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.

cardiagn.com

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.

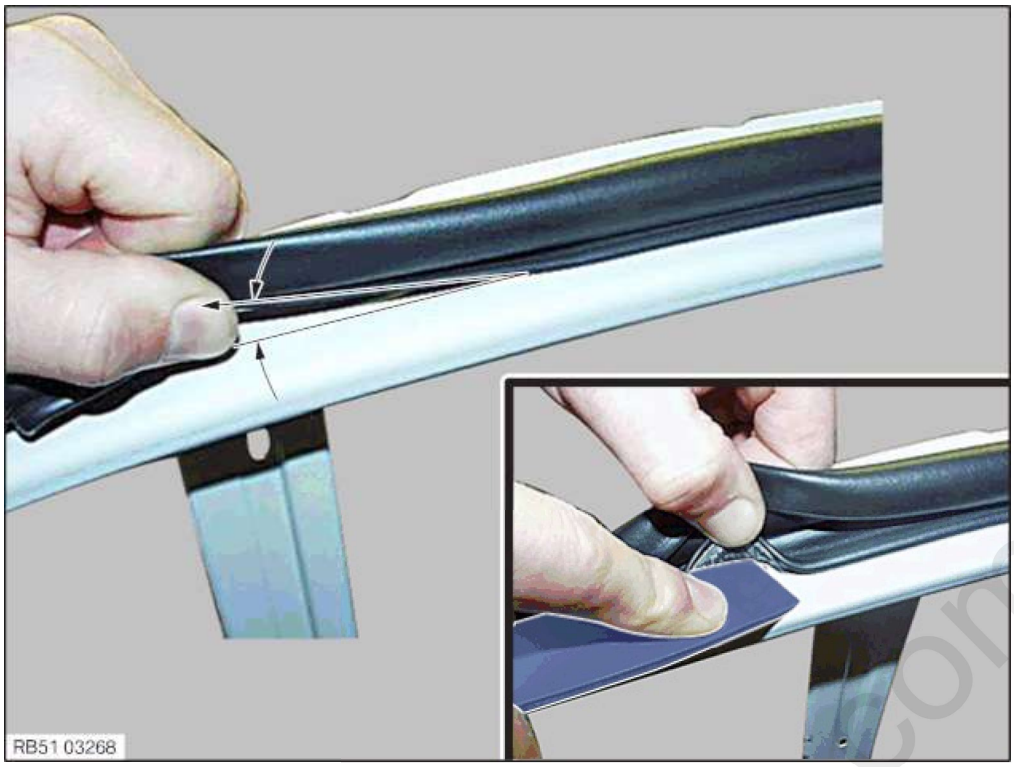
Attention:

Load can be applied to the bonding only after a period of 2 minutes. This waiting time is absolutely essential.

cardiagn.com

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:

cardiagn.com

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

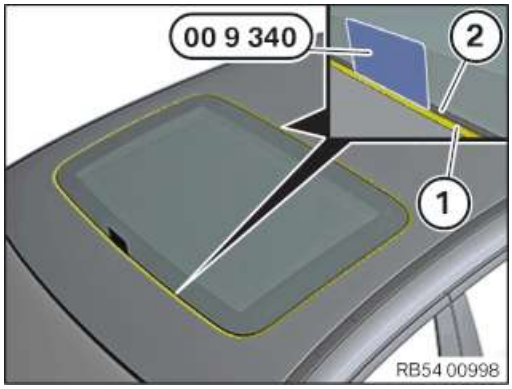
- Check the bonded gaskets for correct positioning and perfect adhesion. The bonding can be checked by pressing back the sealing lip.
- The peel strength of the gasket must be greater than 10 N/cm^2 for about 15 min after bonding.

cardiagn.com

54 12 003 Adjusting glass slide/tilt sunroof panel

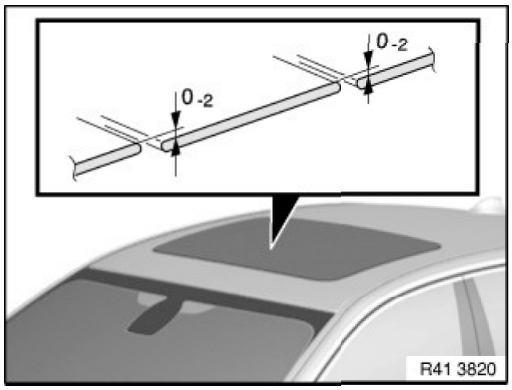
PRELIMINARY WORK

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).

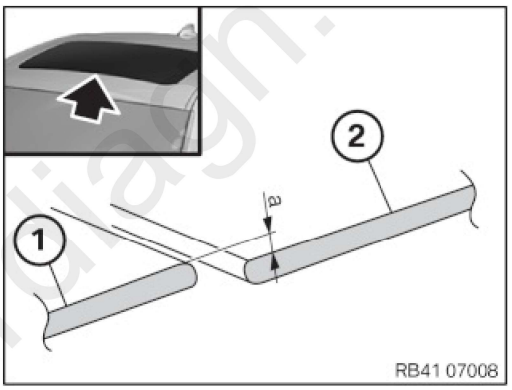
  The resistance when moving the special tool must be the same at the front and rear.



- 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.

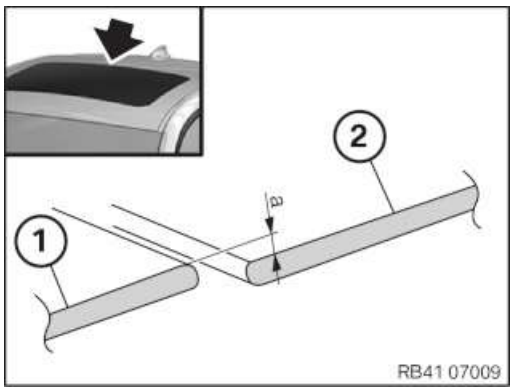
Gap dimension roof outer skin to glass slide/tilt sunroof panel

1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm

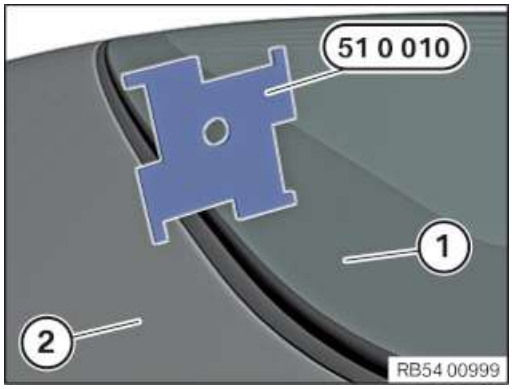


Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin	
a	0,7 (-0,05 - 1,45) mm

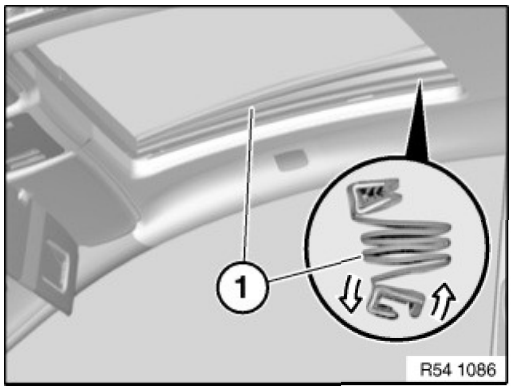


cardiagn.com



- 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



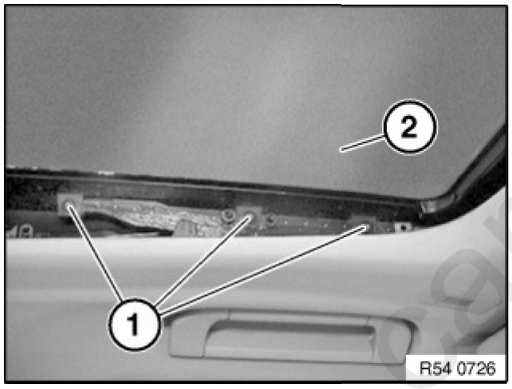
NOTICE

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

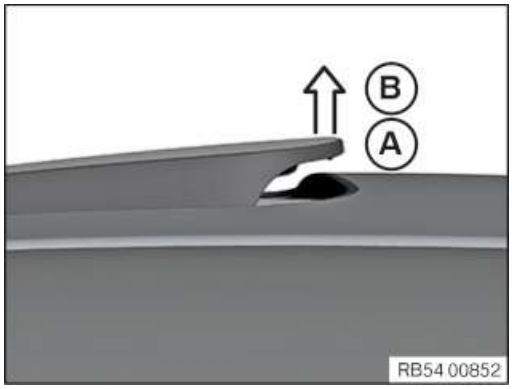
4 – Initialising the glass slide/tilt sunroof panel



- 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.

cardiagn.com



- 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.

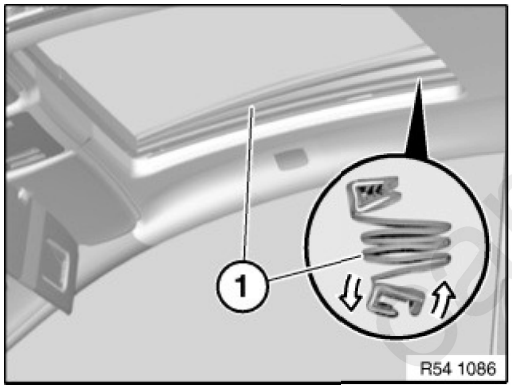
  The initialisation is completed once the glass slide/tilt sunroof and the screen have completely closed.
- Release the switch.

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

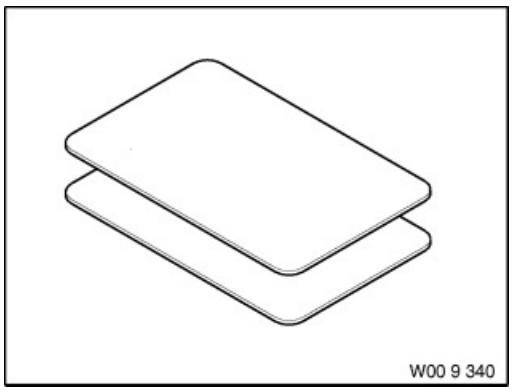
Overview of Tightening Torques

Glass slide/tilt sunroof panel to mechanics — Used in step 3

M5	Replace screws.	4,5 Nm

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



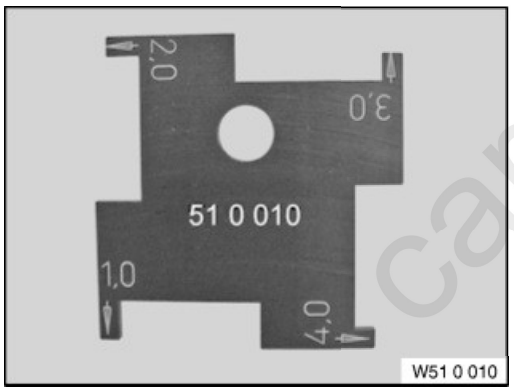
Common Used in step 1

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)

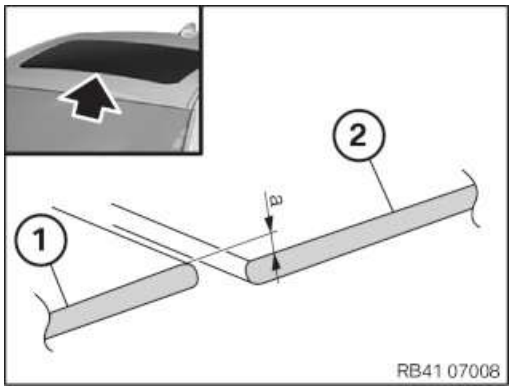
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 1

cardiagn.com

1 roof outer skin; 2 glass slide/tilt sunroof panel

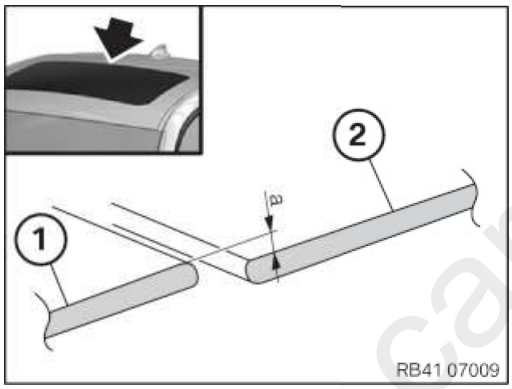
a	0,7 (-0,05 - 1,45) mm



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



cardiagn.com

54 12 211 Removing and installing complete glass slide/tilt sunroof

RISK OF DAMAGE

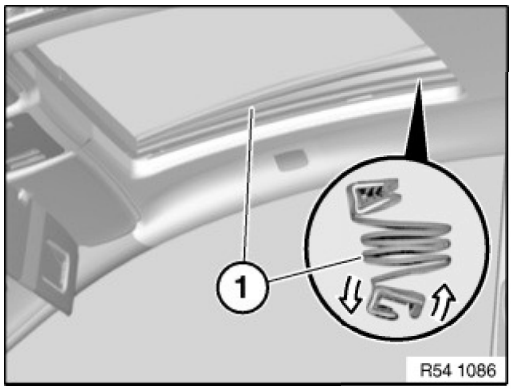
Fold the headlining.

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

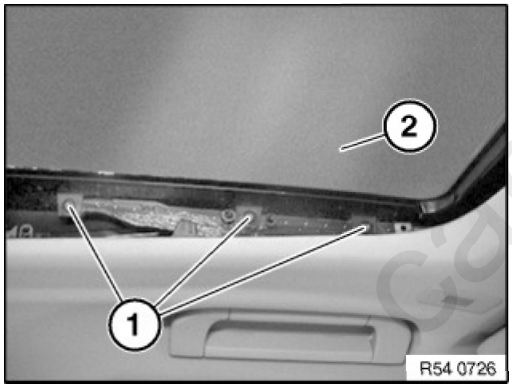


NOTICE

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.

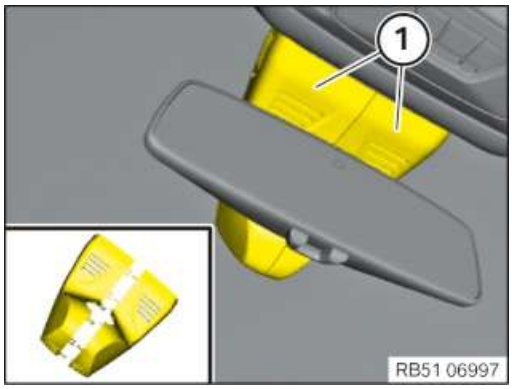
2 – Remove glass slide/tilt sunroof panel



- 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

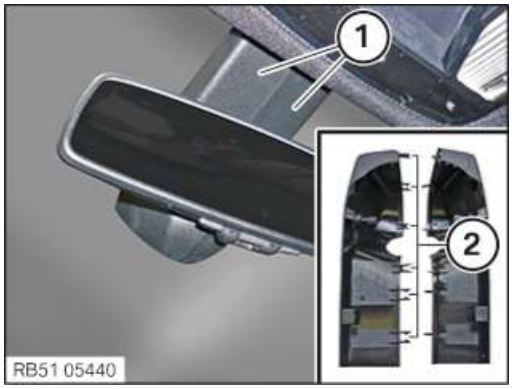
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

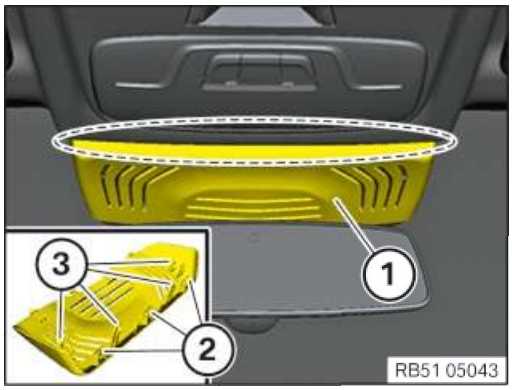
- **Version B:**

Cardiagn.com

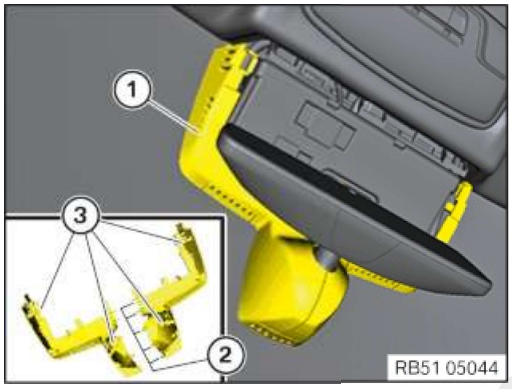


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **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

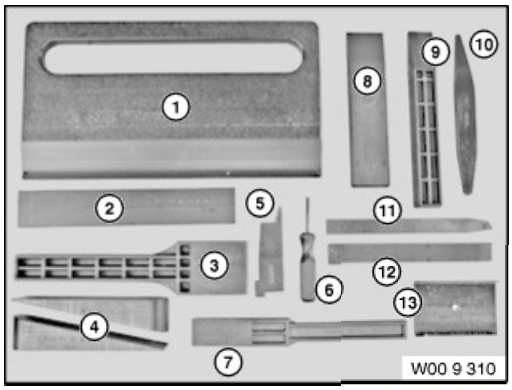
cardiagn.com

WARNING

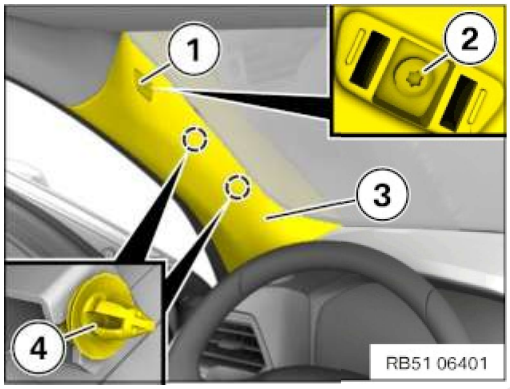
Pyrotechnic components.

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.



- 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

cardiagn.com

NOTICE

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

▸ **Remove the counter support for the sun visor**

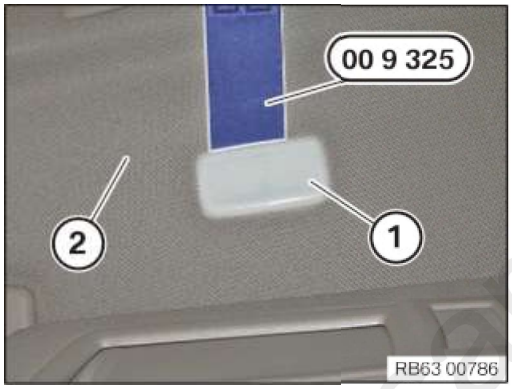


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

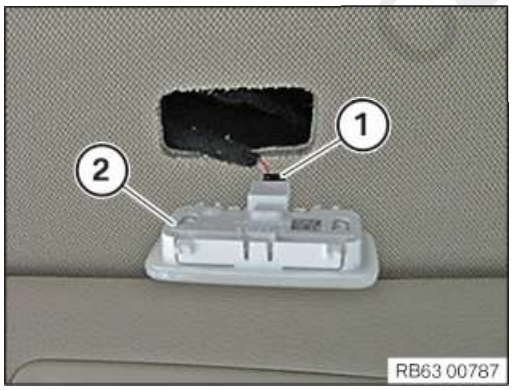
7 – Removing front vanity mirror light

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).



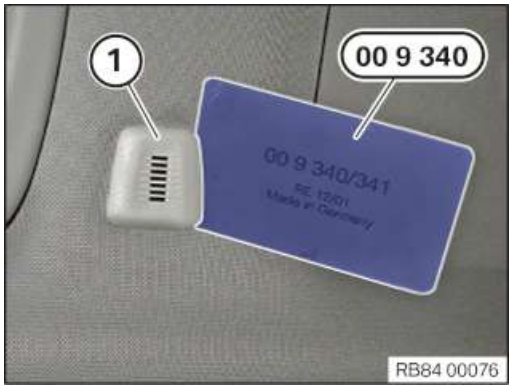
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

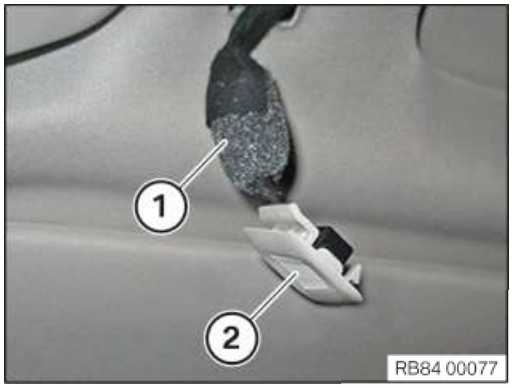
NOTICE

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).

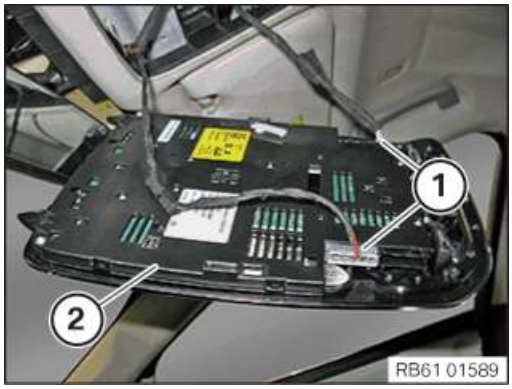


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

@diagn.com



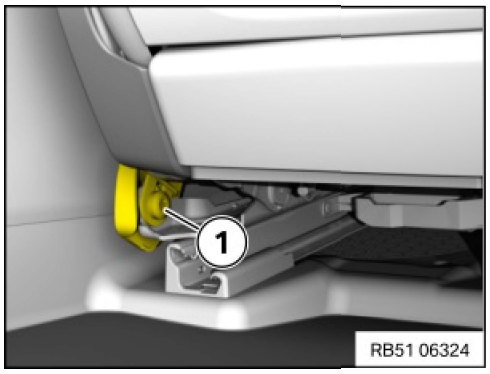
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

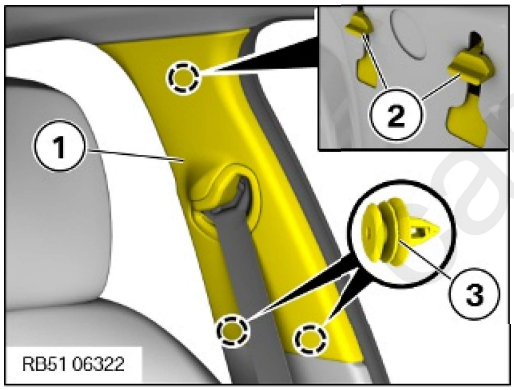
NOTICE

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

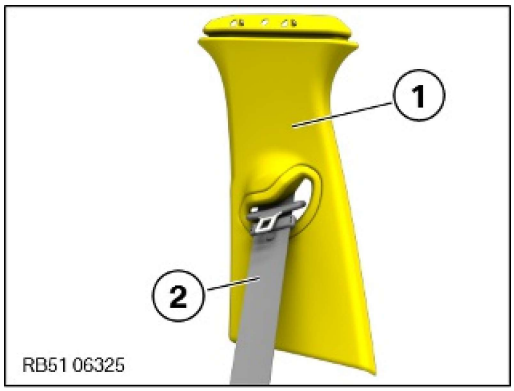
▶ **Remove the B-pillar trim panel**



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



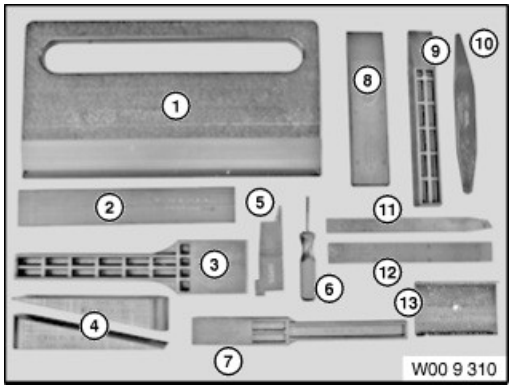
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



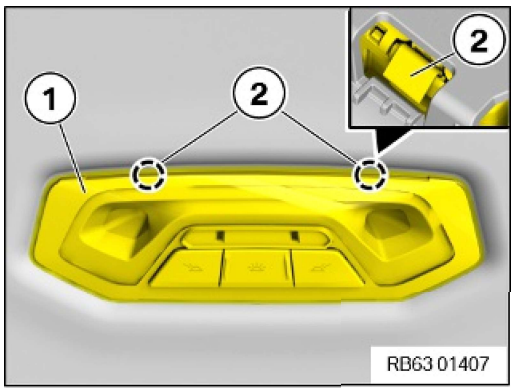
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

cardiagn.com

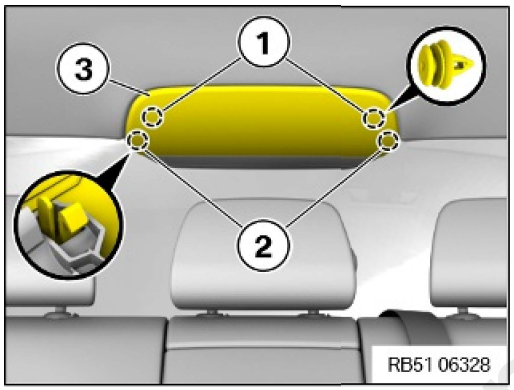


- Have the set of special tools 0 493 752 (00 9 329) ready.



- 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

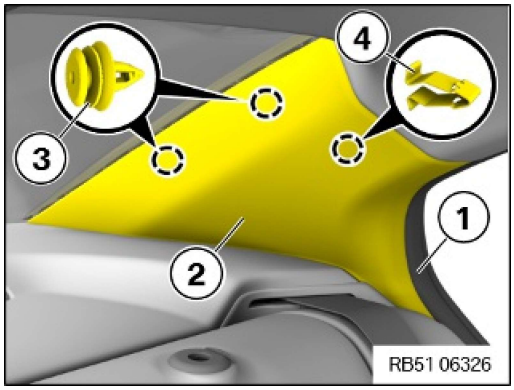
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

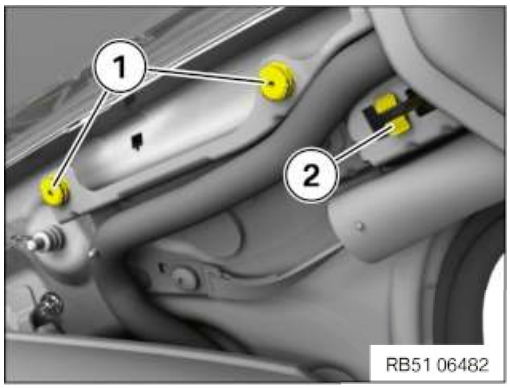
NOTICE

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

cardiagn.com



- 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).



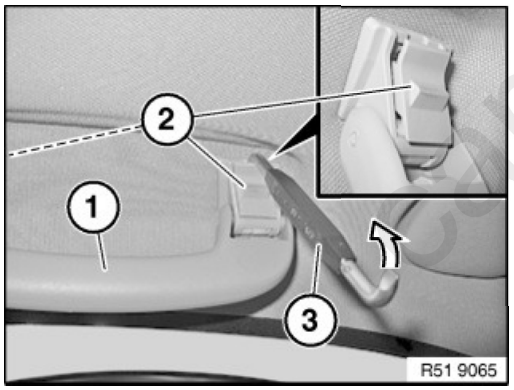
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

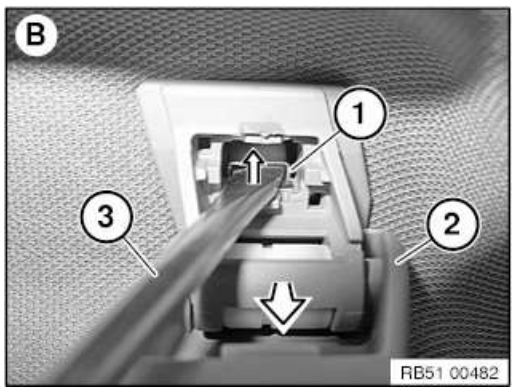
NOTICE

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.

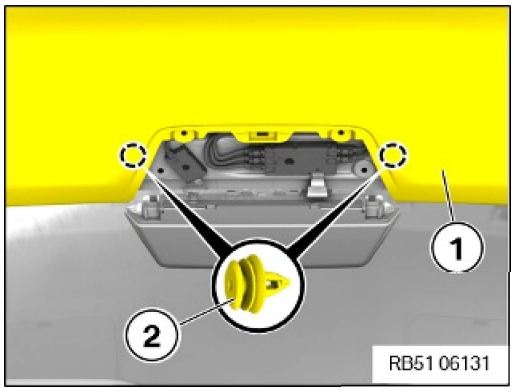
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

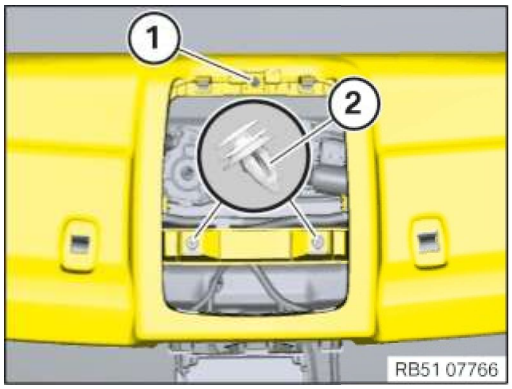
Fold the headlining.

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**

cardiagn.com

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

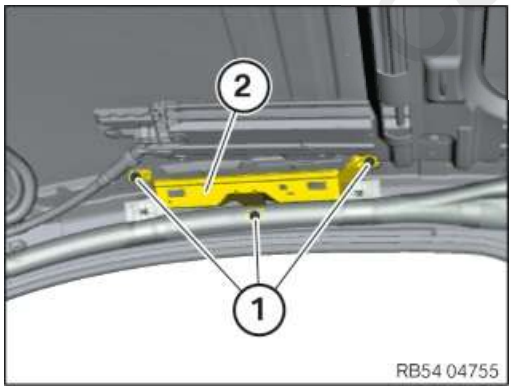
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.



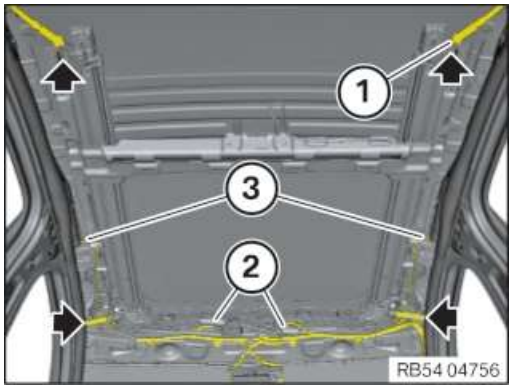
- Protect the working area with a suitable cover (1) to protect against falling swarf.



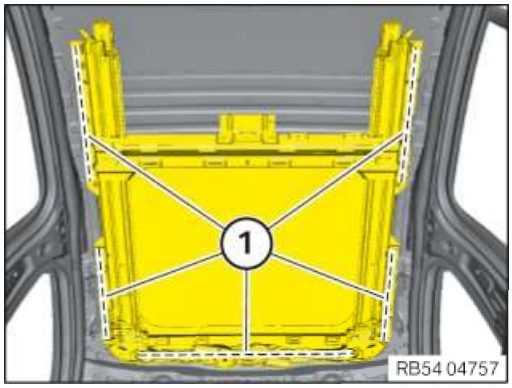
- Drill out blind rivets (1) and remove both rear holders (2).

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

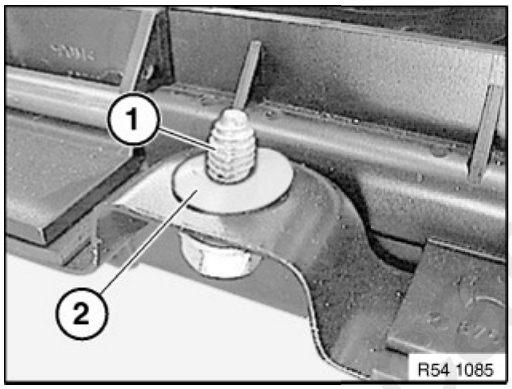
Heavy component.

Heavy components can lead to injury or damage.

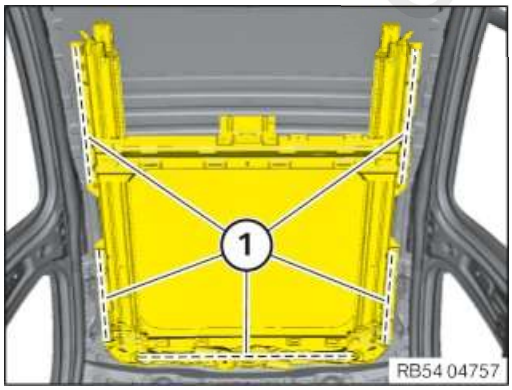
- Remove and install heavy components with the aid of another person/other persons.

- 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

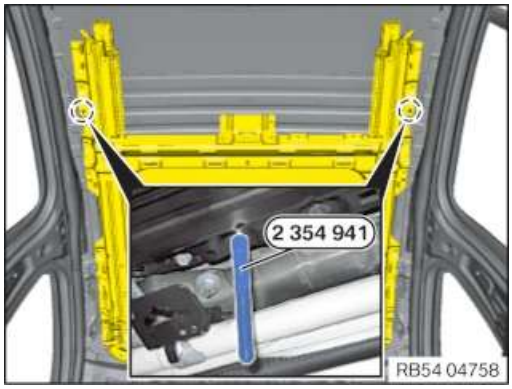
Heavy component.

Heavy components can lead to injury or damage.

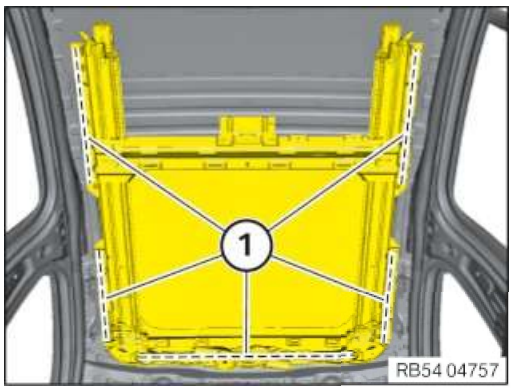
- Remove and install heavy components with the aid of another person/other persons.

- 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



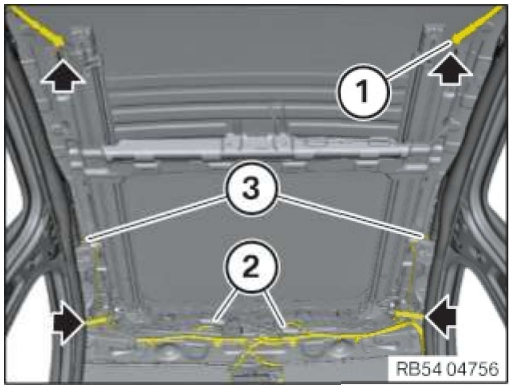
- Insert the special tool and align the panorama glass roof (1) with the roof.



- 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

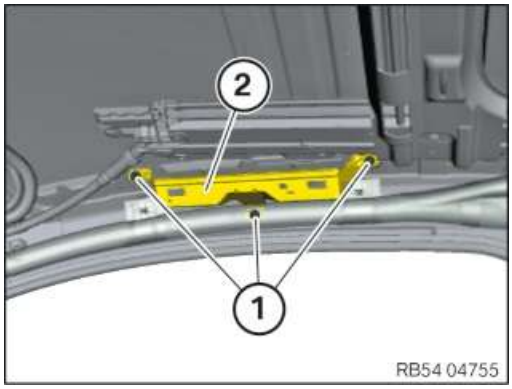
Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

NOTICE

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

cardiagn.com



- 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.

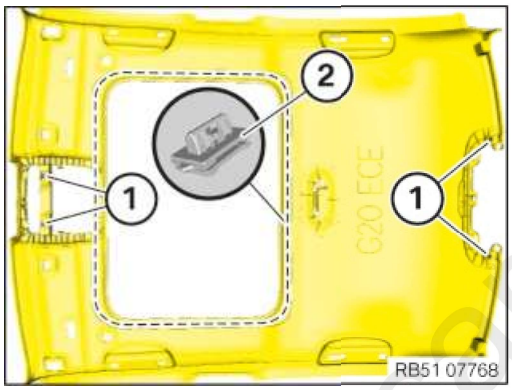
The front seat backrests have been fully adjusted towards the rear.

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.



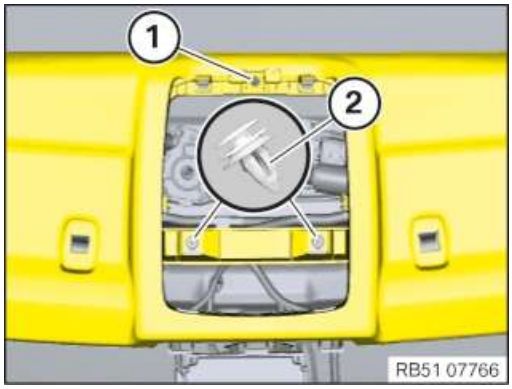
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



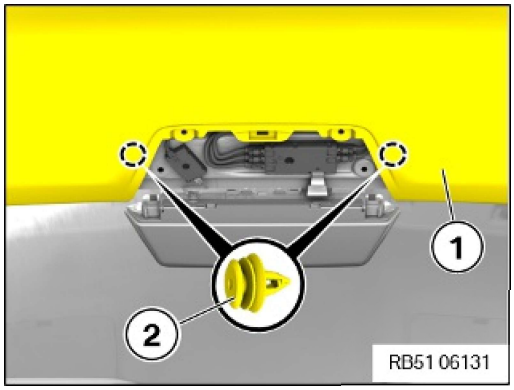
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) *into the slide/tilt sunroof unit* and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

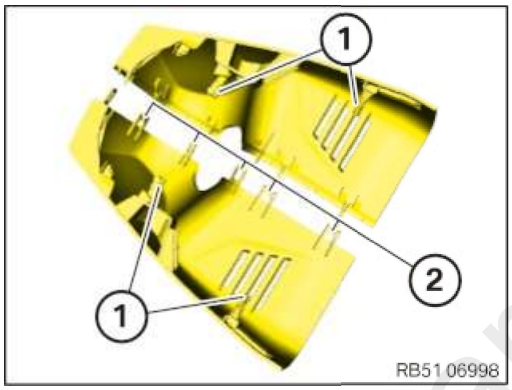
Oval-head screw		Tightening torque	1,5 Nm



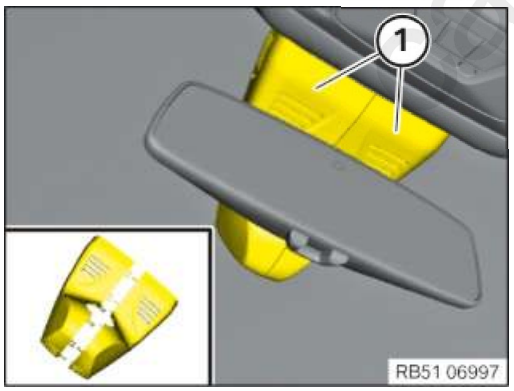
- Clip headlining (1) to the clips (2).

