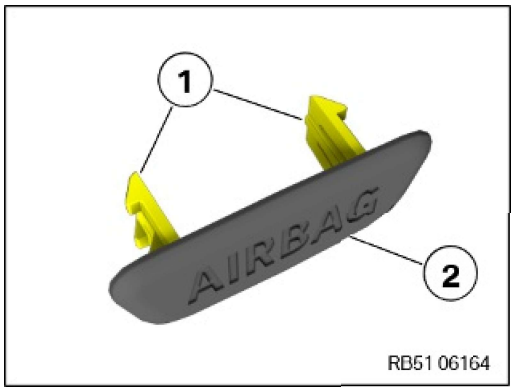
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WARNING

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.



Check

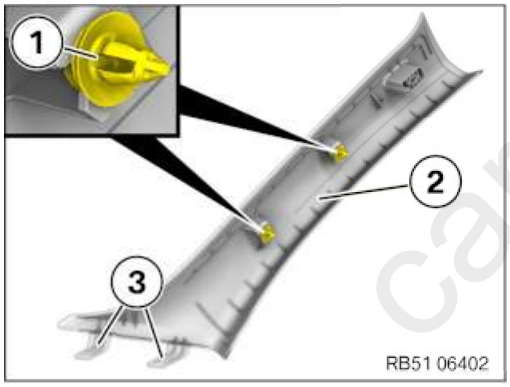
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

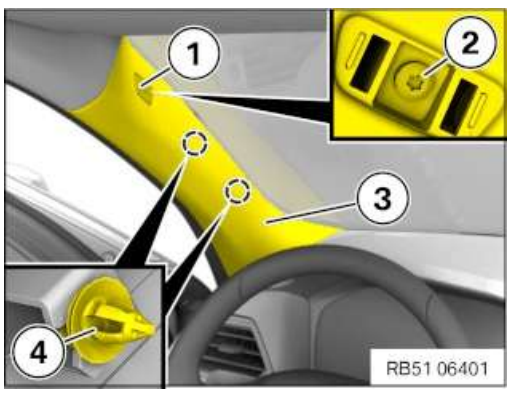
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the A-pillar trim panel.



- Guide in A-pillar trim panel (3) downwards and clip it in with clips (4).
- Tighten down screw (2).

A-pillar trim panel to body

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

- Clip in the cover (1).

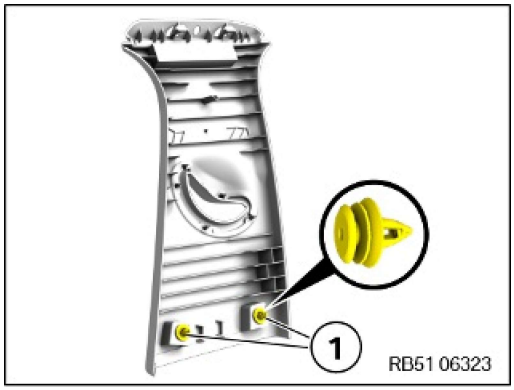
28 – Installing both B-pillar trim panels

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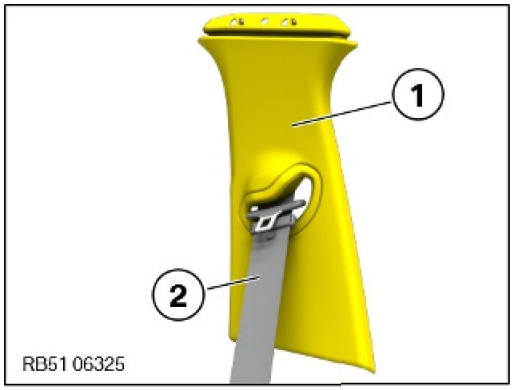
NOTICE

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

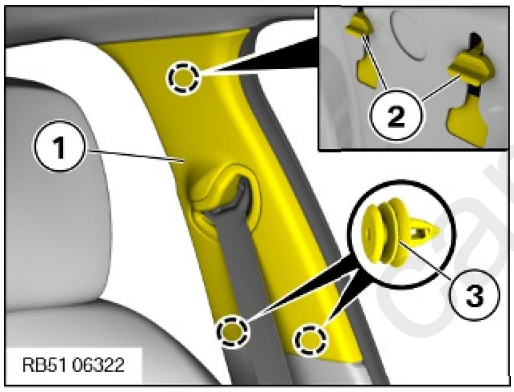
▶ **Install the B-pillar trim panel**



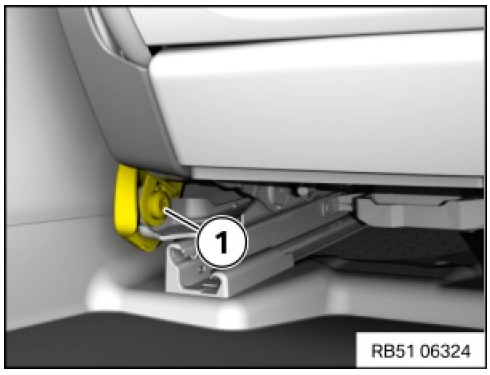
- Check the clips (1) for damage and renew if necessary.



- Guide upper seat belt (2) in B-pillar trim panel (1).



- Insert B-pillar trim panel (1) into guides (2) and under the front and rear lips of edge protection.
- Clip in the B-pillar trim panel (1) with the clips (3).



- Fully position the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

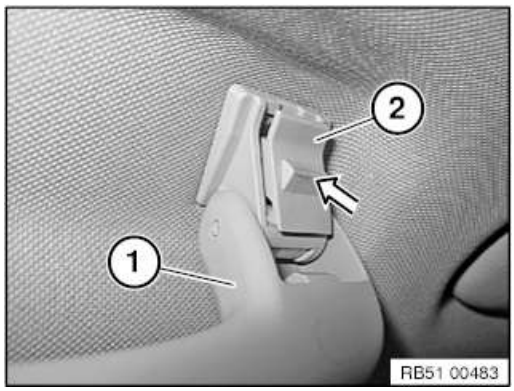
29 – Installing all grab handles

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NOTICE

The description is for one component only. The procedure is identical for all further components.

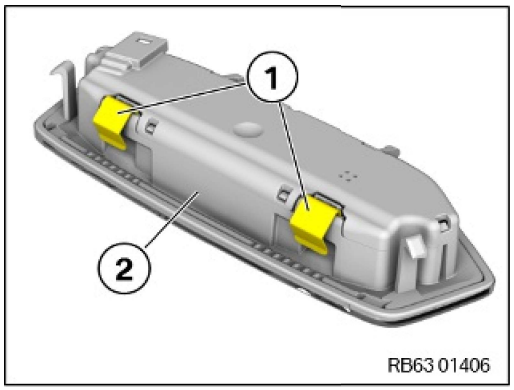
▸ **Installing the grab handle**



- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

30 – Install interior roof light

Check



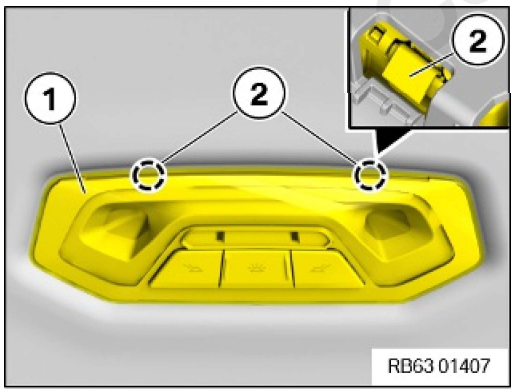
- Check the clamps (1) for damage.

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).

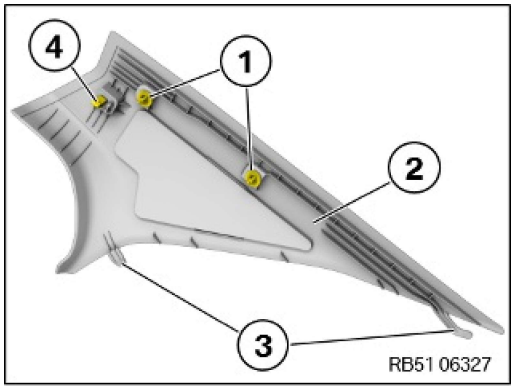
31 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

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Check

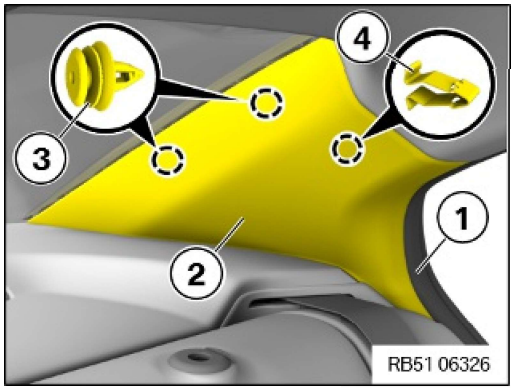
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

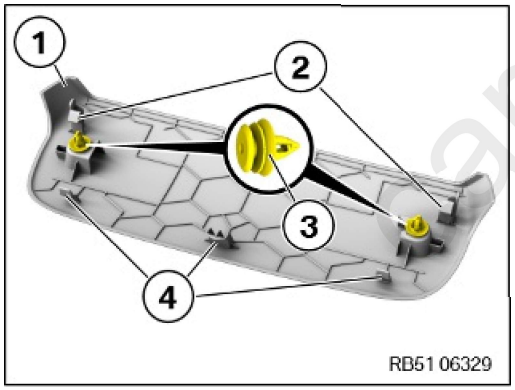


NOTICE

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

- Feed C-pillar trim panel (2) into guides towards the rear.
- Clip in clips (3).
- Clip in clamp (4).
- Guide in C-pillar trim panel (2) under the lip of edge protection (1).

32 – Installing trim for additional brake light



Check

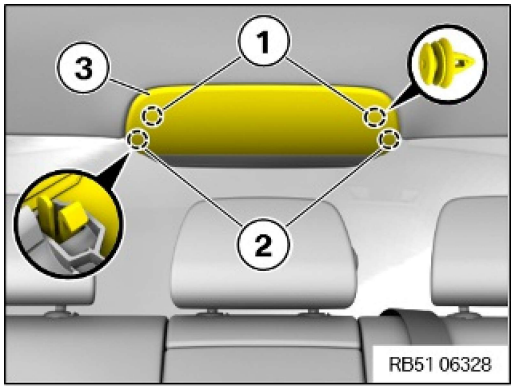
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

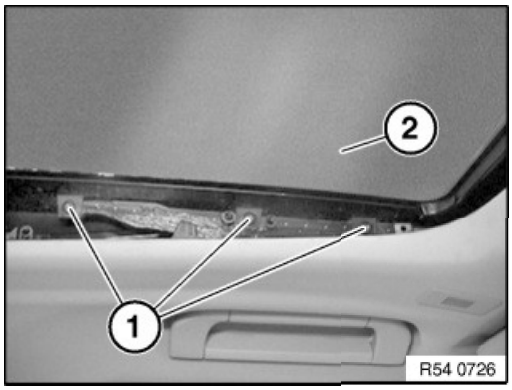
Measure

- 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).

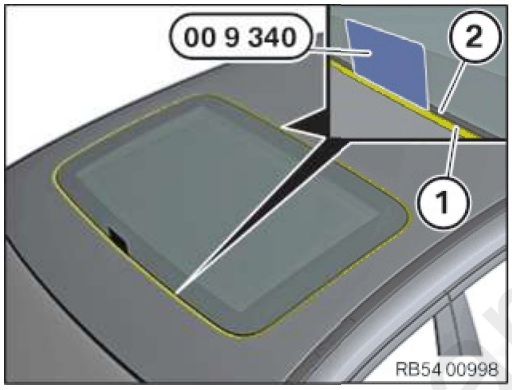
33 – Install glass slide/tilt sunroof panel



- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

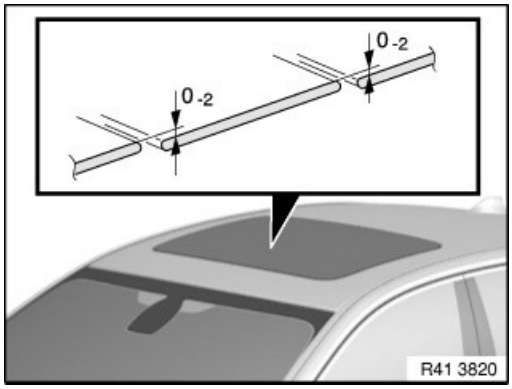
34 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

  The resistance when moving the special tool must be the same at the front and rear.

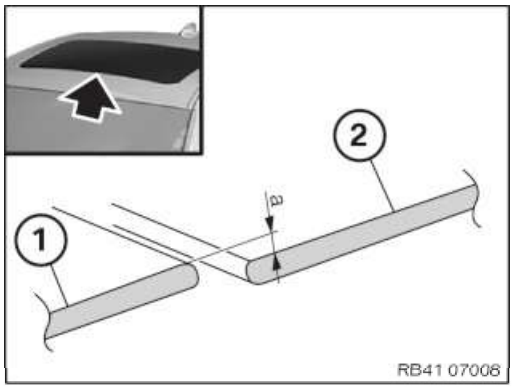
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- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

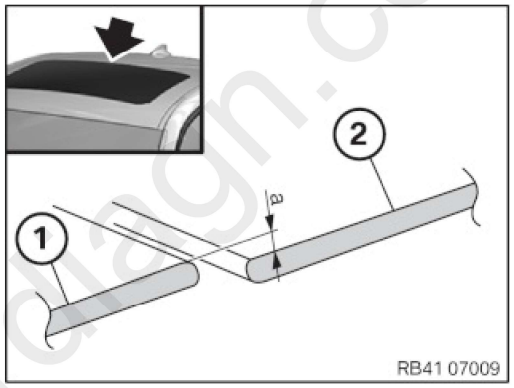
Gap dimension roof outer skin to glass slide/tilt sunroof panel

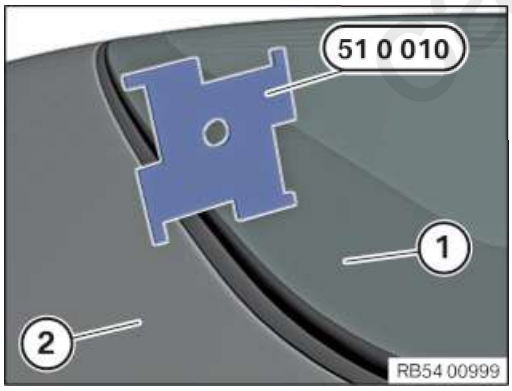
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

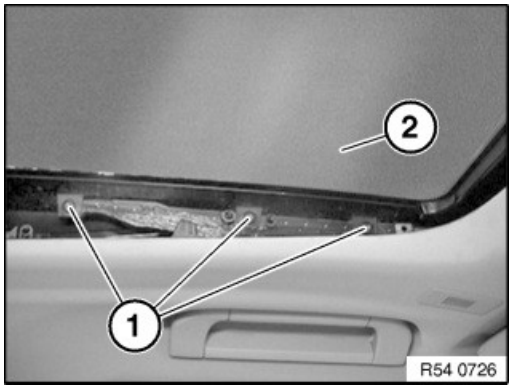




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

35 – Adjusting glass slide/tilt sunroof panel

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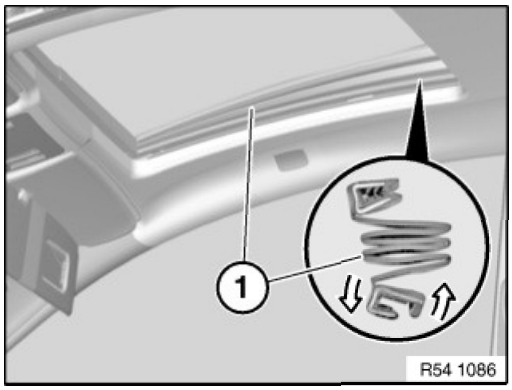


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

M5	Replace screws.	4,5 Nm

36 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

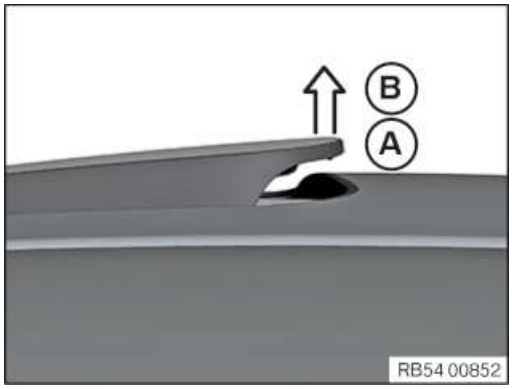
37 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.

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- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

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Additional Information

Overview of Tightening Torques

Slide/tilt sunroof frame to body			Used in step 18
M6			5,4 Nm

Headlining to frame			Used in step 20
Oval-head screw		Tightening torque	1,5 Nm

Roof function centre			Used in step 22
		Tightening torque	1,2 Nm

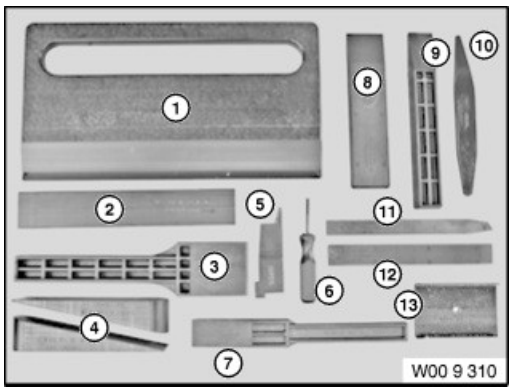
A-pillar trim panel to body			Used in step 27
Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

End fitting to seat mechanism			Used in step 28
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Glass slide/tilt sunroof panel to mechanics			Used in step 35
M5	Replace screws.		4,5 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



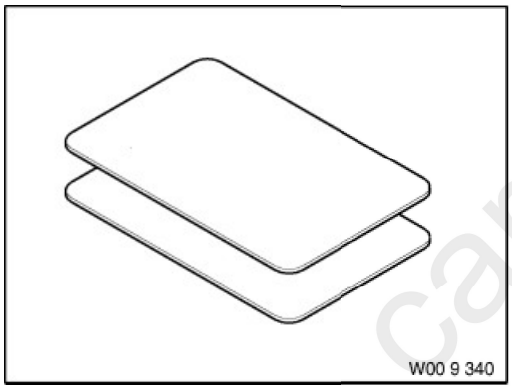
Common	Used in step 411
Usage	(Case) with insert not incl. panel wedges
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

0 496 569 (00 9 325) Wedge



Common	Used in step 7
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

0 493 687 (00 9 340) Removal aid



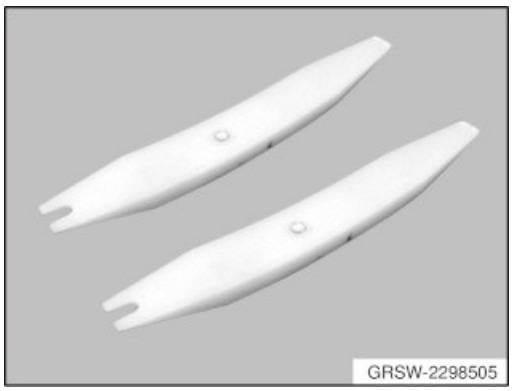
Common	Used in step 8
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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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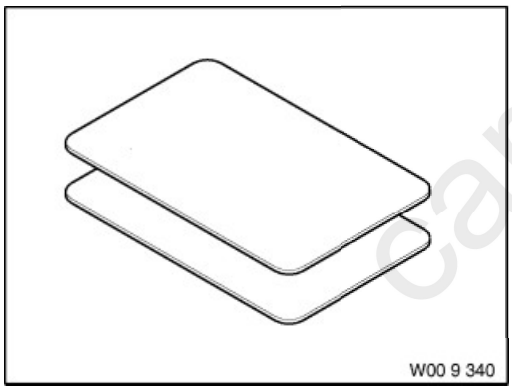
2 298 505 Wedge



Common Used in step 22

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)

0 493 687 (00 9 340) Removal aid



Common Used in step 34

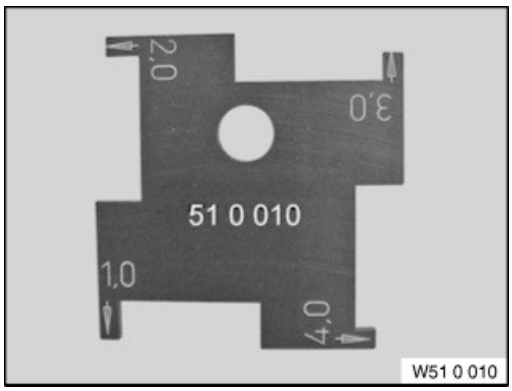
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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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0 495 259 (51 0 010) Gauge



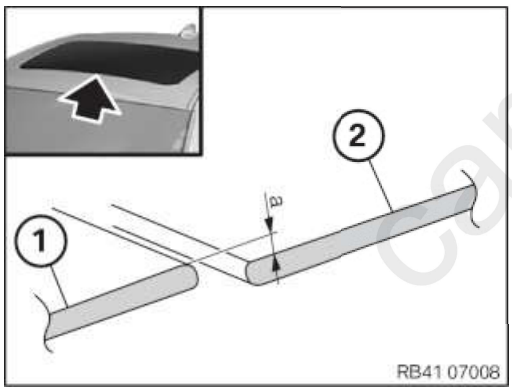
Common	Used in step 34
Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 34

1 roof outer skin; 2 glass slide/tilt sunroof panel

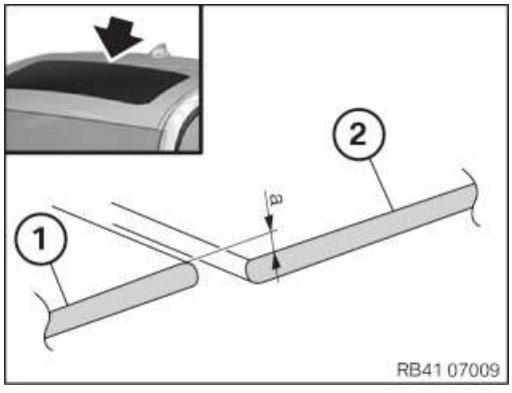
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin Used in step 34

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



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Links

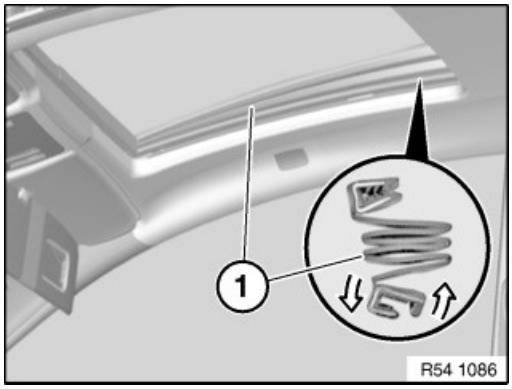
General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	4
72 00 ... Safety regulations for handling components with gas generators	4

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54 12 115 Removing and installing glass slide/tilt sunroof panel

PRELIMINARY WORK

1 – Remove the gaiter for the glass slide/tilt sunroof



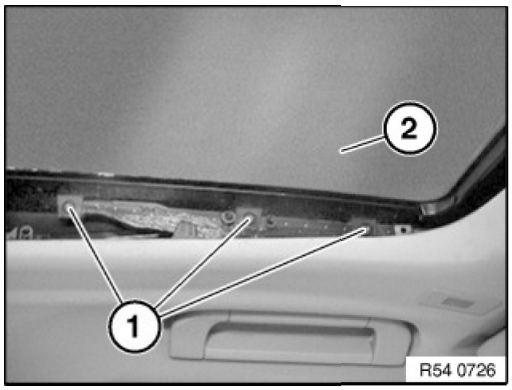
NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

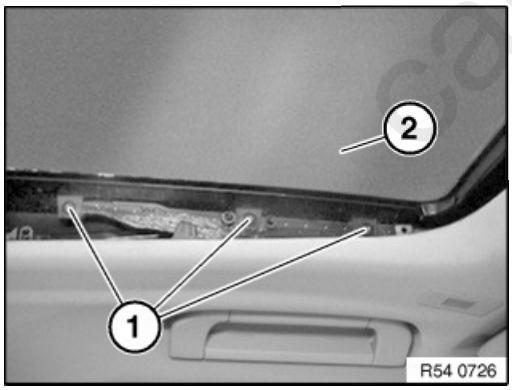
MAIN WORK

2 – Remove glass slide/tilt sunroof panel



- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Install glass slide/tilt sunroof panel



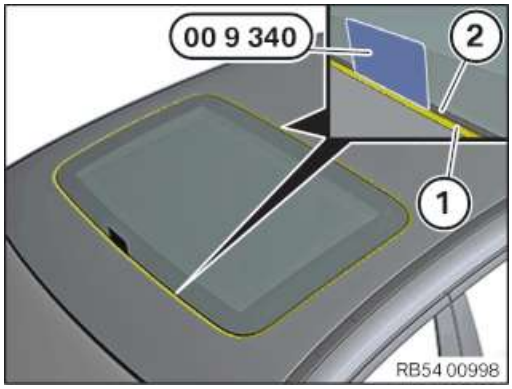
- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

POSTPROCESSES

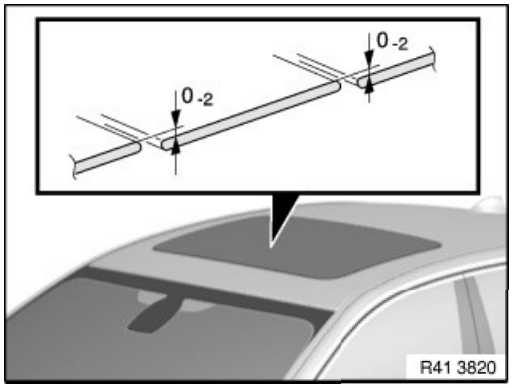
4 – Check the setting of the glass slide/tilt sunroof panel

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- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

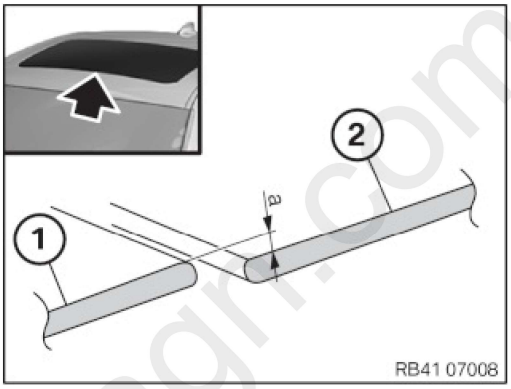
  The resistance when moving the special tool must be the same at the front and rear.



- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

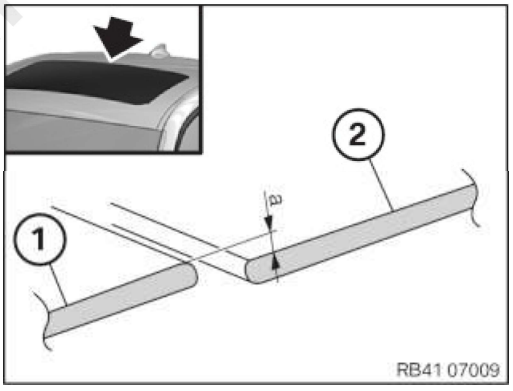
Gap dimension roof outer skin to glass slide/tilt sunroof panel

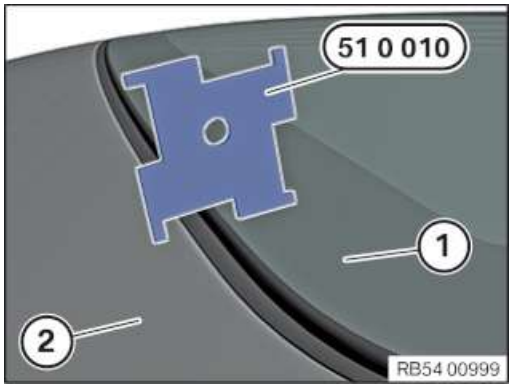
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

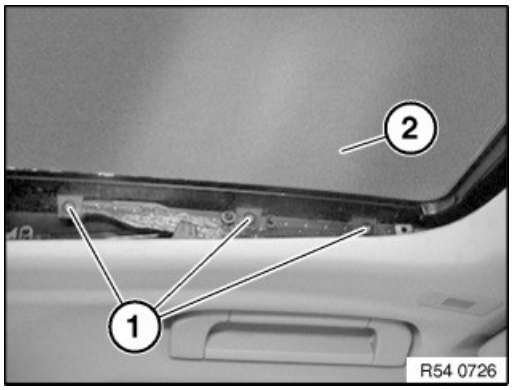




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

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5 – Adjusting glass slide/tilt sunroof panel



- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

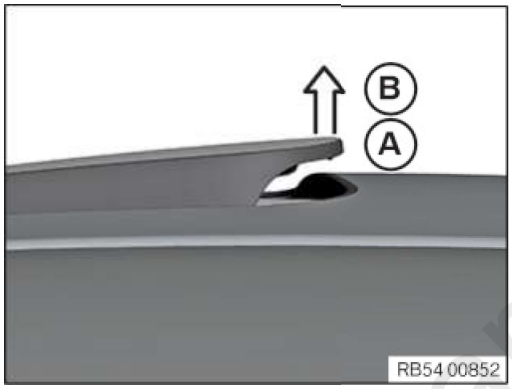
M5	Replace screws.	4,5 Nm

6 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.



- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

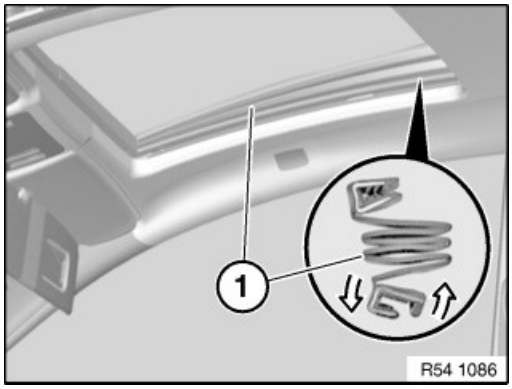
TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

7 – Install the gaiter for the glass slide/tilt sunroof

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NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

Additional Information

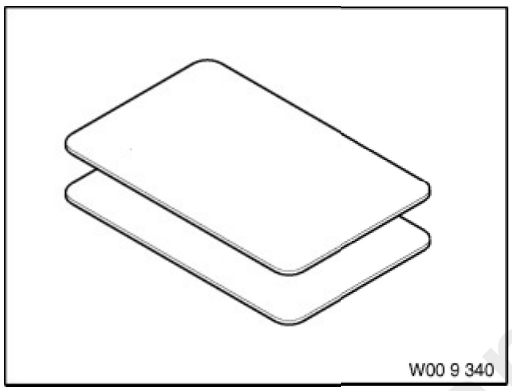
Overview of Tightening Torques

Glass slide/tilt sunroof panel to mechanics — Used in step 5

M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



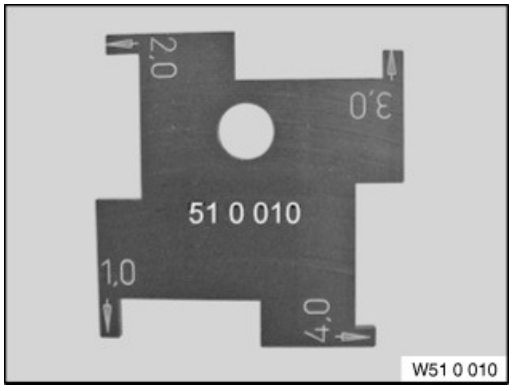
Common — Used in step 4

Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
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).	

0 495 259 (51 0 010) Gauge



Common — Used in step 4

Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

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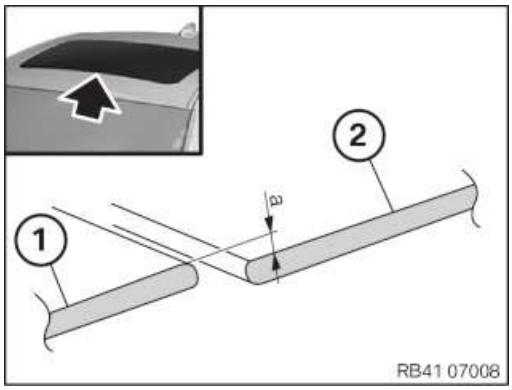
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel

Used in step 4

1 roof outer skin; 2 glass slide/tilt sunroof panel

a	0,7 (-0,05 - 1,45) mm

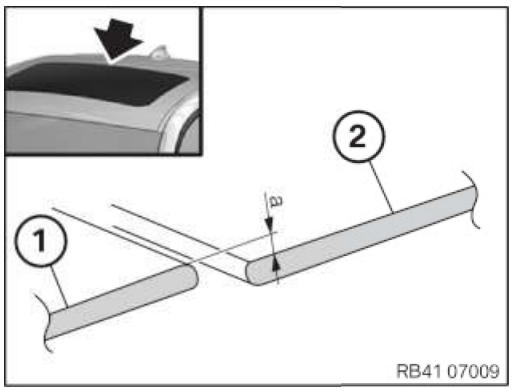


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 4

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm

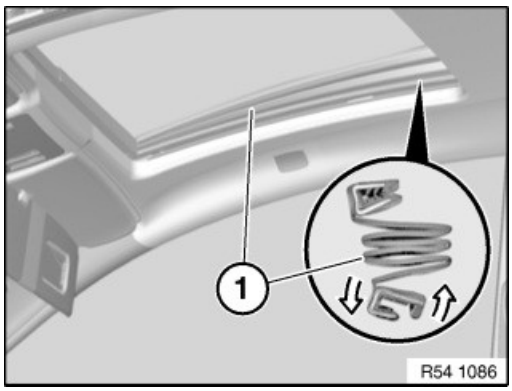


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54 12 138 Removing and installing/renewing water channel for glass slide/tilt sunroof

PRELIMINARY WORK

1 – Remove the gaiter for the glass slide/tilt sunroof

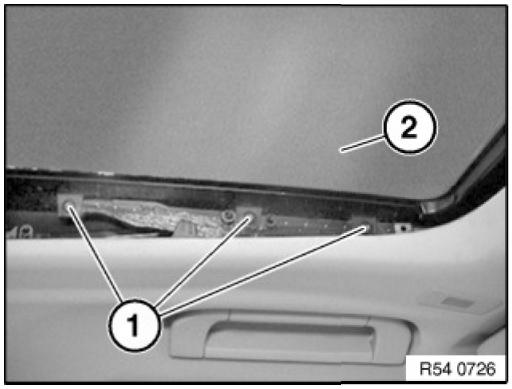


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

2 – Remove glass slide/tilt sunroof panel

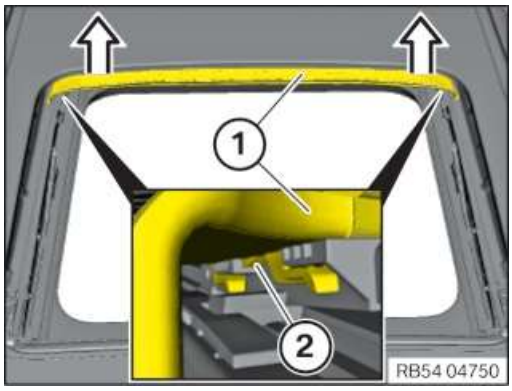


- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

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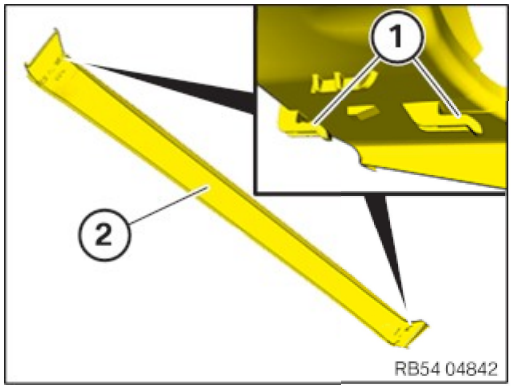
MAIN WORK

3 – Remove water channel

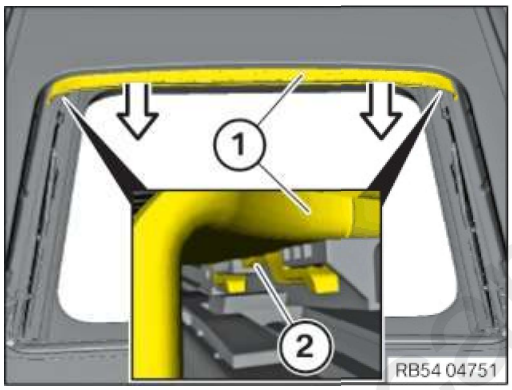


- Using a suitable tool, unlock the retaining lugs (2).
- Move the water channel (1) backwards and feed out.

4 – Install water channel



- Check retaining lugs (1) of the water channel (2) for damage and renew, if necessary.

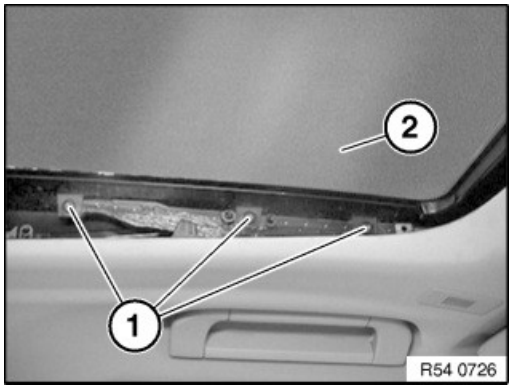


- Feed in the water channel (1) from rear and move towards front until the retaining lugs (2) engage.

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POSTPROCESSES

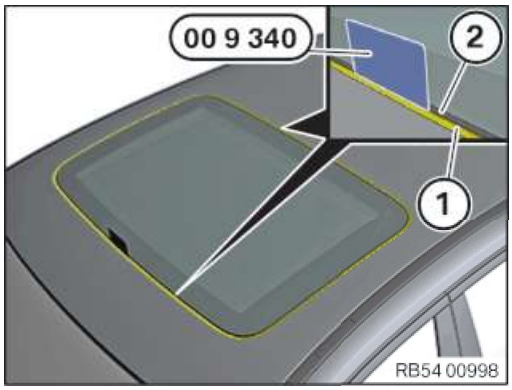
5 – Install glass slide/tilt sunroof panel



- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

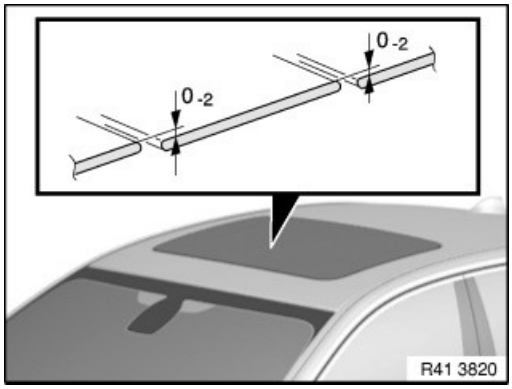
6 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

  The resistance when moving the special tool must be the same at the front and rear.

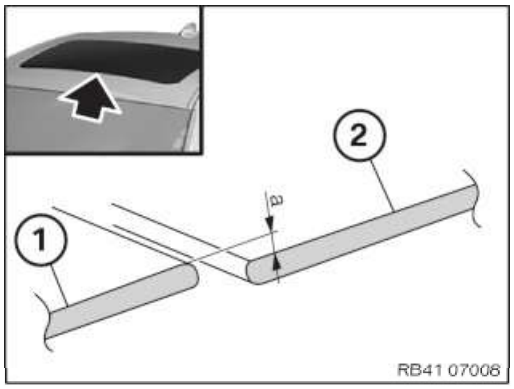
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- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

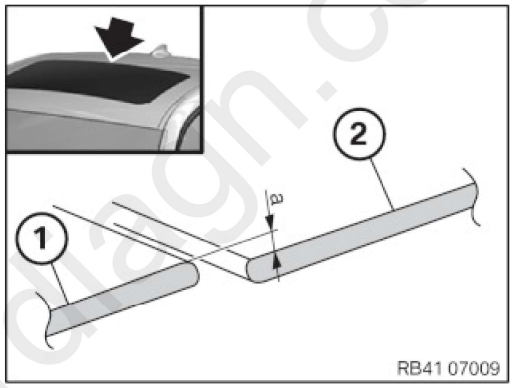
Gap dimension roof outer skin to glass slide/tilt sunroof panel

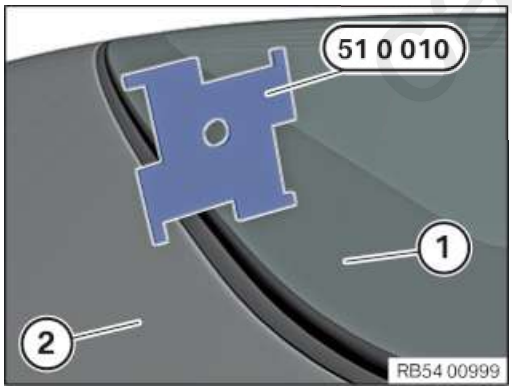
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

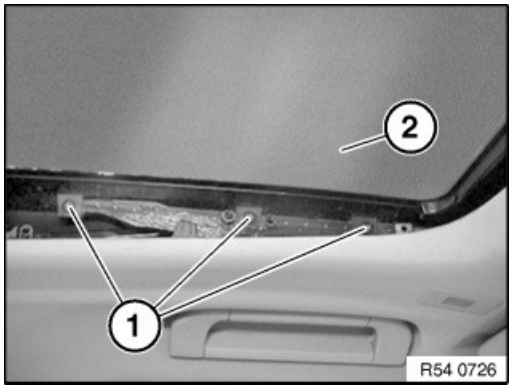




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

7 – Adjusting glass slide/tilt sunroof panel

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- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

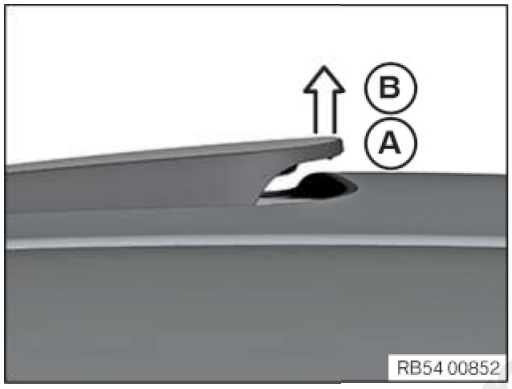
M5	Replace screws.	4,5 Nm

8 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.



- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

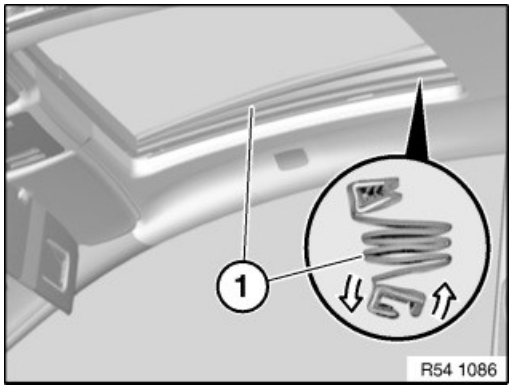
TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

9 – Install the gaiter for the glass slide/tilt sunroof

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NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

Additional Information

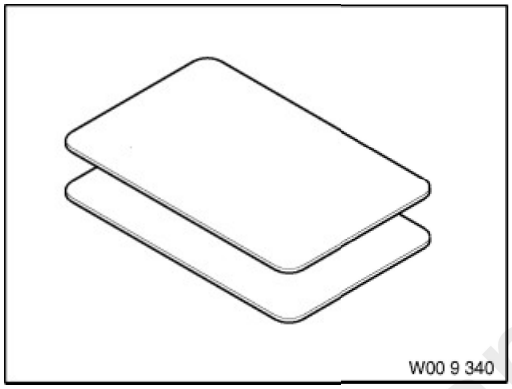
Overview of Tightening Torques

Glass slide/tilt sunroof panel to mechanics — Used in step 7

M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



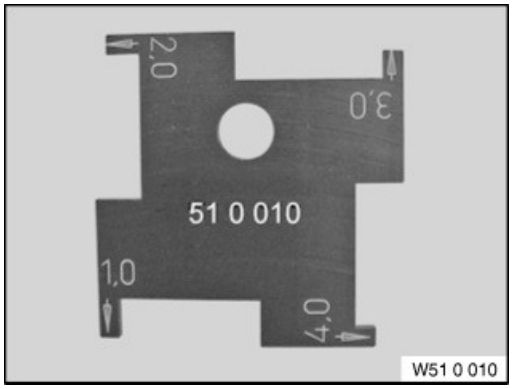
Common — Used in step 6

Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
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).	

0 495 259 (51 0 010) Gauge



Common — Used in step 6

Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

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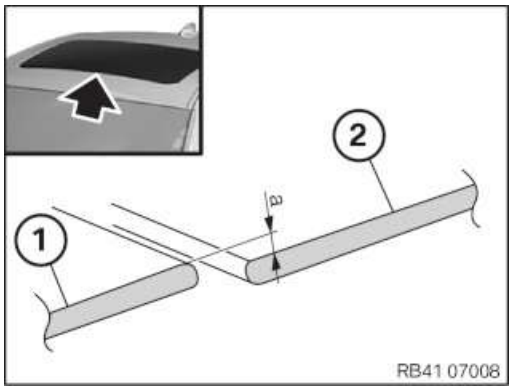
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel

Used in step 6

1 roof outer skin; 2 glass slide/tilt sunroof panel

a	0,7 (-0,05 - 1,45) mm

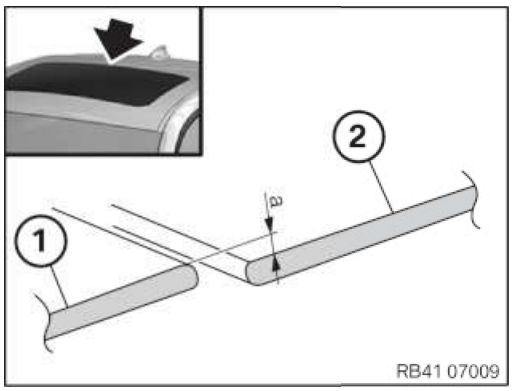


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 6

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



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54 12 249 Removing and installing/replacing both drive cables for roller sunblind actuator

RISK OF DAMAGE

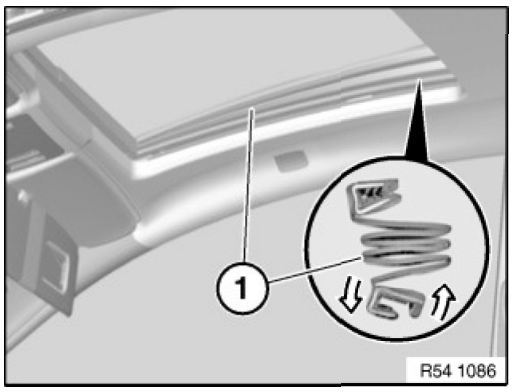
Fold the headlining.

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 – Remove the gaiter for the glass slide/tilt sunroof

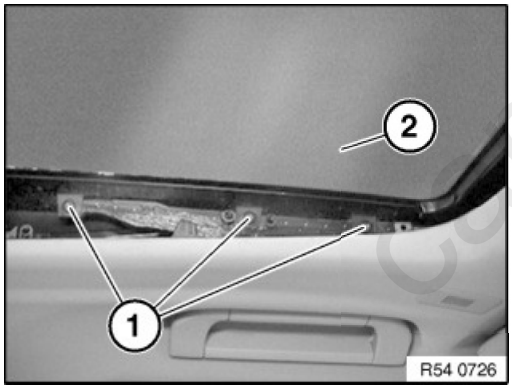


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

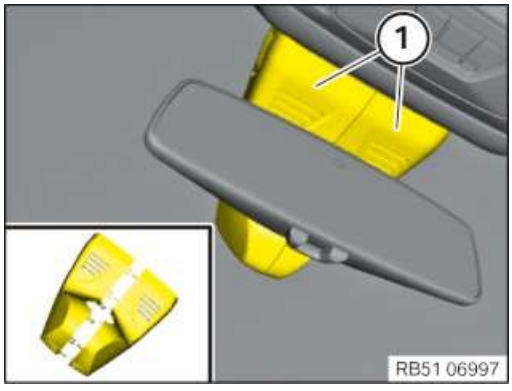
2 – Remove glass slide/tilt sunroof panel



- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Removing the covers for the interior mirror

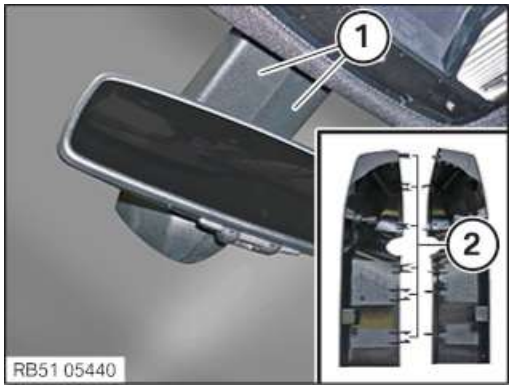
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

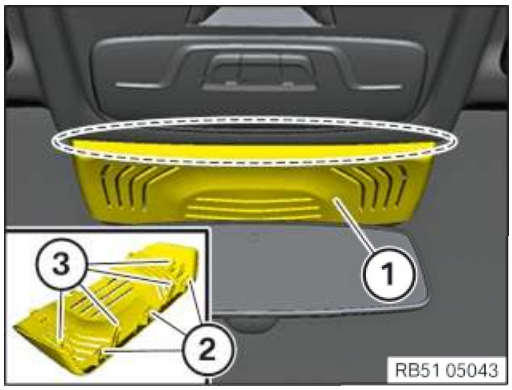
- **Version B:**

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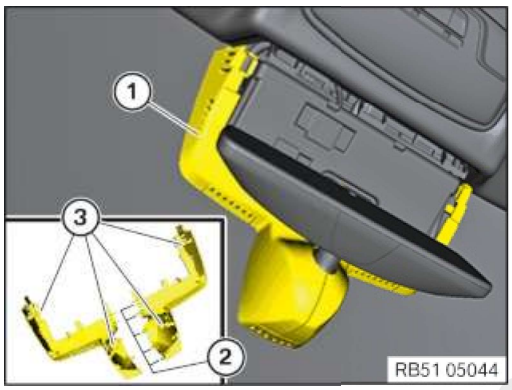


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**



- Detach cover (1) from the clamps (2) in the marked area using a suitable plastic wedge and pull down a certain distance.
- Release cover (1) at the retaining lugs (3) and remove from the guides to the rear.



- Release cover (1) from the latch mechanisms (2) and (3) and remove sideways.
- Remove cover (1) from mirror base (2).

4 – Remove both A-pillar trim panels

NOTICE

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

▸ **Remove the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

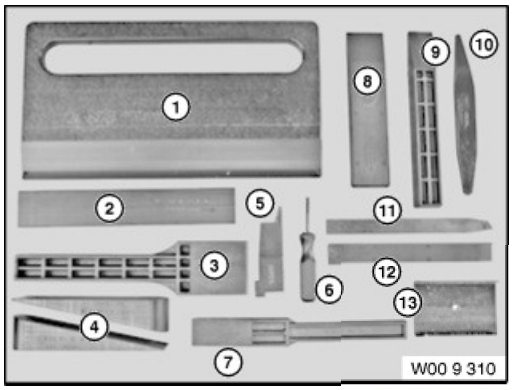
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WARNING

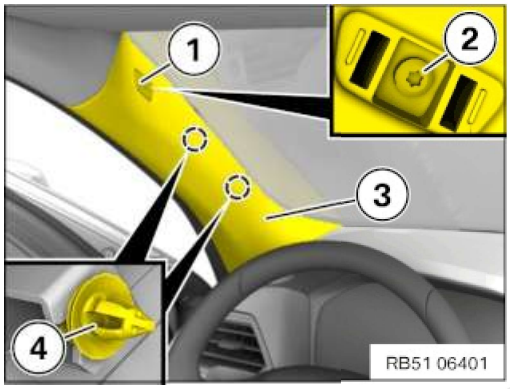
Pyrotechnic components.

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.



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



- Unclip the cover (1) with suitable tools.
- Loosen screw (2).
- Unclip A-pillar trim panel (3) with clips (4) and guide it out upwards.

5 – Remove both sun visors

NOTICE

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

▶ **Remove sun visor**



- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

6 – Remove both counter supports for the sun visors

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NOTICE

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

▸ **Remove the counter support for the sun visor**

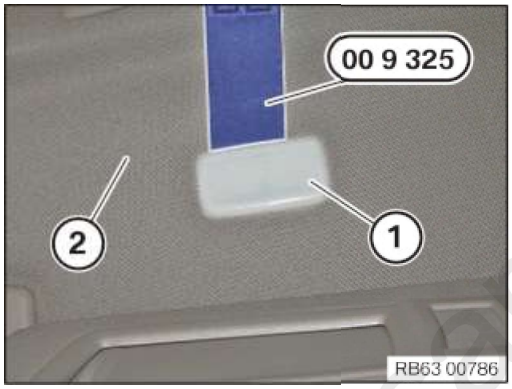


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

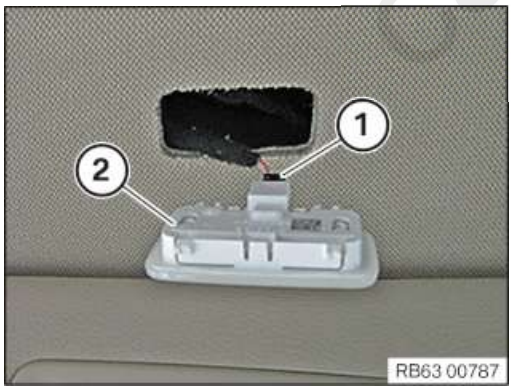
7 – Removing front vanity mirror light

NOTICE

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



- Lever out the front vanity mirror light (1) using special tool 0 496 569 (00 9 325) from the headlining (2).



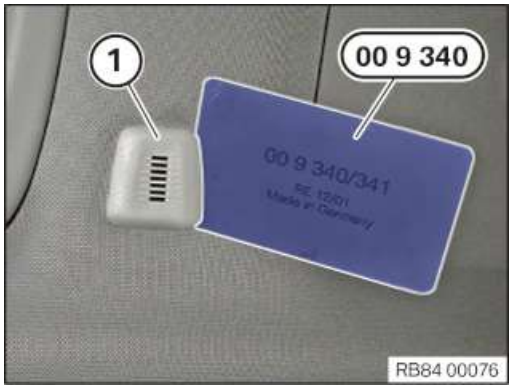
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

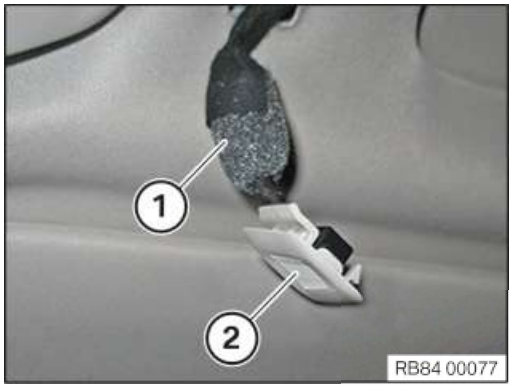
NOTICE

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).

9 – Removing the roof function centre (FZD)



- Unclip the cover (1).

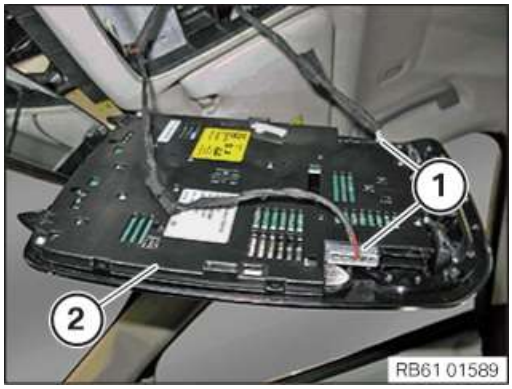


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

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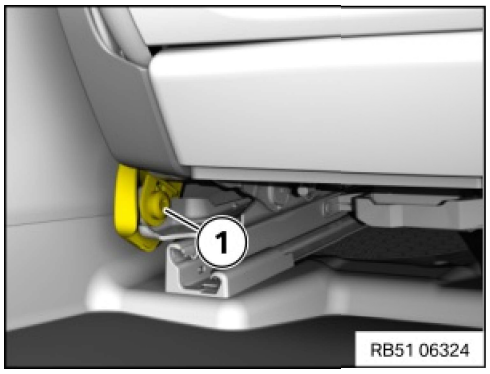
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

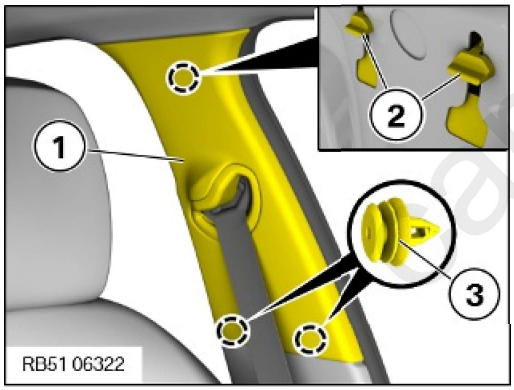
NOTICE

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

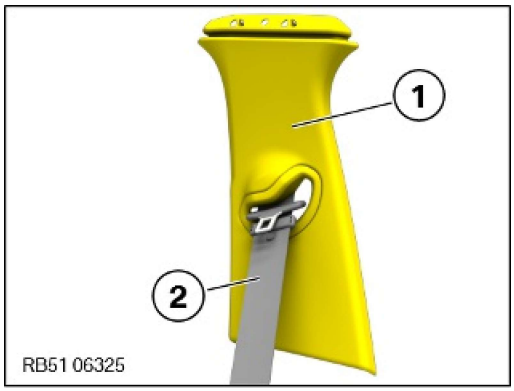
▶ **Remove the B-pillar trim panel**



- Fully position the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



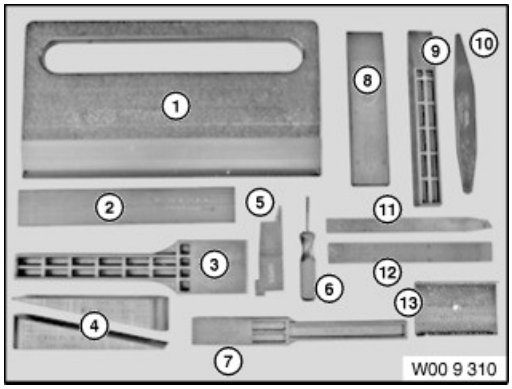
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



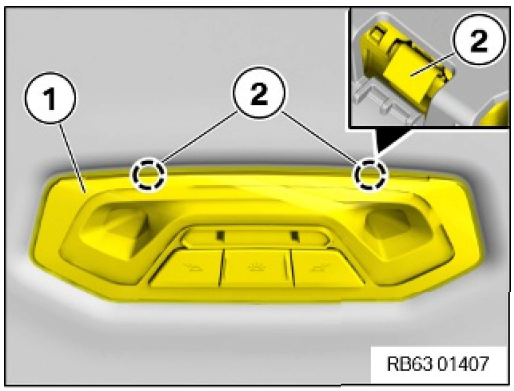
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

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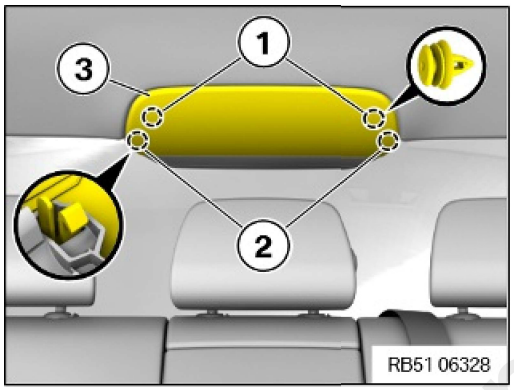


- Have the set of special tools 0 493 752 (00 9 329) ready.



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

12 – 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).

13 – Remove both C-pillar trim panels

NOTICE

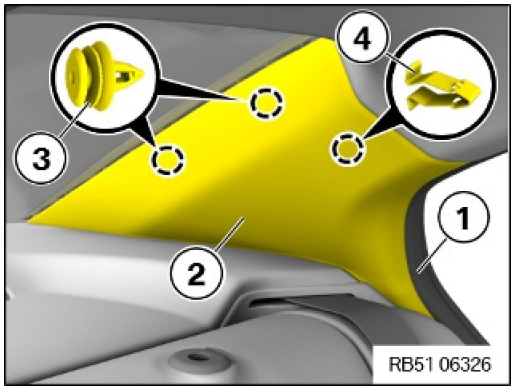
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

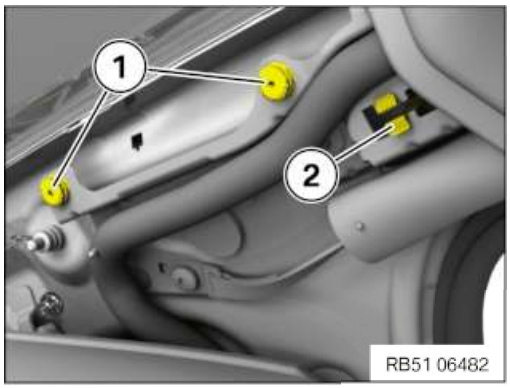
NOTICE

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

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- Unclip clamp (4).
- Unclip clips (3).
- Feed out C-pillar trim panel (2) from the guides to the front.
- Thread out C-pillar trim panel (2) from the lip of edge protection (1).



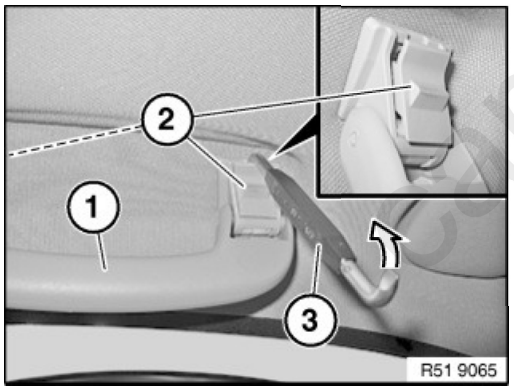
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

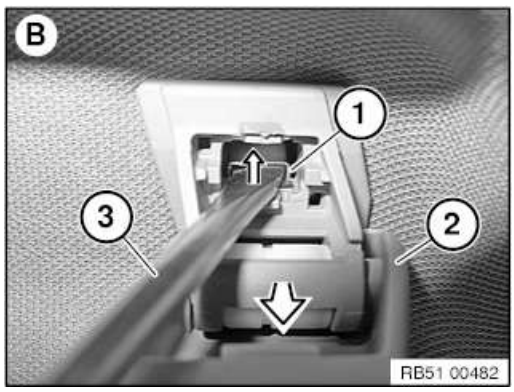
NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Removing the grab handle**



- Expand the grab handle (1) towards the bottom.
- Disengage and remove the locking insert (2) with an angle screwdriver (3) as shown.



- Pull the grab handle (2) slightly to the inside and hold it.
- Use a suitable screwdriver (3) to detach the upper and lower release tabs (1).
- Guide the grab handle (2) out.
- Repeat the operation on the other side of the grab handle (2).

15 – Lower the headlining (with SHD)

Prerequisite

The front seats have been fully adjusted towards the bottom.

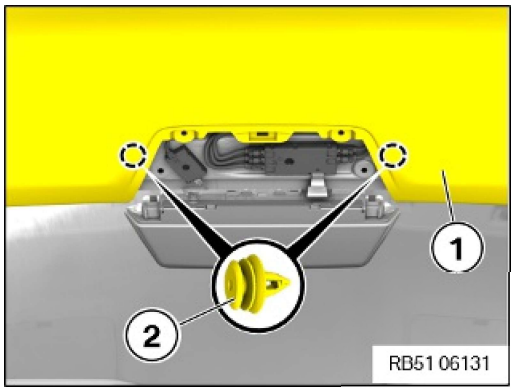
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

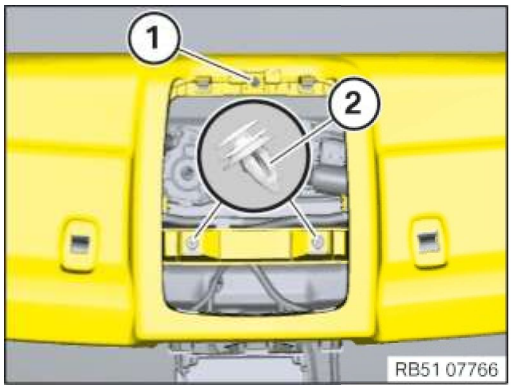
Fold the headlining.

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.



- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.



- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

16 – Removing the mounting plate for the rear left and right grab handle

NOTICE

Perform the operations on the left and right side.

▸ **Removing the mounting plate for the rear grab handle**

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RISK OF DAMAGE

Damage due to swarf.

Contamination can lead to malfunctions and damage.

- Cover working area.
- Draw off swarf during drilling using a vacuum cleaner.

NOTICE

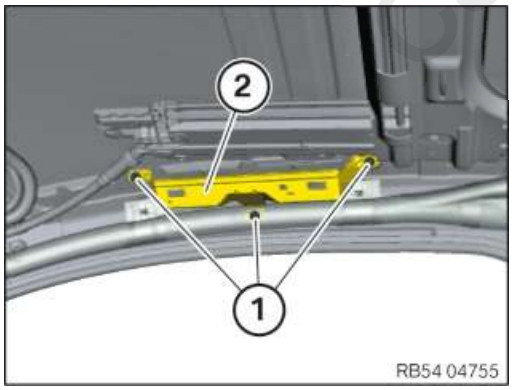
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

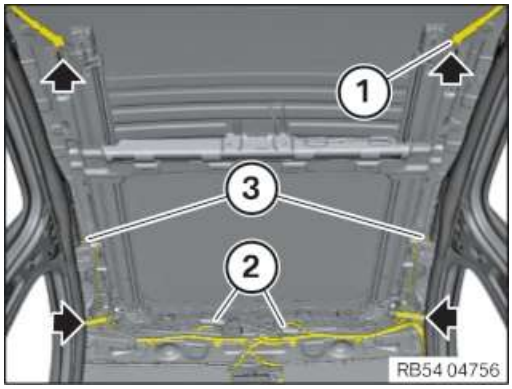


- Protect the working area with a suitable cover (1) to protect against falling swarf.

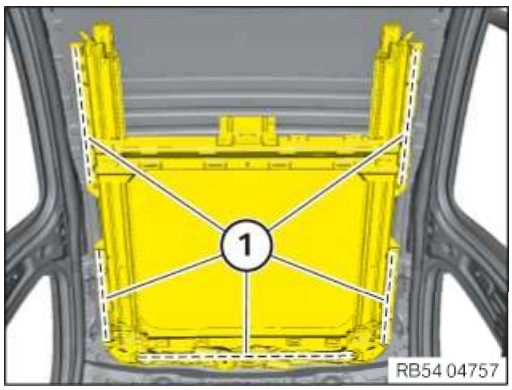


- Drill out blind rivets (1) and remove both rear holders (2).

17 – Remove slide/tilt sunroof completely



- Pull off all four water drain hoses (1) (arrows).
- Disconnect the plug connections of engine (2) and unclip the corresponding cable.
- Disconnect the plug connections (3) of head airbag and unclip the corresponding cable and tie to the side.