21 – Installing the covers for the interior mirror

- **Version A:**

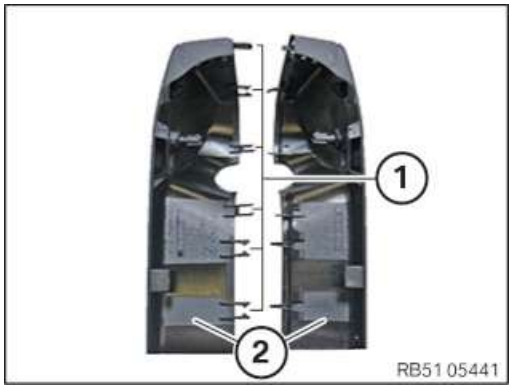


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



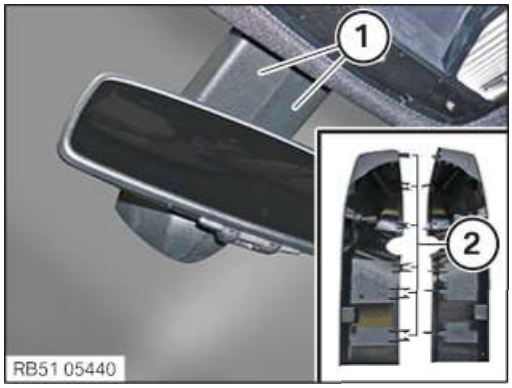
- Feed cover (1) in and lock.
- **Version B:**

carmanualsdiagram.com



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

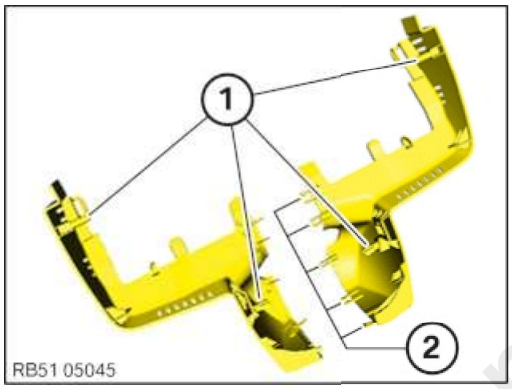
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



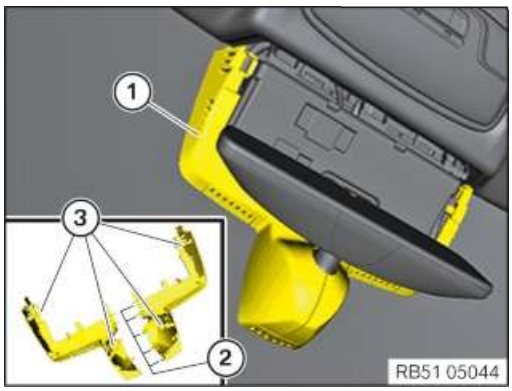
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

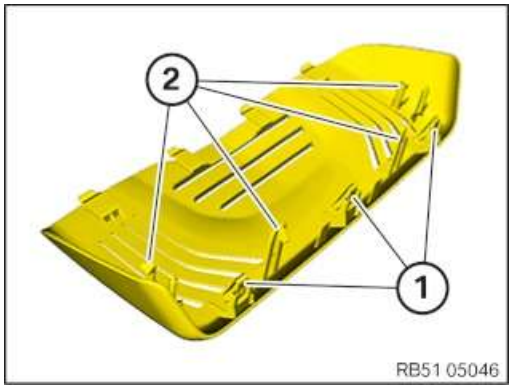
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

cardiagn.com



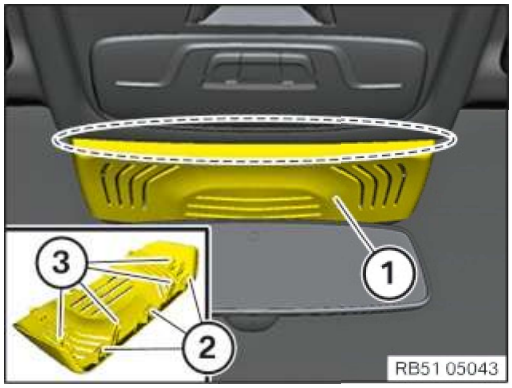
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

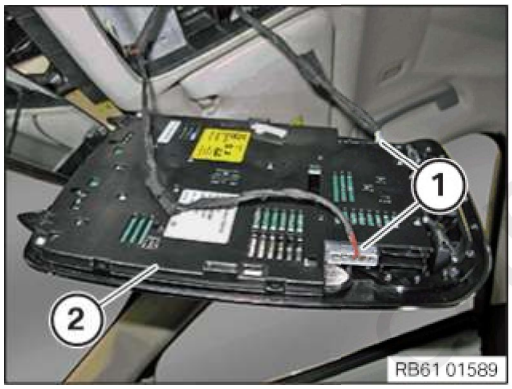
Measure

- Renew the cover.

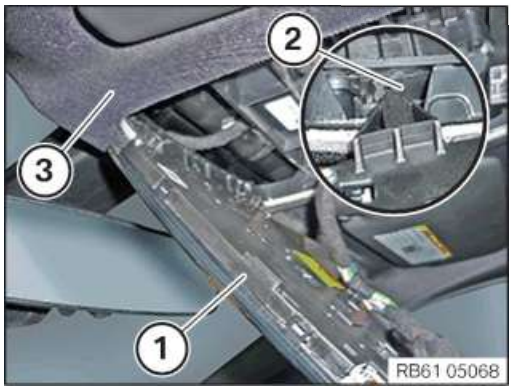


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

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.

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).

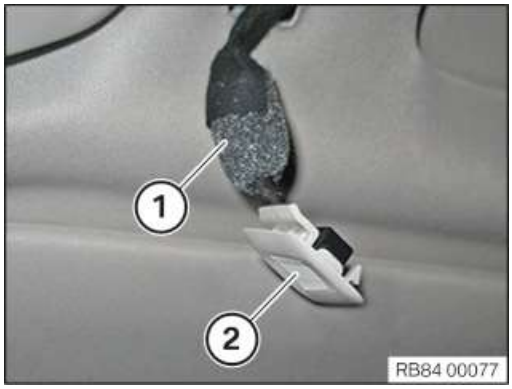
23 – Install both microphones

NOTICE

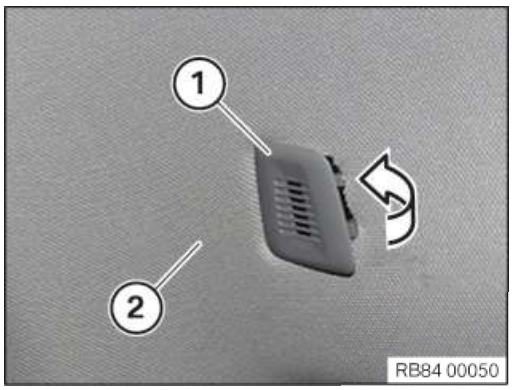
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

cardiagn.com



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

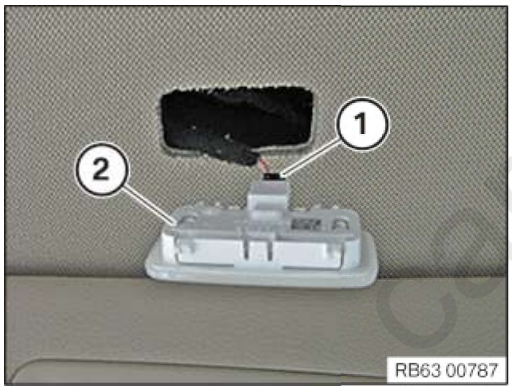


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

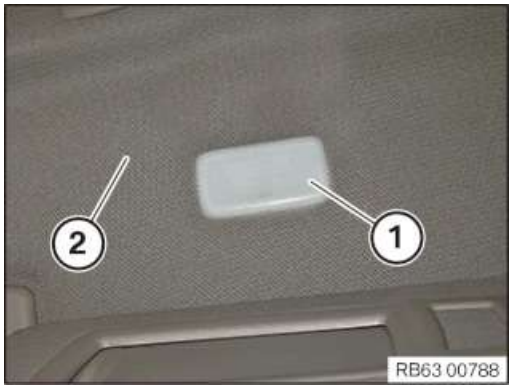
24 – Installing front vanity mirror light

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.

carldiag.com

▸ **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

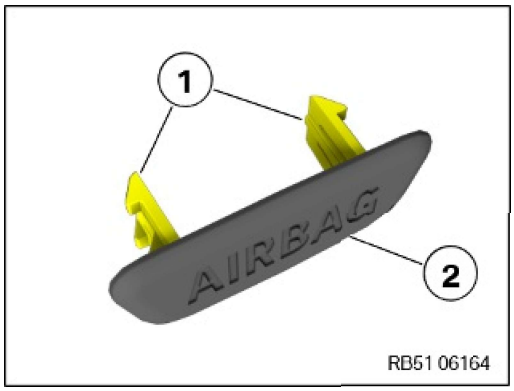
cardiagn.com

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.



Check

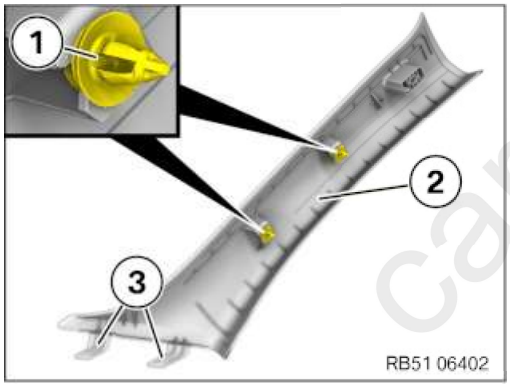
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

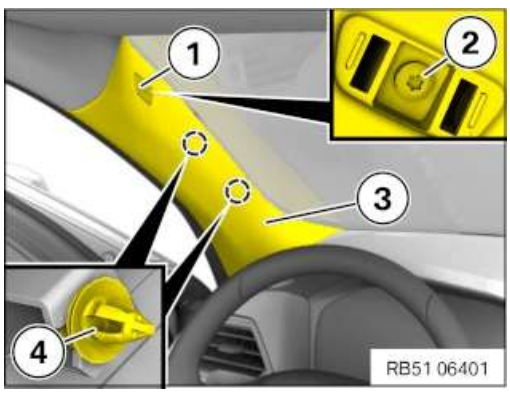
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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).

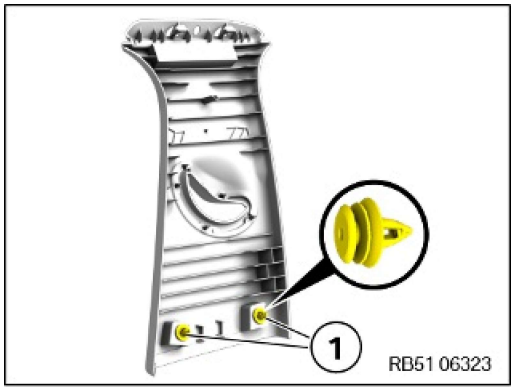
28 – Installing both B-pillar trim panels

cardiagn.com

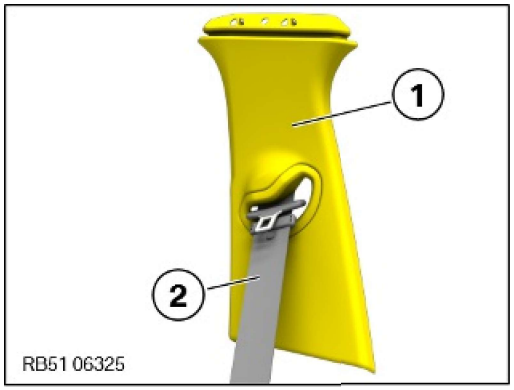
NOTICE

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

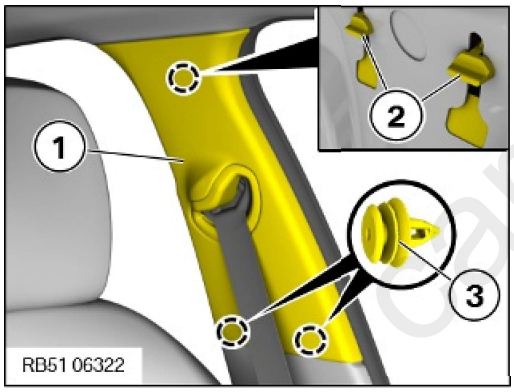
▶ **Install the B-pillar trim panel**



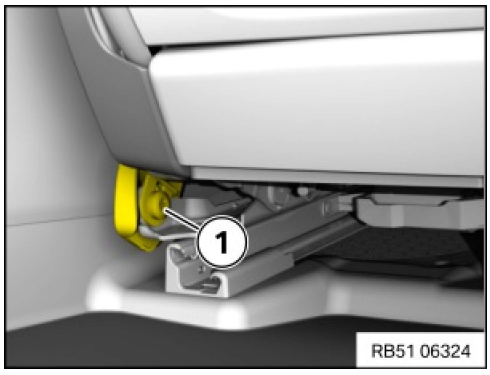
- Check the clips (1) for damage and renew if necessary.



- 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

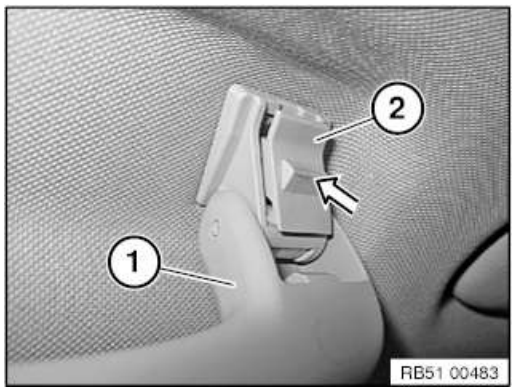
29 – Installing all grab handles

cardiagn.com

NOTICE

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

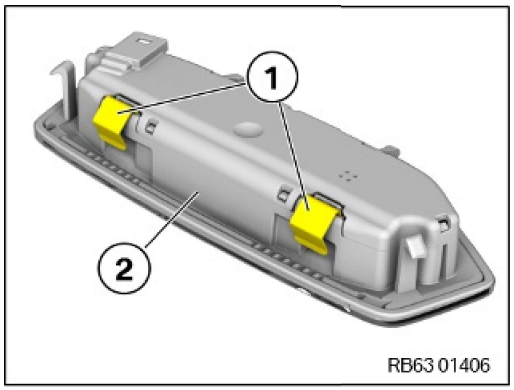
▸ **Installing the grab handle**



- 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



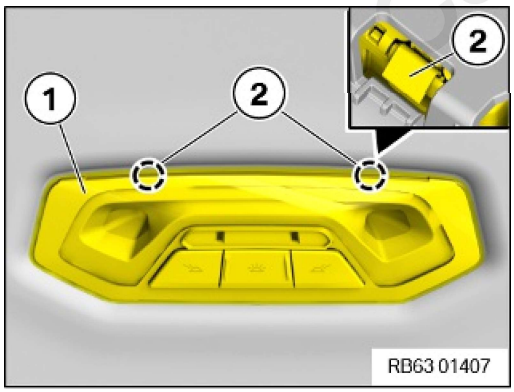
- Check the clamps (1) for damage.

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).

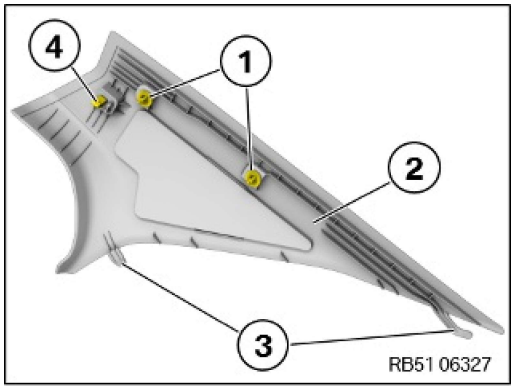
31 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

carDiagn.com



Check

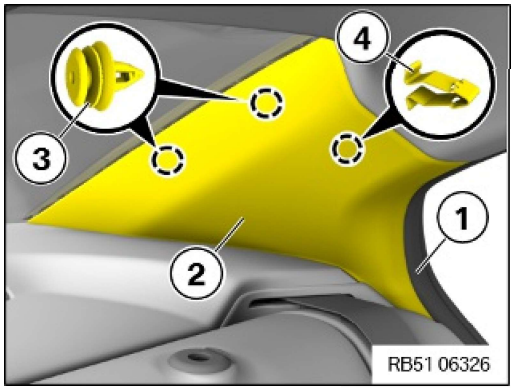
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

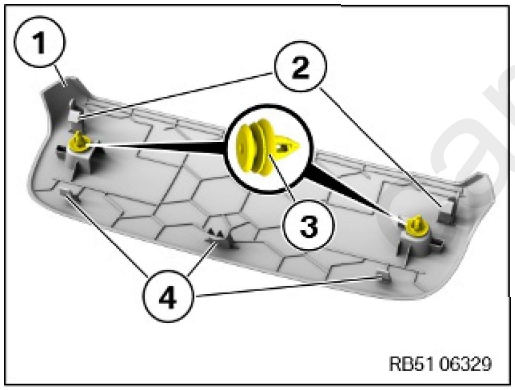


NOTICE

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

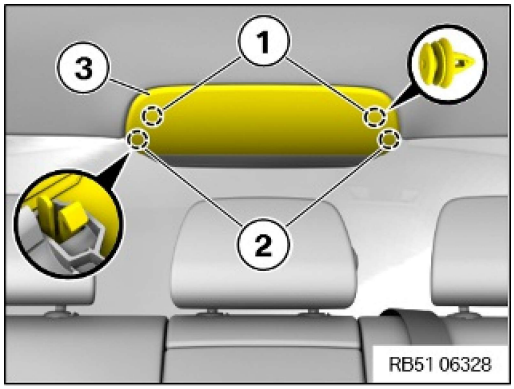
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

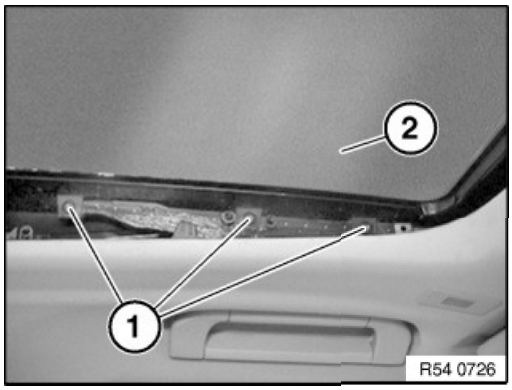
Measure

- 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).

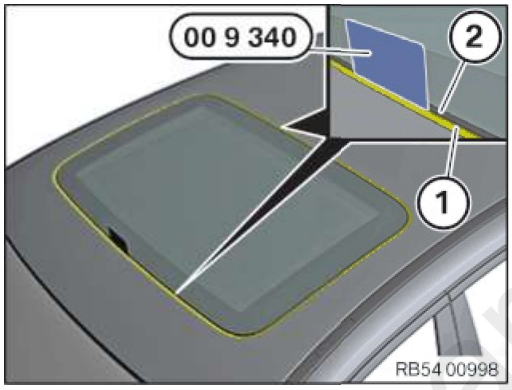
33 – Install glass slide/tilt sunroof panel



- 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.

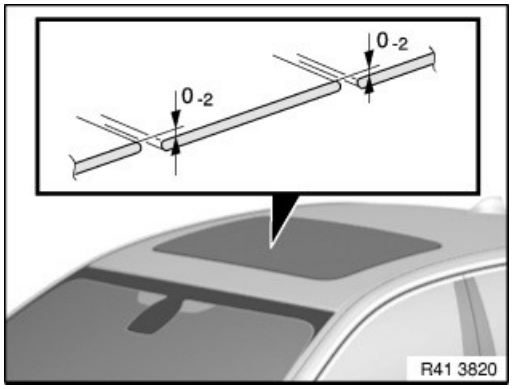
34 – Check the setting of the glass slide/tilt sunroof panel



- 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.

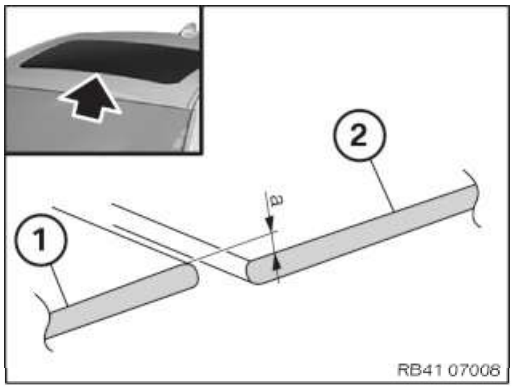
cardiagn.com



- 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.

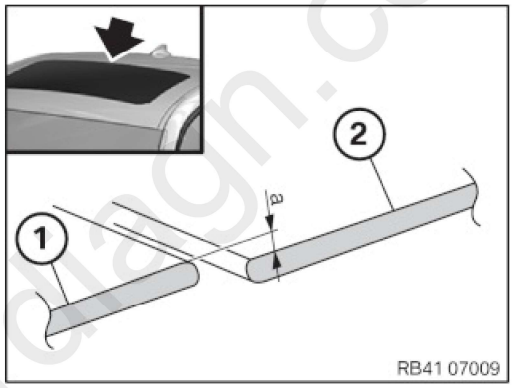
Gap dimension roof outer skin to glass slide/tilt sunroof panel

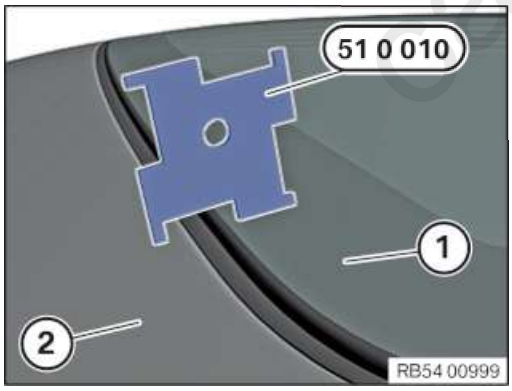
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



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

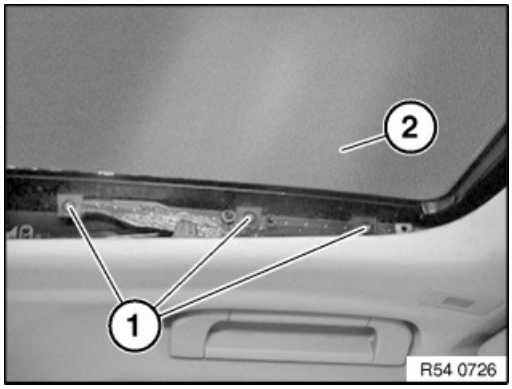




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

35 – Adjusting glass slide/tilt sunroof panel

cardiagn.com

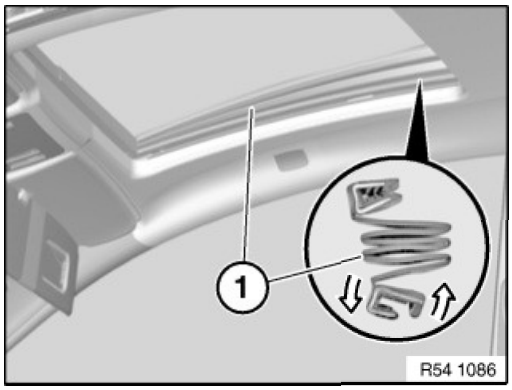


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

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.

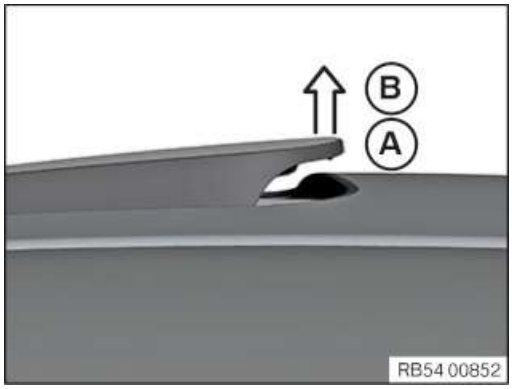
37 – Initialising the glass slide/tilt sunroof panel



- 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.

cardiagn.com



- 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).

cardiagn.com

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

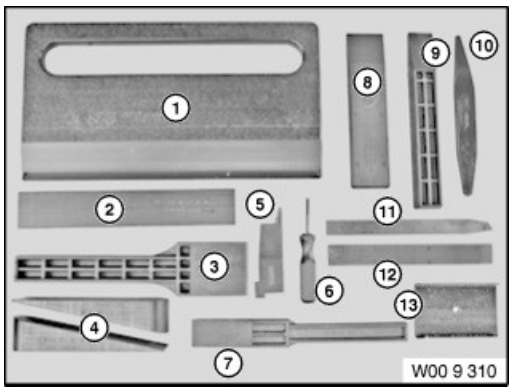
A-pillar trim panel to body			Used in step 27
Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

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



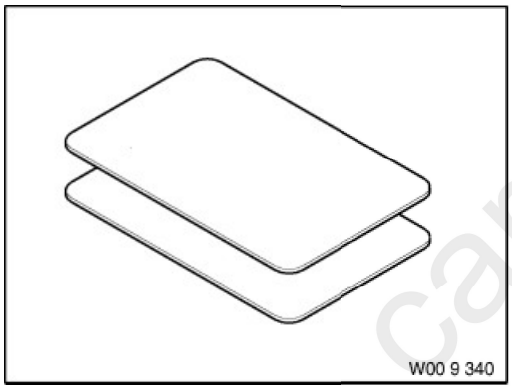
Common	Used in step 411
Usage	(Case) with insert not incl. panel wedges
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

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



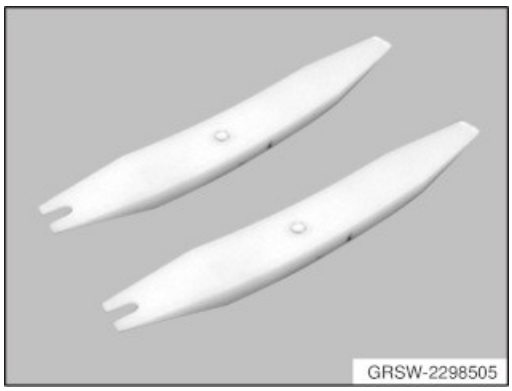
Common	Used in step 8
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

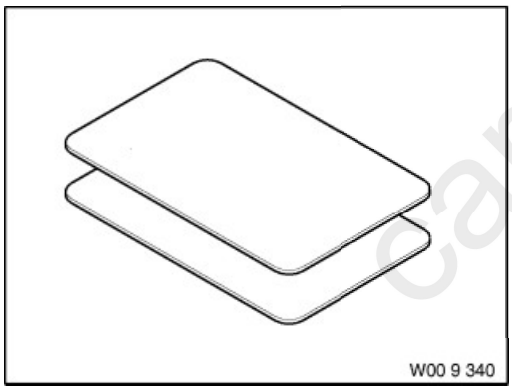
cardiagn.com

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



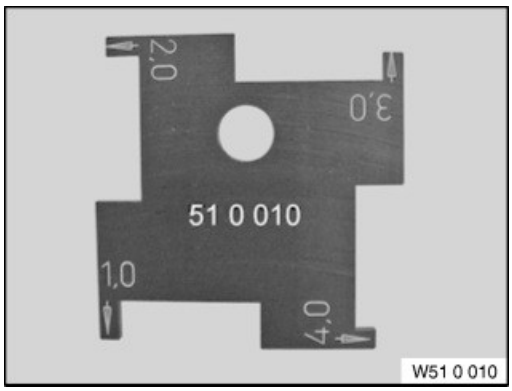
Common	Used in step 34
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

cardiagn.com

0 495 259 (51 0 010) Gauge



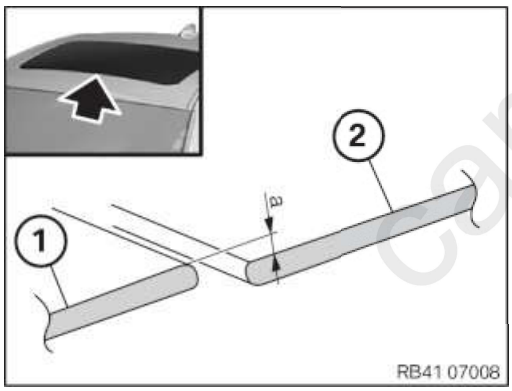
Common	Used in step 34
Usage	(test gauge for installing windscreen and rear window) (replaces special tool 51 3 210 from 06/2005)
Included in the tool or work	
Storage location	B2
Replaced by	
In connection with	
SI-Number	01 10 05 (189)

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

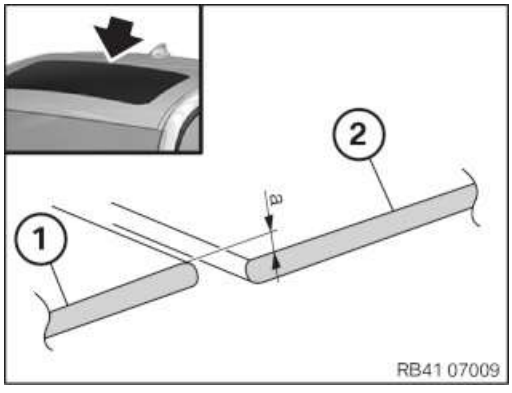
a	0,7 (-0,05 - 1,45) mm



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



cardiagn.com

Links

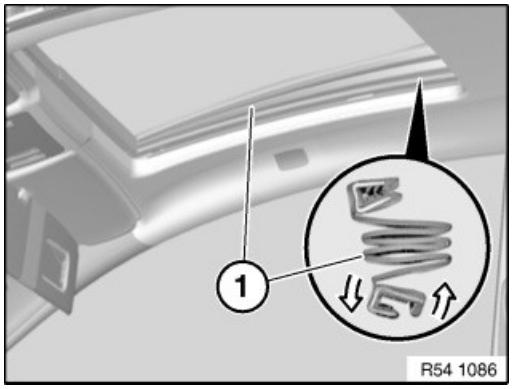
General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	4
72 00 ... Safety regulations for handling components with gas generators	4

cardiagn.com

54 12 115 Removing and installing glass slide/tilt sunroof panel

PRELIMINARY WORK

1 – Remove the gaiter for the glass slide/tilt sunroof



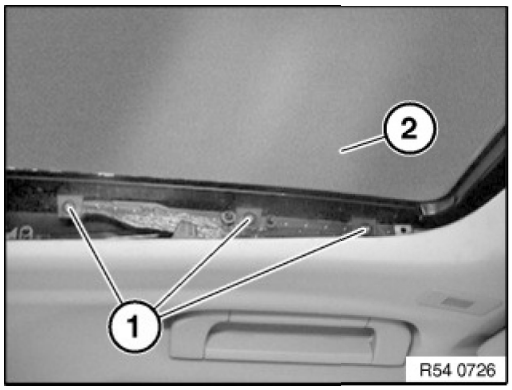
NOTICE

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.

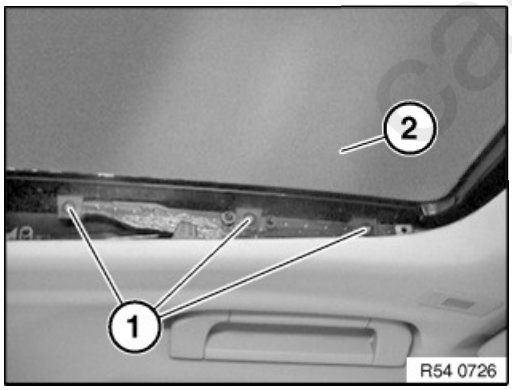
MAIN WORK

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



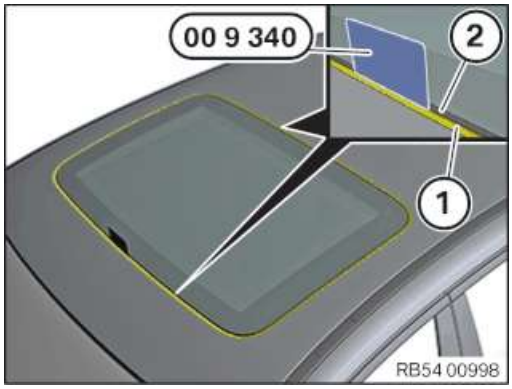
- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

POSTPROCESSES

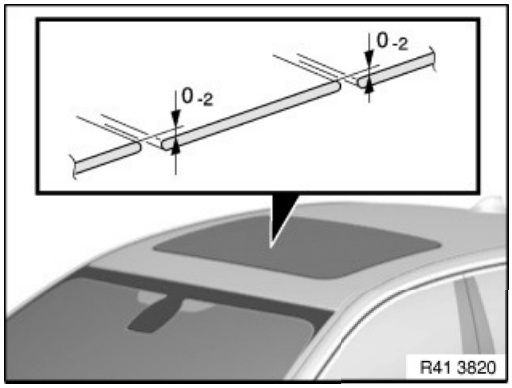
4 – Check the setting of the glass slide/tilt sunroof panel

cardiagn.com



- 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.

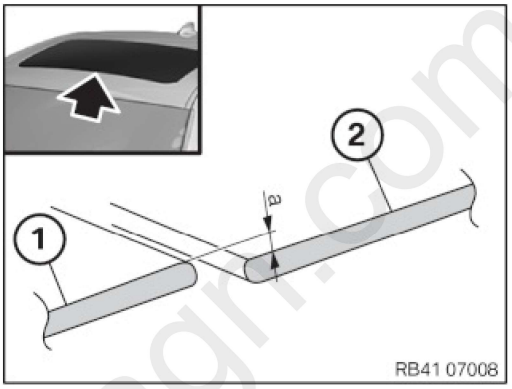


- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

Gap dimension roof outer skin to glass slide/tilt sunroof panel

1 roof outer skin; 2 glass slide/tilt sunroof panel

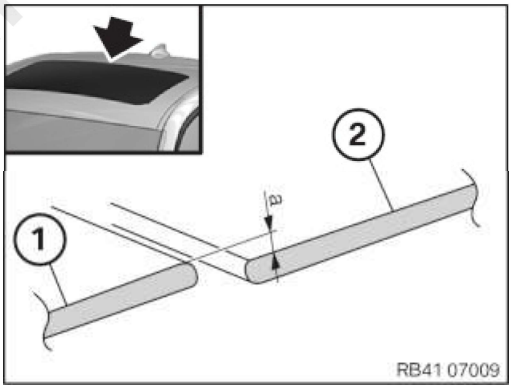
a	0,7 (-0,05 - 1,45) mm

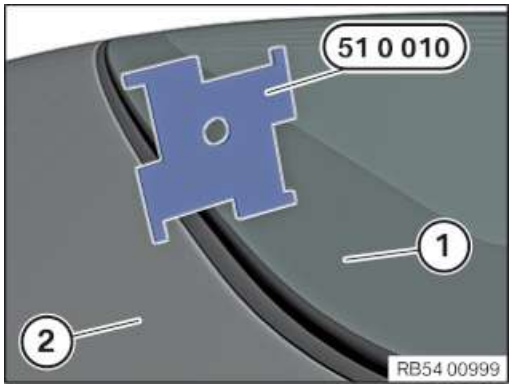


Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm

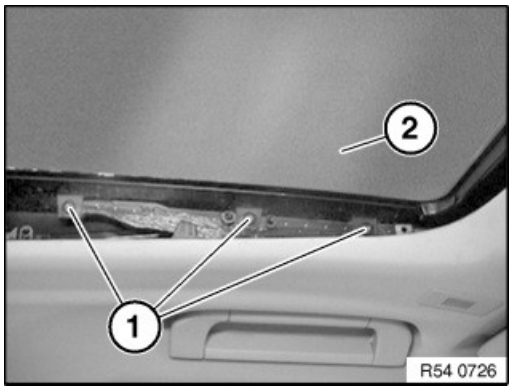




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

carflagr.com

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

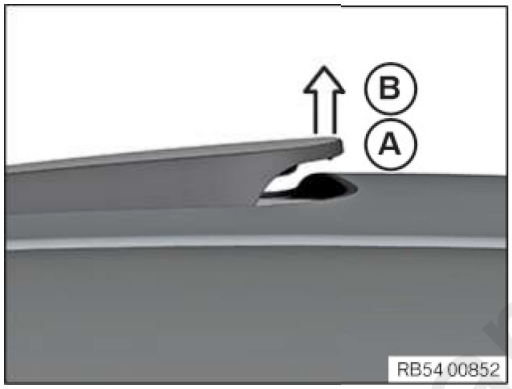
M5	Replace screws.	4,5 Nm

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.

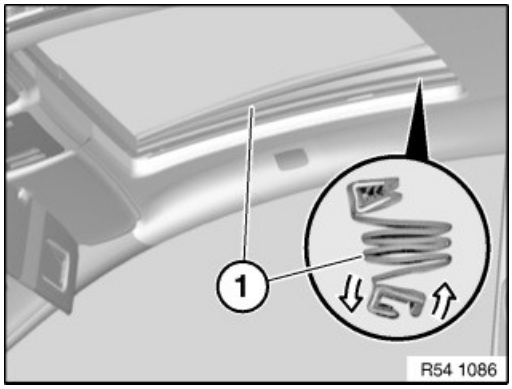
TECHNICAL INFORMATION

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

cardiag.com



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

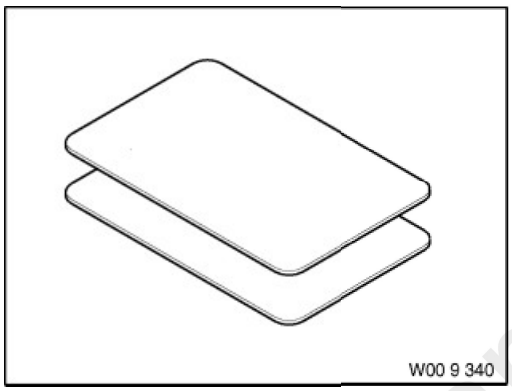
Overview of Tightening Torques

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



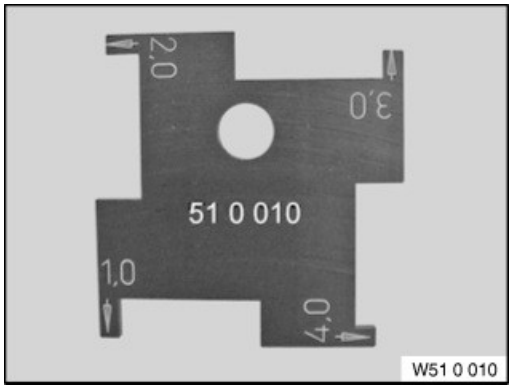
Common — Used in step 4

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)

carmagn.com

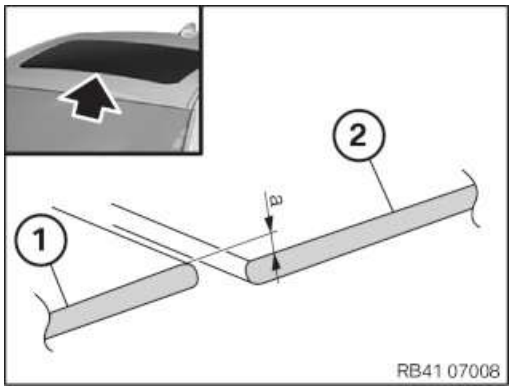
Overview Technical Data

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

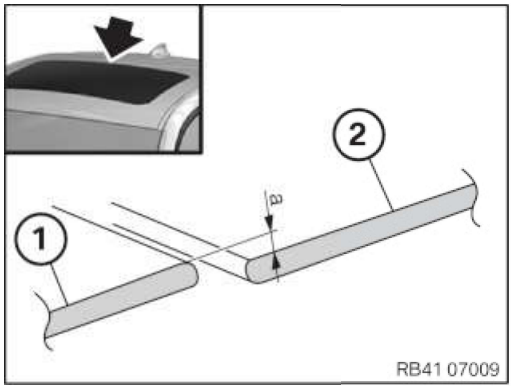


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 4

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm

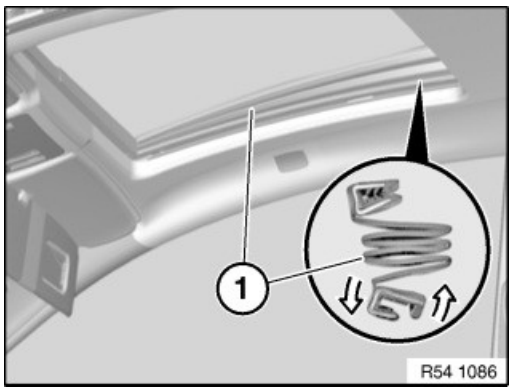


cardiagn.com

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

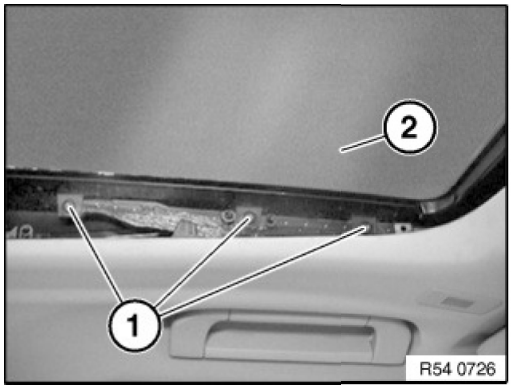


NOTICE

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

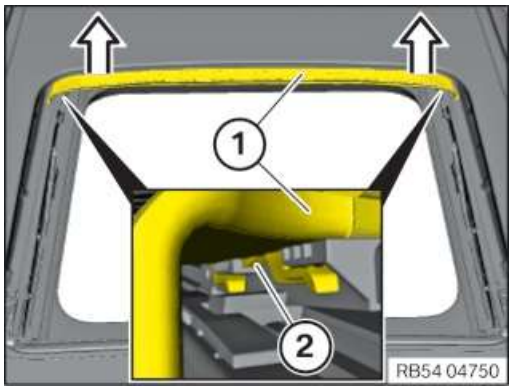


- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

cardiagn.com

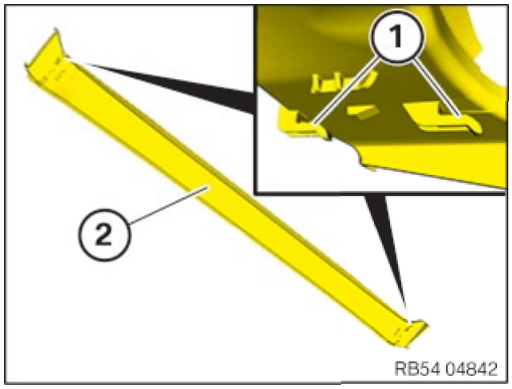
MAIN WORK

3 – Remove water channel

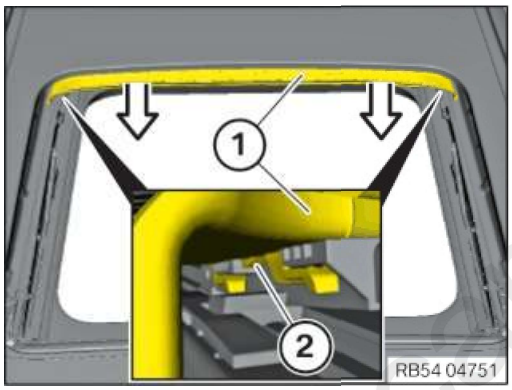


- Using a suitable tool, unlock the retaining lugs (2).
- Move the water channel (1) backwards and feed out.

4 – Install water channel



- Check retaining lugs (1) of the water channel (2) for damage and renew, if necessary.

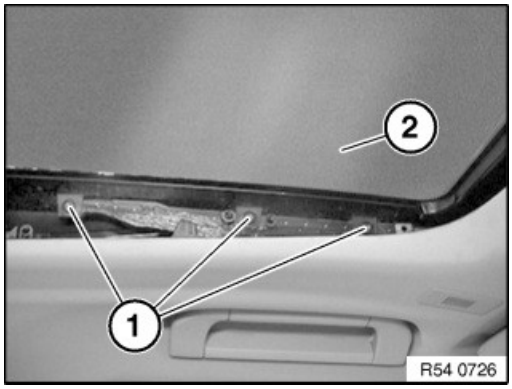


- Feed in the water channel (1) from rear and move towards front until the retaining lugs (2) engage.

carfdiag.com

POSTPROCESSES

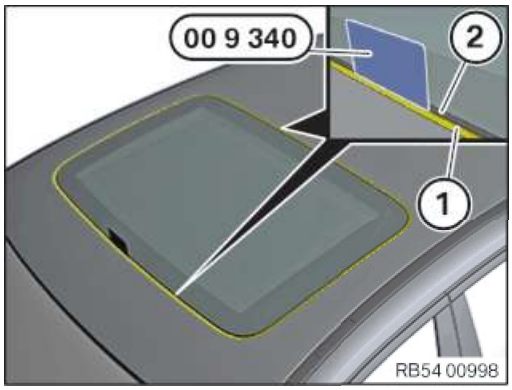
5 – Install glass slide/tilt sunroof panel



- 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.

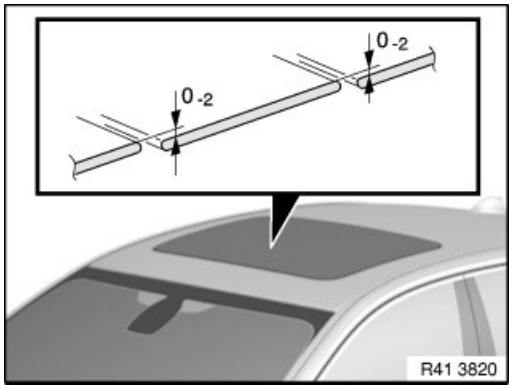
6 – Check the setting of the glass slide/tilt sunroof panel



- 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.

cardiagn.com

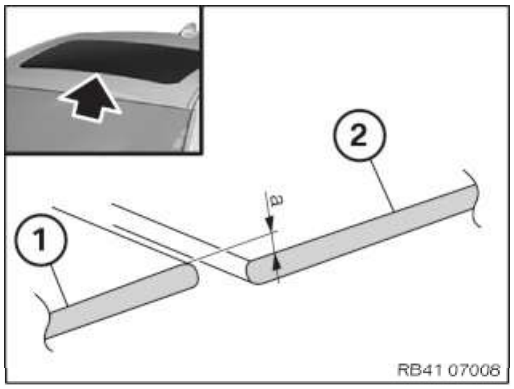


- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

Gap dimension roof outer skin to glass slide/tilt sunroof panel

1 roof outer skin; 2 glass slide/tilt sunroof panel

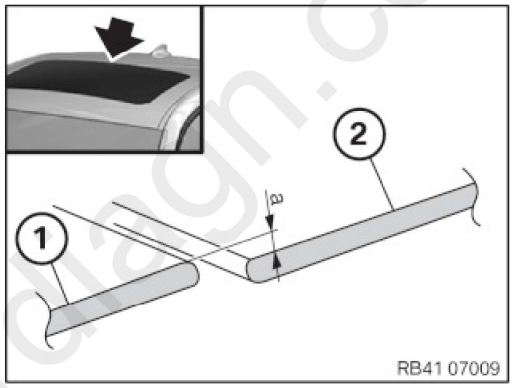
a	0,7 (-0,05 - 1,45) mm

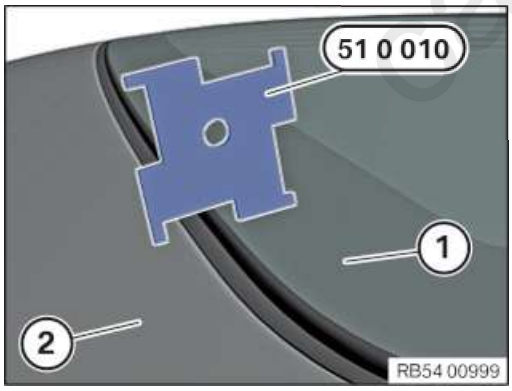


Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm

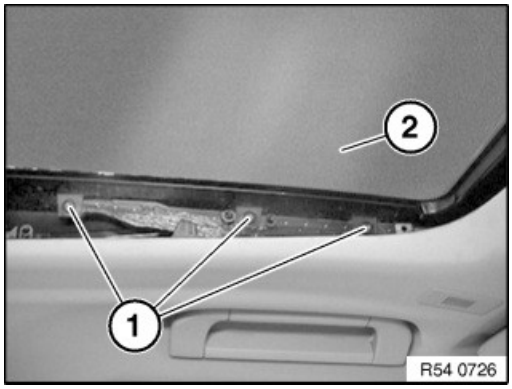




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

7 – Adjusting glass slide/tilt sunroof panel

cardiagn.com



- 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

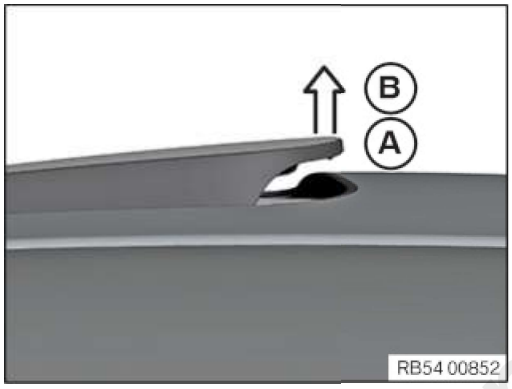
M5	Replace screws.	4,5 Nm

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.

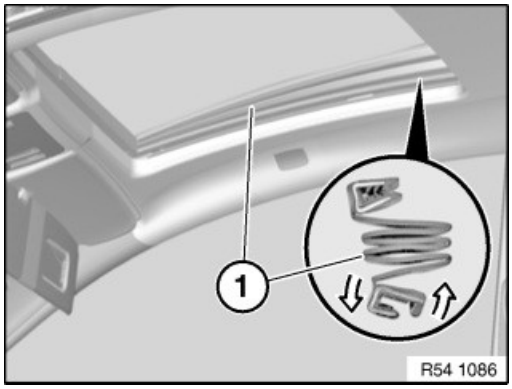
TECHNICAL INFORMATION

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

cardiagn.com



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

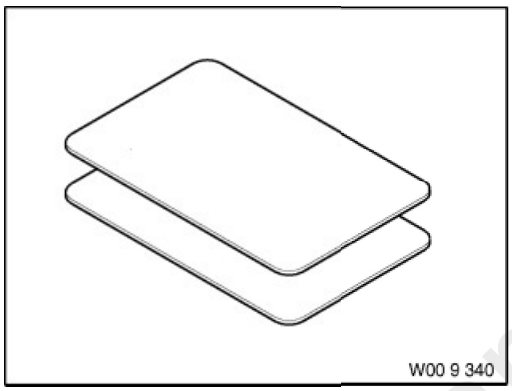
Overview of Tightening Torques

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



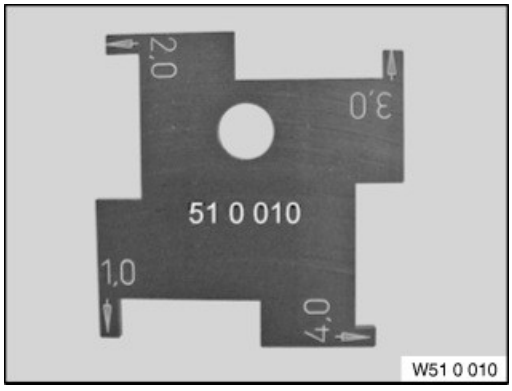
Common — Used in step 6

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)

carmagn.com

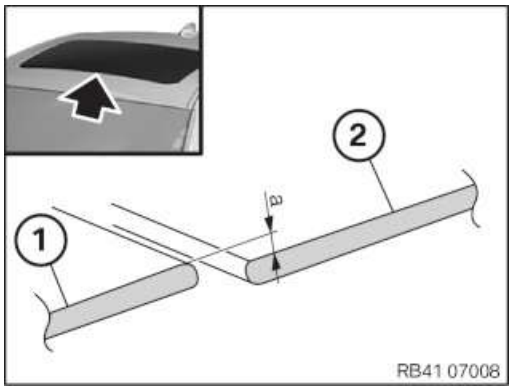
Overview Technical Data

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

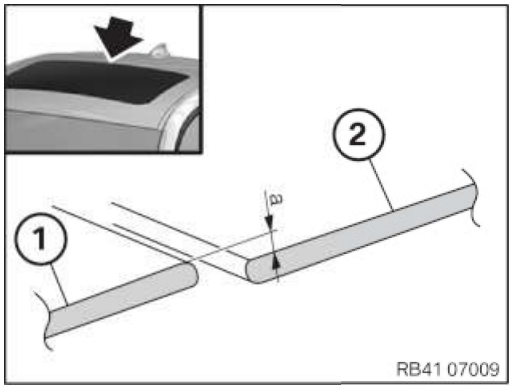


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 6

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



cardiagn.com

54 12 249 Removing and installing/replacing both drive cables for roller sunblind actuator

RISK OF DAMAGE

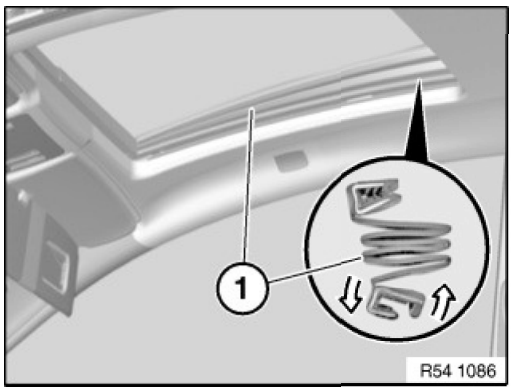
Fold the headlining.

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

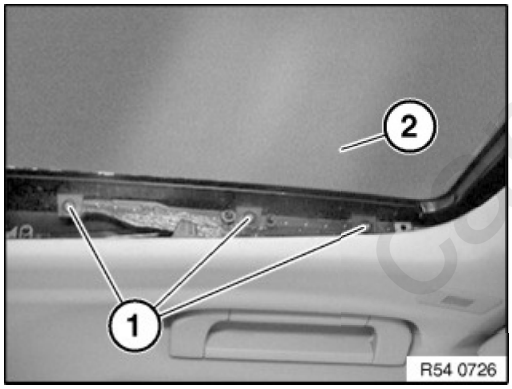


NOTICE

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.

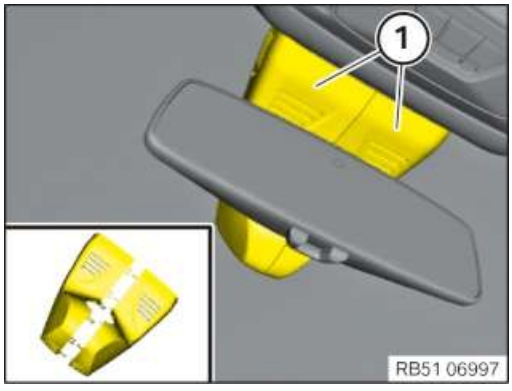
2 – Remove glass slide/tilt sunroof panel



- 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

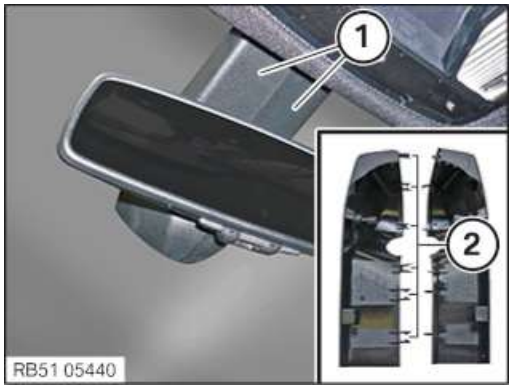
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

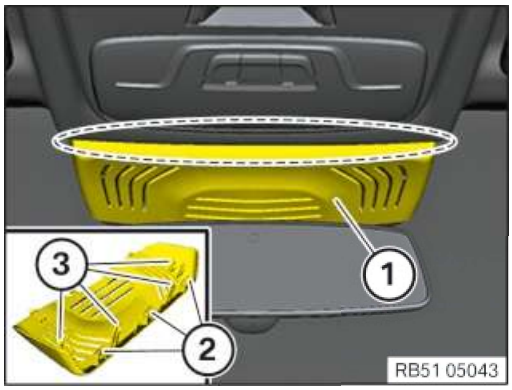
- **Version B:**

cardiagn.com

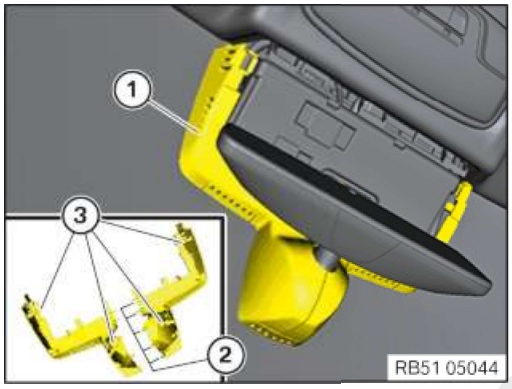


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **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

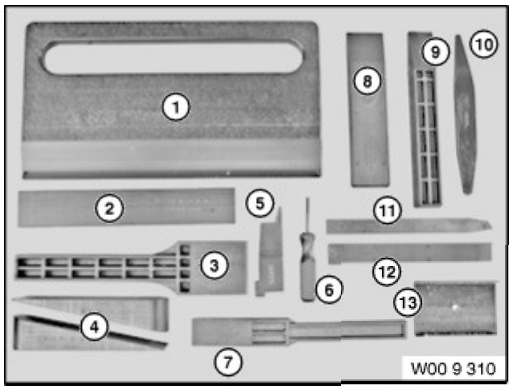
cardiagn.com

WARNING

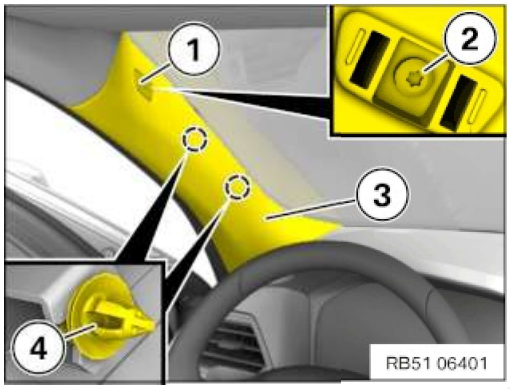
Pyrotechnic components.

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.



- 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

cardiagn.com

NOTICE

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

▸ **Remove the counter support for the sun visor**

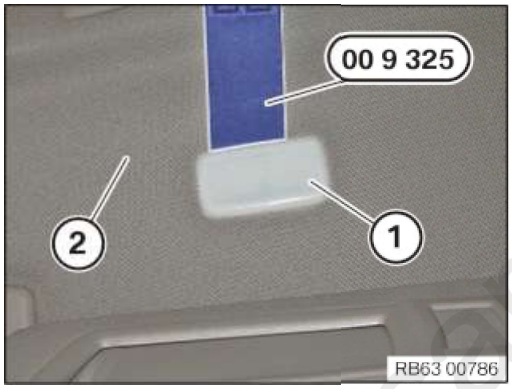


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

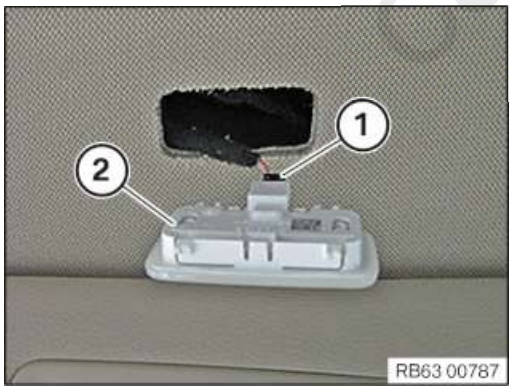
7 – Removing front vanity mirror light

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).



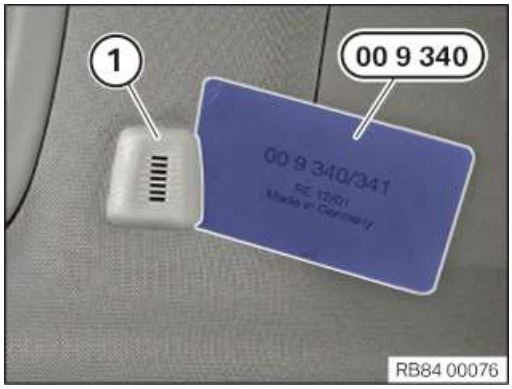
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

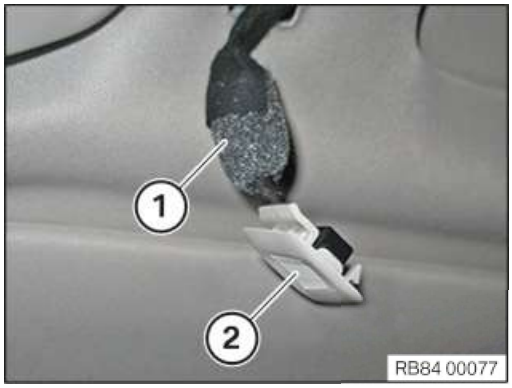
NOTICE

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).

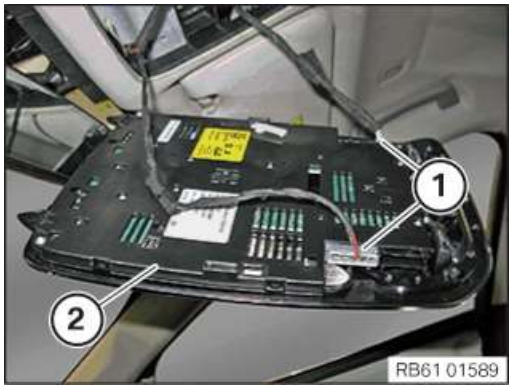


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

@diagn.com



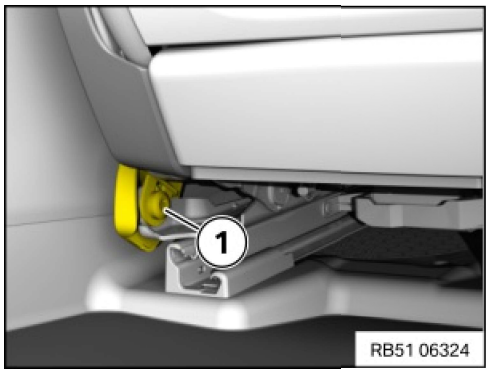
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

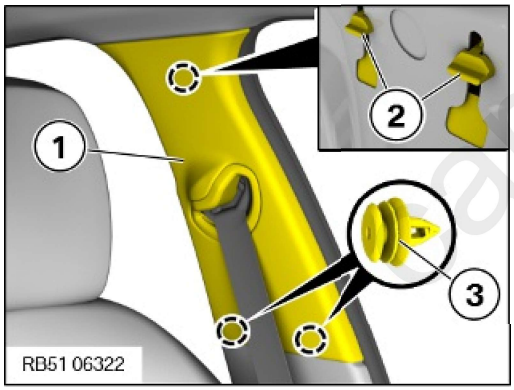
NOTICE

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

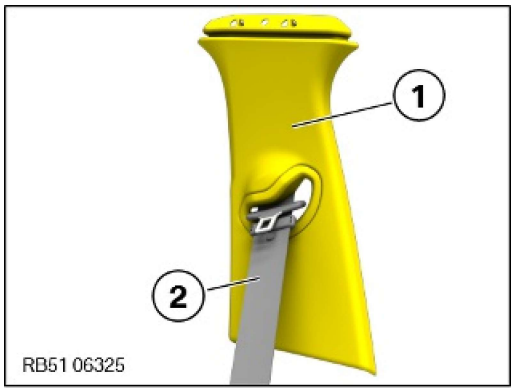
▶ **Remove the B-pillar trim panel**



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



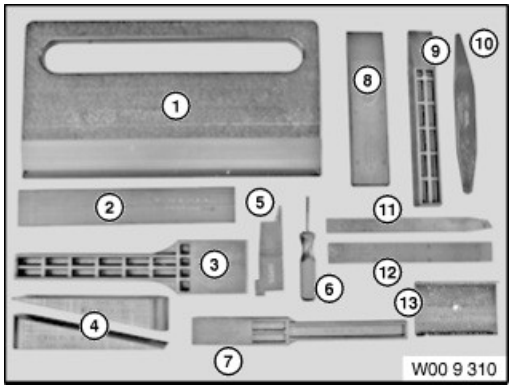
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



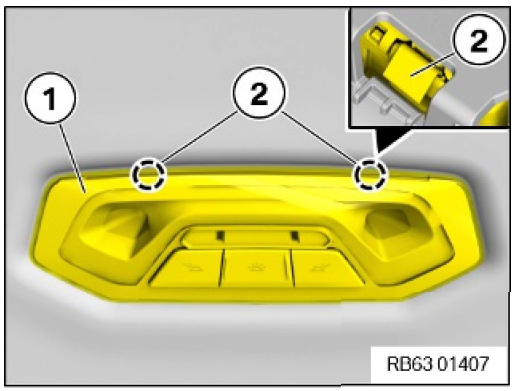
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

cardiagn.com

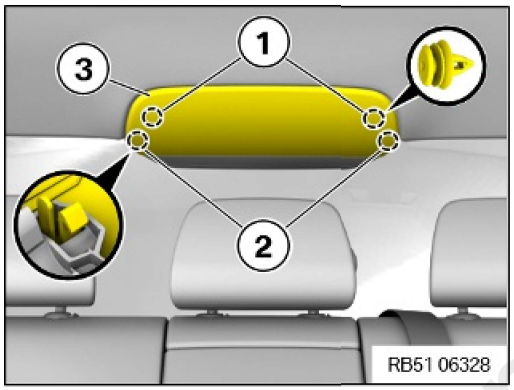


- Have the set of special tools 0 493 752 (00 9 329) ready.



- 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

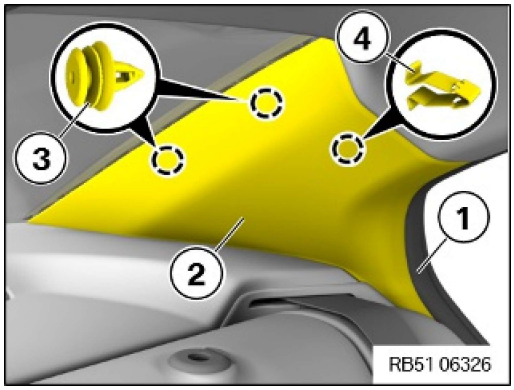
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

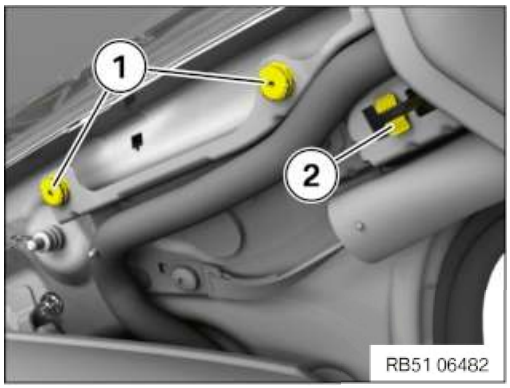
NOTICE

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

cardiagn.com



- 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).



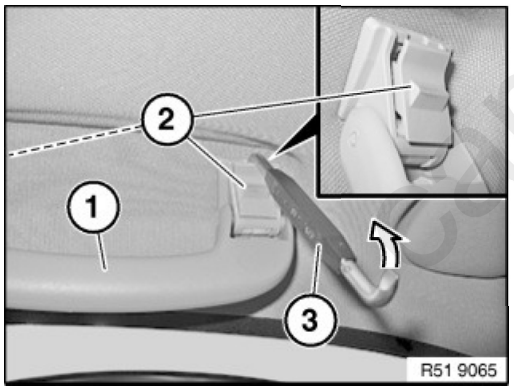
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

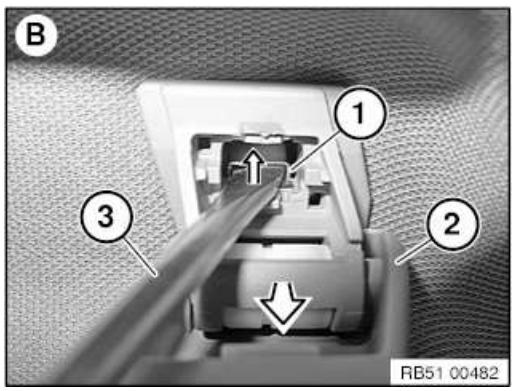
NOTICE

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.

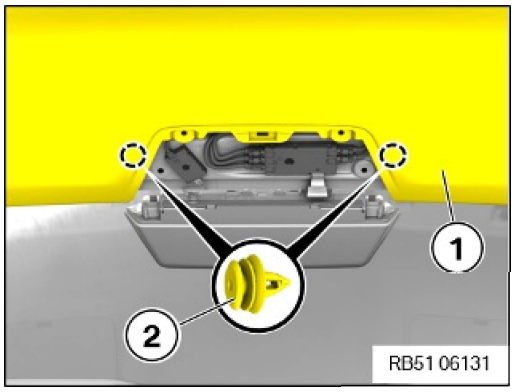
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

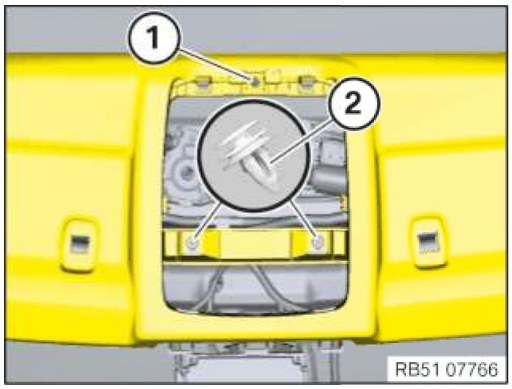
Fold the headlining.

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**

cardiagn.com

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

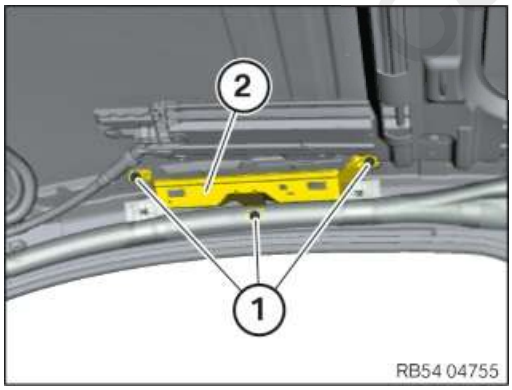
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

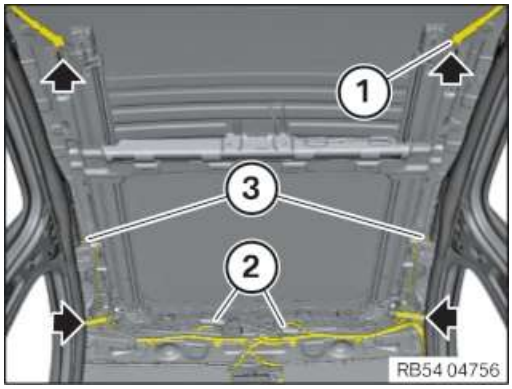


- Protect the working area with a suitable cover (1) to protect against falling swarf.

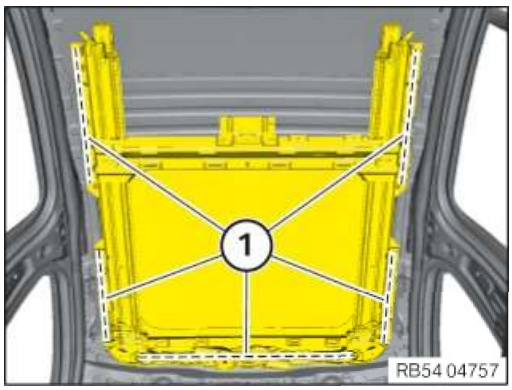


- Drill out blind rivets (1) and remove both rear holders (2).

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

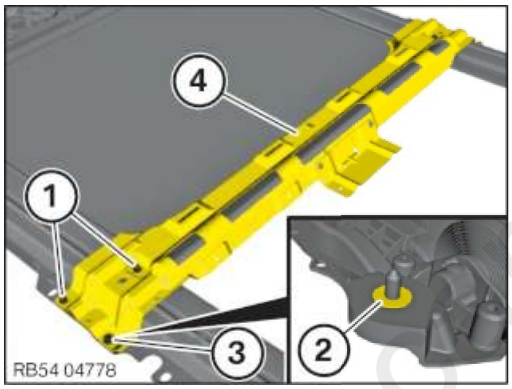
Heavy component.

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

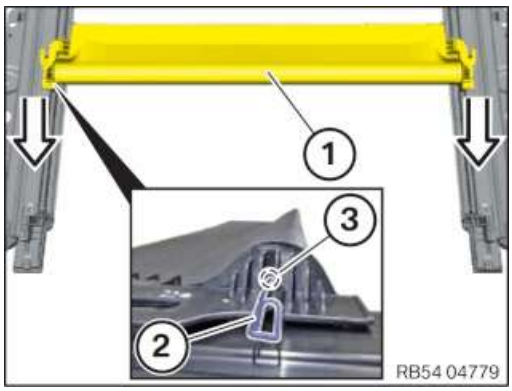


NOTICE

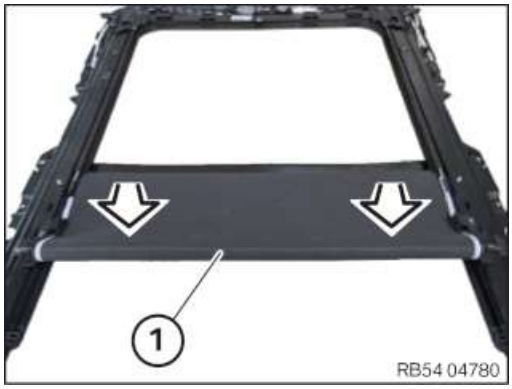
Perform the operations on the left and right side.

- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

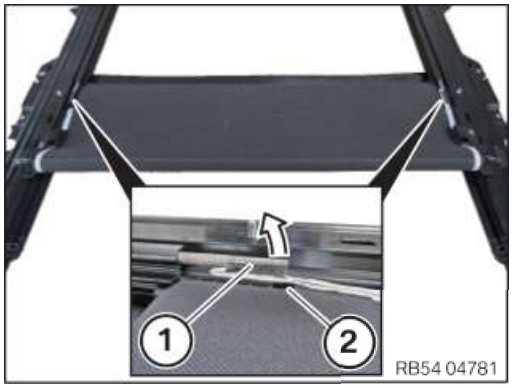
19 – Removing roller sunblind for the panorama glass roof



- 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).



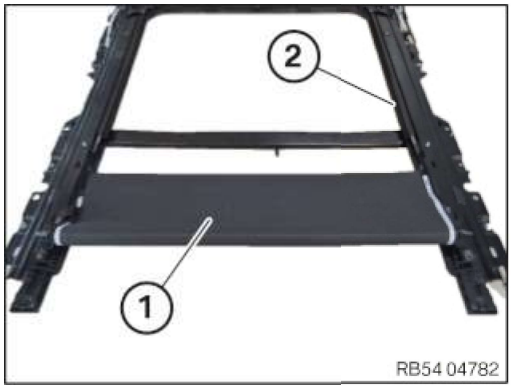
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



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).

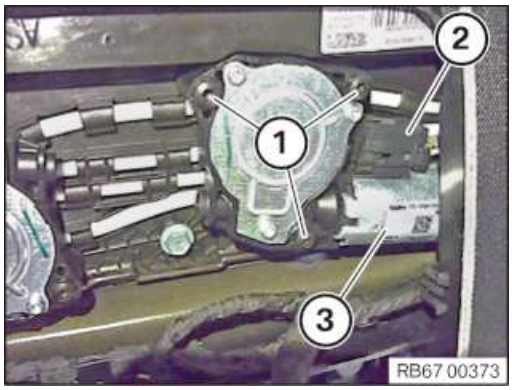
MAIN WORK

20 – Remove the drive cable for the roller sunblind

▸ **Remove electric motor for roller sunblind**

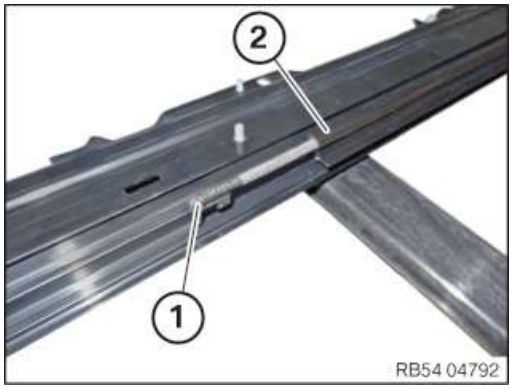
Prerequisite

Sun protection must be located in the open position.



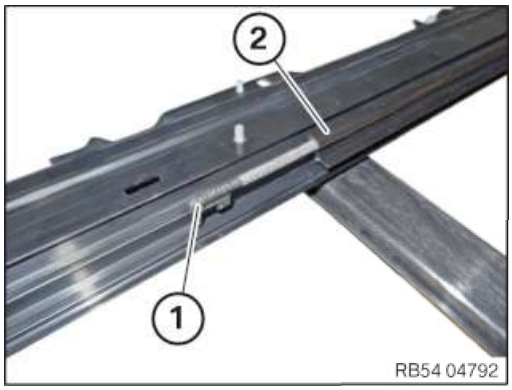
- Loosen screws (1).
- Unlock plug connection (2) and disconnect.
- Feed out drive motor for the sun protection (3).

cardiagn.com



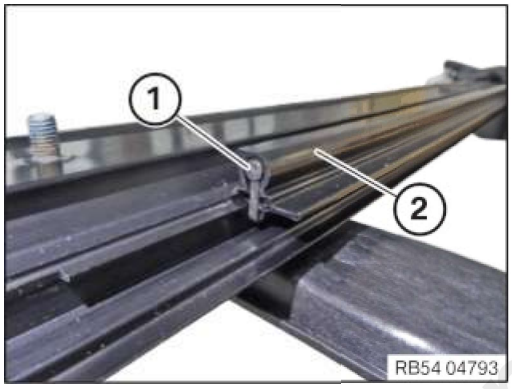
- Feed drive cable (1) out of the panorama glass roof frame (2) to the rear.

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

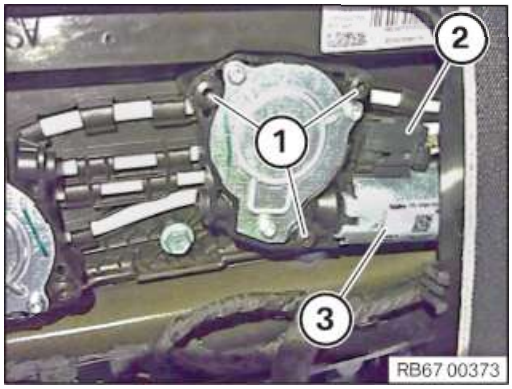
Perform the operations on the left and right side.

- 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.



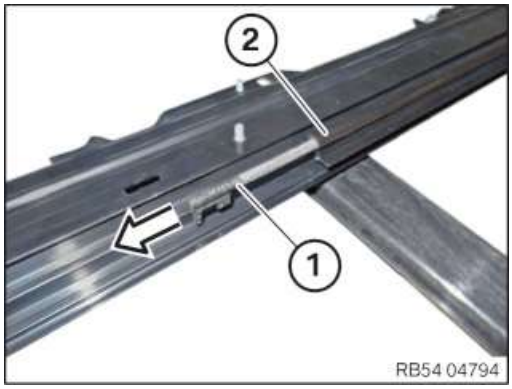
- Guide in the drive of the roller sunblind (3) and position correctly.
- Connect connectors (2) and lock.
- Tighten the screws (1).

Drive for panorama sunroof to body

Screw		Tightening torque	5,5 Nm

-

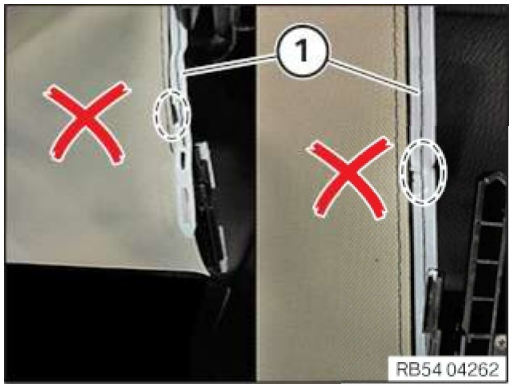
cardiagn.com



- Pull out drive cable of the sun protection (1) manually out of the slide/tilt sunroof frame (2) until a little resistance is noticeable.

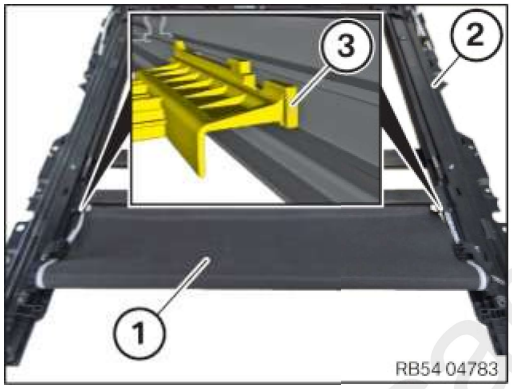
POSTPROCESSES

22 – Installing roller sunblind for the panorama glass roof

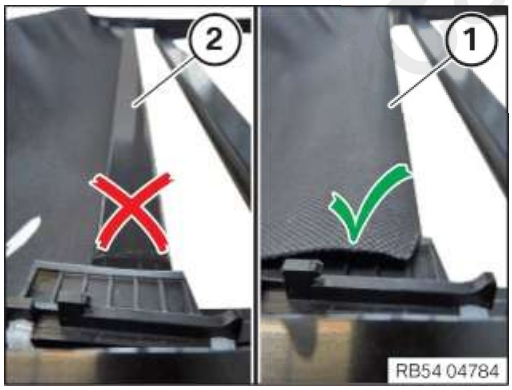


- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.



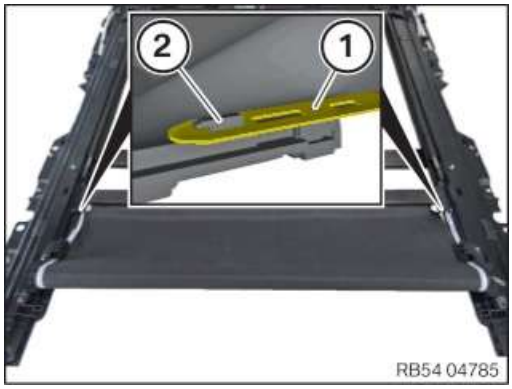
- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.