RISK OF DAMAGE

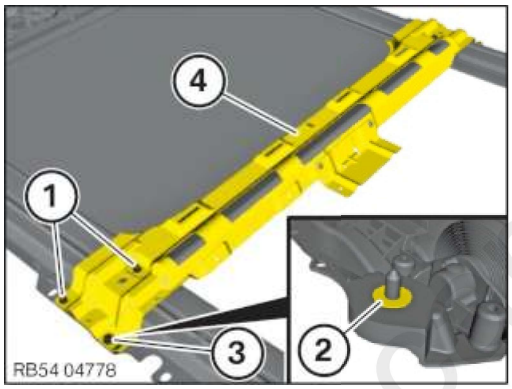
Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Secure slide/tilt sunroof from falling with the help of an auxiliary person.
- Release all screws along the areas (1).
- Lower the slide/tilt sunroof with the assistance of an auxiliary person and remove from the vehicle through the front passenger door.

18 – Removing cross member

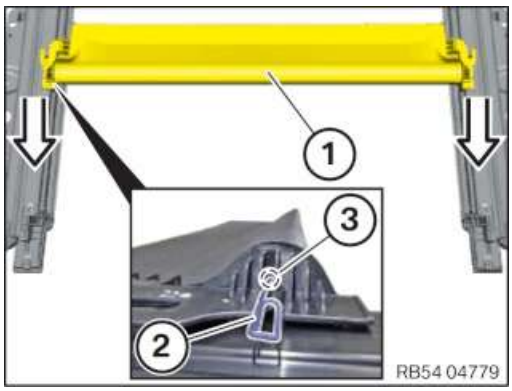


NOTICE

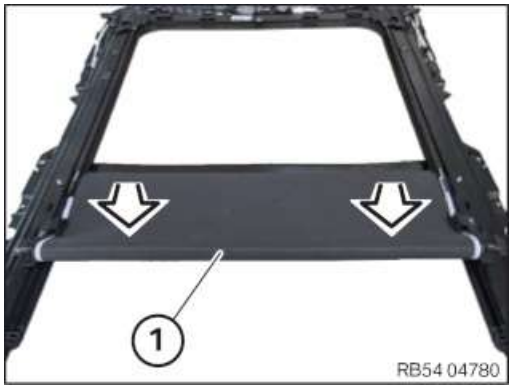
Perform the operations on the left and right side.

- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

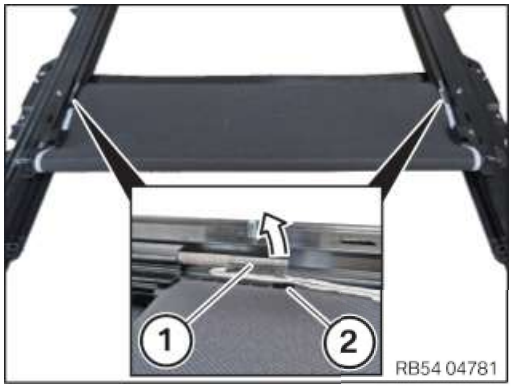
19 – Removing roller sunblind for the panorama glass roof



- Push the roller sunblind back (1) on both sides and thus roll it up a few cm.
- Unroll the roller sunblind (1) until it can be fixed with a suitable tool (2) (e.g. paper clip) over the pegging device (3).



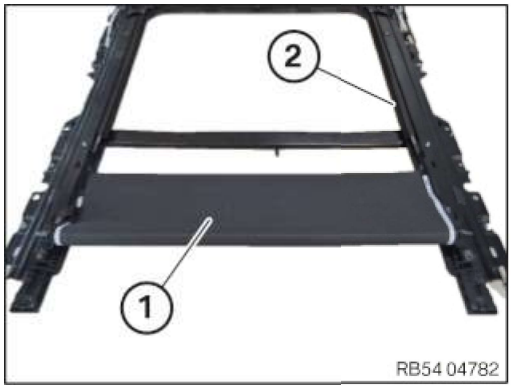
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



NOTICE

Perform the operations on the left and right side.

- Guide the driver (1) upwards out of the slider of the roller sunblind (2).



- Remove the roller sunblind (1) from the sunroof frame (2).

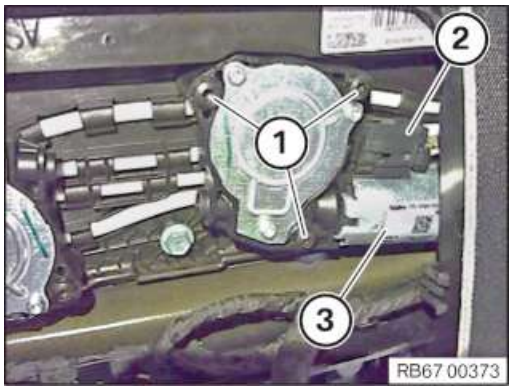
MAIN WORK

20 – Remove the drive cable for the roller sunblind

▸ **Remove electric motor for roller sunblind**

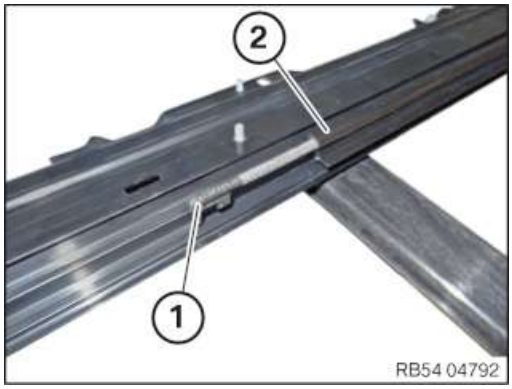
Prerequisite

Sun protection must be located in the open position.



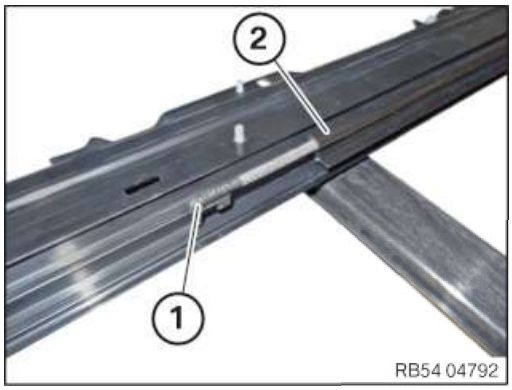
- Loosen screws (1).
- Unlock plug connection (2) and disconnect.
- Feed out drive motor for the sun protection (3).

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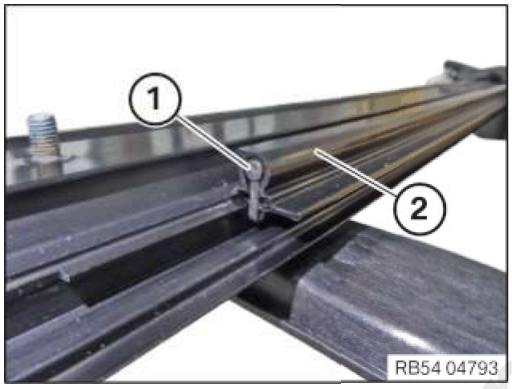
- Feed drive cable (1) out of the panorama glass roof frame (2) to the rear.

21 – Install the drive cable for the roller sunblind



- Feed drive cable (1) into the panorama glass roof frame 2.

  Check the drive cable for damage and renew where required.



NOTICE

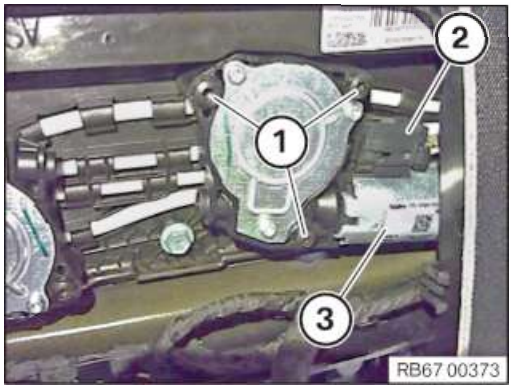
Perform the operations on the left and right side.

- Slide both drive cables (1) as far as possible into the slide/tilt sunroof frame (2) until they are flush with the guide.

▶ **Install the roller sunblind drive**

Prerequisite

The roller sunblind must be in the opened position.



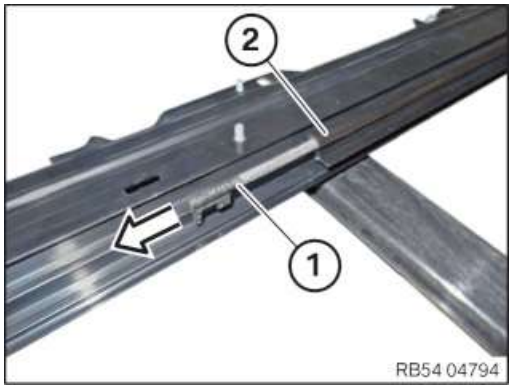
- Guide in the drive of the roller sunblind (3) and position correctly.
- Connect connectors (2) and lock.
- Tighten the screws (1).

Drive for panorama sunroof to body

Screw		Tightening torque	5,5 Nm

-

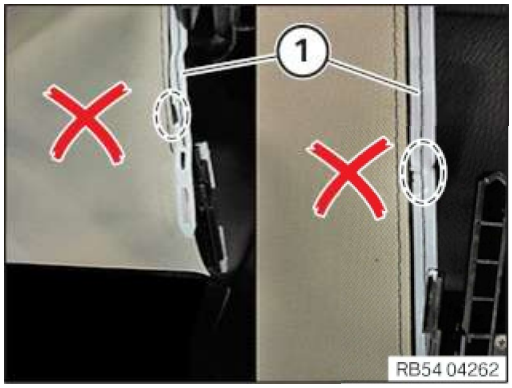
cardiag.com



- Pull out drive cable of the sun protection (1) manually out of the slide/tilt sunroof frame (2) until a little resistance is noticeable.

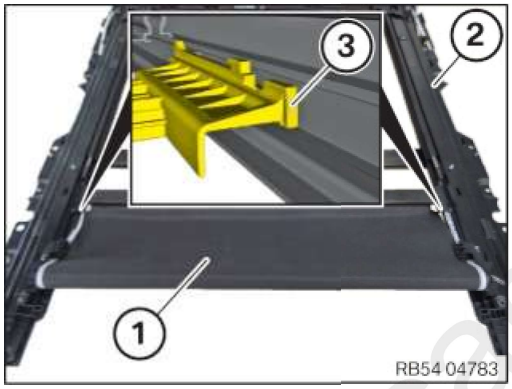
POSTPROCESSES

22 – Installing roller sunblind for the panorama glass roof

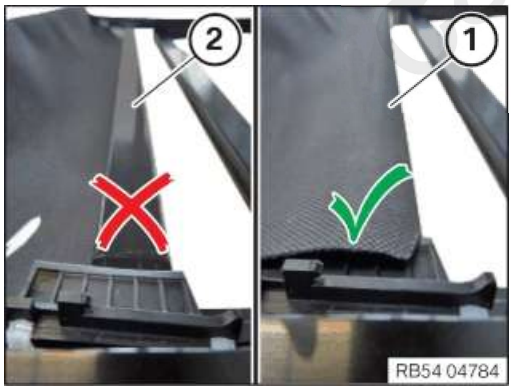


- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.



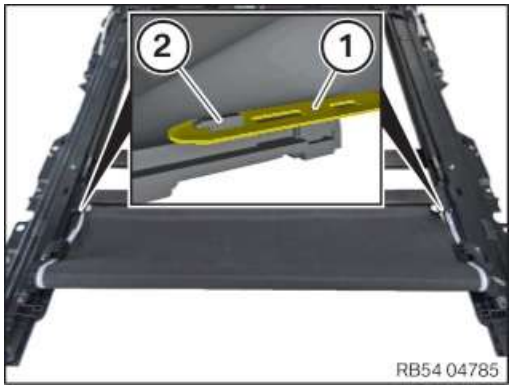
- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.



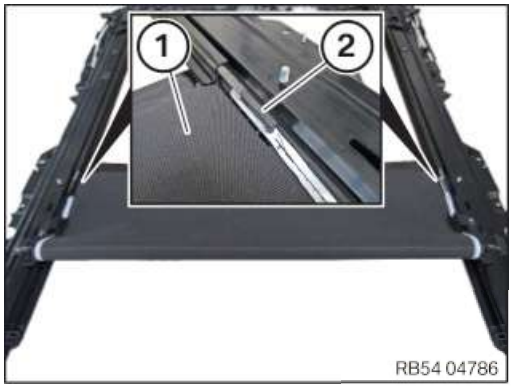
- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

  If necessary, turn the cross brace (1) through 360°.

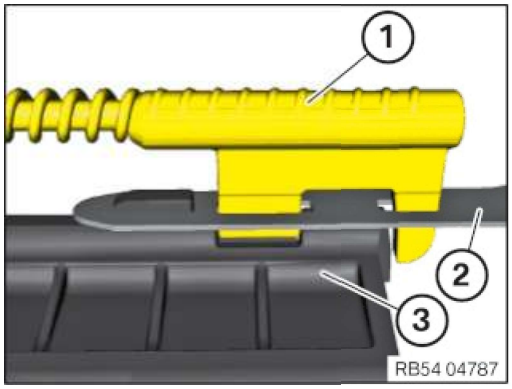
cardiagn.com



- Mount tensioning strap (1) on both sides of driver (2).



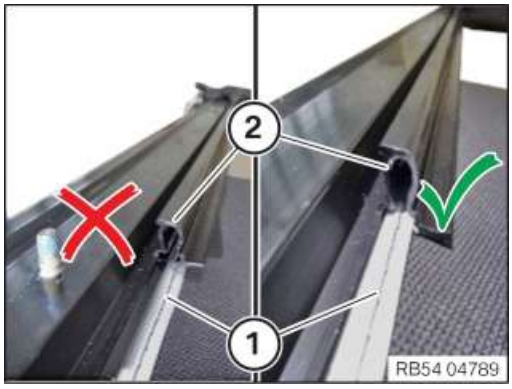
- Push the sunblind (1) forward until the drive (2) can be hooked.



- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).

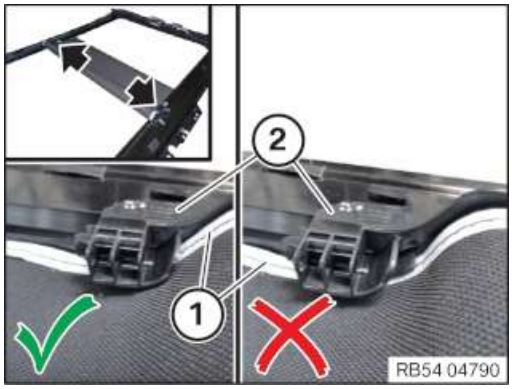


- Manually close the sunblind (1) a few cm.

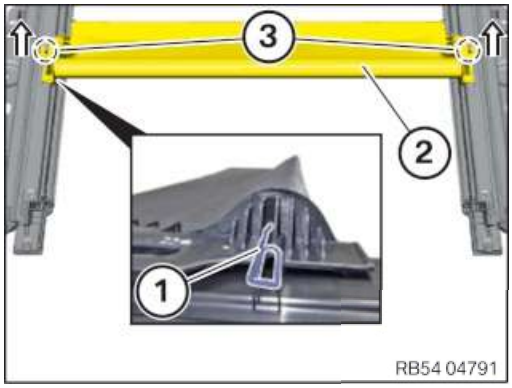


- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).

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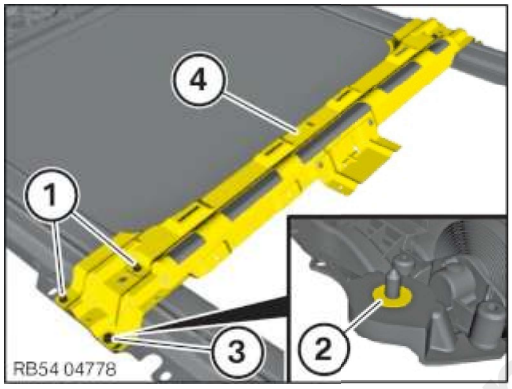


- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.



- If necessary, remove the arresting device (1).
- Push the sunblind (2) forwards and position on the threaded bolts (3).

23 – Installing the cross member



- Position cross-member (4).

NOTICE

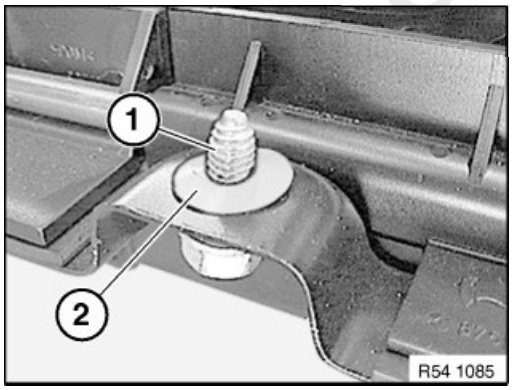
Perform the operations on the left and right side.

- Tighten nuts (1).

Cross member to glass slide/tilt sunroof frame		
Nut		5,5 Nm

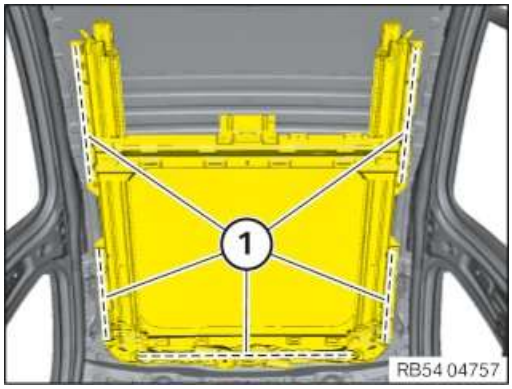
- Position retaining washer (2) and insert screw (3).

24 – Completely installing the slide/tilt sunroof



- In order to prevent groaning noises, all bolts (1) must be secured with the plastic washers (2) prior to installation.

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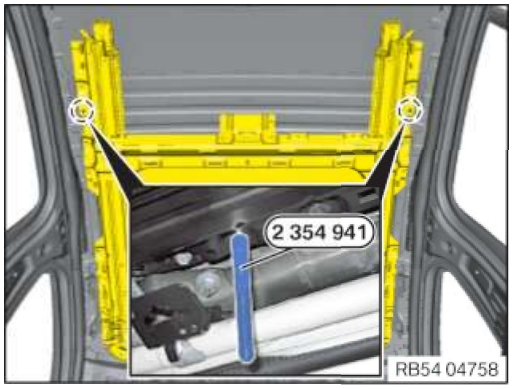
RISK OF DAMAGE

Heavy component.

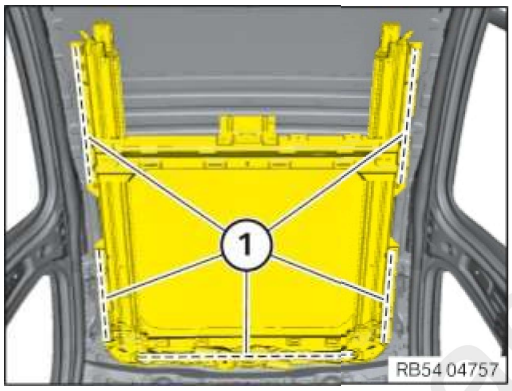
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Insert the slide/tilt sunroof through the front passenger door into the vehicle with the help of an auxiliary person and position it.
- When installing it, ensure that no cables are clamped.
- Screw in all screws along the line (1) by several turns.



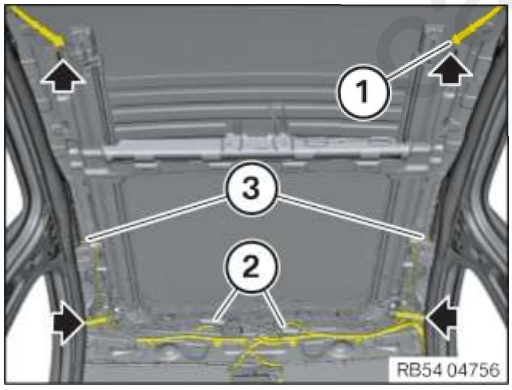
- Insert the special tool and align the panorama glass roof (1) with the roof.



- Tighten all screws along the marked areas (1) .

Slide/tilt sunroof frame to body

M6	5,4 Nm



- Connect all four water drain hoses (1) (arrows).
- Connect the head air-bag plug connections (3) and clip in the corresponding cables.
- Connect plug connections 2 of the engines and clip in the corresponding cables.

Note: Route airbag wiring harness without tension or kinks.

25 – Installing the mounting plate for the left and right grab handle

NOTICE

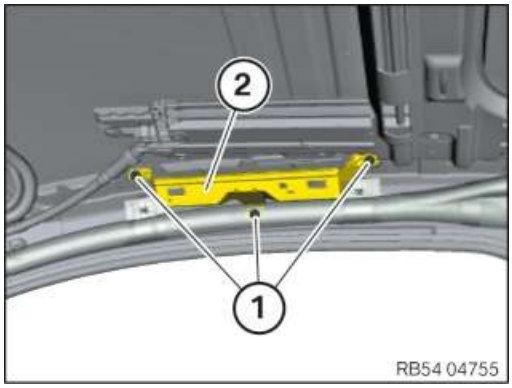
Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

carmanualdiagram.com

NOTICE

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



- Position the holder (2) and set blind rivets in the area (1).

26 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

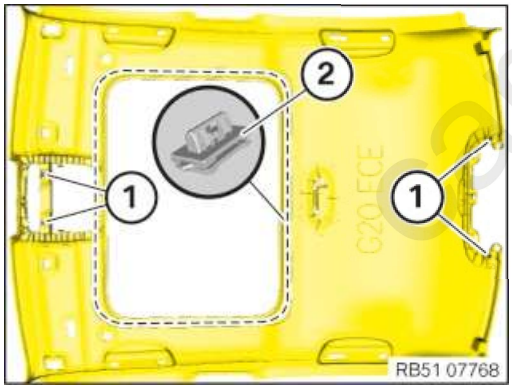
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

Fold the headlining.

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

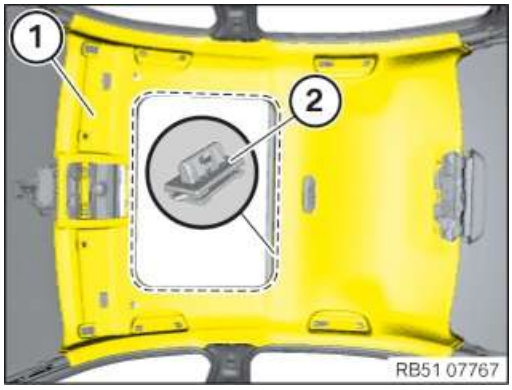
- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.



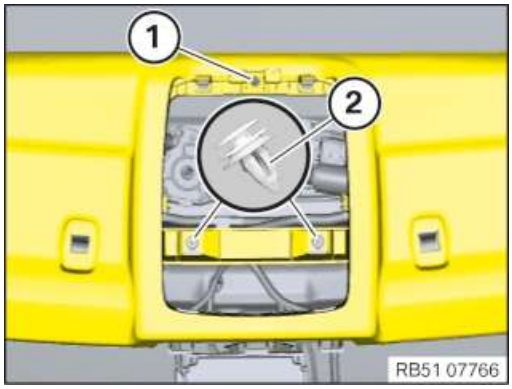
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



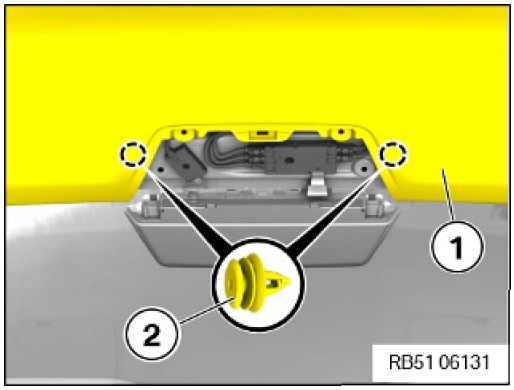
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

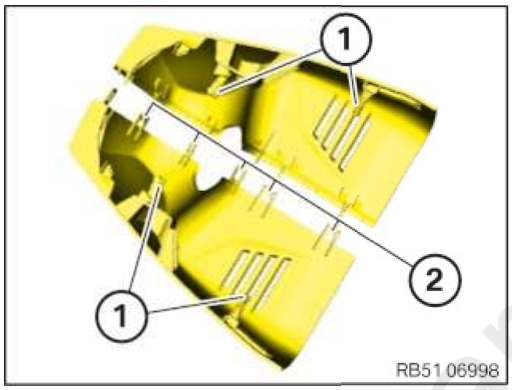
Oval-head screw		Tightening torque	1,5 Nm



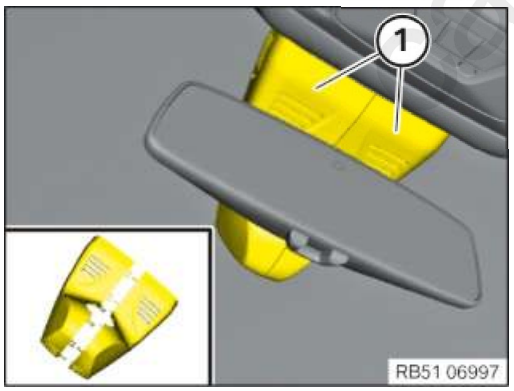
- Clip headlining (1) to the clips (2).

27 – Installing the covers for the interior mirror

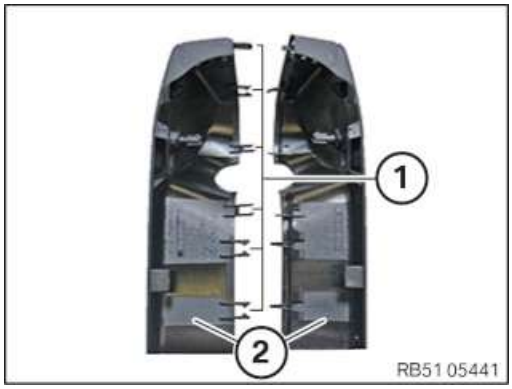
- **Version A:**



- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.

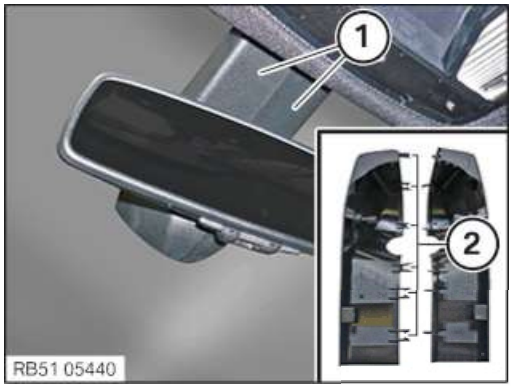


- Feed cover (1) in and lock.
- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

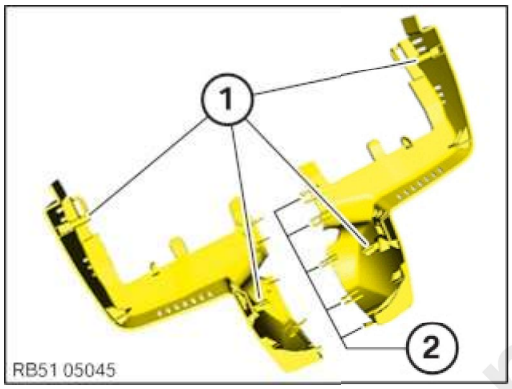
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



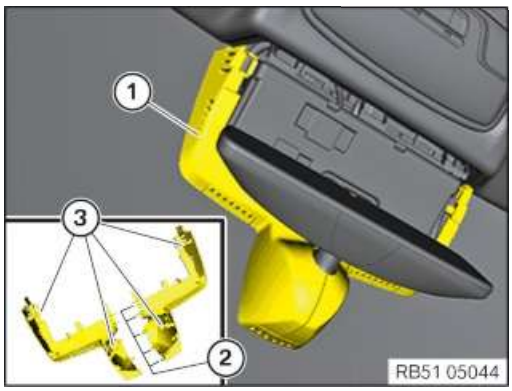
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

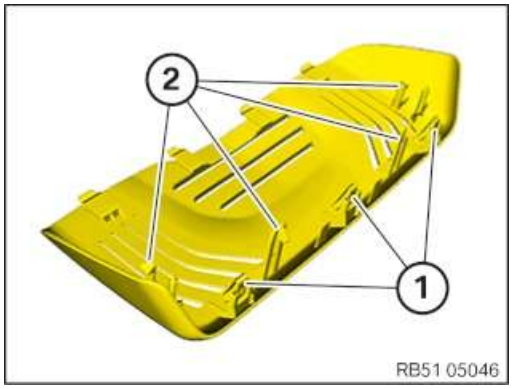
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

cardiagn.com



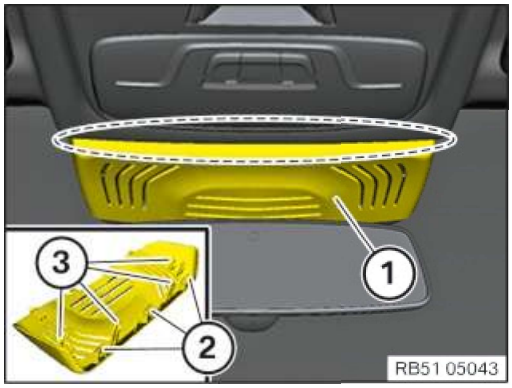
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

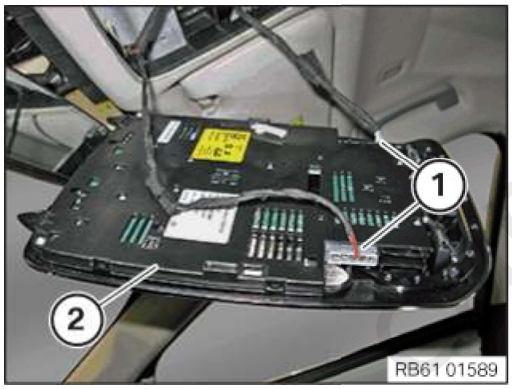
Measure

- Renew the cover.

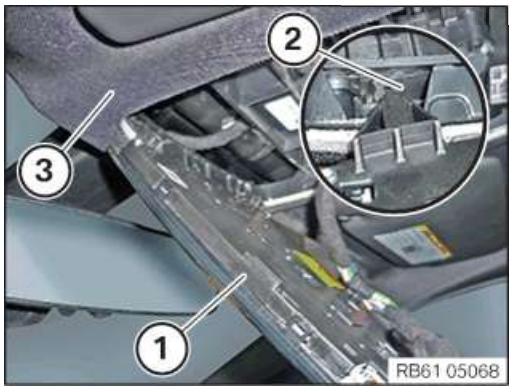


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

28 – Installing roof function centre (FZD)



- Connect connectors (1) and lock.
- Clip in the cable for the roof function centre (FZD) (2) in the cable clip.



- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

  Make sure the headlining is not deformed during this operation.

mfdiagn.com



- Clip the roof function centre (FZD) (1) upwards into the clamps (2).



- Pass through the FZD frame and headlining with the special tool 2 298 505 and adjust the headlining correctly.



- Tighten the screws (1).

Roof function centre

	Tightening torque	1,2 Nm



- Clip in the cover (1).

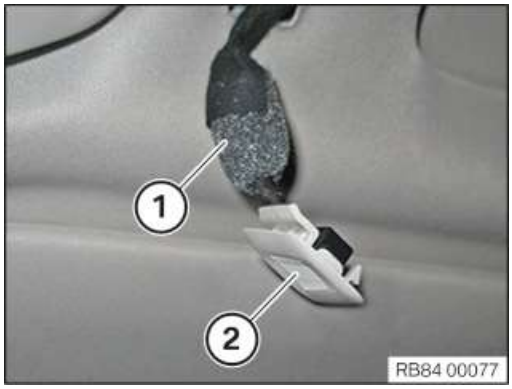
29 – Install both microphones

NOTICE

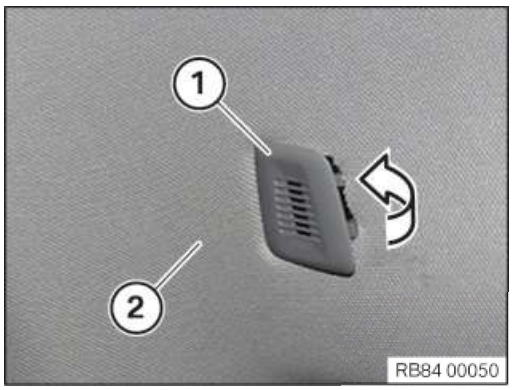
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

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

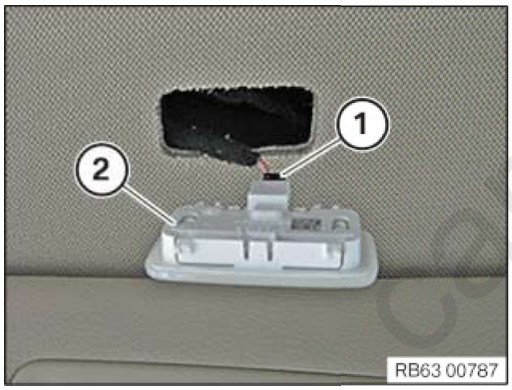


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

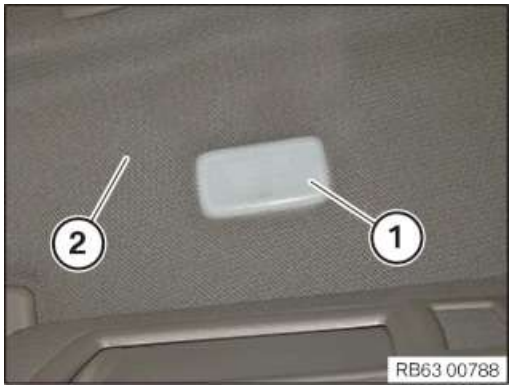
30 – Installing front vanity mirror light

NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).



- Position the front vanity mirror light (1) in the headlining (2).

31 – Install both counter supports for the sun visors

NOTICE

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

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▸ **Install the counter support for the sun visor**



- Insert the counter support (3) into the headlining.
- Make sure the clamps (2) are engaged correctly.
- Use cover (1).

32 – Install both sun visors

NOTICE

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

▸ **Install the sun visor**



- Connect the sun visor (2) with the corresponding connector.
- Guide the sun visor (2) into the headlining.
- Use cover (1).
- Attach the sun visor (2) on the counter support.

33 – Install both A-pillar trim panels

NOTICE

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

▸ **Installing the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

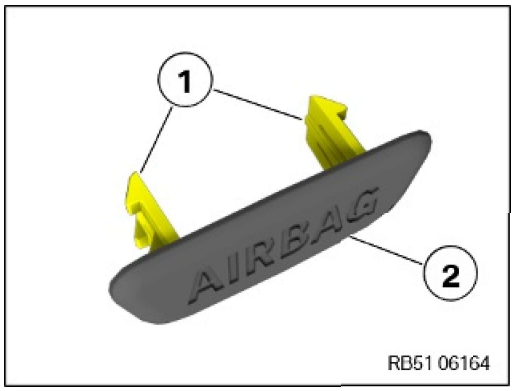
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WARNING

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.



Check

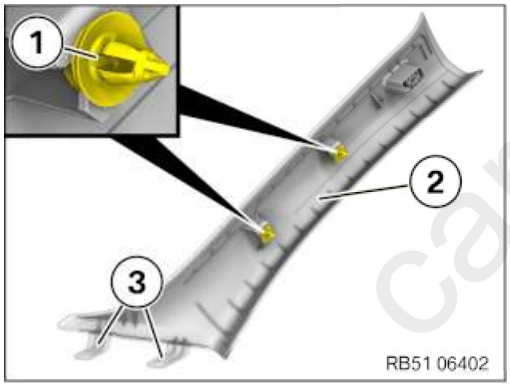
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

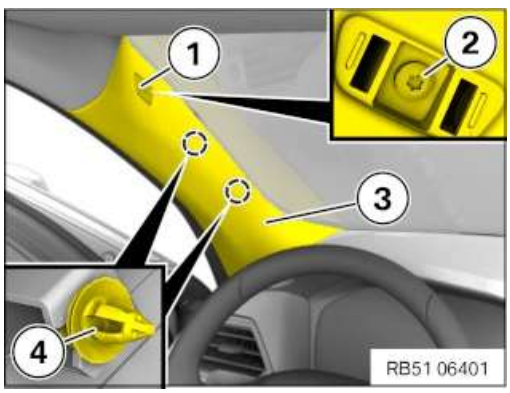
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the A-pillar trim panel.



- Guide in A-pillar trim panel (3) downwards and clip it in with clips (4).
- Tighten down screw (2).

A-pillar trim panel to body

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

- Clip in the cover (1).

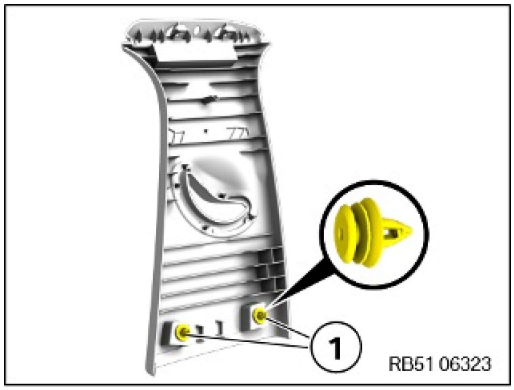
34 – Installing both B-pillar trim panels

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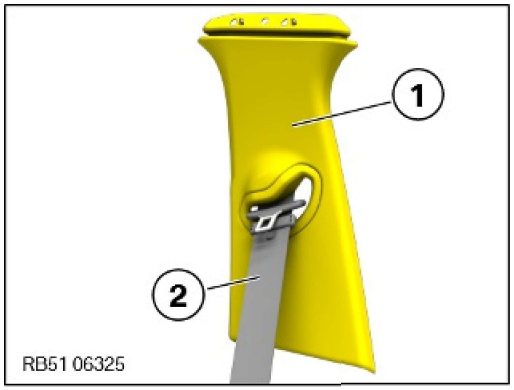
NOTICE

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

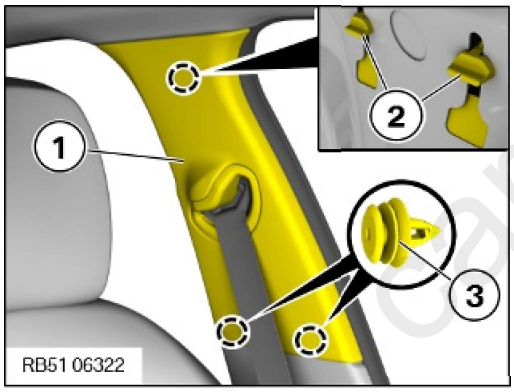
▶ **Install the B-pillar trim panel**



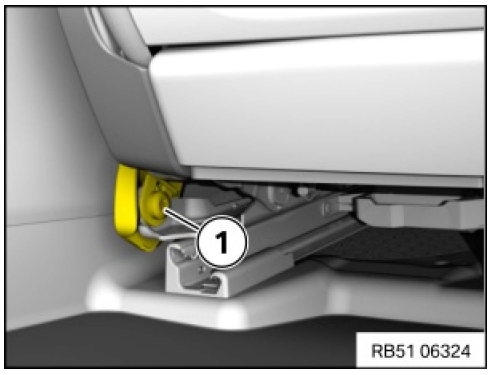
- Check the clips (1) for damage and renew if necessary.



- Guide upper seat belt (2) in B-pillar trim panel (1).



- Insert B-pillar trim panel (1) into guides (2) and under the front and rear lips of edge protection.
- Clip in the B-pillar trim panel (1) with the clips (3).



- Fully position the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

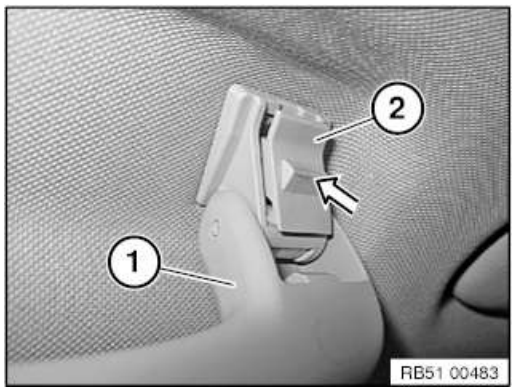
35 – Installing all grab handles

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NOTICE

The description is for one component only. The procedure is identical for all further components.

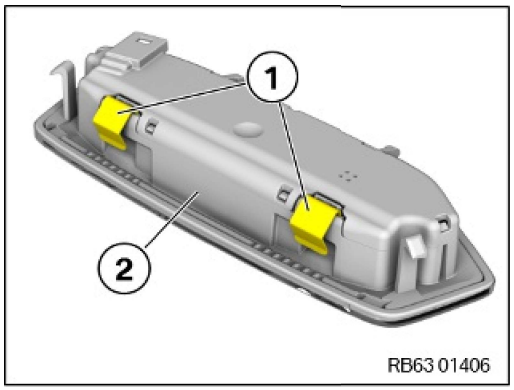
▸ **Installing the grab handle**



- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

36 – Install interior roof light

Check



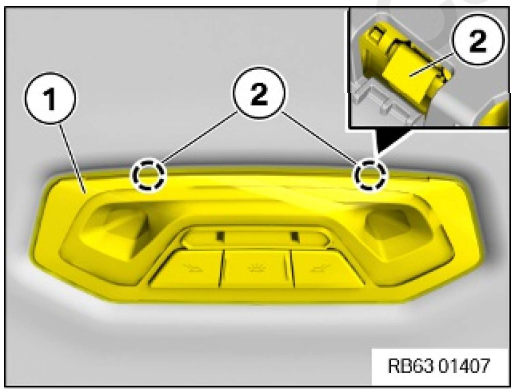
- Check the clamps (1) for damage.

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).

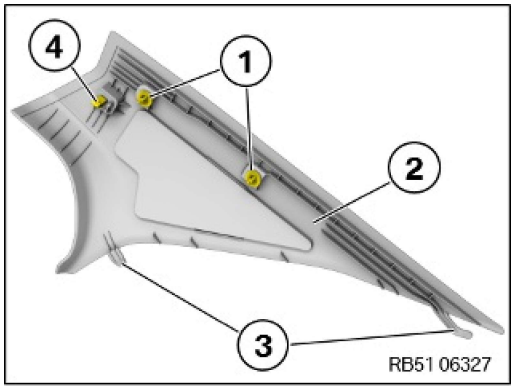
37 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

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Check

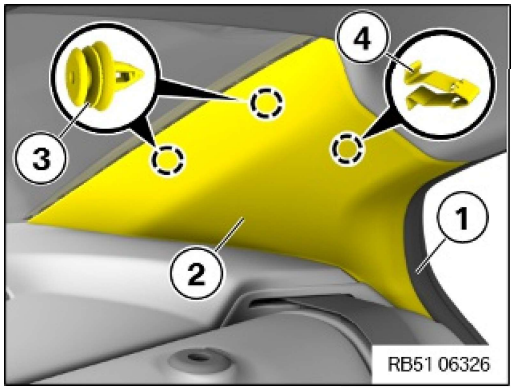
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

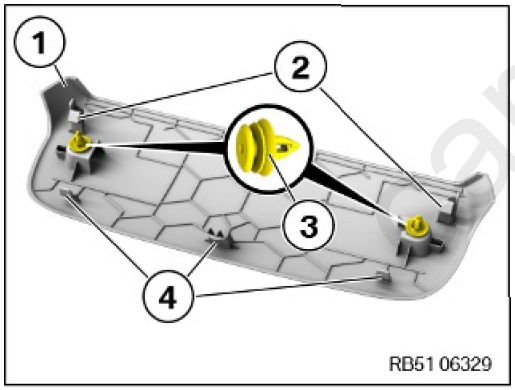


NOTICE

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

- Feed C-pillar trim panel (2) into guides towards the rear.
- Clip in clips (3).
- Clip in clamp (4).
- Guide in C-pillar trim panel (2) under the lip of edge protection (1).

38 – Installing trim for additional brake light



Check

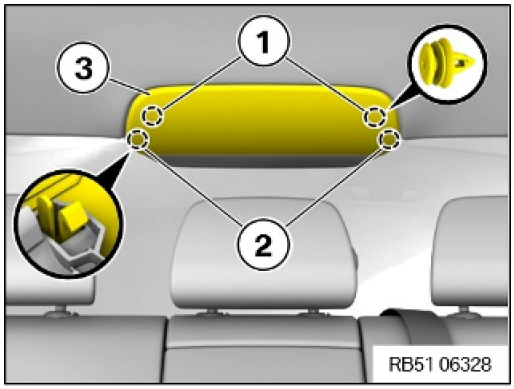
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

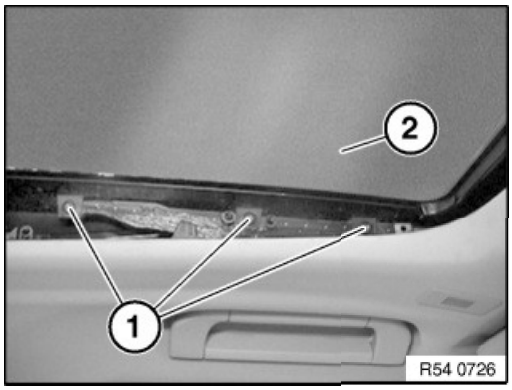
Measure

- 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).

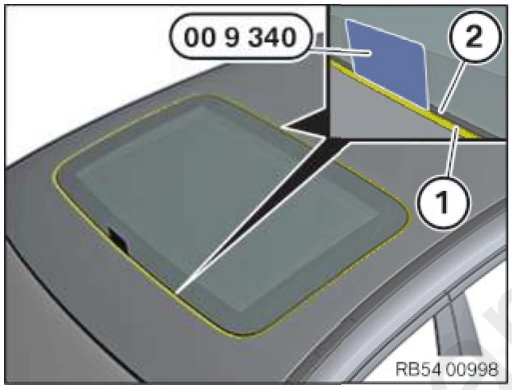
39 – Install glass slide/tilt sunroof panel



- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

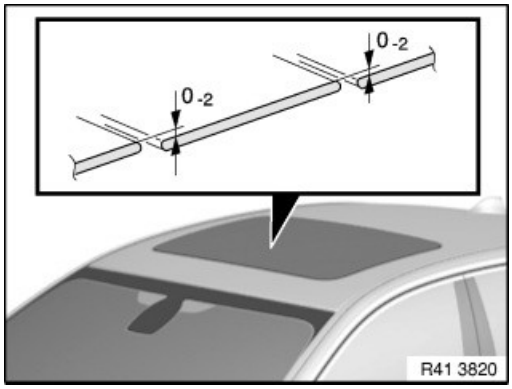
40 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

  The resistance when moving the special tool must be the same at the front and rear.

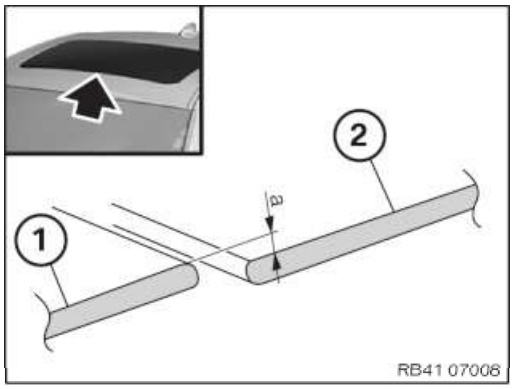
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- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

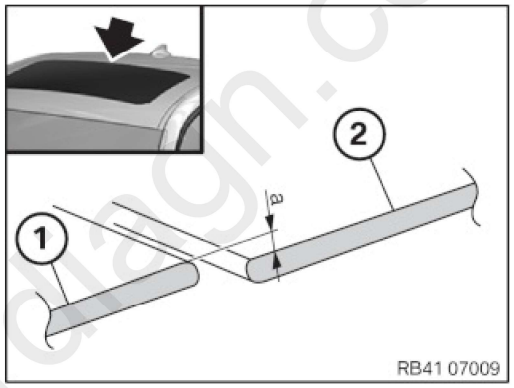
Gap dimension roof outer skin to glass slide/tilt sunroof panel

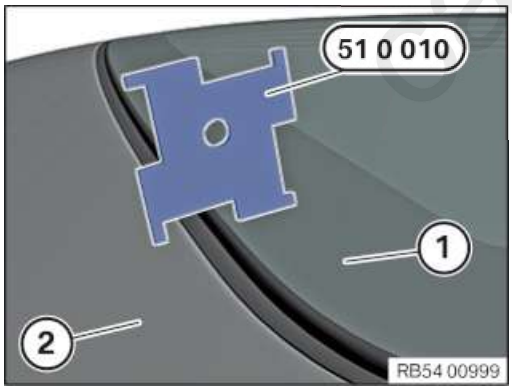
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

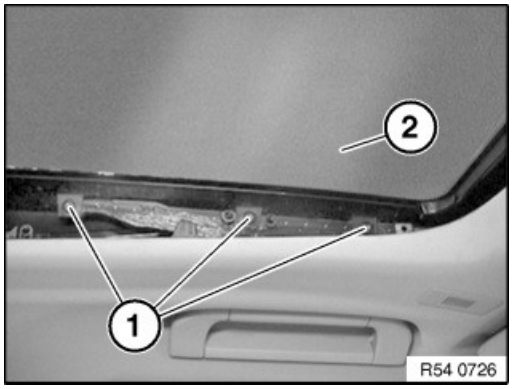




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

41 – Adjusting glass slide/tilt sunroof panel

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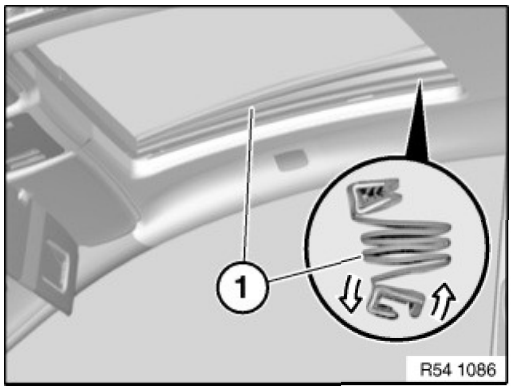


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

M5	Replace screws.	4,5 Nm

42 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

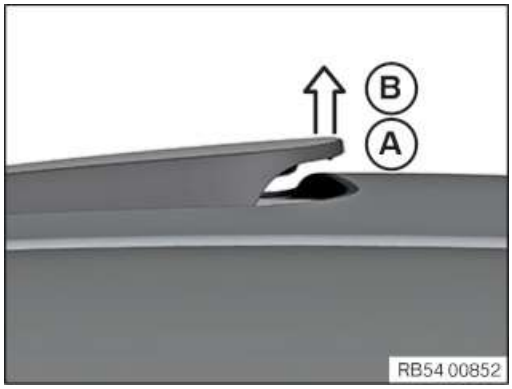
43 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.

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- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

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Additional Information

Overview of Tightening Torques

Drive for panorama sunroof to body — Used in step 21

Screw		Tightening torque	5,5 Nm

Cross member to glass slide/tilt sunroof frame — Used in step 23

Nut			5,5 Nm

Slide/tilt sunroof frame to body — Used in step 24

M6			5,4 Nm

Headlining to frame — Used in step 26

Oval-head screw		Tightening torque	1,5 Nm

Roof function centre — Used in step 28

		Tightening torque	1,2 Nm

A-pillar trim panel to body — Used in step 33

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

End fitting to seat mechanism Used in step 34

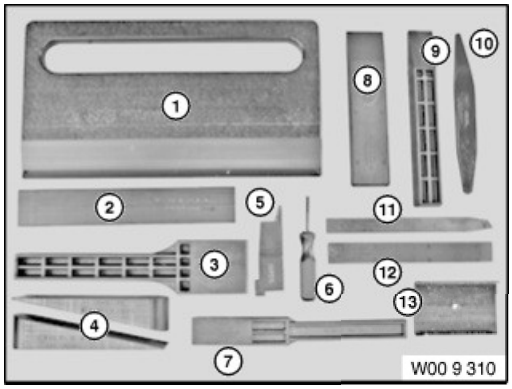
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Glass slide/tilt sunroof panel to mechanics Used in step 41

M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common Used in step 411

Usage	(Case) with insert not incl. panel wedges
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

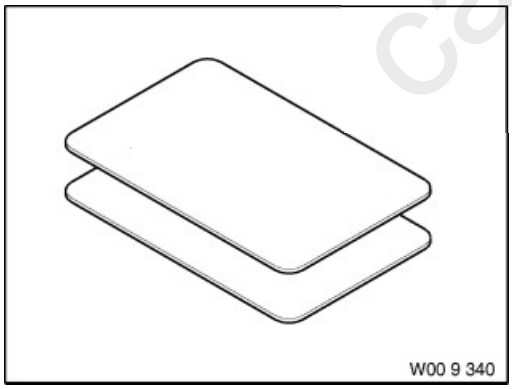
0 496 569 (00 9 325) Wedge



Common Used in step 7

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

0 493 687 (00 9 340) Removal aid



Common Used in step 8

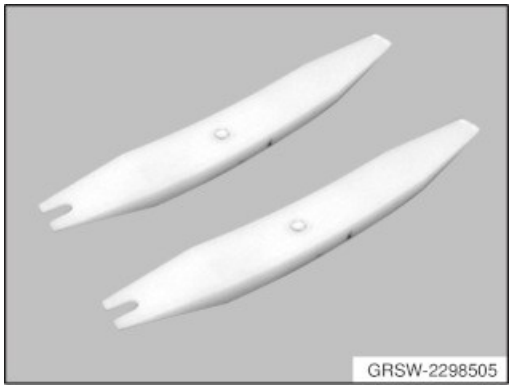
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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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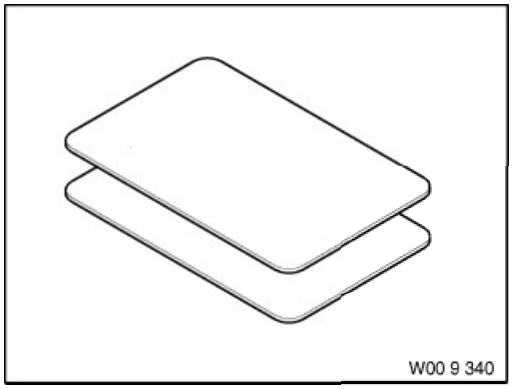
2 298 505 Wedge



Common Used in step 28

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)

0 493 687 (00 9 340) Removal aid



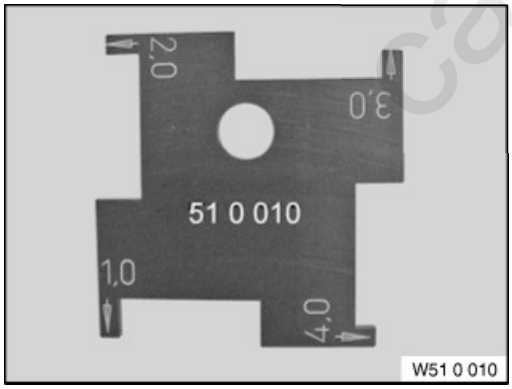
Common Used in step 40

Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
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).	

0 495 259 (51 0 010) Gauge



Common Used in step 40

Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

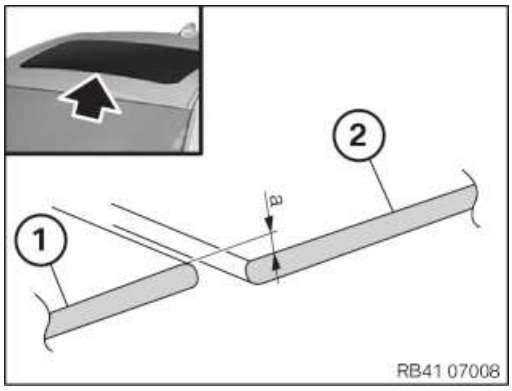
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 40

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1 roof outer skin; 2 glass slide/tilt sunroof panel

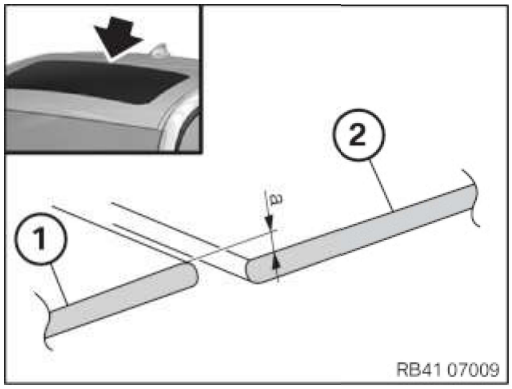
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin Used in step 40

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	4
72 00 ... Safety regulations for handling components with gas generators	4

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54 12 336 Removing and installing/replacing mechanics for glass slide/tilt sunroof panel

RISK OF DAMAGE

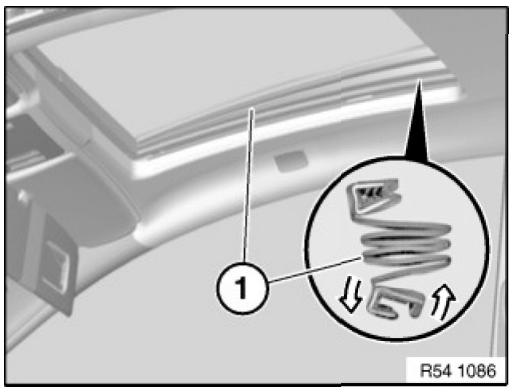
Fold the headlining.

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 – Remove the gaiter for the glass slide/tilt sunroof

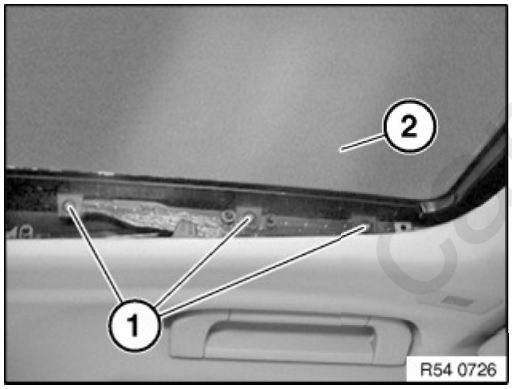


NOTICE

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

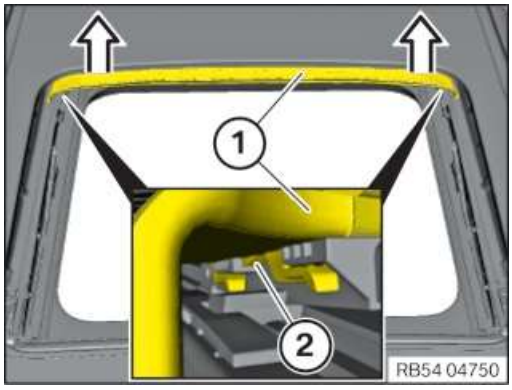
- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

2 – Remove glass slide/tilt sunroof panel



- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Remove water channel

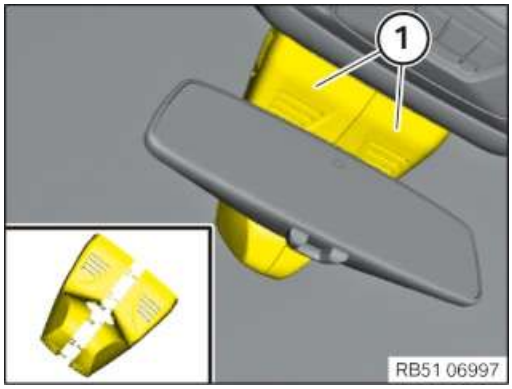


- Using a suitable tool, unlock the retaining lugs (2).
- Move the water channel (1) backwards and feed out.

4 – Removing the covers for the interior mirror

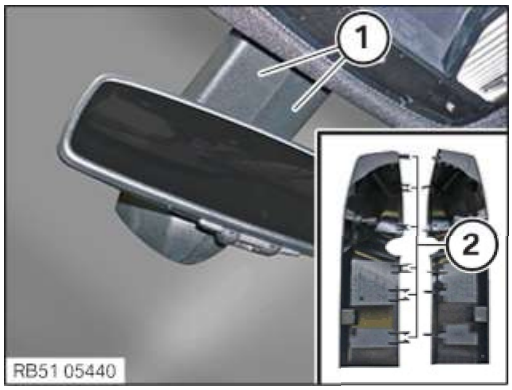
- **Version A:**

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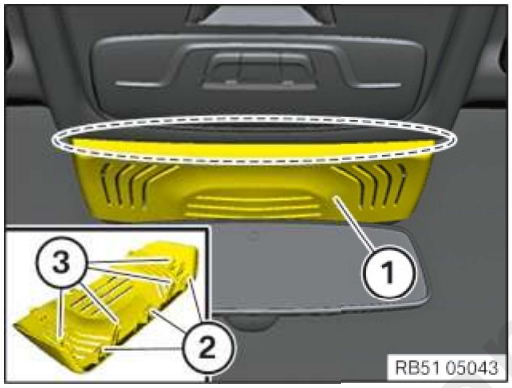
- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

- **Version B:**

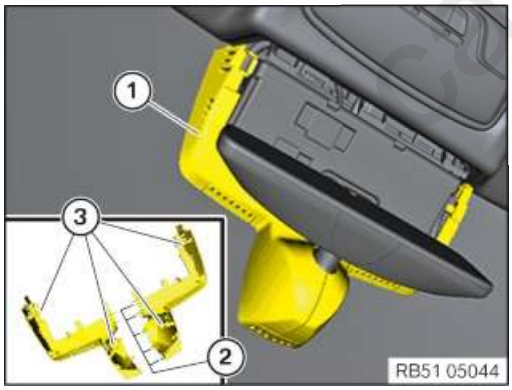


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**



- Detach cover (1) from the clamps (2) in the marked area using a suitable plastic wedge and pull down a certain distance.
- Release cover (1) at the retaining lugs (3) and remove from the guides to the rear.



- Release cover (1) from the latch mechanisms (2) and (3) and remove sideways.
- Remove cover (1) from mirror base (2).

5 – Remove both A-pillar trim panels

NOTICE

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

▸ **Remove the A-pillar trim panel**

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WARNING

Airbag unit.

Danger! Life-threatening injuries!

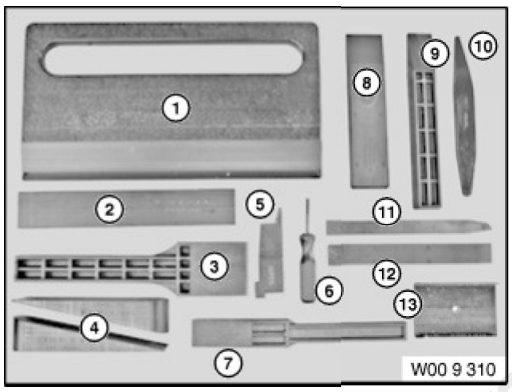
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

WARNING

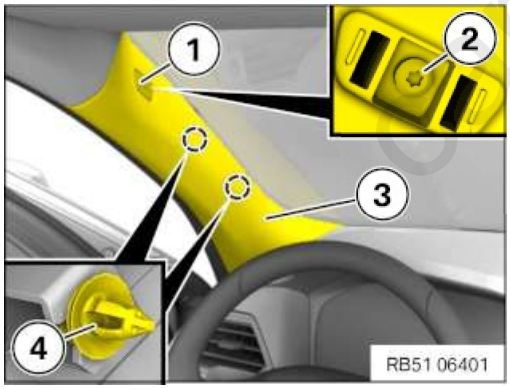
Pyrotechnic components.

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.



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



- Unclip the cover (1) with suitable tools.
- Loosen screw (2).
- Unclip A-pillar trim panel (3) with clips (4) and guide it out upwards.

6 – Remove both sun visors

NOTICE

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

▸ **Remove sun visor**

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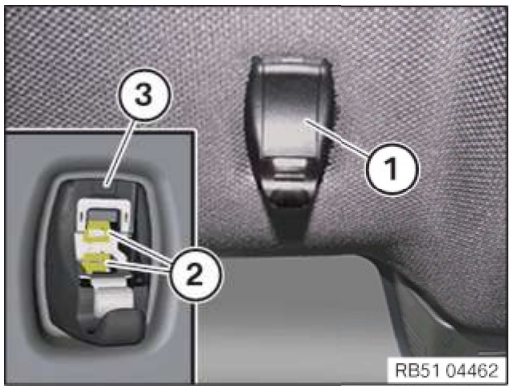
- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

7 – Remove both counter supports for the sun visors

NOTICE

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

▸ **Remove the counter support for the sun visor**

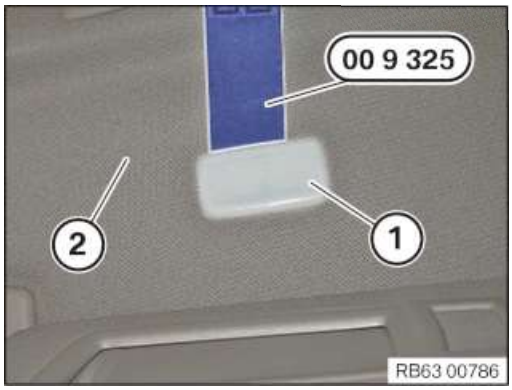


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

8 – Removing front vanity mirror light

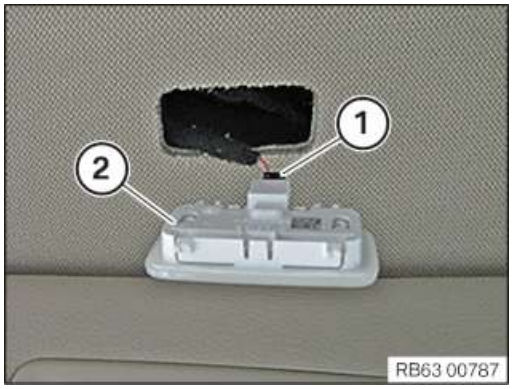
NOTICE

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



- Lever out the front vanity mirror light (1) using special tool 0 496 569 (00 9 325) from the headlining (2).

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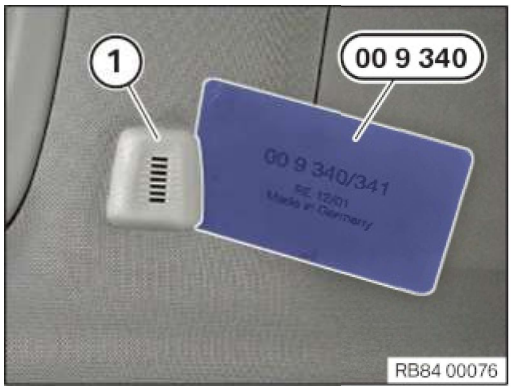
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

9 – Remove both microphones

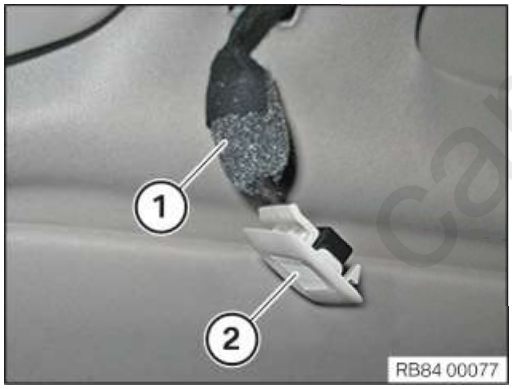
NOTICE

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).