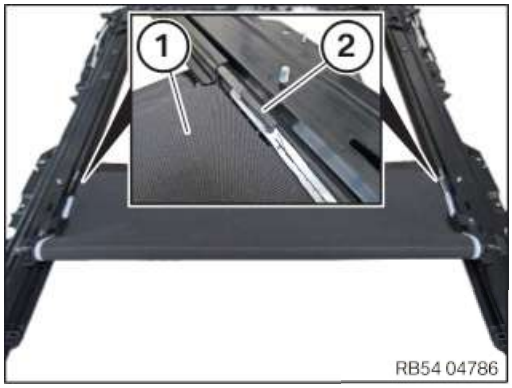
- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

  If necessary, turn the cross brace (1) through 360°.

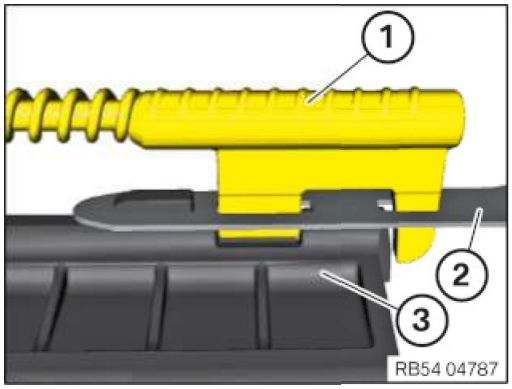
cardiagn.com



- Mount tensioning strap (1) on both sides of driver (2).



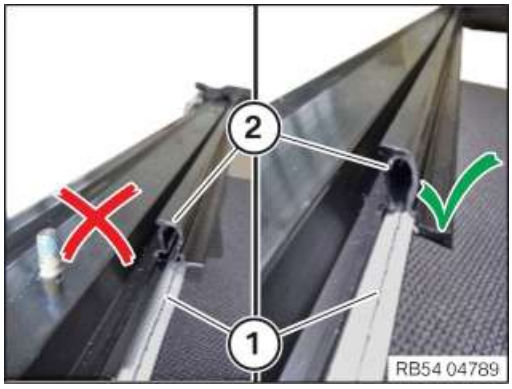
- Push the sunblind (1) forward until the drive (2) can be hooked.



- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).

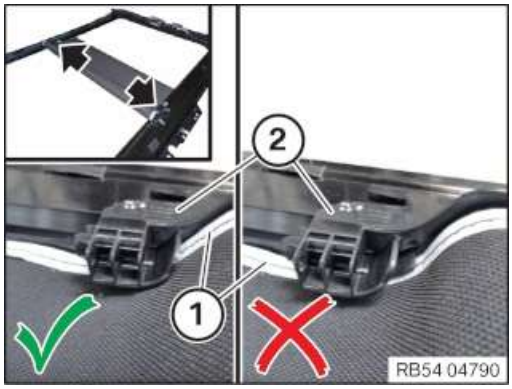


- Manually close the sunblind (1) a few cm.

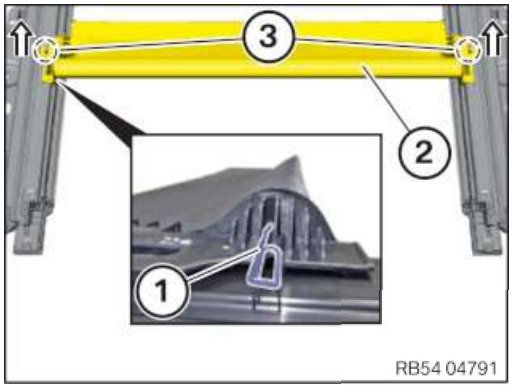


- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).

ardiagn.com

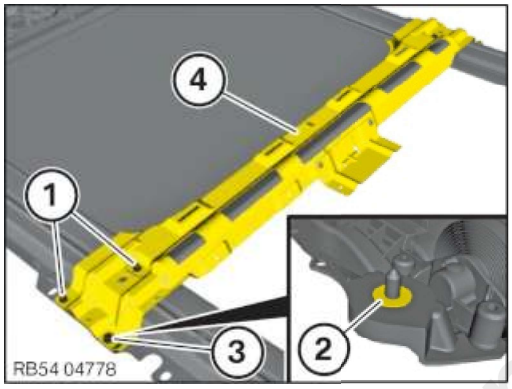


- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.



- 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

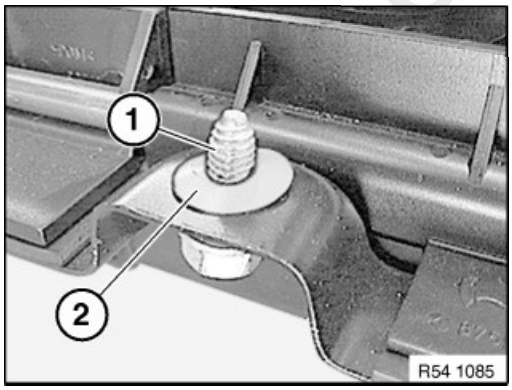
Perform the operations on the left and right side.

- Tighten nuts (1).

Cross member to glass slide/tilt sunroof frame		
Nut		5,5 Nm

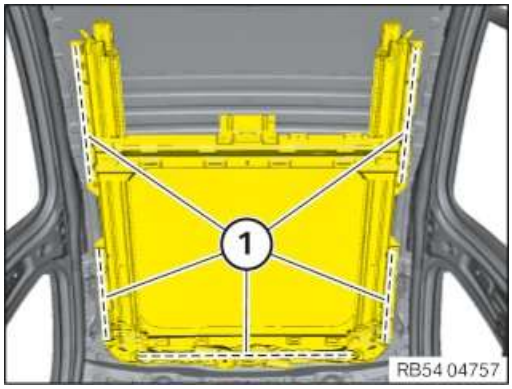
- Position retaining washer (2) and insert screw (3).

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.

cardiagn.com



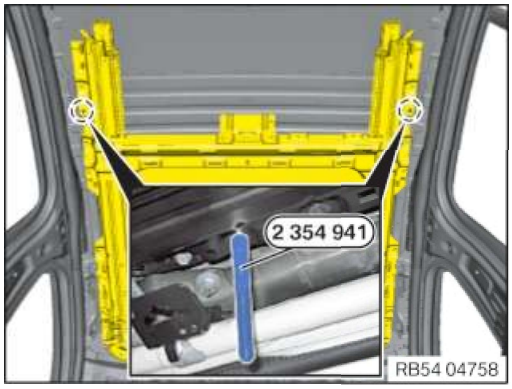
RISK OF DAMAGE

Heavy component.

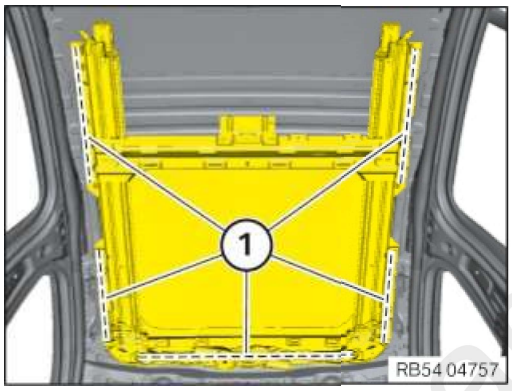
Heavy components can lead to injury or damage.

- 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.



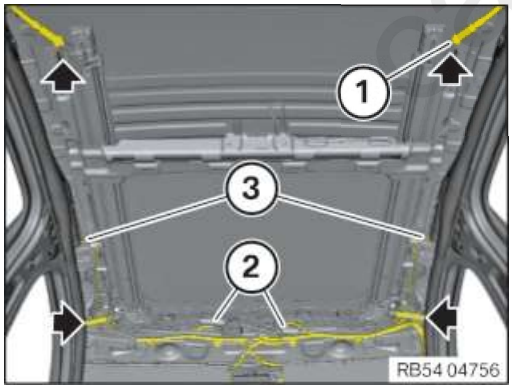
- Insert the special tool and align the panorama glass roof (1) with the roof.



- 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

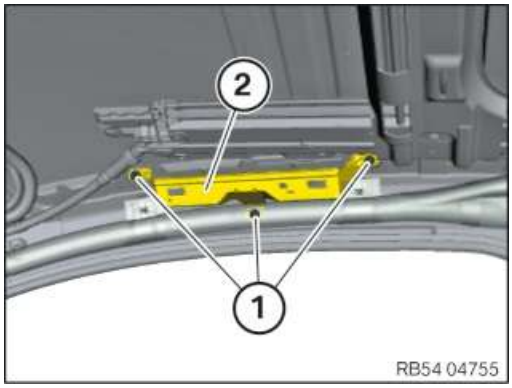
Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

carldiag.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.

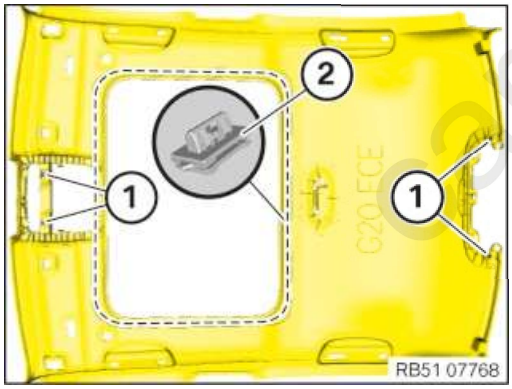
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

Fold the headlining.

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

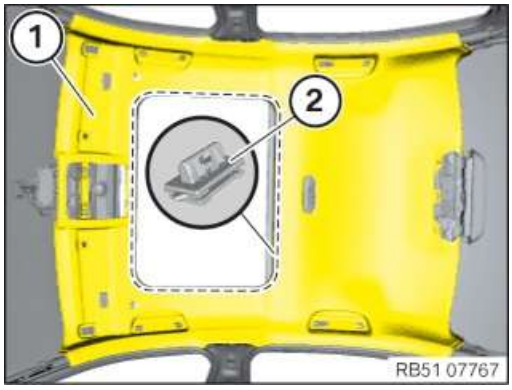
- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.



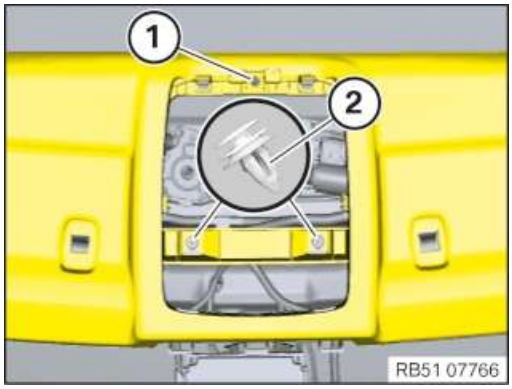
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



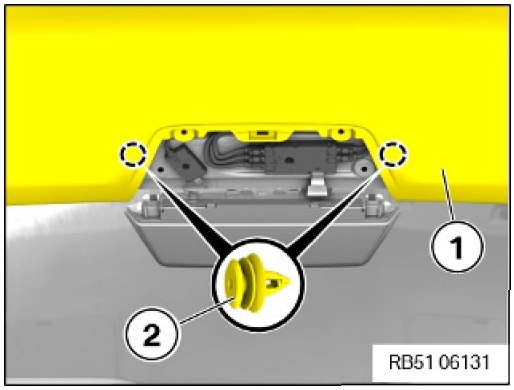
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

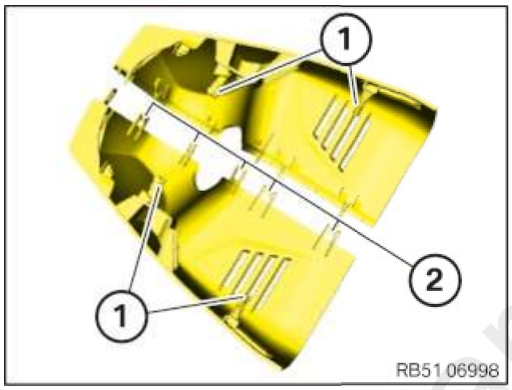
Oval-head screw		Tightening torque	1,5 Nm



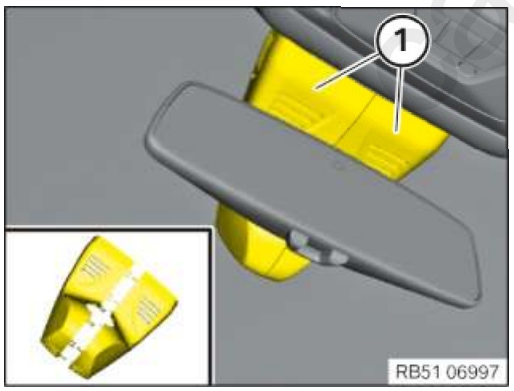
- Clip headlining (1) to the clips (2).

27 – Installing the covers for the interior mirror

- **Version A:**

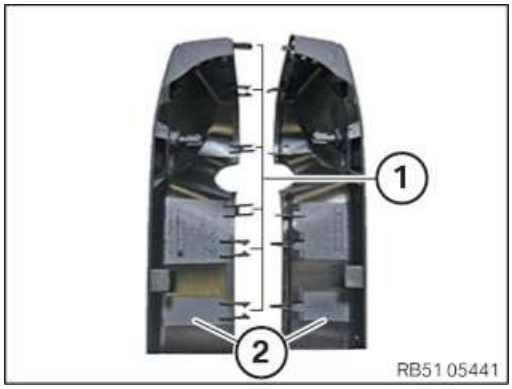


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



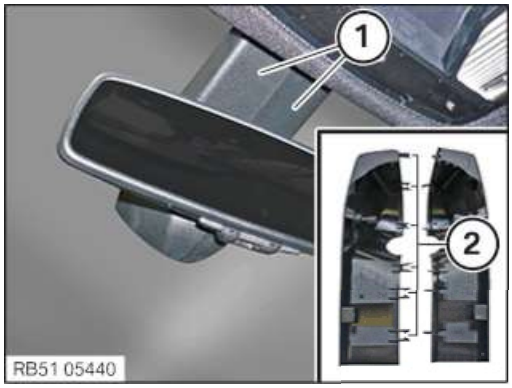
- Feed cover (1) in and lock.
- **Version B:**

carmanualsdiagram.com



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

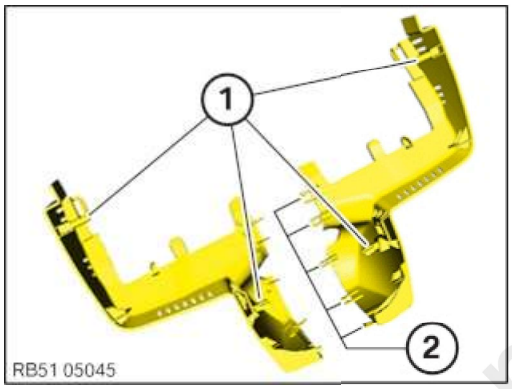
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



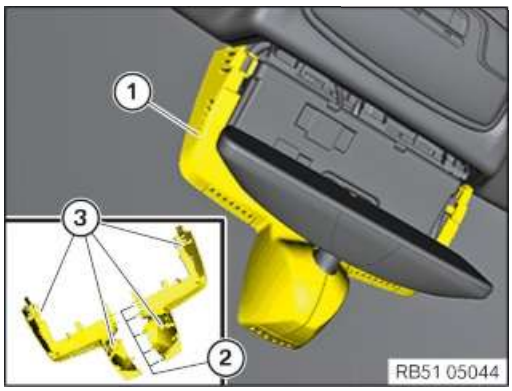
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

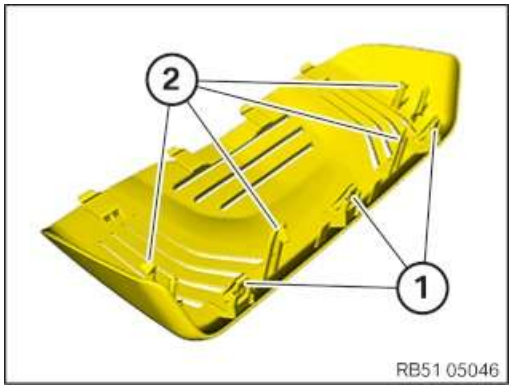
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

cardiagn.com



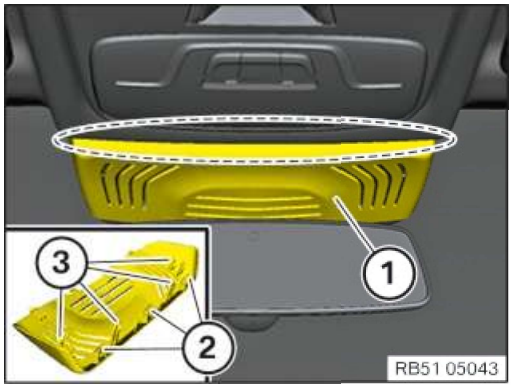
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

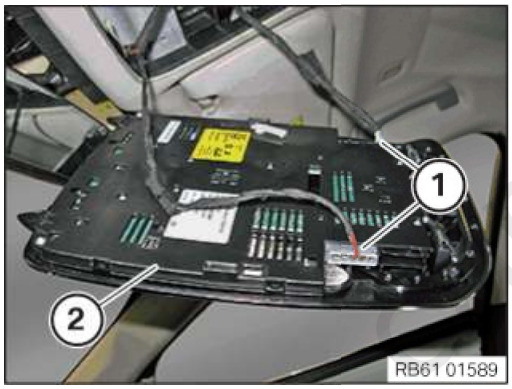
Measure

- Renew the cover.

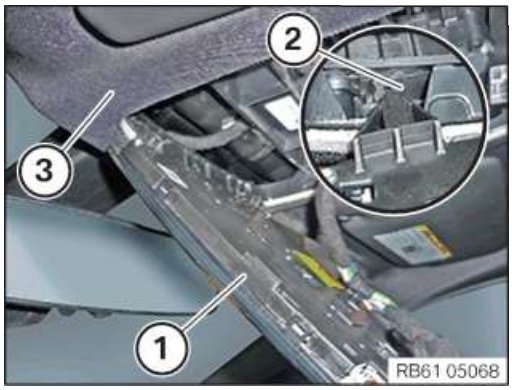


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

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.

vwdiagn.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).

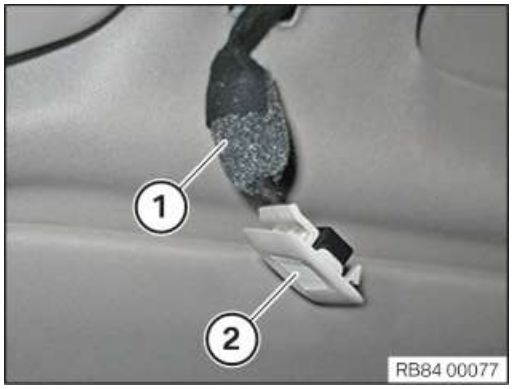
29 – Install both microphones

NOTICE

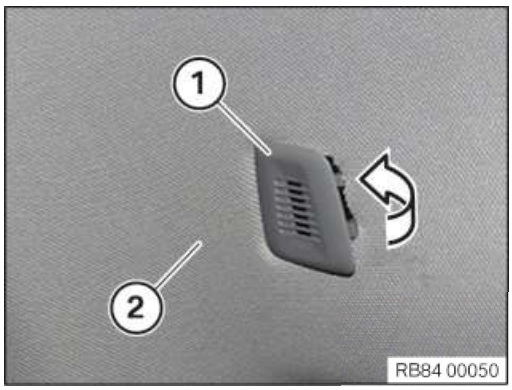
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

cardiagn.com



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

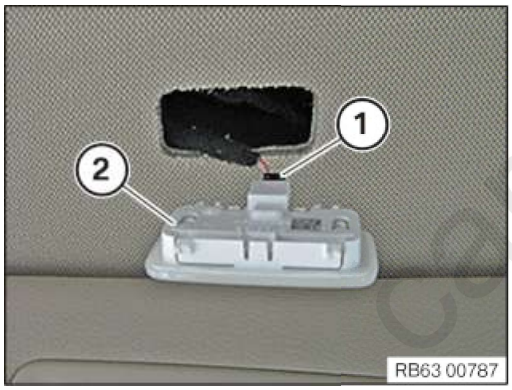


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

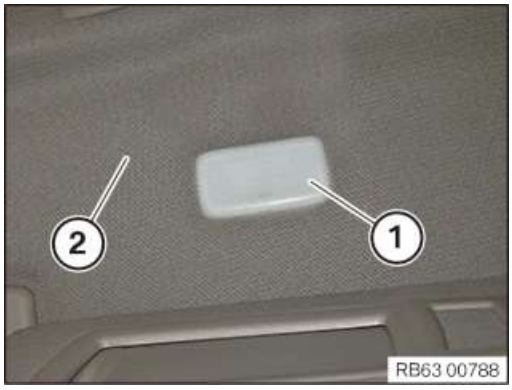
30 – Installing front vanity mirror light

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.

carldiag.com

▸ **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

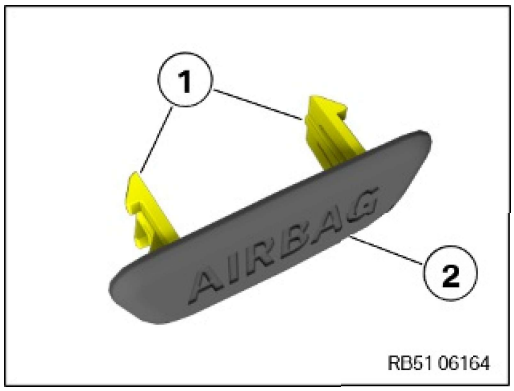
cardiagn.com

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.



Check

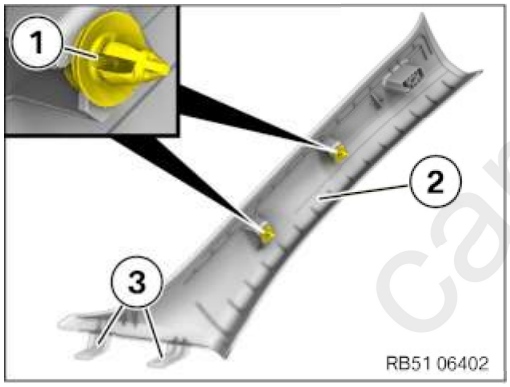
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

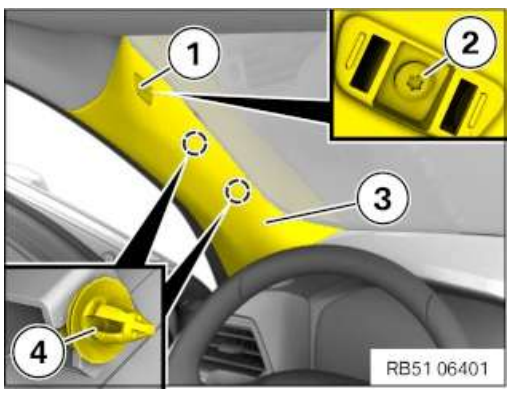
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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).

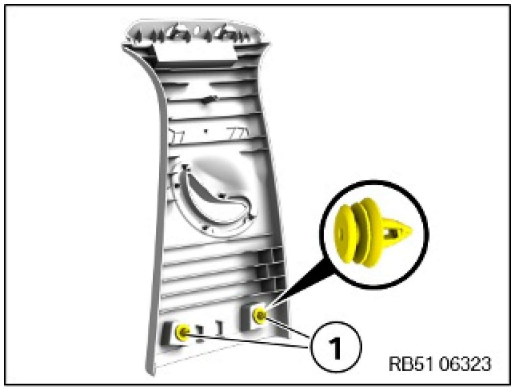
34 – Installing both B-pillar trim panels

cardiagn.com

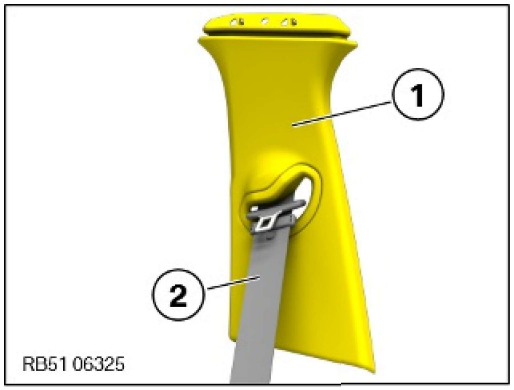
NOTICE

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

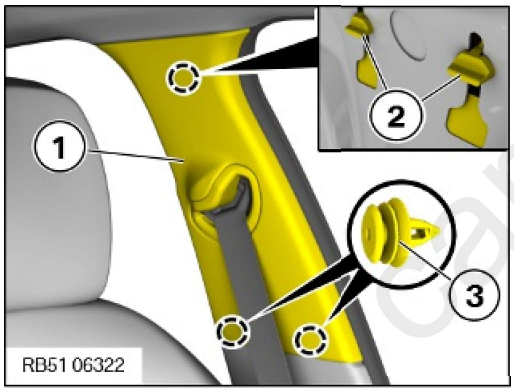
▶ **Install the B-pillar trim panel**



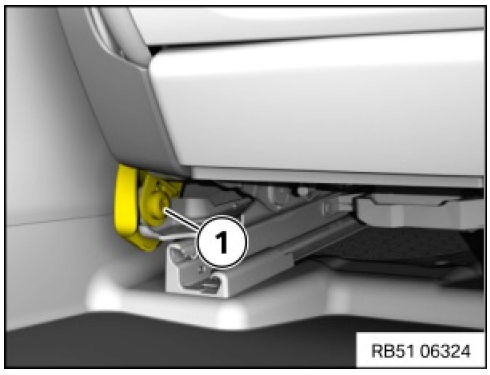
- Check the clips (1) for damage and renew if necessary.



- 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

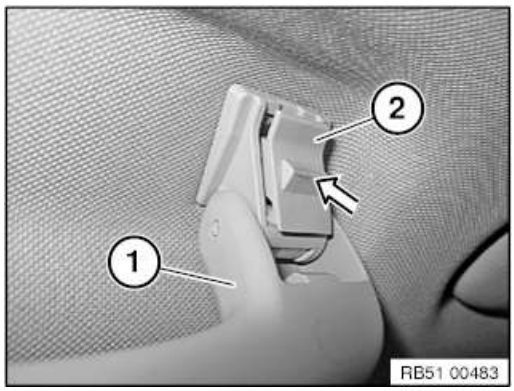
35 – Installing all grab handles

cardiagn.com

NOTICE

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

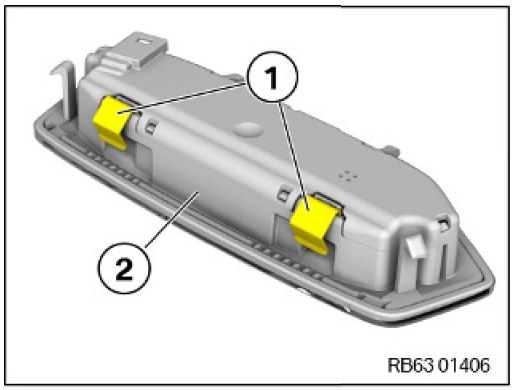
▸ **Installing the grab handle**



- 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



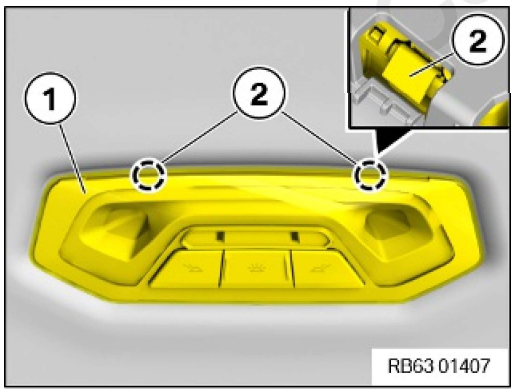
- Check the clamps (1) for damage.

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).

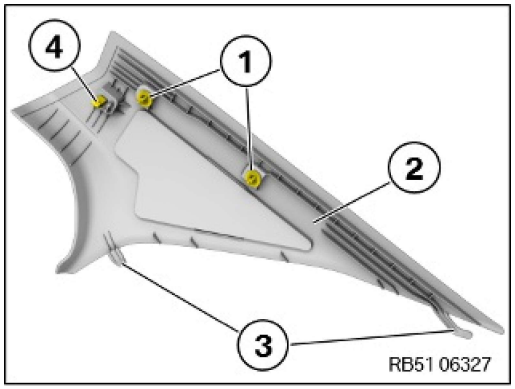
37 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

carDiagn.com



Check

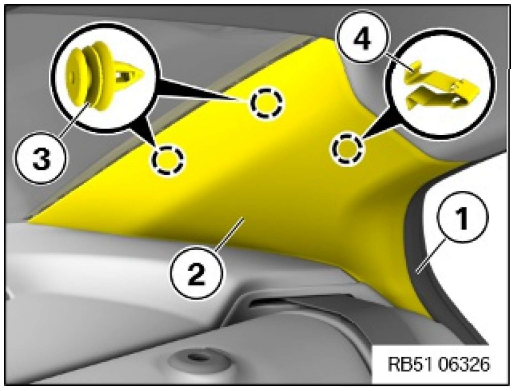
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

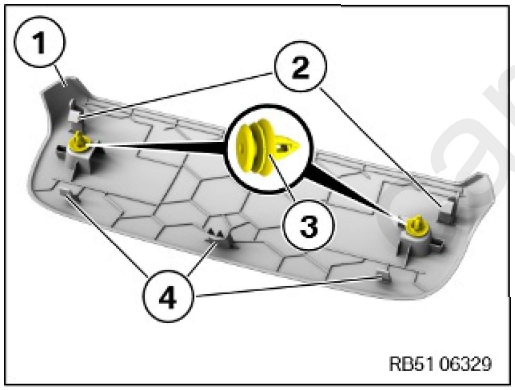


NOTICE

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

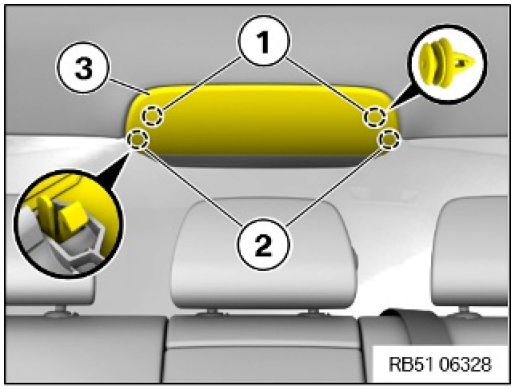
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

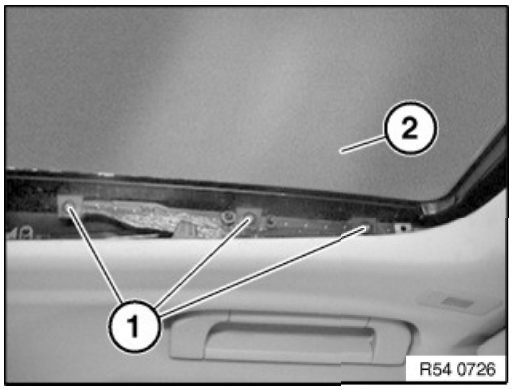
Measure

- 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).

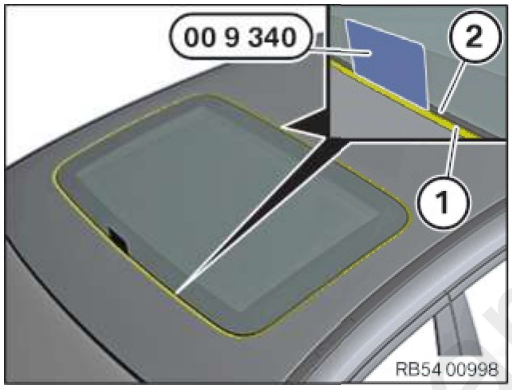
39 – Install glass slide/tilt sunroof panel



- 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.

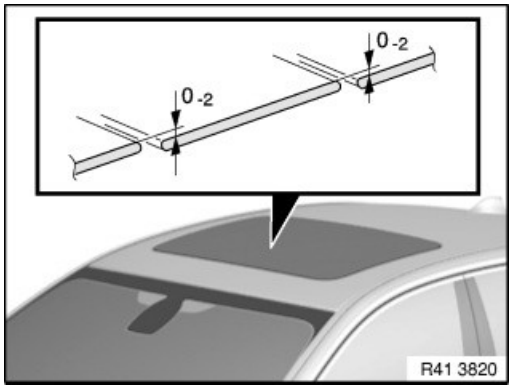
40 – Check the setting of the glass slide/tilt sunroof panel



- 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.

cardiagn.com

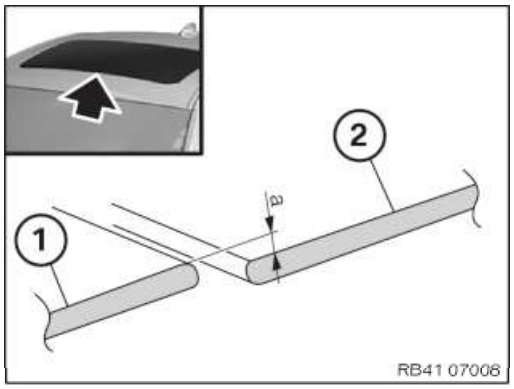


- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

Gap dimension roof outer skin to glass slide/tilt sunroof panel

1 roof outer skin; 2 glass slide/tilt sunroof panel

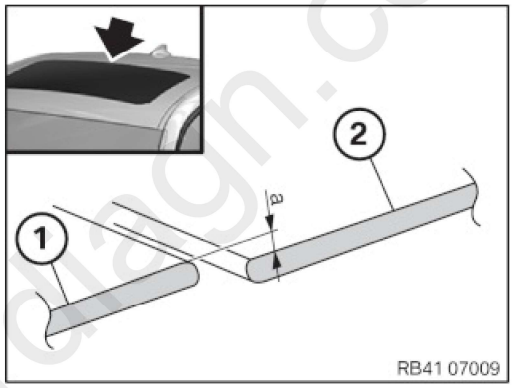
a	0,7 (-0,05 - 1,45) mm

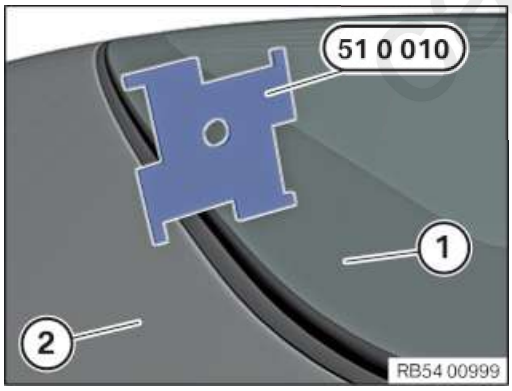


Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm

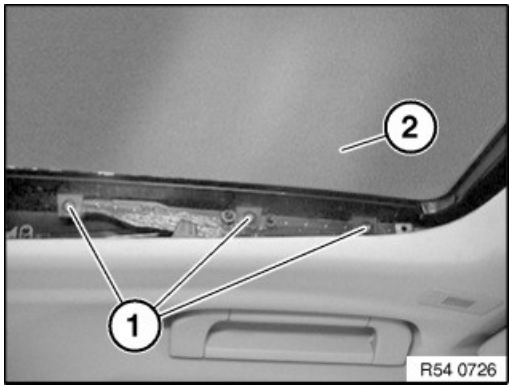




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

41 – Adjusting glass slide/tilt sunroof panel

cardiagn.com

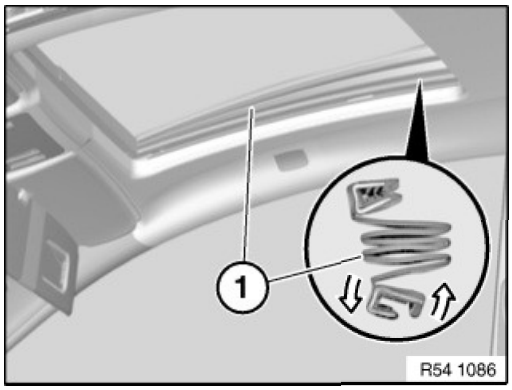


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

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.

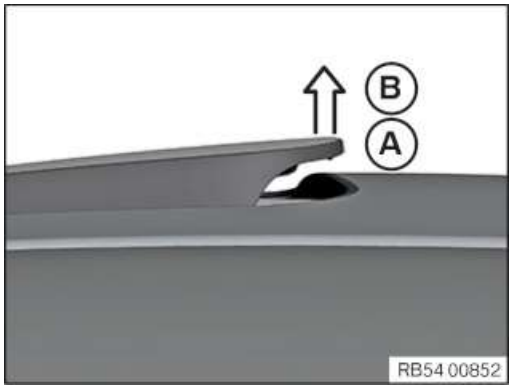
43 – Initialising the glass slide/tilt sunroof panel



- 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.

cardiagn.com



- 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).

cardiagn.com

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

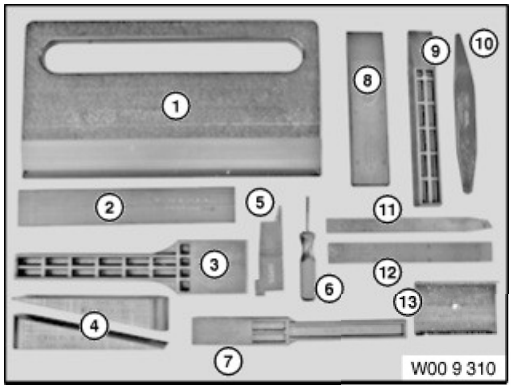
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

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)

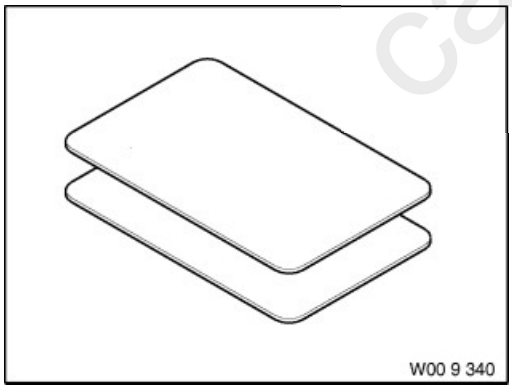
0 496 569 (00 9 325) Wedge



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

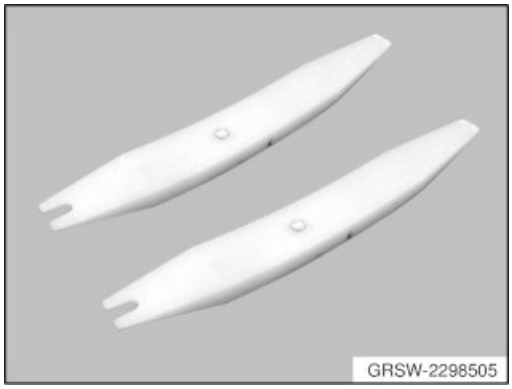
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

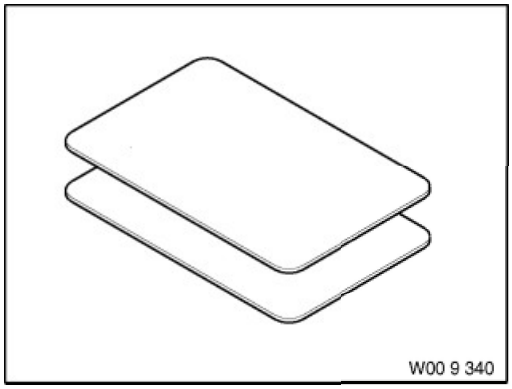
cardiagn.com

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

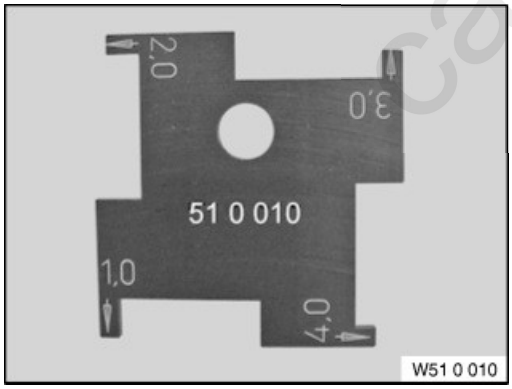


Common	Used in step 40
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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)

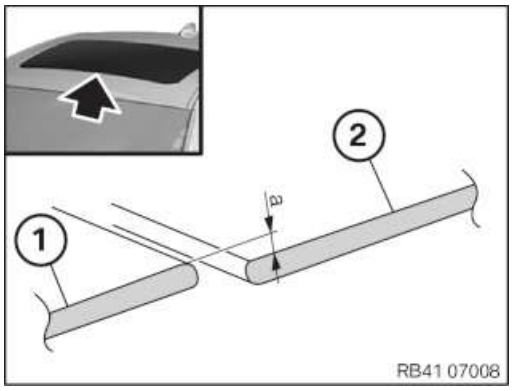
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 40

cardiagn.com

1 roof outer skin; 2 glass slide/tilt sunroof panel

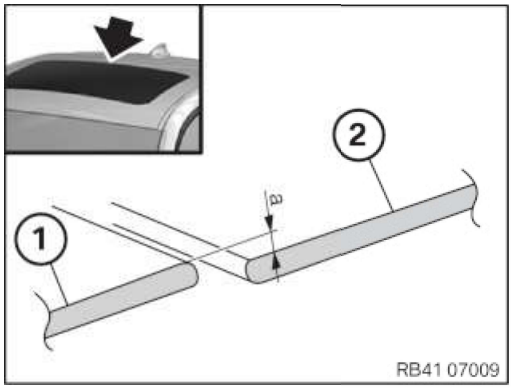
a	0,7 (-0,05 - 1,45) mm



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

cardiagn.com

54 12 336 Removing and installing/replacing mechanics for glass slide/tilt sunroof panel

RISK OF DAMAGE

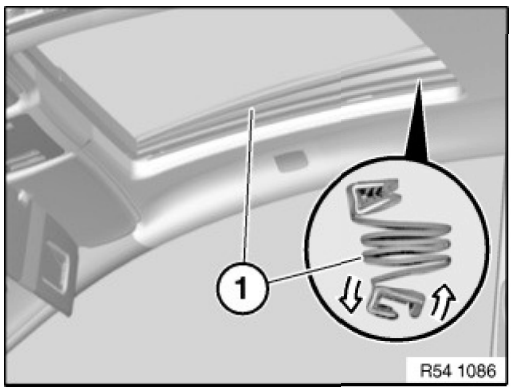
Fold the headlining.