10 – Removing the roof function centre (FZD)



- Unclip the cover (1).

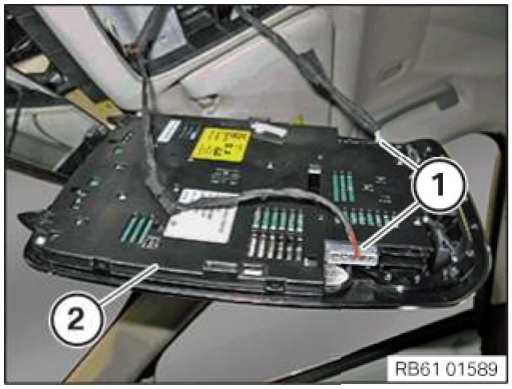
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- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

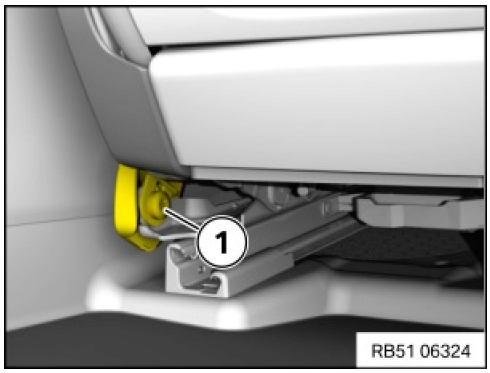


- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

11 – Removing both B-pillar trim panels

NOTICE

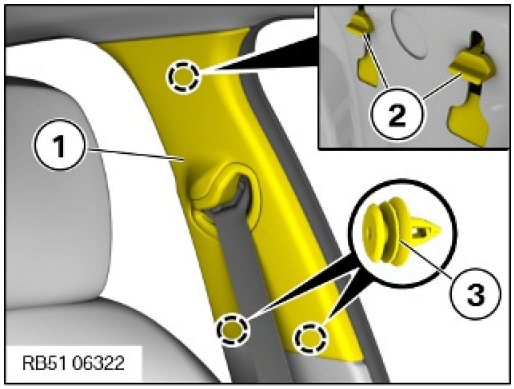
Description is for left component only. Procedure on the right side is identical.



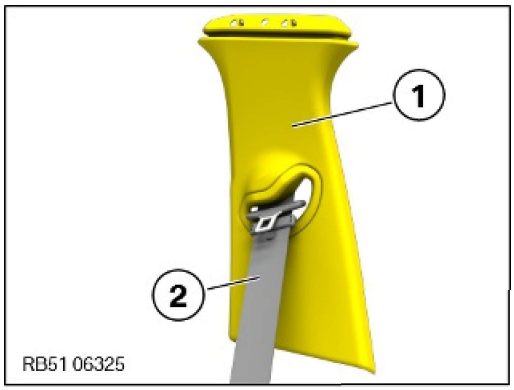
▶ **Remove the B-pillar trim panel**

- Fully position the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).

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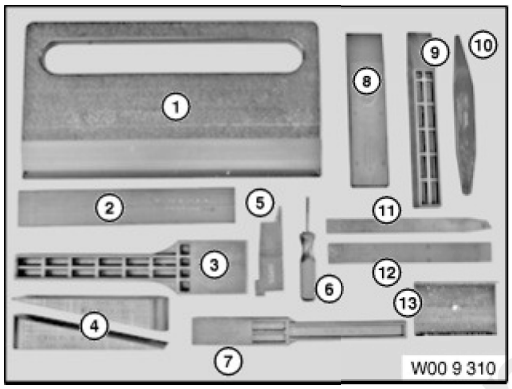


- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).

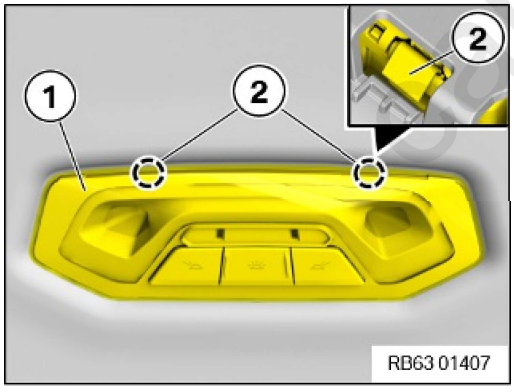


- Feed upper seat belt (2) out of B-pillar trim panel (1).

12 – Remove interior roof light

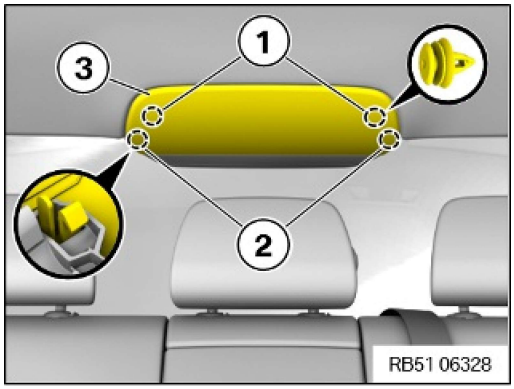


- Have the set of special tools 0 493 752 (00 9 329) ready.



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

13 – 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).

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14 – Remove both C-pillar trim panels

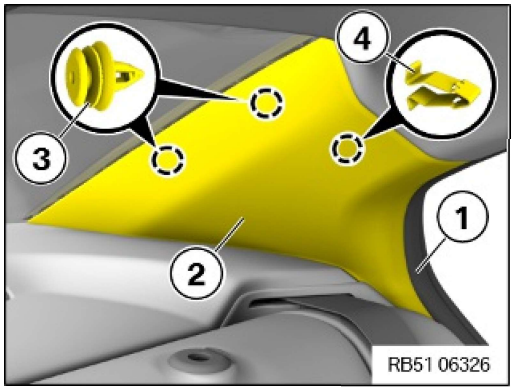
NOTICE

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

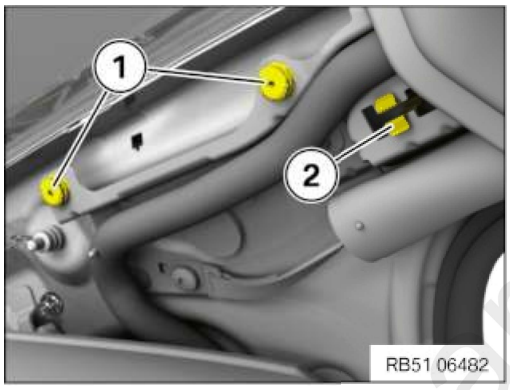
▸ **Remove C-pillar trim panel**

NOTICE

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



- Unclip clamp (4).
- Unclip clips (3).
- Feed out C-pillar trim panel (2) from the guides to the front.
- Thread out C-pillar trim panel (2) from the lip of edge protection (1).



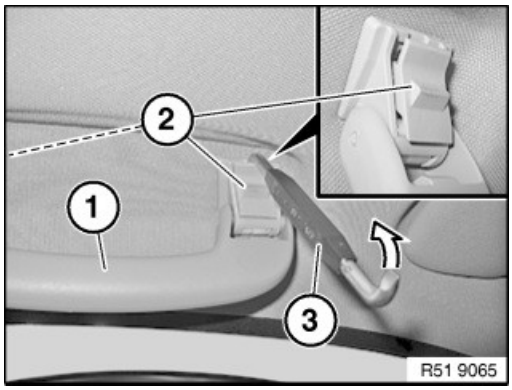
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

15 – Removing all grab handles

NOTICE

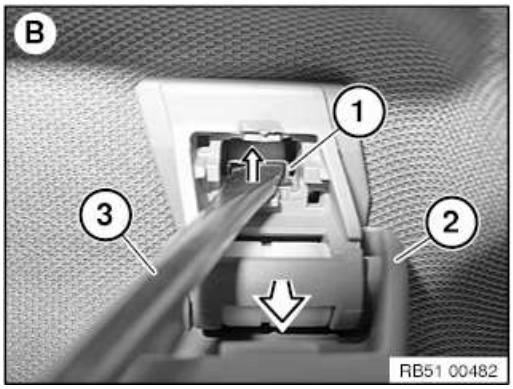
The description is for one component only. The procedure is identical for all further components.

▸ **Removing the grab handle**



- Expand the grab handle (1) towards the bottom.
- Disengage and remove the locking insert (2) with an angle screwdriver (3) as shown.

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- Pull the grab handle (2) slightly to the inside and hold it.
- Use a suitable screwdriver (3) to detach the upper and lower release tabs (1).
- Guide the grab handle (2) out.
- Repeat the operation on the other side of the grab handle (2).

16 – Lower the headlining (with SHD)

Prerequisite

The front seats have been fully adjusted towards the bottom.

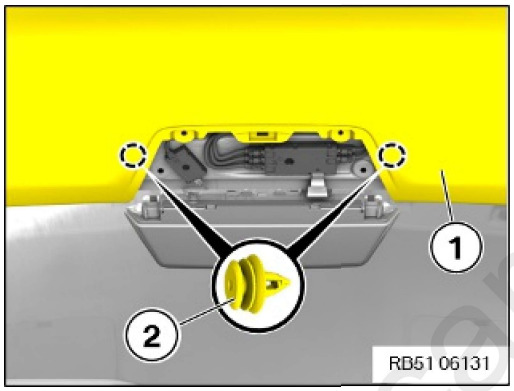
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

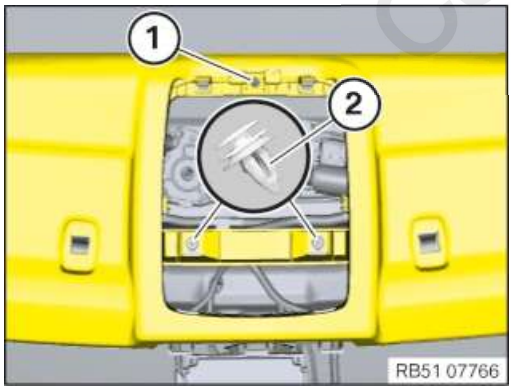
Fold the headlining.

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.

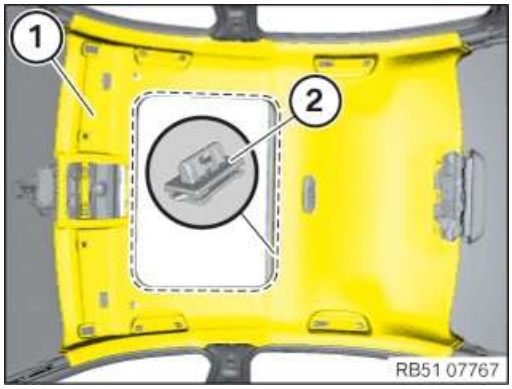


- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.

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- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

17 – Removing the mounting plate for the rear left and right grab handle

NOTICE

Perform the operations on the left and right side.

▸ **Removing the mounting plate for the rear grab handle**

RISK OF DAMAGE

Damage due to swarf.

Contamination can lead to malfunctions and damage.

- Cover working area.
- Draw off swarf during drilling using a vacuum cleaner.

NOTICE

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

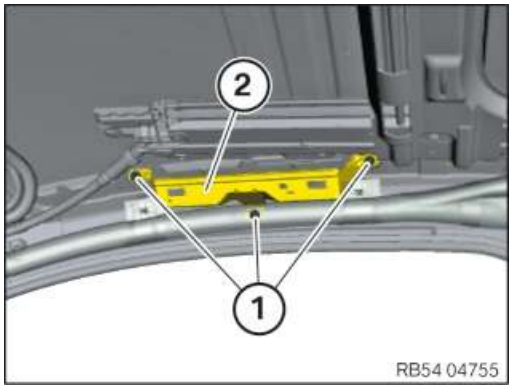


- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.



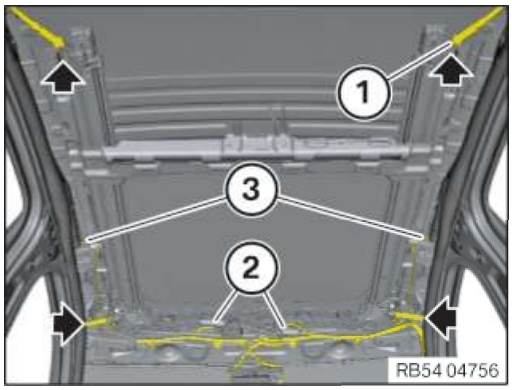
- Protect the working area with a suitable cover (1) to protect against falling swarf.

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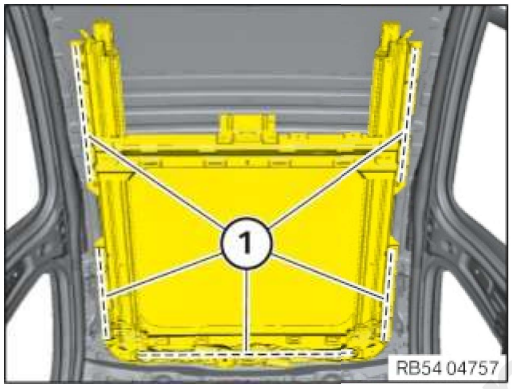


- Drill out blind rivets (1) and remove both rear holders (2).

18 – Remove slide/tilt sunroof completely



- Pull off all four water drain hoses (1) (arrows).
- Disconnect the plug connections of engine (2) and unclip the corresponding cable.
- Disconnect the plug connections (3) of head airbag and unclip the corresponding cable and tie to the side.



RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

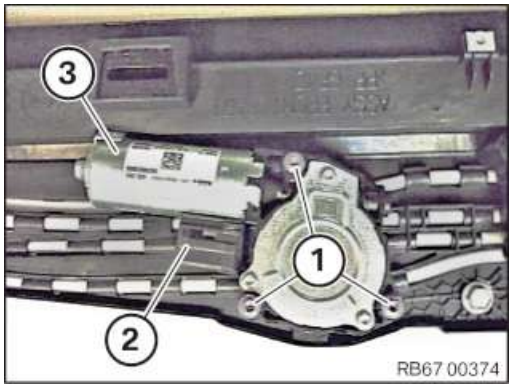
- Remove and install heavy components with the aid of another person/other persons.

- Secure slide/tilt sunroof from falling with the help of an auxiliary person.
- Release all screws along the areas (1).
- Lower the slide/tilt sunroof with the assistance of an auxiliary person and remove from the vehicle through the front passenger door.

19 – Removing drive for the glass slide/tilt roof panel

Prerequisite

Glass slide/tilt sunroof panel must be in the closed position.



- Loosen screws (1).
- Unlock and disconnect available plug connection (2).
- Feed out drive for glass slide/tilt roof panel (3).

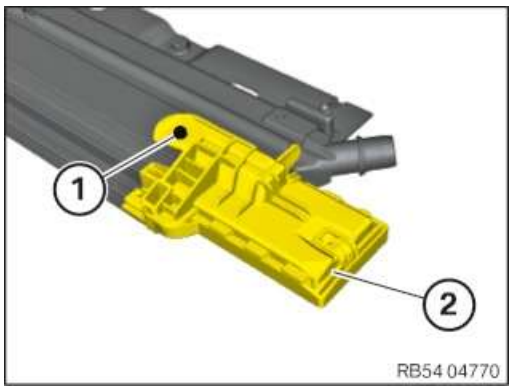
MAIN WORK

20 – Removing the end cap of the slide/tilt sunroof frame

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NOTICE

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

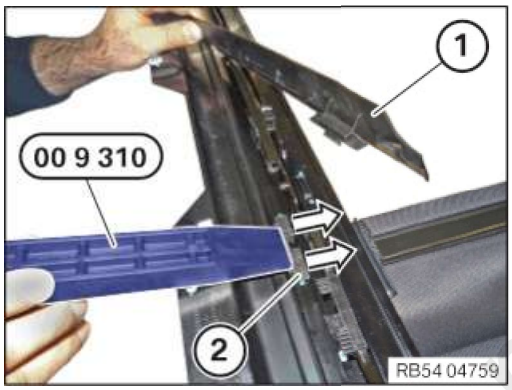


- Drill out the blind rivet (1).
- Feed end cap (2) out and remove it.

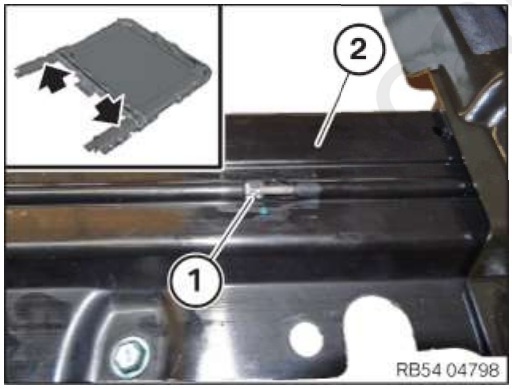
21 – Remove the mechanism of the panorama glass roof

NOTICE

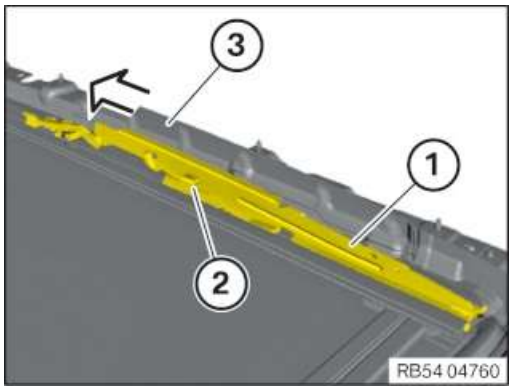
Description is for left component only. Procedure on the right side is identical.



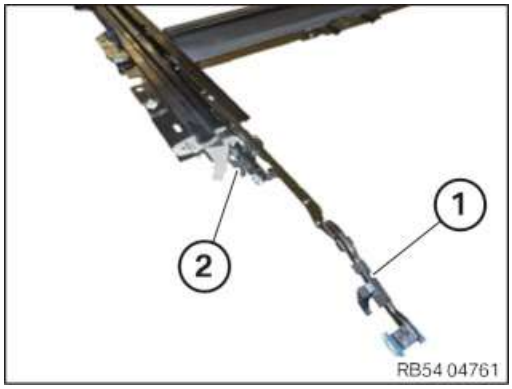
- Unclip sealing lip (1) and push slightly to a side.
- Unclip and feed out the limit position of mechanics (2) with the special tool 0 490 527 (00 9 310) and a slight hit inwards.



- Guide out the stopper of the mechanics (1) from the slide/tilt sunroof frame (2).

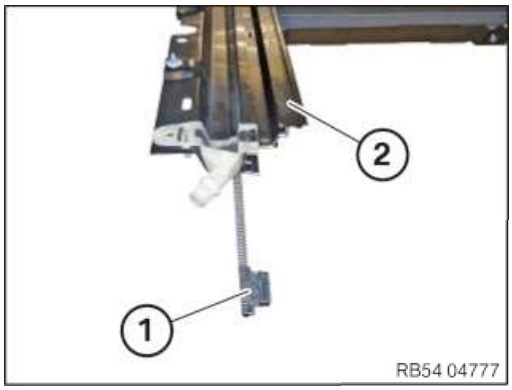


- Slide the mechanics (1) to the slider (2) towards rear from the slide/tilt sunroof frame (3).



- Slide the mechanics (1) to the rear and out of the slide/tilt sunroof frame.
- Feed the mechanics (1) out of the slide/tilt sunroof frame and detach the driver (2).

22 – Remove the drive cable for the mechanics

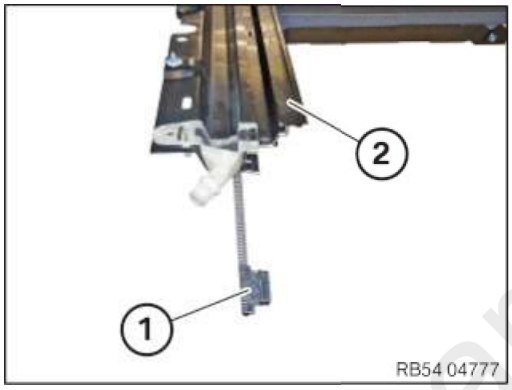


NOTICE

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

- Guide the drive cable (1) out of the slide/tilt sunroof frame (2).

23 – Install the drive cable for the mechanics



NOTICE

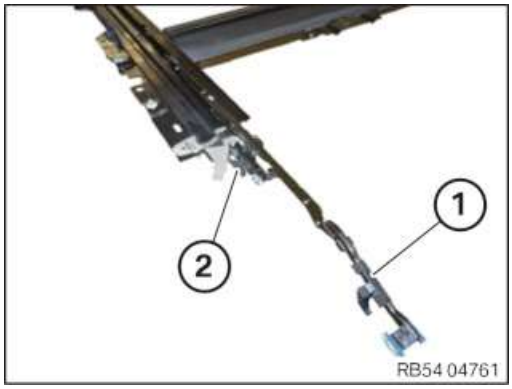
Description is for left component only. Procedure on the right side is identical.

- Guide the drive cable (1) into the slide/tilt sunroof frame (2).

24 – Install the mechanics of the panorama glass roof

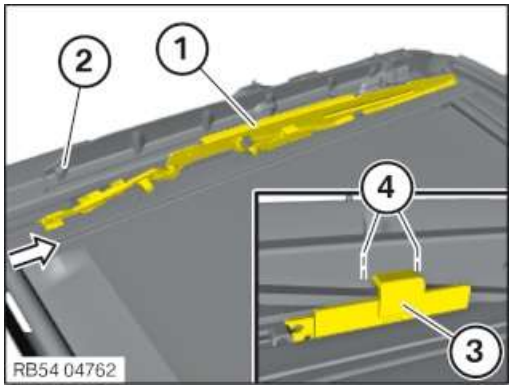
NOTICE

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

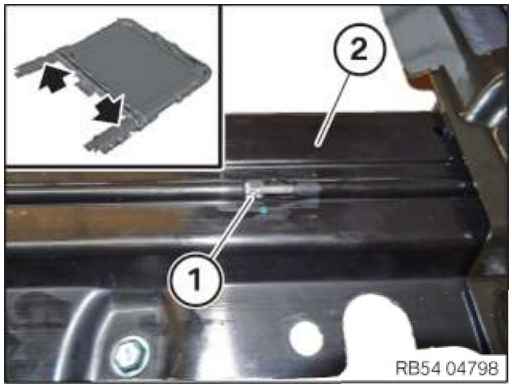


- Feed mechanics (1) into the slide/tilt sunroof frame and attach the driver (2).
- Push the mechanics (1) further forwards into the slide/tilt sunroof frame.

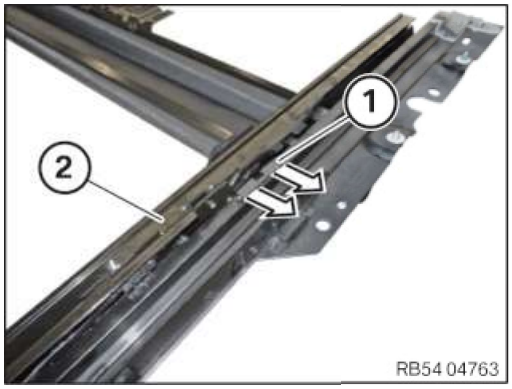
cardiagn.com



- Push the mechanics (1) into the slide/tilt sunroof frame (2) up to the limit position.
- Push the slider (3) further forward until they are found between the marks (4) on the mechanics.



- Guide the stopper of the mechanics (1) into the slide/tilt sunroof frame (2) and position.

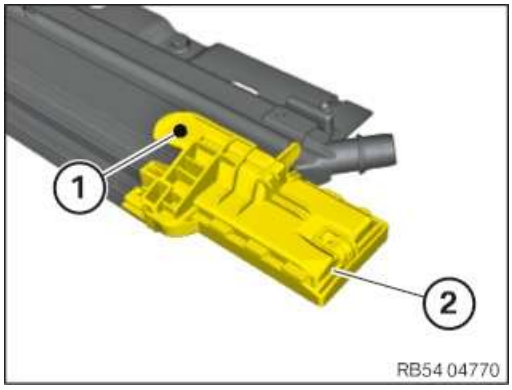


- Feed limit position of the mechanics (1) into the recess on the slide/tilt sunroof frame and move in direction of arrow until the retaining lug (2) engages.

25 – Install end cap of the slide/tilt sunroof frame

NOTICE

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



- Position the end cap (2).
- Fasten blind rivets (1).

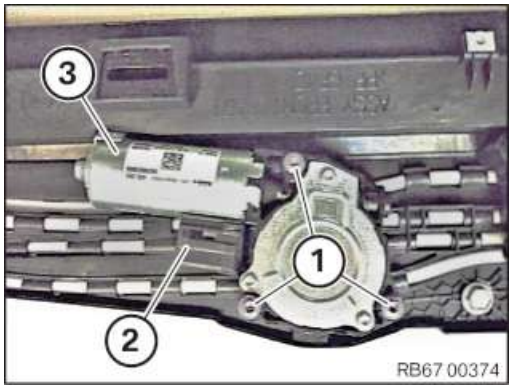
POSTPROCESSES

26 – Install the motor for the glass slide/tilt sunroof panel

Prerequisite

Glass slide/tilt sunroof panel must be in the closed position.

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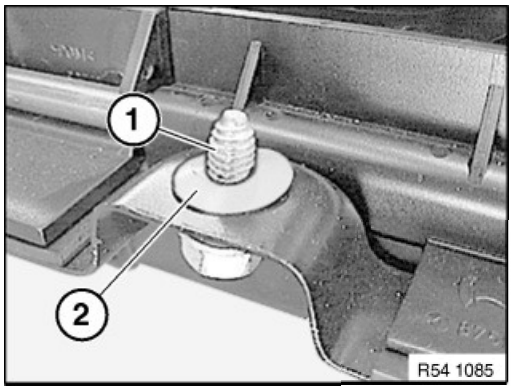


- Guide in the motor for the glass slide/tilt sunroof panel (3) and position it correctly.
- Connect and lock existing connectors (2).
- Tighten the screws (1).

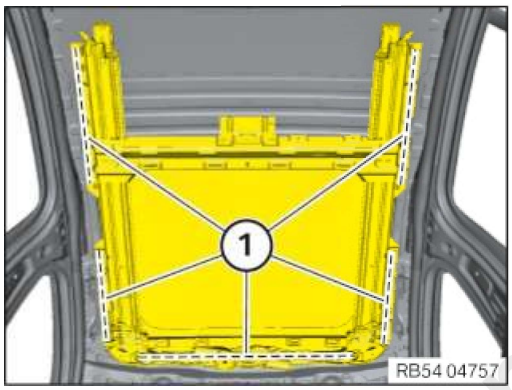
Drive for panorama sunroof to body

Screw		Tightening torque	5,5 Nm

27 – Completely installing the slide/tilt sunroof



- In order to prevent groaning noises, all bolts (1) must be secured with the plastic washers (2) prior to installation.



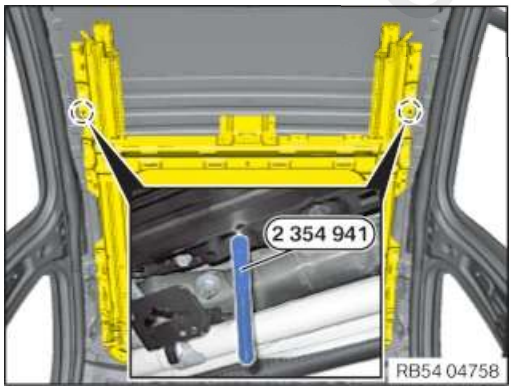
RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

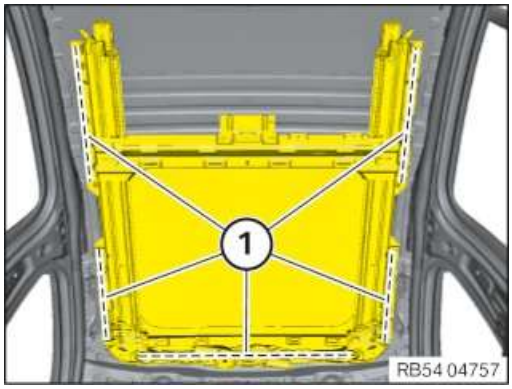
- Remove and install heavy components with the aid of another person/other persons.

- Insert the slide/tilt sunroof through the front passenger door into the vehicle with the help of an auxiliary person and position it.
- When installing it, ensure that no cables are clamped.
- Screw in all screws along the line (1) by several turns.



- Insert the special tool and align the panorama glass roof (1) with the roof.

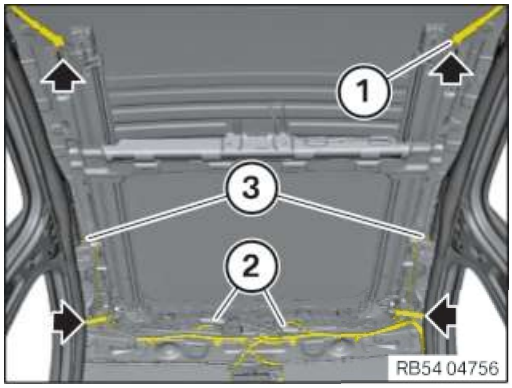
carflash.com



- Tighten all screws along the marked areas (1) .

Slide/tilt sunroof frame to body

M6		5,4 Nm



- Connect all four water drain hoses (1) (arrows).
- Connect the head air-bag plug connections (3) and clip in the corresponding cables.
- Connect plug connections 2 of the engines and clip in the corresponding cables.

Note: Route airbag wiring harness without tension or kinks.

28 – Installing the mounting plate for the left and right grab handle

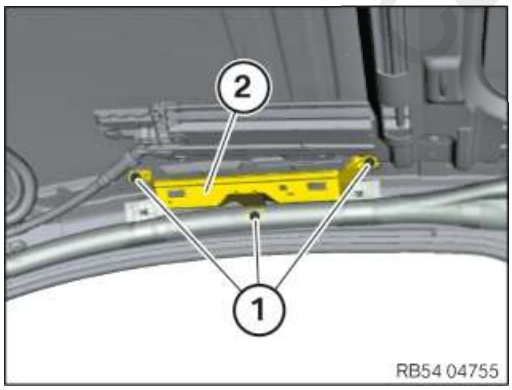
NOTICE

Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

NOTICE

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



- Position the holder (2) and set blind rivets in the area (1).

29 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

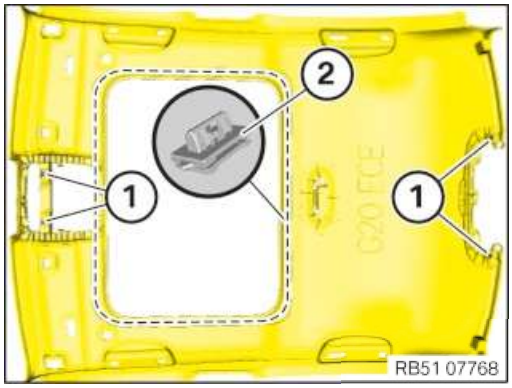
The front seat backrests have been fully adjusted towards the rear.

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.



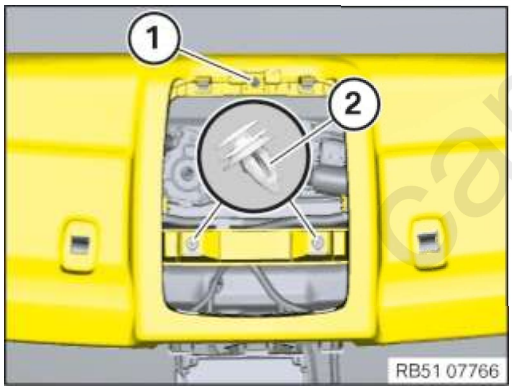
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



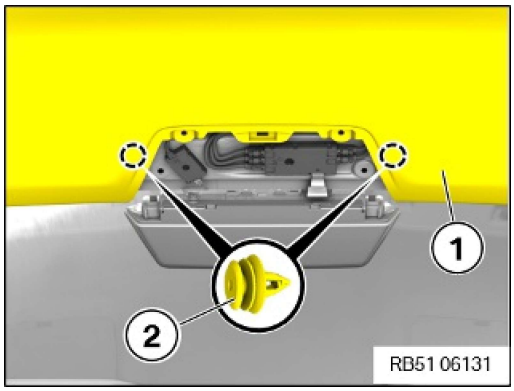
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

Oval-head screw		Tightening torque	1,5 Nm

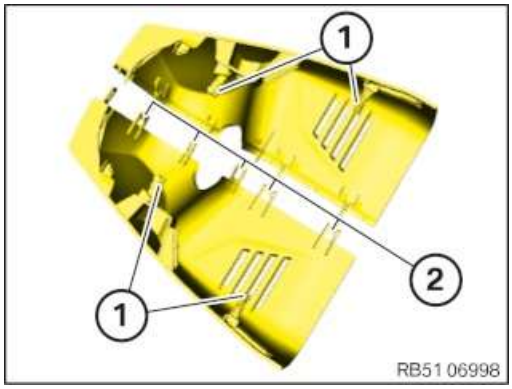


- Clip headlining (1) to the clips (2).

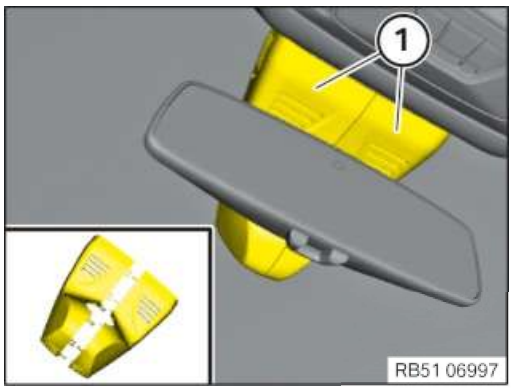
30 – Installing the covers for the interior mirror

- **Version A:**

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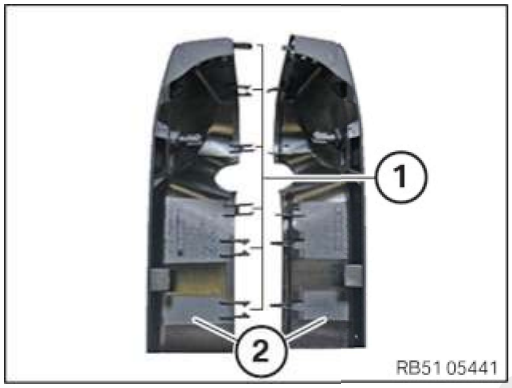


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



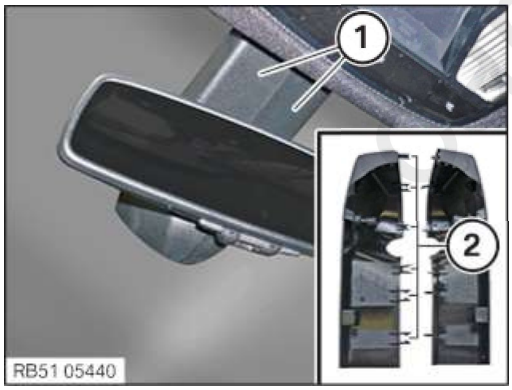
- Feed cover (1) in and lock.

- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

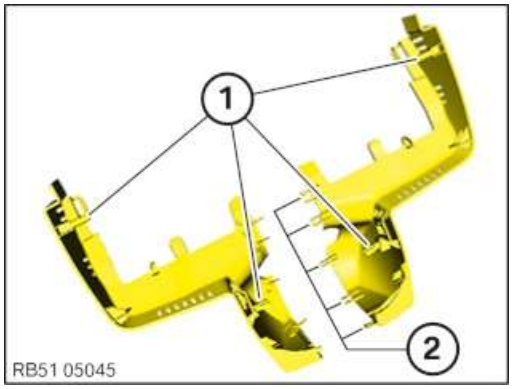
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



- Check the latch mechanisms (1) and (2) of the covers for damage.

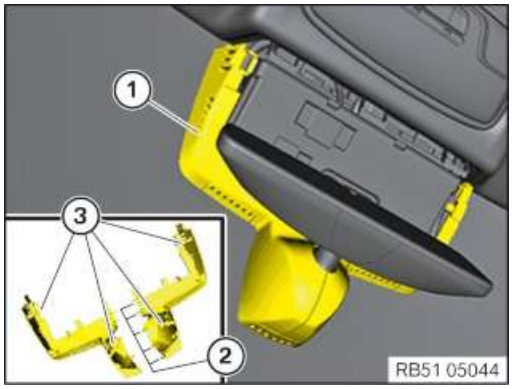
mdiagn.com

Result

» The latch mechanism is damaged.

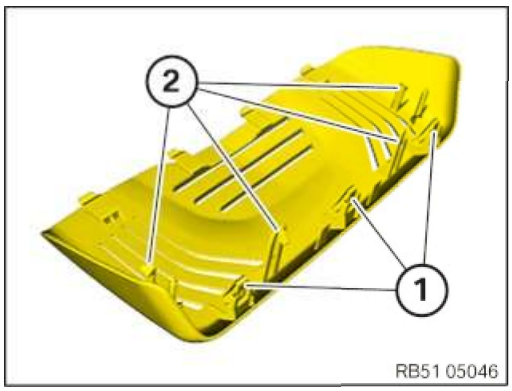
Measure

- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check



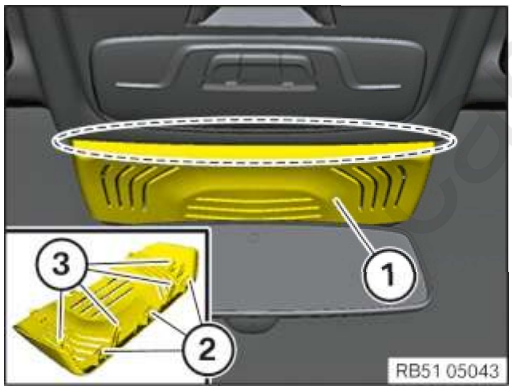
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

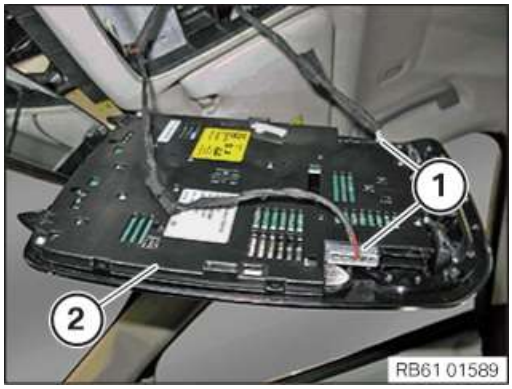
Measure

- Renew the cover.



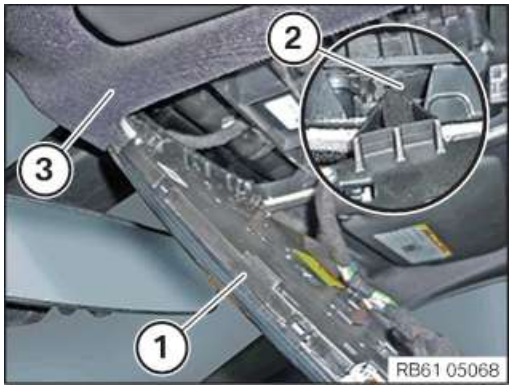
- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

31 – Installing roof function centre (FZD)



- Connect connectors (1) and lock.
- Clip in the cable for the roof function centre (FZD) (2) in the cable clip.

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- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

  Make sure the headlining is not deformed during this operation.



- Clip the roof function centre (FZD) (1) upwards into the clamps (2).



- Pass through the FZD frame and headlining with the special tool 2 298 505 and adjust the headlining correctly.



- Tighten the screws (1).

Roof function centre

	Tightening torque	1,2 Nm



- Clip in the cover (1).

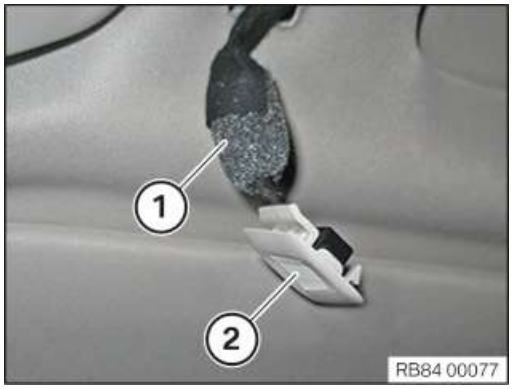
32 – Install both microphones

carldiagn.com

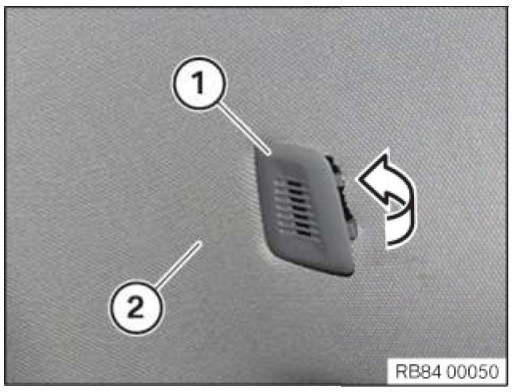
NOTICE

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).

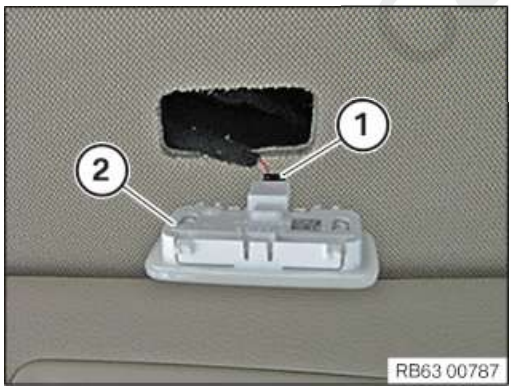


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

33 – Installing front vanity mirror light

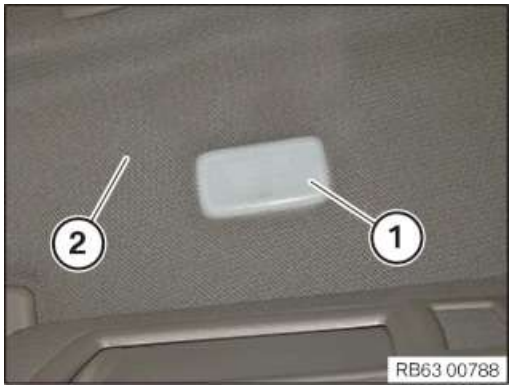
NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).

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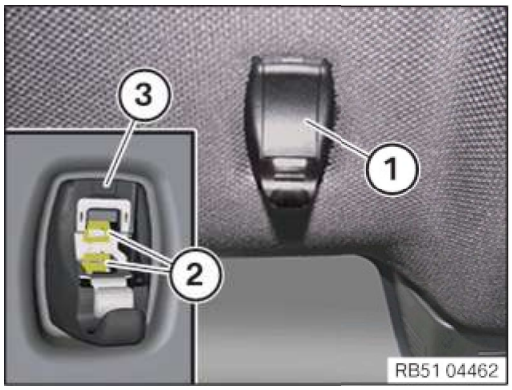
- Position the front vanity mirror light (1) in the headlining (2).

34 – Install both counter supports for the sun visors

NOTICE

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

▸ Install the counter support for the sun visor



- Insert the counter support (3) into the headlining.
- Make sure the clamps (2) are engaged correctly.
- Use cover (1).

35 – Install both sun visors

NOTICE

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

▸ Install the sun visor



- Connect the sun visor (2) with the corresponding connector.
- Guide the sun visor (2) into the headlining.
- Use cover (1).
- Attach the sun visor (2) on the counter support.

36 – Install both A-pillar trim panels

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NOTICE

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

▸ **Installing the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

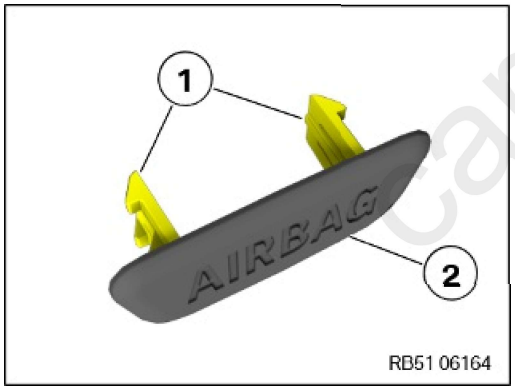
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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.



Check

- Check retaining lugs (1) of cover (2) for damage.

Result

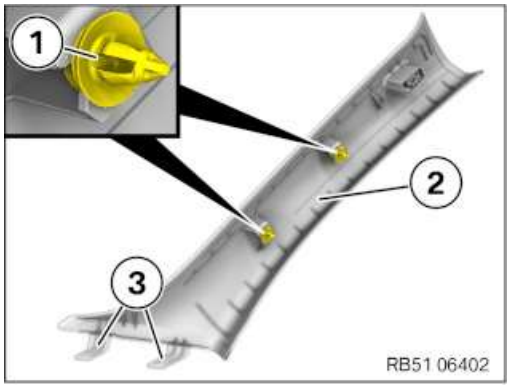
» Retaining lug is damaged.

Measure

- Renew the cover.

Check

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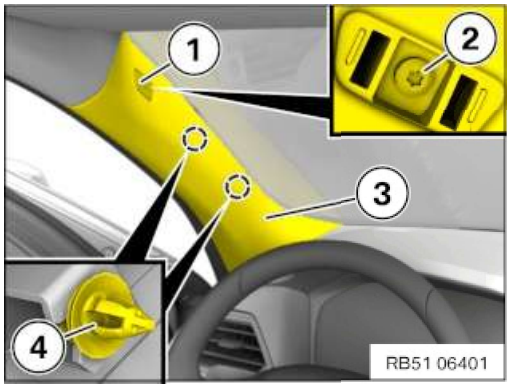
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the A-pillar trim panel.



- Guide in A-pillar trim panel (3) downwards and clip it in with clips (4).
- Tighten down screw (2).

A-pillar trim panel to body

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

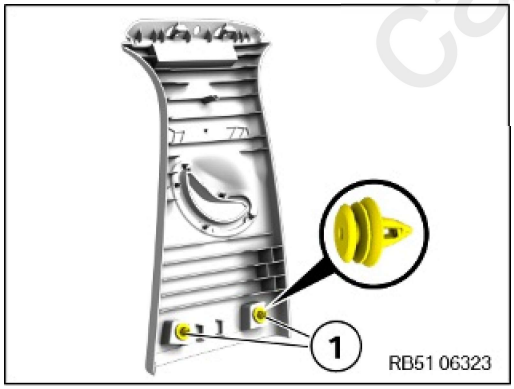
- Clip in the cover (1).

37 – Installing both B-pillar trim panels

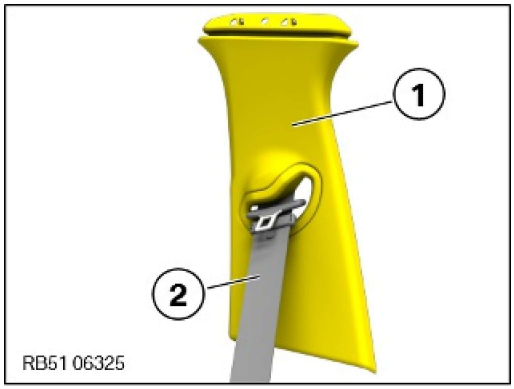
NOTICE

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

▸ **Install the B-pillar trim panel**

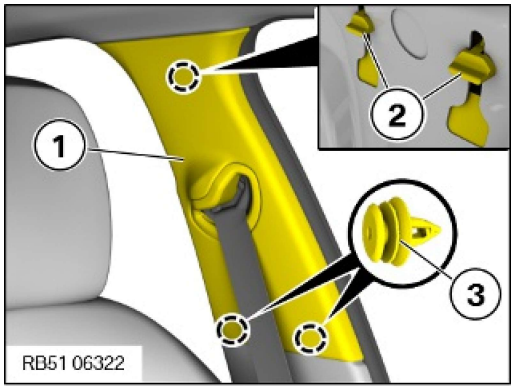


- Check the clips (1) for damage and renew if necessary.

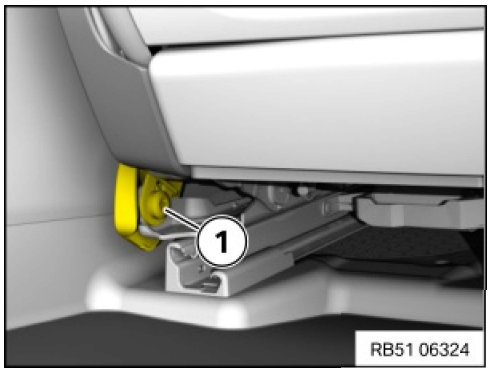


- Guide upper seat belt (2) in B-pillar trim panel (1).

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- Insert B-pillar trim panel (1) into guides (2) and under the front and rear lips of edge protection.
- Clip in the B-pillar trim panel (1) with the clips (3).



- Fully position the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

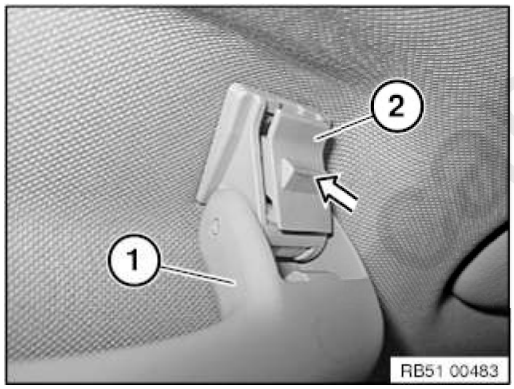
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

38 – Installing all grab handles

NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Installing the grab handle**

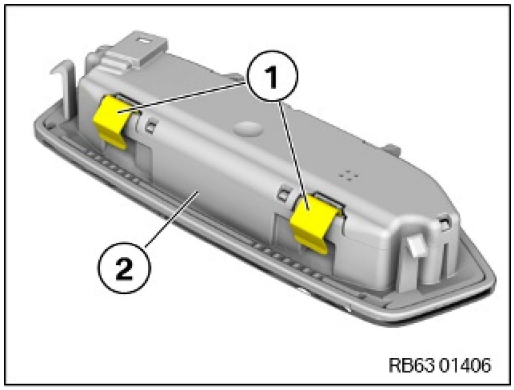


- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

39 – Install interior roof light

Check

- Check the clamps (1) for damage.

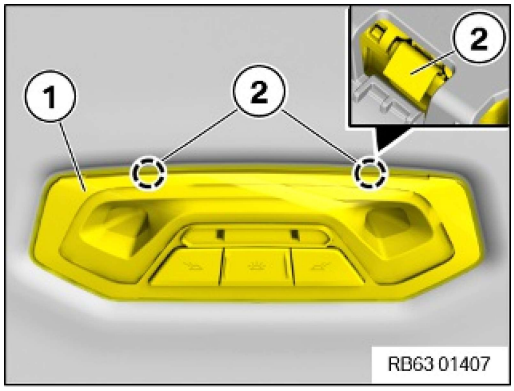


Result

» 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).

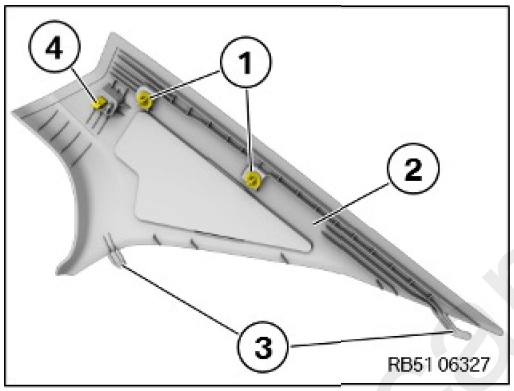
40 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

Check



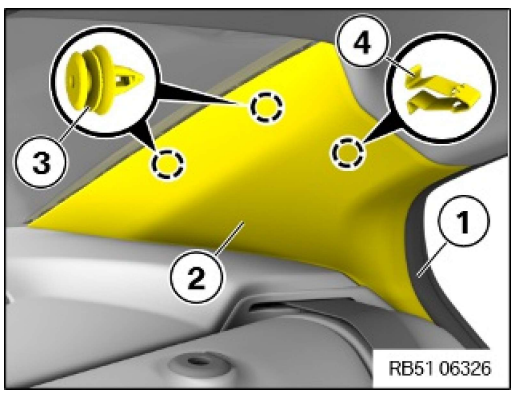
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .



NOTICE

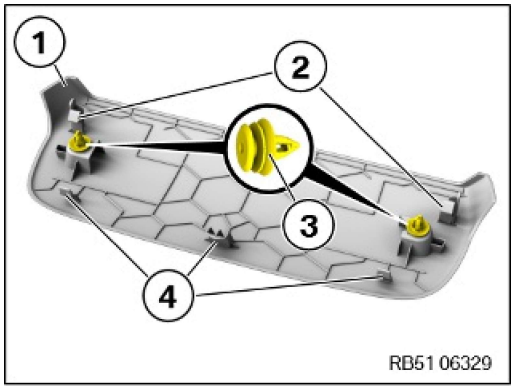
Schematic diagram is for example purposes. Some parts may differ in certain details.

- Feed C-pillar trim panel (2) into guides towards the rear.
- Clip in clips (3).
- Clip in clamp (4).
- Guide in C-pillar trim panel (2) under the lip of edge protection (1).

41 – Installing trim for additional brake light

Check

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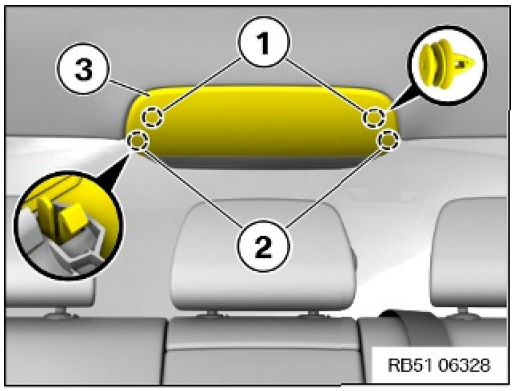
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

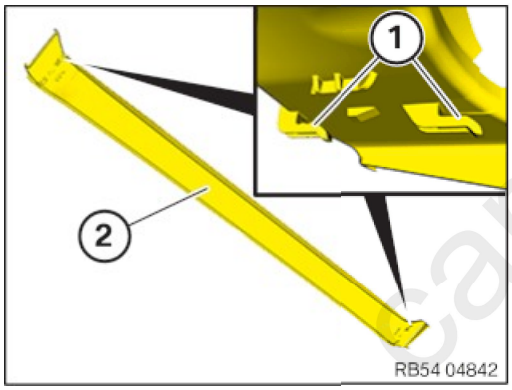
Measure

- Renew the trim for the additional brake light.

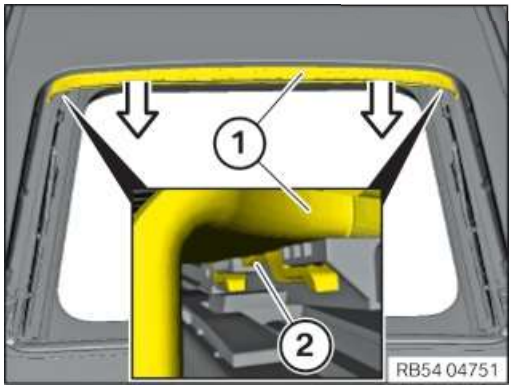


- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

42 – Install water channel



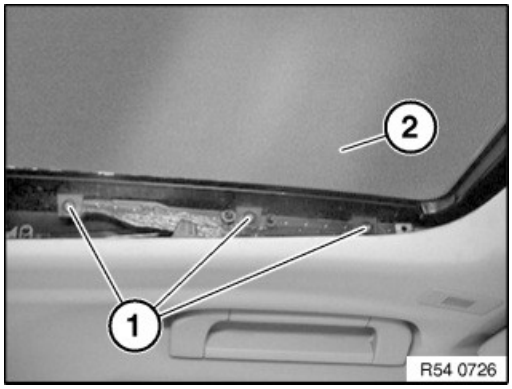
- Check retaining lugs (1) of the water channel (2) for damage and renew, if necessary.



- Feed in the water channel (1) from rear and move towards front until the retaining lugs (2) engage.

43 – Install glass slide/tilt sunroof panel

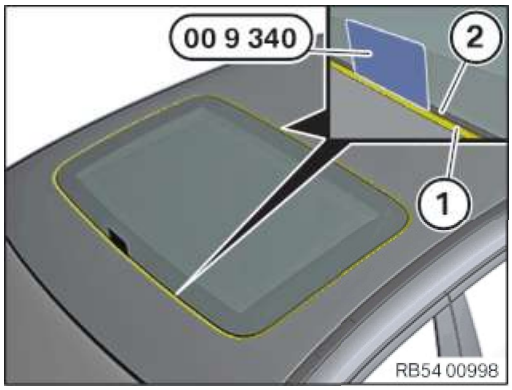
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- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

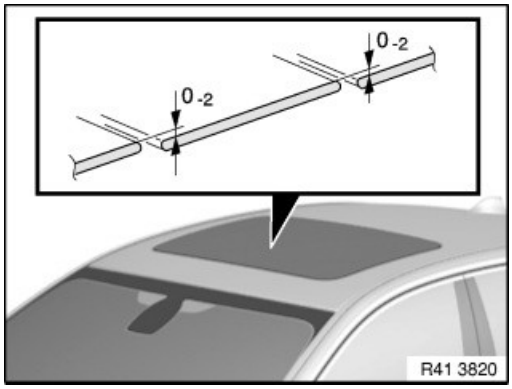
44 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

  The resistance when moving the special tool must be the same at the front and rear.

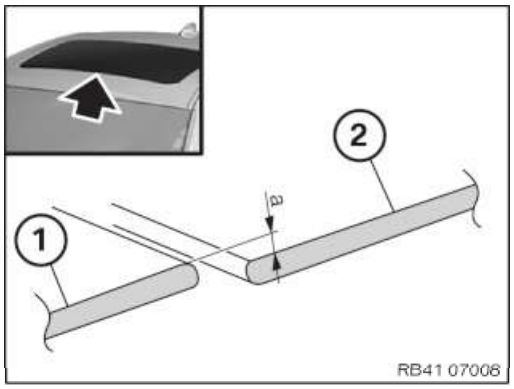
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- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

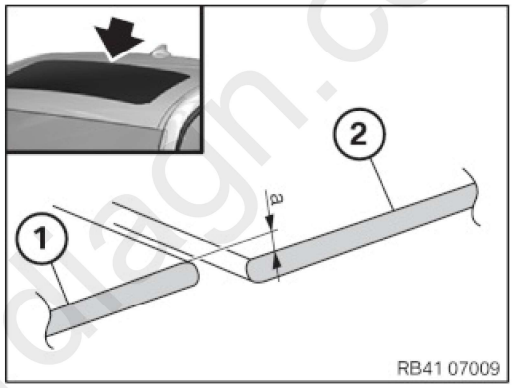
Gap dimension roof outer skin to glass slide/tilt sunroof panel

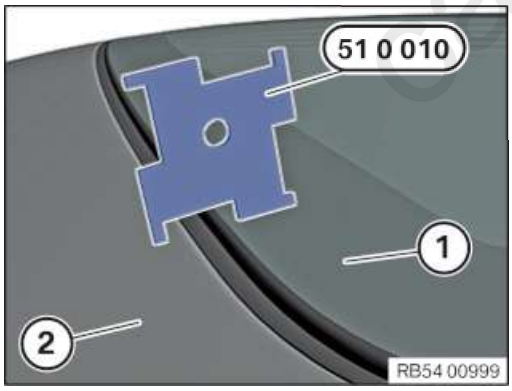
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

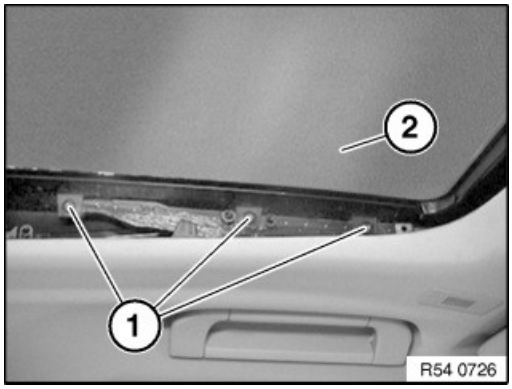




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

45 – Adjusting glass slide/tilt sunroof panel

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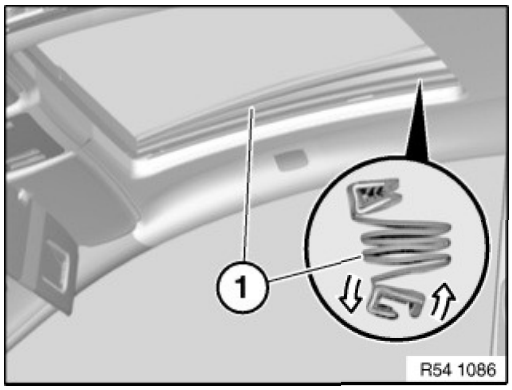


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

M5	Replace screws.	4,5 Nm

46 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

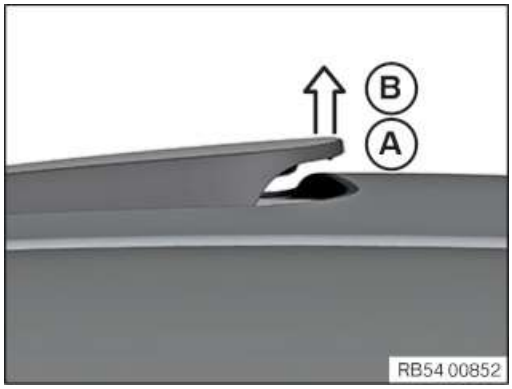
47 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.

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- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

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Additional Information

Overview of Tightening Torques

Drive for panorama sunroof to body — Used in step 26

Screw		Tightening torque	5,5 Nm

Slide/tilt sunroof frame to body — Used in step 27

M6			5,4 Nm

Headlining to frame — Used in step 29

Oval-head screw		Tightening torque	1,5 Nm

Roof function centre — Used in step 31

		Tightening torque	1,2 Nm

A-pillar trim panel to body — Used in step 36

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

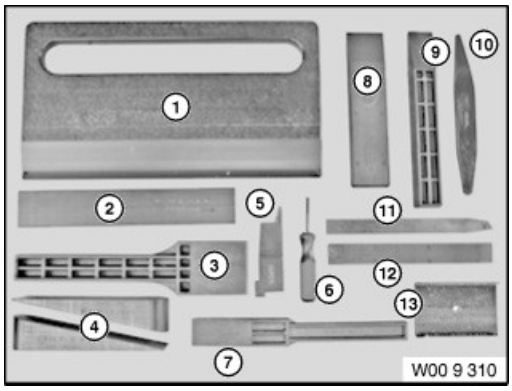
End fitting to seat mechanism — Used in step 37

Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Glass slide/tilt sunroof panel to mechanics		Used in step 45
M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



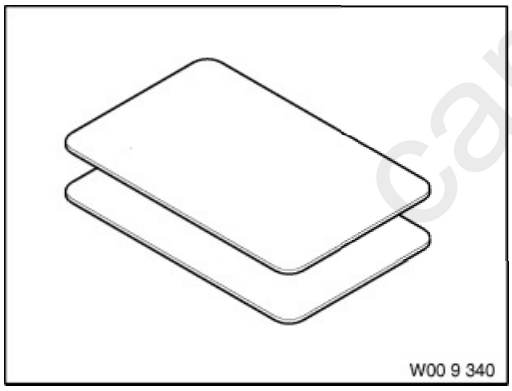
Common		Used in step 512
Usage	(Case) with insert not incl. panel wedges	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	01 07 09 (530)	

0 496 569 (00 9 325) Wedge



Common		Used in step 821
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	41 01 09 (507)	

0 493 687 (00 9 340) Removal aid



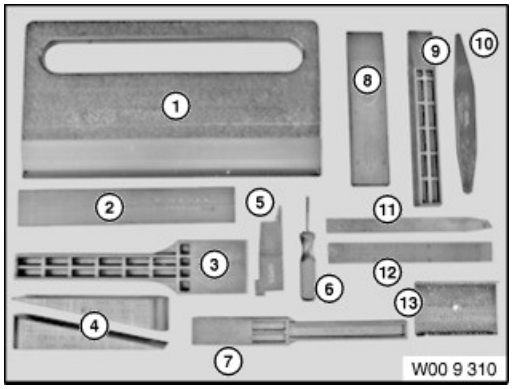
Common		Used in step 9
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

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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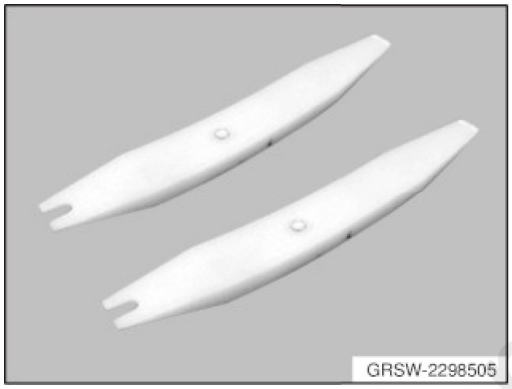
0 490 527 (00 9 310) Wedge



Common Used in step 21

Usage	(Panel wedges (set in plastic case)) For straightening and installation work on the vehicle, e.g. feeding in trim panels, removing window cavity strips, removing minor dents, removing adhesive residue, measuring gap widths, levering out trim panels --> 12 pieces (item 6 = 009316 discontinued since 2009).
Included in the tool or work	
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

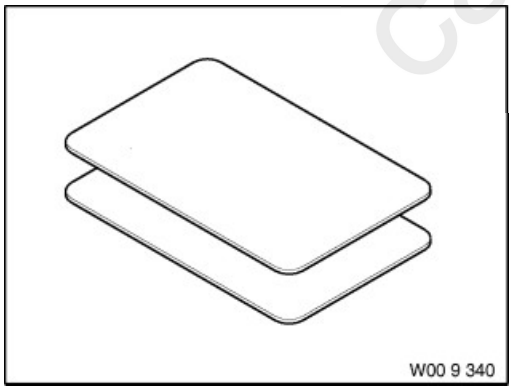
2 298 505 Wedge



Common Used in step 31

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)

0 493 687 (00 9 340) Removal aid



Common Used in step 44

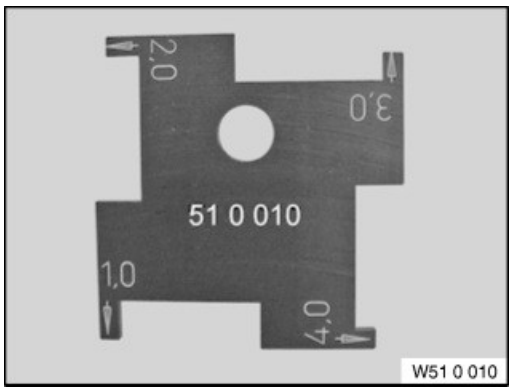
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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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0 495 259 (51 0 010) Gauge



Common	Used in step 44
Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

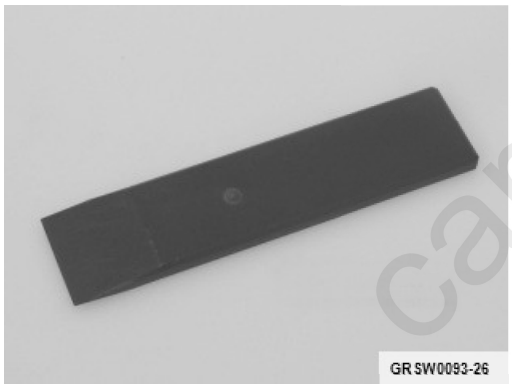
Replacement tools:

0 496 569 (00 9 325) Wedge



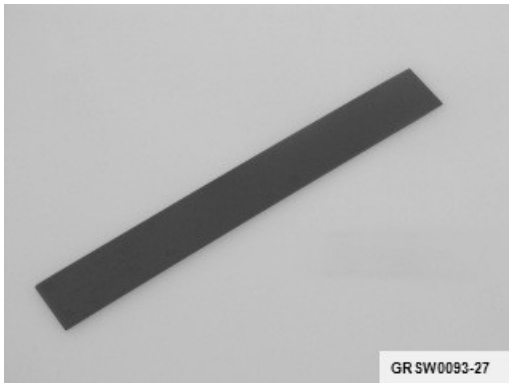
Common	Used in step 821
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

0 496 570 (00 9 326) Wedge



Common	Used in step 21
Usage	(Universal wedge) From 11/2008 this special tool replaces panel wedge 00 9 318 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

0 496 571 (00 9 327) Wedge



Common	Used in step 21
Usage	(Cleaning wedge) From 11/2008 this special tool replaces panel wedge 00 9 323 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

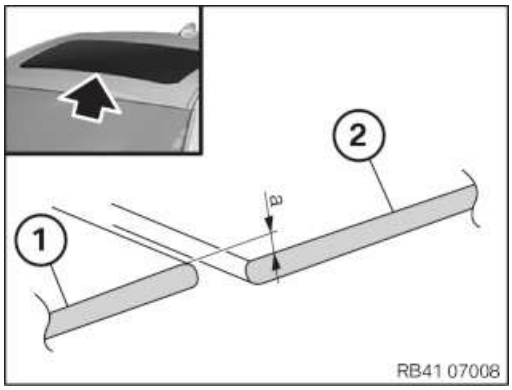
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 44

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1 roof outer skin; 2 glass slide/tilt sunroof panel

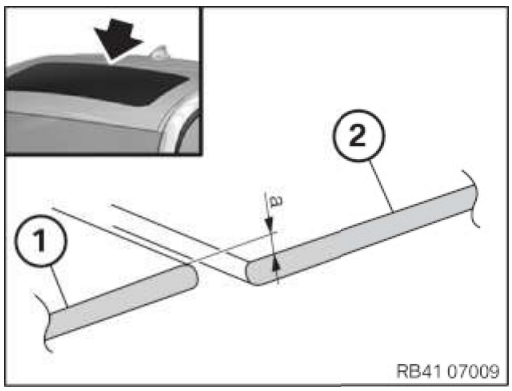
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin Used in step 44

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	5
72 00 ... Safety regulations for handling components with gas generators	5

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54 12 302 Removing and installing/replacing roller sunblind for slide/tilt sunroof

RISK OF DAMAGE

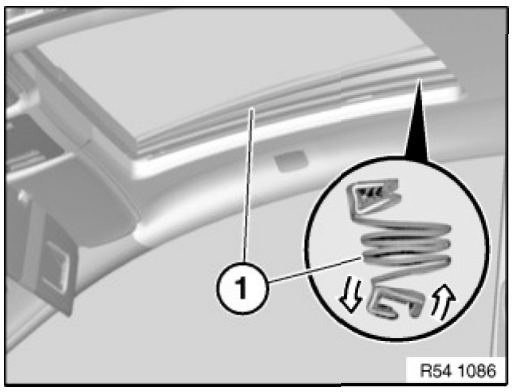
Fold the headlining.