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

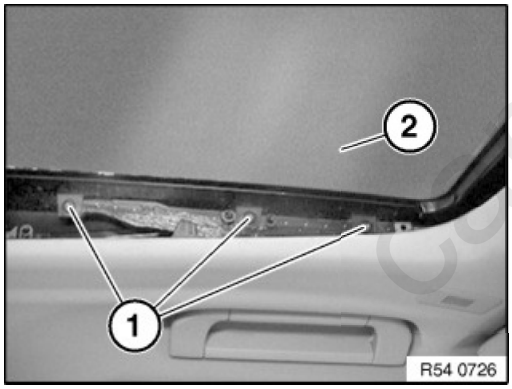


NOTICE

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

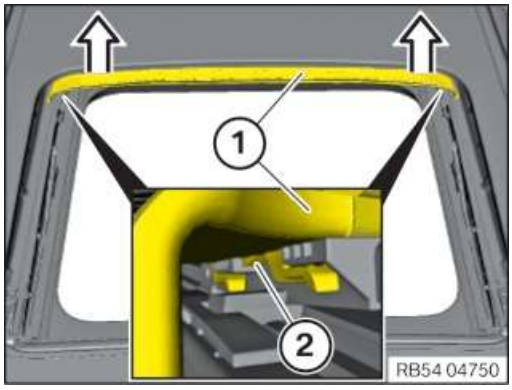
- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully pull off the gaiter (1) from the top guide.
- Carefully twist out the gaiter (1) from the bottom guide.

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

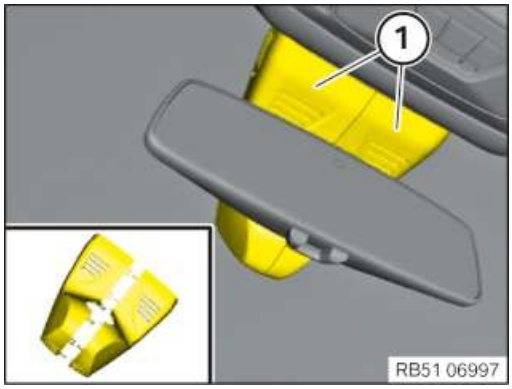


- Using a suitable tool, unlock the retaining lugs (2).
- Move the water channel (1) backwards and feed out.

4 – Removing the covers for the interior mirror

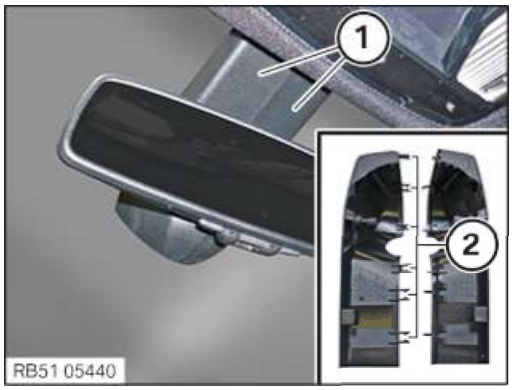
- **Version A:**

cardiagn.com



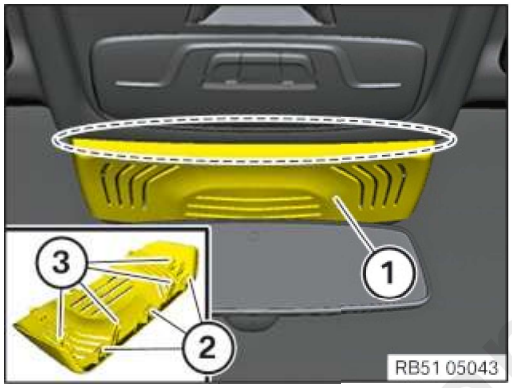
- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

- **Version B:**

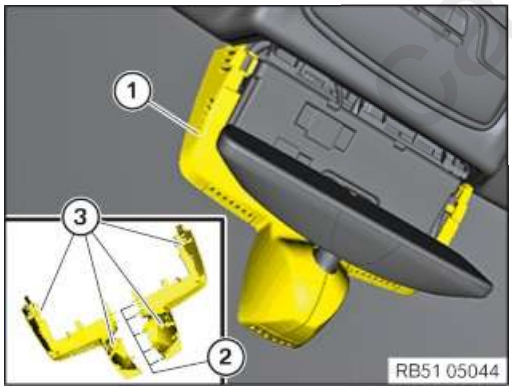


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **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**

carldiagn.com

WARNING

Airbag unit.

Danger! Life-threatening injuries!

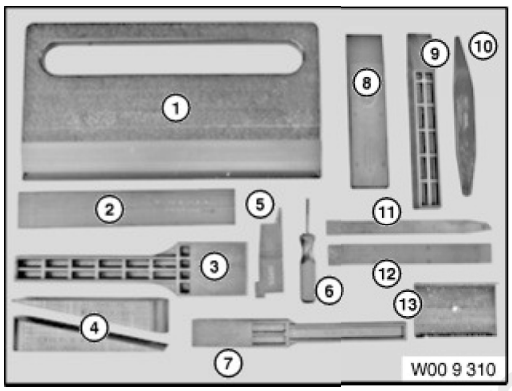
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

WARNING

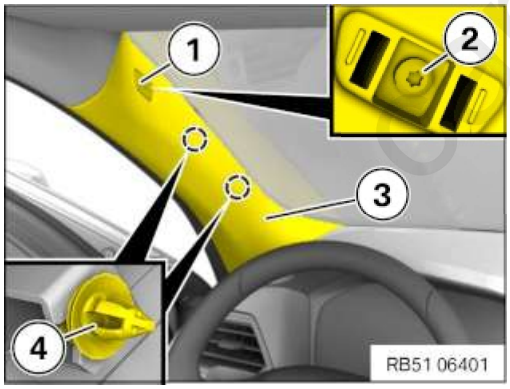
Pyrotechnic components.

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**

carsdiagn.com



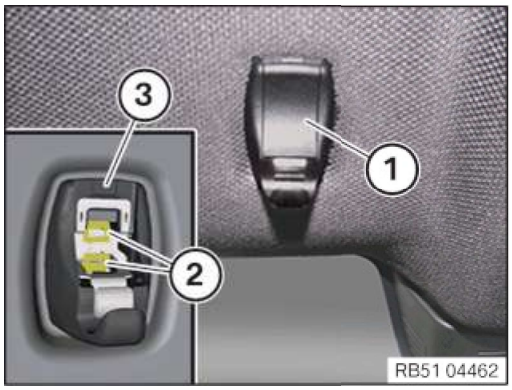
- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

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**

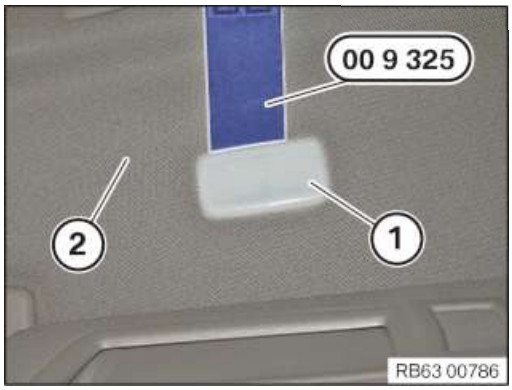


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

8 – Removing front vanity mirror light

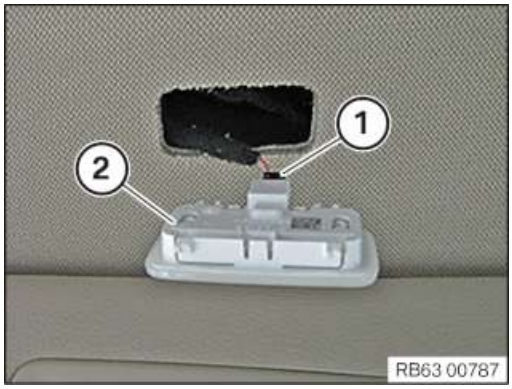
NOTICE

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).

cardiagn.com



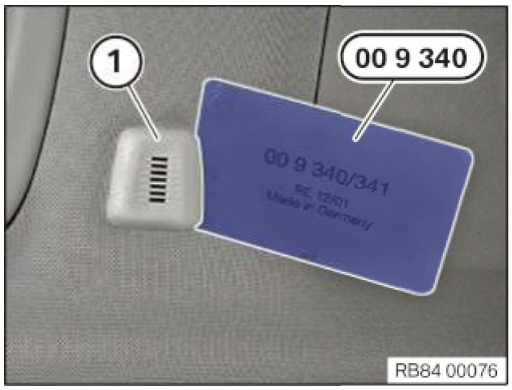
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

9 – Remove both microphones

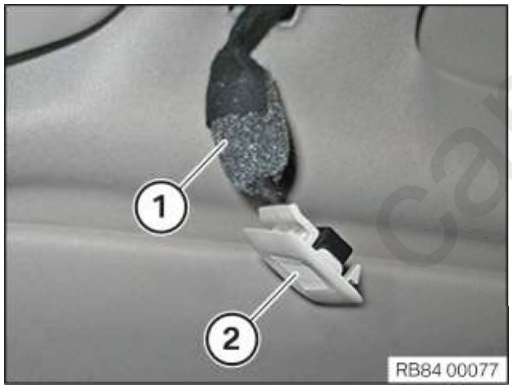
NOTICE

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).

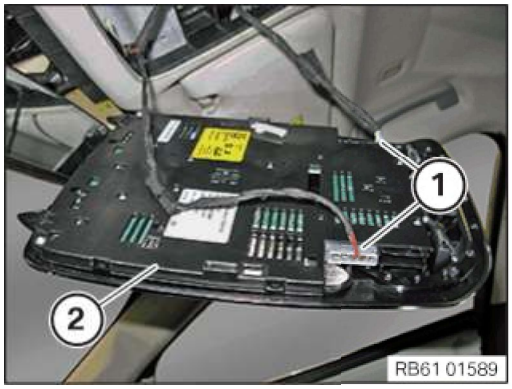
cardiagn.com



- 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).

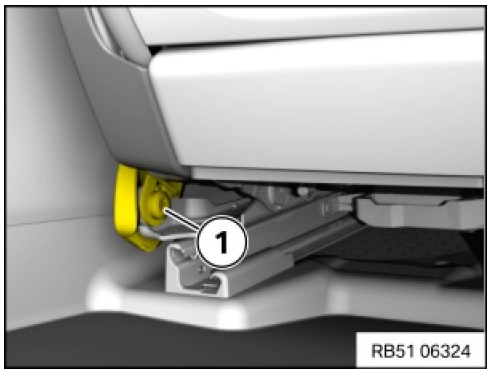


- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

11 – Removing both B-pillar trim panels

NOTICE

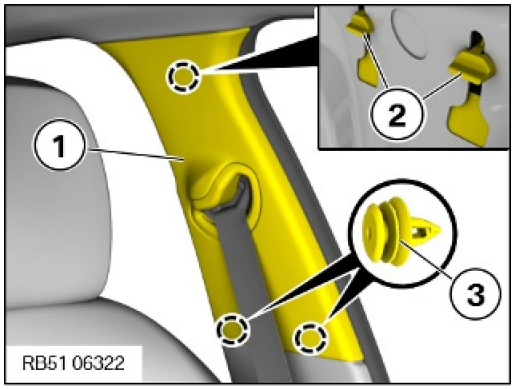
Description is for left component only. Procedure on the right side is identical.



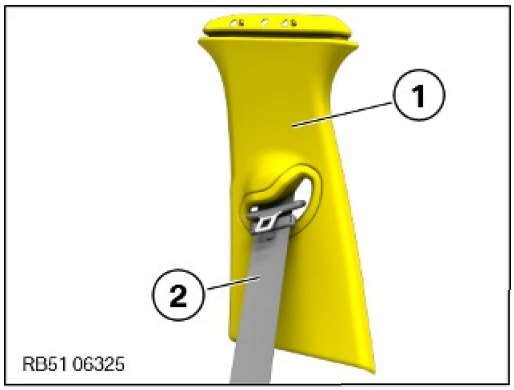
▶ **Remove the B-pillar trim panel**

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

cardiagn.com

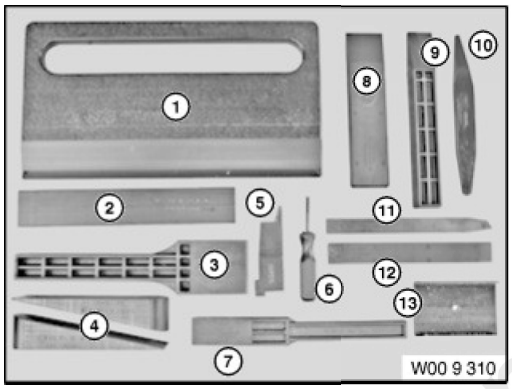


- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).

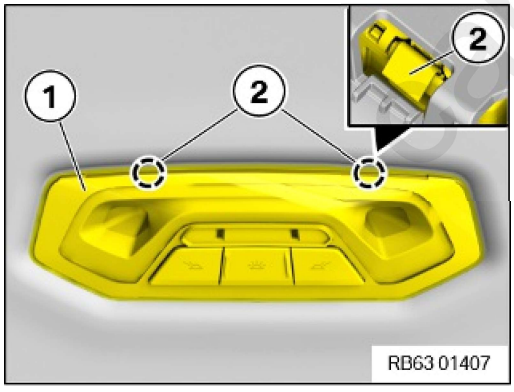


- Feed upper seat belt (2) out of B-pillar trim panel (1).

12 – Remove interior roof light

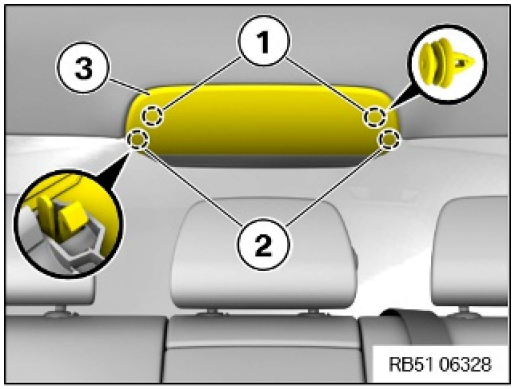


- Have the set of special tools 0 493 752 (00 9 329) ready.



- 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).

bmwdiagn.com

14 – Remove both C-pillar trim panels

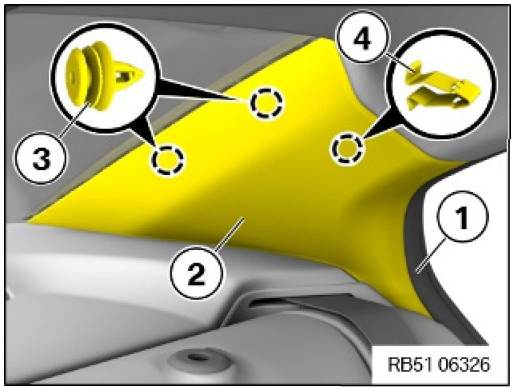
NOTICE

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

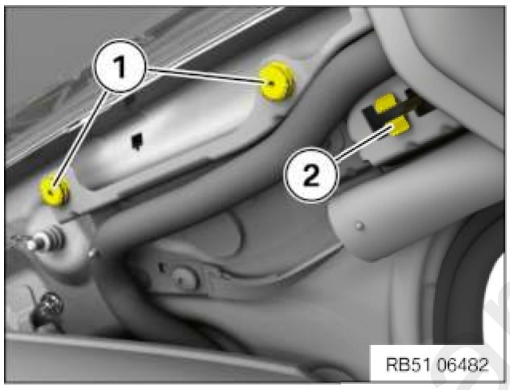
▸ **Remove C-pillar trim panel**

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).



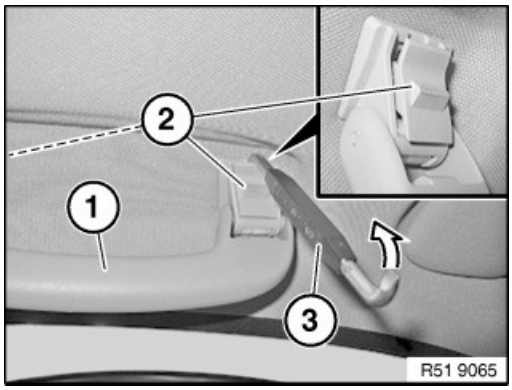
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

15 – Removing all grab handles

NOTICE

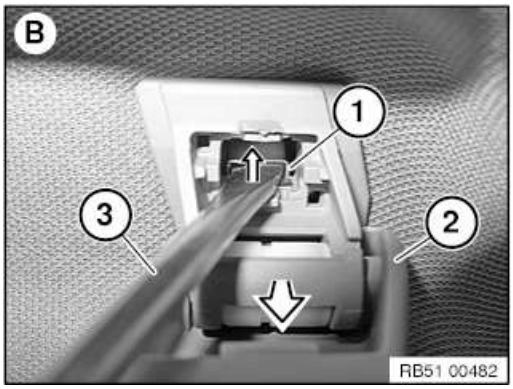
The description is for one component only. The procedure is identical for all further components.

▸ **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.

cardiagn.com



- 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.

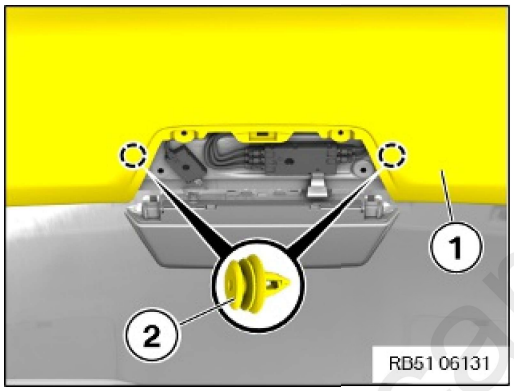
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

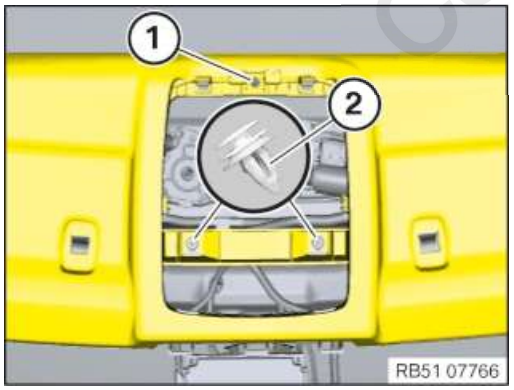
Fold the headlining.

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.

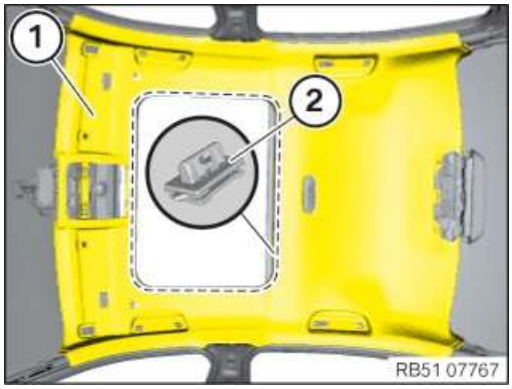


- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.

cardiagn.com



- 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.

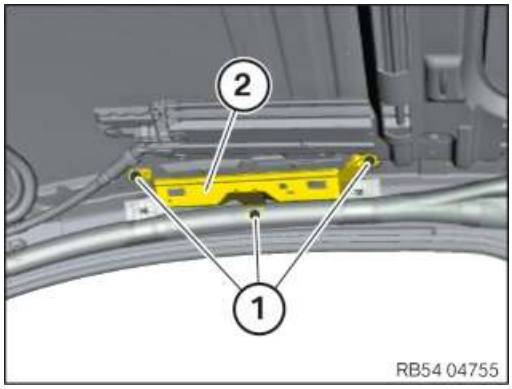


- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.



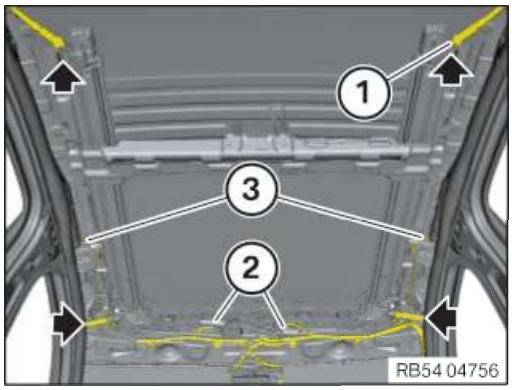
- Protect the working area with a suitable cover (1) to protect against falling swarf.

ardiagn.com

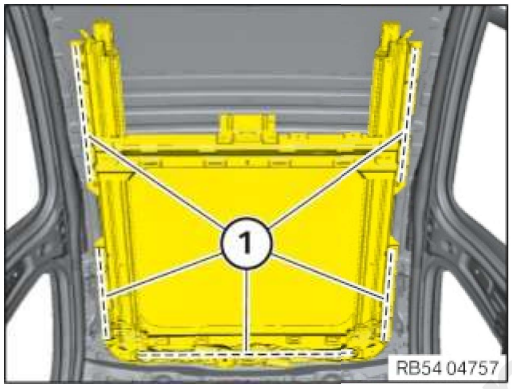


- Drill out blind rivets (1) and remove both rear holders (2).

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.

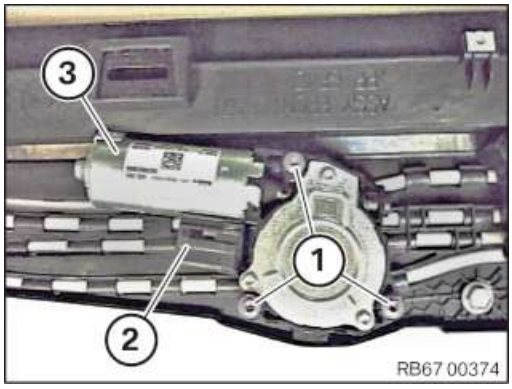
- Remove and install heavy components with the aid of another person/other persons.

- 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).

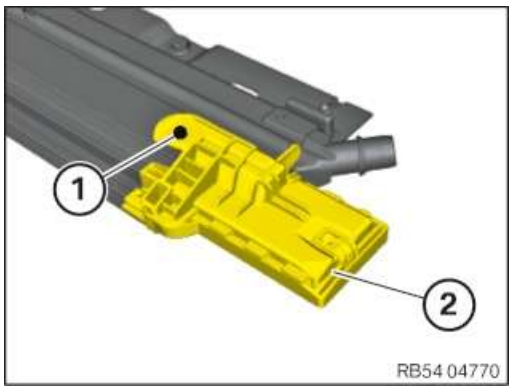
MAIN WORK

20 – Removing the end cap of the slide/tilt sunroof frame

cardiagn.com

NOTICE

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

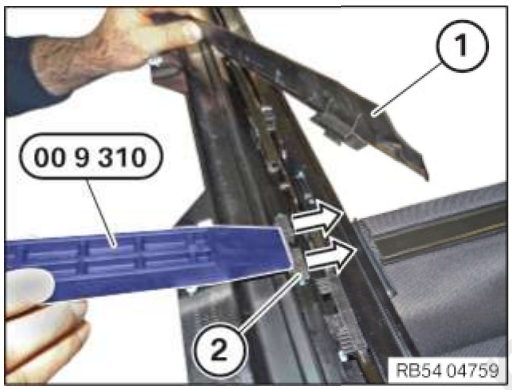


- Drill out the blind rivet (1).
- Feed end cap (2) out and remove it.

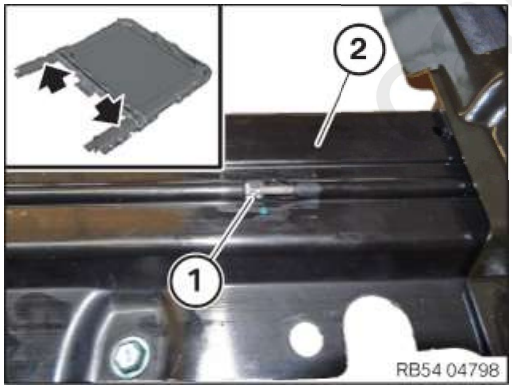
21 – Remove the mechanism of the panorama glass roof

NOTICE

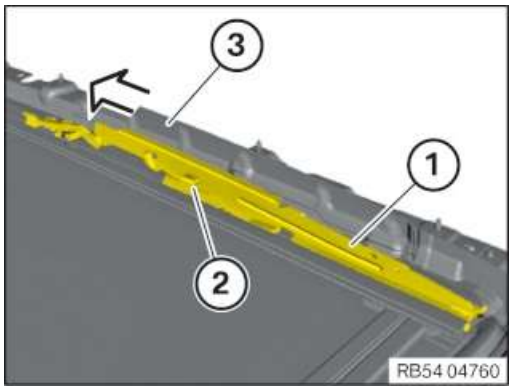
Description is for left component only. Procedure on the right side is identical.



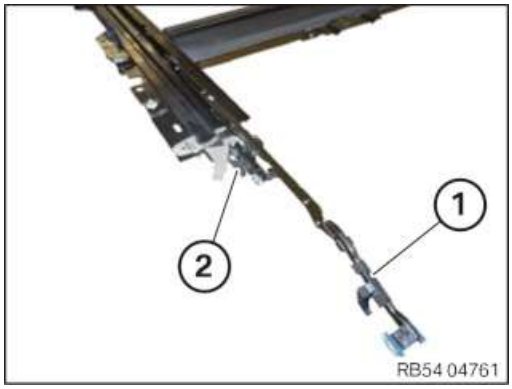
- Unclip sealing lip (1) and push slightly to a side.
- Unclip and feed out the limit position of mechanics (2) with the special tool 0 490 527 (00 9 310) and a slight hit inwards.



- Guide out the stopper of the mechanics (1) from the slide/tilt sunroof frame (2).

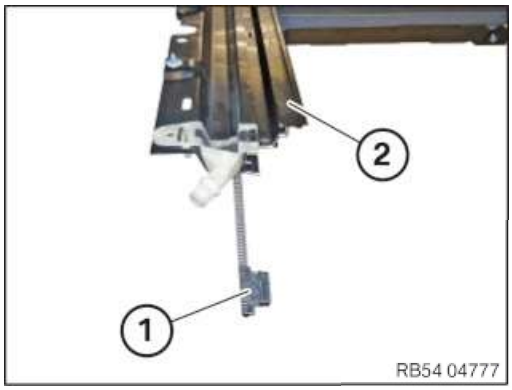


- Slide the mechanics (1) to the slider (2) towards rear from the slide/tilt sunroof frame (3).



- 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

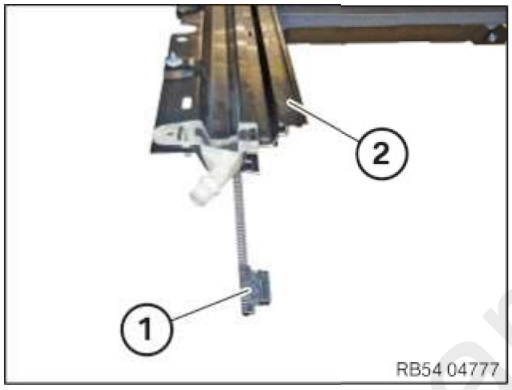


NOTICE

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

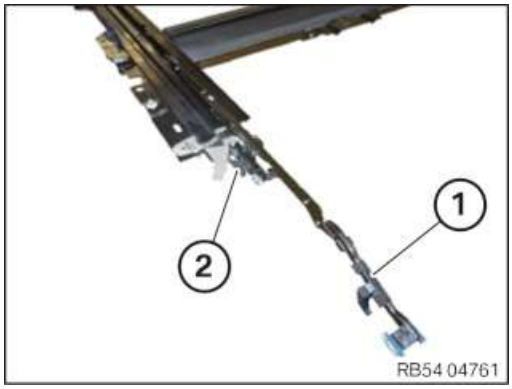
Description is for left component only. Procedure on the right side is identical.

- Guide the drive cable (1) into the slide/tilt sunroof frame (2).

24 – Install the mechanics of the panorama glass roof

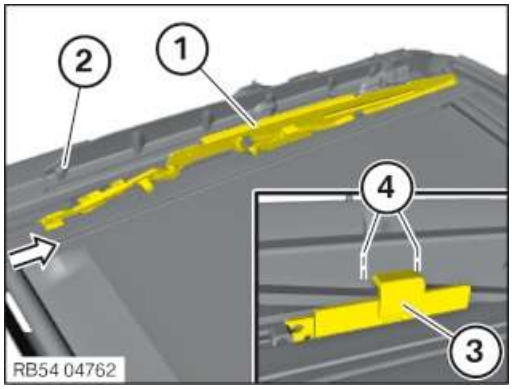
NOTICE

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

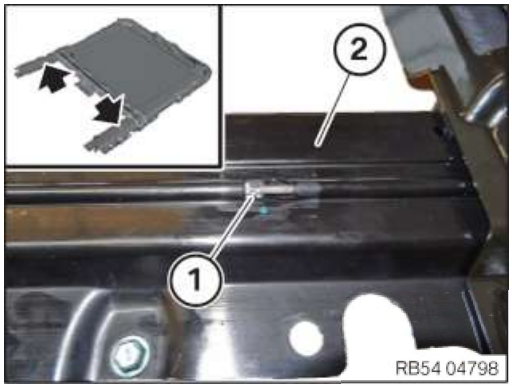


- Feed mechanics (1) into the slide/tilt sunroof frame and attach the driver (2).
- Push the mechanics (1) further forwards into the slide/tilt sunroof frame.

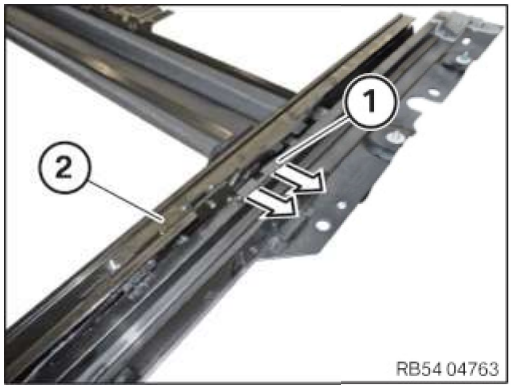
cardiagn.com



- 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.

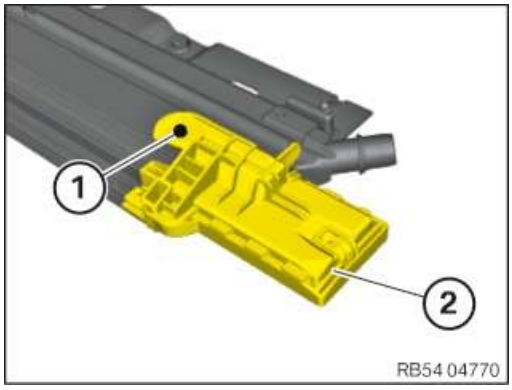


- Feed limit position of the mechanics (1) into the recess on the slide/tilt sunroof frame and move in direction of arrow until the retaining lug (2) engages.

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).

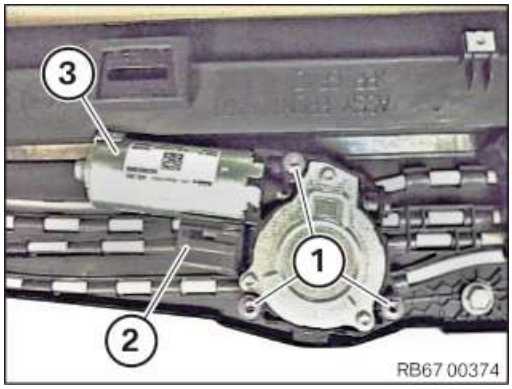
POSTPROCESSES

26 – Install the motor for the glass slide/tilt sunroof panel

Prerequisite

Glass slide/tilt sunroof panel must be in the closed position.

cardiagn.com

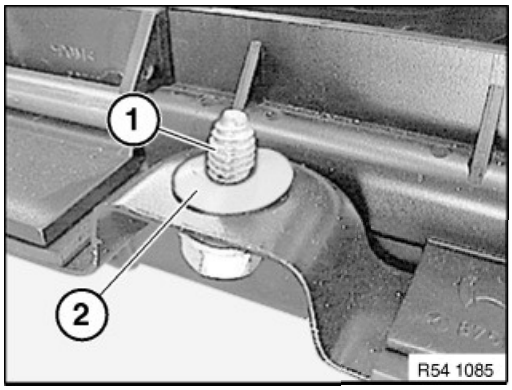


- Guide in the motor for the glass slide/tilt sunroof panel (3) and position it correctly.
- Connect and lock existing connectors (2).
- Tighten the screws (1).

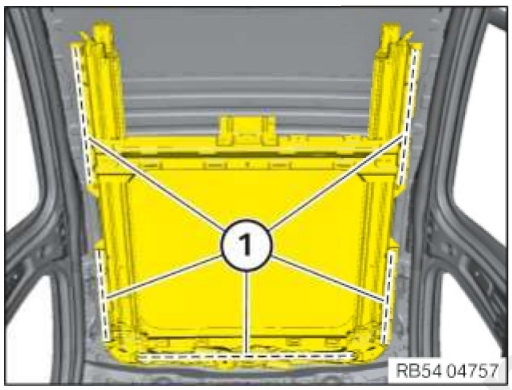
Drive for panorama sunroof to body

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.



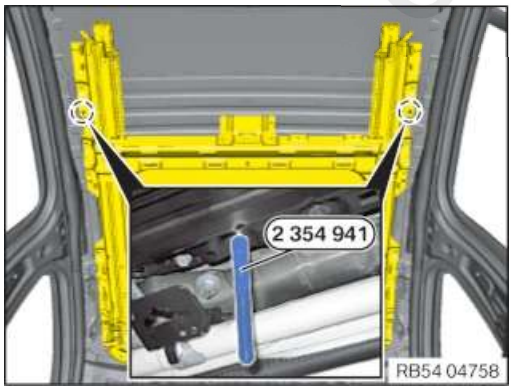
RISK OF DAMAGE

Heavy component.

Heavy components can lead to injury or damage.

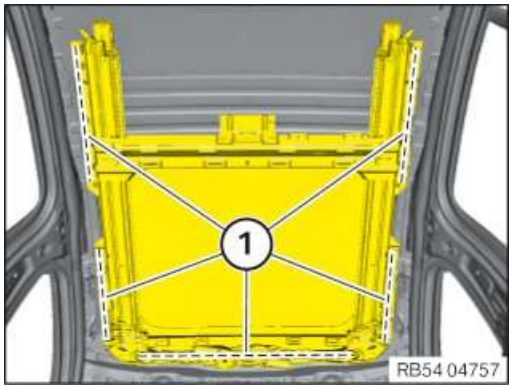
- Remove and install heavy components with the aid of another person/other persons.

- 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.

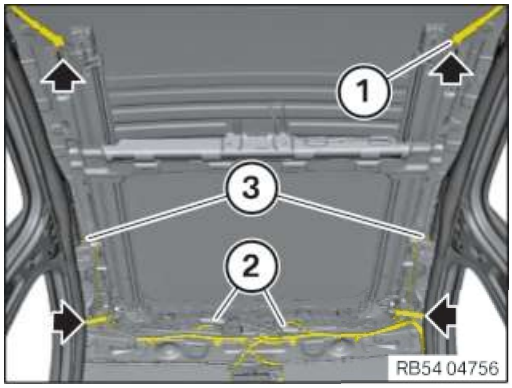
carflash.com



- 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

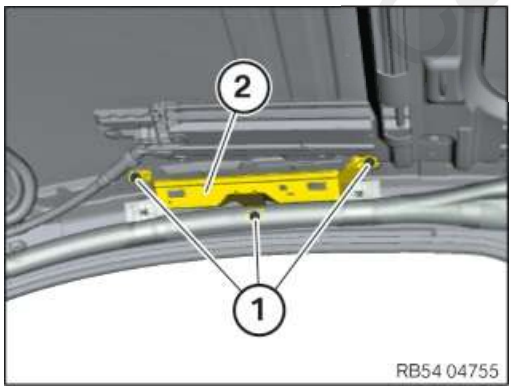
NOTICE

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.

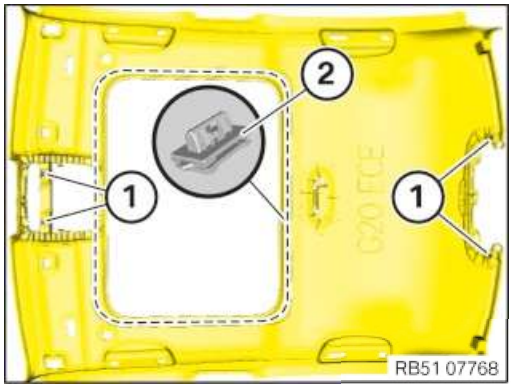
The front seat backrests have been fully adjusted towards the rear.

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.



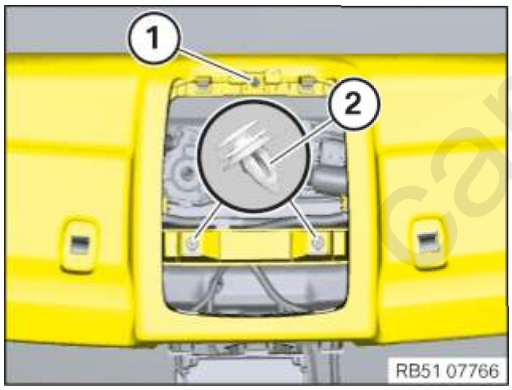
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



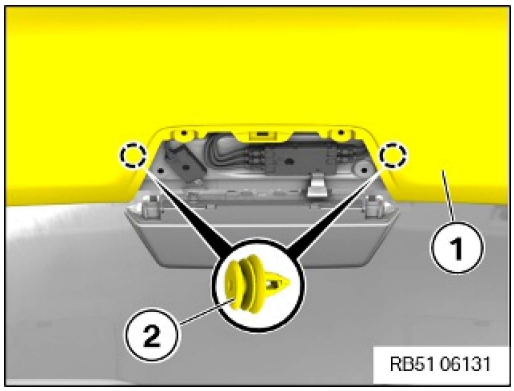
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

Oval-head screw		Tightening torque	1,5 Nm

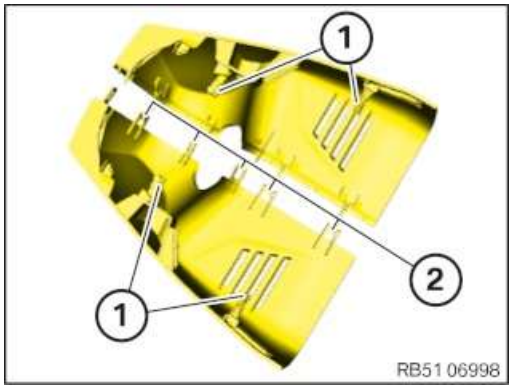


- Clip headlining (1) to the clips (2).

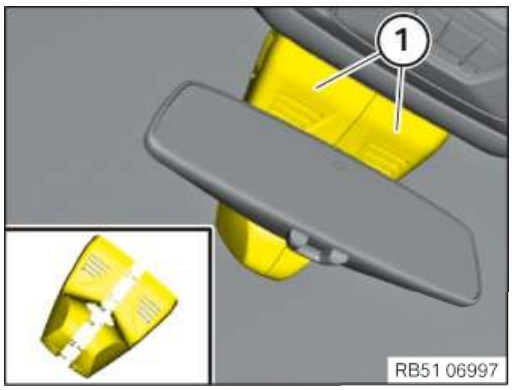
30 – Installing the covers for the interior mirror

- **Version A:**

cardiagn.com

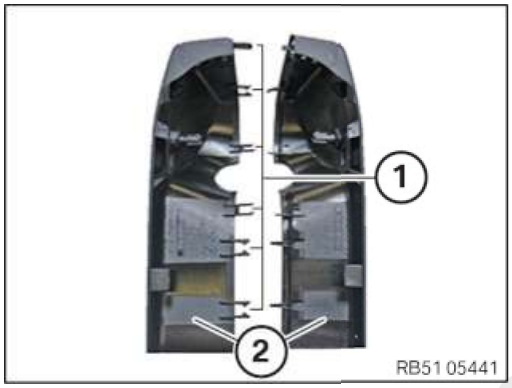


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



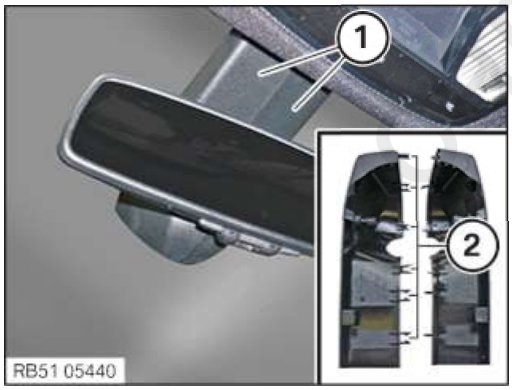
- Feed cover (1) in and lock.

- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

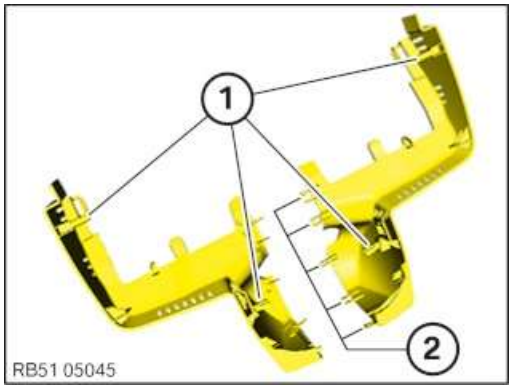
  The covers (2) must not be damaged or missing.



- 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.

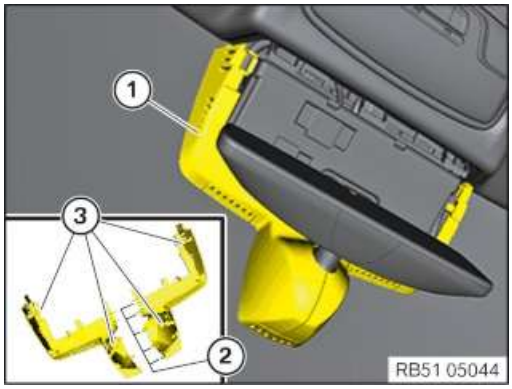
vwdiagn.com

Result

» The latch mechanism is damaged.

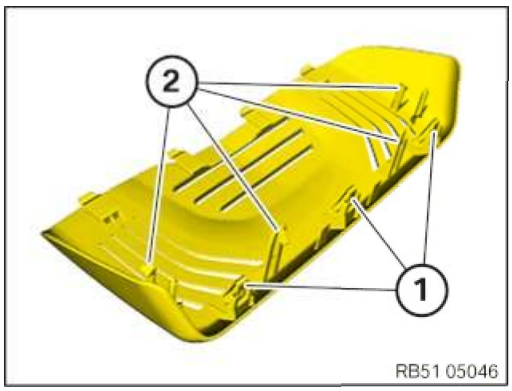
Measure

- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check



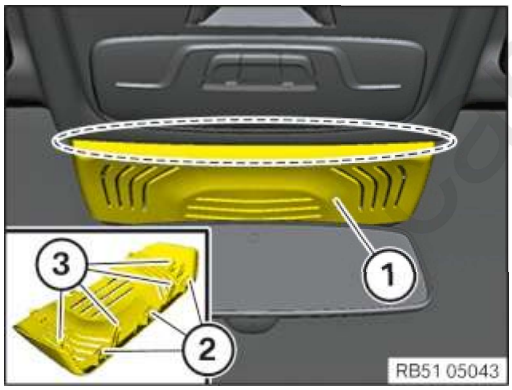
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

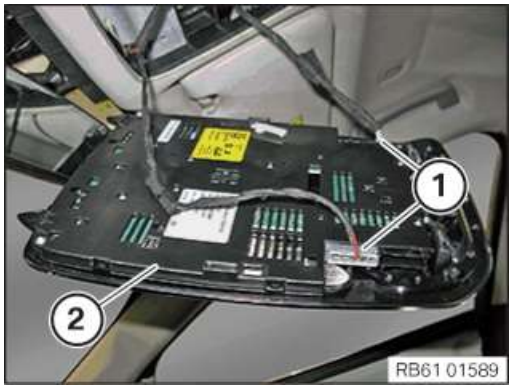
Measure

- Renew the cover.



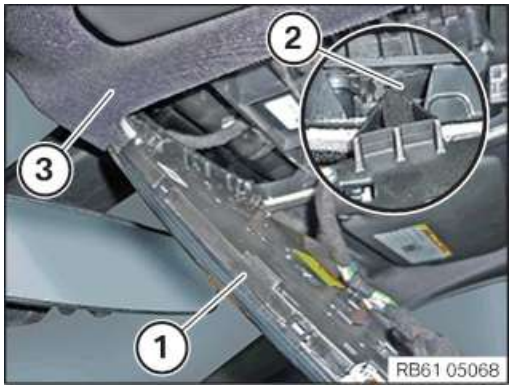
- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

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.

carlagn.com



- 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).

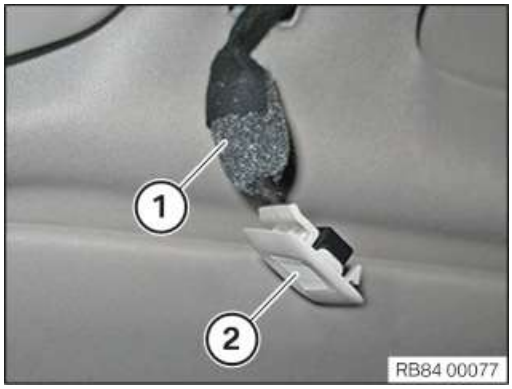
32 – Install both microphones

carldiagn.com

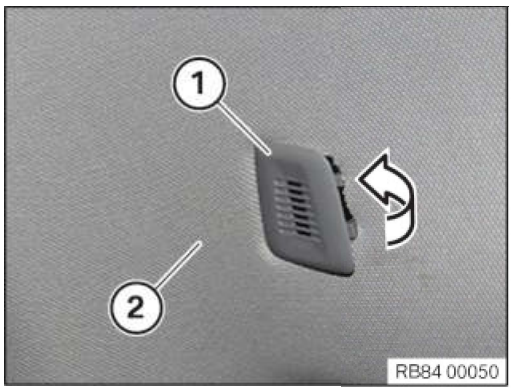
NOTICE

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).

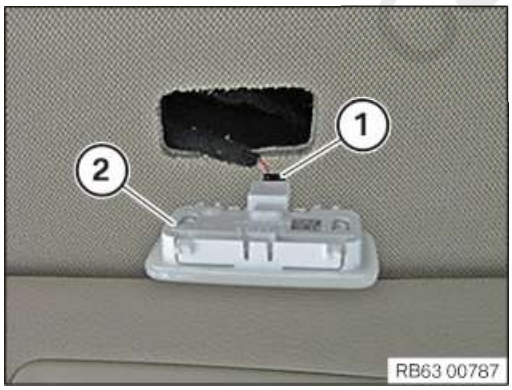


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

33 – Installing front vanity mirror light

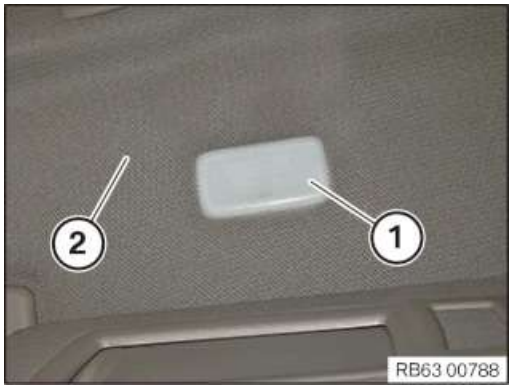
NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).

carsdiagn.com



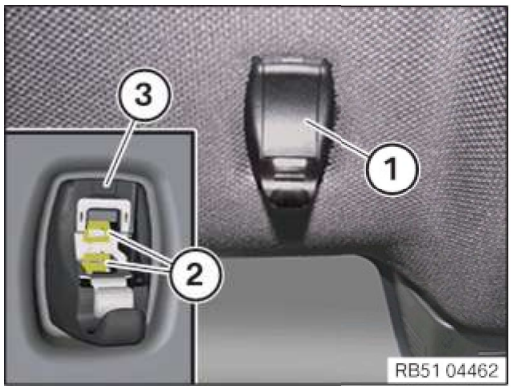
- Position the front vanity mirror light (1) in the headlining (2).

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

cardiagn.com

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!

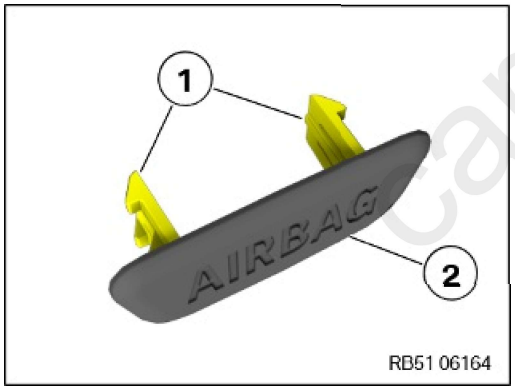
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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

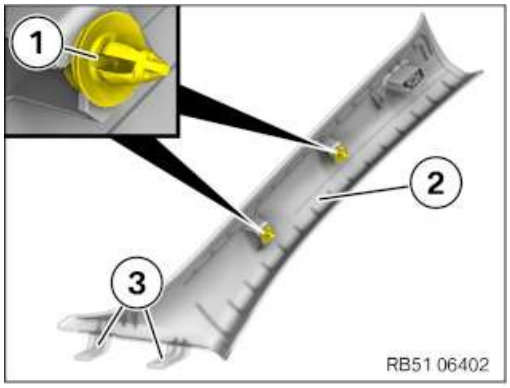
» Retaining lug is damaged.

Measure

- Renew the cover.

Check

cardiagn.com



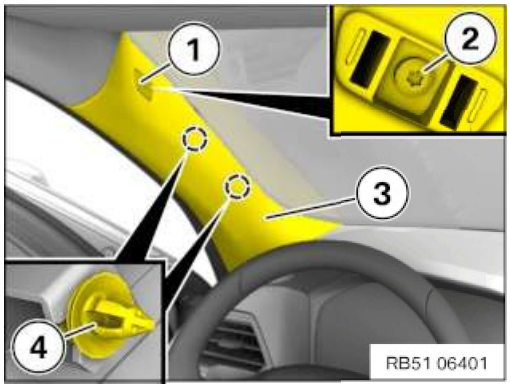
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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

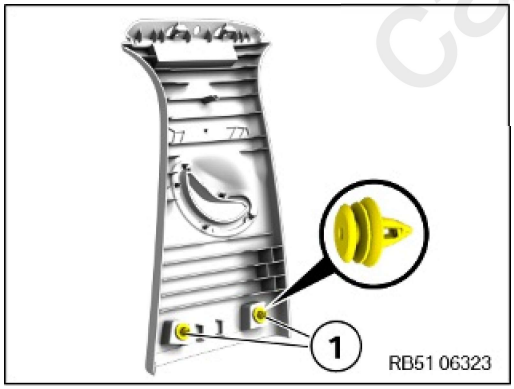
- Clip in the cover (1).

37 – Installing both B-pillar trim panels

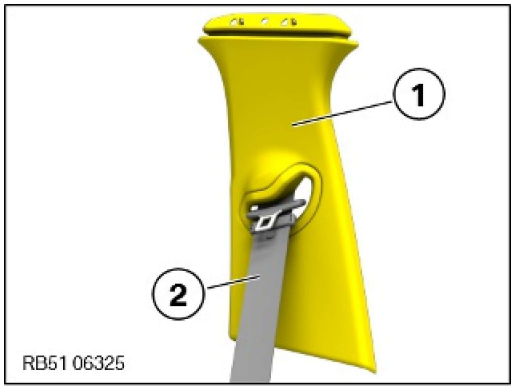
NOTICE

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

▸ **Install the B-pillar trim panel**

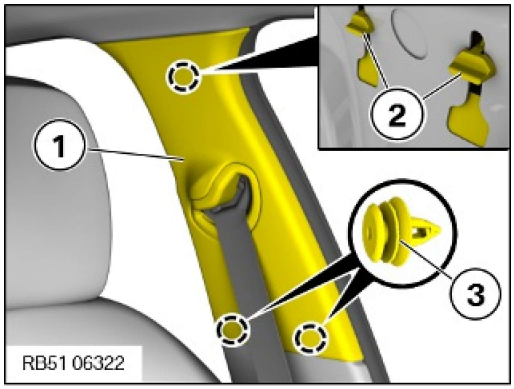


- Check the clips (1) for damage and renew if necessary.

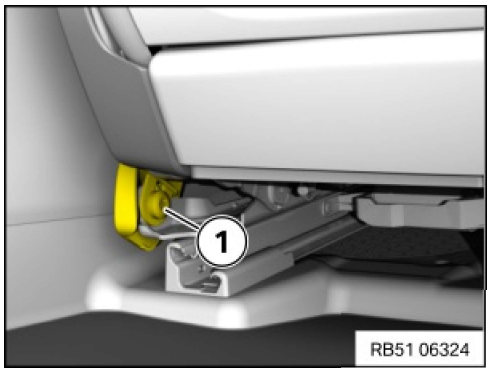


- Guide upper seat belt (2) in B-pillar trim panel (1).

cardiagn.com



- 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

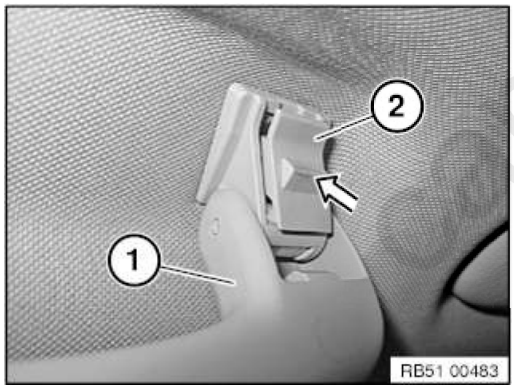
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

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**

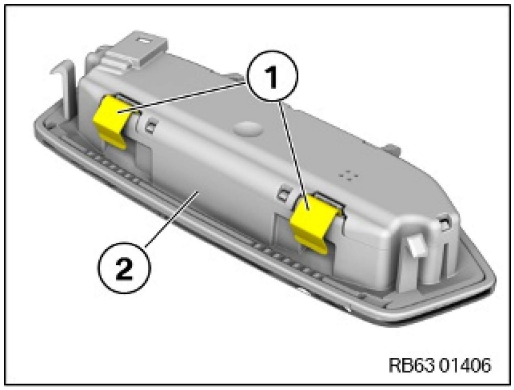


- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

39 – Install interior roof light

Check

- Check the clamps (1) for damage.

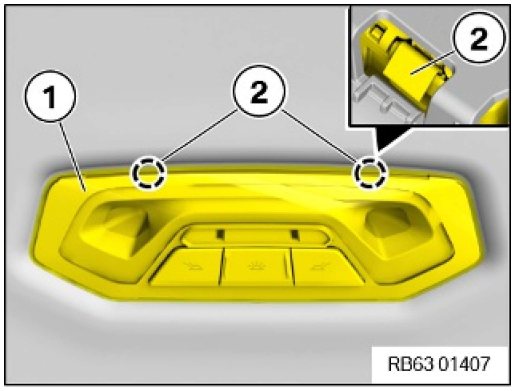


Result

» 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).

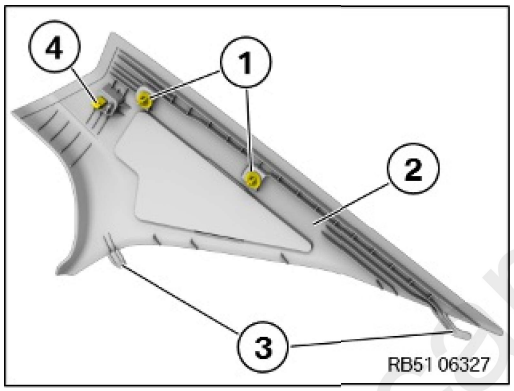
40 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

Check



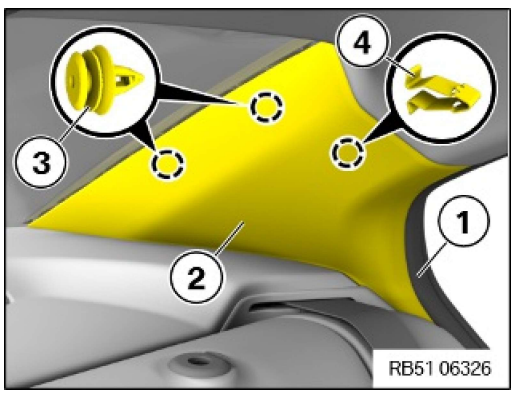
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .



NOTICE

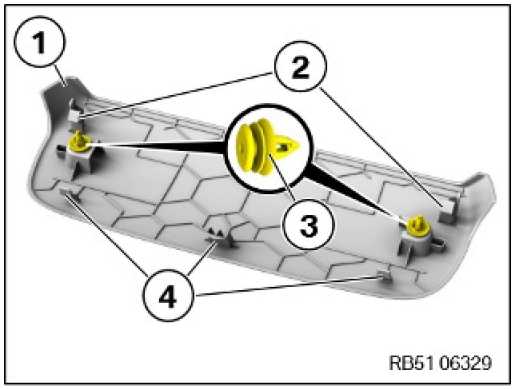
Schematic diagram is for example purposes. Some parts may differ in certain details.

- 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

cardiagn.com



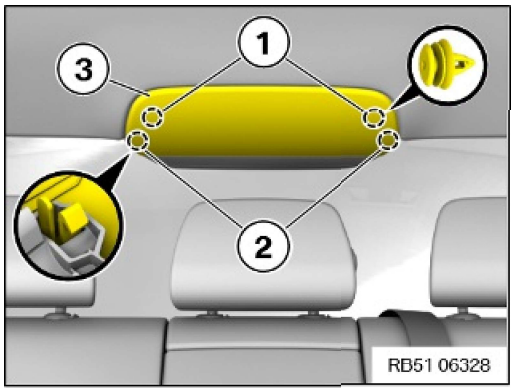
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

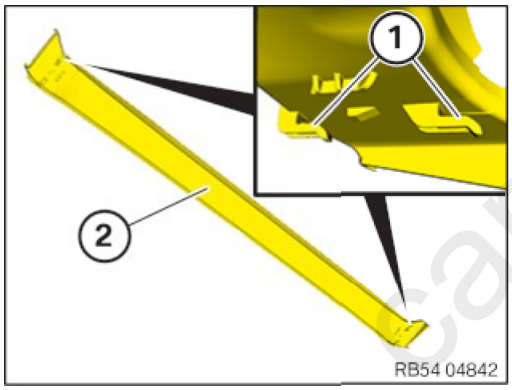
Measure

- Renew the trim for the additional brake light.

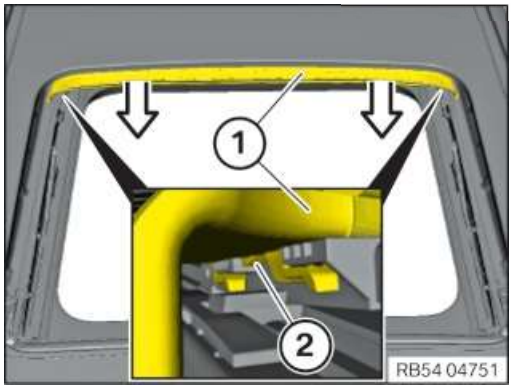


- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

42 – Install water channel



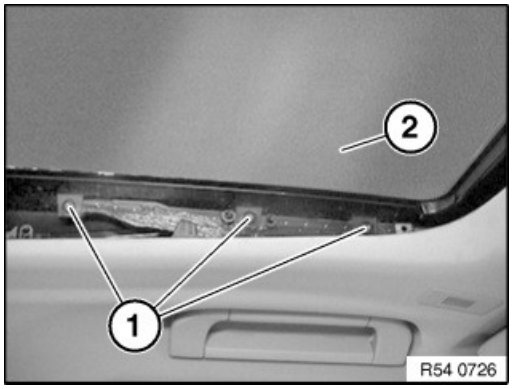
- Check retaining lugs (1) of the water channel (2) for damage and renew, if necessary.



- 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

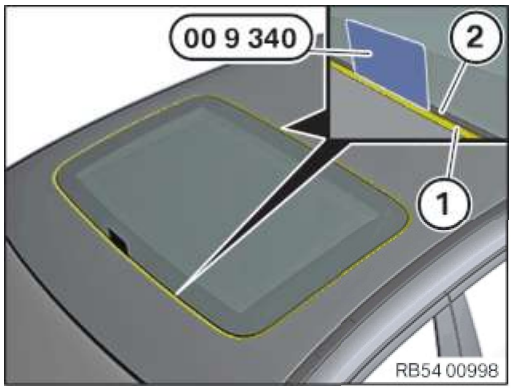
cardiagn.com



- 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.

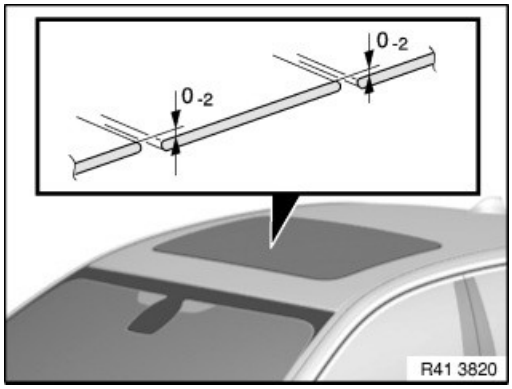
44 – Check the setting of the glass slide/tilt sunroof panel



- 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.

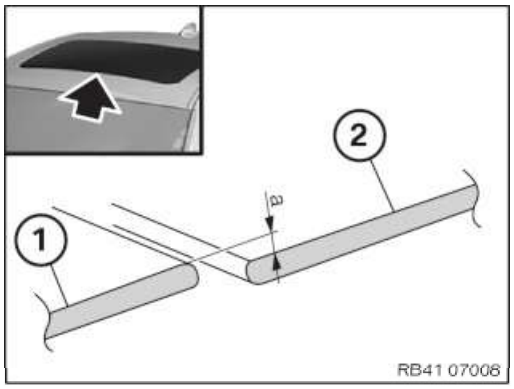
cardiagn.com



- 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.

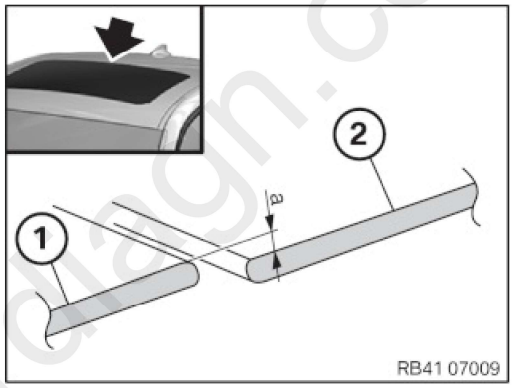
Gap dimension roof outer skin to glass slide/tilt sunroof panel

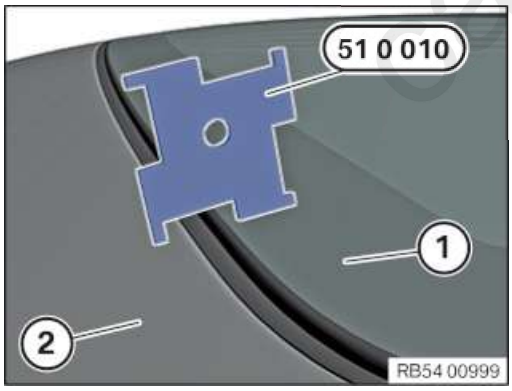
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



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

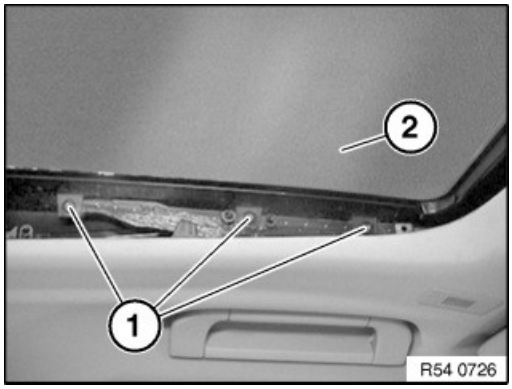




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

45 – Adjusting glass slide/tilt sunroof panel

cardiagn.com

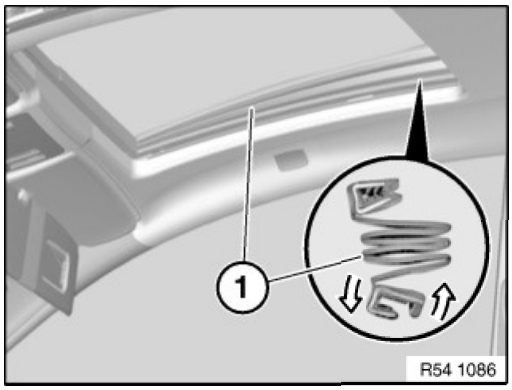


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

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.

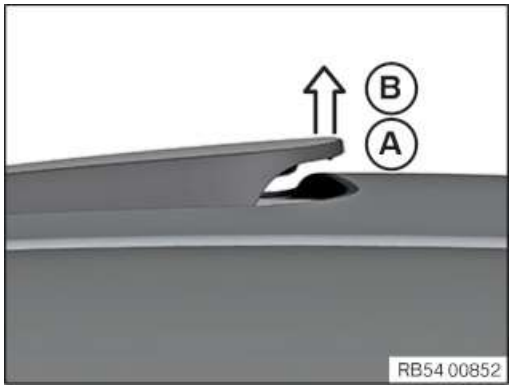
47 – Initialising the glass slide/tilt sunroof panel



- 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.

cardiagn.com



- 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).

cardiagn.com

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

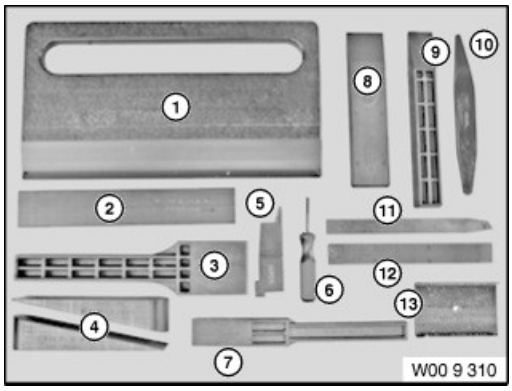
End fitting to seat mechanism — Used in step 37

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



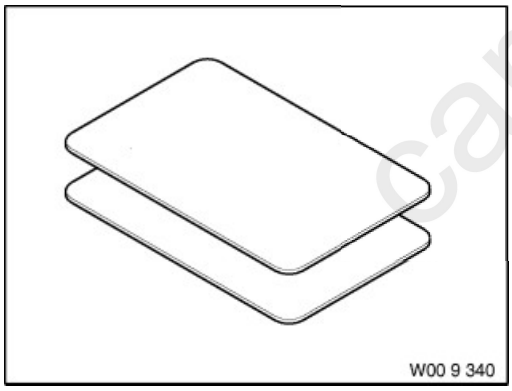
Common		Used in step 512
Usage	(Case) with insert not incl. panel wedges	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	01 07 09 (530)	

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



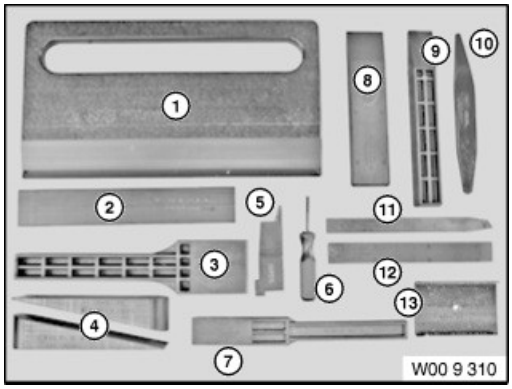
Common		Used in step 9
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

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).	

cardiagn.com

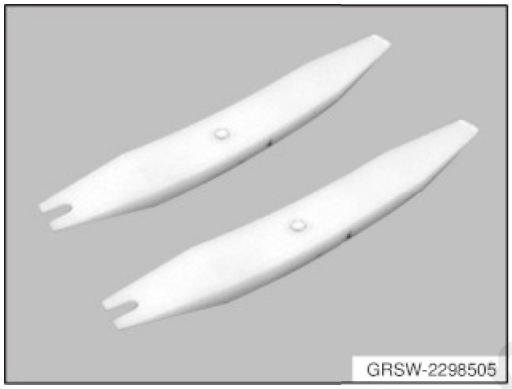
0 490 527 (00 9 310) Wedge



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)

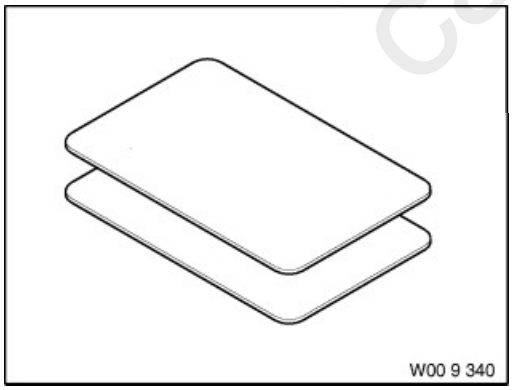
2 298 505 Wedge



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

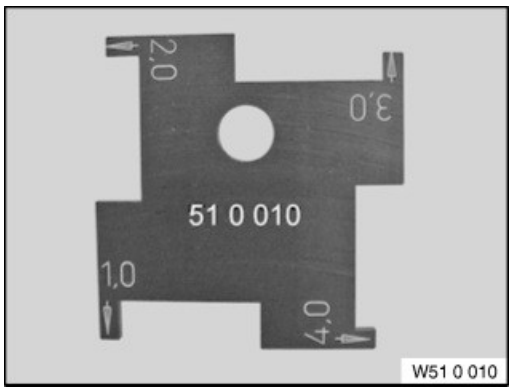
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

cardiagn.com

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)

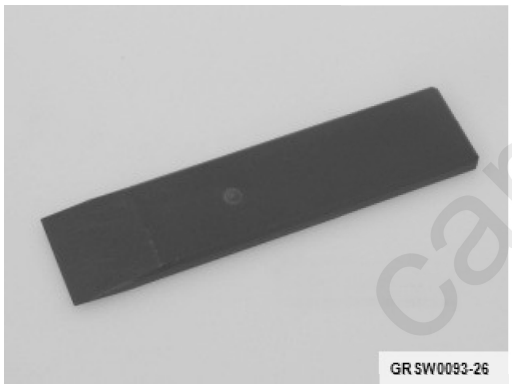
Replacement tools:

0 496 569 (00 9 325) Wedge



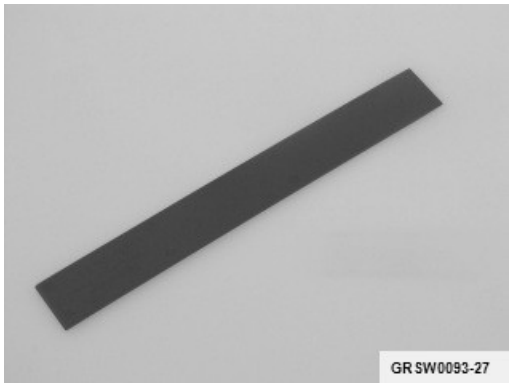
Common	Used in step 821
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

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)

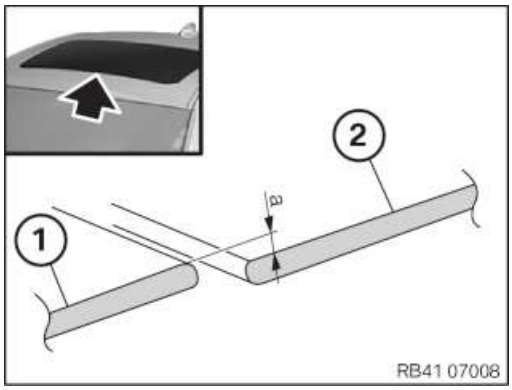
Overview Technical Data

Gap dimension roof outer skin to glass slide/tilt sunroof panel Used in step 44

cardiagn.com

1 roof outer skin; 2 glass slide/tilt sunroof panel

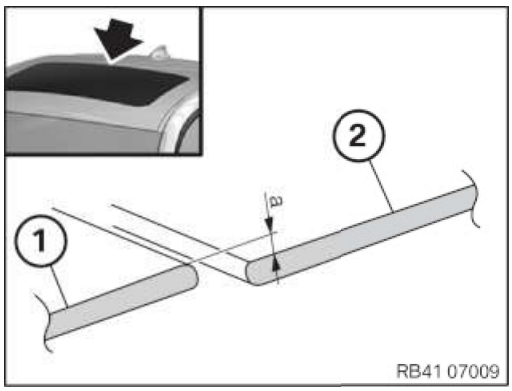
a	0,7 (-0,05 - 1,45) mm



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

cardiagn.com

54 12 302 Removing and installing/replacing roller sunblind for slide/tilt sunroof

RISK OF DAMAGE

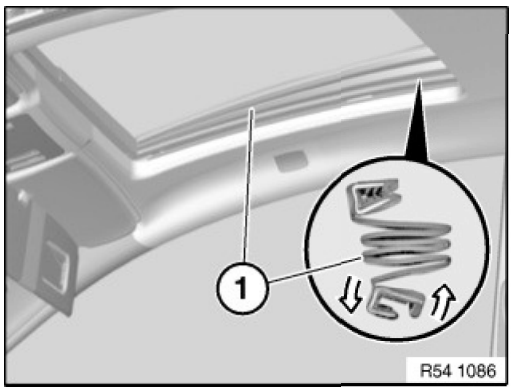
Fold the headlining.

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

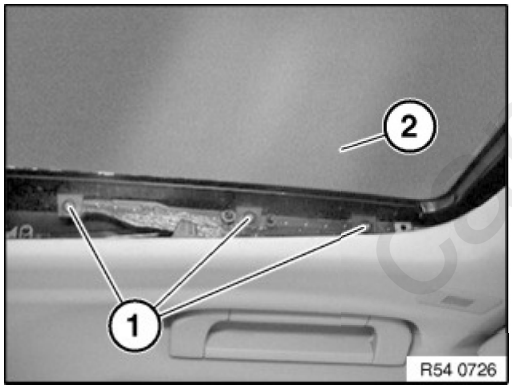


NOTICE

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.

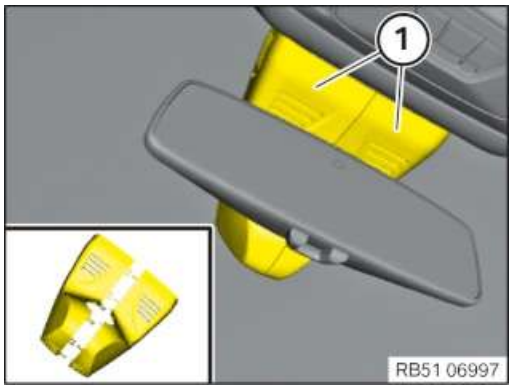
2 – Remove glass slide/tilt sunroof panel



- 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

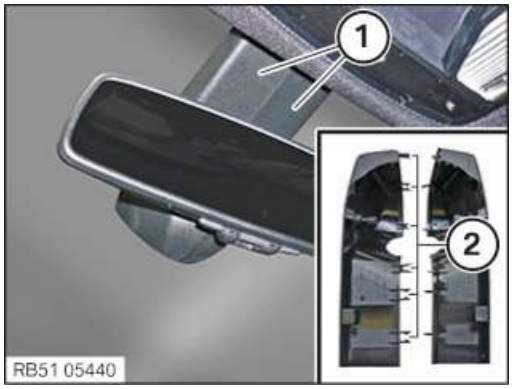
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

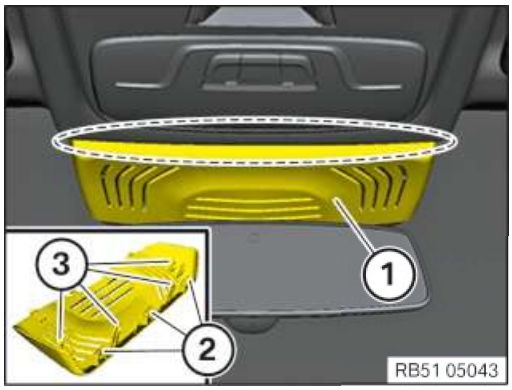
- **Version B:**

cardiagn.com

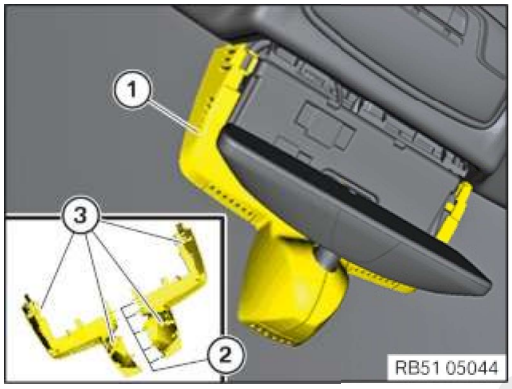


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **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

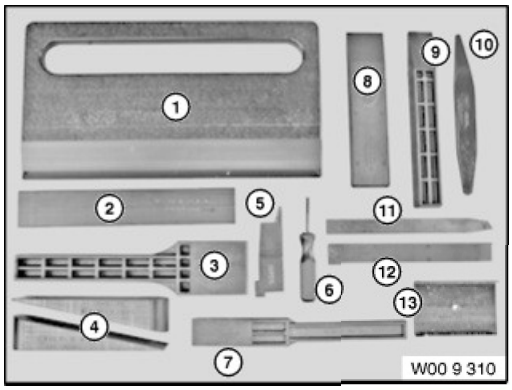
cardiagn.com

WARNING

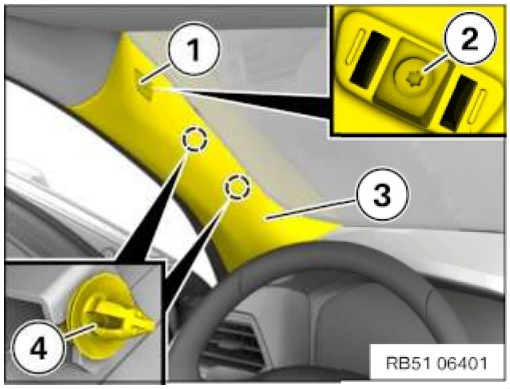
Pyrotechnic components.

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.



- 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

cardiagn.com

NOTICE

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

▸ **Remove the counter support for the sun visor**

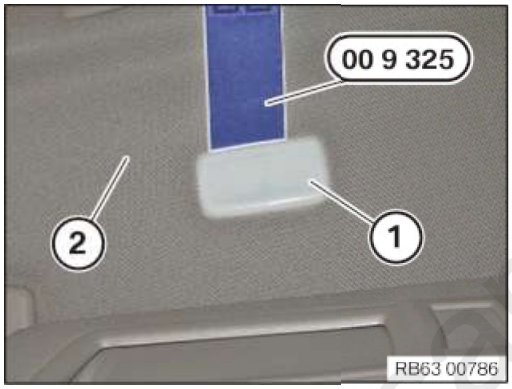


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

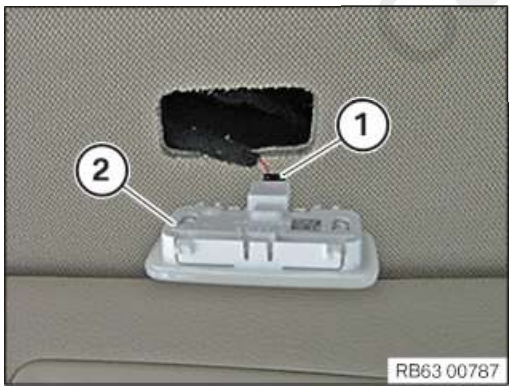
7 – Removing front vanity mirror light

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).