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 – Remove the gaiter for the glass slide/tilt sunroof

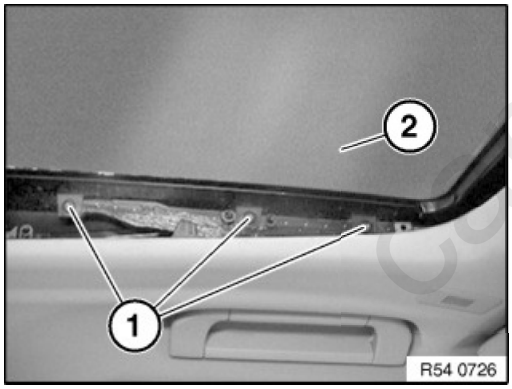


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

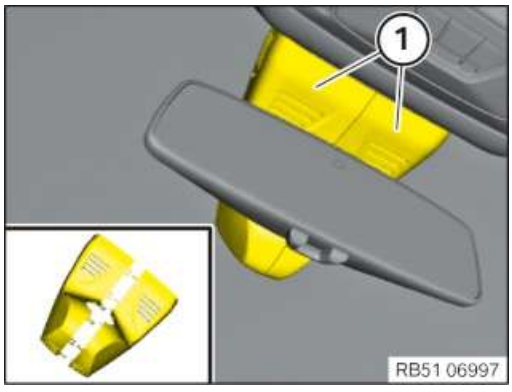
2 – Remove glass slide/tilt sunroof panel



- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Removing the covers for the interior mirror

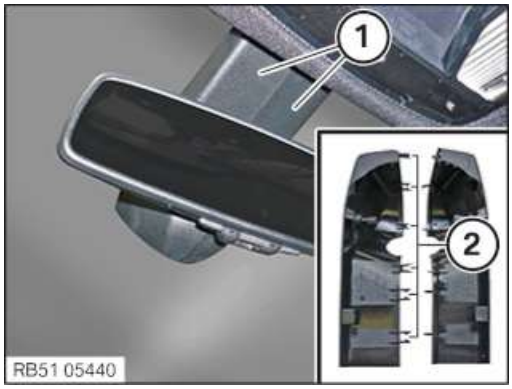
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

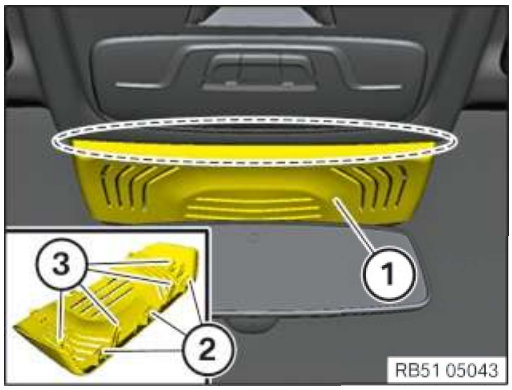
- **Version B:**

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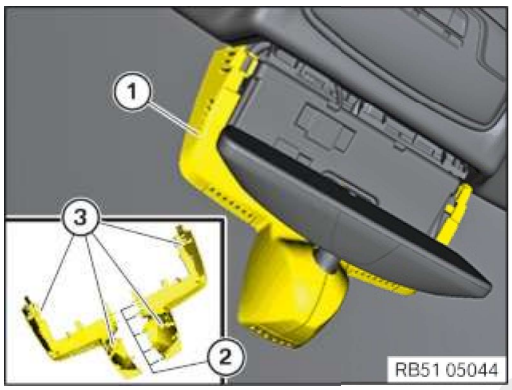


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**



- Detach cover (1) from the clamps (2) in the marked area using a suitable plastic wedge and pull down a certain distance.
- Release cover (1) at the retaining lugs (3) and remove from the guides to the rear.



- Release cover (1) from the latch mechanisms (2) and (3) and remove sideways.
- Remove cover (1) from mirror base (2).

4 – Remove both A-pillar trim panels

NOTICE

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

▸ **Remove the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

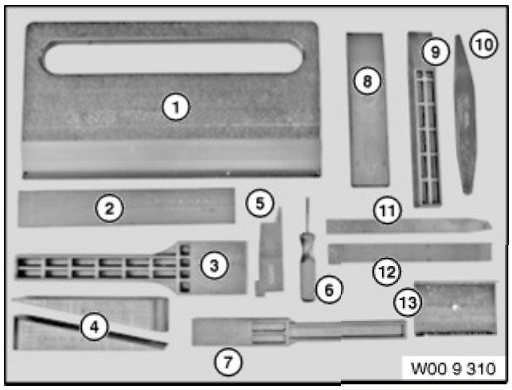
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WARNING

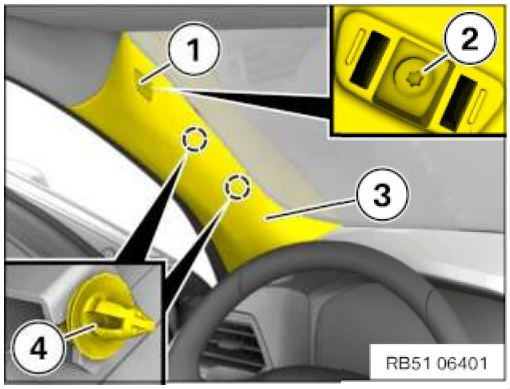
Pyrotechnic components.

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.



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



- Unclip the cover (1) with suitable tools.
- Loosen screw (2).
- Unclip A-pillar trim panel (3) with clips (4) and guide it out upwards.

5 – Remove both sun visors

NOTICE

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

▶ **Remove sun visor**



- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

6 – Remove both counter supports for the sun visors

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NOTICE

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

▸ **Remove the counter support for the sun visor**

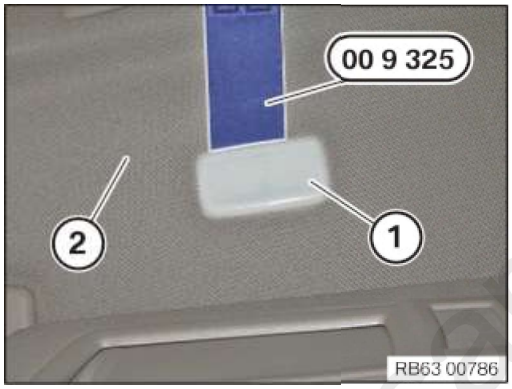


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

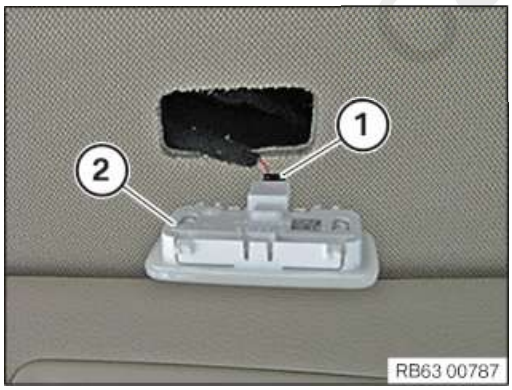
7 – Removing front vanity mirror light

NOTICE

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



- Lever out the front vanity mirror light (1) using special tool 0 496 569 (00 9 325) from the headlining (2).



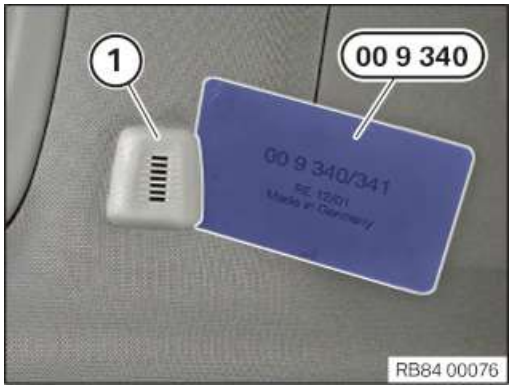
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

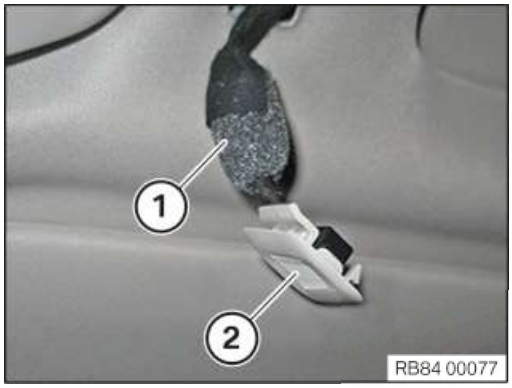
NOTICE

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).

9 – Removing the roof function centre (FZD)



- Unclip the cover (1).

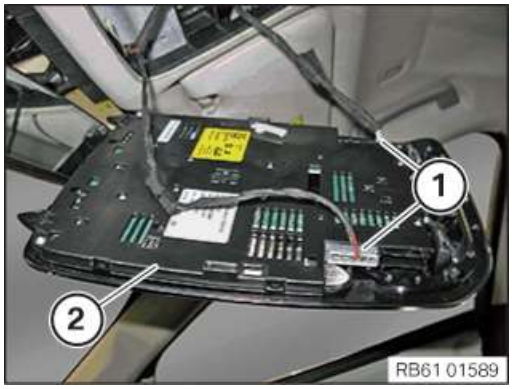


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

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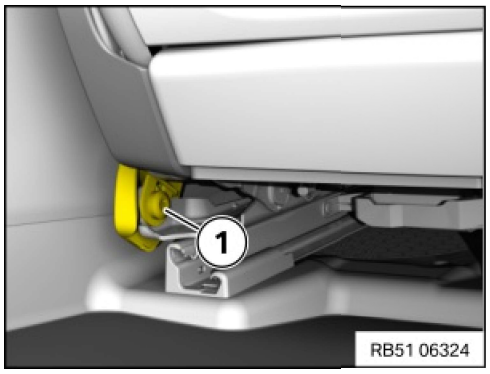
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

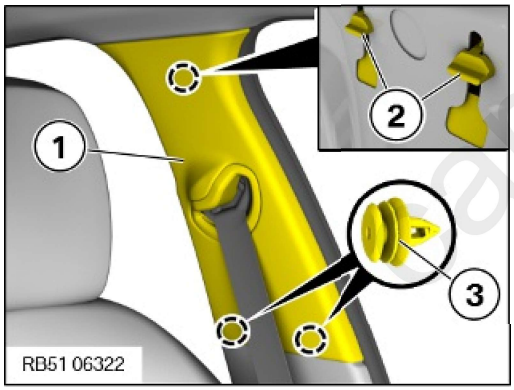
NOTICE

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

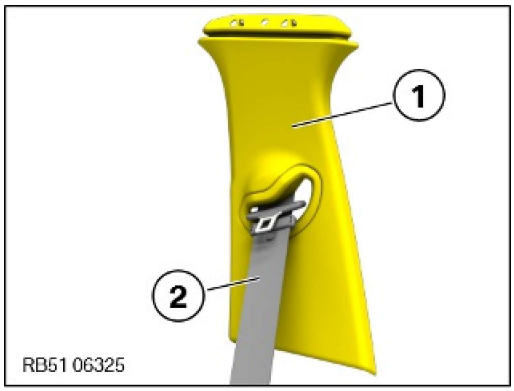
▶ **Remove the B-pillar trim panel**



- Fully position the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



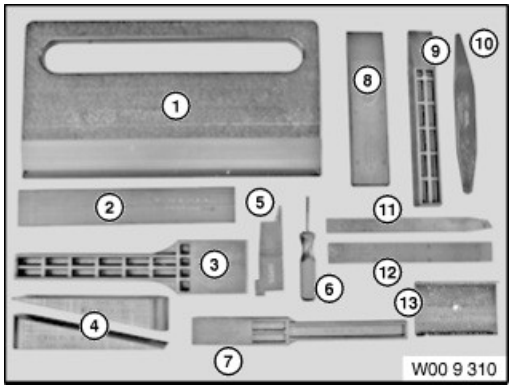
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



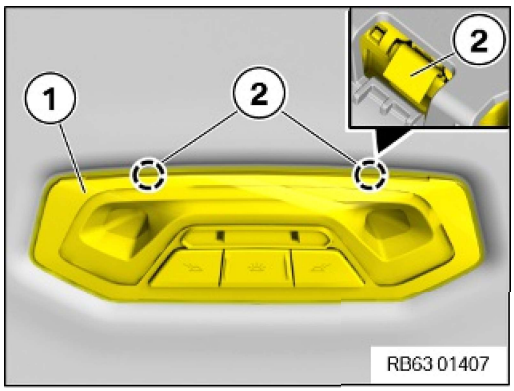
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

carDiagn.com

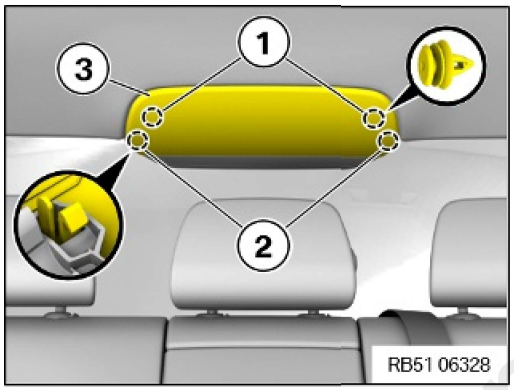


- Have the set of special tools 0 493 752 (00 9 329) ready.



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

12 – 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).

13 – Remove both C-pillar trim panels

NOTICE

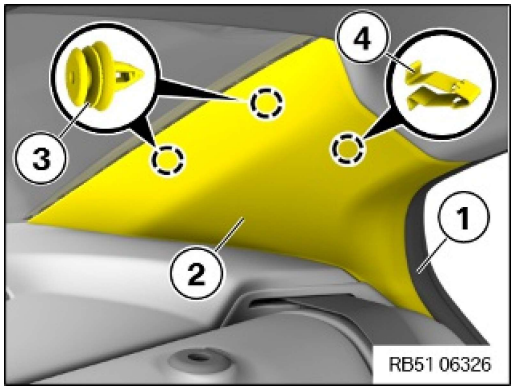
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

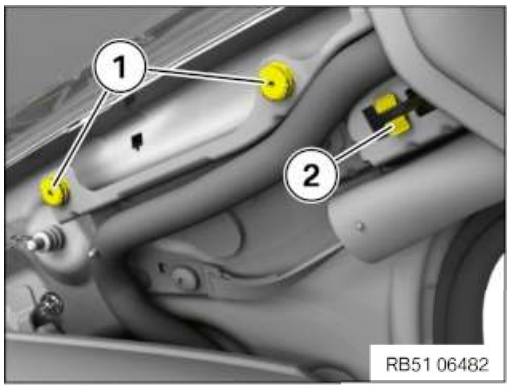
NOTICE

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

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- Unclip clamp (4).
- Unclip clips (3).
- Feed out C-pillar trim panel (2) from the guides to the front.
- Thread out C-pillar trim panel (2) from the lip of edge protection (1).



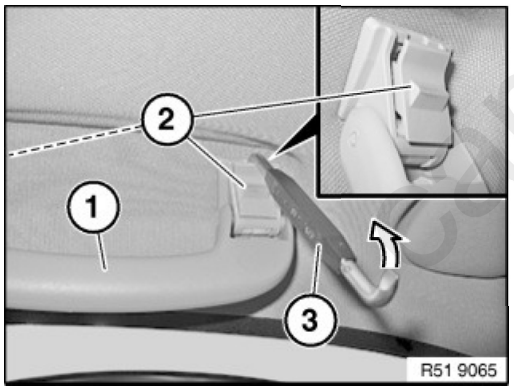
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

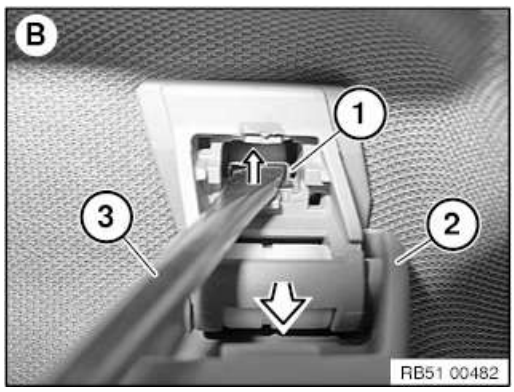
NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Removing the grab handle**



- Expand the grab handle (1) towards the bottom.
- Disengage and remove the locking insert (2) with an angle screwdriver (3) as shown.



- Pull the grab handle (2) slightly to the inside and hold it.
- Use a suitable screwdriver (3) to detach the upper and lower release tabs (1).
- Guide the grab handle (2) out.
- Repeat the operation on the other side of the grab handle (2).

15 – Lower the headlining (with SHD)

Prerequisite

The front seats have been fully adjusted towards the bottom.

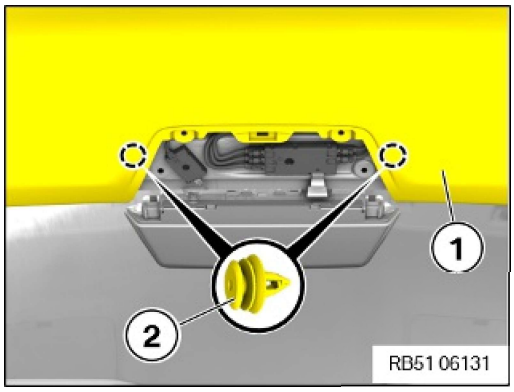
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

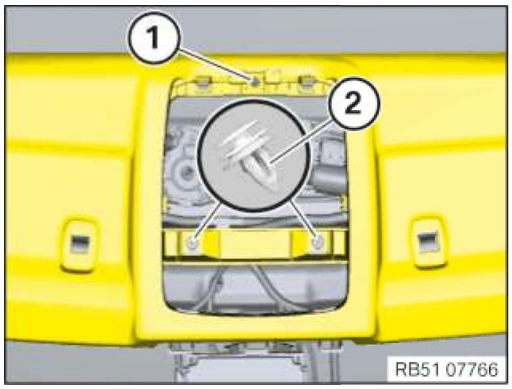
Fold the headlining.

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.



- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.



- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

16 – Removing the mounting plate for the rear left and right grab handle

NOTICE

Perform the operations on the left and right side.

▸ **Removing the mounting plate for the rear grab handle**

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RISK OF DAMAGE

Damage due to swarf.

Contamination can lead to malfunctions and damage.

- Cover working area.
- Draw off swarf during drilling using a vacuum cleaner.

NOTICE

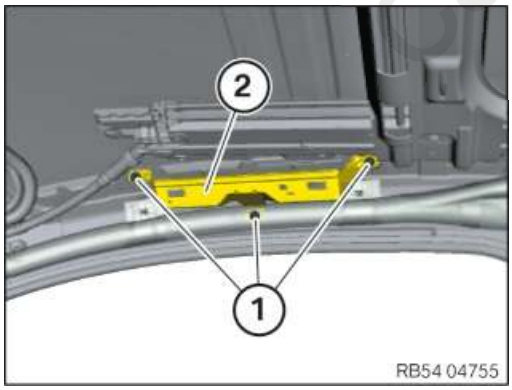
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

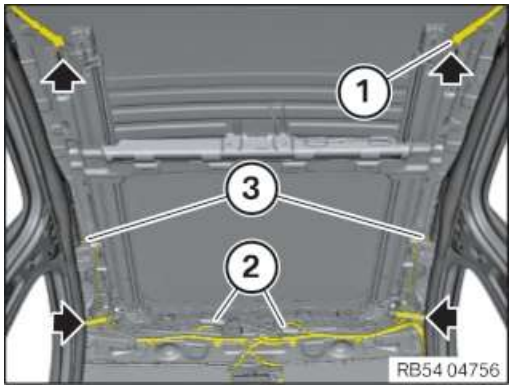


- Protect the working area with a suitable cover (1) to protect against falling swarf.

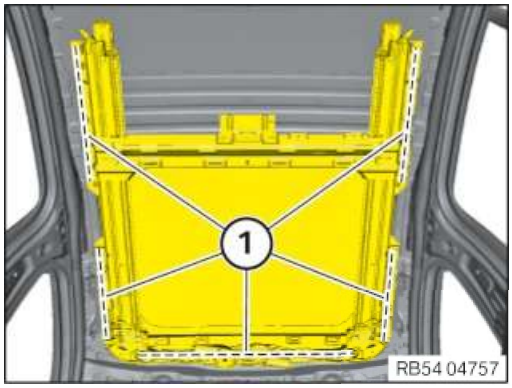


- Drill out blind rivets (1) and remove both rear holders (2).

17 – Remove slide/tilt sunroof completely



- Pull off all four water drain hoses (1) (arrows).
- Disconnect the plug connections of engine (2) and unclip the corresponding cable.
- Disconnect the plug connections (3) of head airbag and unclip the corresponding cable and tie to the side.



RISK OF DAMAGE

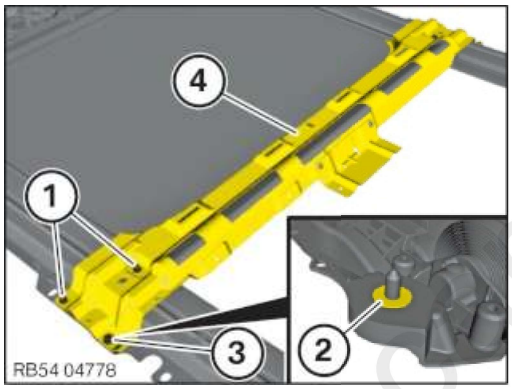
Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Secure slide/tilt sunroof from falling with the help of an auxiliary person.
- Release all screws along the areas (1).
- Lower the slide/tilt sunroof with the assistance of an auxiliary person and remove from the vehicle through the front passenger door.

18 – Removing cross member



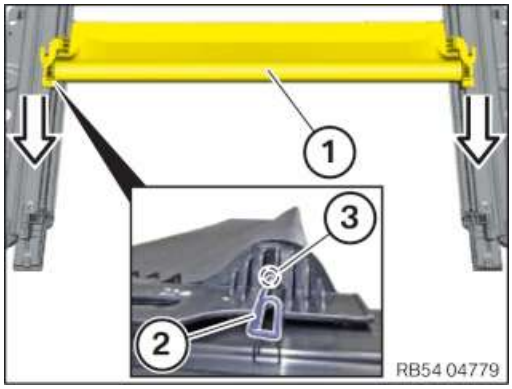
NOTICE

Perform the operations on the left and right side.

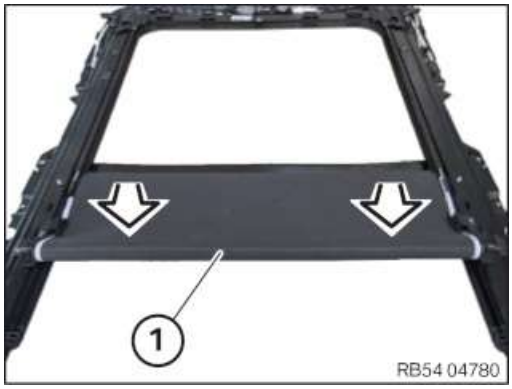
- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

MAIN WORK

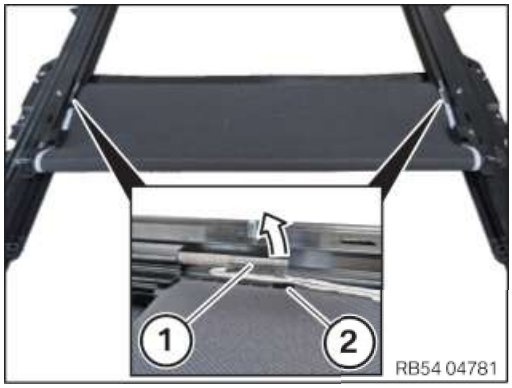
19 – Removing roller sunblind for the panorama glass roof



- Push the roller sunblind back (1) on both sides and thus roll it up a few cm.
- Unroll the roller sunblind (1) until it can be fixed with a suitable tool (2) (e.g. paper clip) over the pegging device (3).



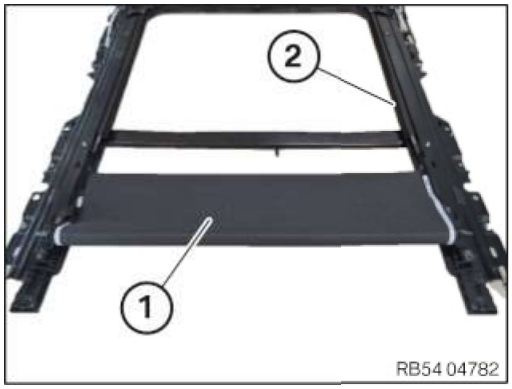
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



NOTICE

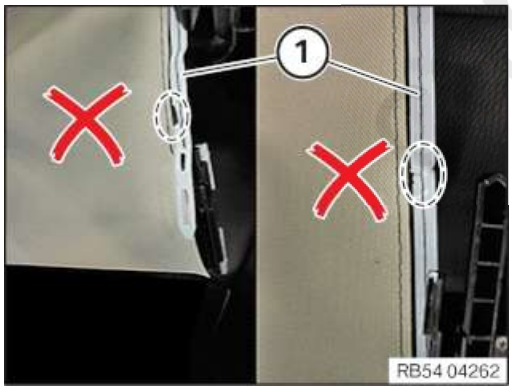
Perform the operations on the left and right side.

- Guide the driver (1) upwards out of the slider of the roller sunblind (2).



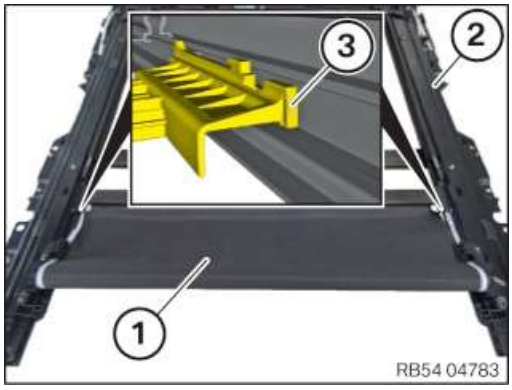
- Remove the roller sunblind (1) from the sunroof frame (2).

20 – Installing roller sunblind for the panorama glass roof



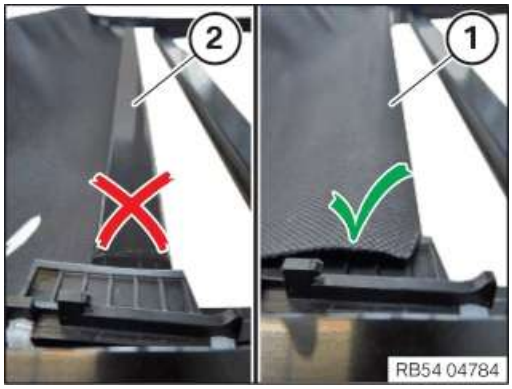
- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.



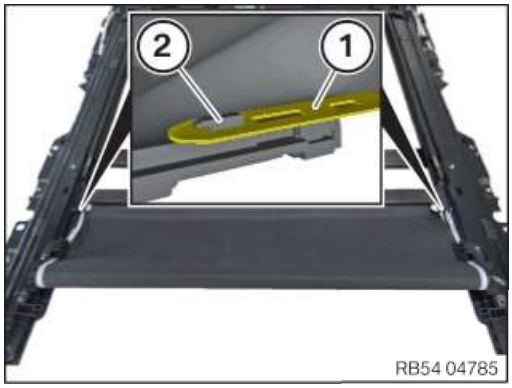
- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.

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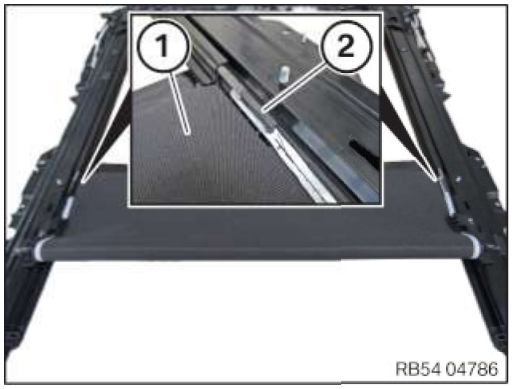


- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

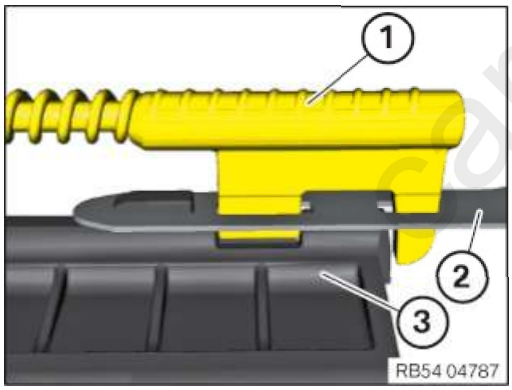
  If necessary, turn the cross brace (1) through 360°.



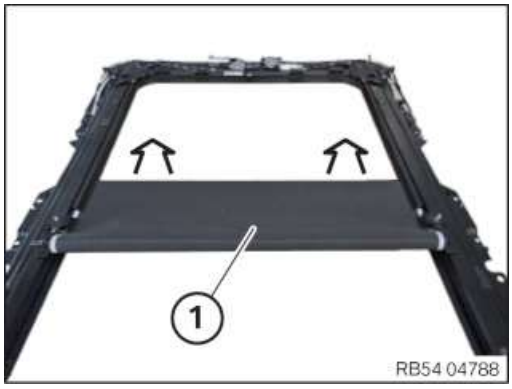
- Mount tensioning strap (1) on both sides of driver (2).



- Push the sunblind (1) forward until the drive (2) can be hooked.

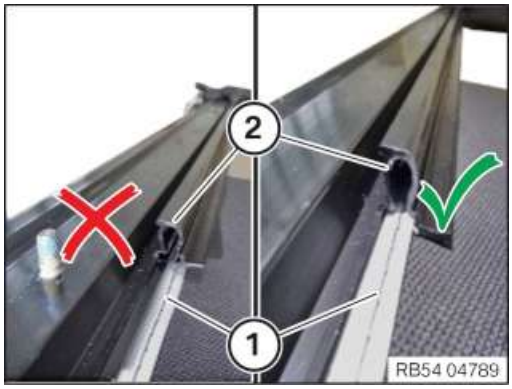


- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).

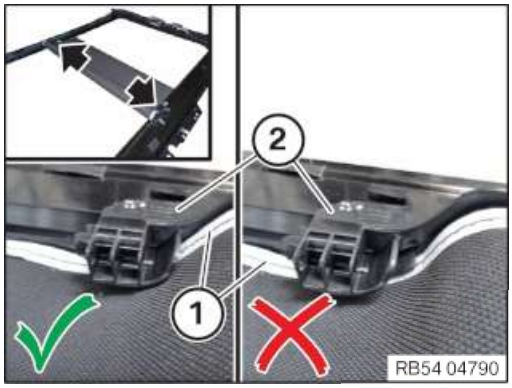


- Manually close the sunblind (1) a few cm.

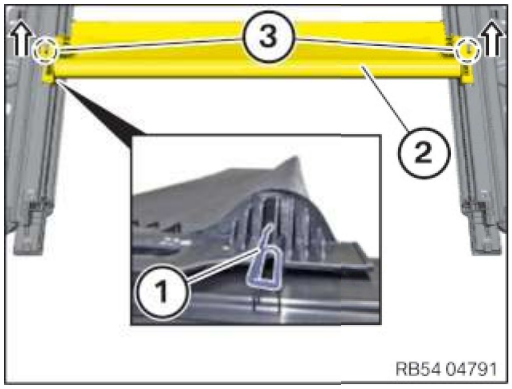
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- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).



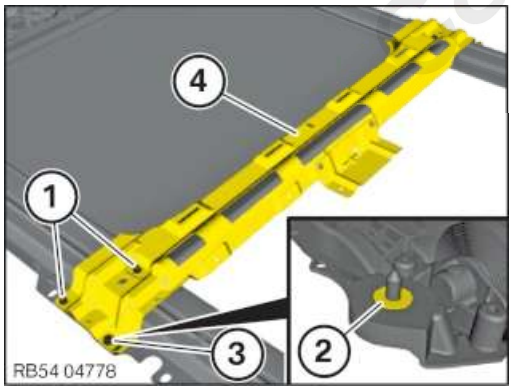
- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.



- If necessary, remove the arresting device (1).
- Push the sunblind (2) forwards and position on the threaded bolts (3).

POSTPROCESSES

21 – Installing the cross member



- Position cross-member (4).

NOTICE

Perform the operations on the left and right side.

- Tighten nuts (1).

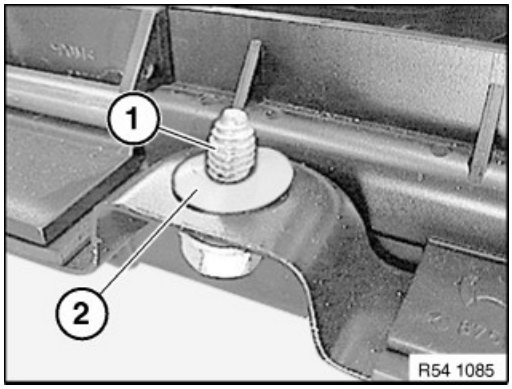
Cross member to glass slide/tilt sunroof frame

Nut		5,5 Nm

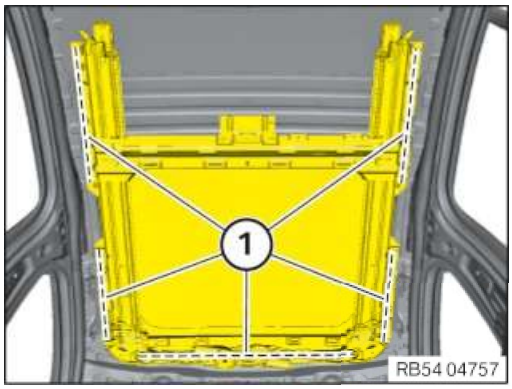
- Position retaining washer (2) and insert screw (3).

22 – Completely installing the slide/tilt sunroof

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- In order to prevent groaning noises, all bolts (1) must be secured with the plastic washers (2) prior to installation.



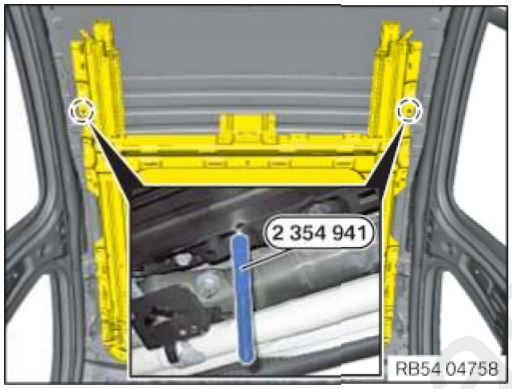
RISK OF DAMAGE

Heavy component.

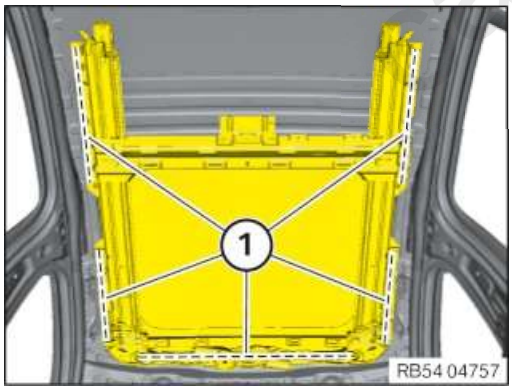
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Insert the slide/tilt sunroof through the front passenger door into the vehicle with the help of an auxiliary person and position it.
- When installing it, ensure that no cables are clamped.
- Screw in all screws along the line (1) by several turns.



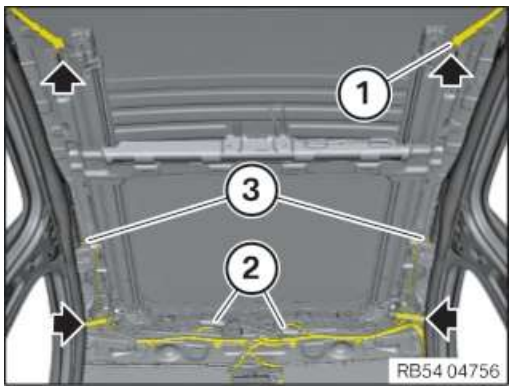
- Insert the special tool and align the panorama glass roof (1) with the roof.



- Tighten all screws along the marked areas (1) .

Slide/tilt sunroof frame to body

M6		5,4 Nm



- Connect all four water drain hoses (1) (arrows).
- Connect the head air-bag plug connections (3) and clip in the corresponding cables.
- Connect plug connections 2 of the engines and clip in the corresponding cables.

Note: Route airbag wiring harness without tension or kinks.

mdiagn.com

23 – Installing the mounting plate for the left and right grab handle

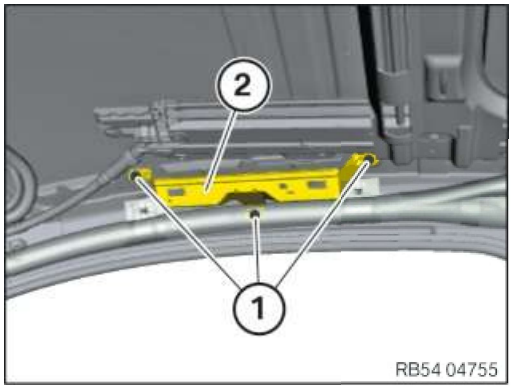
NOTICE

Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

NOTICE

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



- Position the holder (2) and set blind rivets in the area (1).

24 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

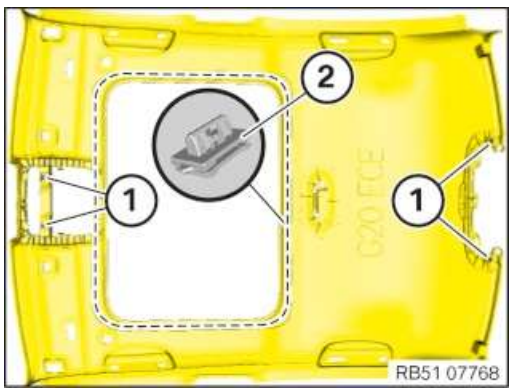
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

Fold the headlining.

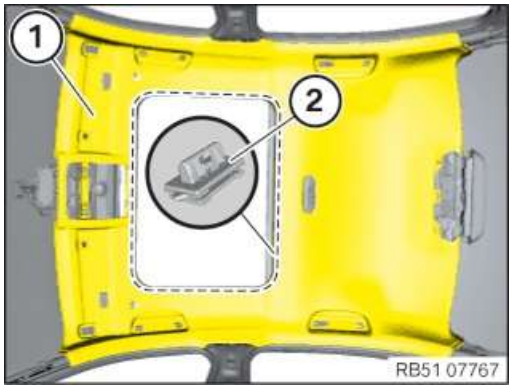
If the headlining is folded, it may have to be replaced.

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

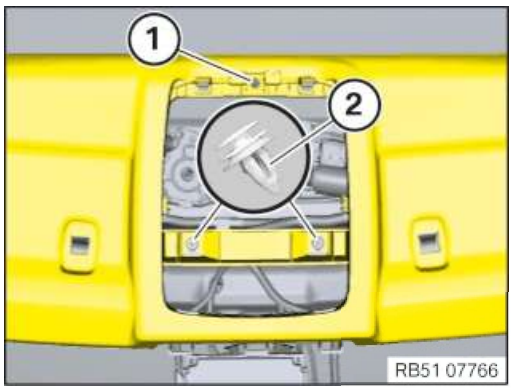


- Check the clips (1) on the headlining (2) for damage.
  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.
  Replace broken or missing clamps (2).

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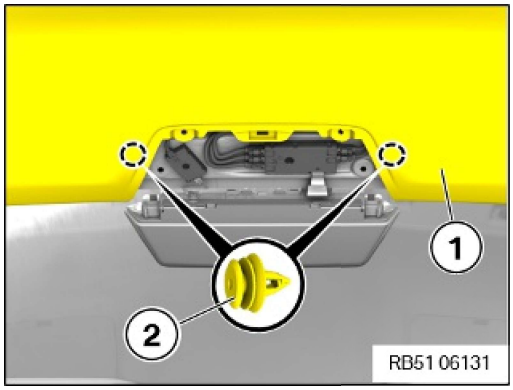
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

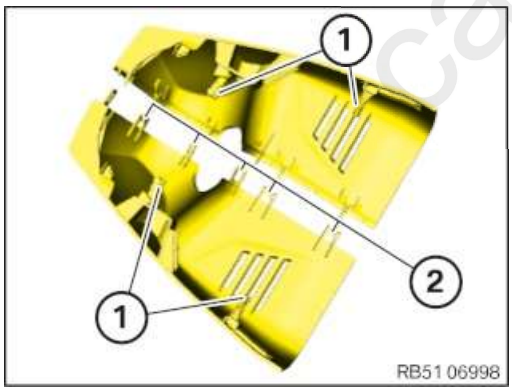
Oval-head screw		Tightening torque	1,5 Nm



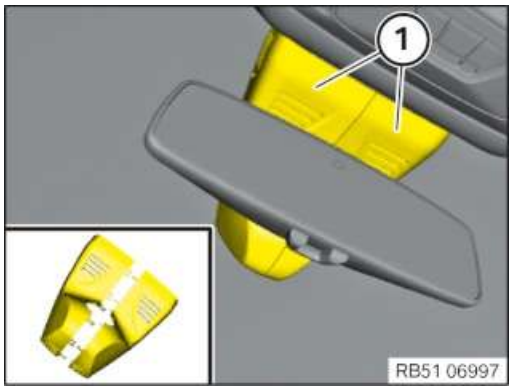
- Clip headlining (1) to the clips (2).

25 – Installing the covers for the interior mirror

- **Version A:**



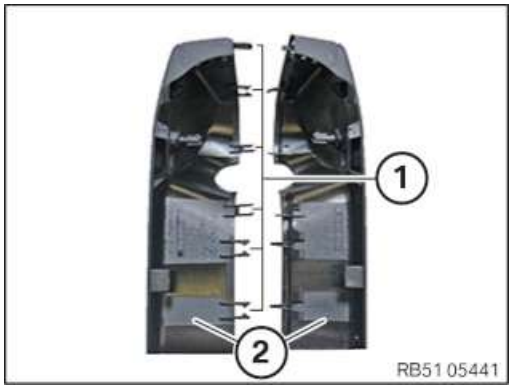
- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



- Feed cover (1) in and lock.

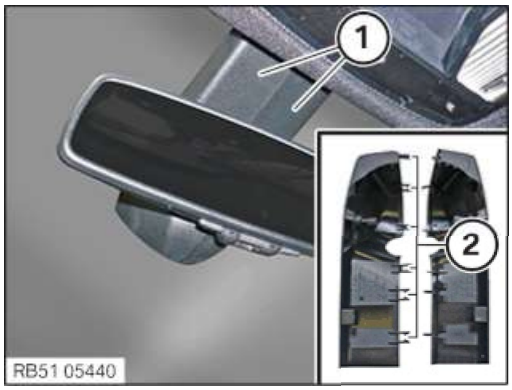
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- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

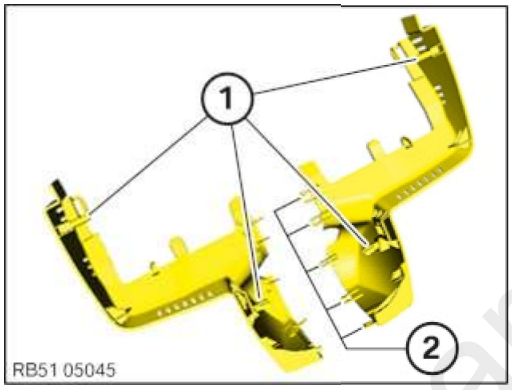
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



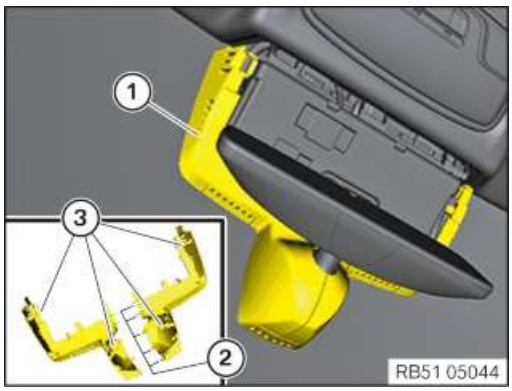
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

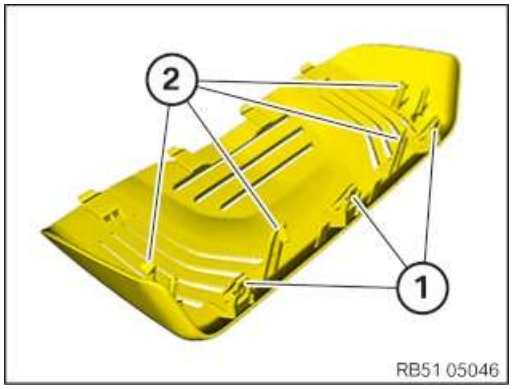
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

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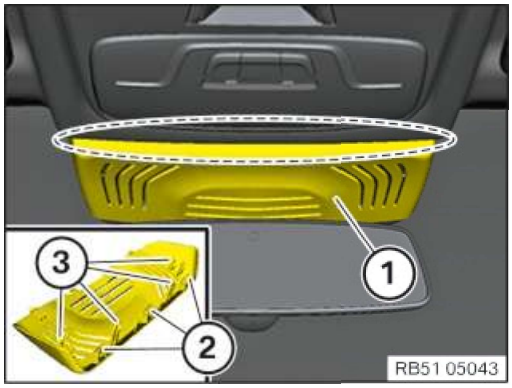
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

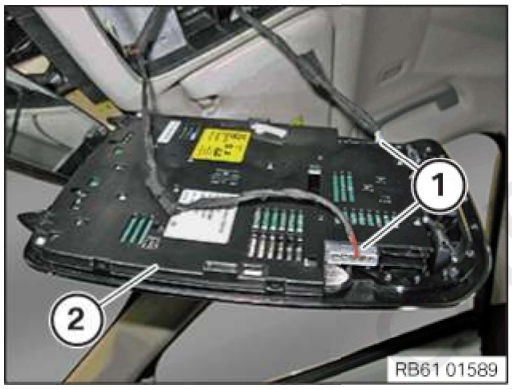
Measure

- Renew the cover.

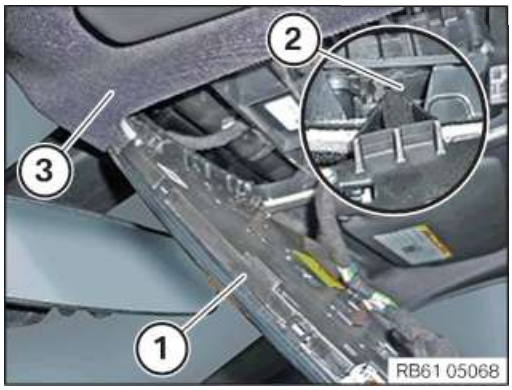


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

26 – Installing roof function centre (FZD)



- Connect connectors (1) and lock.
- Clip in the cable for the roof function centre (FZD) (2) in the cable clip.



- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

  Make sure the headlining is not deformed during this operation.

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- Clip the roof function centre (FZD) (1) upwards into the clamps (2).



- Pass through the FZD frame and headlining with the special tool 2 298 505 and adjust the headlining correctly.



- Tighten the screws (1).

Roof function centre

	Tightening torque	1,2 Nm



- Clip in the cover (1).

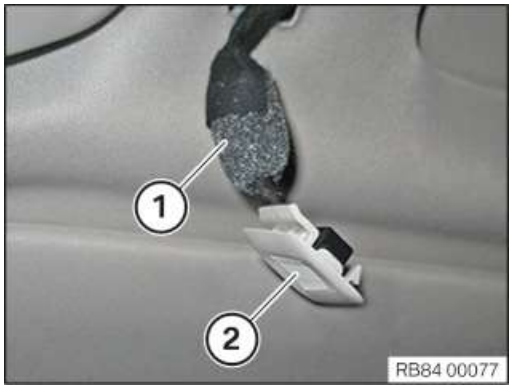
27 – Install both microphones

NOTICE

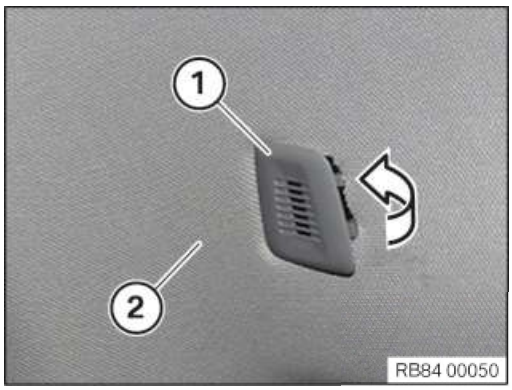
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

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

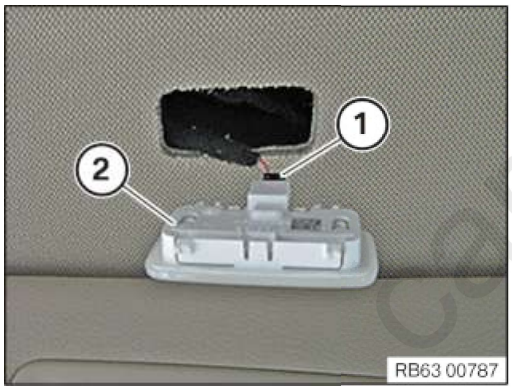


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

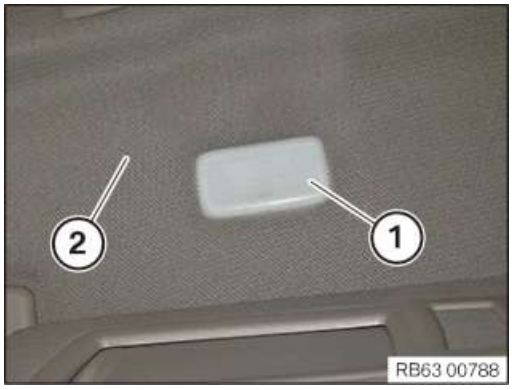
28 – Installing front vanity mirror light

NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).



- Position the front vanity mirror light (1) in the headlining (2).

29 – Install both counter supports for the sun visors

NOTICE

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

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▸ **Install the counter support for the sun visor**



- Insert the counter support (3) into the headlining.
- Make sure the clamps (2) are engaged correctly.
- Use cover (1).

30 – Install both sun visors

NOTICE

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

▸ **Install the sun visor**



- Connect the sun visor (2) with the corresponding connector.
- Guide the sun visor (2) into the headlining.
- Use cover (1).
- Attach the sun visor (2) on the counter support.

31 – Install both A-pillar trim panels

NOTICE

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

▸ **Installing the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

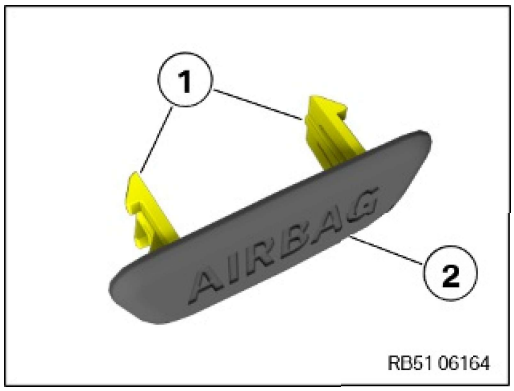
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WARNING

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.



Check

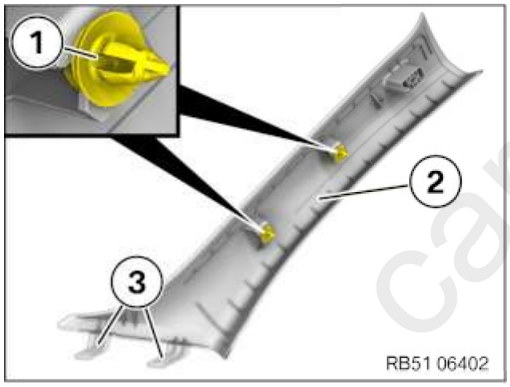
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

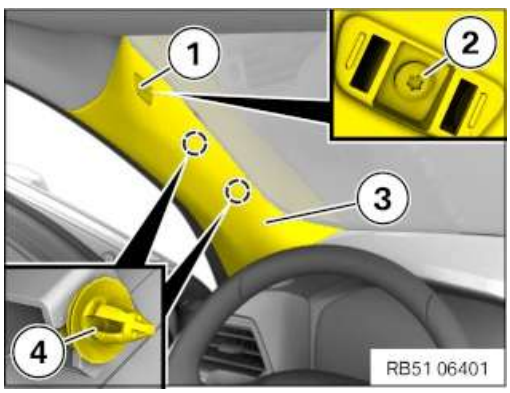
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the A-pillar trim panel.



- Guide in A-pillar trim panel (3) downwards and clip it in with clips (4).
- Tighten down screw (2).

A-pillar trim panel to body

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

- Clip in the cover (1).

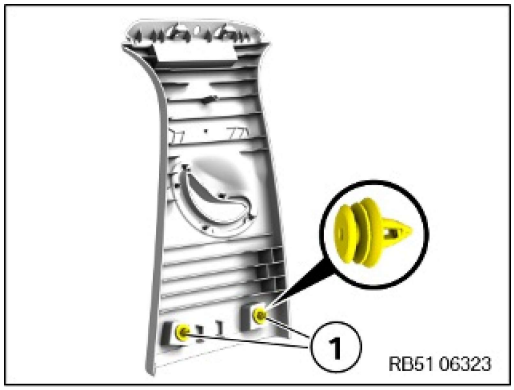
32 – Installing both B-pillar trim panels

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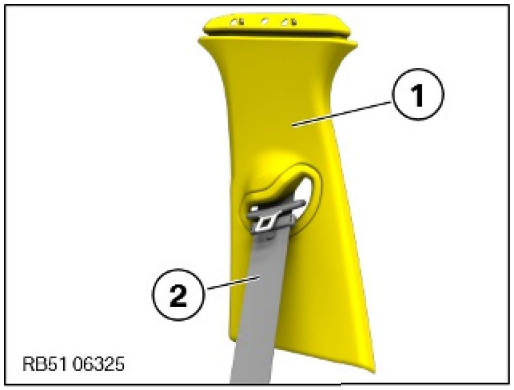
NOTICE

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

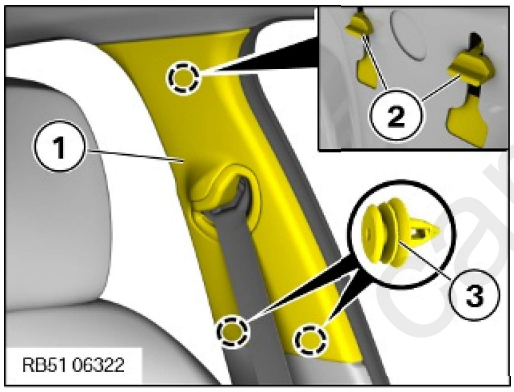
▶ **Install the B-pillar trim panel**



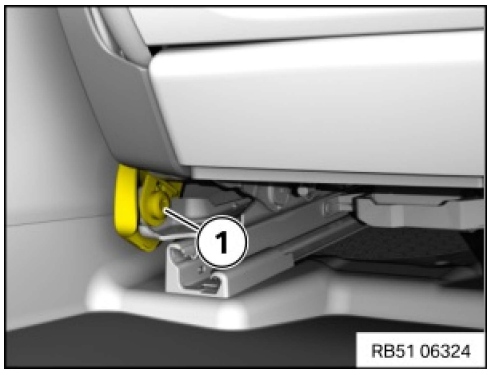
- Check the clips (1) for damage and renew if necessary.



- Guide upper seat belt (2) in B-pillar trim panel (1).



- Insert B-pillar trim panel (1) into guides (2) and under the front and rear lips of edge protection.
- Clip in the B-pillar trim panel (1) with the clips (3).



- Fully position the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

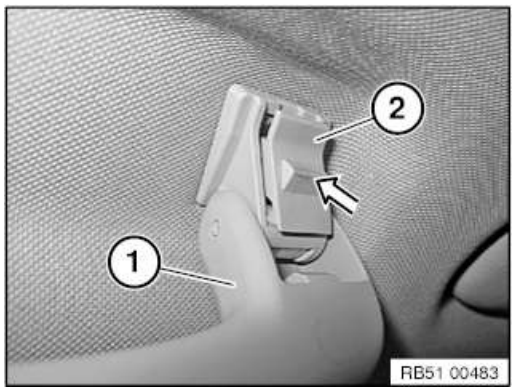
33 – Installing all grab handles

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NOTICE

The description is for one component only. The procedure is identical for all further components.

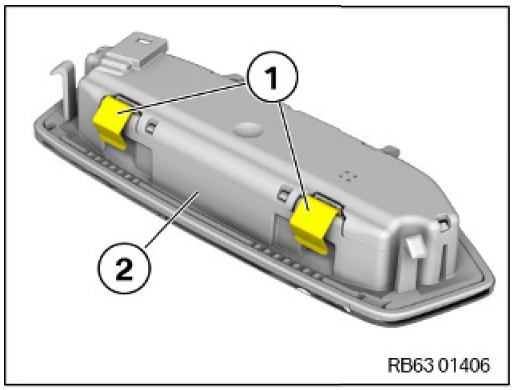
▸ **Installing the grab handle**



- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

34 – Install interior roof light

Check



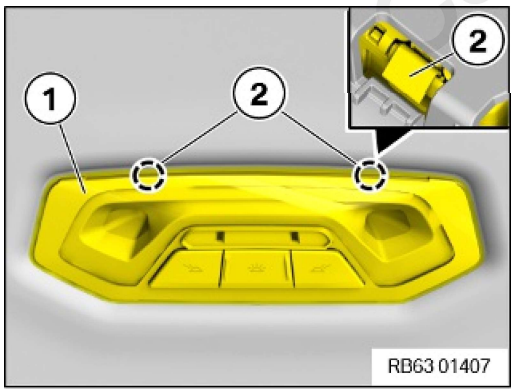
- Check the clamps (1) for damage.

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).

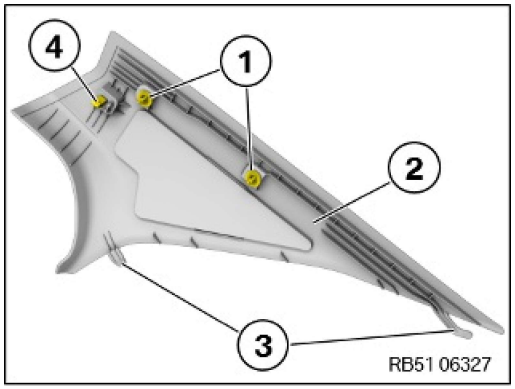
35 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

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Check

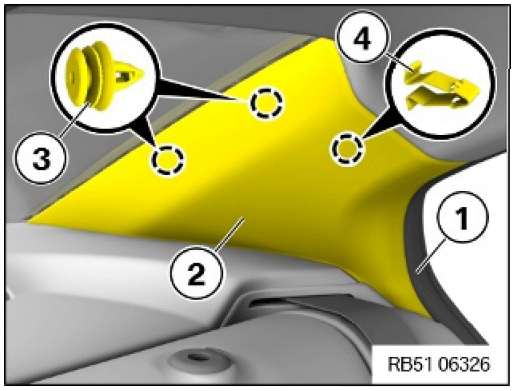
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

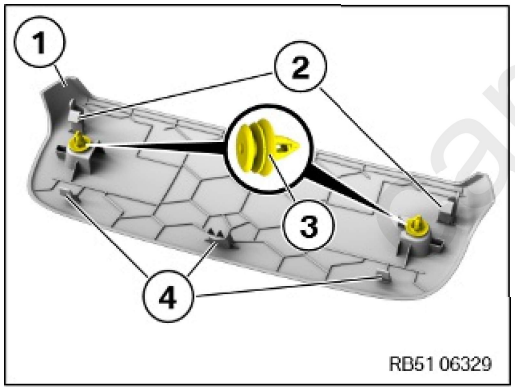


NOTICE

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

- Feed C-pillar trim panel (2) into guides towards the rear.
- Clip in clips (3).
- Clip in clamp (4).
- Guide in C-pillar trim panel (2) under the lip of edge protection (1).

36 – Installing trim for additional brake light



Check

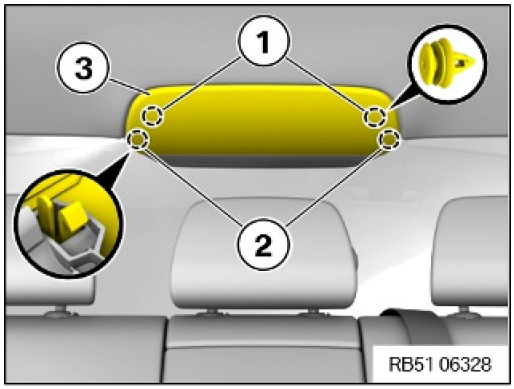
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

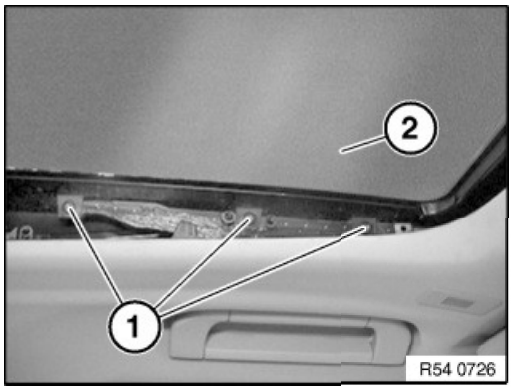
Measure

- 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).

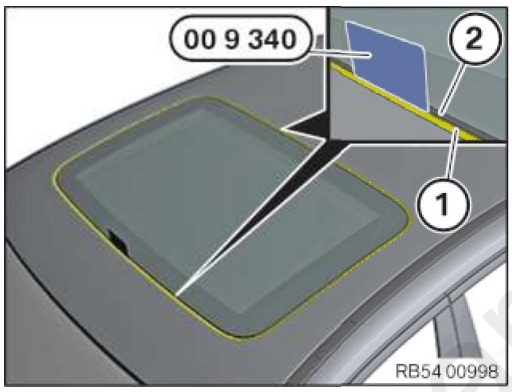
37 – Install glass slide/tilt sunroof panel



- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

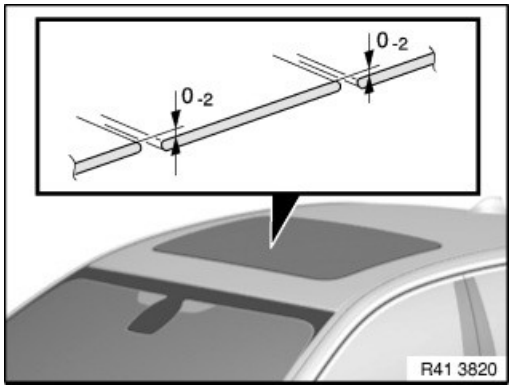
38 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

  The resistance when moving the special tool must be the same at the front and rear.

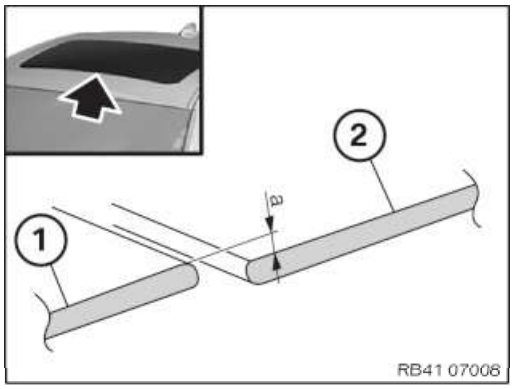
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- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

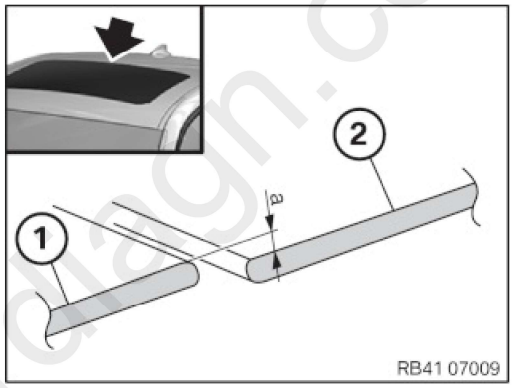
Gap dimension roof outer skin to glass slide/tilt sunroof panel

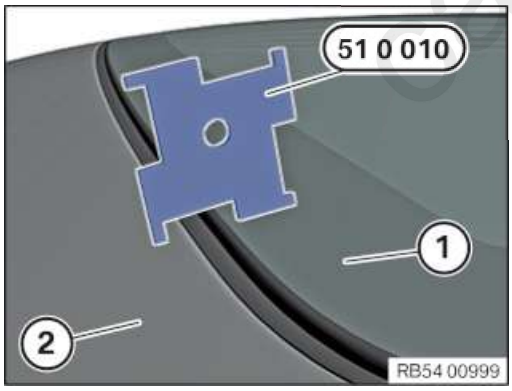
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

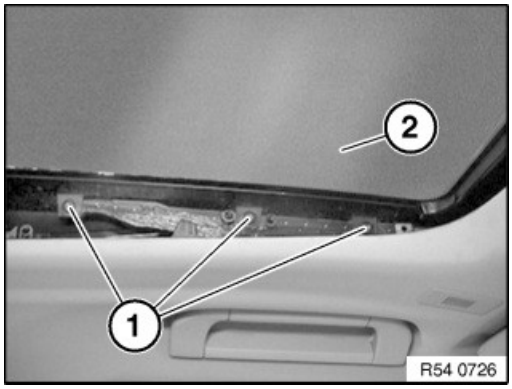




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

39 – Adjusting glass slide/tilt sunroof panel

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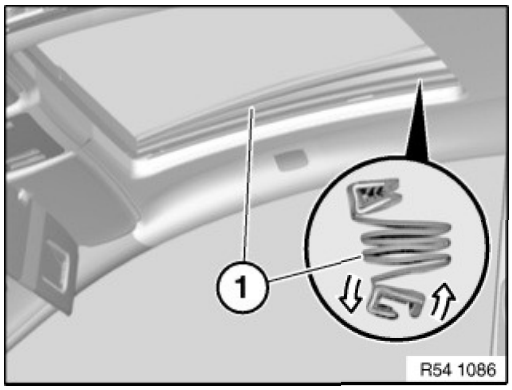


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

M5	Replace screws.	4,5 Nm

40 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

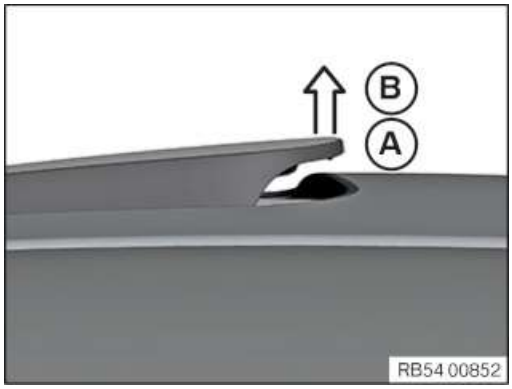
41 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.

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- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

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Additional Information

Overview of Tightening Torques

Cross member to glass slide/tilt sunroof frame — Used in step 21

Nut			5,5 Nm

Slide/tilt sunroof frame to body — Used in step 22

M6			5,4 Nm

Headlining to frame — Used in step 24

Oval-head screw		Tightening torque	1,5 Nm

Roof function centre — Used in step 26

		Tightening torque	1,2 Nm

A-pillar trim panel to body — Used in step 31

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

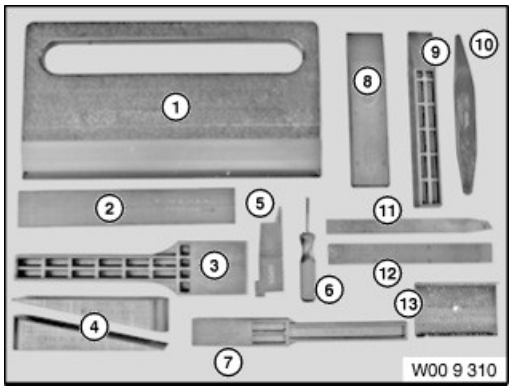
End fitting to seat mechanism — Used in step 32

Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Glass slide/tilt sunroof panel to mechanics		Used in step 39
M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



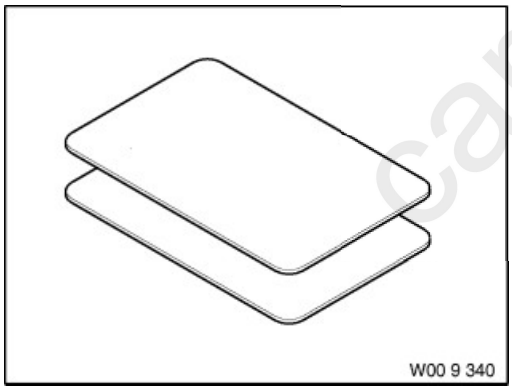
Common		Used in step 411
Usage	(Case) with insert not incl. panel wedges	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	01 07 09 (530)	

0 496 569 (00 9 325) Wedge



Common		Used in step 7
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	41 01 09 (507)	

0 493 687 (00 9 340) Removal aid



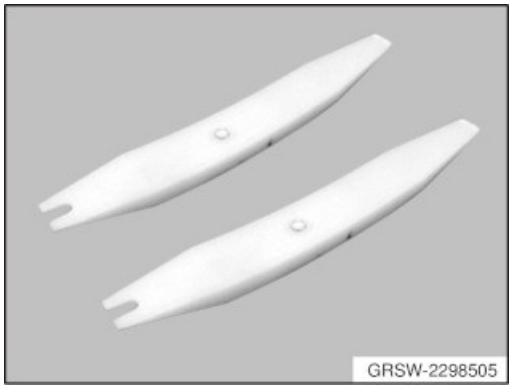
Common		Used in step 8
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

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).	

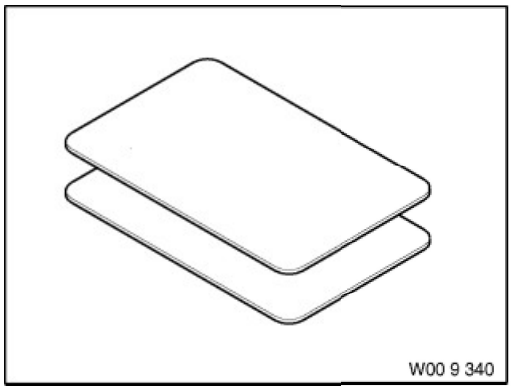
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2 298 505 Wedge



Common	Used in step 26
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)

0 493 687 (00 9 340) Removal aid

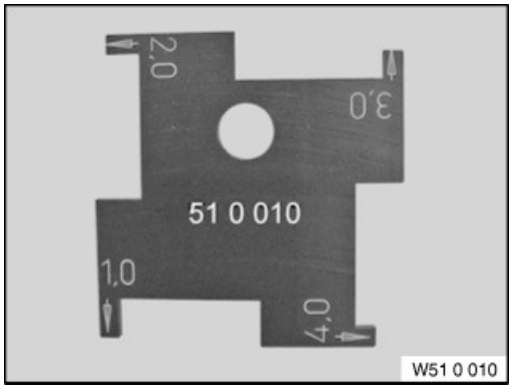


Common	Used in step 38
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

0 495 259 (51 0 010) Gauge



Common	Used in step 38
Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

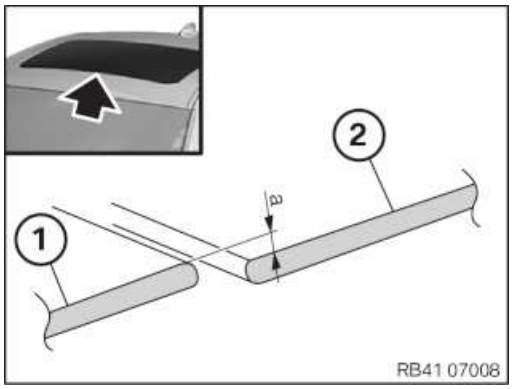
Overview Technical Data

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Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 38

1 roof outer skin; 2 glass slide/tilt sunroof panel

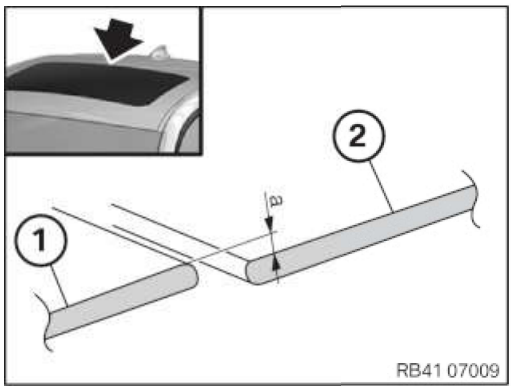
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin Used in step 38

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	4
72 00 ... Safety regulations for handling components with gas generators	4

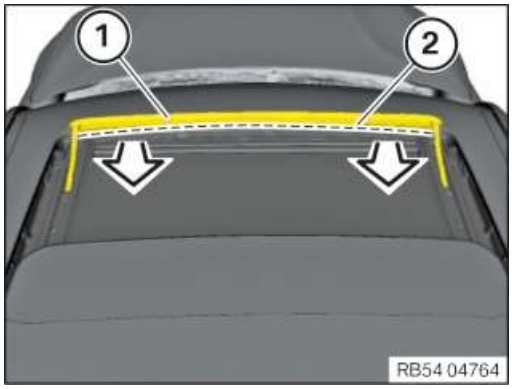
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54 12 497 Removing and installing/replacing wind deflector for glass slide/tilt sunroof

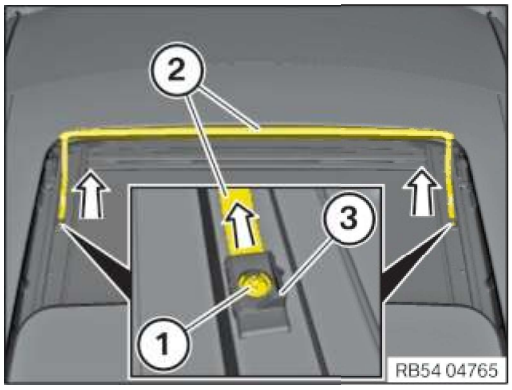
1 – Remove wind deflector

Prerequisite

The glass slide/tilt sunroof panel is open.



- Unclip the wind deflector (1) in the area (2) in the direction of arrow.

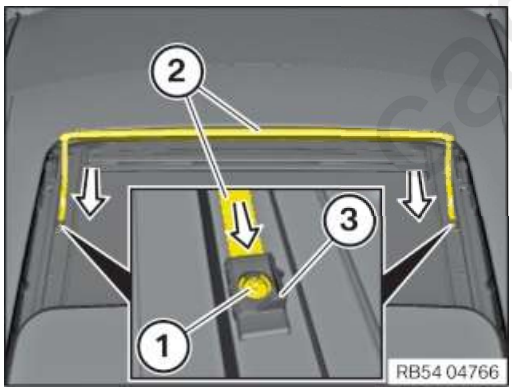


- Loosen screws (1).
- Move wind deflector (2) to the front and feed out from the wind deflector mount (3).

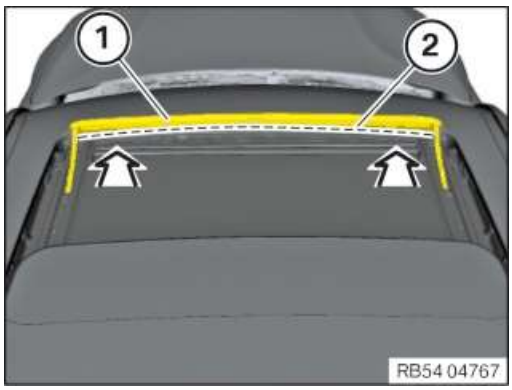
2 – Install wind deflector

Prerequisite

The glass slide/tilt sunroof panel is open.

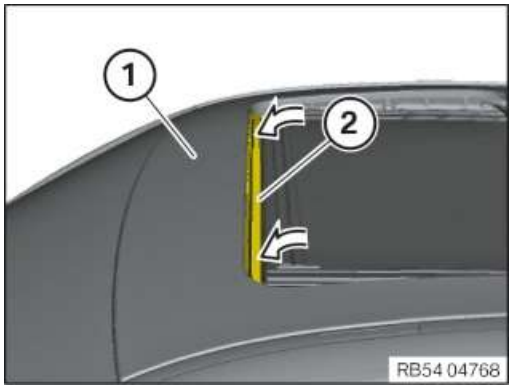


- Feed in wind deflector (2) from the front to the wind deflector mount 3.
- Screw the screws (1) by a few turns but do not tighten.



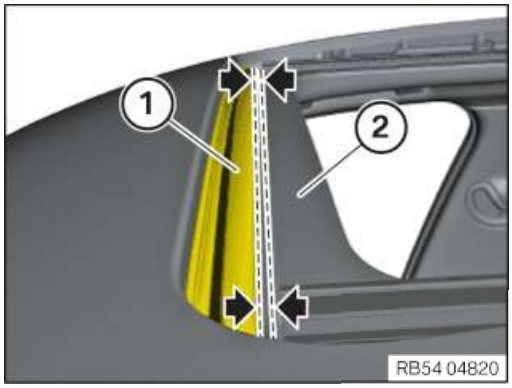
- Clip in the wind deflector (1) in area (2).

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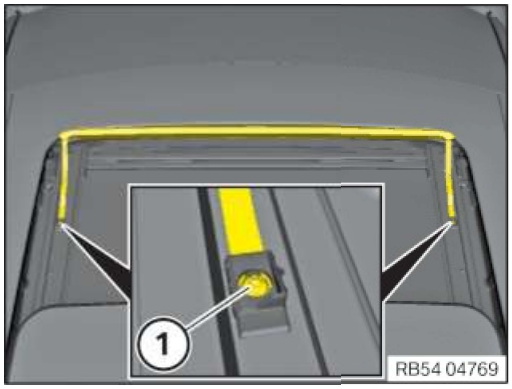


- Press wind deflector (2) down by hand.

  Ensure that it is completely clear and does not collide with the roof outer skin (1).



- Position the wind deflector (1) so that it is at a distance of about 2 mm from the gutter strip of the slide/tilt sunroof frame (2).



- Tighten the screws (1).

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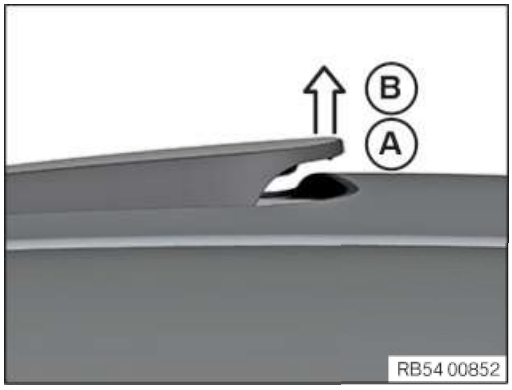
3 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.

- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.



- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

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54 12 195 Removing and installing/replacing wind deflector mount on the left or right

Prerequisite

- Slide/tilt sunroof is completely open.

RISK OF DAMAGE

Fold the headlining.

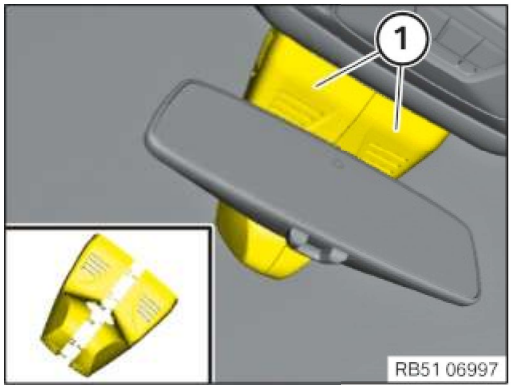
If the headlining is folded, it may have to be replaced.

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

PRELIMINARY WORK

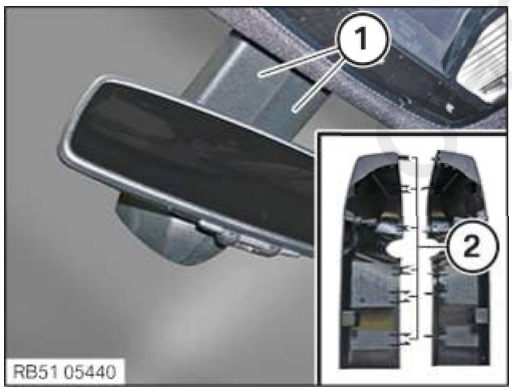
1 – Removing the covers for the interior mirror

- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

- **Version B:**

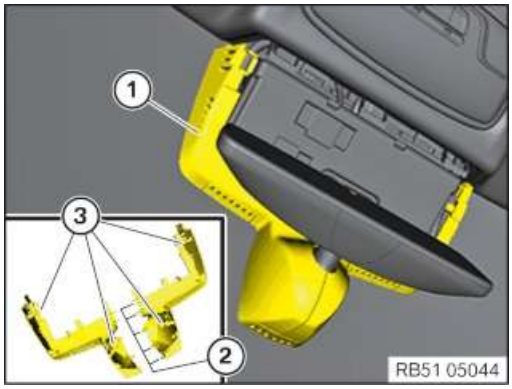


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**



- Detach cover (1) from the clamps (2) in the marked area using a suitable plastic wedge and pull down a certain distance.
- Release cover (1) at the retaining lugs (3) and remove from the guides to the rear.



- Release cover (1) from the latch mechanisms (2) and (3) and remove sideways.
- Remove cover (1) from mirror base (2).

2 – Remove both A-pillar trim panels

NOTICE

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

▸ **Remove the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

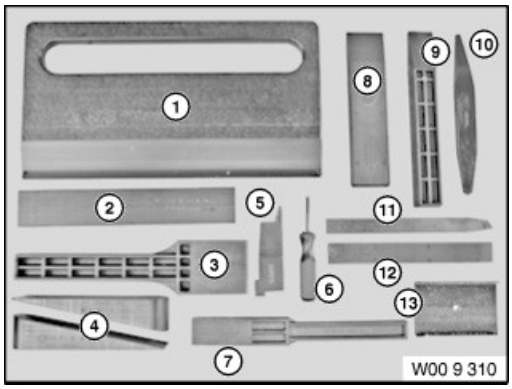
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

WARNING

Pyrotechnic components.

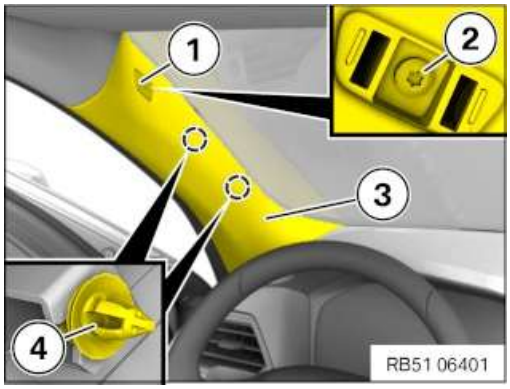
Danger! Life-threatening injuries!

- 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.



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

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- Unclip the cover (1) with suitable tools.
- Loosen screw (2).
- Unclip A-pillar trim panel (3) with clips (4) and guide it out upwards.

3 – Remove both sun visors

NOTICE

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



▸ **Remove sun visor**

- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

4 – Remove both counter supports for the sun visors

NOTICE

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



▸ **Remove the counter support for the sun visor**

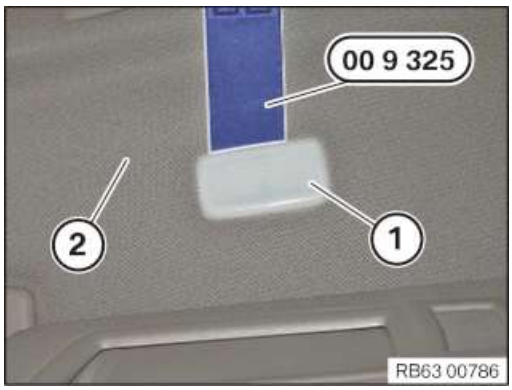
- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

5 – Removing front vanity mirror light

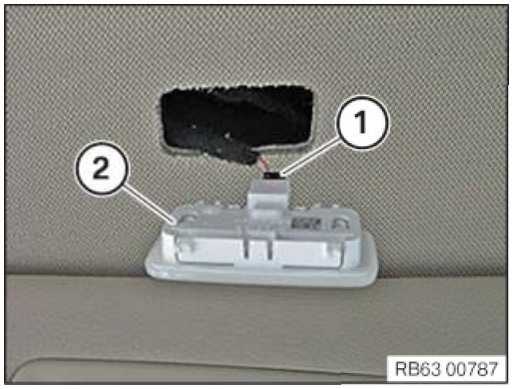
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NOTICE

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



- Lever out the front vanity mirror light (1) using special tool 0 496 569 (00 9 325) from the headlining (2).



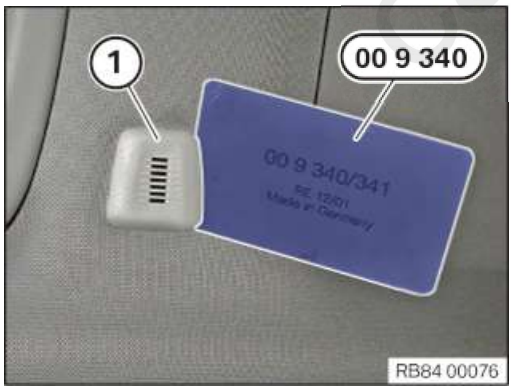
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

6 – Remove both microphones

NOTICE

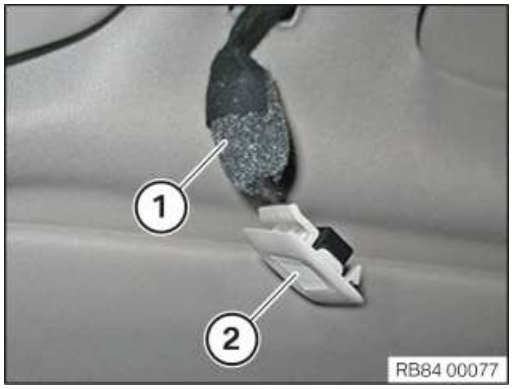
Description is for left component only. Procedure on the right side is identical.

▸ **Removing hands-free microphone**



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

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

7 – Removing the roof function centre (FZD)



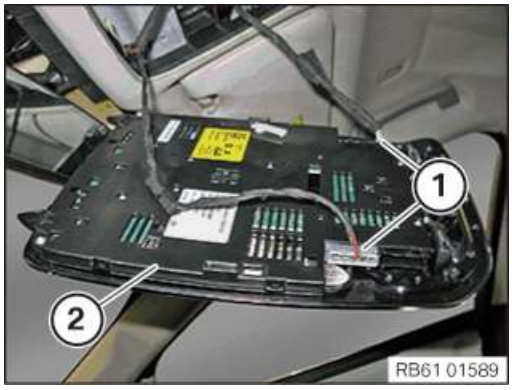
- Unclip the cover (1).



- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).



- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

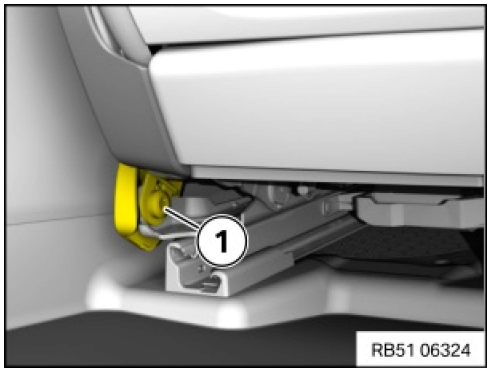
8 – Removing both B-pillar trim panels

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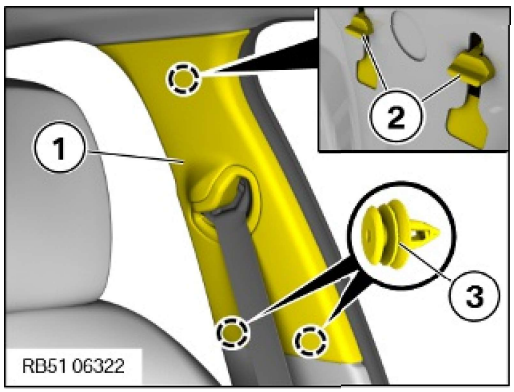
NOTICE

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

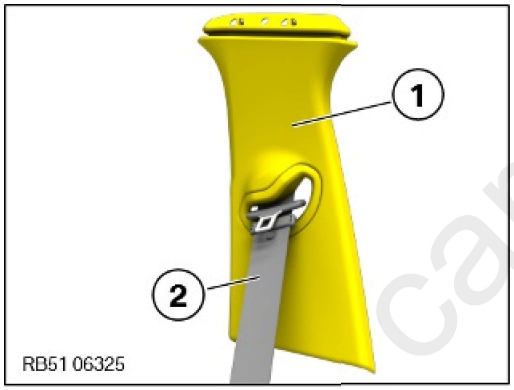
▶ **Remove the B-pillar trim panel**



- Fully position the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).

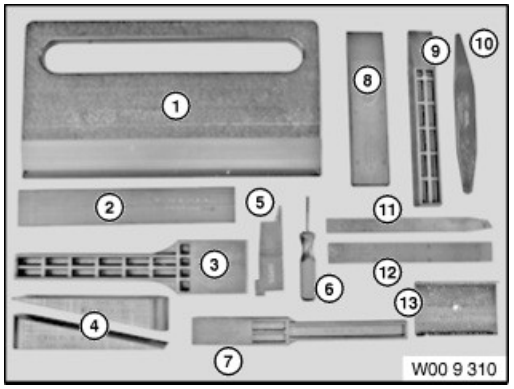


- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



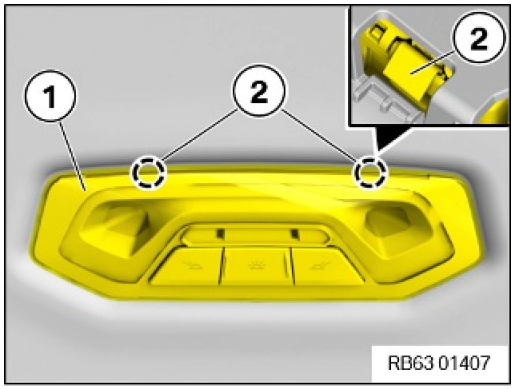
- Feed upper seat belt (2) out of B-pillar trim panel (1).

9 – Remove interior roof light



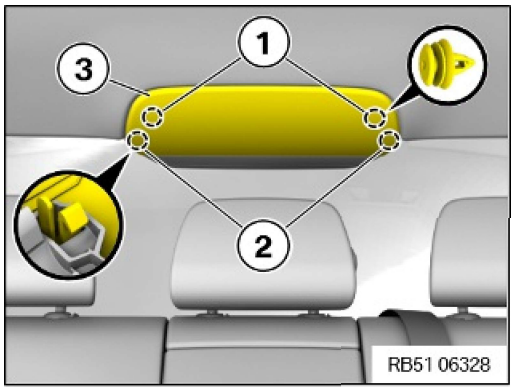
- Have the set of special tools 0 493 752 (00 9 329) ready.

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

10 – 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).

11 – Remove both C-pillar trim panels

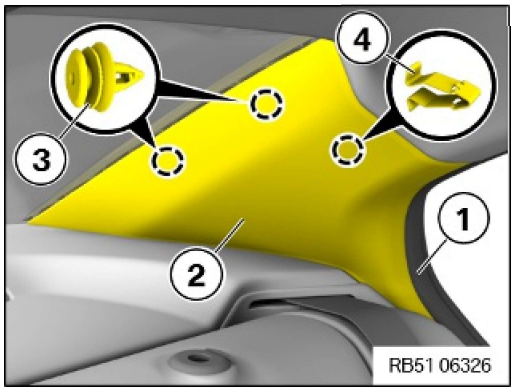
NOTICE

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

▸ **Remove C-pillar trim panel**

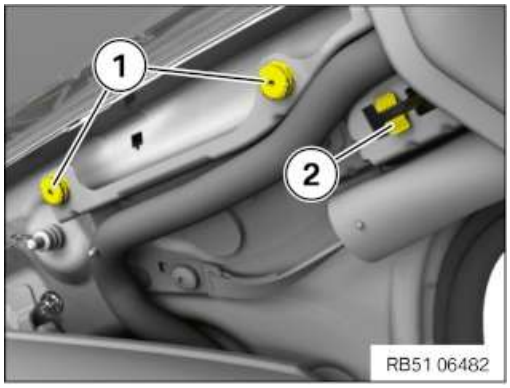
NOTICE

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



- Unclip clamp (4).
- Unclip clips (3).
- Feed out C-pillar trim panel (2) from the guides to the front.
- Thread out C-pillar trim panel (2) from the lip of edge protection (1).

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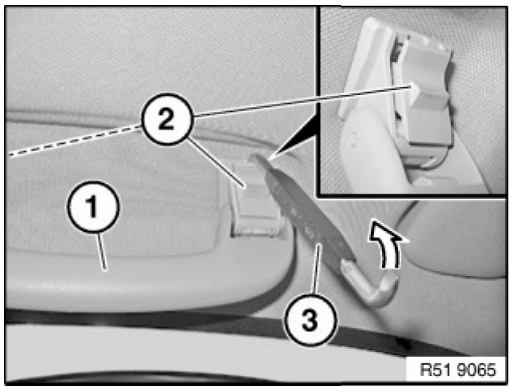
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

12 – Removing all grab handles

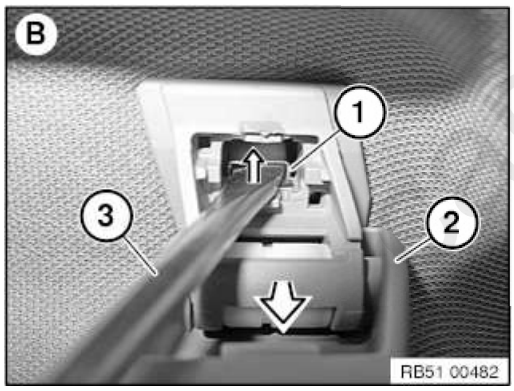
NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Removing the grab handle**



- Expand the grab handle (1) towards the bottom.
- Disengage and remove the locking insert (2) with an angle screwdriver (3) as shown.



- Pull the grab handle (2) slightly to the inside and hold it.
- Use a suitable screwdriver (3) to detach the upper and lower release tabs (1).
- Guide the grab handle (2) out.
- Repeat the operation on the other side of the grab handle (2).

13 – Lower the headlining (with SHD)

Prerequisite

The front seats have been fully adjusted towards the bottom.

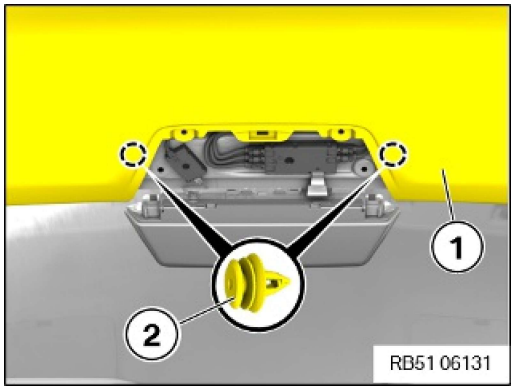
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

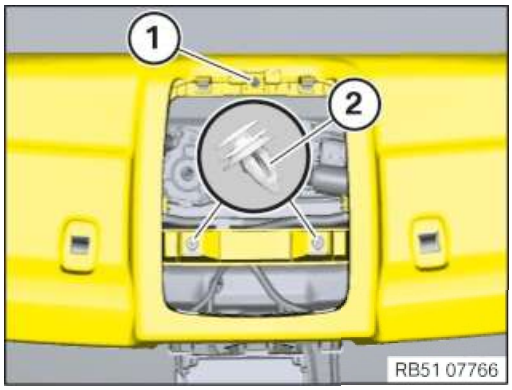
Fold the headlining.

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

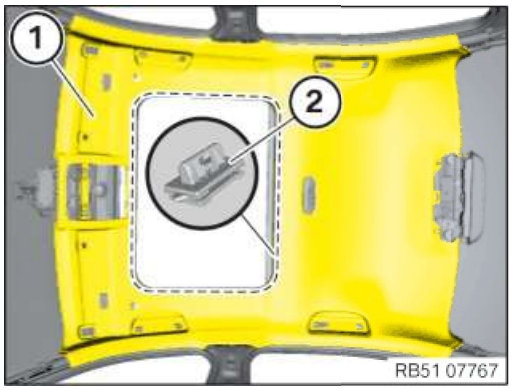
- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.



- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.

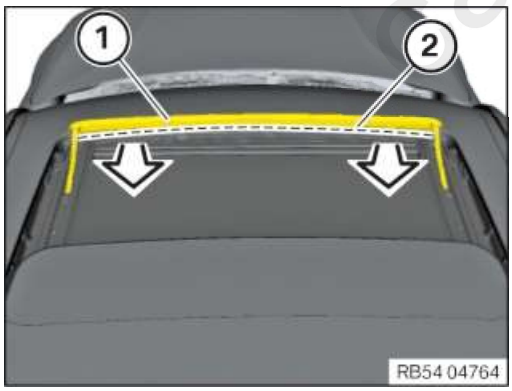


- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

14 – Remove wind deflector

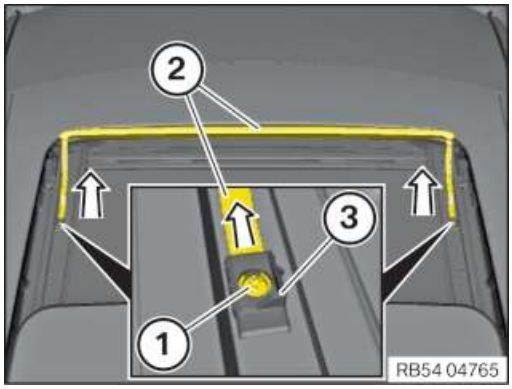
Prerequisite

The glass slide/tilt sunroof panel is open.



- Unclip the wind deflector (1) in the area (2) in the direction of arrow.

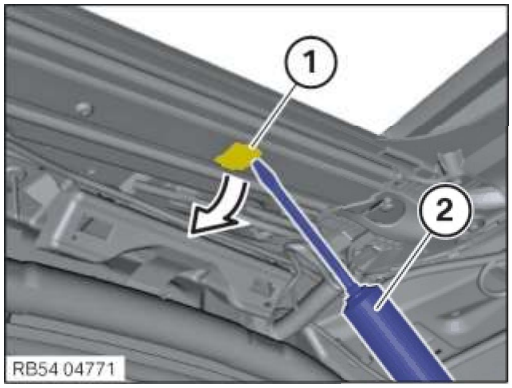
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- Loosen screws (1).
- Move wind deflector (2) to the front and feed out from the wind deflector mount (3).

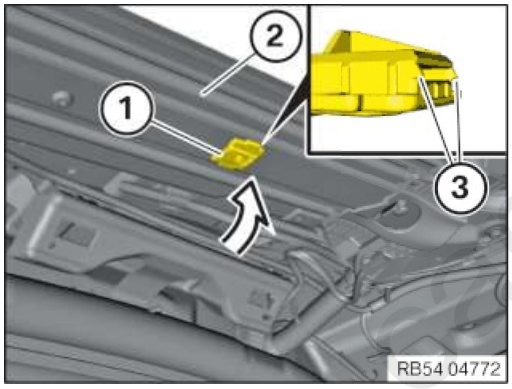
MAIN WORK

15 – Removing the wind deflector mount



- Unclip wind deflector mount (1) with a suitable tool (2) downwards.

16 – Install wind deflector bearing



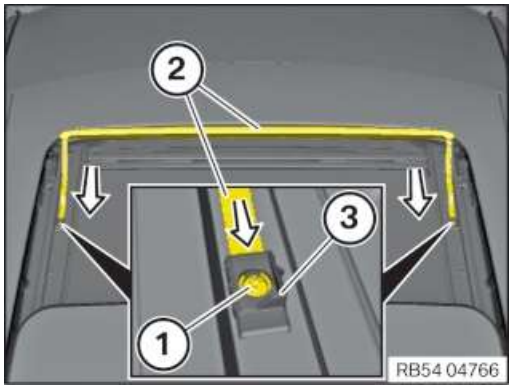
- Position wind deflector mount (1) in recess on slide/tilt sunroof frame (2).
- Clip wind deflector mount (1) into slide/tilt sunroof frame (2).
- Ensure that the retaining lugs (3) engage correctly.

POSTPROCESSES

17 – Install wind deflector

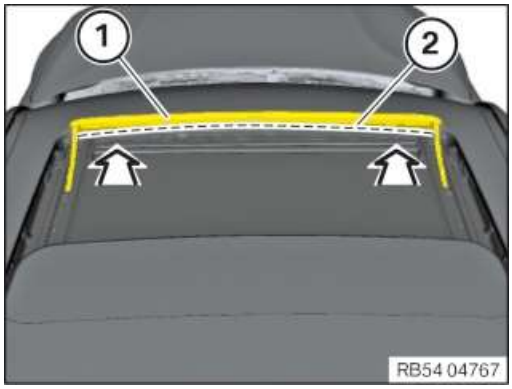
Prerequisite

The glass slide/tilt sunroof panel is open.

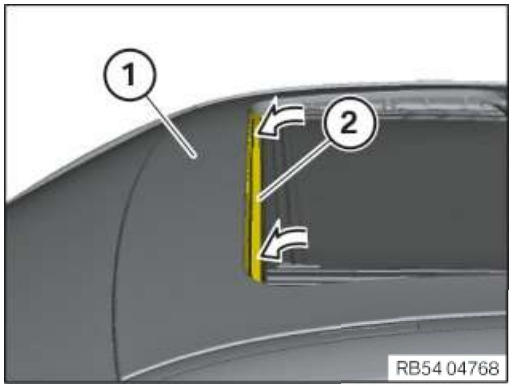


- Feed in wind deflector (2) from the front to the wind deflector mount 3.
- Screw the screws (1) by a few turns but do not tighten.

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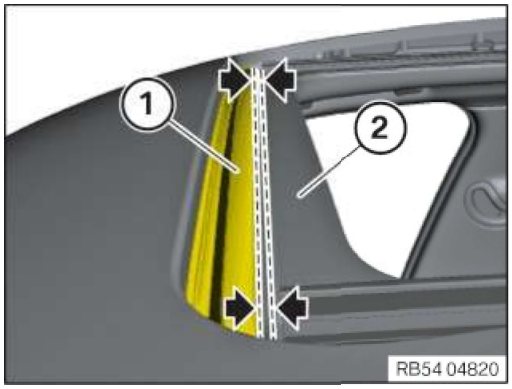


- Clip in the wind deflector (1) in area (2).

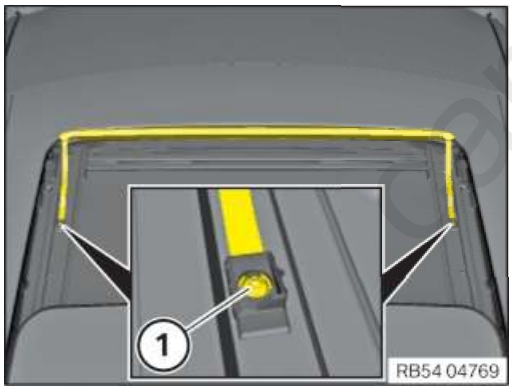


- Press wind deflector (2) down by hand.

  Ensure that it is completely clear and does not collide with the roof outer skin (1).



- Position the wind deflector (1) so that it is at a distance of about 2 mm from the gutter strip of the slide/tilt sunroof frame (2).



- Tighten the screws (1).

18 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

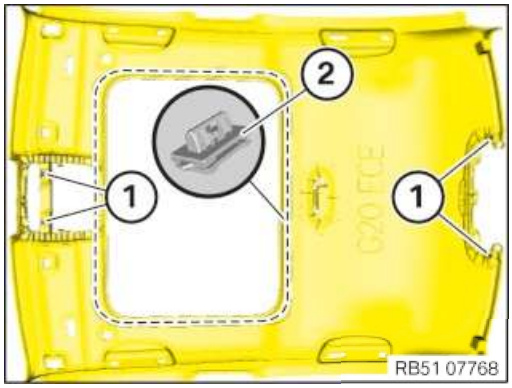
The front seat backrests have been fully adjusted towards the rear.

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.



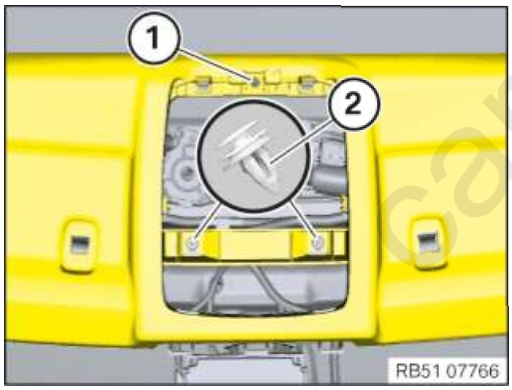
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



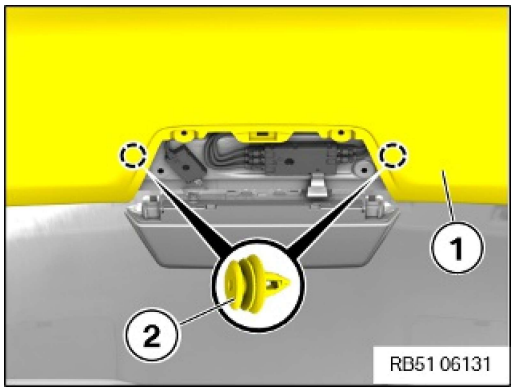
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

Oval-head screw		Tightening torque	1,5 Nm

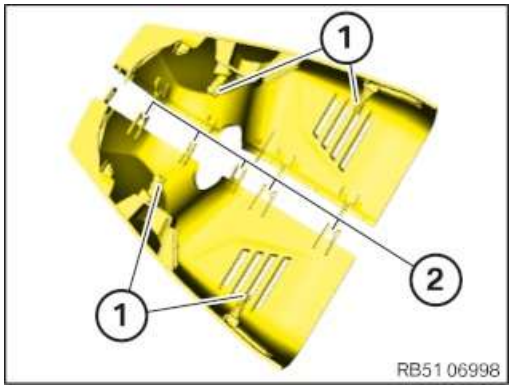


- Clip headlining (1) to the clips (2).

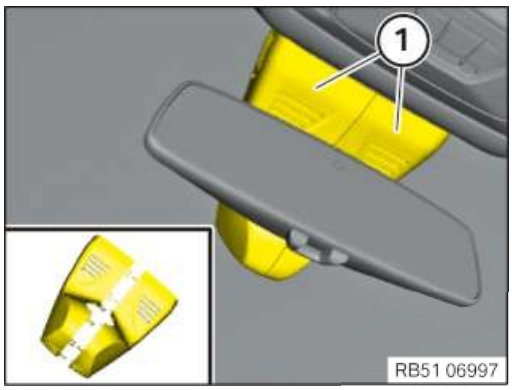
19 – Installing the covers for the interior mirror

- **Version A:**

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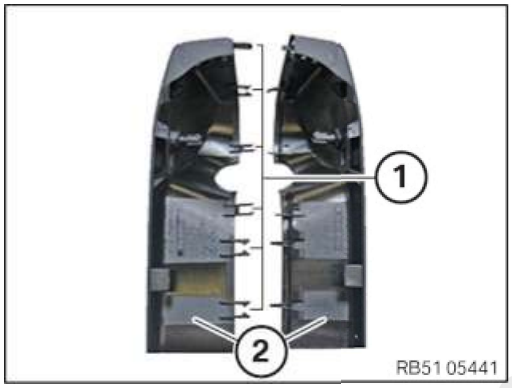


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



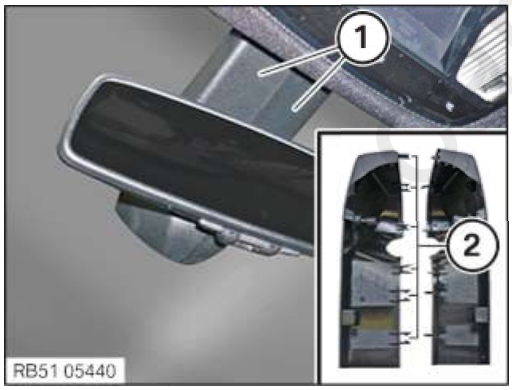
- Feed cover (1) in and lock.

- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

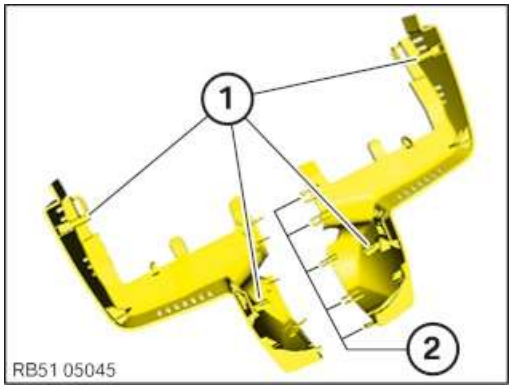
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



- Check the latch mechanisms (1) and (2) of the covers for damage.

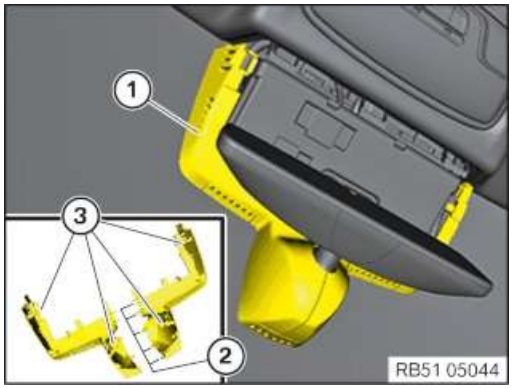
mdiagn.com

Result

» The latch mechanism is damaged.

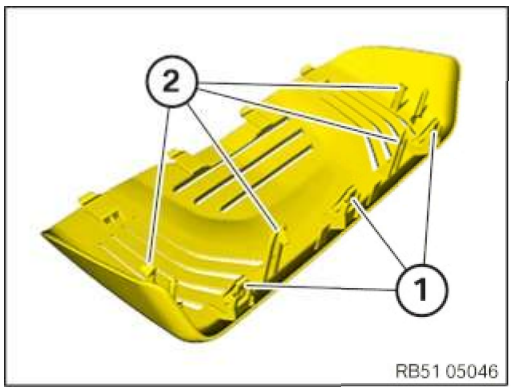
Measure

- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check



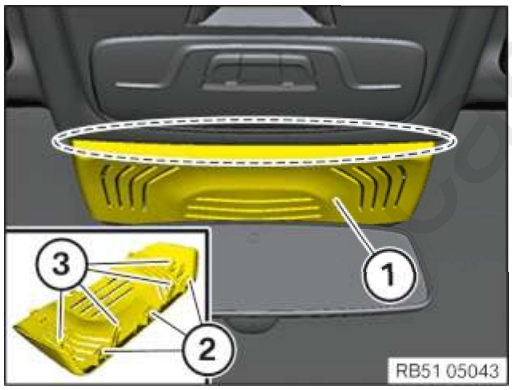
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

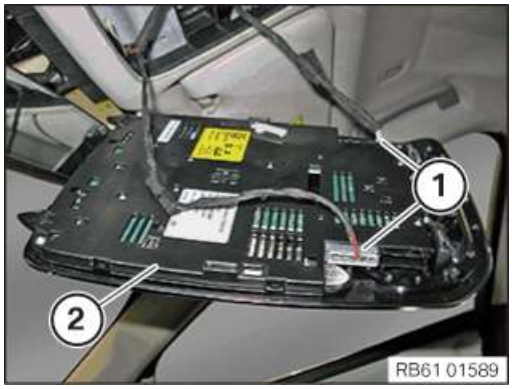
Measure

- Renew the cover.



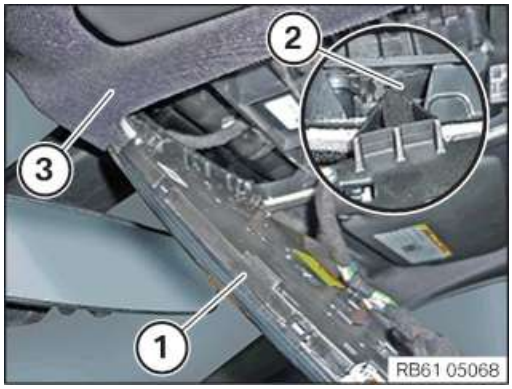
- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

20 – Installing roof function centre (FZD)



- Connect connectors (1) and lock.
- Clip in the cable for the roof function centre (FZD) (2) in the cable clip.

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- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

  Make sure the headlining is not deformed during this operation.



- Clip the roof function centre (FZD) (1) upwards into the clamps (2).



- Pass through the FZD frame and headlining with the special tool 2 298 505 and adjust the headlining correctly.



- Tighten the screws (1).

Roof function centre

	Tightening torque	1,2 Nm



- Clip in the cover (1).

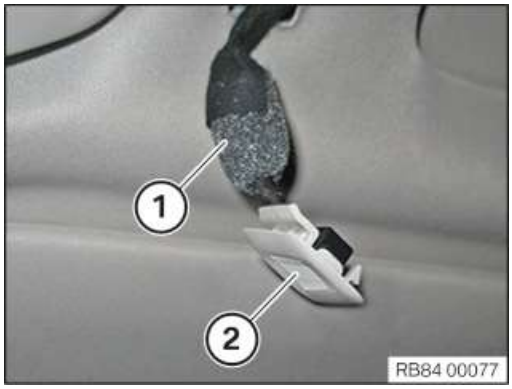
21 – Install both microphones

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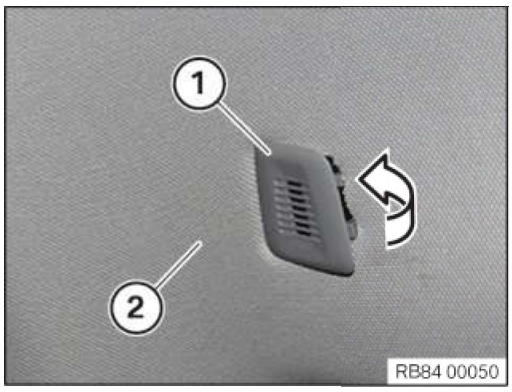
NOTICE

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).

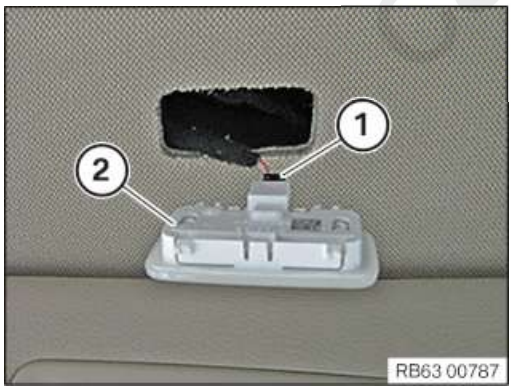


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

22 – Installing front vanity mirror light

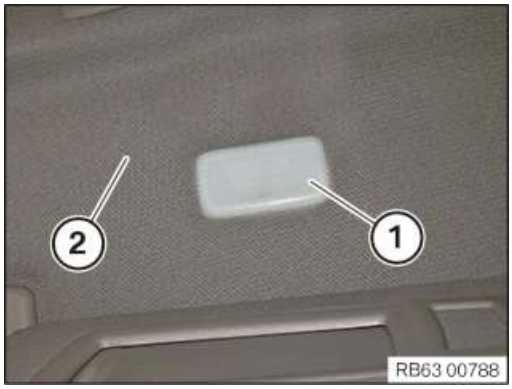
NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).

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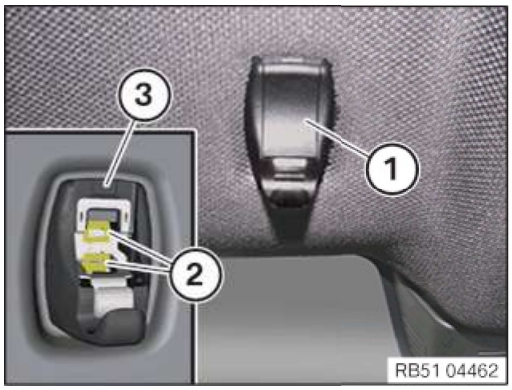
- Position the front vanity mirror light (1) in the headlining (2).

23 – Install both counter supports for the sun visors

NOTICE

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

▸ Install the counter support for the sun visor



- Insert the counter support (3) into the headlining.
- Make sure the clamps (2) are engaged correctly.
- Use cover (1).

24 – Install both sun visors

NOTICE

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

▸ Install the sun visor



- Connect the sun visor (2) with the corresponding connector.
- Guide the sun visor (2) into the headlining.
- Use cover (1).
- Attach the sun visor (2) on the counter support.

25 – Install both A-pillar trim panels

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NOTICE

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

▸ **Installing the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

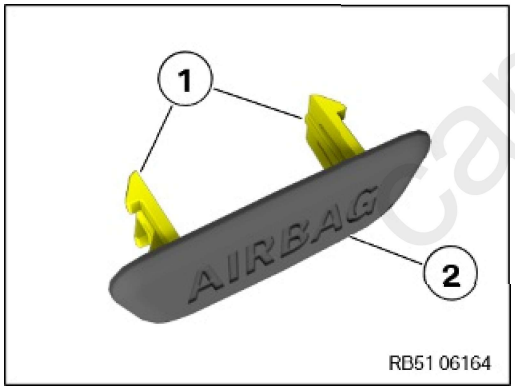
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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.



Check

- Check retaining lugs (1) of cover (2) for damage.

Result

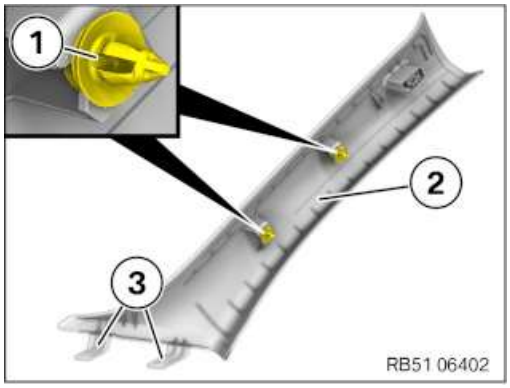
» Retaining lug is damaged.

Measure

- Renew the cover.

Check

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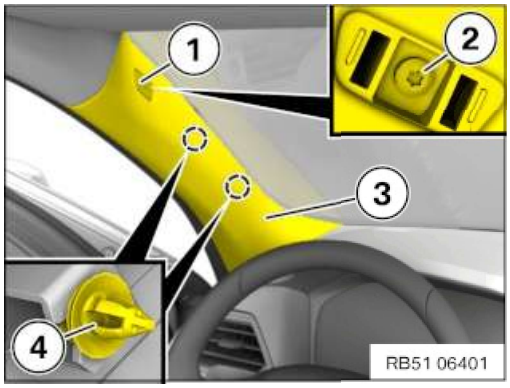
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the A-pillar trim panel.



- Guide in A-pillar trim panel (3) downwards and clip it in with clips (4).
- Tighten down screw (2).

A-pillar trim panel to body

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

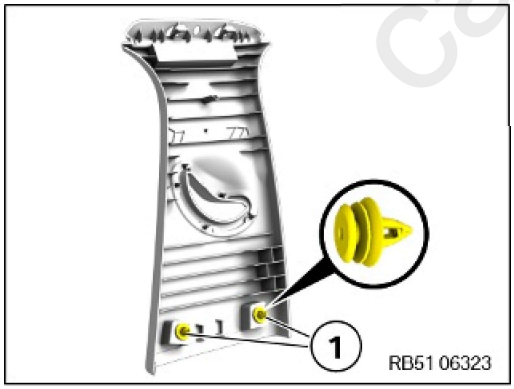
- Clip in the cover (1).

26 – Installing both B-pillar trim panels

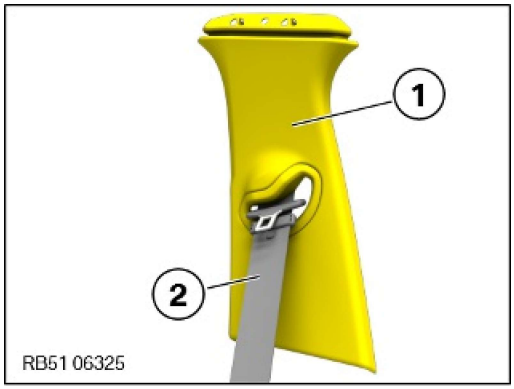
NOTICE

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

▸ **Install the B-pillar trim panel**

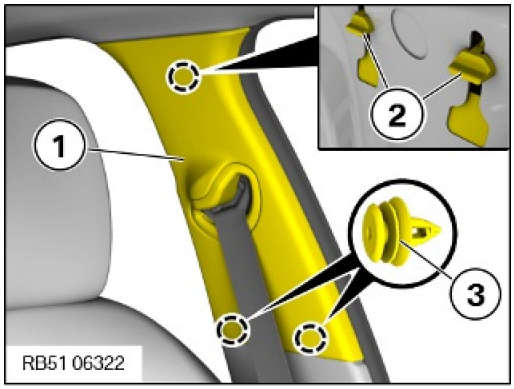


- Check the clips (1) for damage and renew if necessary.

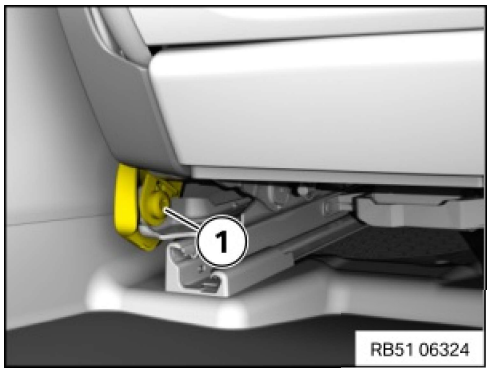


- Guide upper seat belt (2) in B-pillar trim panel (1).

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- Insert B-pillar trim panel (1) into guides (2) and under the front and rear lips of edge protection.
- Clip in the B-pillar trim panel (1) with the clips (3).



- Fully position the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

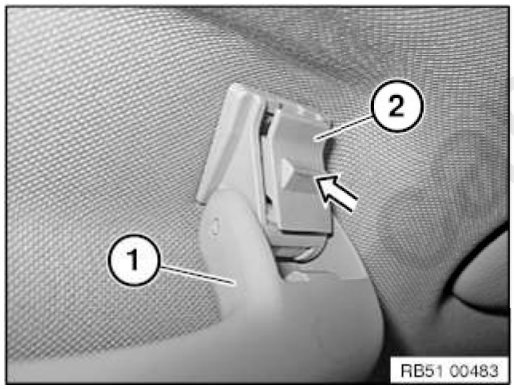
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

27 – Installing all grab handles

NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Installing the grab handle**

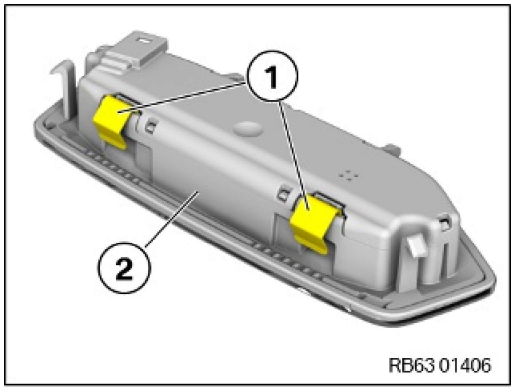


- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

28 – Install interior roof light

Check

- Check the clamps (1) for damage.

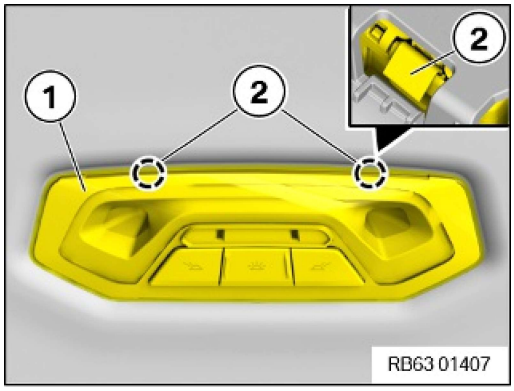


Result

» 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).

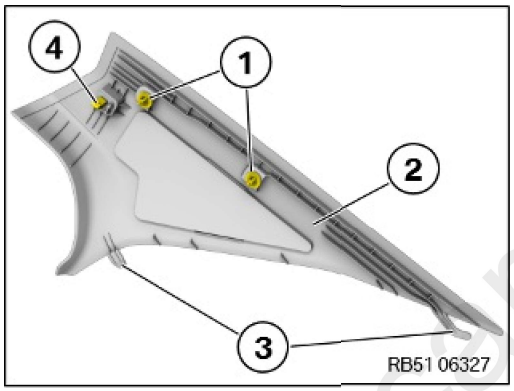
29 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

Check



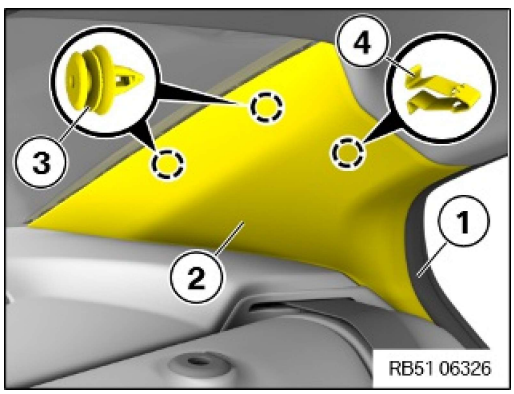
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .



NOTICE

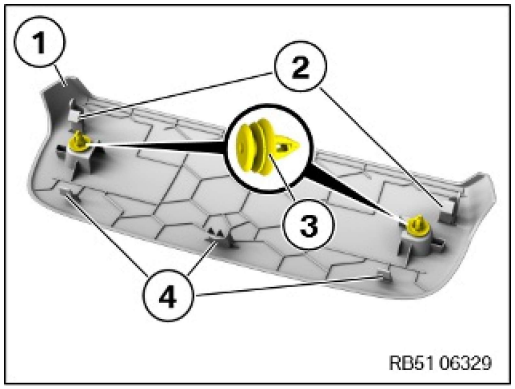
Schematic diagram is for example purposes. Some parts may differ in certain details.

- Feed C-pillar trim panel (2) into guides towards the rear.
- Clip in clips (3).
- Clip in clamp (4).
- Guide in C-pillar trim panel (2) under the lip of edge protection (1).

30 – Installing trim for additional brake light

Check

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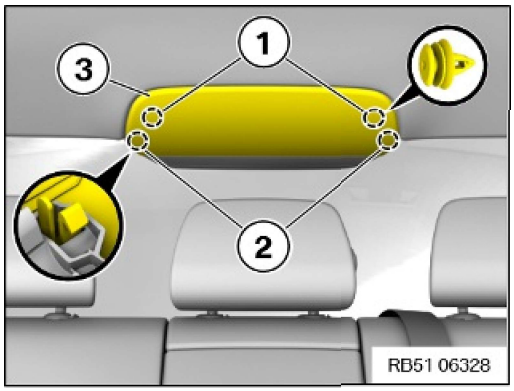
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

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).

Additional Information

Overview of Tightening Torques

Headlining to frame			Used in step 18
Oval-head screw		Tightening torque	1,5 Nm

Roof function centre			Used in step 20
		Tightening torque	1,2 Nm

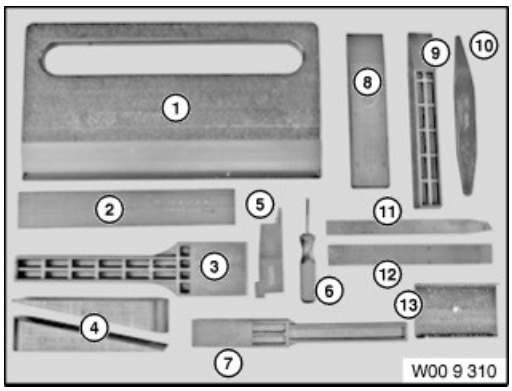
A-pillar trim panel to body			Used in step 25
Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

End fitting to seat mechanism			Used in step 26
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

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0 493 752 (00 9 329) Case



Common	Used in step 29
Usage	(Case) with insert not incl. panel wedges
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

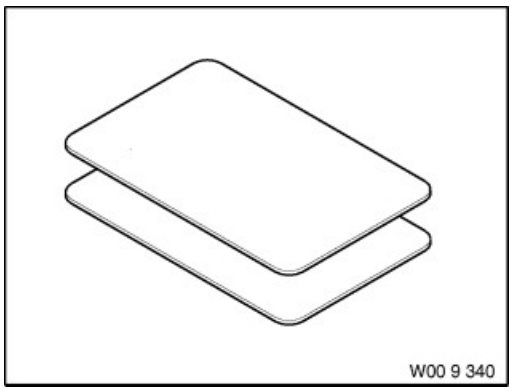
0 496 569 (00 9 325) Wedge



Common	Used in step 5
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

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0 493 687 (00 9 340) Removal aid



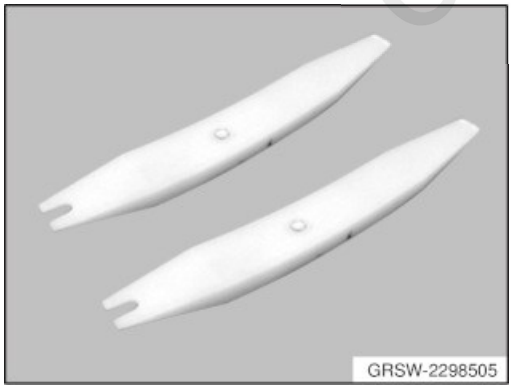
Common Used in step 6

Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
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).	