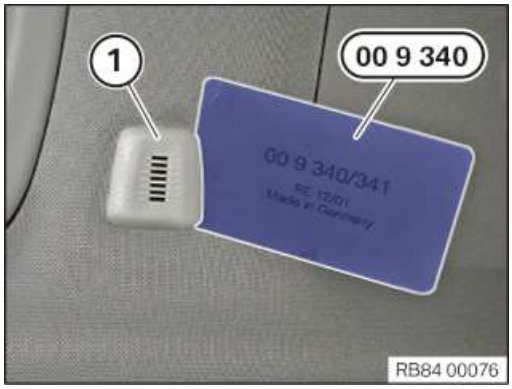
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

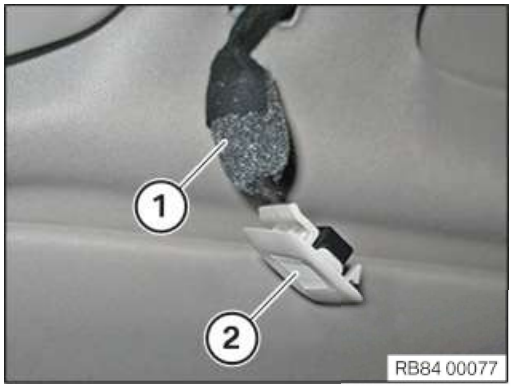
NOTICE

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).

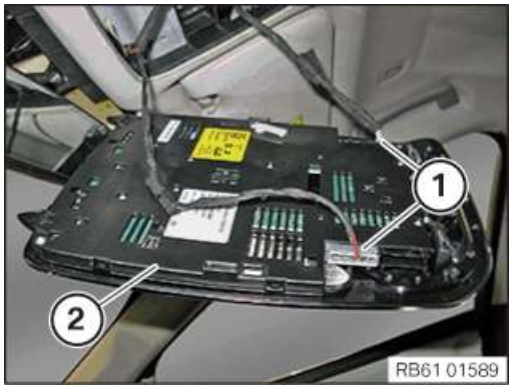


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

@diagn.com



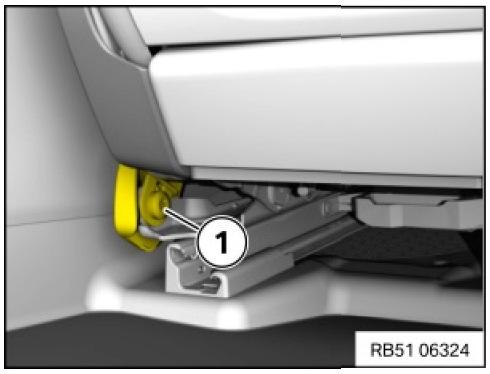
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

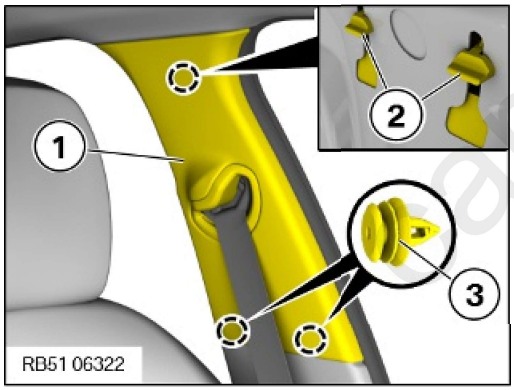
NOTICE

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

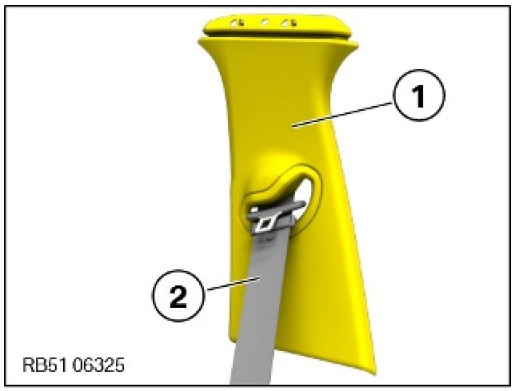
▶ **Remove the B-pillar trim panel**



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



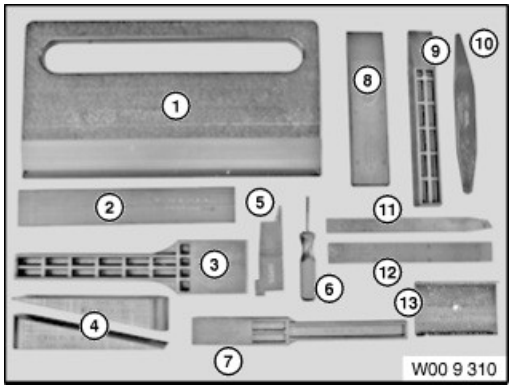
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



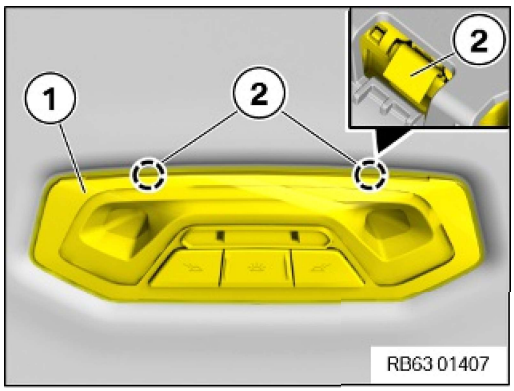
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

cardiagn.com

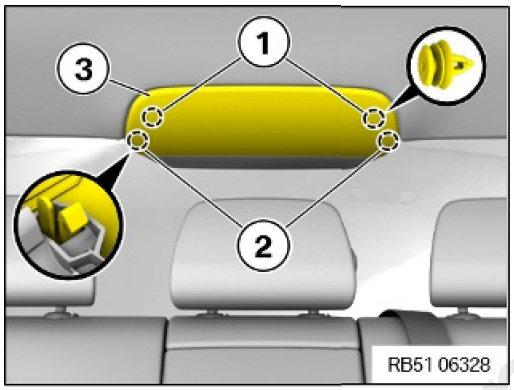


- Have the set of special tools 0 493 752 (00 9 329) ready.



- 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

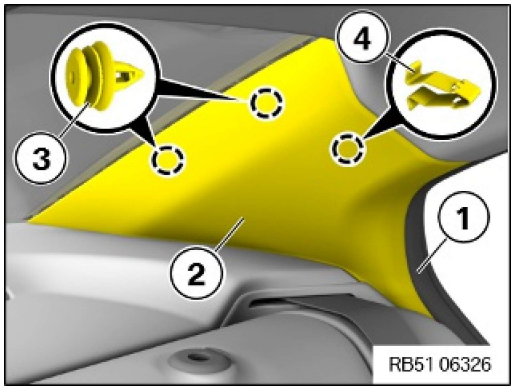
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

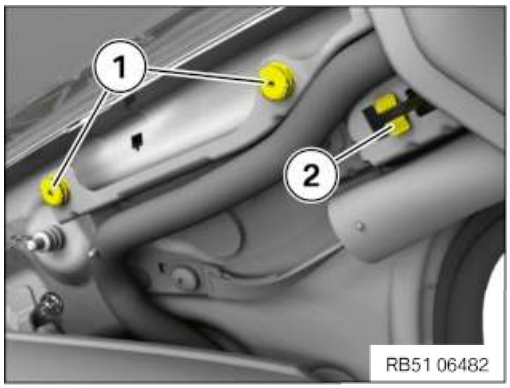
NOTICE

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

cardiagn.com



- 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).



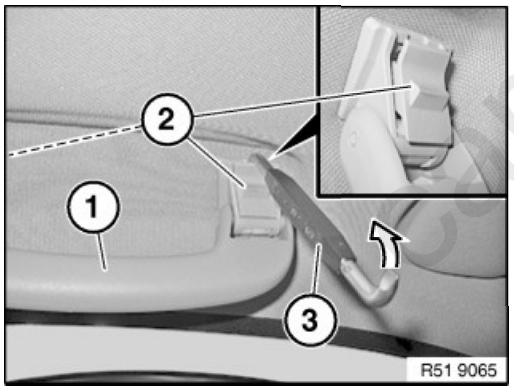
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

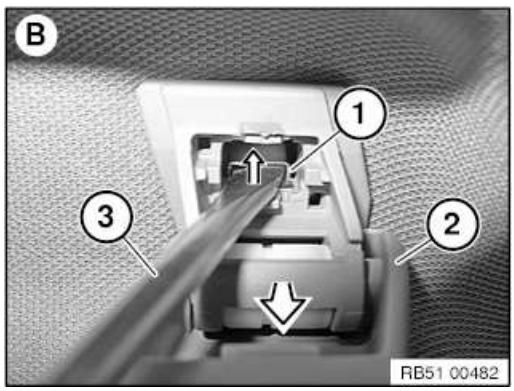
NOTICE

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.

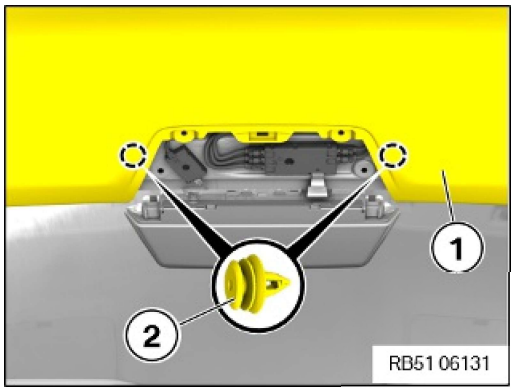
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

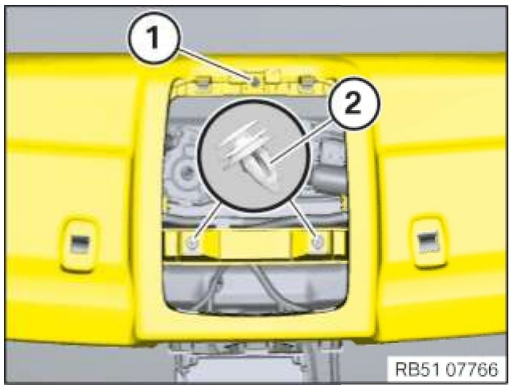
Fold the headlining.

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**

cardiagn.com

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

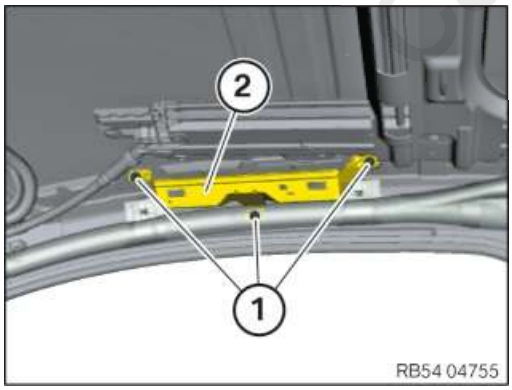
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

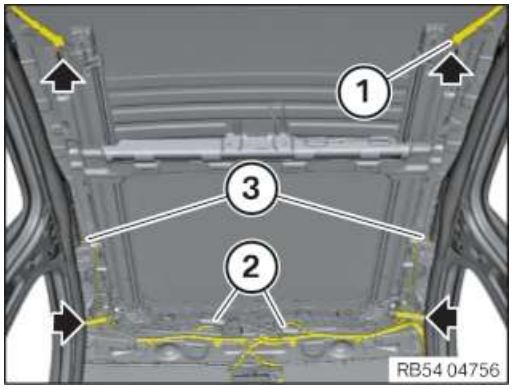


- Protect the working area with a suitable cover (1) to protect against falling swarf.

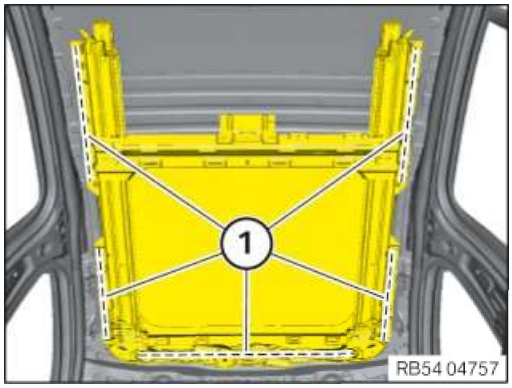


- Drill out blind rivets (1) and remove both rear holders (2).

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

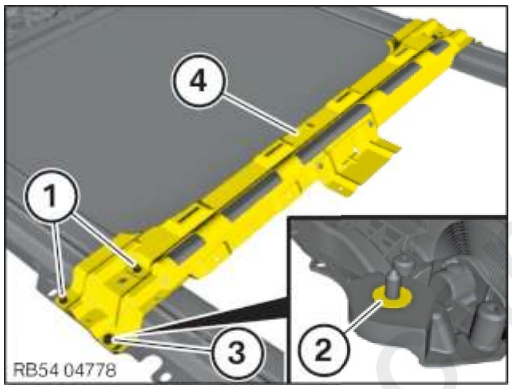
Heavy component.

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



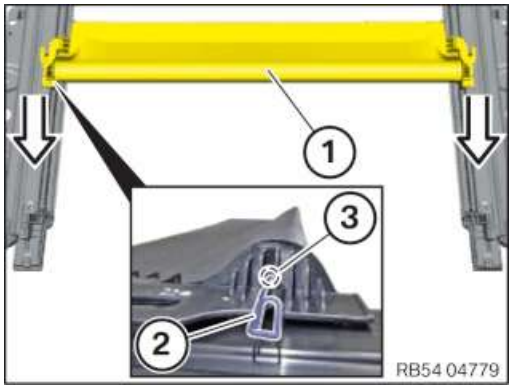
NOTICE

Perform the operations on the left and right side.

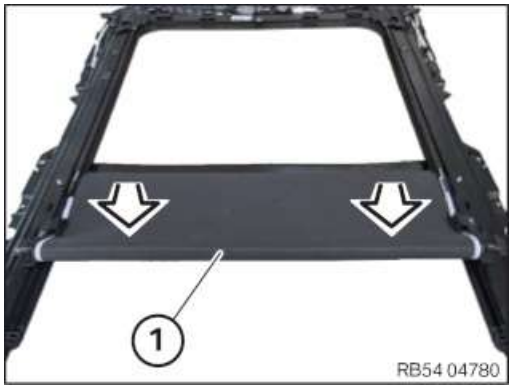
- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

MAIN WORK

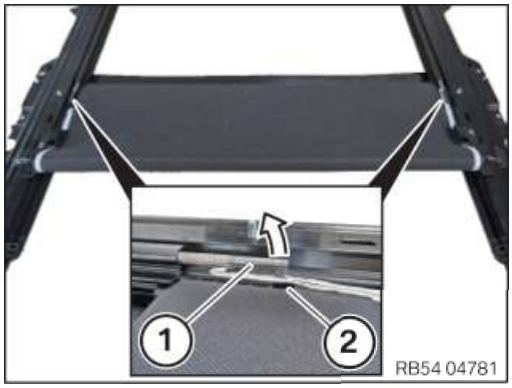
19 – Removing roller sunblind for the panorama glass roof



- 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).



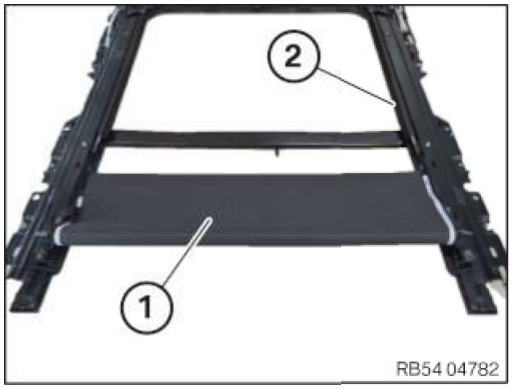
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



NOTICE

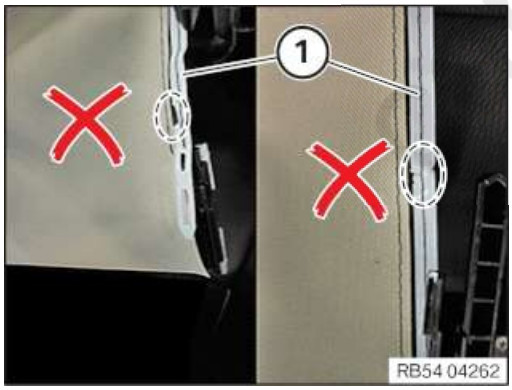
Perform the operations on the left and right side.

- Guide the driver (1) upwards out of the slider of the roller sunblind (2).



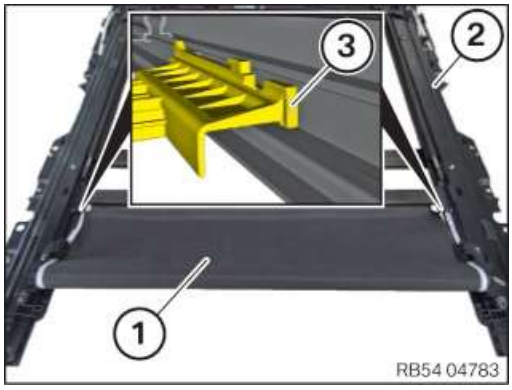
- Remove the roller sunblind (1) from the sunroof frame (2).

20 – Installing roller sunblind for the panorama glass roof



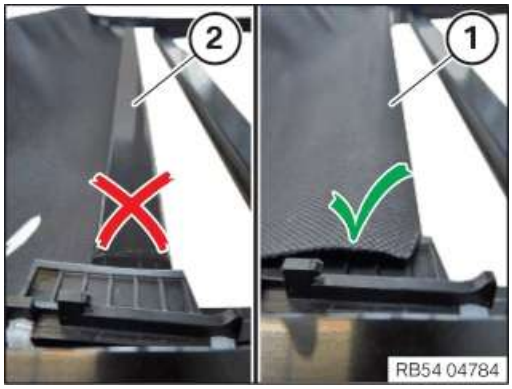
- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.



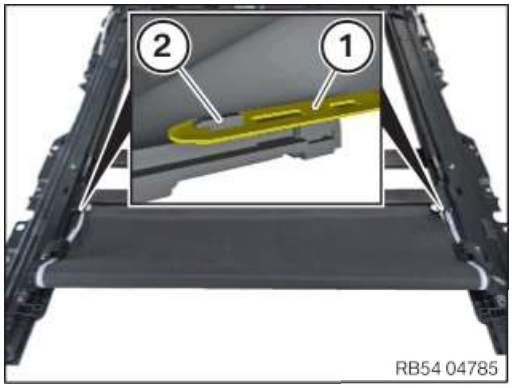
- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.

cardiagn.com

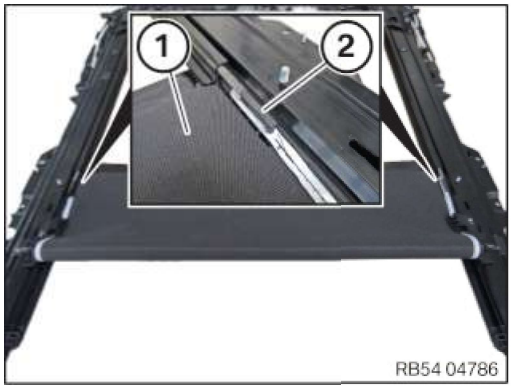


- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

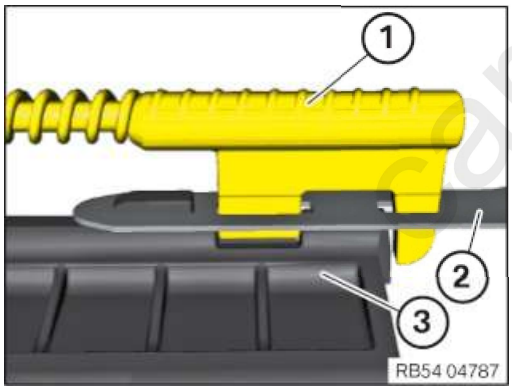
  If necessary, turn the cross brace (1) through 360°.



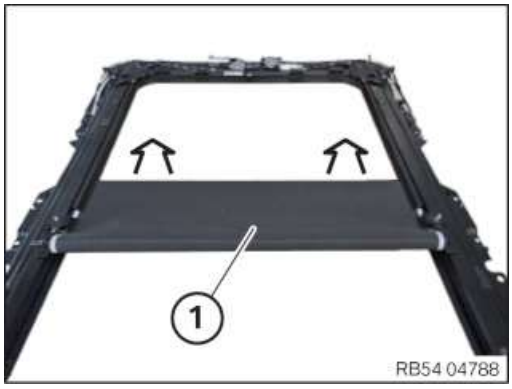
- Mount tensioning strap (1) on both sides of driver (2).



- Push the sunblind (1) forward until the drive (2) can be hooked.

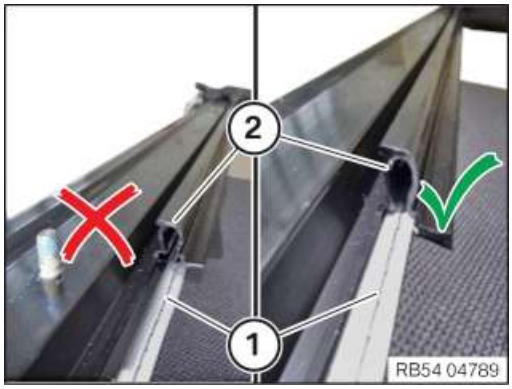


- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).

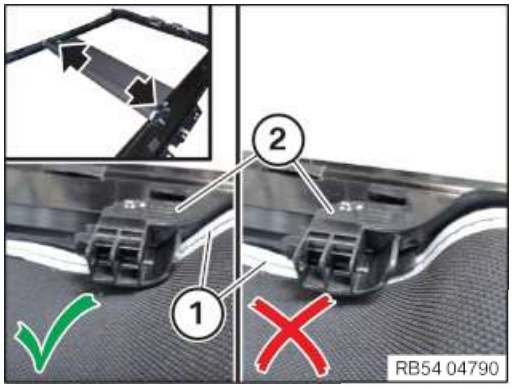


- Manually close the sunblind (1) a few cm.

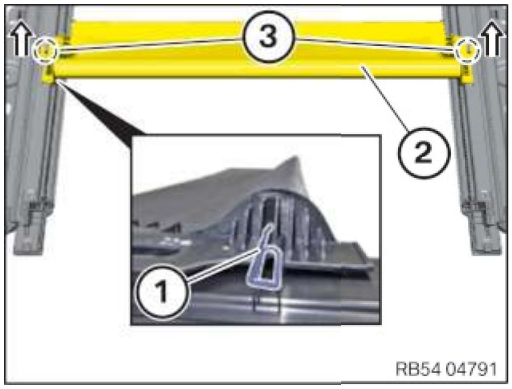
cardiagn.com



- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).



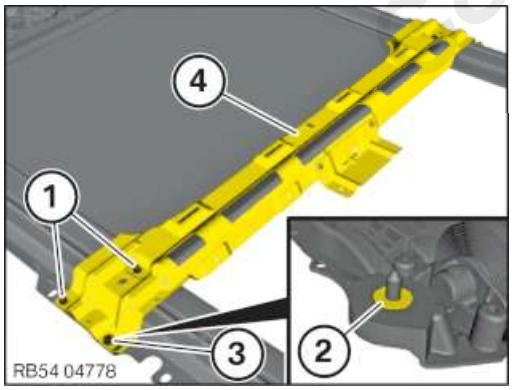
- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.



- 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).

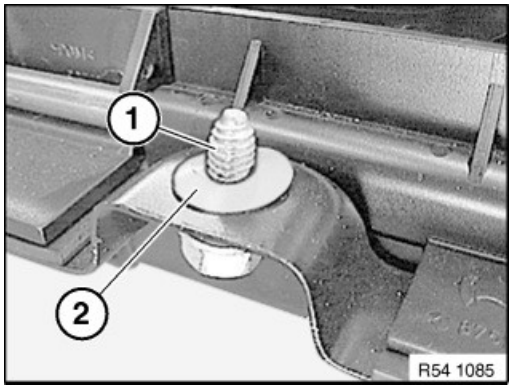
Cross member to glass slide/tilt sunroof frame

Nut		5,5 Nm

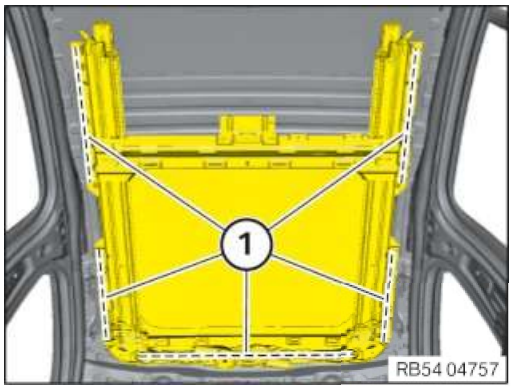
- Position retaining washer (2) and insert screw (3).

22 – Completely installing the slide/tilt sunroof

cardiagn.com



- In order to prevent groaning noises, all bolts (1) must be secured with the plastic washers (2) prior to installation.



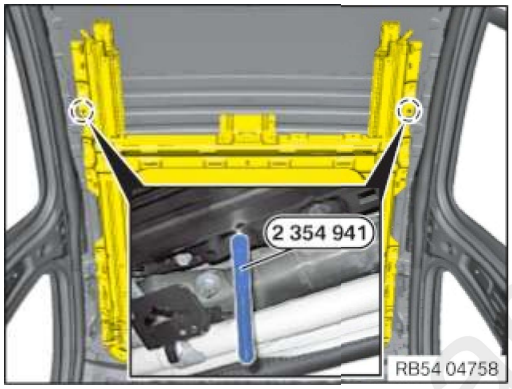
RISK OF DAMAGE

Heavy component.

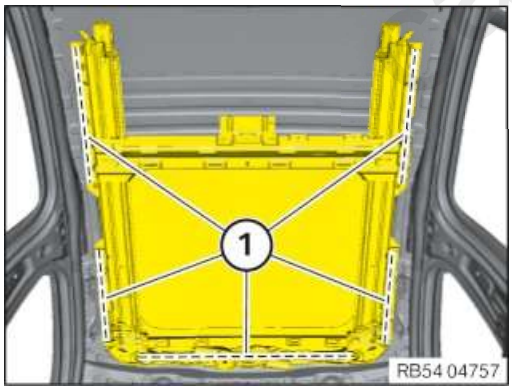
Heavy components can lead to injury or damage.

- 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.



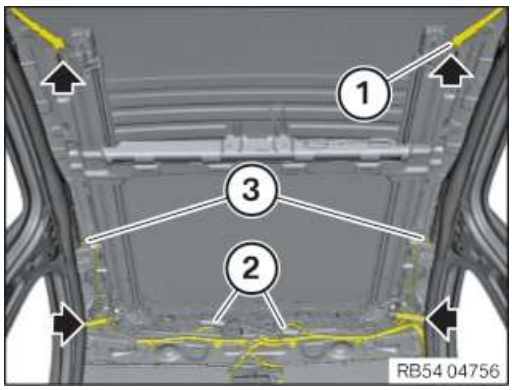
- Insert the special tool and align the panorama glass roof (1) with the roof.



- 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

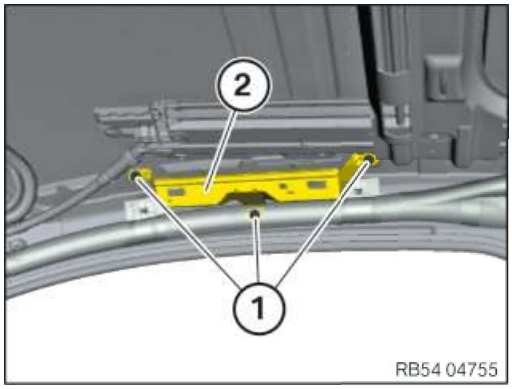
NOTICE

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.

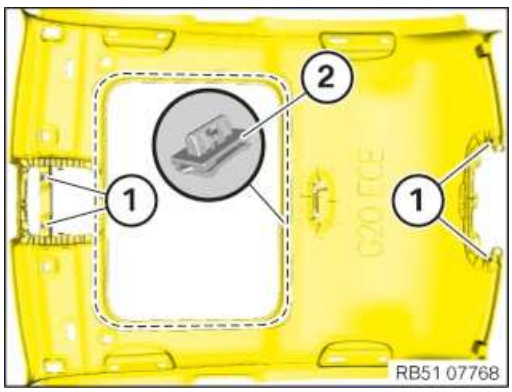
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

Fold the headlining.

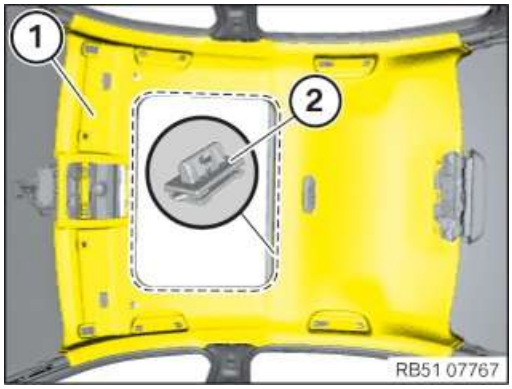
If the headlining is folded, it may have to be replaced.

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

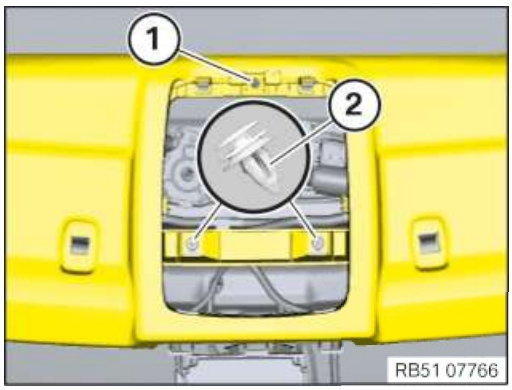


- Check the clips (1) on the headlining (2) for damage.
  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.
  Replace broken or missing clamps (2).

cardiagn.com



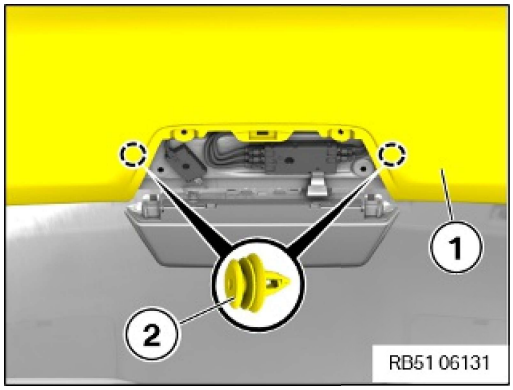
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

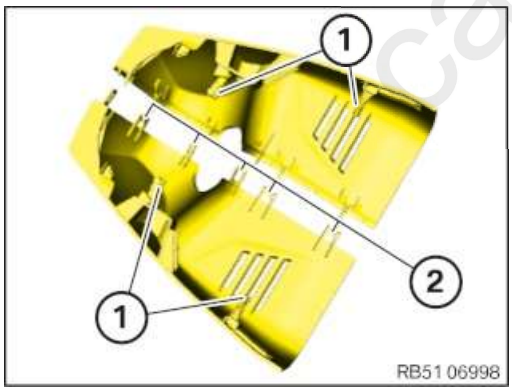
Oval-head screw		Tightening torque	1,5 Nm



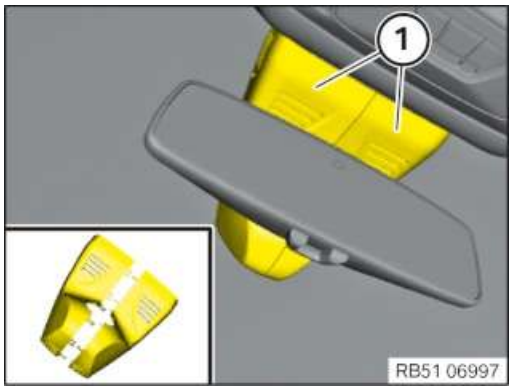
- Clip headlining (1) to the clips (2).

25 – Installing the covers for the interior mirror

- **Version A:**



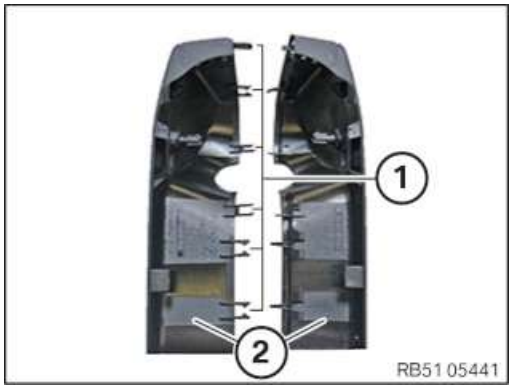
- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



- Feed cover (1) in and lock.

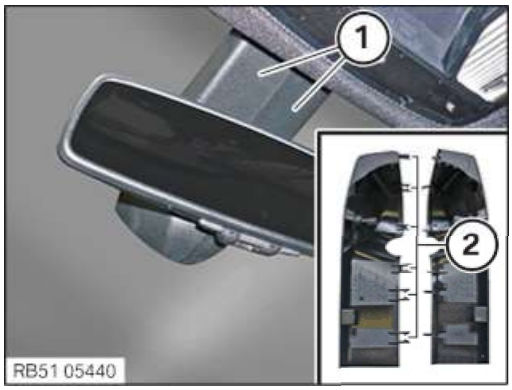
cardiagn.com

- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

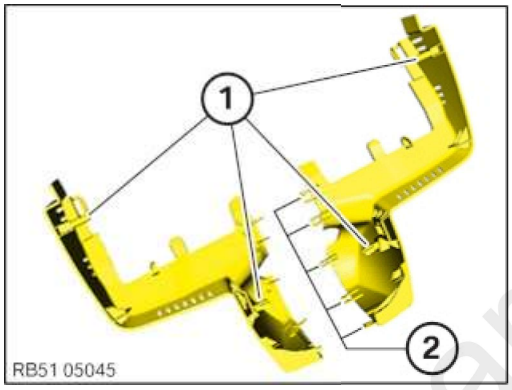
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



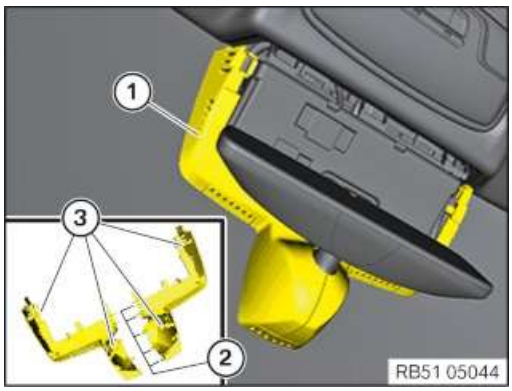
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

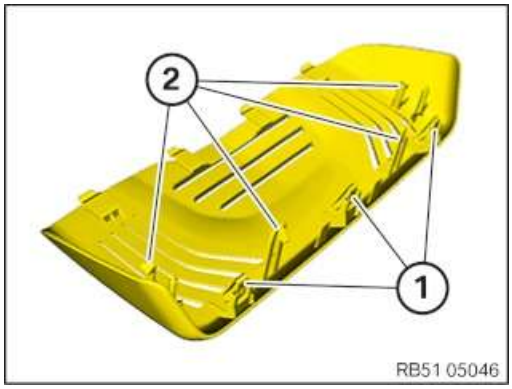
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

cardiagn.com



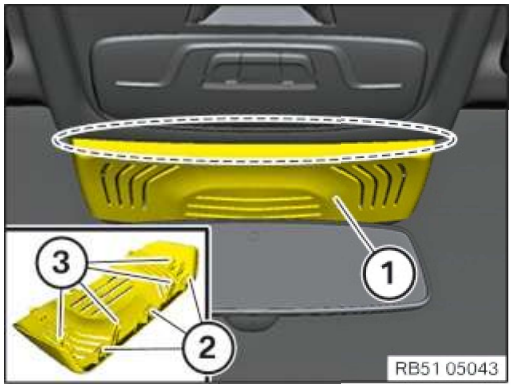
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

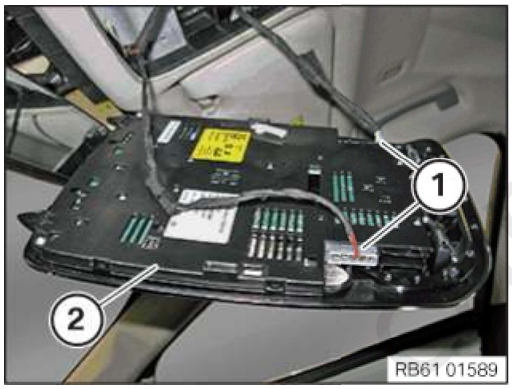
Measure

- Renew the cover.

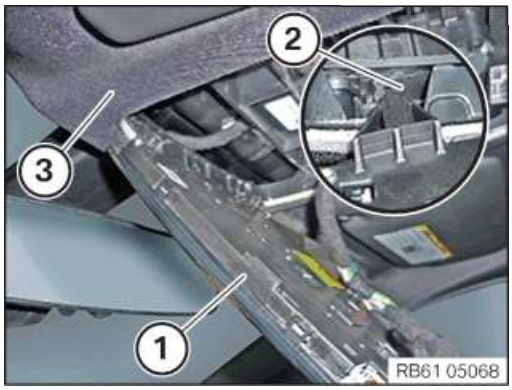


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

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.

fdiagn.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).

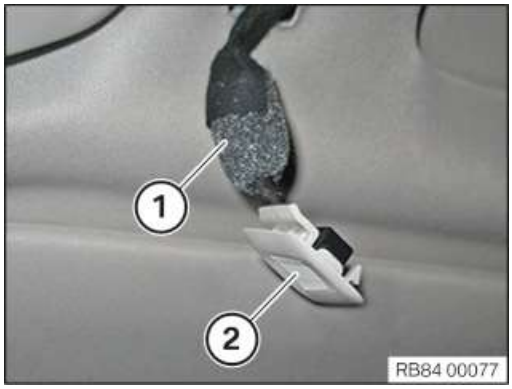
27 – Install both microphones

NOTICE

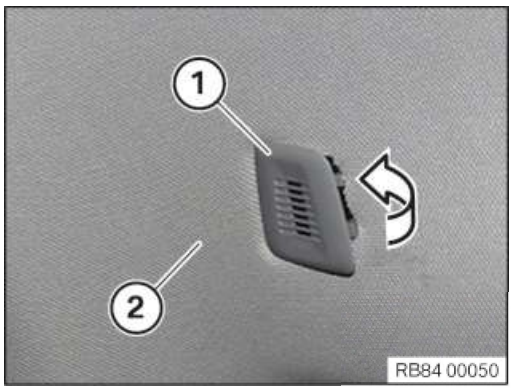
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

cardiagn.com



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

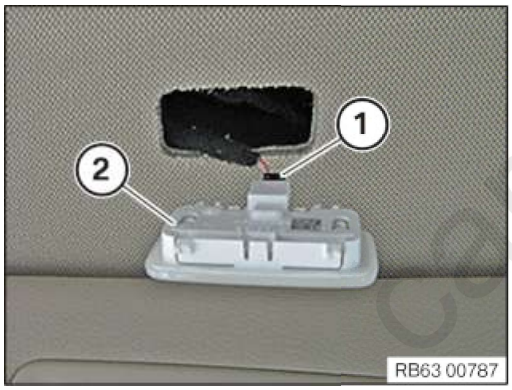


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

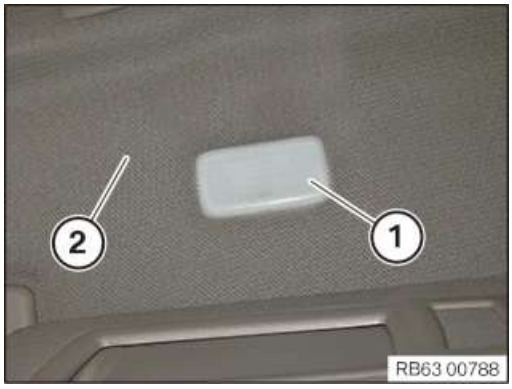
28 – Installing front vanity mirror light

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.

carldiag.com

▸ **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

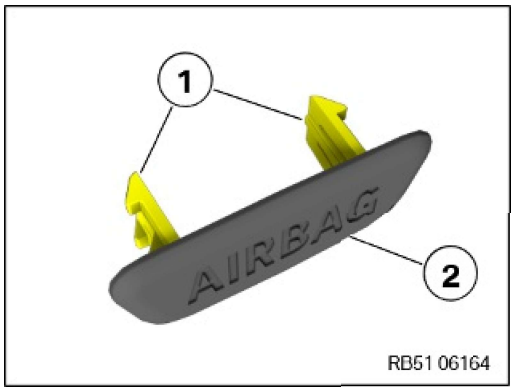
cardiagn.com

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.