2 298 505 Wedge



Common Used in step 20

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)

Links

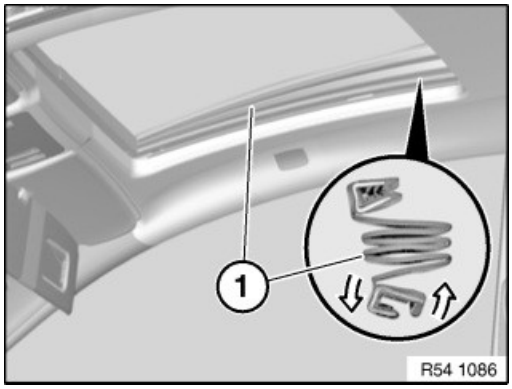
General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	2
72 00 ... Safety regulations for handling components with gas generators	2

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54 12 116 Replace glass slide/tilt sunroof panel

PRELIMINARY WORK

1 – Remove the gaiter for the glass slide/tilt sunroof



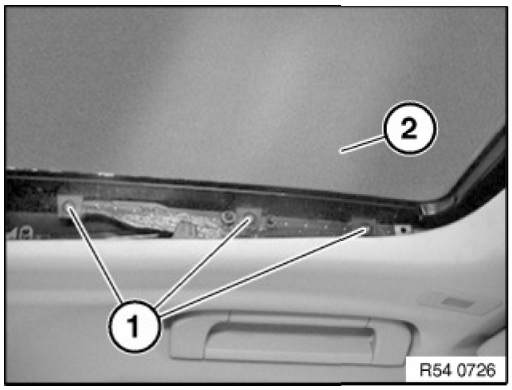
NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

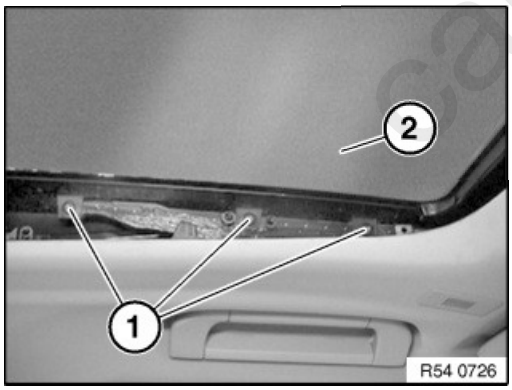
MAIN WORK

2 – Remove glass slide/tilt sunroof panel



- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Install glass slide/tilt sunroof panel



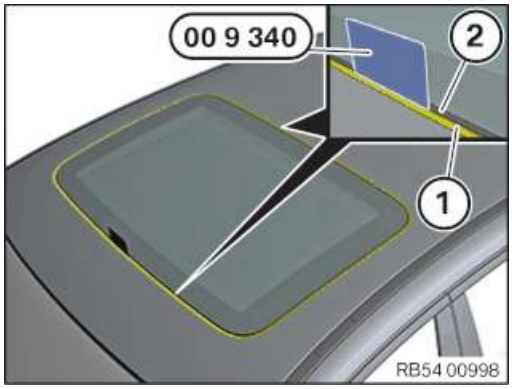
- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

POSTPROCESSES

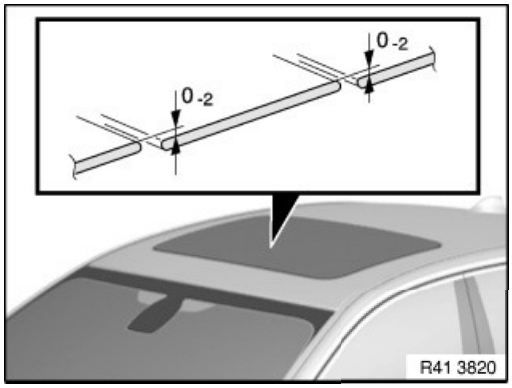
4 – Check the setting of the glass slide/tilt sunroof panel

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- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

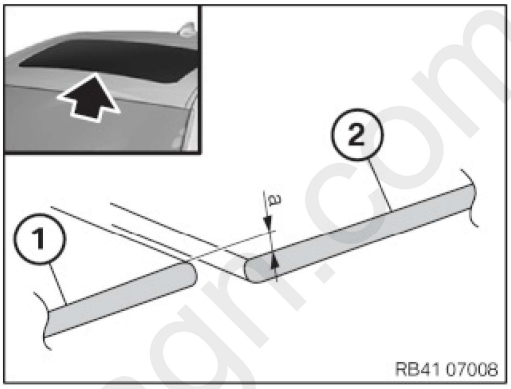
  The resistance when moving the special tool must be the same at the front and rear.



- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

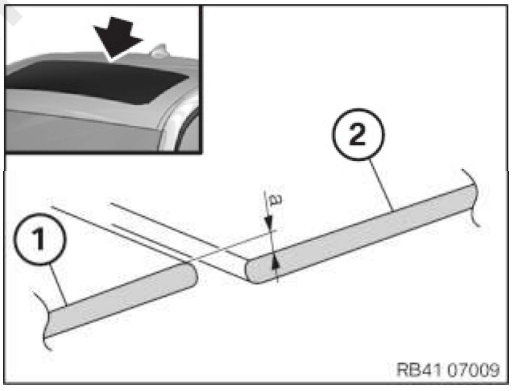
Gap dimension roof outer skin to glass slide/tilt sunroof panel

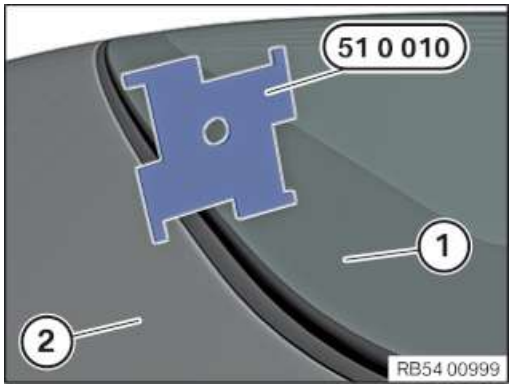
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

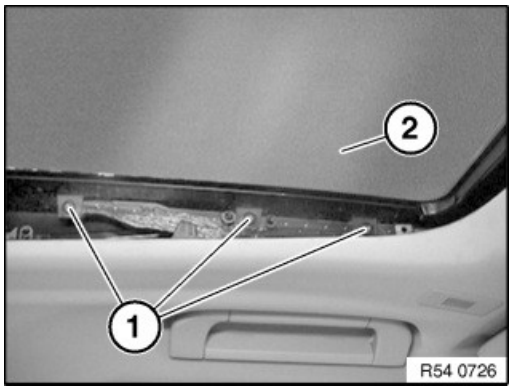




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

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5 – Adjusting glass slide/tilt sunroof panel



- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

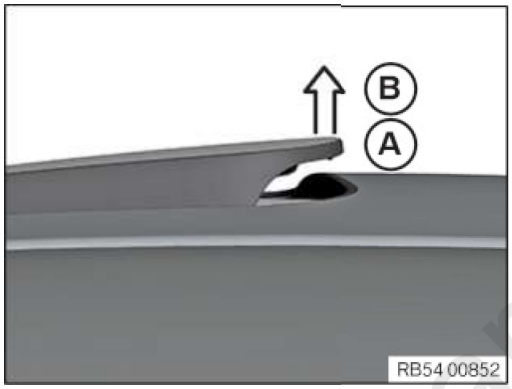
M5	Replace screws.	4,5 Nm

6 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.



- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

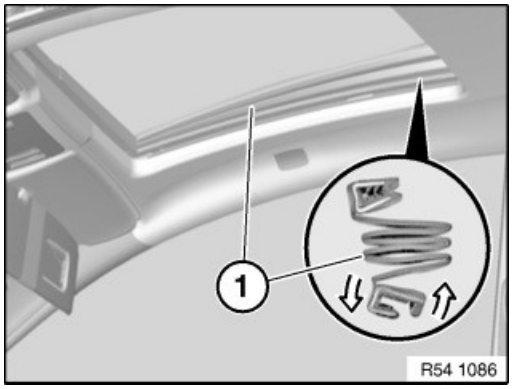
TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

7 – Install the gaiter for the glass slide/tilt sunroof

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NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

Additional Information

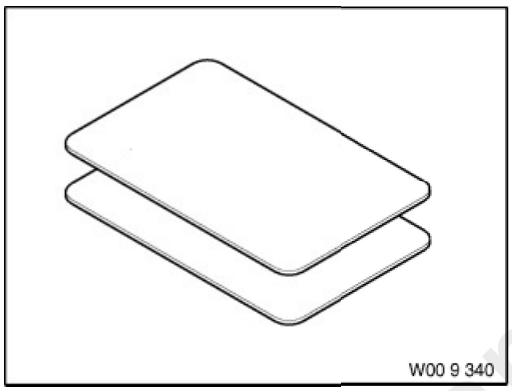
Overview of Tightening Torques

Glass slide/tilt sunroof panel to mechanics — Used in step 5

M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



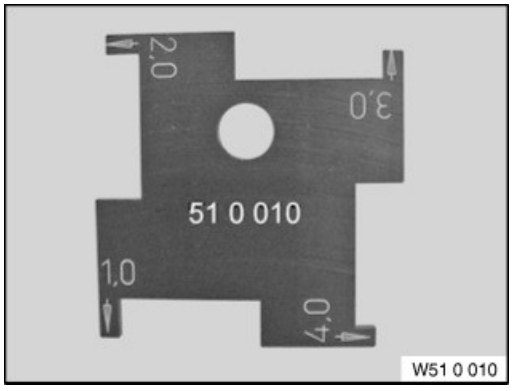
Common — Used in step 4

Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
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).	

0 495 259 (51 0 010) Gauge



Common — Used in step 4

Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

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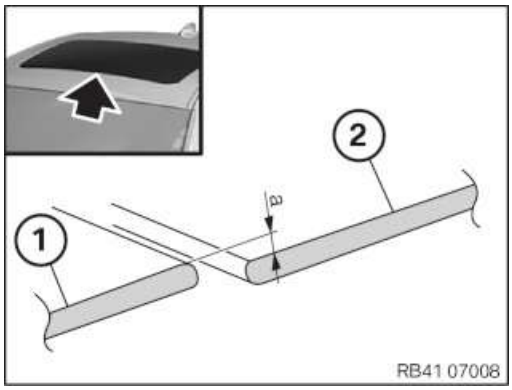
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel

Used in step 4

1 roof outer skin; 2 glass slide/tilt sunroof panel

a	0,7 (-0,05 - 1,45) mm

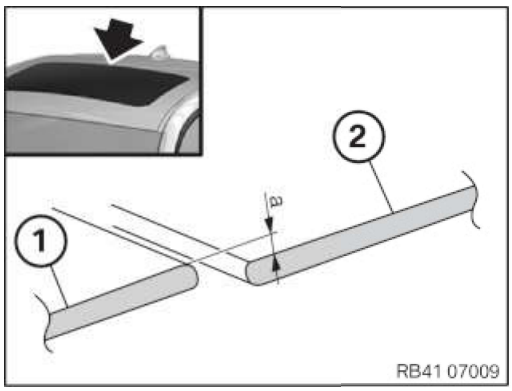


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 4

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



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54 12 646 Replacing glass slide/tilt sunroof frame

RISK OF DAMAGE

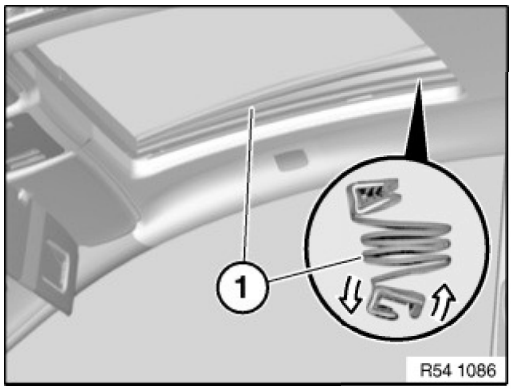
Fold the headlining.

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 – Remove the gaiter for the glass slide/tilt sunroof

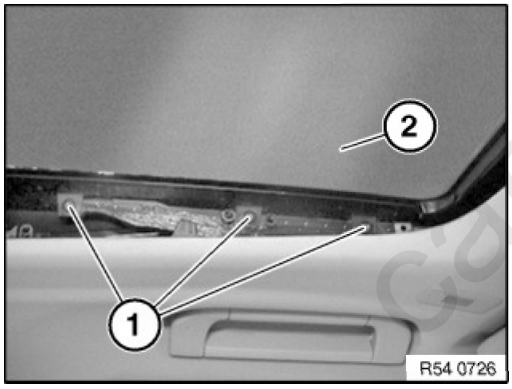


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

2 – Remove glass slide/tilt sunroof panel

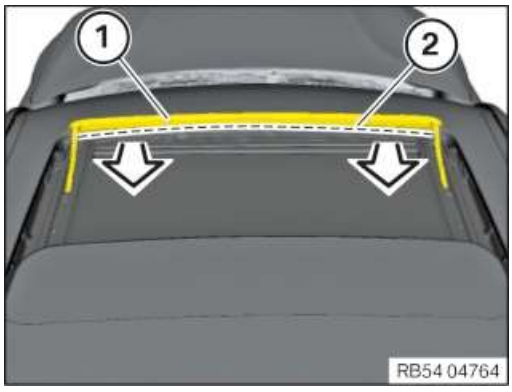


- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Remove wind deflector

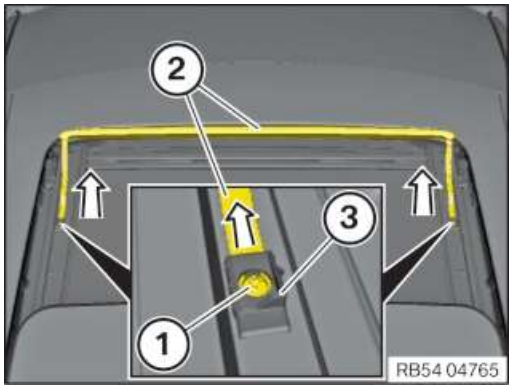
Prerequisite

The glass slide/tilt sunroof panel is open.



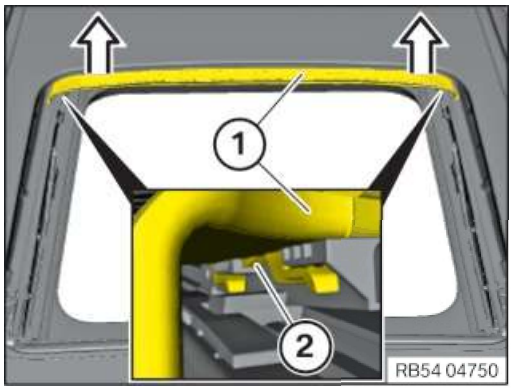
- Unclip the wind deflector (1) in the area (2) in the direction of arrow.

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- Loosen screws (1).
- Move wind deflector (2) to the front and feed out from the wind deflector mount (3).

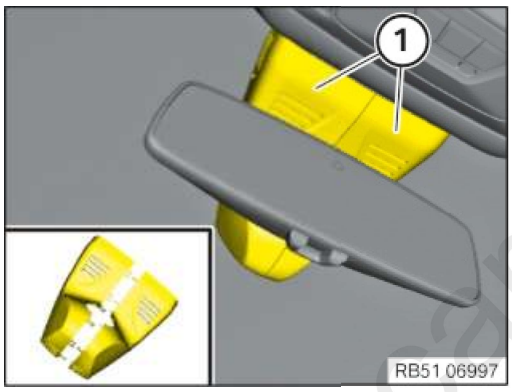
4 – Remove water channel



- Using a suitable tool, unlock the retaining lugs (2).
- Move the water channel (1) backwards and feed out.

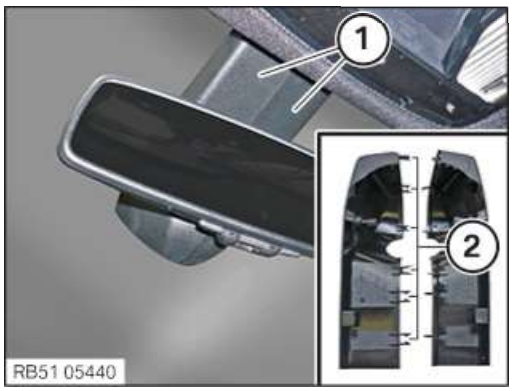
5 – Removing the covers for the interior mirror

- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

- **Version B:**



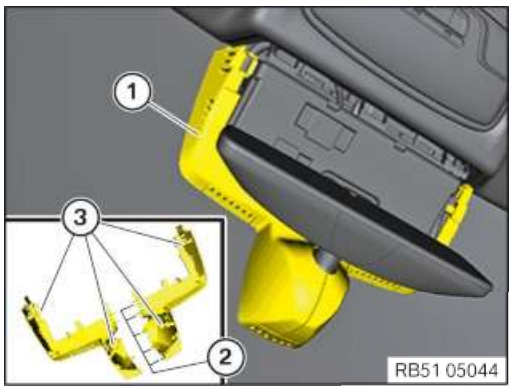
- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**

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- Detach cover (1) from the clamps (2) in the marked area using a suitable plastic wedge and pull down a certain distance.
- Release cover (1) at the retaining lugs (3) and remove from the guides to the rear.



- Release cover (1) from the latch mechanisms (2) and (3) and remove sideways.
- Remove cover (1) from mirror base (2).

6 – Remove both A-pillar trim panels

NOTICE

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

▸ **Remove the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

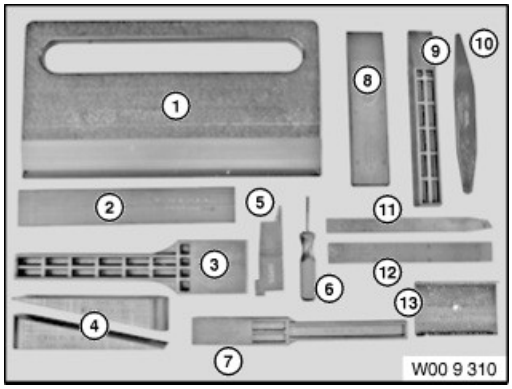
WARNING

Pyrotechnic components.

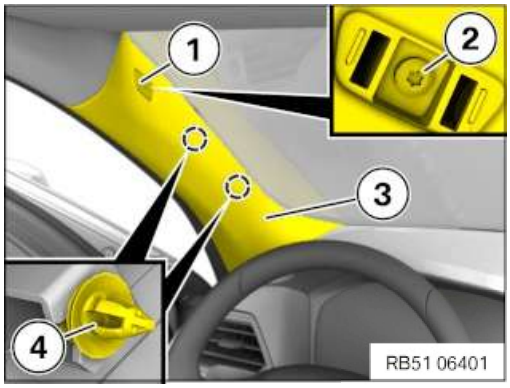
Danger! Life-threatening injuries!

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



- Unclip the cover (1) with suitable tools.
- Loosen screw (2).
- Unclip A-pillar trim panel (3) with clips (4) and guide it out upwards.

7 – Remove both sun visors

NOTICE

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

▸ **Remove sun visor**



- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

8 – Remove both counter supports for the sun visors

NOTICE

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

▸ **Remove the counter support for the sun visor**

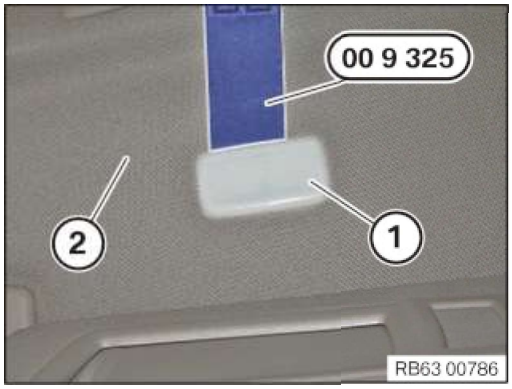


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

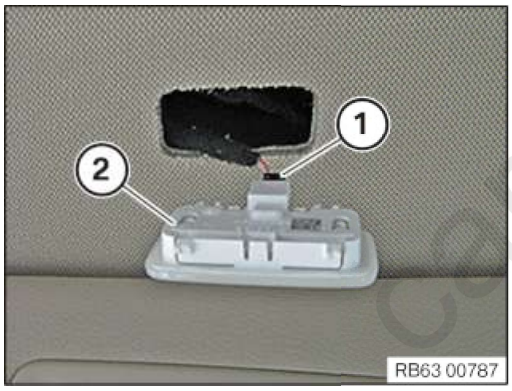
9 – Removing front vanity mirror light

NOTICE

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



- Lever out the front vanity mirror light (1) using special tool 0 496 569 (00 9 325) from the headlining (2).



- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

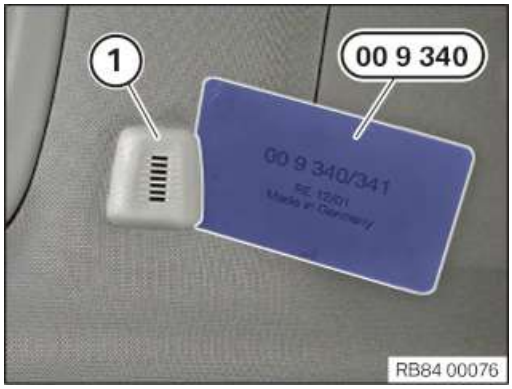
10 – Remove both microphones

NOTICE

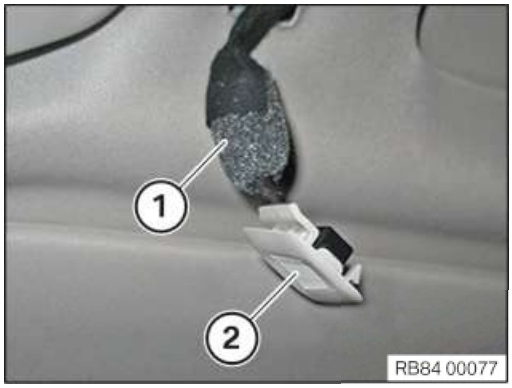
Description is for left component only. Procedure on the right side is identical.

▸ **Removing hands-free microphone**

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- 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).

11 – Removing the roof function centre (FZD)



- Unclip the cover (1).

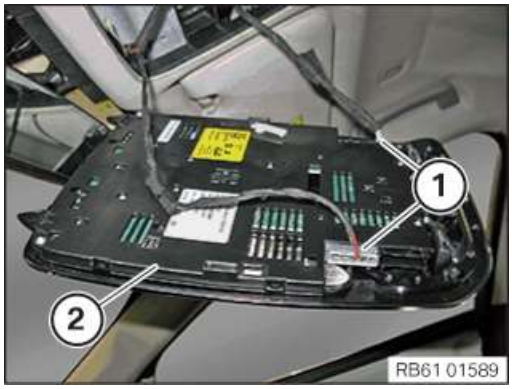


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

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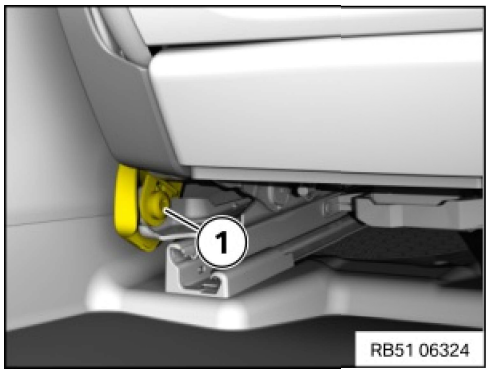
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

12 – Removing both B-pillar trim panels

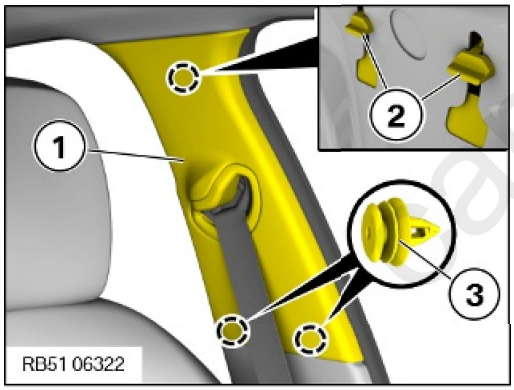
NOTICE

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

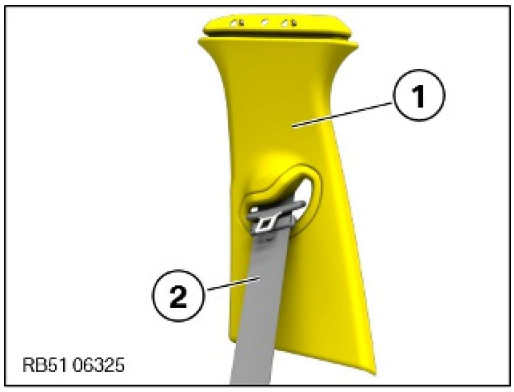
▶ **Remove the B-pillar trim panel**



- Fully position the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



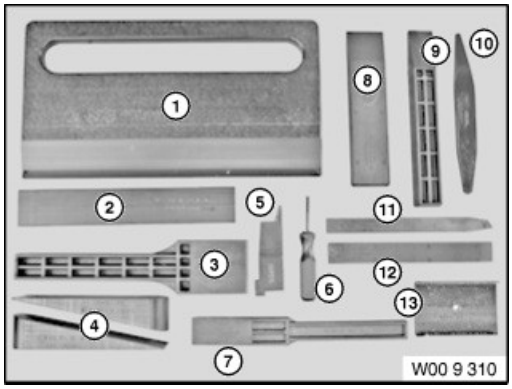
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



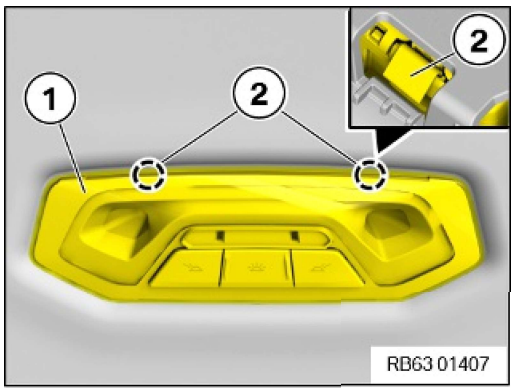
- Feed upper seat belt (2) out of B-pillar trim panel (1).

13 – Remove interior roof light

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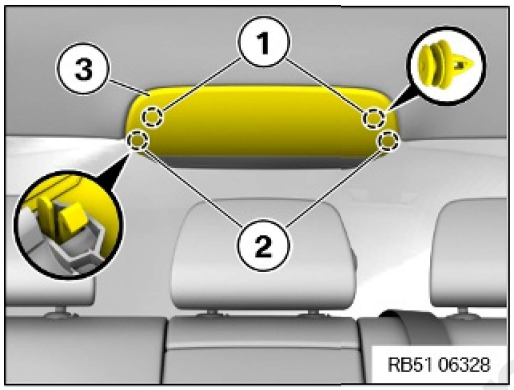


- Have the set of special tools 0 493 752 (00 9 329) ready.



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

14 – 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).

15 – Remove both C-pillar trim panels

NOTICE

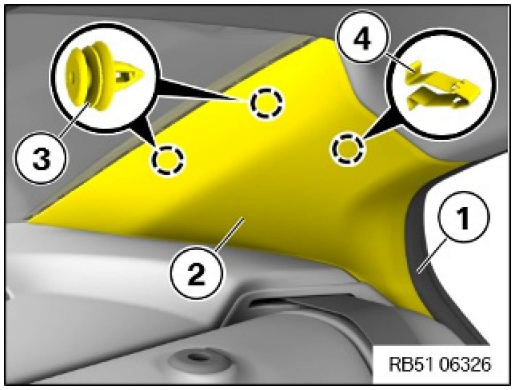
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

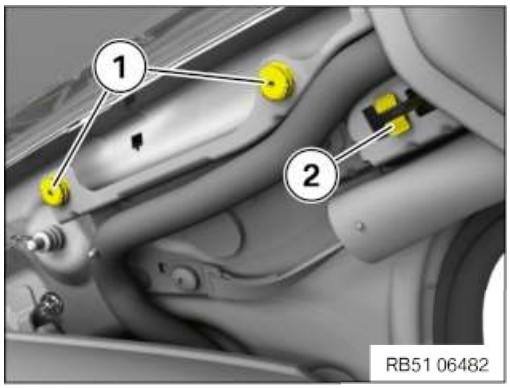
NOTICE

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

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- Unclip clamp (4).
- Unclip clips (3).
- Feed out C-pillar trim panel (2) from the guides to the front.
- Thread out C-pillar trim panel (2) from the lip of edge protection (1).



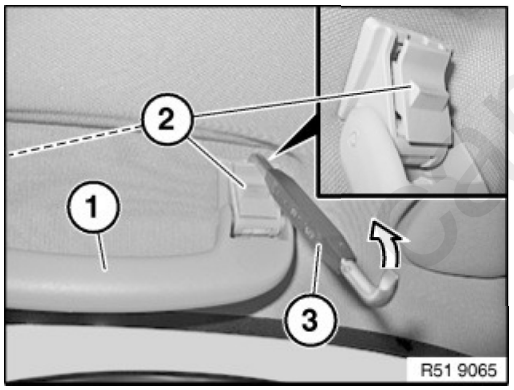
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

16 – Removing all grab handles

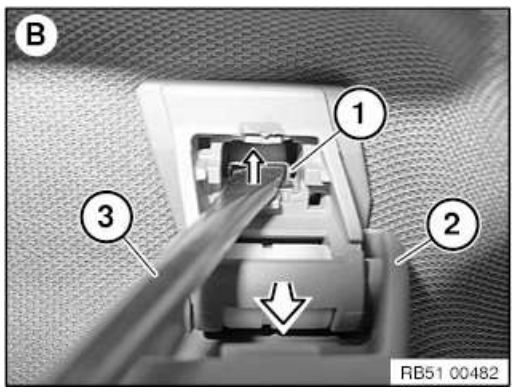
NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Removing the grab handle**



- Expand the grab handle (1) towards the bottom.
- Disengage and remove the locking insert (2) with an angle screwdriver (3) as shown.



- Pull the grab handle (2) slightly to the inside and hold it.
- Use a suitable screwdriver (3) to detach the upper and lower release tabs (1).
- Guide the grab handle (2) out.
- Repeat the operation on the other side of the grab handle (2).

17 – Lower the headlining (with SHD)

Prerequisite

The front seats have been fully adjusted towards the bottom.

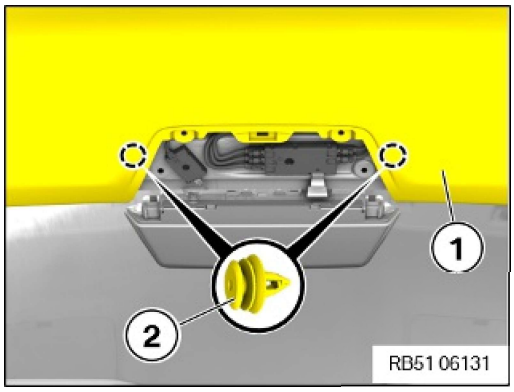
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

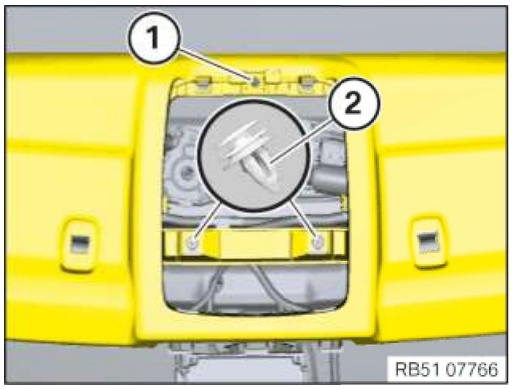
Fold the headlining.

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.



- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.



- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

18 – Removing the mounting plate for the rear left and right grab handle

NOTICE

Perform the operations on the left and right side.

▸ **Removing the mounting plate for the rear grab handle**

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RISK OF DAMAGE

Damage due to swarf.

Contamination can lead to malfunctions and damage.

- Cover working area.
- Draw off swarf during drilling using a vacuum cleaner.

NOTICE

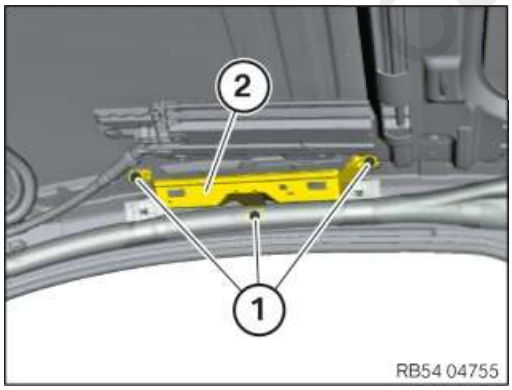
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

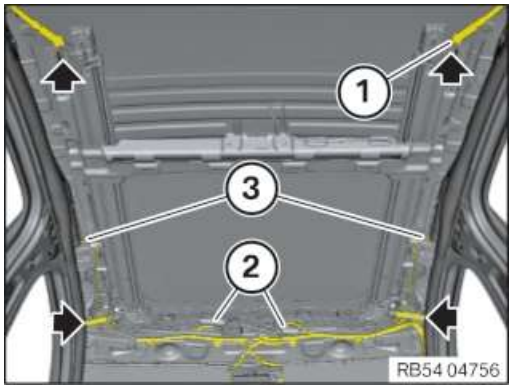


- Protect the working area with a suitable cover (1) to protect against falling swarf.

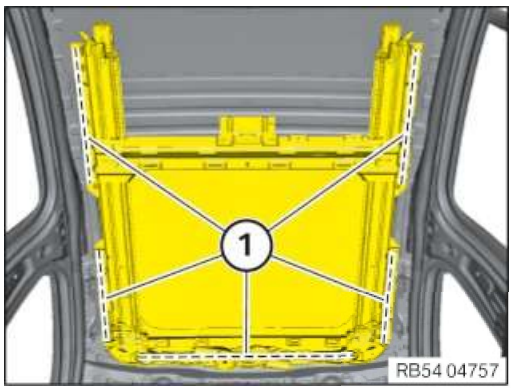


- Drill out blind rivets (1) and remove both rear holders (2).

19 – Remove slide/tilt sunroof completely



- Pull off all four water drain hoses (1) (arrows).
- Disconnect the plug connections of engine (2) and unclip the corresponding cable.
- Disconnect the plug connections (3) of head airbag and unclip the corresponding cable and tie to the side.



RISK OF DAMAGE

Heavy component.

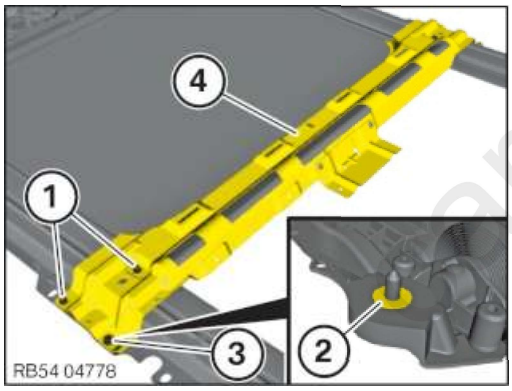
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Secure slide/tilt sunroof from falling with the help of an auxiliary person.
- Release all screws along the areas (1).
- Lower the slide/tilt sunroof with the assistance of an auxiliary person and remove from the vehicle through the front passenger door.

MAIN WORK

20 – Removing cross member

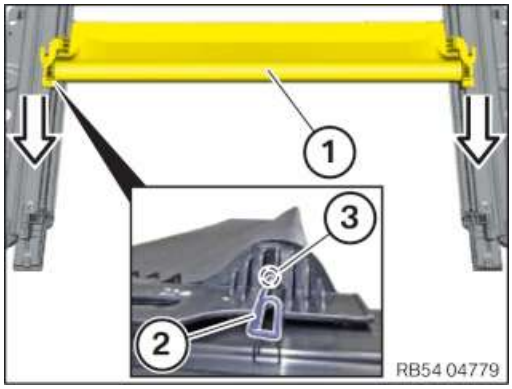


NOTICE

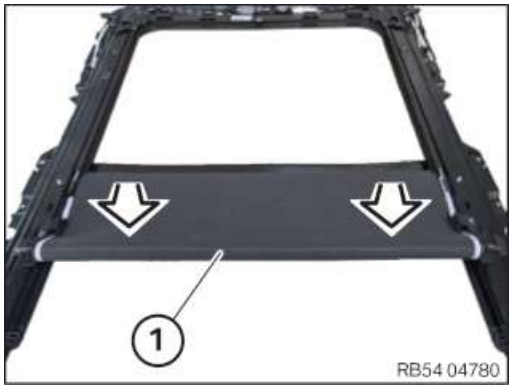
Perform the operations on the left and right side.

- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

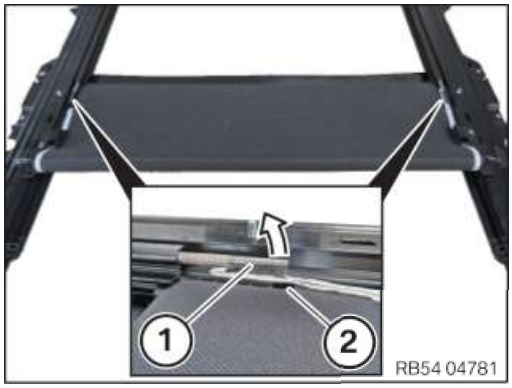
21 – Removing roller sunblind for the panorama glass roof



- Push the roller sunblind back (1) on both sides and thus roll it up a few cm.
- Unroll the roller sunblind (1) until it can be fixed with a suitable tool (2) (e.g. paper clip) over the pegging device (3).



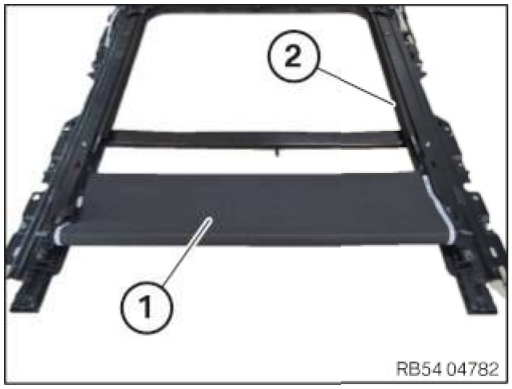
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



NOTICE

Perform the operations on the left and right side.

- Guide the driver (1) upwards out of the slider of the roller sunblind (2).



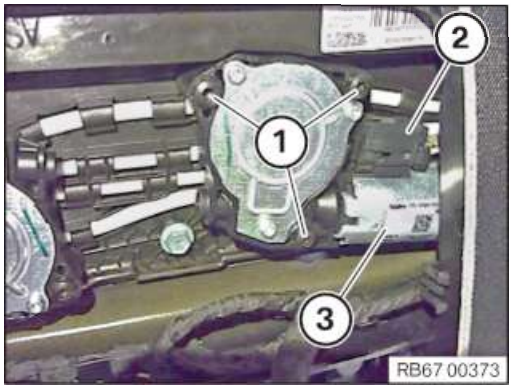
- Remove the roller sunblind (1) from the sunroof frame (2).

22 – Remove the drive cable for the roller sunblind

▶ **Remove electric motor for roller sunblind**

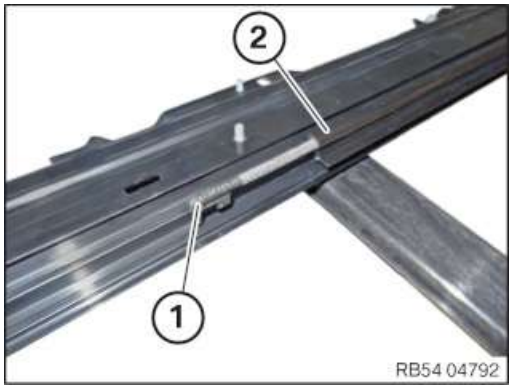
Prerequisite

Sun protection must be located in the open position.



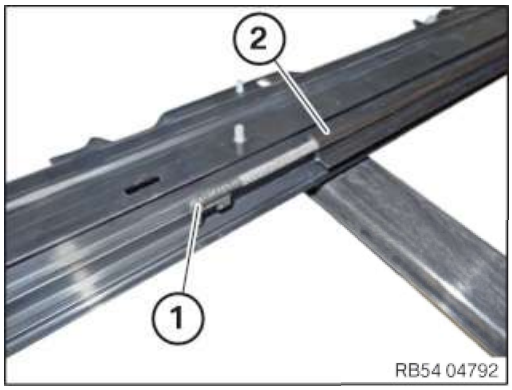
- Loosen screws (1).
- Unlock plug connection (2) and disconnect.
- Feed out drive motor for the sun protection (3).

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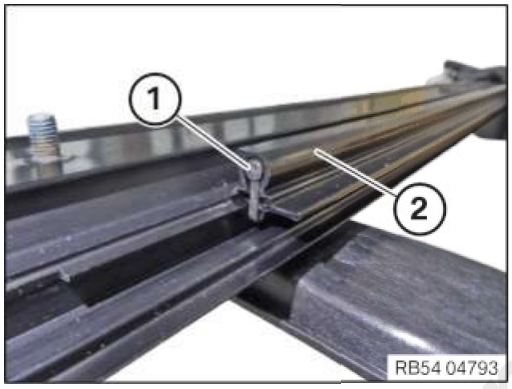
- Feed drive cable (1) out of the panorama glass roof frame (2) to the rear.

23 – Install the drive cable for the roller sunblind



- Feed drive cable (1) into the panorama glass roof frame 2.

  Check the drive cable for damage and renew where required.



NOTICE

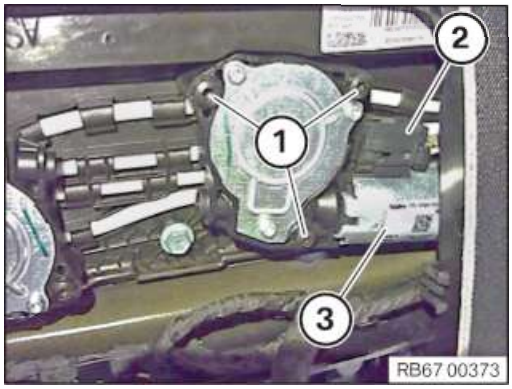
Perform the operations on the left and right side.

- Slide both drive cables (1) as far as possible into the slide/tilt sunroof frame (2) until they are flush with the guide.

▶ **Install the roller sunblind drive**

Prerequisite

The roller sunblind must be in the opened position.



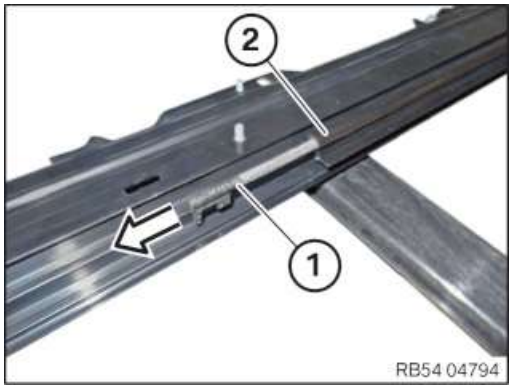
- Guide in the drive of the roller sunblind (3) and position correctly.
- Connect connectors (2) and lock.
- Tighten the screws (1).

Drive for panorama sunroof to body

Screw		Tightening torque	5,5 Nm

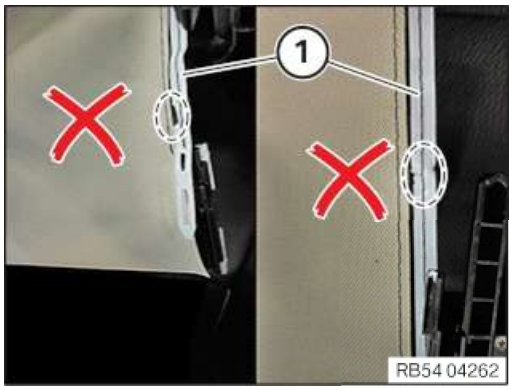
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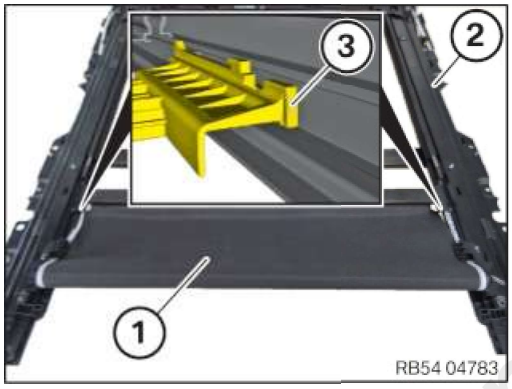
- Pull out drive cable of the sun protection (1) manually out of the slide/tilt sunroof frame (2) until a little resistance is noticeable.

24 – Installing roller sunblind for the panorama glass roof

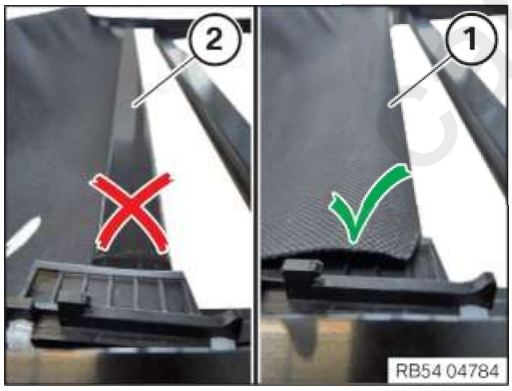


- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.

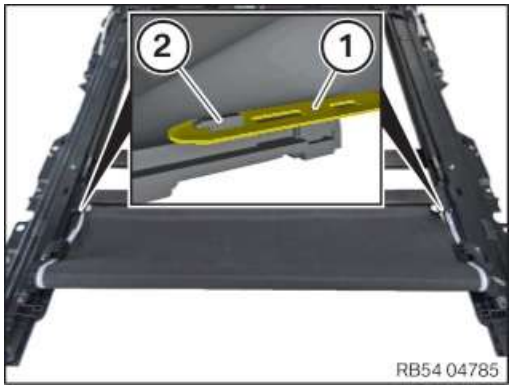


- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.



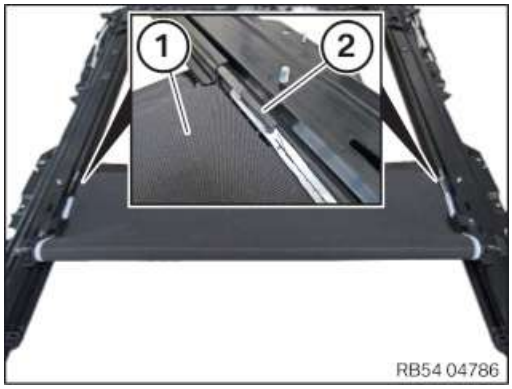
- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

  If necessary, turn the cross brace (1) through 360°.

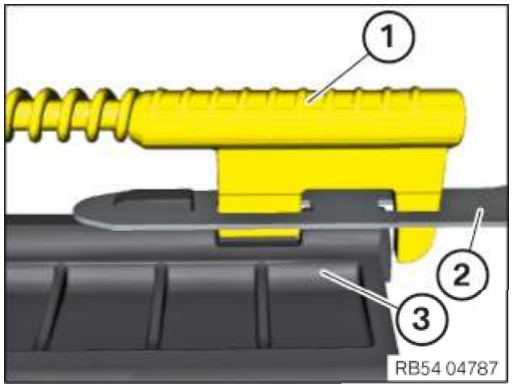


- Mount tensioning strap (1) on both sides of driver (2).

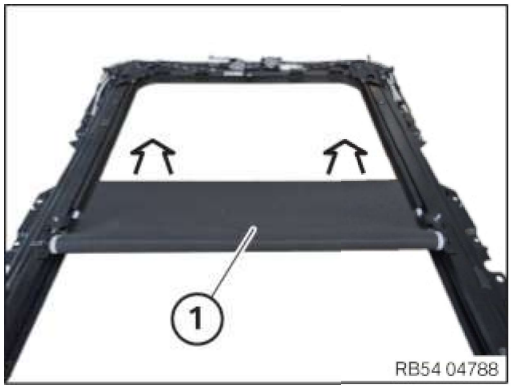
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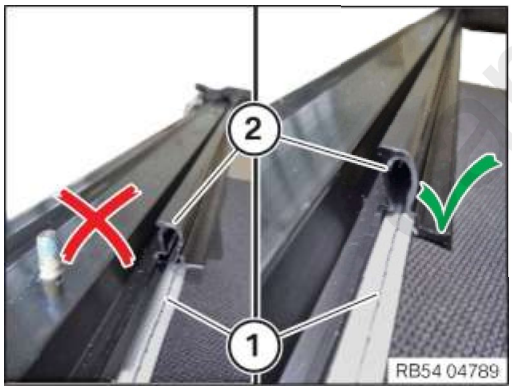
- Push the sunblind (1) forward until the drive (2) can be hooked.



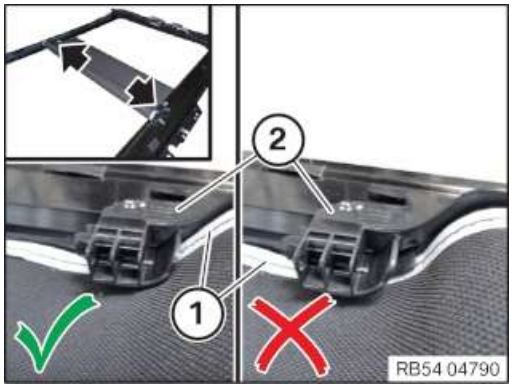
- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).



- Manually close the sunblind (1) a few cm.

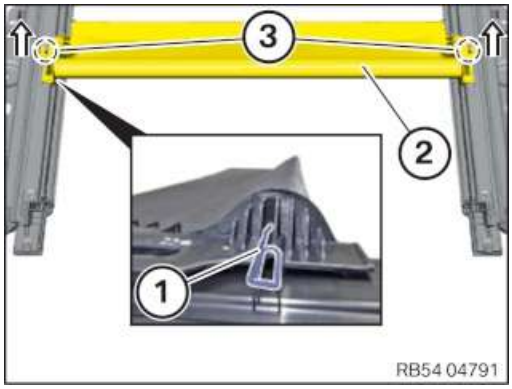


- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).



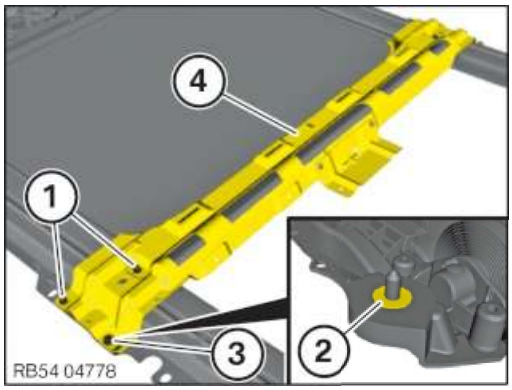
- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.

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- If necessary, remove the arresting device (1).
- Push the sunblind (2) forwards and position on the threaded bolts (3).

25 – Installing the cross member



- Position cross-member (4).

NOTICE

Perform the operations on the left and right side.

- Tighten nuts (1).

Cross member to glass slide/tilt sunroof frame

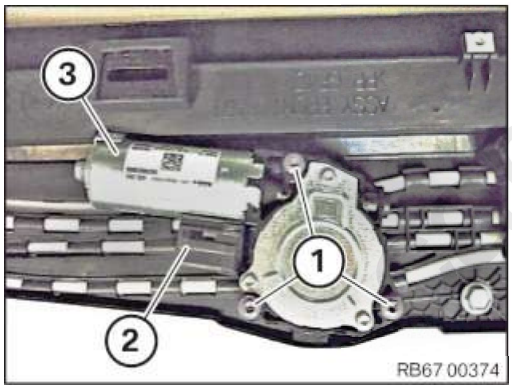
Nut		5,5 Nm

- Position retaining washer (2) and insert screw (3).

26 – Removing drive for the glass slide/tilt roof panel

Prerequisite

Glass slide/tilt sunroof panel must be in the closed position.

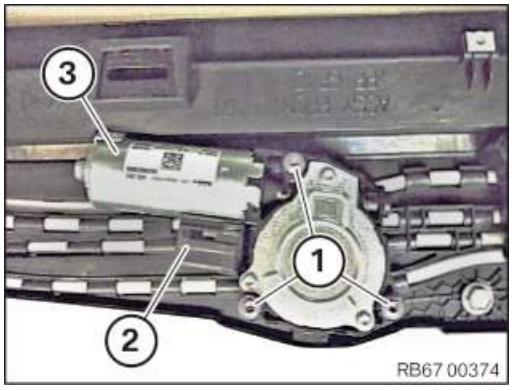


- Loosen screws (1).
- Unlock and disconnect available plug connection (2).
- Feed out drive for glass slide/tilt roof panel (3).

27 – Install the motor for the glass slide/tilt sunroof panel

Prerequisite

Glass slide/tilt sunroof panel must be in the closed position.

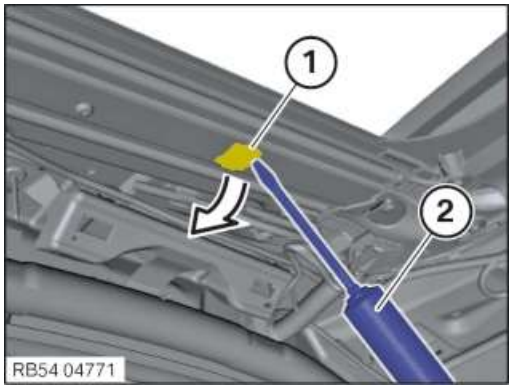


- Guide in the motor for the glass slide/tilt sunroof panel (3) and position it correctly.
- Connect and lock existing connectors (2).
- Tighten the screws (1).

Drive for panorama sunroof to body

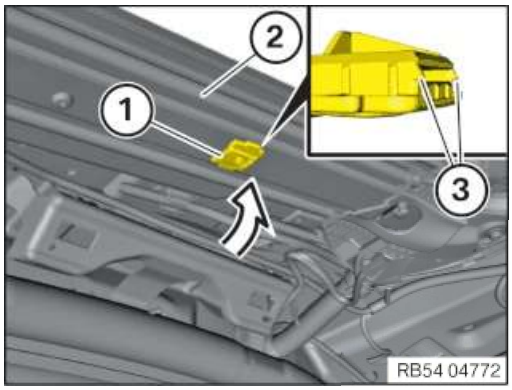
Screw		Tightening torque	5,5 Nm

28 – Removing the wind deflector mount



- Unclip wind deflector mount (1) with a suitable tool (2) downwards.

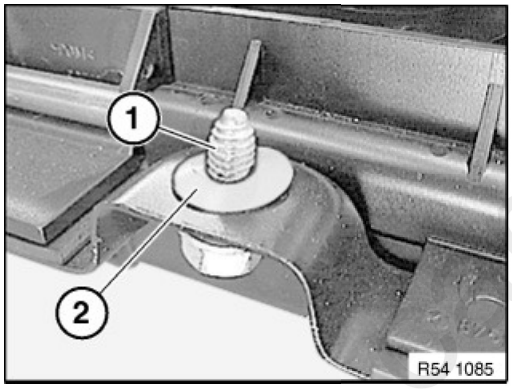
29 – Install wind deflector bearing



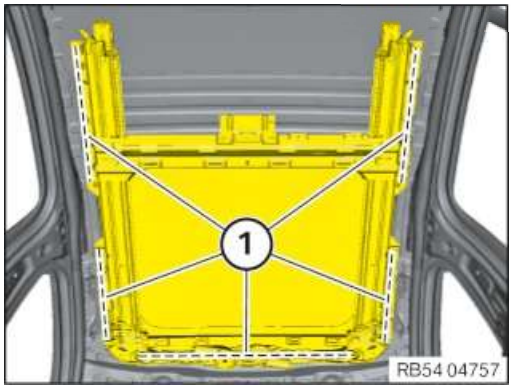
- Position wind deflector mount (1) in recess on slide/tilt sunroof frame (2).
- Clip wind deflector mount (1) into slide/tilt sunroof frame (2).
- Ensure that the retaining lugs (3) engage correctly.

POSTPROCESSES

30 – Completely installing the slide/tilt sunroof



- In order to prevent groaning noises, all bolts (1) must be secured with the plastic washers (2) prior to installation.



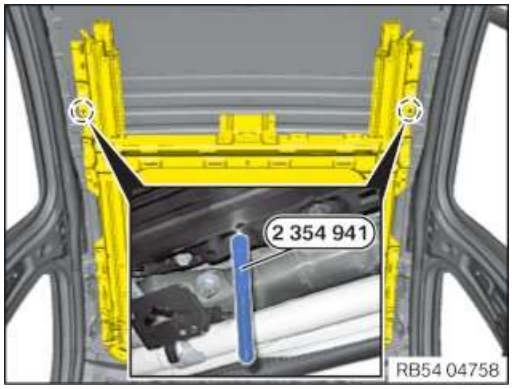
RISK OF DAMAGE

Heavy component.

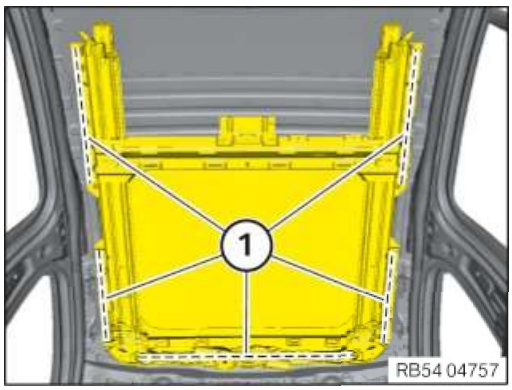
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Insert the slide/tilt sunroof through the front passenger door into the vehicle with the help of an auxiliary person and position it.
- When installing it, ensure that no cables are clamped.
- Screw in all screws along the line (1) by several turns.



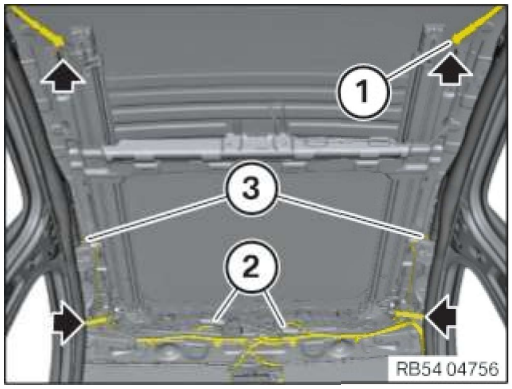
- Insert the special tool and align the panorama glass roof (1) with the roof.



- Tighten all screws along the marked areas (1) .

Slide/tilt sunroof frame to body

M6		5,4 Nm



- Connect all four water drain hoses (1) (arrows).
- Connect the head air-bag plug connections (3) and clip in the corresponding cables.
- Connect plug connections 2 of the engines and clip in the corresponding cables.

Note: Route airbag wiring harness without tension or kinks.

31 – Installing the mounting plate for the left and right grab handle

NOTICE

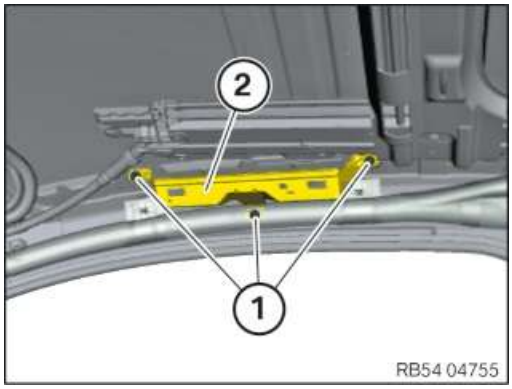
Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

NOTICE

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

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- Position the holder (2) and set blind rivets in the area (1).

32 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

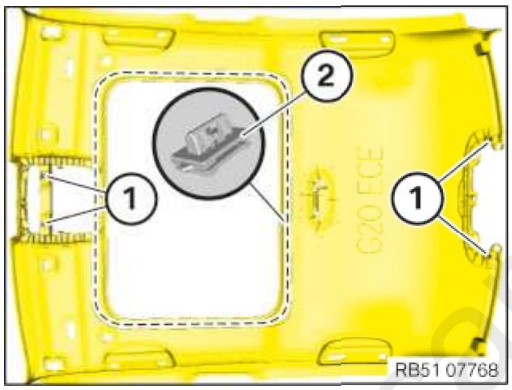
The front seat backrests have been fully adjusted towards the rear.

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.



- Check the clips (1) on the headlining (2) for damage.

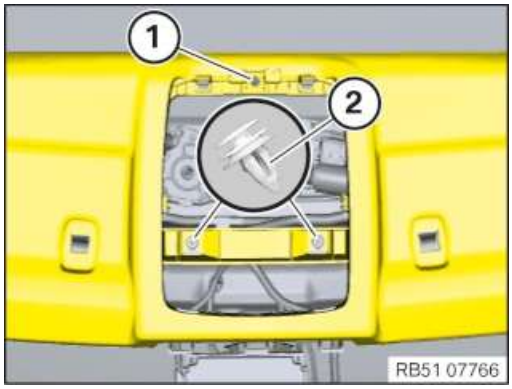
  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) *into the slide/tilt sunroof unit* and clamps (2) in the area of the dotted line.

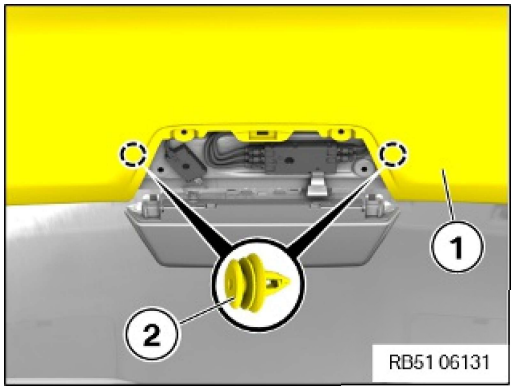
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- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

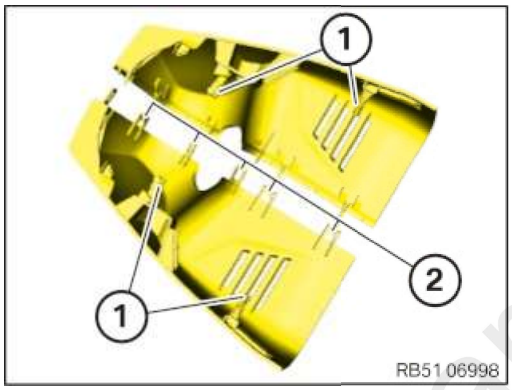
Oval-head screw		Tightening torque	1,5 Nm



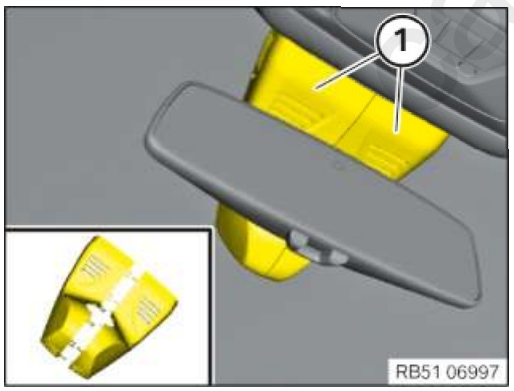
- Clip headlining (1) to the clips (2).

33 – Installing the covers for the interior mirror

- **Version A:**

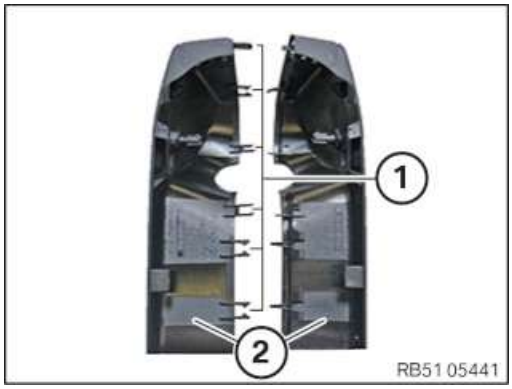


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



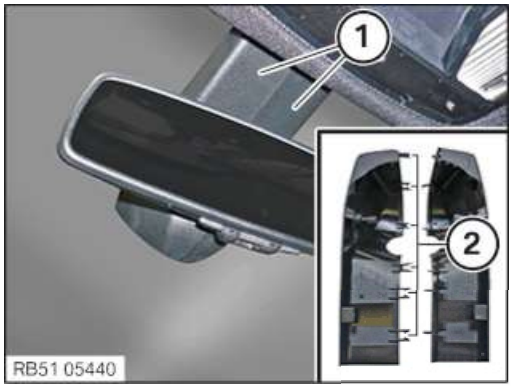
- Feed cover (1) in and lock.
- **Version B:**

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- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

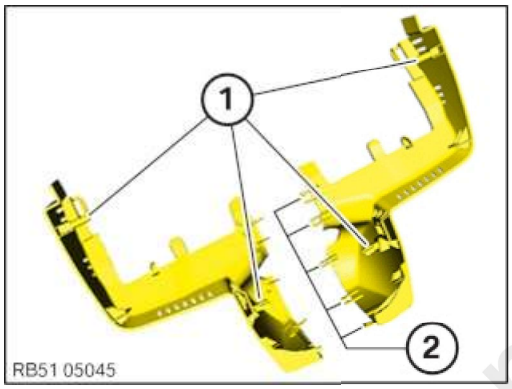
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



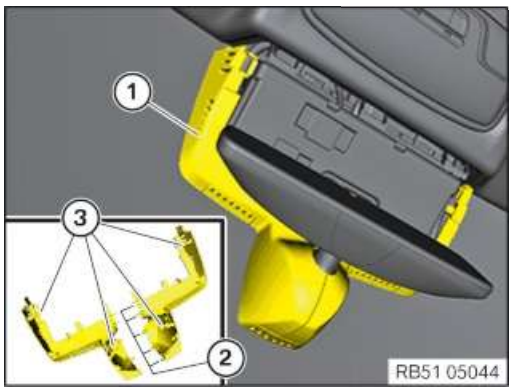
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

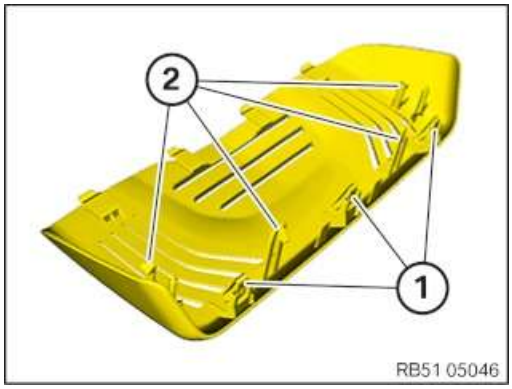
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

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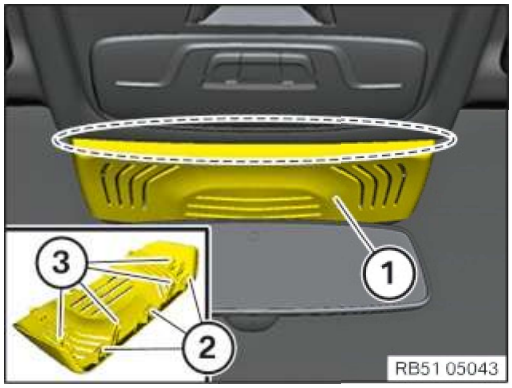
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

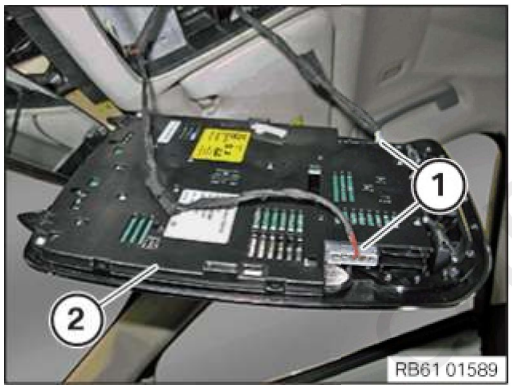
Measure

- Renew the cover.

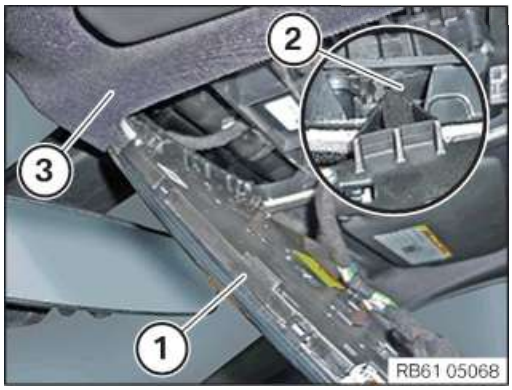


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

34 – Installing roof function centre (FZD)



- Connect connectors (1) and lock.
- Clip in the cable for the roof function centre (FZD) (2) in the cable clip.



- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

  Make sure the headlining is not deformed during this operation.

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- Clip the roof function centre (FZD) (1) upwards into the clamps (2).



- Pass through the FZD frame and headlining with the special tool 2 298 505 and adjust the headlining correctly.



- Tighten the screws (1).

Roof function centre

	Tightening torque	1,2 Nm



- Clip in the cover (1).

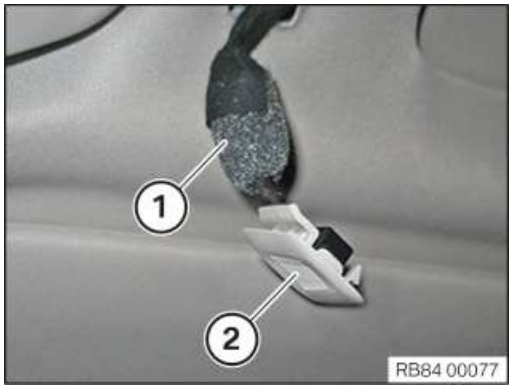
35 – Install both microphones

NOTICE

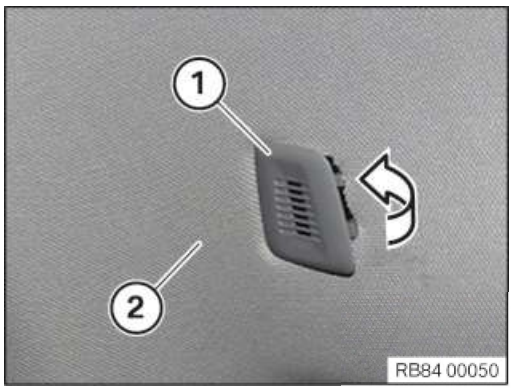
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

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

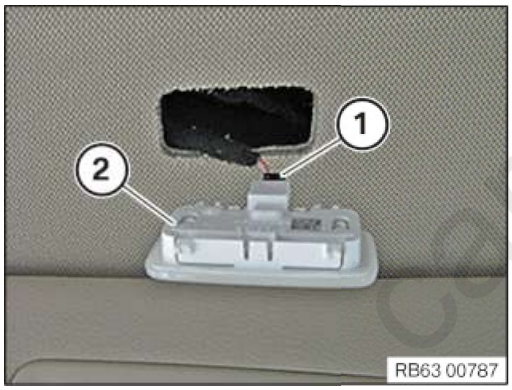


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

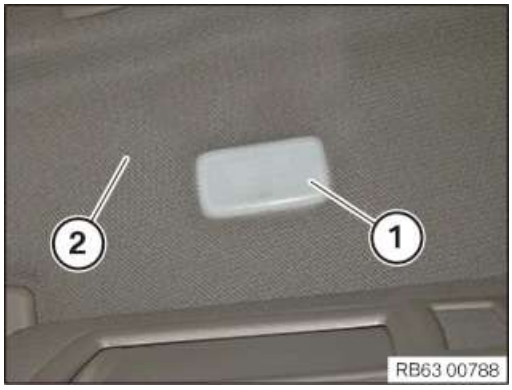
36 – Installing front vanity mirror light

NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).



- Position the front vanity mirror light (1) in the headlining (2).

37 – Install both counter supports for the sun visors

NOTICE

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

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▸ **Install the counter support for the sun visor**



- Insert the counter support (3) into the headlining.
- Make sure the clamps (2) are engaged correctly.
- Use cover (1).

38 – Install both sun visors

NOTICE

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

▸ **Install the sun visor**



- Connect the sun visor (2) with the corresponding connector.
- Guide the sun visor (2) into the headlining.
- Use cover (1).
- Attach the sun visor (2) on the counter support.

39 – Install both A-pillar trim panels

NOTICE

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

▸ **Installing the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

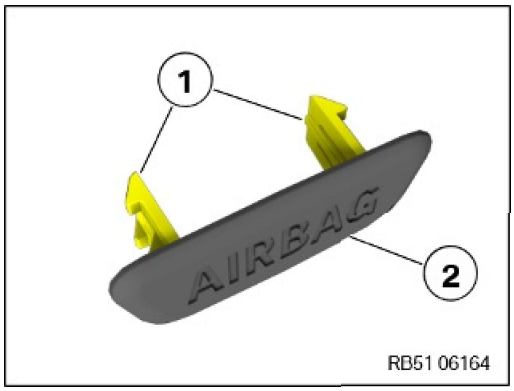
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WARNING

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.



Check

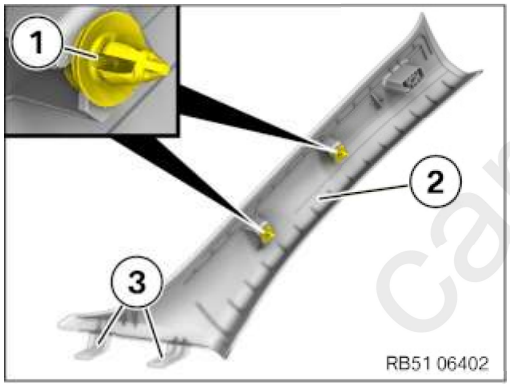
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

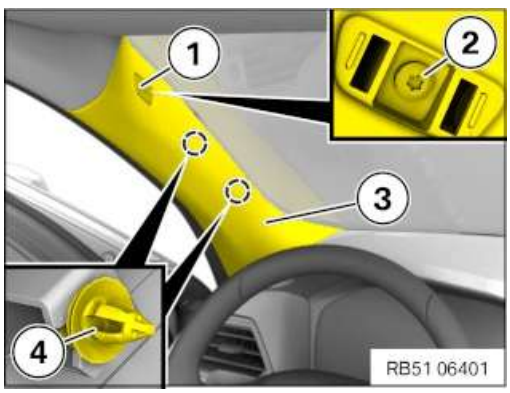
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the A-pillar trim panel.



- Guide in A-pillar trim panel (3) downwards and clip it in with clips (4).
- Tighten down screw (2).

A-pillar trim panel to body

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

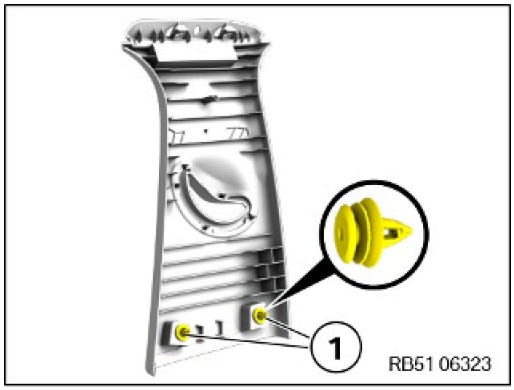
- Clip in the cover (1).

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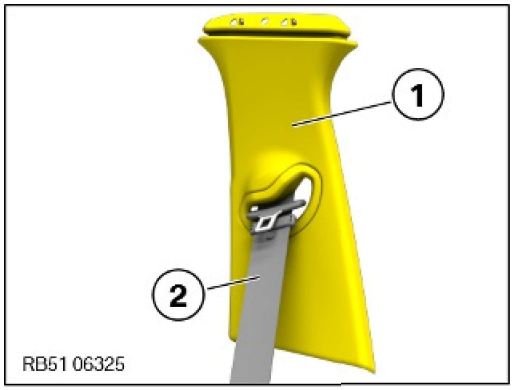
NOTICE

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

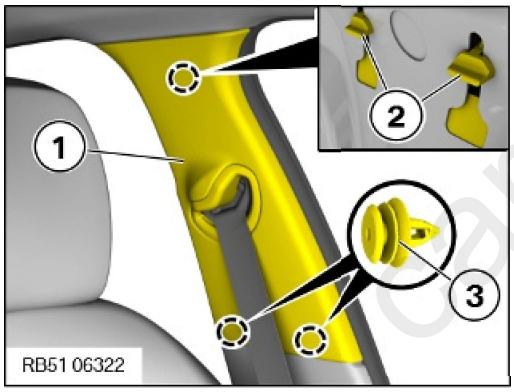
▶ **Install the B-pillar trim panel**



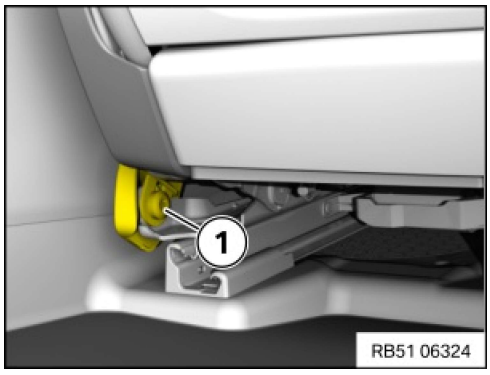
- Check the clips (1) for damage and renew if necessary.



- Guide upper seat belt (2) in B-pillar trim panel (1).



- Insert B-pillar trim panel (1) into guides (2) and under the front and rear lips of edge protection.
- Clip in the B-pillar trim panel (1) with the clips (3).



- Fully position the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

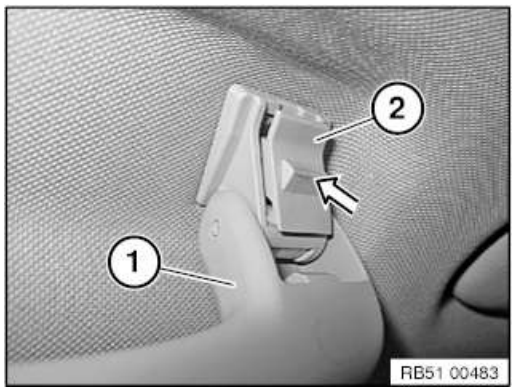
41 – Installing all grab handles

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NOTICE

The description is for one component only. The procedure is identical for all further components.

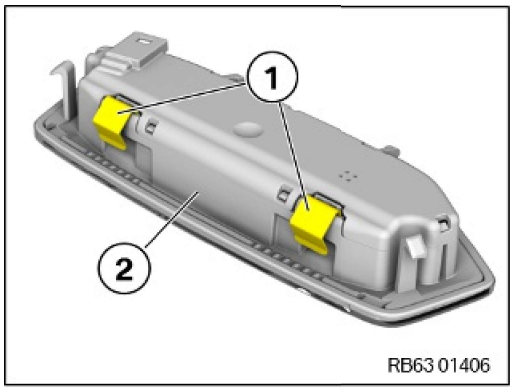
▸ **Installing the grab handle**



- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

42 – Install interior roof light

Check



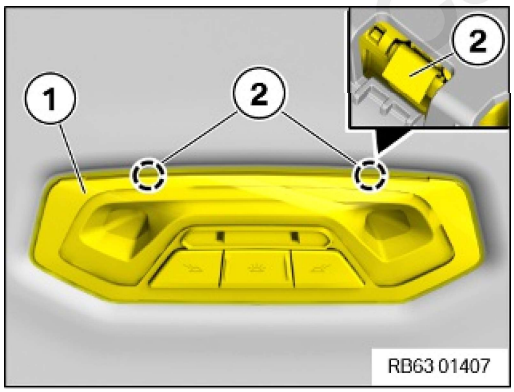
- Check the clamps (1) for damage.

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).

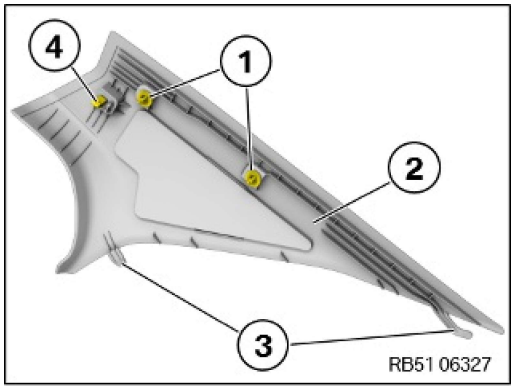
43 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

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Check

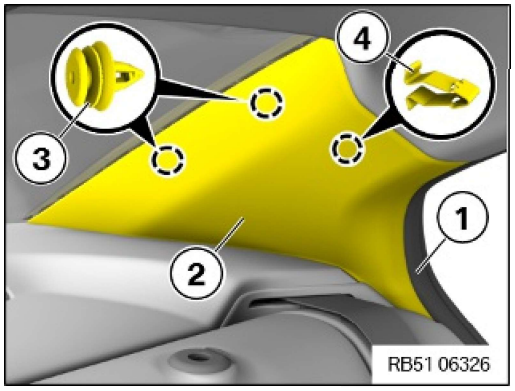
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

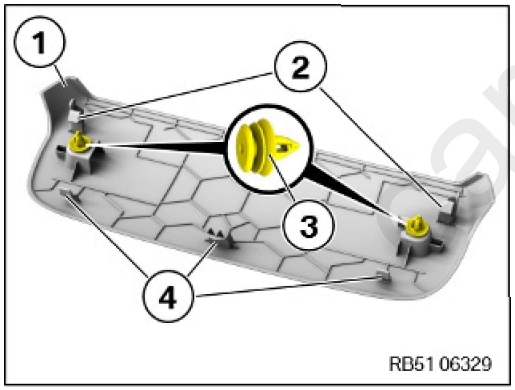


NOTICE

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

- Feed C-pillar trim panel (2) into guides towards the rear.
- Clip in clips (3).
- Clip in clamp (4).
- Guide in C-pillar trim panel (2) under the lip of edge protection (1).

44 – Installing trim for additional brake light



Check

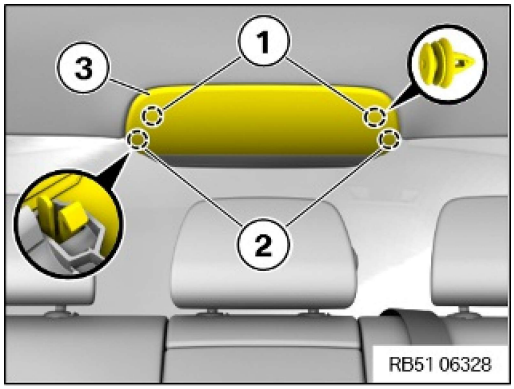
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

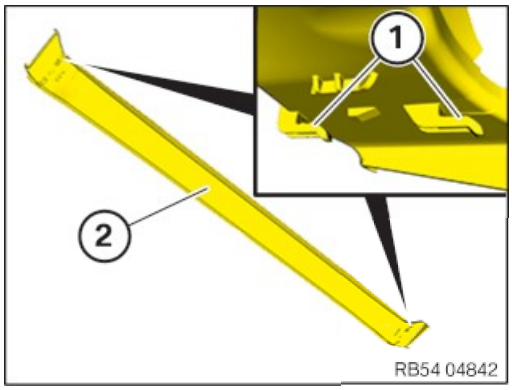
Measure

- Renew the trim for the additional brake light.

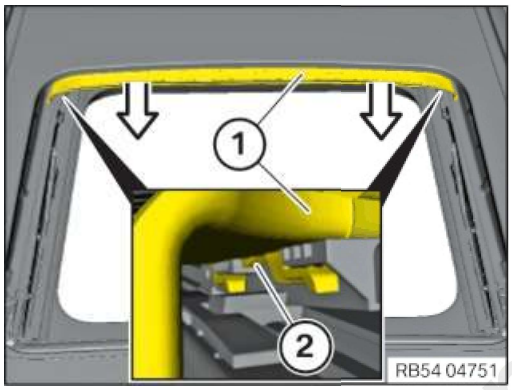


- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

45 – Install water channel



- Check retaining lugs (1) of the water channel (2) for damage and renew, if necessary.

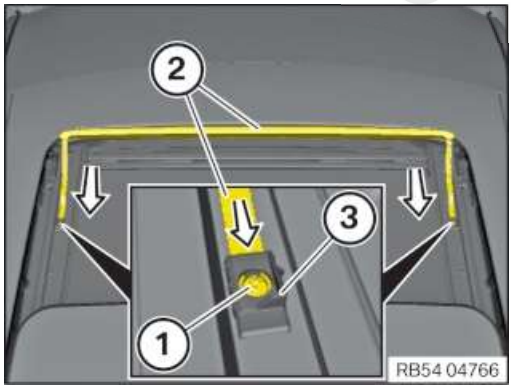


- Feed in the water channel (1) from rear and move towards front until the retaining lugs (2) engage.

46 – Install wind deflector

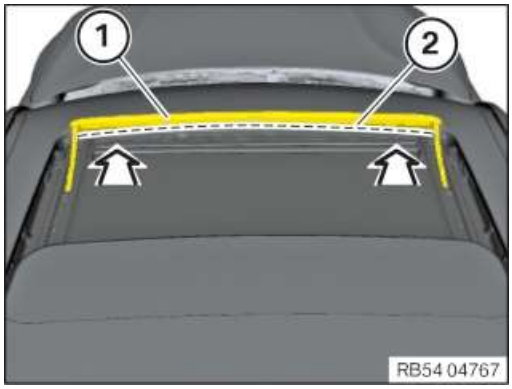
Prerequisite

The glass slide/tilt sunroof panel is open.

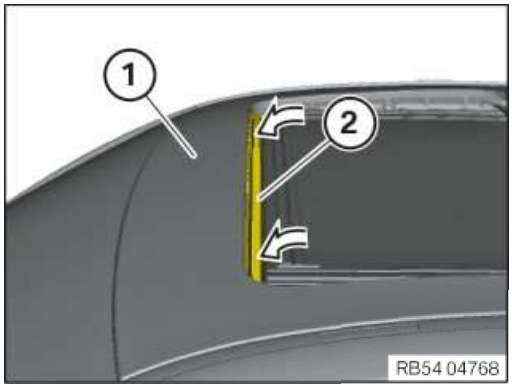


- Feed in wind deflector (2) from the front to the wind deflector mount 3.
- Screw the screws (1) by a few turns but do not tighten.

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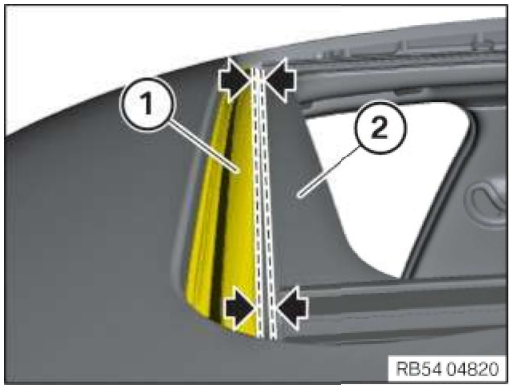


- Clip in the wind deflector (1) in area (2).

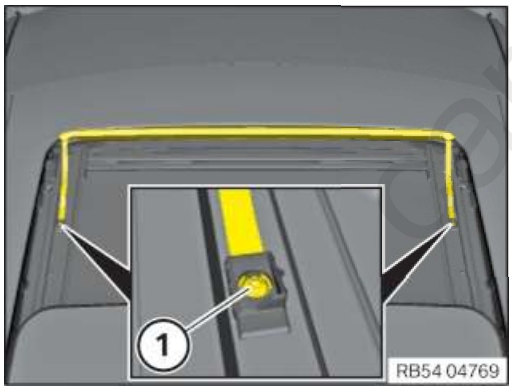


- Press wind deflector (2) down by hand.

  Ensure that it is completely clear and does not collide with the roof outer skin (1).

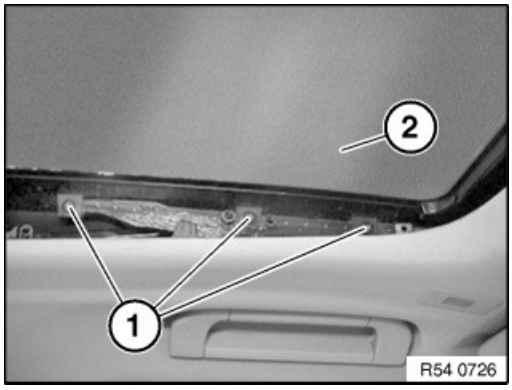


- Position the wind deflector (1) so that it is at a distance of about 2 mm from the gutter strip of the slide/tilt sunroof frame (2).



- Tighten the screws (1).

47 – Install glass slide/tilt sunroof panel

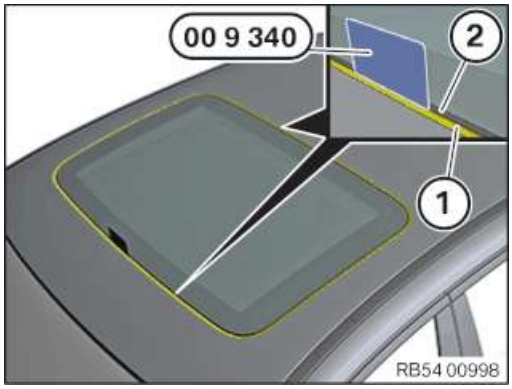


- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

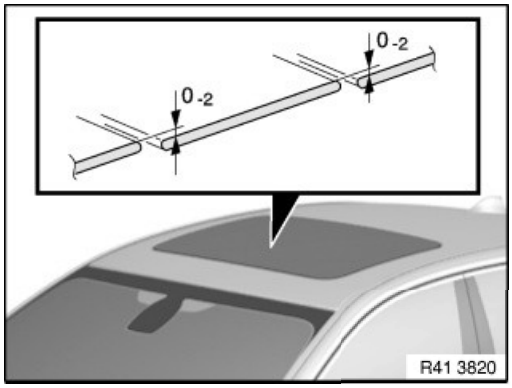
48 – Check the setting of the glass slide/tilt sunroof panel

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- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

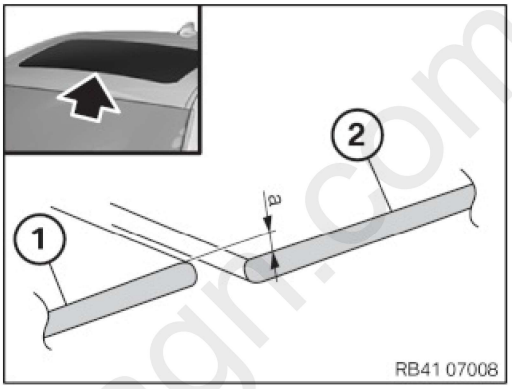
  The resistance when moving the special tool must be the same at the front and rear.



- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

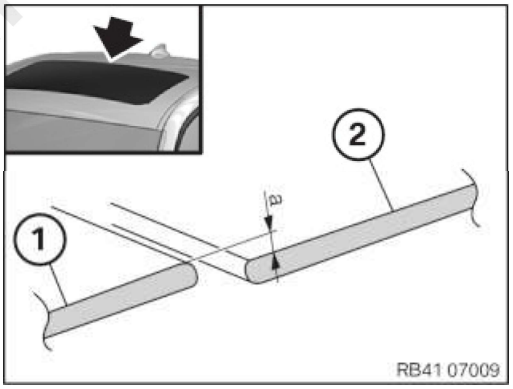
Gap dimension roof outer skin to glass slide/tilt sunroof panel

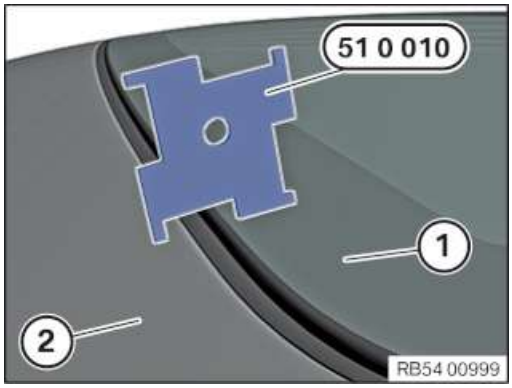
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

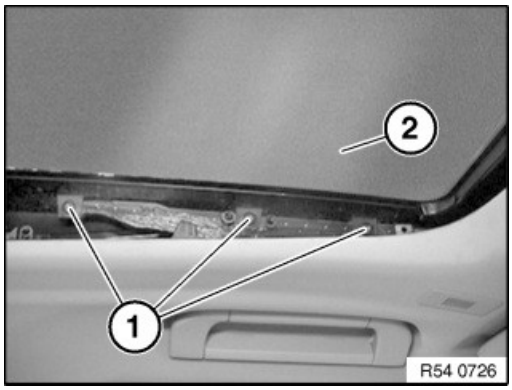




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

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49 – Adjusting glass slide/tilt sunroof panel

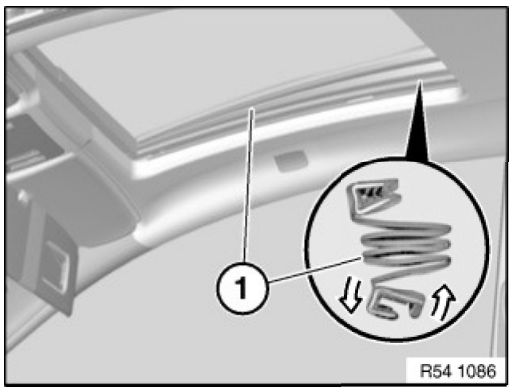


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

M5	Replace screws.	4,5 Nm

50 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

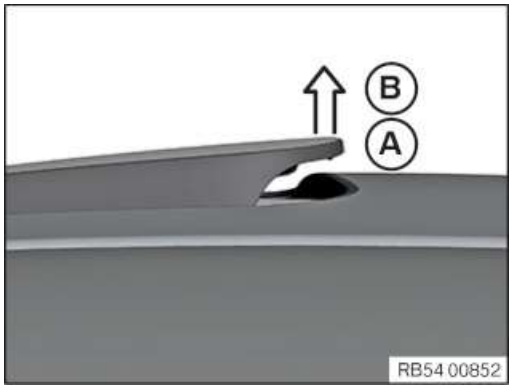
51 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.

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- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

Additional Information

Overview of Tightening Torques

Drive for panorama sunroof to body			Used in step 2327
Screw		Tightening torque	5,5 Nm

Cross member to glass slide/tilt sunroof frame			Used in step 25
Nut			5,5 Nm

Slide/tilt sunroof frame to body			Used in step 30
M6			5,4 Nm

Headlining to frame			Used in step 32
Oval-head screw		Tightening torque	1,5 Nm

Roof function centre			Used in step 34
		Tightening torque	1,2 Nm

A-pillar trim panel to body			Used in step 39
Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

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End fitting to seat mechanism Used in step 40

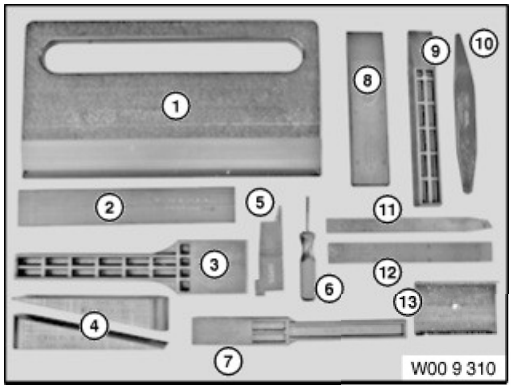
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Glass slide/tilt sunroof panel to mechanics Used in step 49

M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common Used in step 613

Usage	(Case) with insert not incl. panel wedges
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

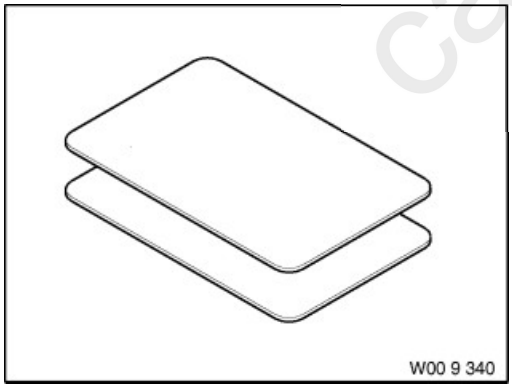
0 496 569 (00 9 325) Wedge



Common Used in step 9

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

0 493 687 (00 9 340) Removal aid



Common Used in step 10

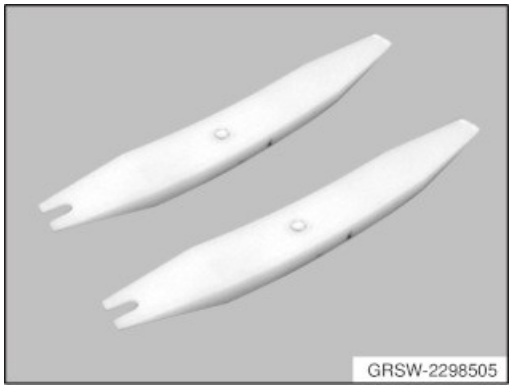
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

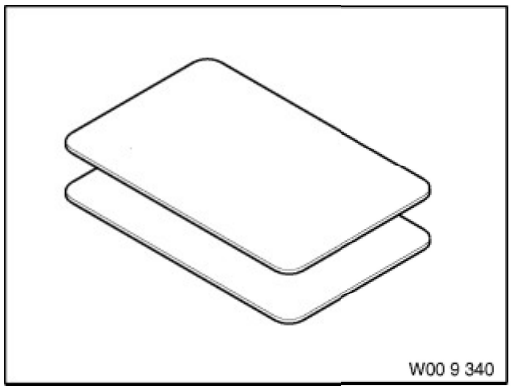
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2 298 505 Wedge



Common	Used in step 34
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)

0 493 687 (00 9 340) Removal aid

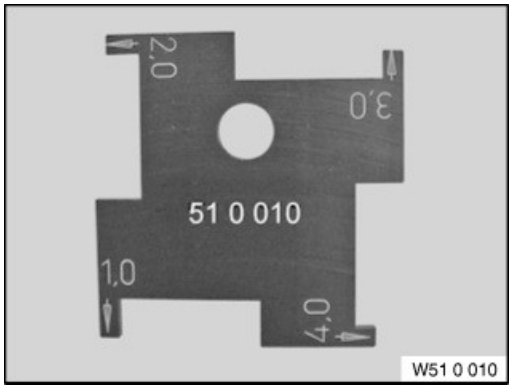


Common	Used in step 48
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

0 495 259 (51 0 010) Gauge



Common	Used in step 48
Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

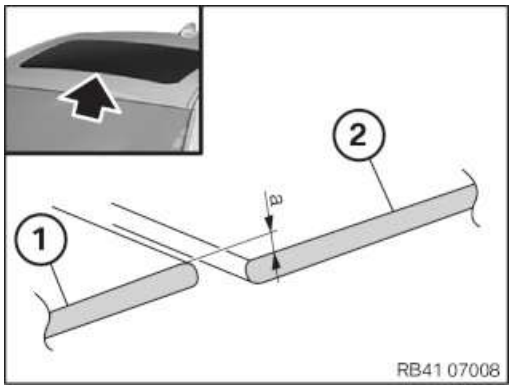
Overview Technical Data

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Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 48

1 roof outer skin; 2 glass slide/tilt sunroof panel

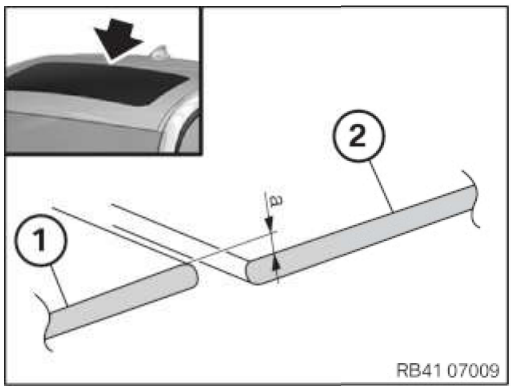
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin Used in step 48

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



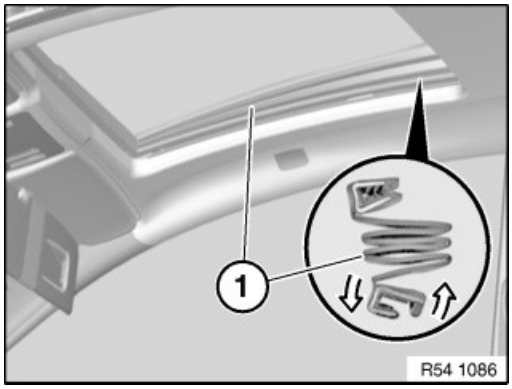
Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	6
72 00 ... Safety regulations for handling components with gas generators	6

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54 12 015 Replacing left or right gaiter for glass slide/tilt sunroof

1 – Remove the gaiter for the glass slide/tilt sunroof

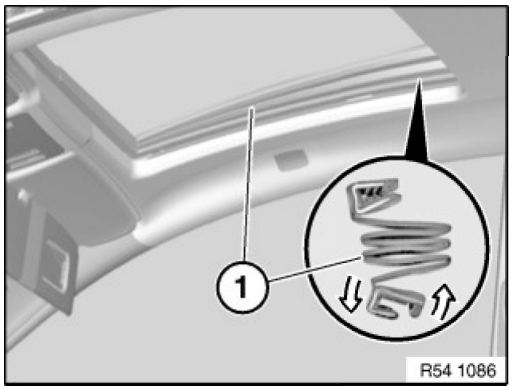


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

2 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

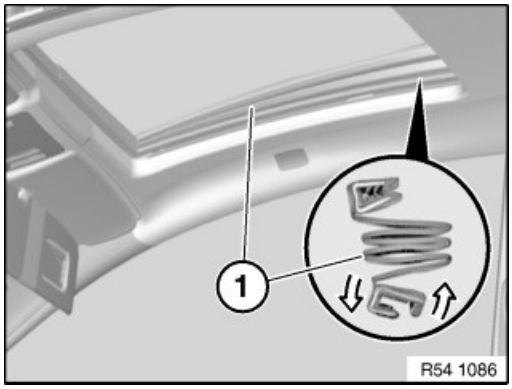
- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

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54 12 117 Replacing seal for glass slide/tilt roof panel

PRELIMINARY WORK

1 – Remove the gaiter for the glass slide/tilt sunroof

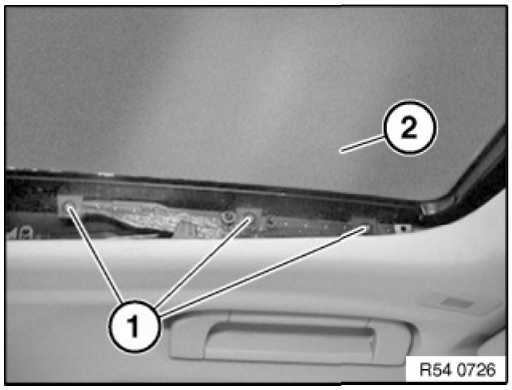


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

2 – Remove glass slide/tilt sunroof panel

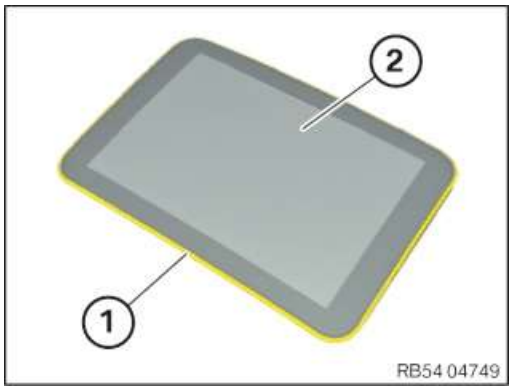


- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

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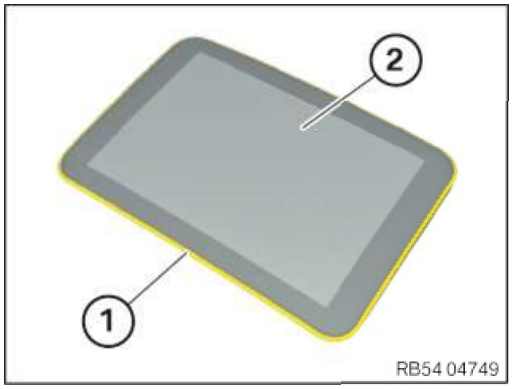
MAIN WORK

3 – Remove the gasket for the glass slide/tilt sunroof panel



- Pull off seal (1) from glass slide/tilt roof panel (2).

4 – Install the gasket for the glass slide/tilt sunroof panel



- Position the glass slide/tilt roof panel seal (1) on the groove of glass slide/tilt roof panel (2) and press.

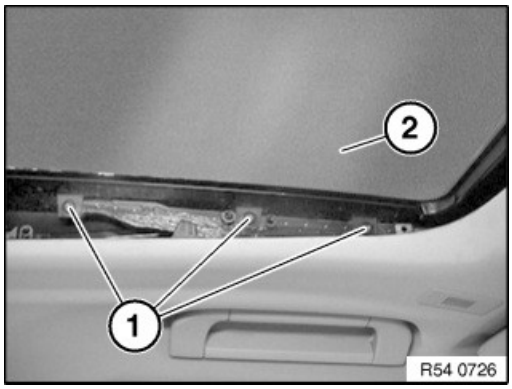
  Make sure that the seal (1) rests completely on the glass slide/tilt roof panel.

Note: Coat the seal with a suitable lubricant, if necessary.

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POSTPROCESSES

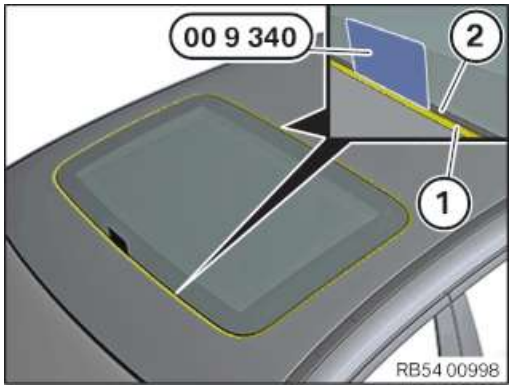
5 – Install glass slide/tilt sunroof panel



- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

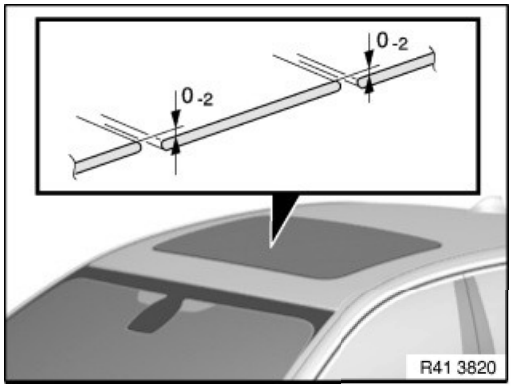
  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

6 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

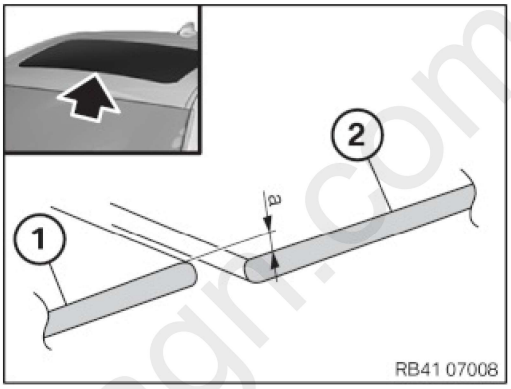
  The resistance when moving the special tool must be the same at the front and rear.



- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

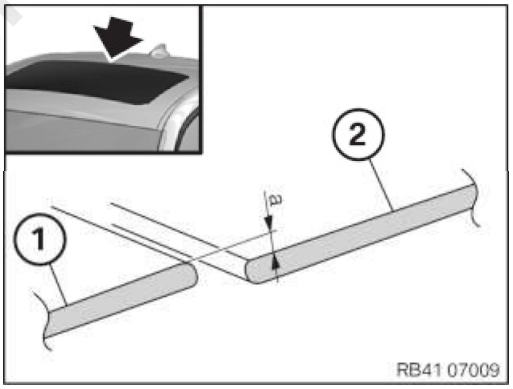
Gap dimension roof outer skin to glass slide/tilt sunroof panel

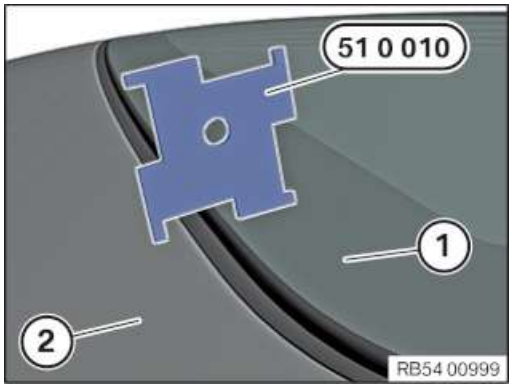
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

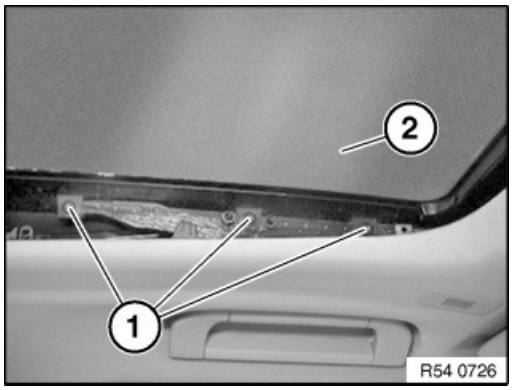




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

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7 – Adjusting glass slide/tilt sunroof panel



- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

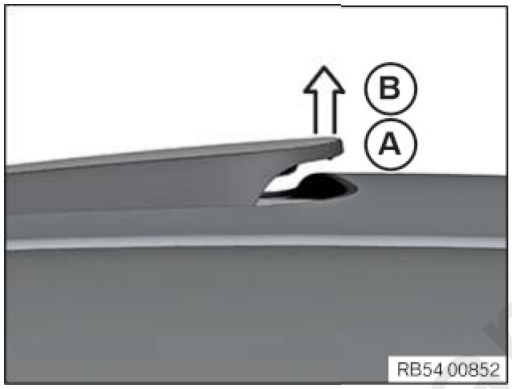
M5	Replace screws.	4,5 Nm

8 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.



- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

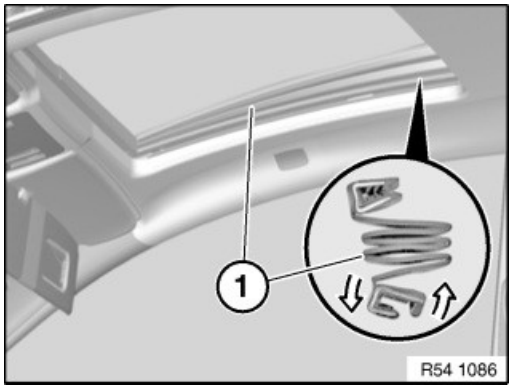
TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

9 – Install the gaiter for the glass slide/tilt sunroof

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NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

Additional Information

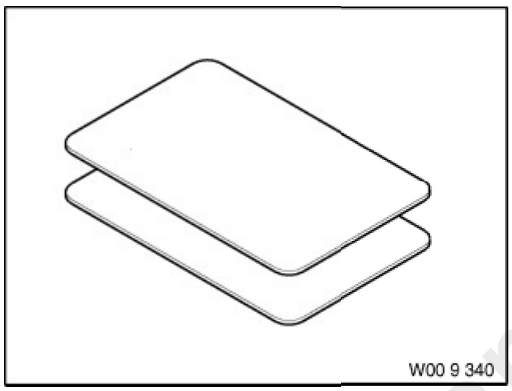
Overview of Tightening Torques

Glass slide/tilt sunroof panel to mechanics — Used in step 7

M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



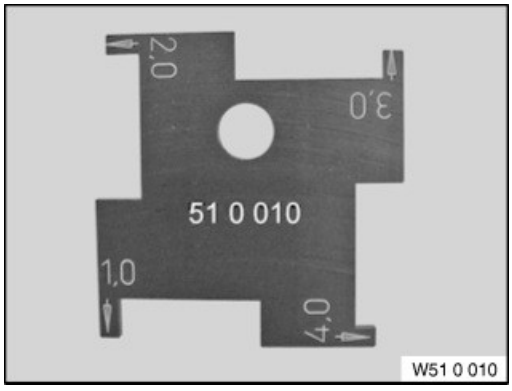
Common — Used in step 6

Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
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).	

0 495 259 (51 0 010) Gauge



Common — Used in step 6

Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

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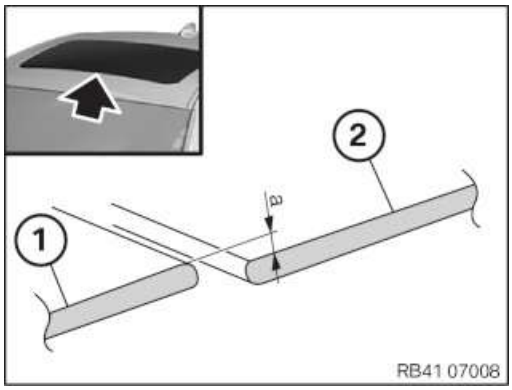
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel

Used in step 6

1 roof outer skin; 2 glass slide/tilt sunroof panel

a	0,7 (-0,05 - 1,45) mm

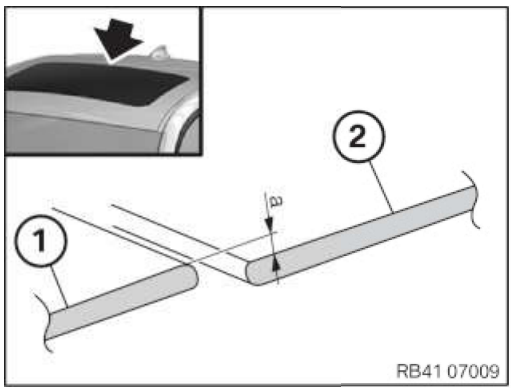


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 6

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



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54 12 791 Replacing the slider for roller sunblind

RISK OF DAMAGE

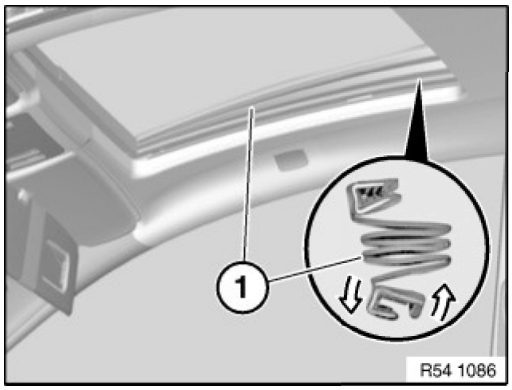
Fold the headlining.

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 – Remove the gaiter for the glass slide/tilt sunroof

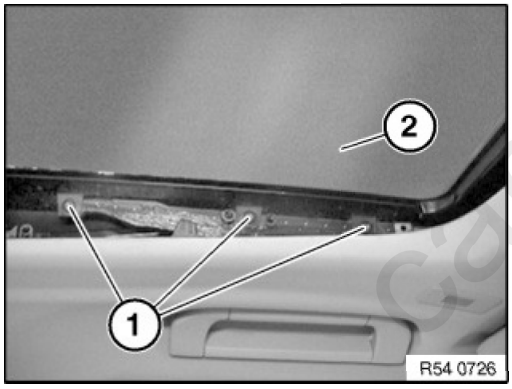


NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

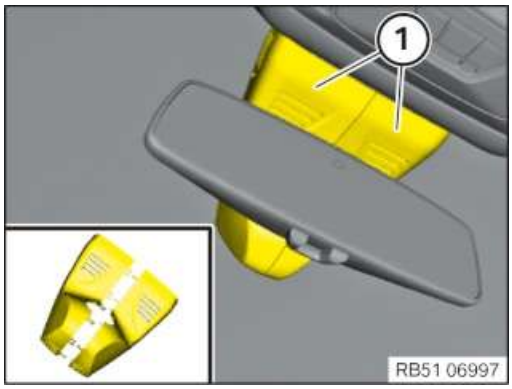
2 – Remove glass slide/tilt sunroof panel



- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Removing the covers for the interior mirror

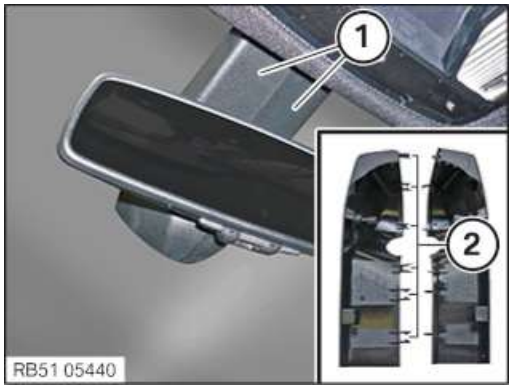
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

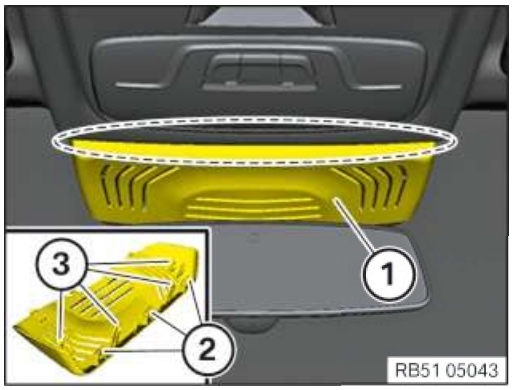
- **Version B:**

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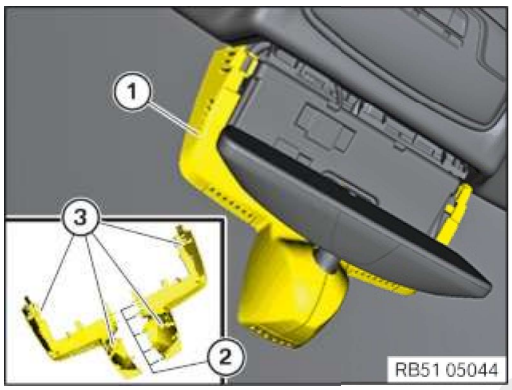


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**



- Detach cover (1) from the clamps (2) in the marked area using a suitable plastic wedge and pull down a certain distance.
- Release cover (1) at the retaining lugs (3) and remove from the guides to the rear.



- Release cover (1) from the latch mechanisms (2) and (3) and remove sideways.
- Remove cover (1) from mirror base (2).

4 – Remove both A-pillar trim panels

NOTICE

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

▸ **Remove the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

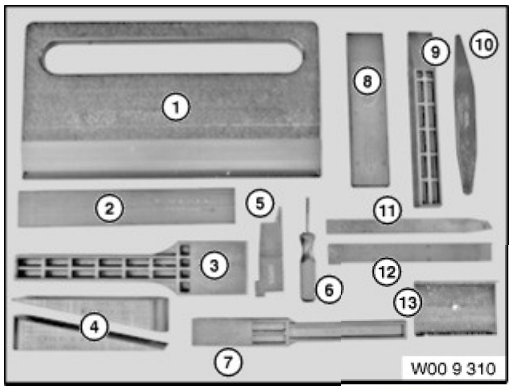
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WARNING

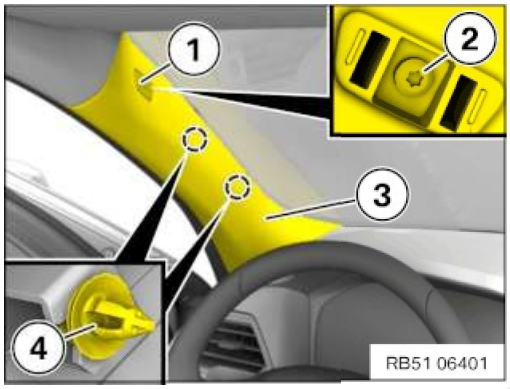
Pyrotechnic components.

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.



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



- Unclip the cover (1) with suitable tools.
- Loosen screw (2).
- Unclip A-pillar trim panel (3) with clips (4) and guide it out upwards.

5 – Remove both sun visors

NOTICE

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

▶ **Remove sun visor**



- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

6 – Remove both counter supports for the sun visors

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NOTICE

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

▸ **Remove the counter support for the sun visor**

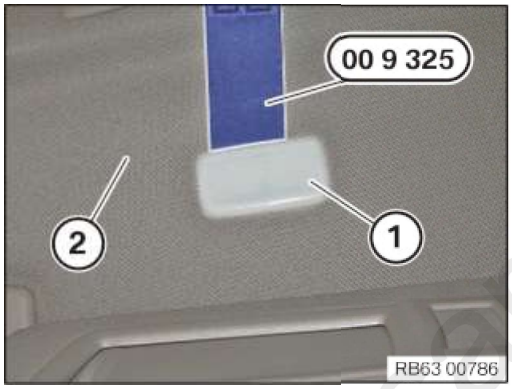


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

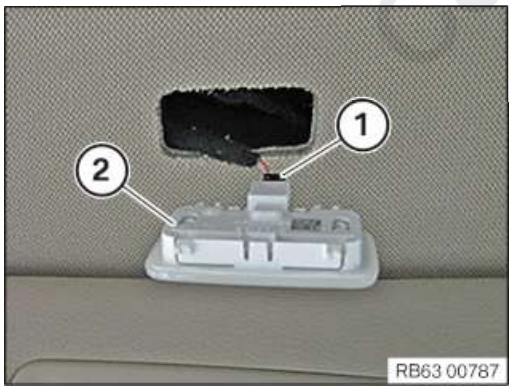
7 – Removing front vanity mirror light

NOTICE

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



- Lever out the front vanity mirror light (1) using special tool 0 496 569 (00 9 325) from the headlining (2).



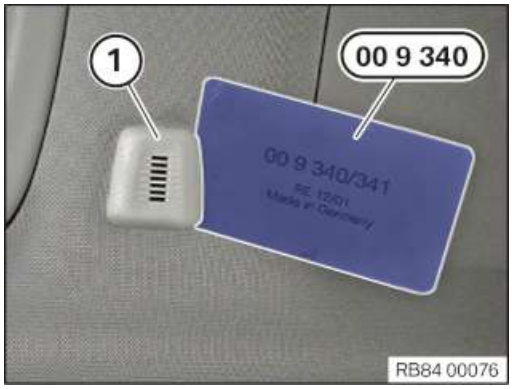
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

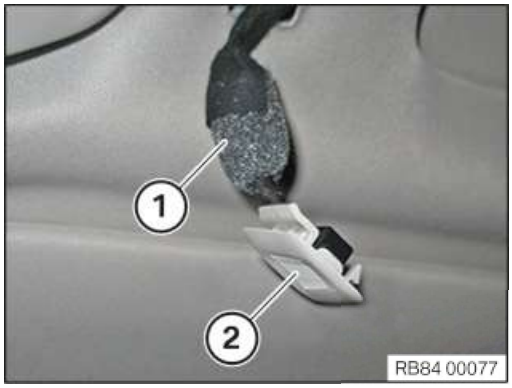
NOTICE

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).

9 – Removing the roof function centre (FZD)



- Unclip the cover (1).

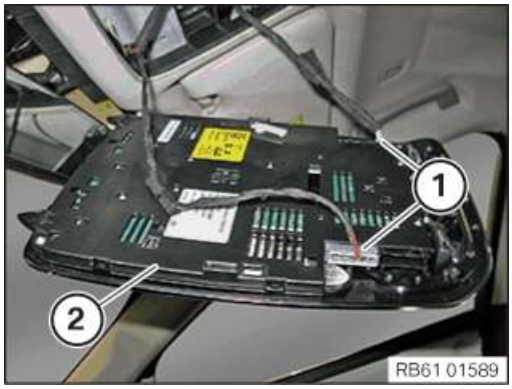


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

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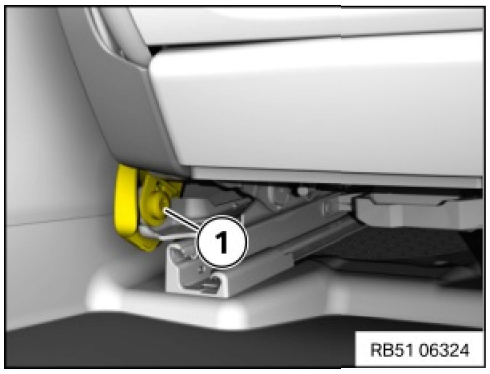
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

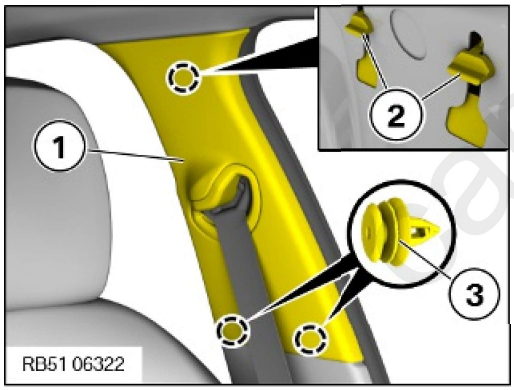
NOTICE

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

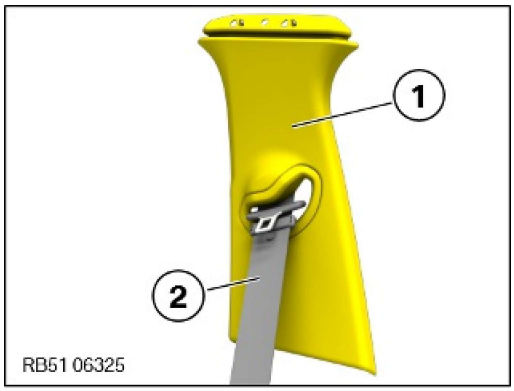
▶ **Remove the B-pillar trim panel**



- Fully position the front seat to the front and top.
- Loosen screw (1).
- Remove end fitting (2).



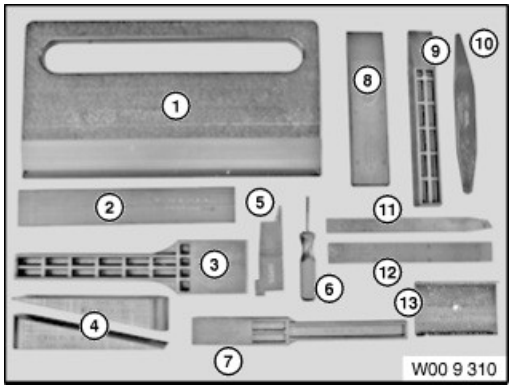
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



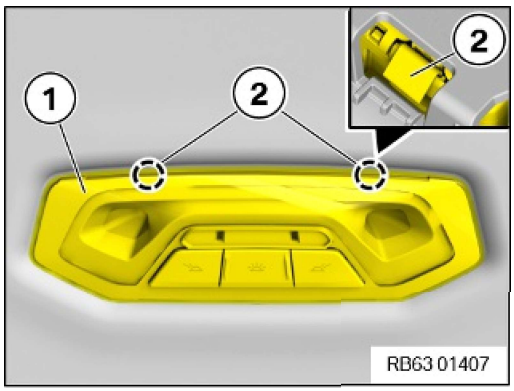
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

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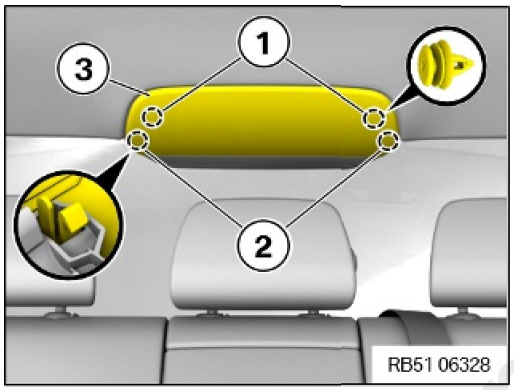


- Have the set of special tools 0 493 752 (00 9 329) ready.



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

12 – 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).

13 – Remove both C-pillar trim panels

NOTICE

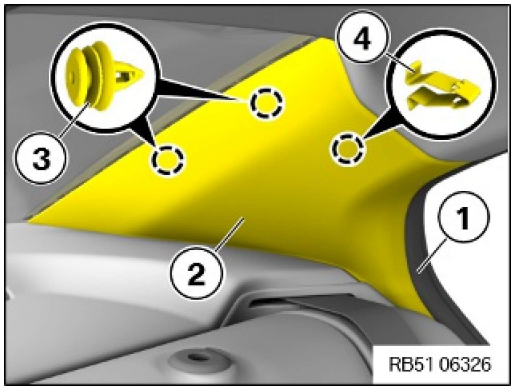
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

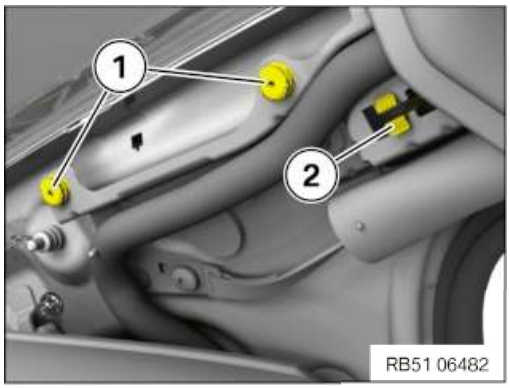
NOTICE

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

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- Unclip clamp (4).
- Unclip clips (3).
- Feed out C-pillar trim panel (2) from the guides to the front.
- Thread out C-pillar trim panel (2) from the lip of edge protection (1).



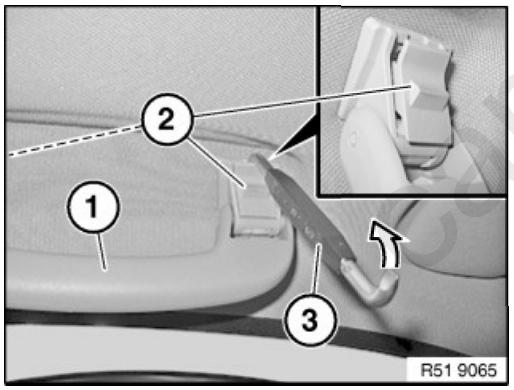
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

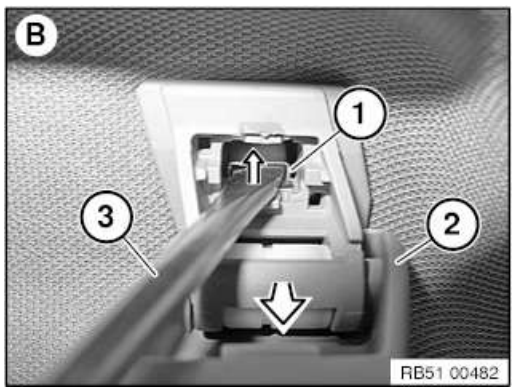
NOTICE

The description is for one component only. The procedure is identical for all further components.

▸ **Removing the grab handle**



- Expand the grab handle (1) towards the bottom.
- Disengage and remove the locking insert (2) with an angle screwdriver (3) as shown.



- Pull the grab handle (2) slightly to the inside and hold it.
- Use a suitable screwdriver (3) to detach the upper and lower release tabs (1).
- Guide the grab handle (2) out.
- Repeat the operation on the other side of the grab handle (2).

15 – Lower the headlining (with SHD)

Prerequisite

The front seats have been fully adjusted towards the bottom.

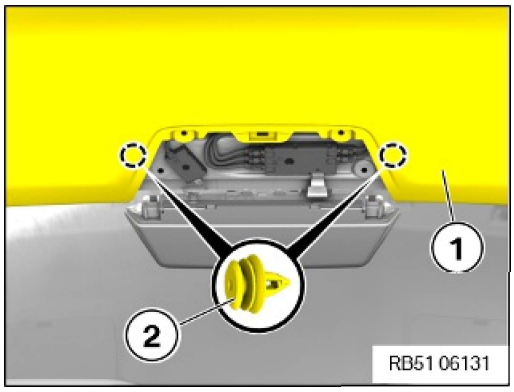
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

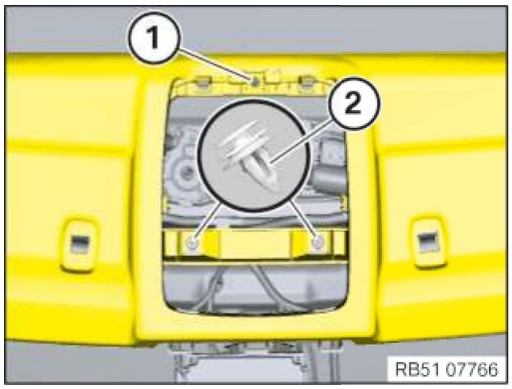
Fold the headlining.

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.



- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.



- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

16 – Removing the mounting plate for the rear left and right grab handle

NOTICE

Perform the operations on the left and right side.

▸ **Removing the mounting plate for the rear grab handle**

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RISK OF DAMAGE

Damage due to swarf.

Contamination can lead to malfunctions and damage.

- Cover working area.
- Draw off swarf during drilling using a vacuum cleaner.

NOTICE

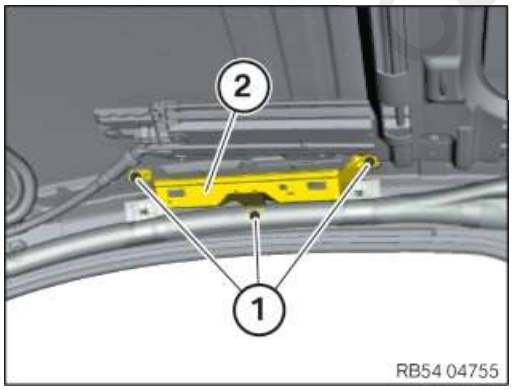
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

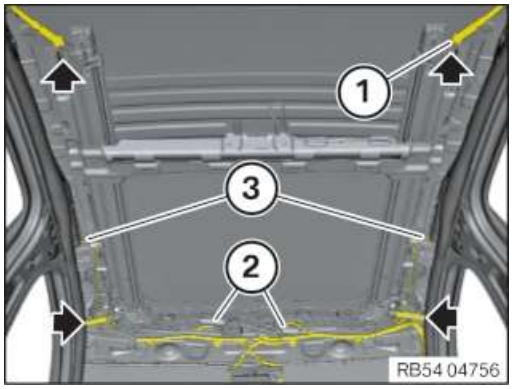


- Protect the working area with a suitable cover (1) to protect against falling swarf.

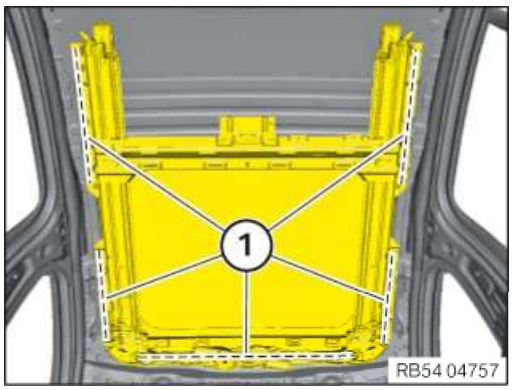


- Drill out blind rivets (1) and remove both rear holders (2).

17 – Remove slide/tilt sunroof completely



- Pull off all four water drain hoses (1) (arrows).
- Disconnect the plug connections of engine (2) and unclip the corresponding cable.
- Disconnect the plug connections (3) of head airbag and unclip the corresponding cable and tie to the side.



RISK OF DAMAGE

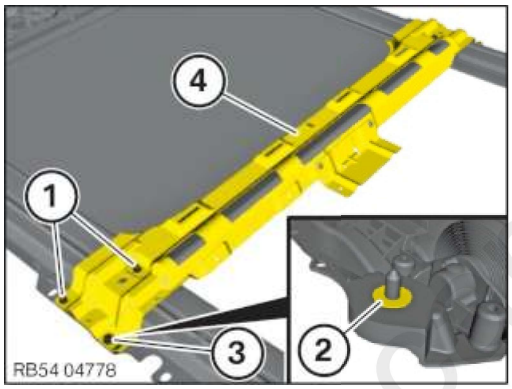
Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Secure slide/tilt sunroof from falling with the help of an auxiliary person.
- Release all screws along the areas (1).
- Lower the slide/tilt sunroof with the assistance of an auxiliary person and remove from the vehicle through the front passenger door.

18 – Removing cross member

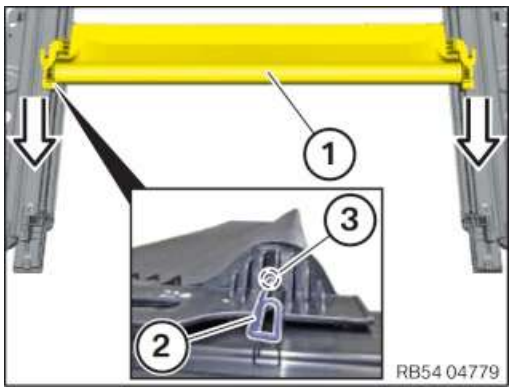


NOTICE

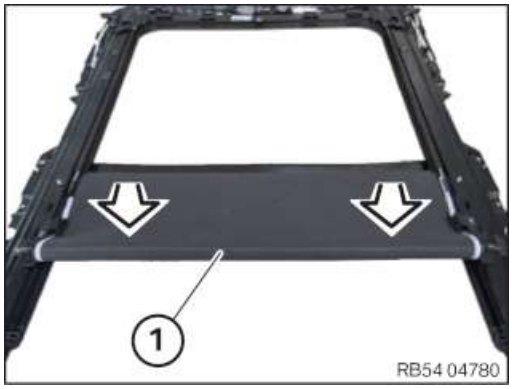
Perform the operations on the left and right side.

- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

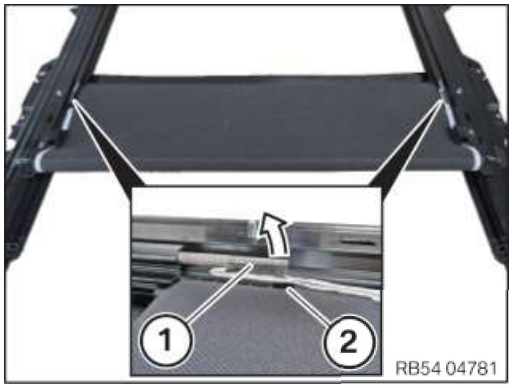
19 – Removing roller sunblind for the panorama glass roof



- Push the roller sunblind back (1) on both sides and thus roll it up a few cm.
- Unroll the roller sunblind (1) until it can be fixed with a suitable tool (2) (e.g. paper clip) over the pegging device (3).



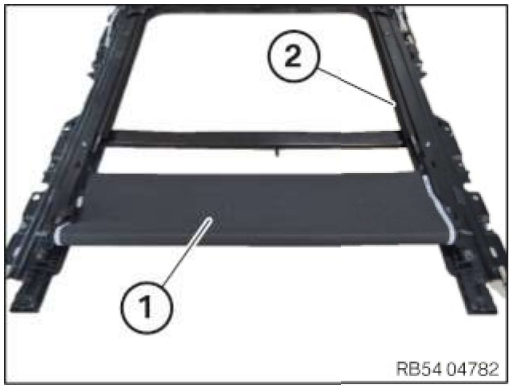
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



NOTICE

Perform the operations on the left and right side.

- Guide the driver (1) upwards out of the slider of the roller sunblind (2).

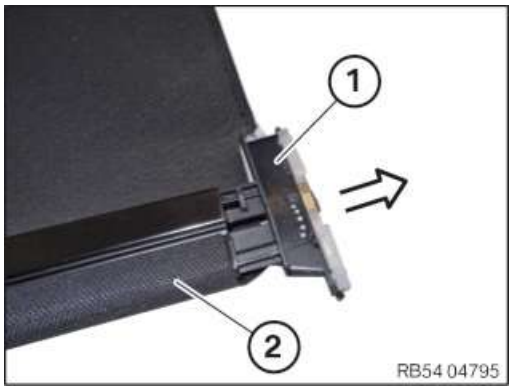


- Remove the roller sunblind (1) from the sunroof frame (2).

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MAIN WORK

20 – Remove slider for sunblind

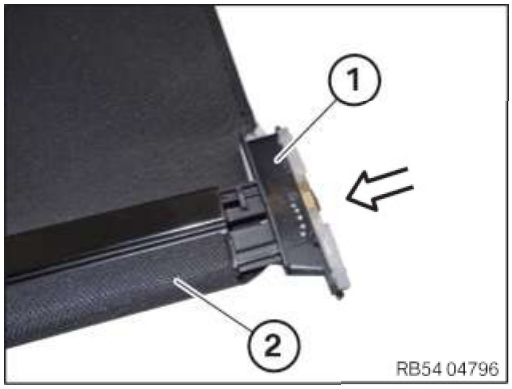


NOTICE

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

- Pull slider (1) out of the sunblind (2).

21 – Install slider for sunblind



NOTICE

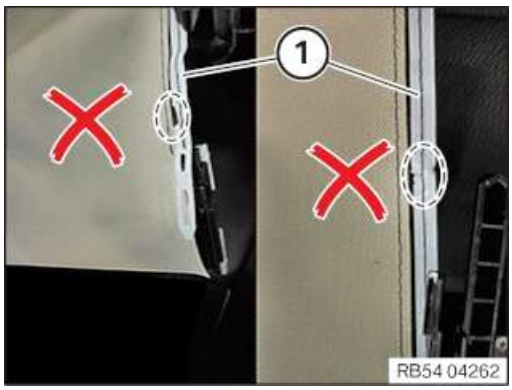
Description is for left component only. Procedure on the right side is identical.

- Feed slider (1) for sunblind (2) in and push to end stop.

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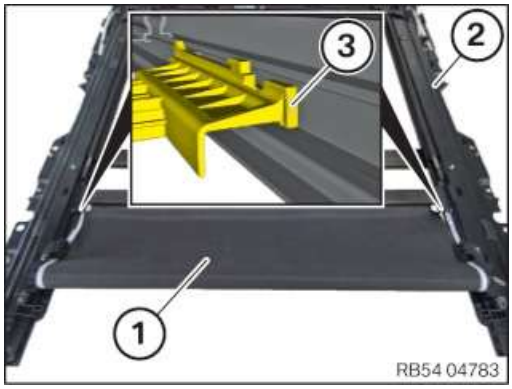
POSTPROCESSES

22 – Installing roller sunblind for the panorama glass roof

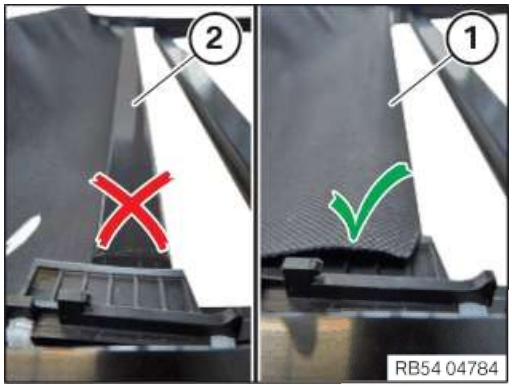


- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.

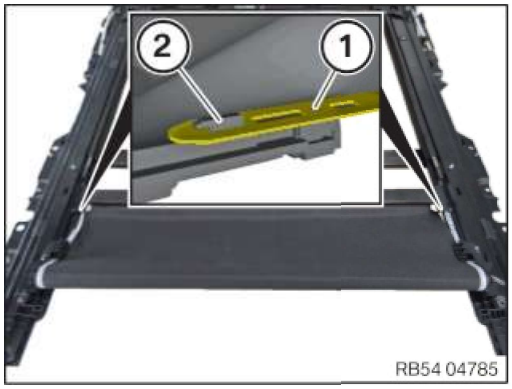


- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.

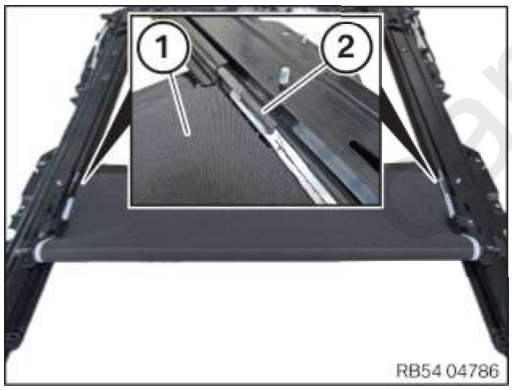


- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

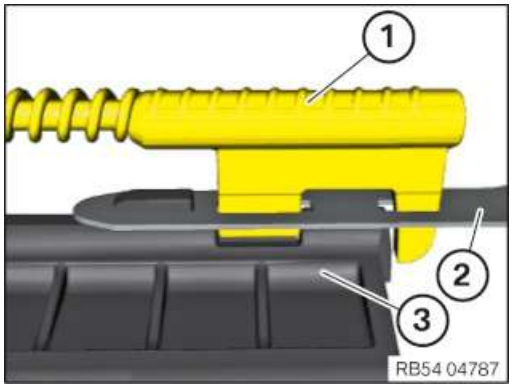
  If necessary, turn the cross brace (1) through 360°.



- Mount tensioning strap (1) on both sides of driver (2).



- Push the sunblind (1) forward until the drive (2) can be hooked.

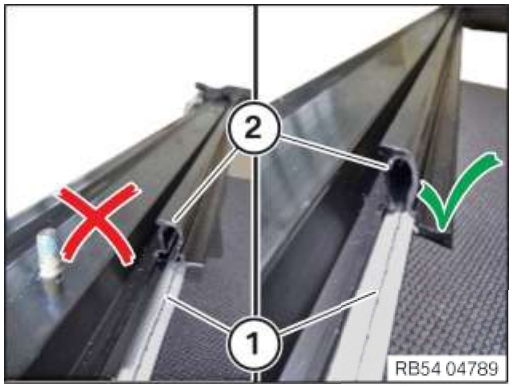


- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).

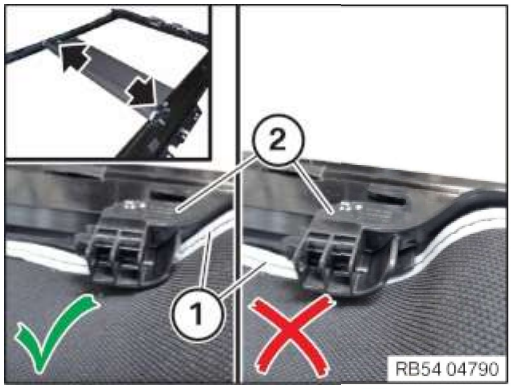
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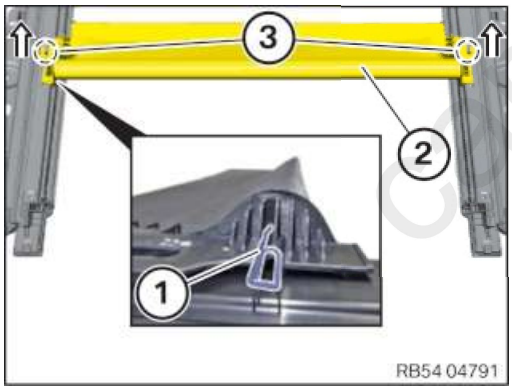
- Manually close the sunblind (1) a few cm.



- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).

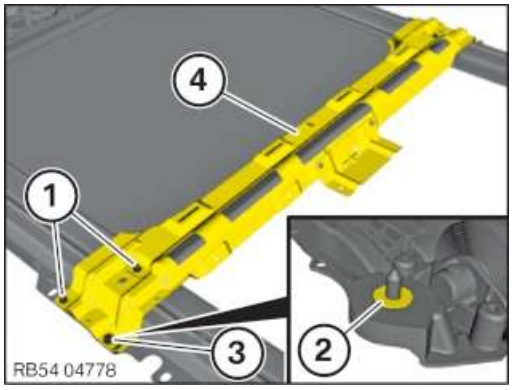


- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.



- If necessary, remove the arresting device (1).
- Push the sunblind (2) forwards and position on the threaded bolts (3).

23 – Installing the cross member



- Position cross-member (4).

NOTICE

Perform the operations on the left and right side.

- Tighten nuts (1).

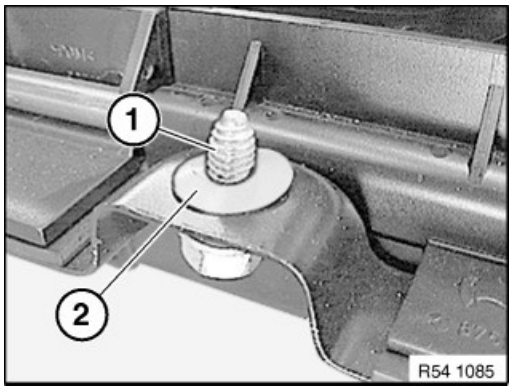
Cross member to glass slide/tilt sunroof frame

Nut		5,5 Nm

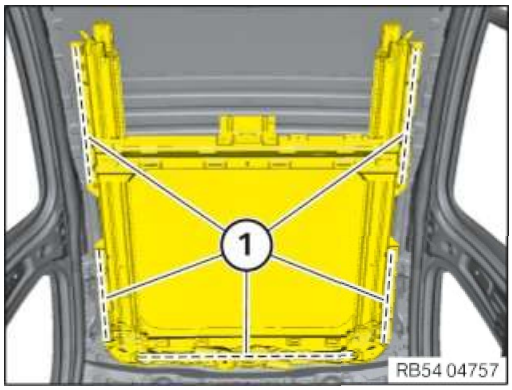
- Position retaining washer (2) and insert screw (3).

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24 – Completely installing the slide/tilt sunroof



- In order to prevent groaning noises, all bolts (1) must be secured with the plastic washers (2) prior to installation.



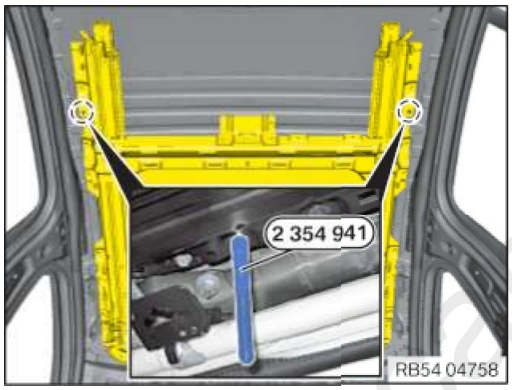
RISK OF DAMAGE

Heavy component.

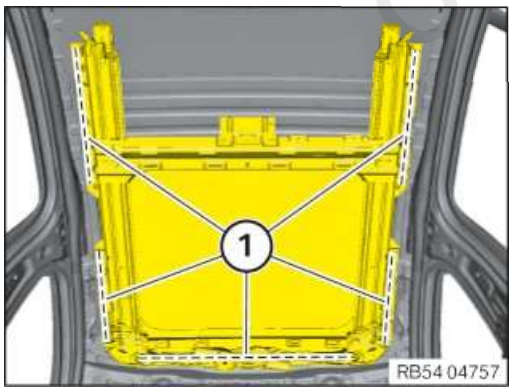
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Insert the slide/tilt sunroof through the front passenger door into the vehicle with the help of an auxiliary person and position it.
- When installing it, ensure that no cables are clamped.
- Screw in all screws along the line (1) by several turns.



- Insert the special tool and align the panorama glass roof (1) with the roof.

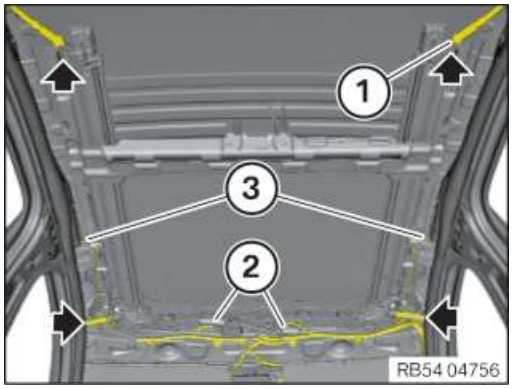


- Tighten all screws along the marked areas (1) .

Slide/tilt sunroof frame to body

M6		5,4 Nm

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- Connect all four water drain hoses (1) (arrows).
- Connect the head air-bag plug connections (3) and clip in the corresponding cables.
- Connect plug connections 2 of the engines and clip in the corresponding cables.

Note: Route airbag wiring harness without tension or kinks.

25 – Installing the mounting plate for the left and right grab handle

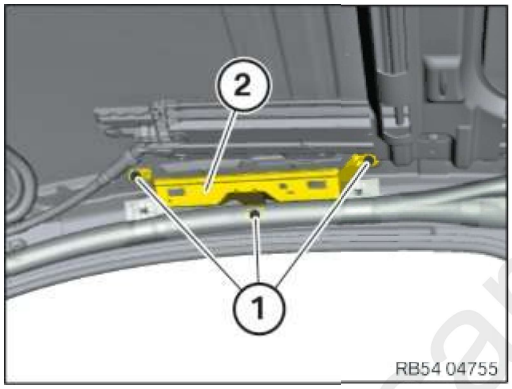
NOTICE

Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

NOTICE

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



- Position the holder (2) and set blind rivets in the area (1).

26 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

The front seat backrests have been fully adjusted towards the rear.

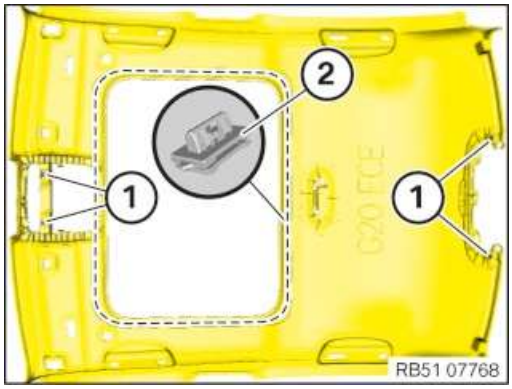
RISK OF DAMAGE

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.

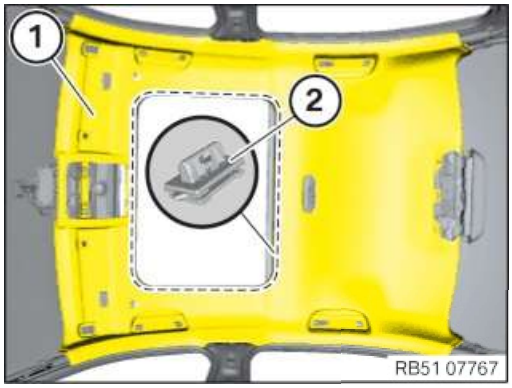
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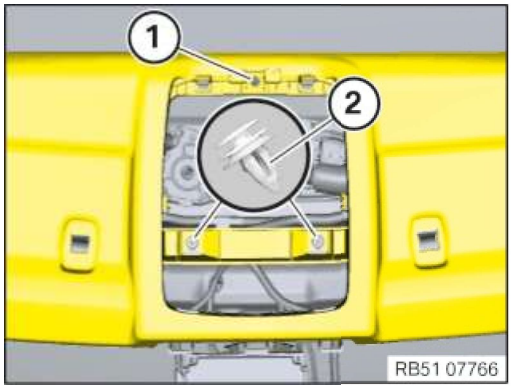
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



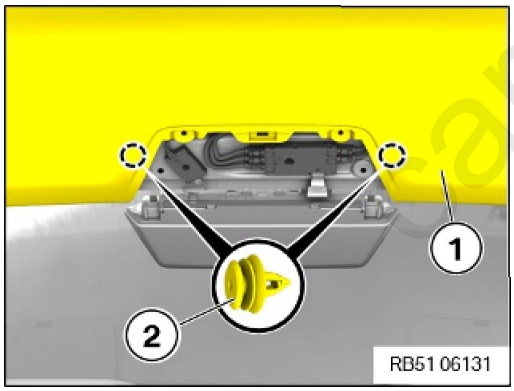
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

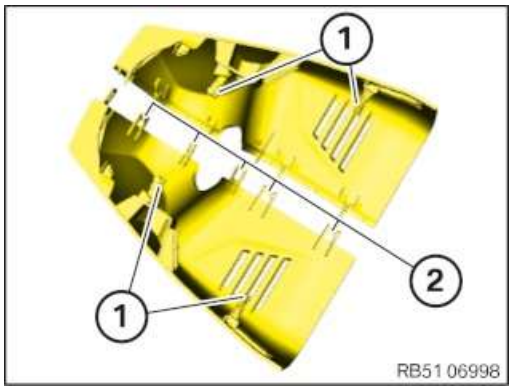
Oval-head screw		Tightening torque	1,5 Nm



- Clip headlining (1) to the clips (2).

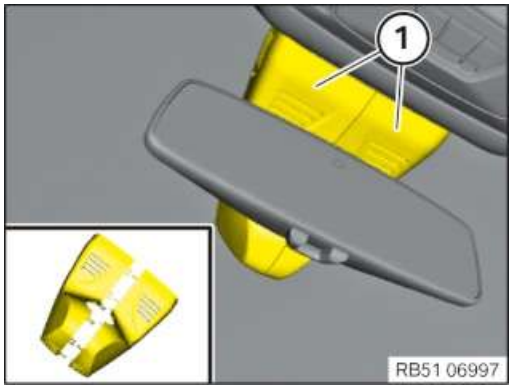
27 – Installing the covers for the interior mirror

- **Version A:**



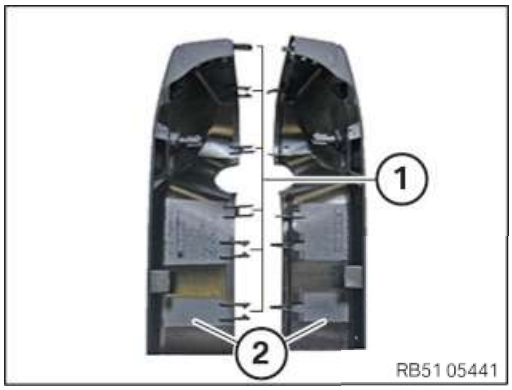
- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.

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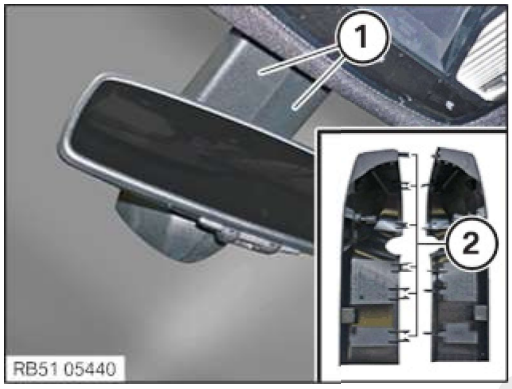
- Feed cover (1) in and lock.

- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

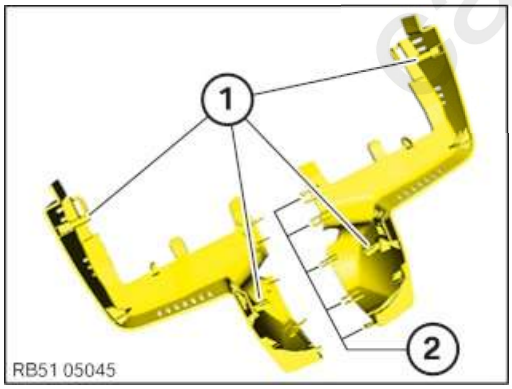
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



- Check the latch mechanisms (1) and (2) of the covers for damage.

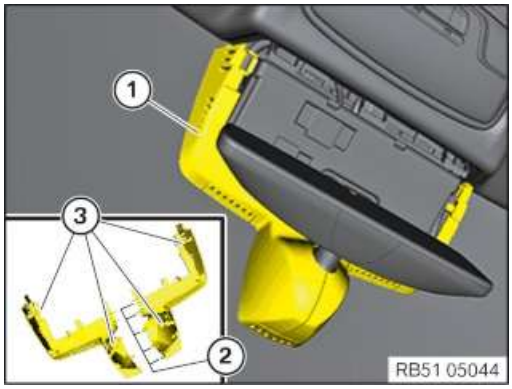
Result

» The latch mechanism is damaged.

Measure

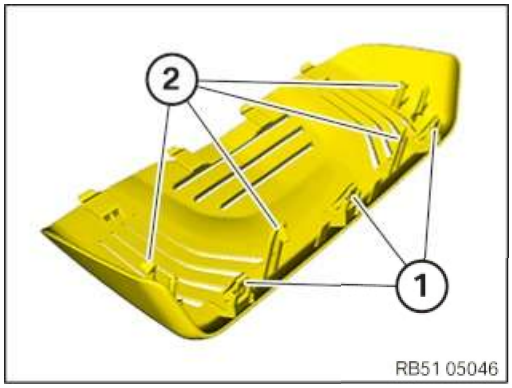
- Renew the cover.

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- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check



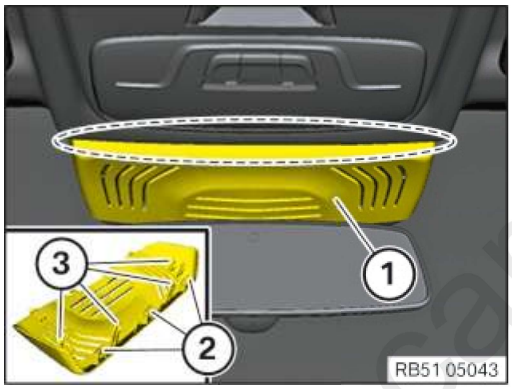
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

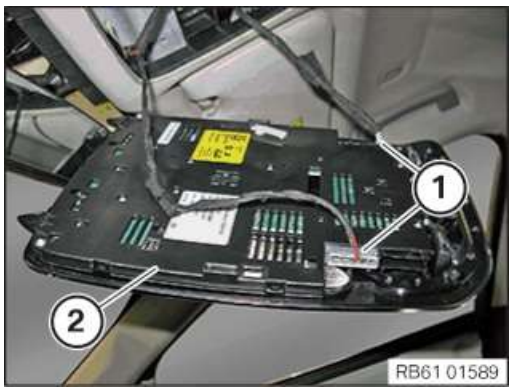
Measure

- Renew the cover.



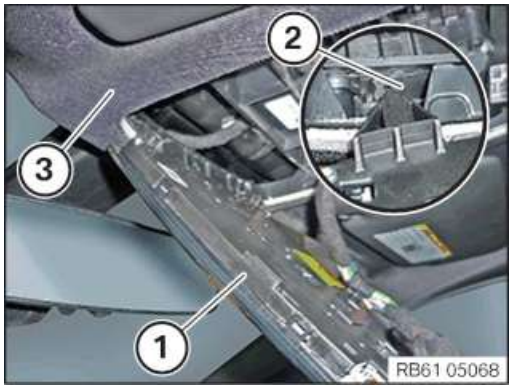
- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

28 – Installing roof function centre (FZD)



- Connect connectors (1) and lock.
- Clip in the cable for the roof function centre (FZD) (2) in the cable clip.

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- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

  Make sure the headlining is not deformed during this operation.



- Clip the roof function centre (FZD) (1) upwards into the clamps (2).



- Pass through the FZD frame and headlining with the special tool 2 298 505 and adjust the headlining correctly.



- Tighten the screws (1).

Roof function centre

	Tightening torque	1,2 Nm



- Clip in the cover (1).

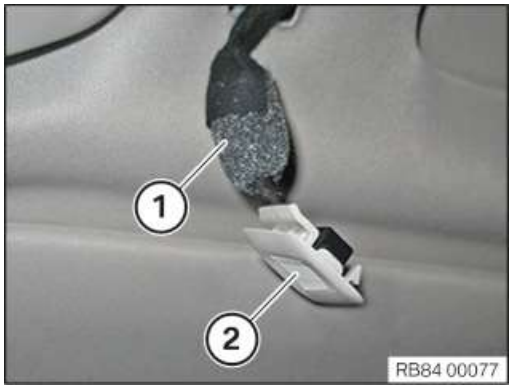
29 – Install both microphones

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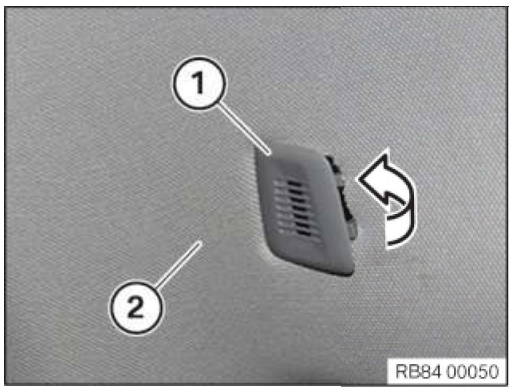
NOTICE

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).

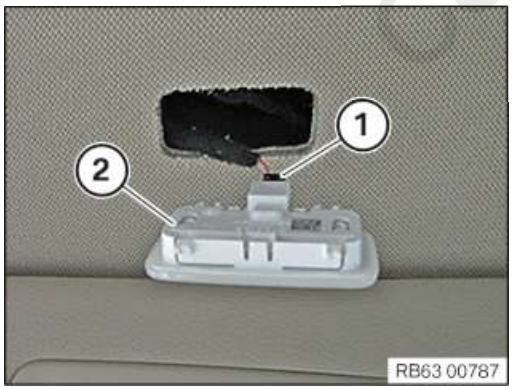


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

30 – Installing front vanity mirror light

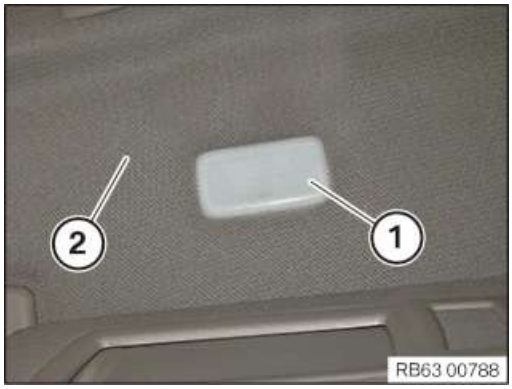
NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).

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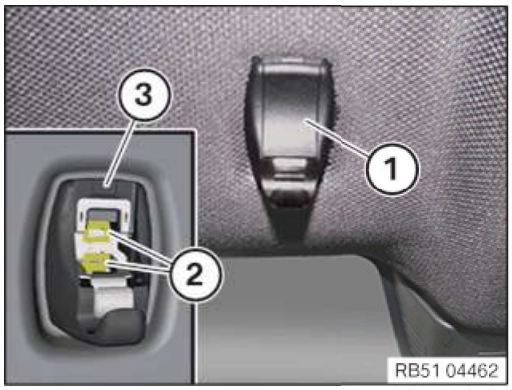
- Position the front vanity mirror light (1) in the headlining (2).

31 – Install both counter supports for the sun visors

NOTICE

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

▸ Install the counter support for the sun visor



- Insert the counter support (3) into the headlining.
- Make sure the clamps (2) are engaged correctly.
- Use cover (1).

32 – Install both sun visors

NOTICE

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

▸ Install the sun visor



- Connect the sun visor (2) with the corresponding connector.
- Guide the sun visor (2) into the headlining.
- Use cover (1).
- Attach the sun visor (2) on the counter support.

33 – Install both A-pillar trim panels

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NOTICE

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

▸ **Installing the A-pillar trim panel**

WARNING

Airbag unit.

Danger! Life-threatening injuries!

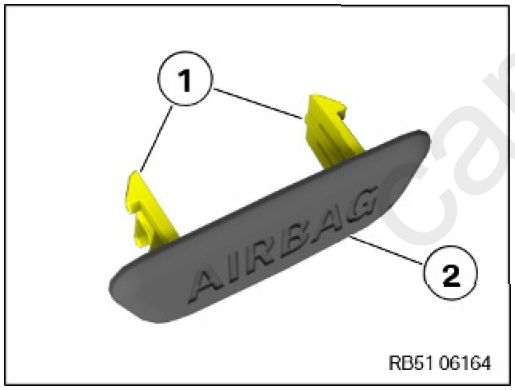
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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.



Check

- Check retaining lugs (1) of cover (2) for damage.

Result

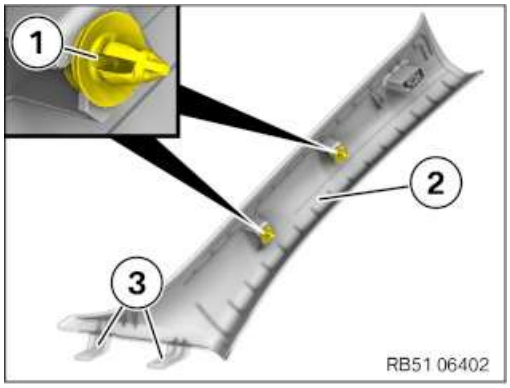
» Retaining lug is damaged.

Measure

- Renew the cover.

Check

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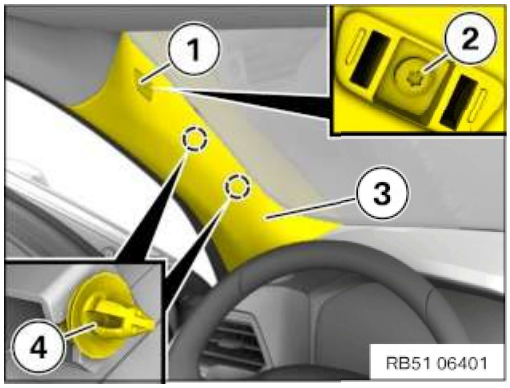
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the A-pillar trim panel.



- Guide in A-pillar trim panel (3) downwards and clip it in with clips (4).
- Tighten down screw (2).

A-pillar trim panel to body

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

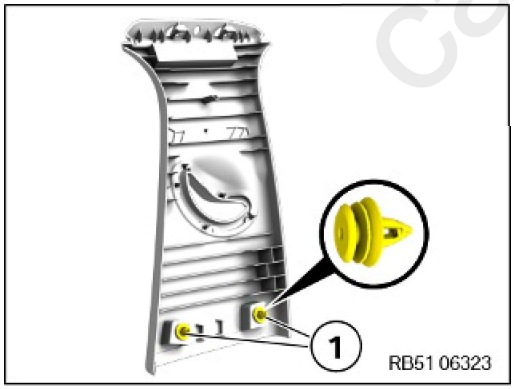
- Clip in the cover (1).

34 – Installing both B-pillar trim panels

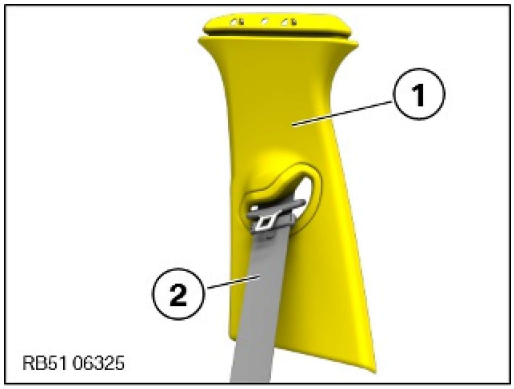
NOTICE

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

▸ **Install the B-pillar trim panel**

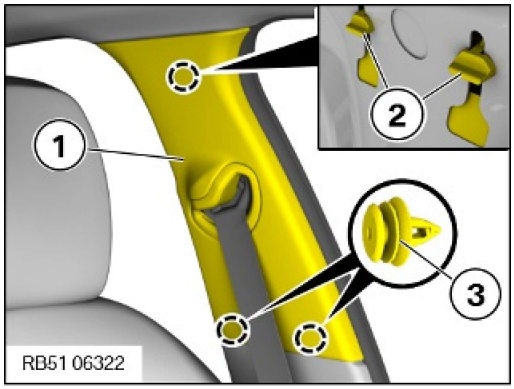


- Check the clips (1) for damage and renew if necessary.

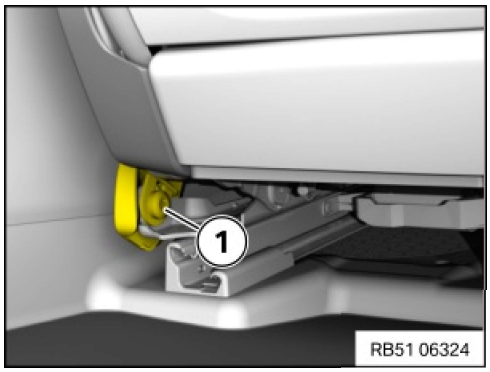


- Guide upper seat belt (2) in B-pillar trim panel (1).

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- Insert B-pillar trim panel (1) into guides (2) and under the front and rear lips of edge protection.
- Clip in the B-pillar trim panel (1) with the clips (3).



- Fully position the front seat to the front and top.
- Insert the end fitting (2).
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

End fitting to seat mechanism

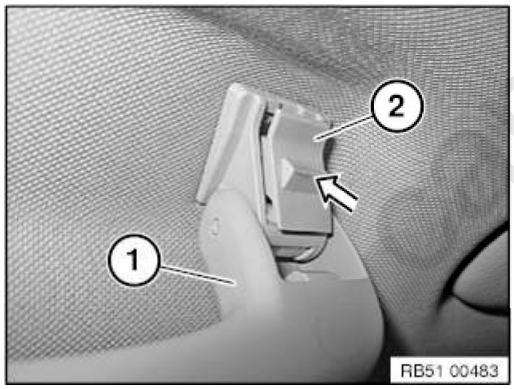
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

35 – Installing all grab handles

NOTICE

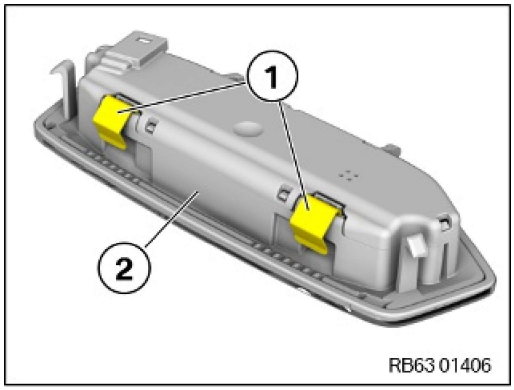
The description is for one component only. The procedure is identical for all further components.

▸ Installing the grab handle



- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

36 – Install interior roof light



Check

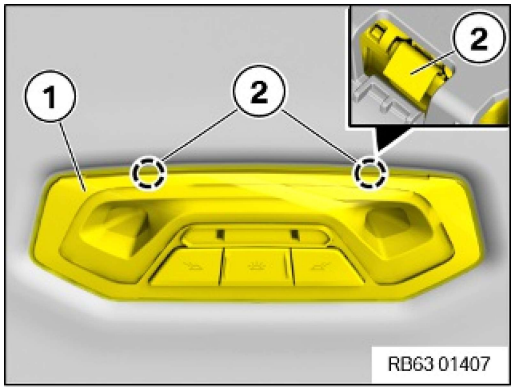
- Check the clamps (1) for damage.

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).

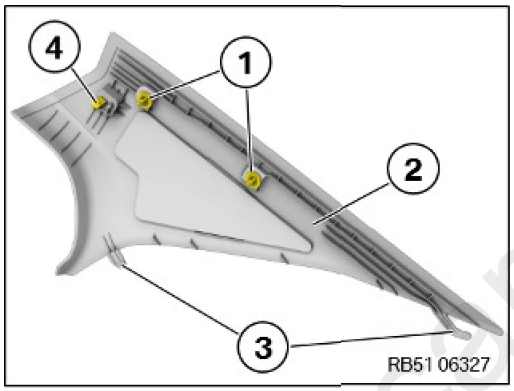
37 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

Check



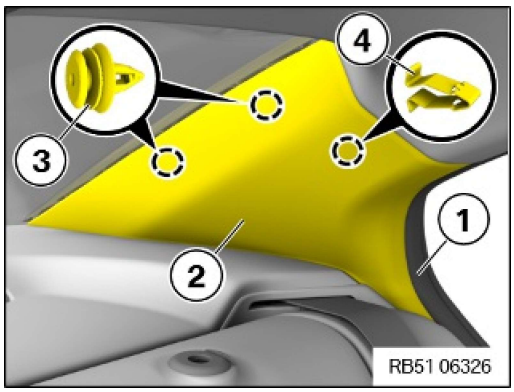
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .



NOTICE

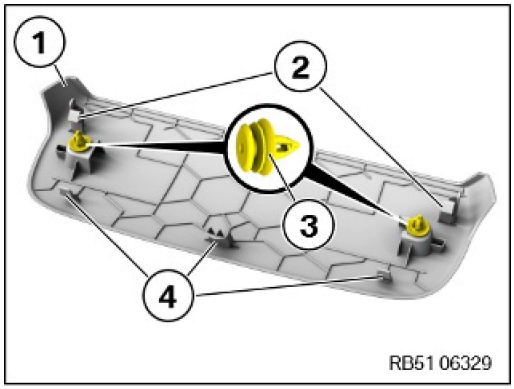
Schematic diagram is for example purposes. Some parts may differ in certain details.

- Feed C-pillar trim panel (2) into guides towards the rear.
- Clip in clips (3).
- Clip in clamp (4).
- Guide in C-pillar trim panel (2) under the lip of edge protection (1).

38 – Installing trim for additional brake light

Check

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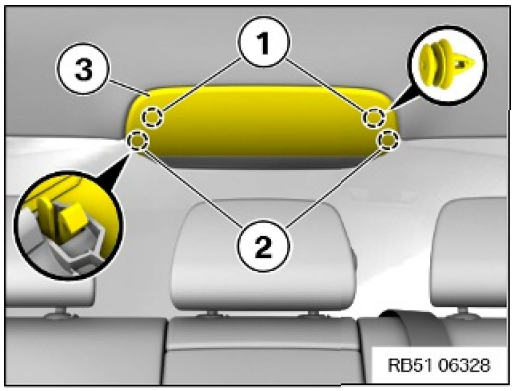
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

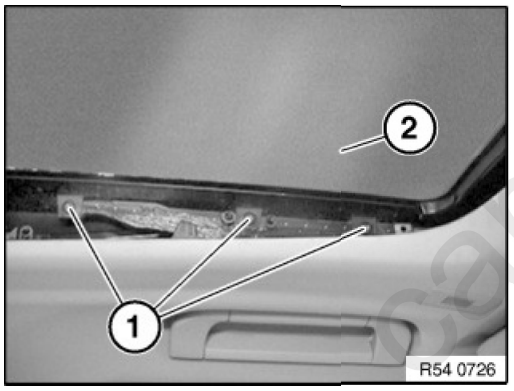
Measure

- 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).

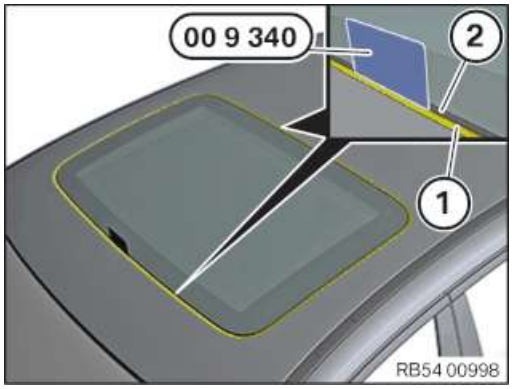
39 – Install glass slide/tilt sunroof panel



- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

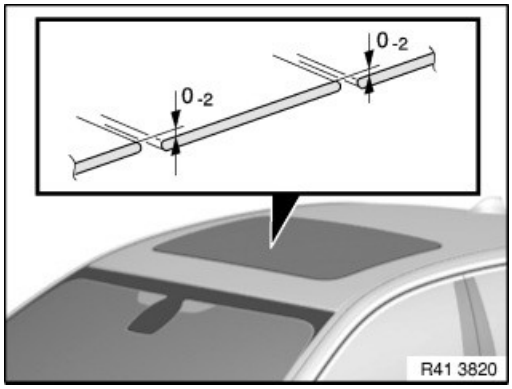
40 – Check the setting of the glass slide/tilt sunroof panel



- Check if the distance of the glass slide/tilt roof panel to the roof is the same at the front and rear.
- Slide the special tool 0 493 687 (00 9 340) between the gasket (1) and the glass slide/tilt sunroof panel (2).

  The resistance when moving the special tool must be the same at the front and rear.

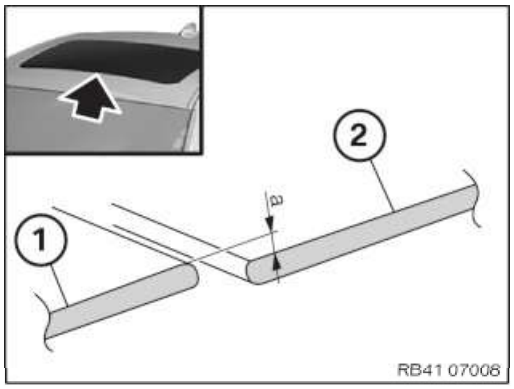
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- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

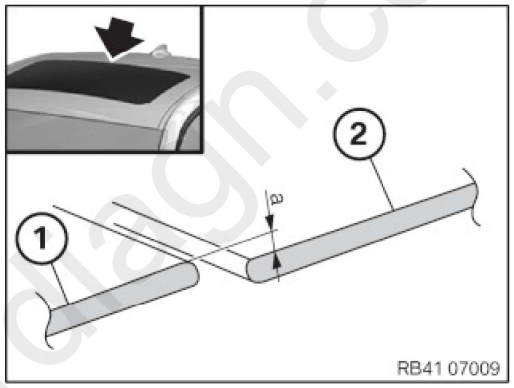
Gap dimension roof outer skin to glass slide/tilt sunroof panel

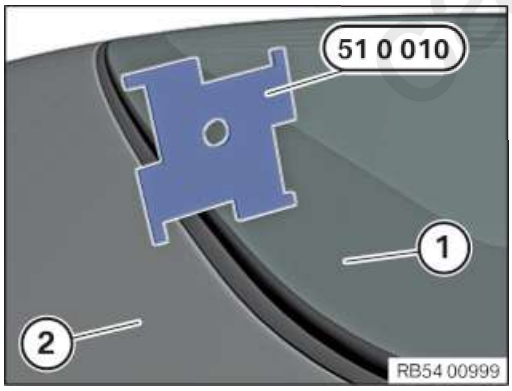
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

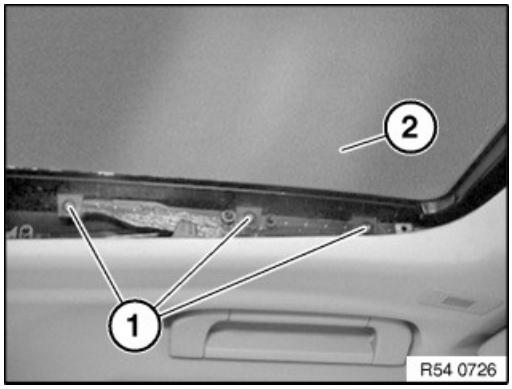




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

41 – Adjusting glass slide/tilt sunroof panel

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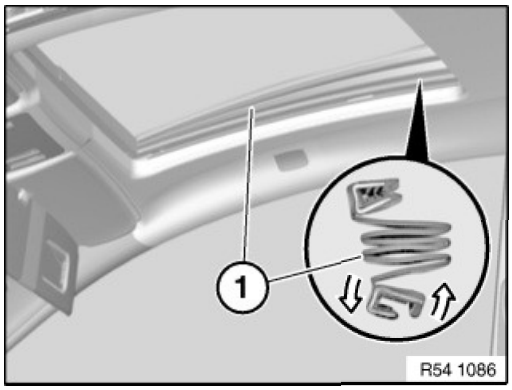


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

Glass slide/tilt sunroof panel to mechanics

M5	Replace screws.	4,5 Nm

42 – Install the gaiter for the glass slide/tilt sunroof



NOTICE

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

- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

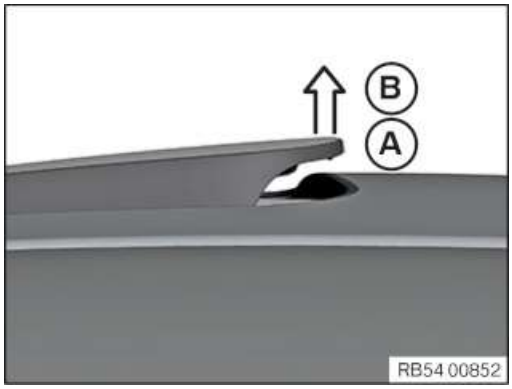
43 – Initialising the glass slide/tilt sunroof panel



- Press and hold the switch in the "Vent Position" direction.

  The glass slide/tilt sunroof moves to vent position.
- In the event of a delayed start or sudden stop of the glass slide/tilt sunroof, continue operating the switch in the "Vent Position" direction.

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- Continue to operate the switch during the entire ABL.
- After having reached the vent position (A) continue to operate the switch for approximately 30 s (initialisation starts).
  - The glass slide/tilt sunroof moves from vent position (A) toward position (B).
  - Screen (sliding headliner) fully closes.
  - Screen (sliding headliner) fully opens.
  - Glass slide/tilt sunroof moves to "closed" position.
  - The glass slide/tilt sunroof moves to the "Open" position and immediately returns to the "Closed" position.
  - After a brief pause, the screen fully closes.

  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

TECHNICAL INFORMATION

If the switch is released in the meantime, the initialisation must be repeated. Following successful initialisation, the corresponding messages in the Check Control and on the control display go out.

- Carry out function check (one-touch function, anti-trapping protection and, if necessary, comfort function).

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Additional Information

Overview of Tightening Torques

Cross member to glass slide/tilt sunroof frame — Used in step 23

Nut			5,5 Nm

Slide/tilt sunroof frame to body — Used in step 24

M6			5,4 Nm

Headlining to frame — Used in step 26

Oval-head screw		Tightening torque	1,5 Nm

Roof function centre — Used in step 28

		Tightening torque	1,2 Nm

A-pillar trim panel to body — Used in step 33

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

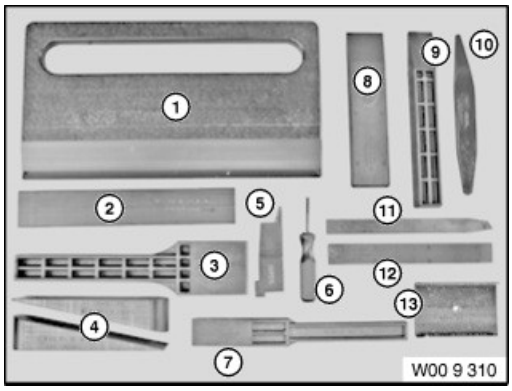
End fitting to seat mechanism — Used in step 34

Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Glass slide/tilt sunroof panel to mechanics		Used in step 41
M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



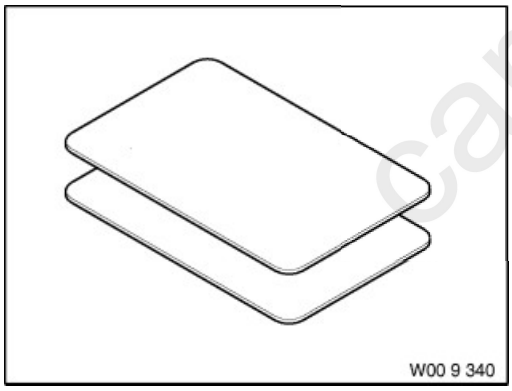
Common		Used in step 411
Usage	(Case) with insert not incl. panel wedges	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	01 07 09 (530)	

0 496 569 (00 9 325) Wedge



Common		Used in step 7
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	41 01 09 (507)	

0 493 687 (00 9 340) Removal aid



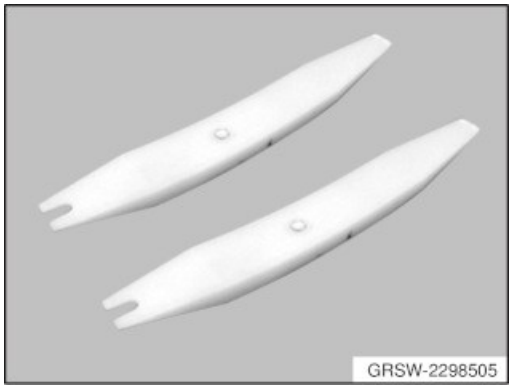
Common		Used in step 8
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

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).	

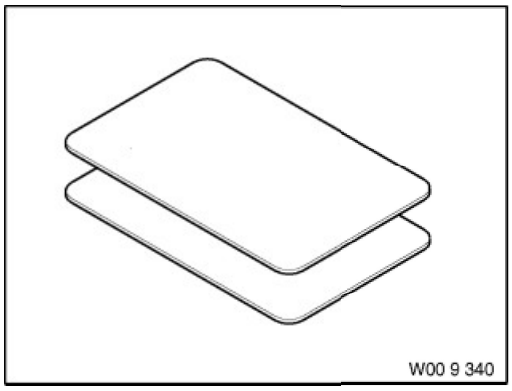
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2 298 505 Wedge



Common	Used in step 28
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)

0 493 687 (00 9 340) Removal aid

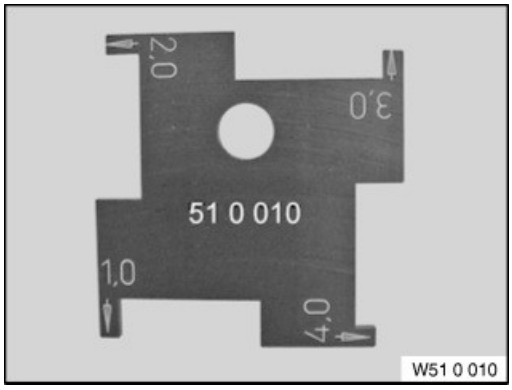


Common	Used in step 40
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

0 495 259 (51 0 010) Gauge



Common	Used in step 40
Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

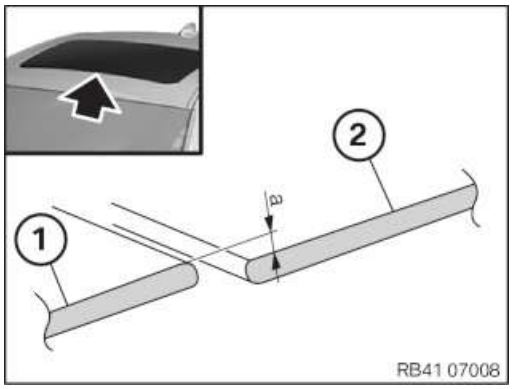
Overview Technical Data

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Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 40

1 roof outer skin; 2 glass slide/tilt sunroof panel

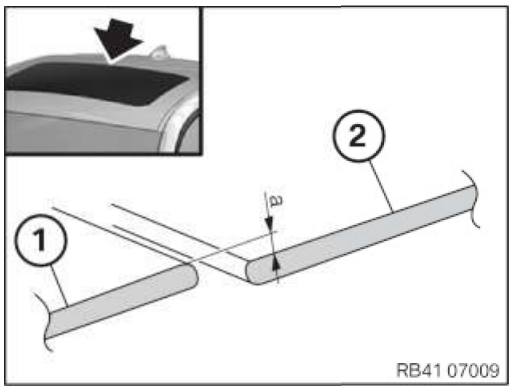
a	0,7 (-0,05 - 1,45) mm



Gap dimension glass slide/tilt sunroof panel to roof outer skin Used in step 40

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



Links

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	4
72 00 ... Safety regulations for handling components with gas generators	4

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41 00 ... Notes on the water drain hose of the slide/tilt sunroof

The water drain hoses for the slide/tilt sunroof are partially permanently integrated in the body and cannot be replaced individually.

These water drain hoses can only be completely replaced with extensive body repair work (e. g. after an accident).

Component	Vehicle	Individually replaceable
Water drain hose, front	All BMW All MINI	No
Rear water drain hose	E60, F34	No
	All other BMWs	Yes
	All MINI	Yes

An individual solution is required for damage that was not caused by an accident.

Contact national hotline.

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54 10 ... Repair instructions for bonded seals



Special tools required:

- 00 9 327

1 General remarks on handling rubber seal profiles:

- If seals reveal partly detached protective film on delivery, they must not be bonded.
- Store seals at 5 °C to 40 °C.
- If, during the handling, the protective film has come off before bonding, it can still be bonded.
- Bonding at room and object temperature 25° ±5° C. Temperatures between 40 and 50 °C significantly increase initial adhesion.
- Seals, which are subjected to temperatures above 80 °C after bonding, will be very difficult to remove.
- Maximum storage time for replacement: see identification of the expiry date on packaging

2 Damage pattern, repair and replacement

A partially released bonding (rubber part adhesive tape or adhesive tape paint) up to 120 mm may be finished. Continue with Point 2.1.

A partially released bonding (rubber part adhesive tape or adhesive tape paint) above 120 mm may **not** be finished. Gasket must be replaced. Continue with Point 2.2.

2.1 Repair of partially released bonding (adhesive tape rubber part or adhesive tape paint

2.1.1 Clean faulty areas

- Release adhesive area of paint side from recesses and degrease with cleaning agent R2. Stick to air drying time > of 1 minute. Never use paint thinner!
- This will usually partially destroy intact edge adhesive areas.
- When removing, it is important to wipe off the adhesive area of the adhesive tape with a lint-free disposable cloth. (e.g. blue Kimtex)
- Carefully wipe off the adhesive areas.

Note:

Use necessary cotton- or fluff-free paper towel once only.

Do not touch the adhesive area after cleaning.

2.1.2 Apply adhesive

- Apply profile rubber adhesive evenly as a thin layer first on the gasket and then on the painted surface.
- Stick to air drying time of 2 to 3 minutes.

Attention:

Avoid contact with skin!

Do not apply adhesive to visible painted surfaces.

2.1.3 Press in rubber seal

- Press down gasket using contact pressure (forced pressure not necessary) for > 1 minute.

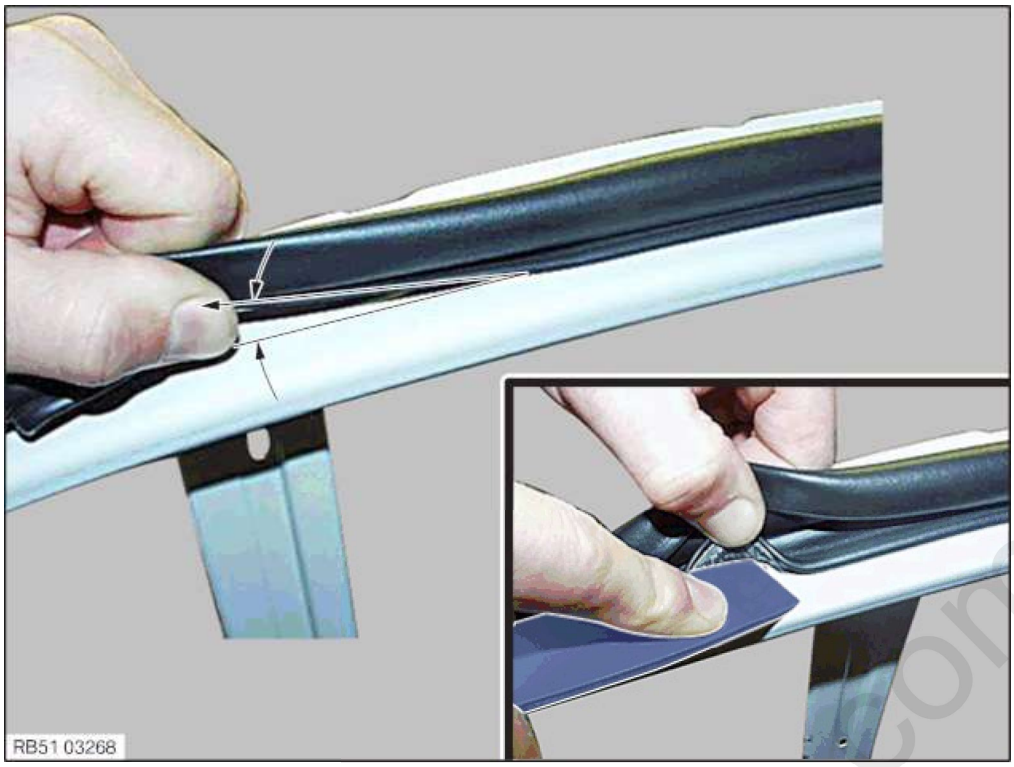
Attention:

Load can be applied to the bonding only after a period of 2 minutes. This waiting time is absolutely essential.

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2.2 Replacement

2.2.1 Peeling off the faulty rubber seal



- Remove bonded connection with fingers or cleaning agent liner 00 9 327.
- Overstretch gasket below an angle of maximum 20° very slowly under even tensile stress.
  If the gasket is pulled off too quickly, the adhesive tape can tear off and remain on the painted surface.
  The adhesive tape remaining on the painted surface must be removed with high cleaning costs.

Note:

When the adhesive tape separates from the gasket, the adhesive tape remaining on the paint must be fully separated at one location by approx. 10 mm until it is easy to grip.

Pull off the adhesive tape by pulling strongly at an angle of approx. 20°.

When existing gaskets are being peeled off with a hot air blower: Do not damage paintwork.

2.2.2 Clean bonding surface

- if required, remove adhesive remains with eraser disk or cleaning agent R2. do not damage paint. Stick to air drying time > of 1 minute.
- Before a new bond, treat the entire adhesive area with Sika Aktivator 205. Stick to air drying time > of 1 minute.

Note:

Use necessary cotton- or fluff-free paper towel once only.

Do not touch the adhesive area after cleaning.

2.2.3 Pull off protective film of the bonding surface

- Pull off the protective film off of the new gasket by approx. 15 cm using the tab.

Attention:

Once the protective film has been removed, do not under any circumstances touch the exposed bonding surface.

2.2.4 Apply rubber seal

- Press on the gasket by hand continuously while pulling off the liner slightly at the same time.

Note:

If positioned incorrectly, the gasket can still be pulled off, repositioned and pressed on again.

Always ensure that you do not touch the bonding surface with your fingers or contaminate it in any way.

- Press gasket while moving in a straight line without compression or over-stretching.
- Compress the gasket the corners; never stretch it. (critical area)

2.2.5 Establish sealing joint

- Where the beginning and end meet, a mark is created from pressing the loose end onto the beginning of the gasket.
  Cut off the gasket vertically along the marked line (use sharp knife or special scissors) and press in place.
- Visually check the pre-bonded gasket.

Note:

Small areas of gasket can remain stuck to adhesive tape of loose end.

2.2.6 Press gasket

- Always press gasket vertically to the bonding surface
- Press gasket by hand or hand roller
- Adhesive tape width up to 5 mm, contact pressure > 5 N/cm^2
- Adhesive tape width up to 10 mm, contact pressure > 10 N/cm^2

Note:

Firm thumb pressure has approx. 35 N/cm^2

3 Checking the rubber seal

- Check the bonded gaskets for correct positioning and perfect adhesion. The bonding can be checked by pressing back the sealing lip.
- The peel strength of the gasket must be greater than 10 N/cm^2 for about 15 min after bonding.

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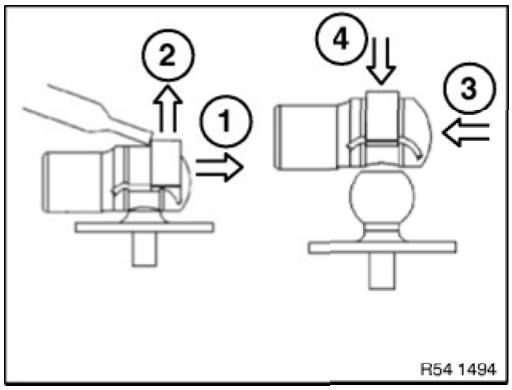
51 23 ... Removing/installing ball sockets with clip

Warning!

Danger of injury! When installed, the gas pressurised shock absorber is under preload. Minimise preload as far as possible before removing.

Important!

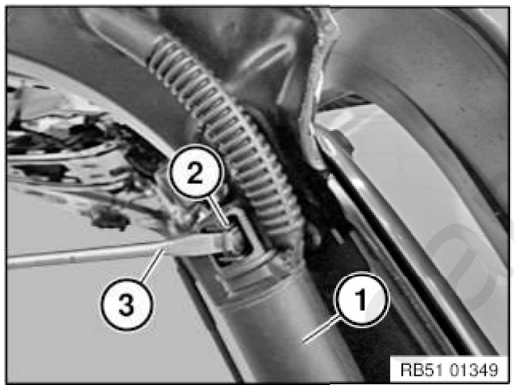
Never lift off ball socket with engaged clamp.



Version A:

1. Push on clamp in direction of groove with screwdriver
2. Lift off ball socket from ball pin
3. Slide clamp back
4. Fit ball socket on ball stud and snap into place with force

Installation note:
Pack grease into two opposite positions in socket. The grease spreads after installation on the ball pin all round in the ball socket.



Version B:

Important!

Risk of damage!

If you are not careful, retaining spring (2) may be bent to such an extent that the entire drive spindle will have to be replaced.

Press drive spindle (1) against ball pin in order to relieve strain on retaining spring (2) at ball pin.

Pull out retaining spring (2) approx. 2-3 mm with screwdriver (3).

Pull off spindle foot.

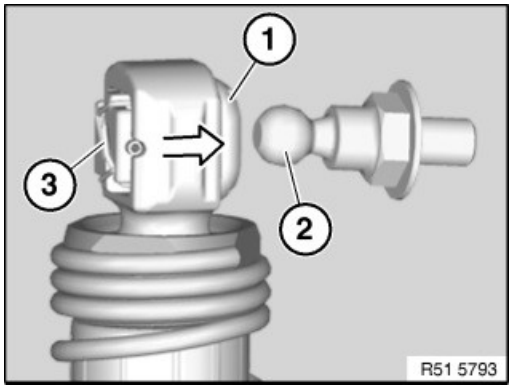
Warning!

Observe warning notices on the damper.

Electrical spindle drive for tailgate is under mechanical spring load!

The component must be secured against falling down.

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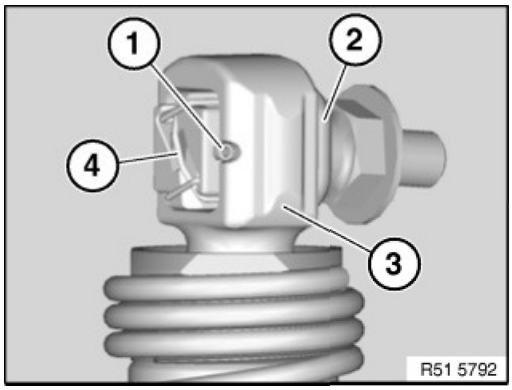


Attention!

Risk of damage!

Do not press on spindle drive at an angle or twisted.

Installation note:
Press ball socket (1) onto ball pin (2) until retaining spring (3) engages correctly (clicking sound).



Important!

If retaining spring (4) is damaged!

Release pin (1).

Remove spindle drive (3).

Remove ball socket (2).

Remove retaining spring (4) and replace if necessary.

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00 00 ... Microencapsulated screws



Screw securing adhesive is a means of preventing a screwed connection from being loosened by external influences.

Once the screw has been coated with adhesive, the adhesive remains inactive until such time that it is activated by the encapsulation breaking when the screw is inserted and then cures (hardens) at room temperature.



Installation note:

- Screw connection must be completed within 20 mins. (start of curing)
- Microencapsulated screws must not be retightened
- Thread of nut must be cleaned beforehand in event of repeated use

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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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