Check

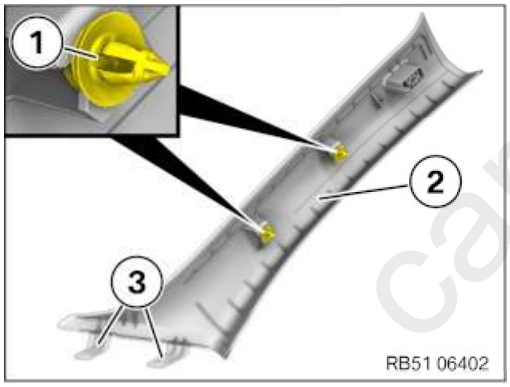
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

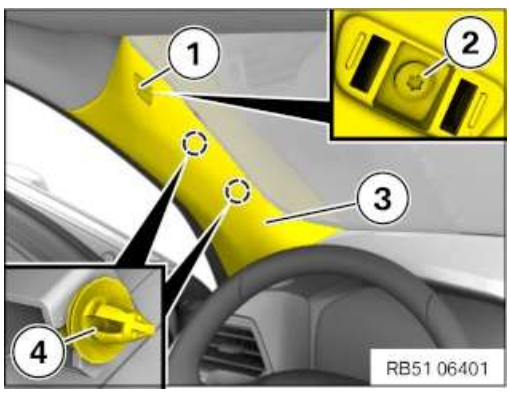
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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).

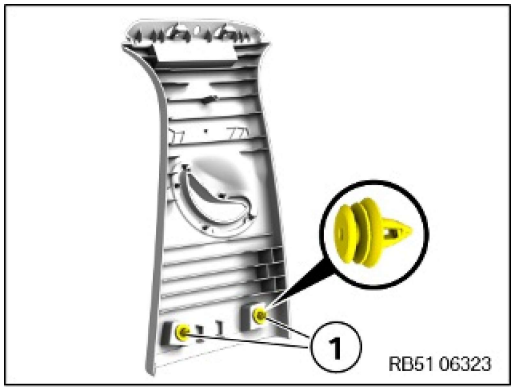
32 – Installing both B-pillar trim panels

cardiagn.com

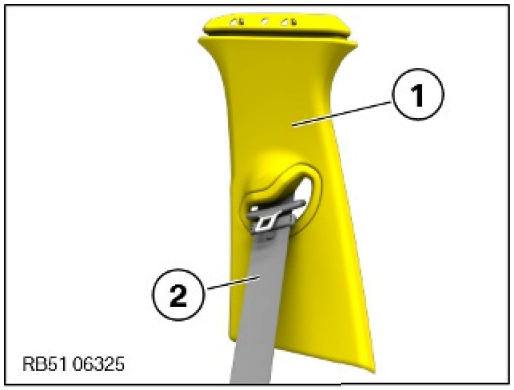
NOTICE

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

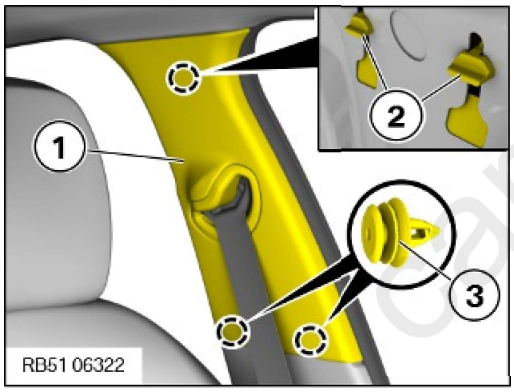
▶ **Install the B-pillar trim panel**



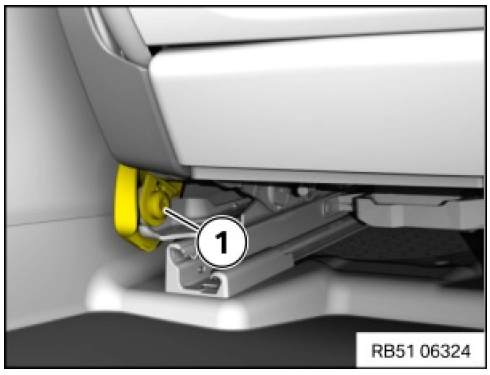
- Check the clips (1) for damage and renew if necessary.



- 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

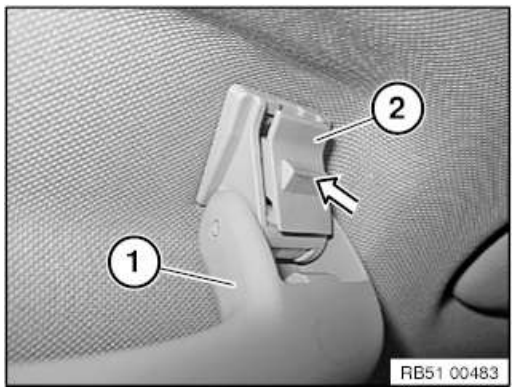
33 – Installing all grab handles

cardiagn.com

NOTICE

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

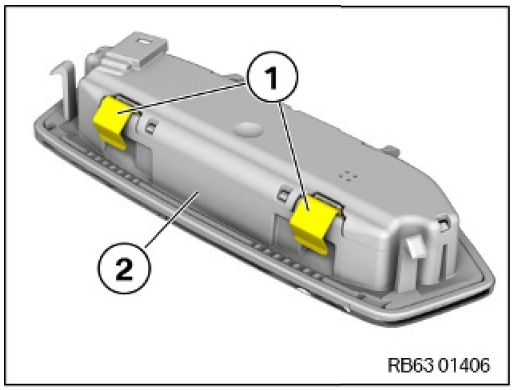
▸ **Installing the grab handle**



- 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



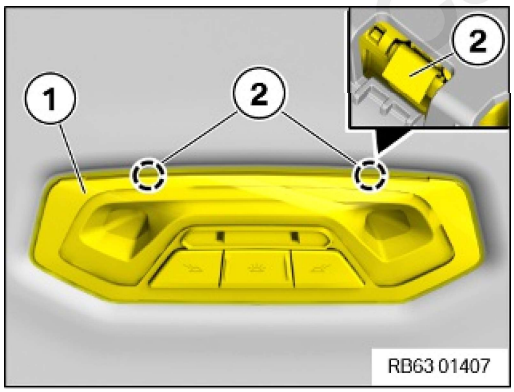
- Check the clamps (1) for damage.

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).

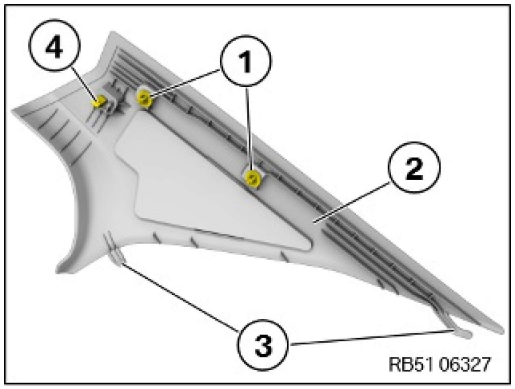
35 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

carldiagn.com



Check

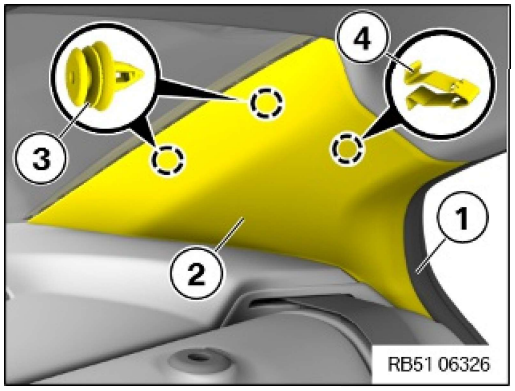
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

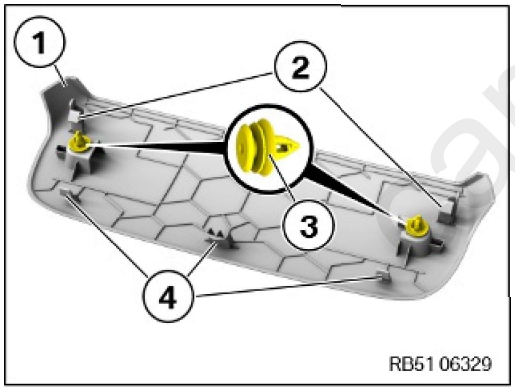


NOTICE

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

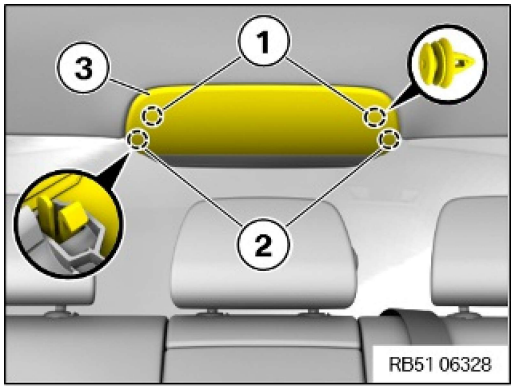
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

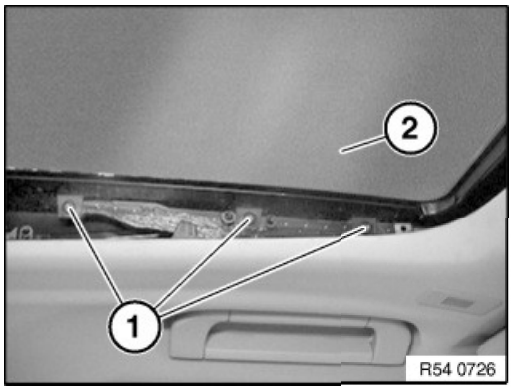
Measure

- 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).

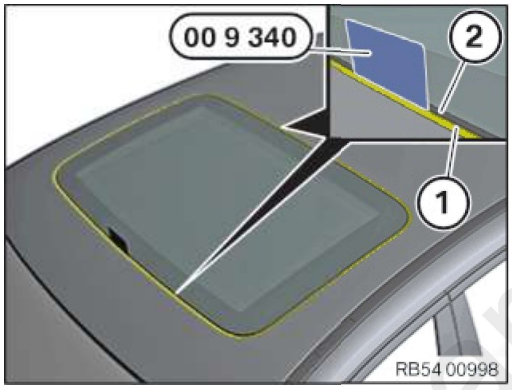
37 – Install glass slide/tilt sunroof panel



- 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.

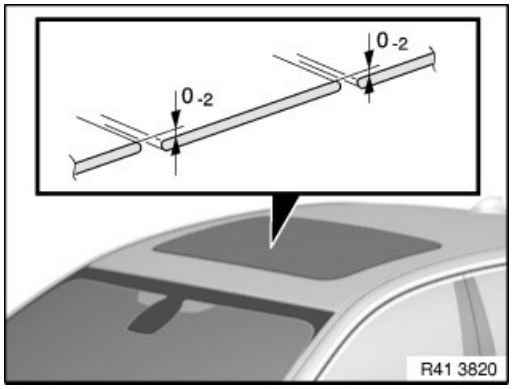
38 – Check the setting of the glass slide/tilt sunroof panel



- 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.

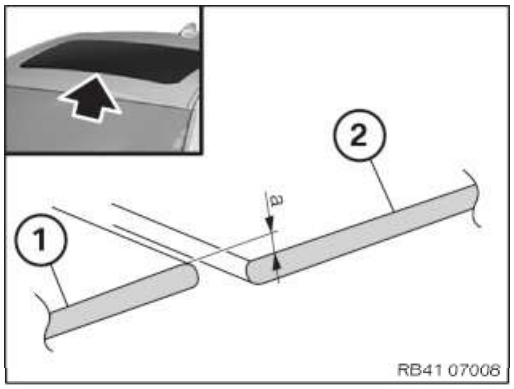
cardiagn.com



- 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.

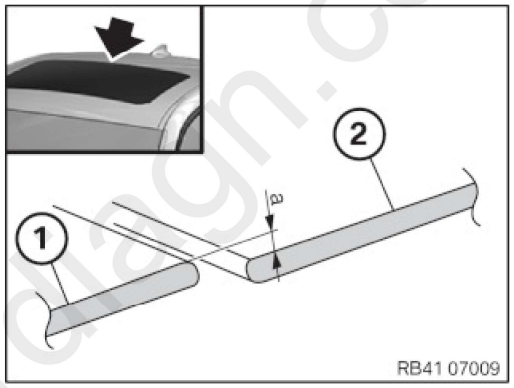
Gap dimension roof outer skin to glass slide/tilt sunroof panel

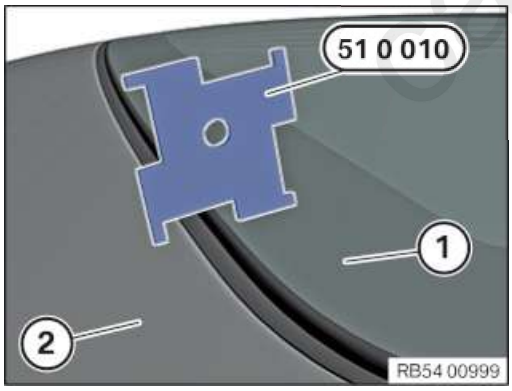
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



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

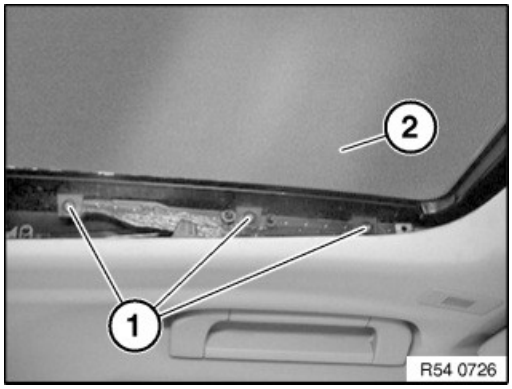




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

39 – Adjusting glass slide/tilt sunroof panel

cardiagn.com

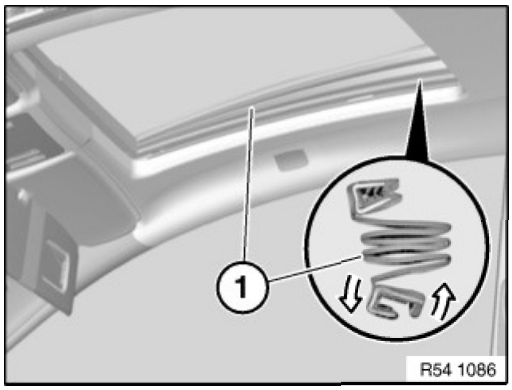


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

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.

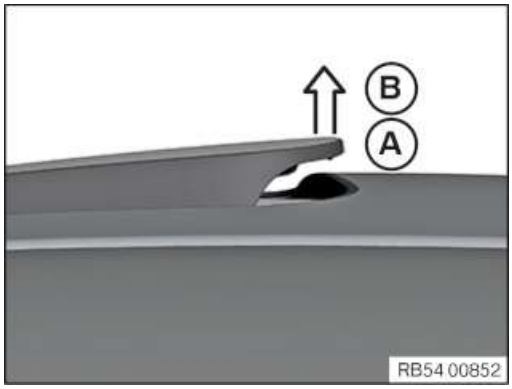
41 – Initialising the glass slide/tilt sunroof panel



- 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.

cardiagn.com



- 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).

cardiagn.com

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

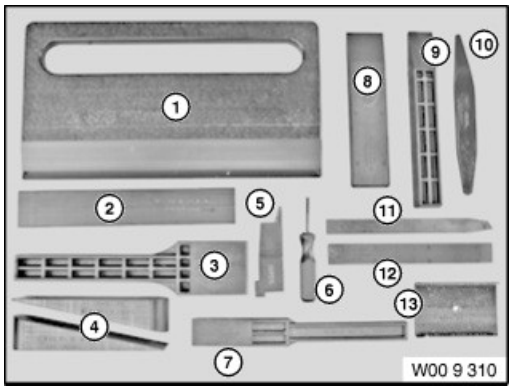
End fitting to seat mechanism — Used in step 32

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



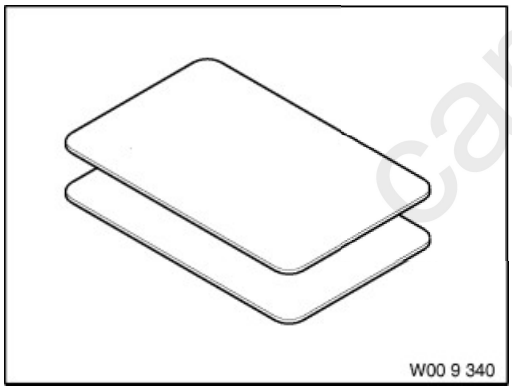
Common		Used in step 411
Usage	(Case) with insert not incl. panel wedges	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	01 07 09 (530)	

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



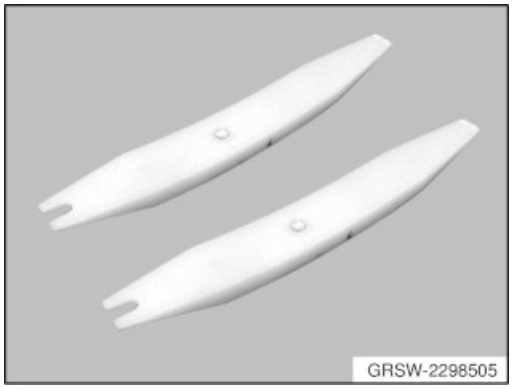
Common		Used in step 8
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

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).	

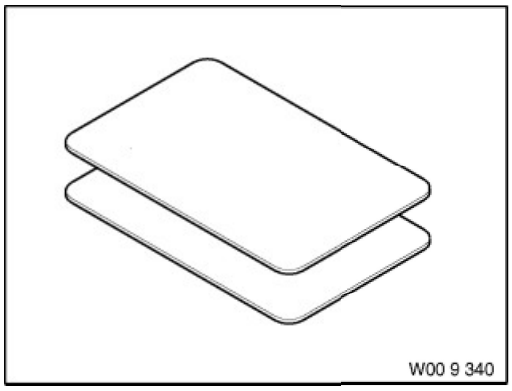
cardiagn.com

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

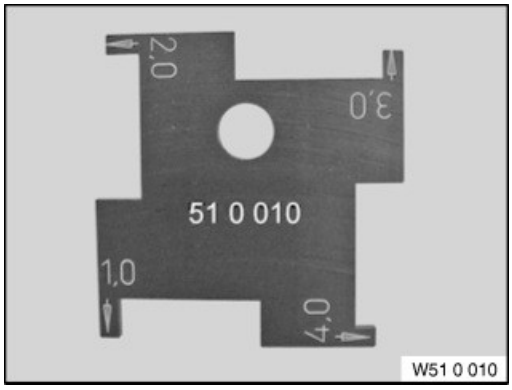


Common	Used in step 38
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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)

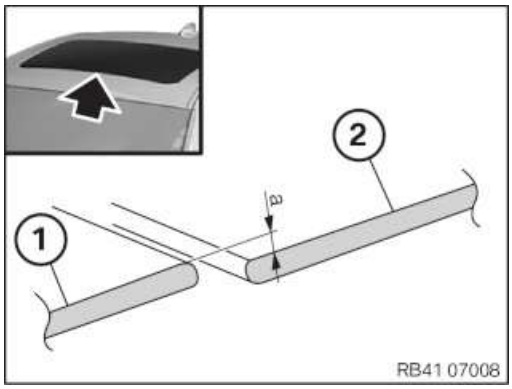
Overview Technical Data

cardiagn.com

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

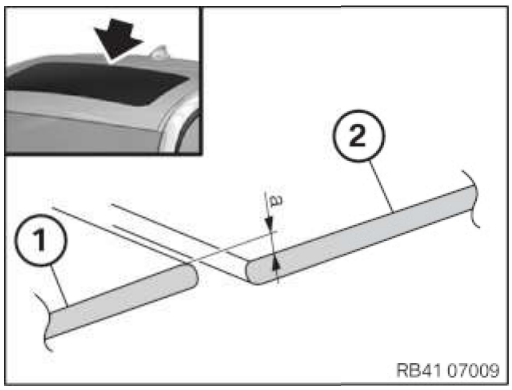
a	0,7 (-0,05 - 1,45) mm



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

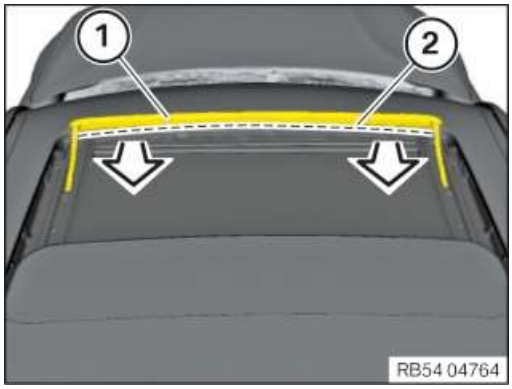
cardiagn.com

54 12 497 Removing and installing/replacing wind deflector for glass slide/tilt sunroof

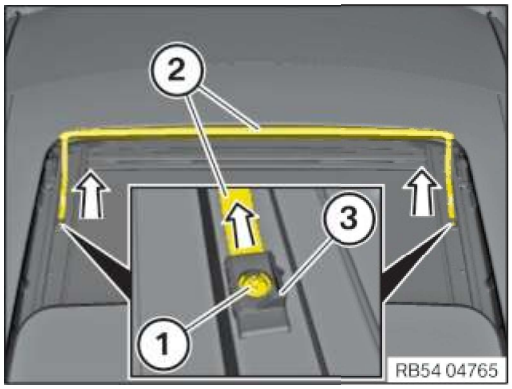
1 – Remove wind deflector

Prerequisite

The glass slide/tilt sunroof panel is open.



- Unclip the wind deflector (1) in the area (2) in the direction of arrow.

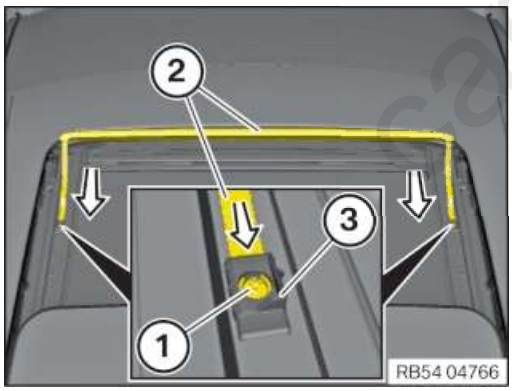


- Loosen screws (1).
- Move wind deflector (2) to the front and feed out from the wind deflector mount (3).

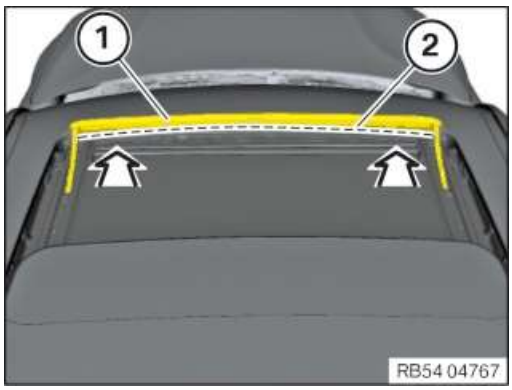
2 – Install wind deflector

Prerequisite

The glass slide/tilt sunroof panel is open.

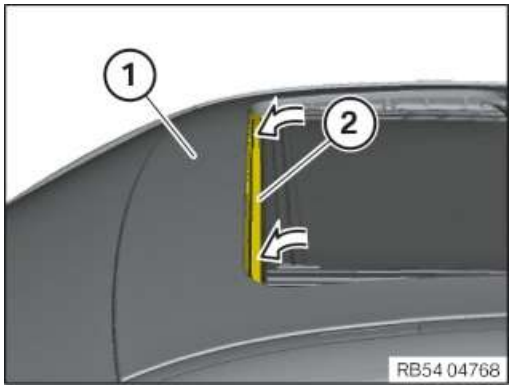


- Feed in wind deflector (2) from the front to the wind deflector mount 3.
- Screw the screws (1) by a few turns but do not tighten.



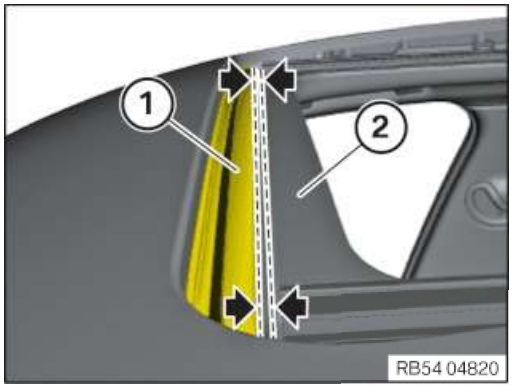
- Clip in the wind deflector (1) in area (2).

carsdiagn.com

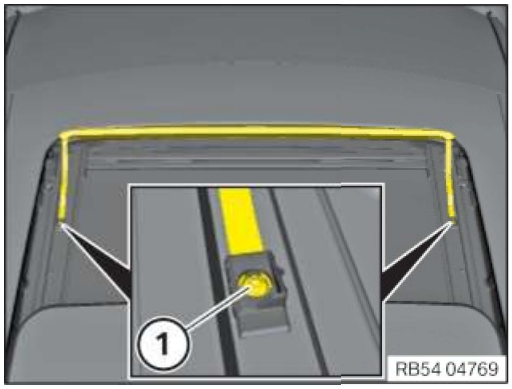


- Press wind deflector (2) down by hand.

  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).

cardiagn.com

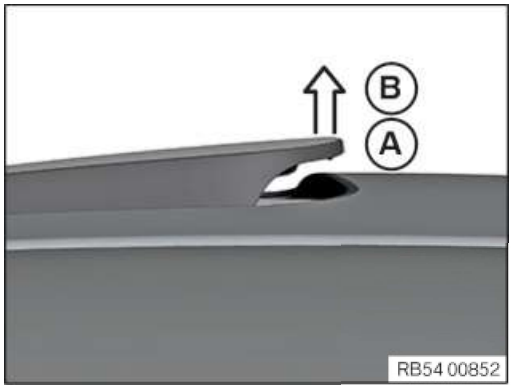
3 – Initialising the glass slide/tilt sunroof panel



- 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).

carlogn.com

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.

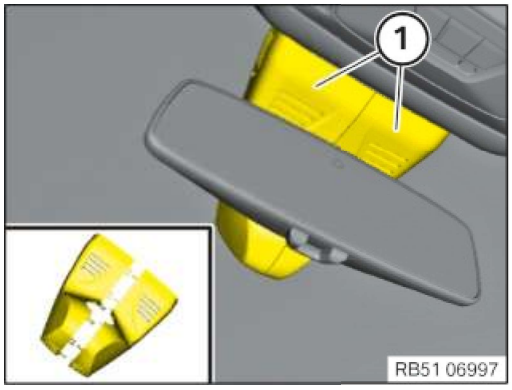
If the headlining is folded, it may have to be replaced.

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

PRELIMINARY WORK

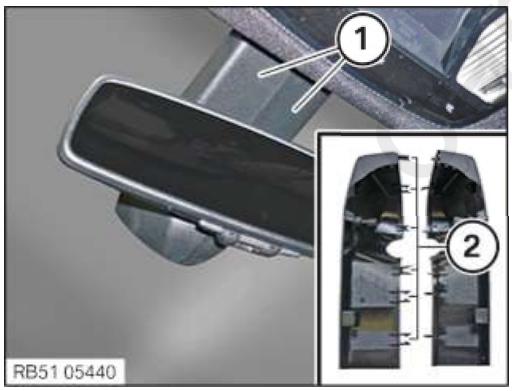
1 – Removing the covers for the interior mirror

- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

- **Version B:**

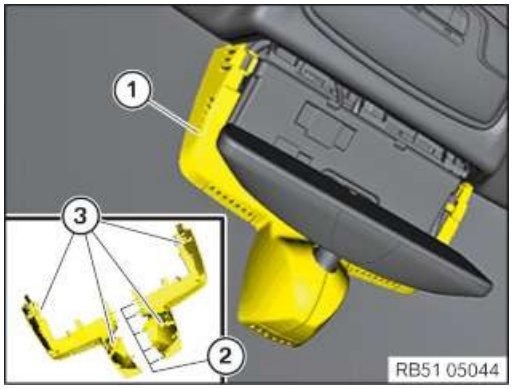


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **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!

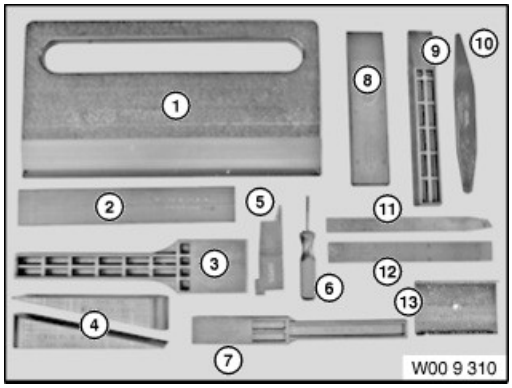
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

WARNING

Pyrotechnic components.

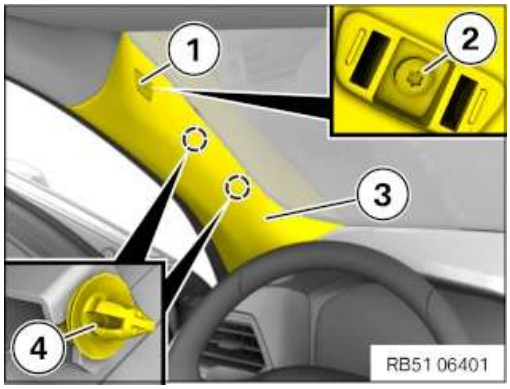
Danger! Life-threatening injuries!

- 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.

cardiagn.com



- 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



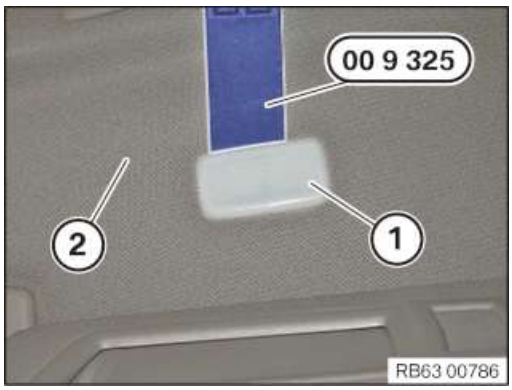
- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

5 – Removing front vanity mirror light

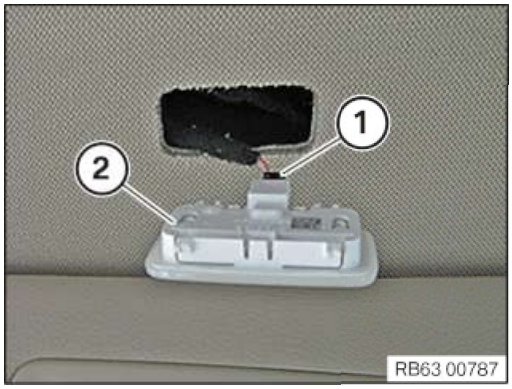
cardiagn.com

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).



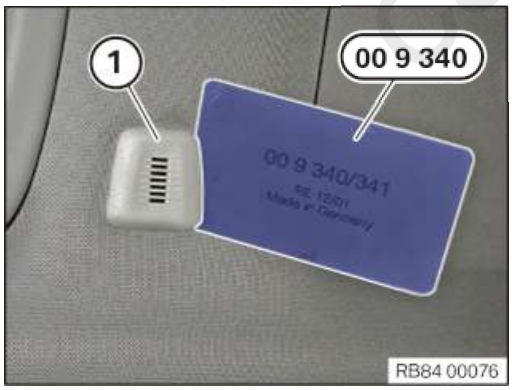
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

6 – Remove both microphones

NOTICE

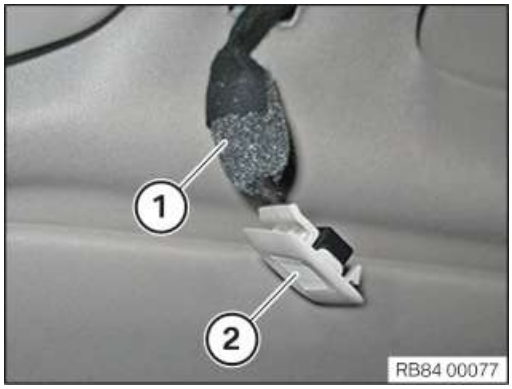
Description is for left component only. Procedure on the right side is identical.

▸ **Removing hands-free microphone**



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

cardiagn.com



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

7 – Removing the roof function centre (FZD)



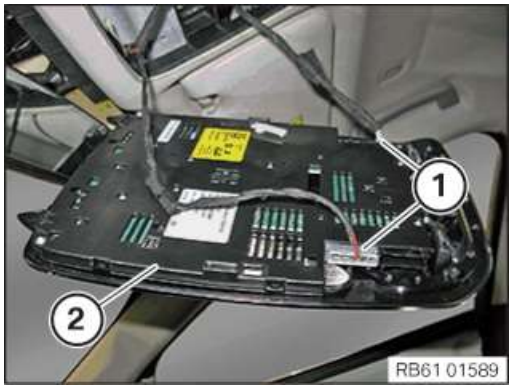
- Unclip the cover (1).



- 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.

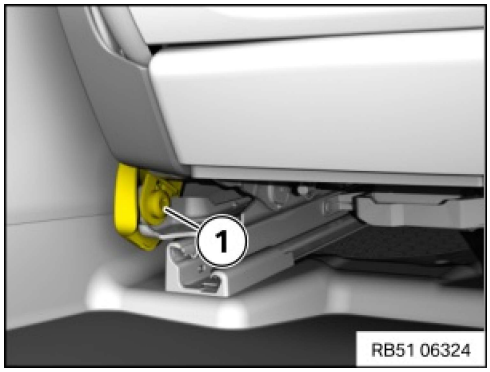
8 – Removing both B-pillar trim panels

audiagn.com

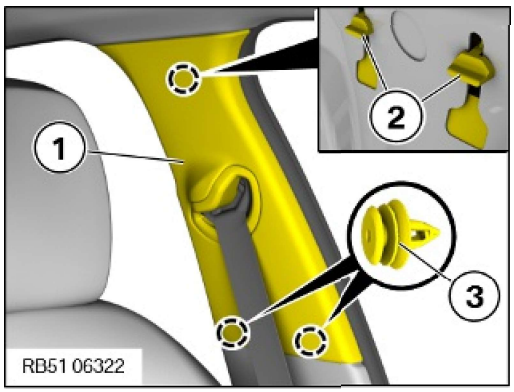
NOTICE

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

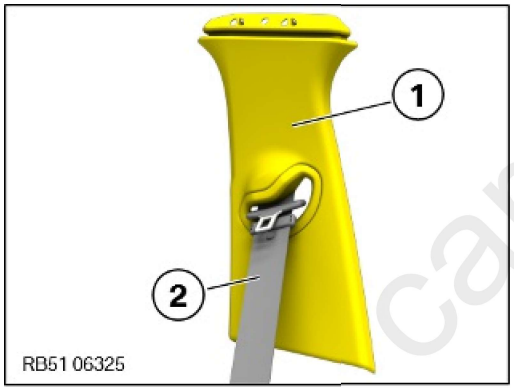
▶ **Remove the B-pillar trim panel**



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

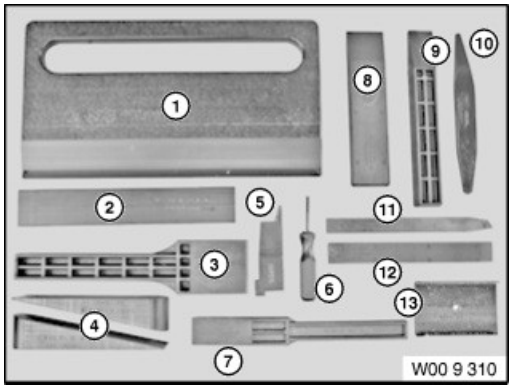


- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



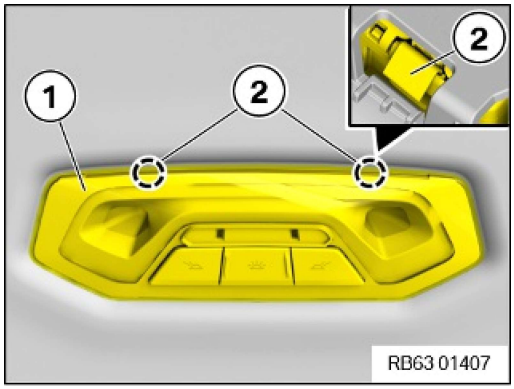
- Feed upper seat belt (2) out of B-pillar trim panel (1).

9 – Remove interior roof light



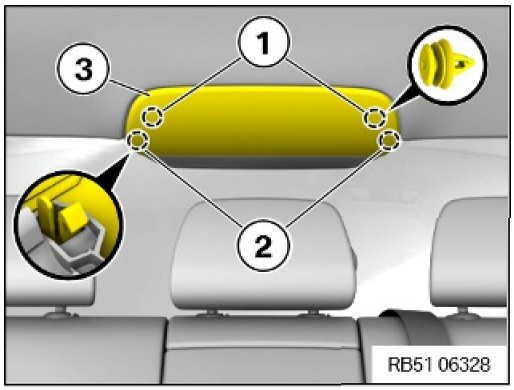
- Have the set of special tools 0 493 752 (00 9 329) ready.

cardiagn.com



- 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

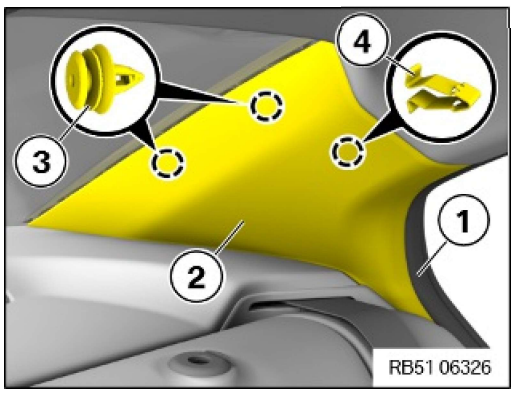
NOTICE

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

▸ **Remove C-pillar trim panel**

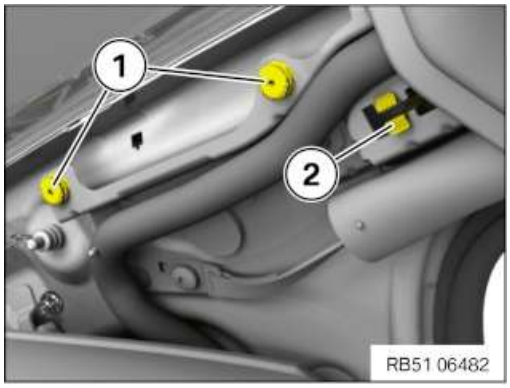
NOTICE

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).

cardiagn.com



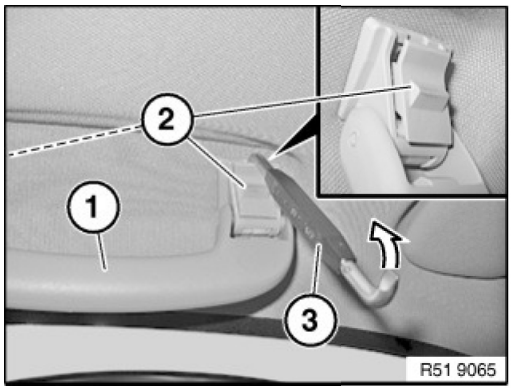
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

12 – Removing all grab handles

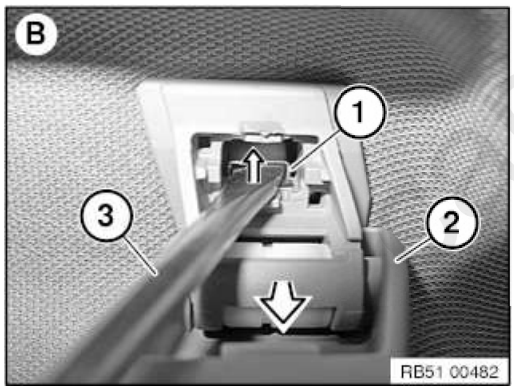
NOTICE

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.

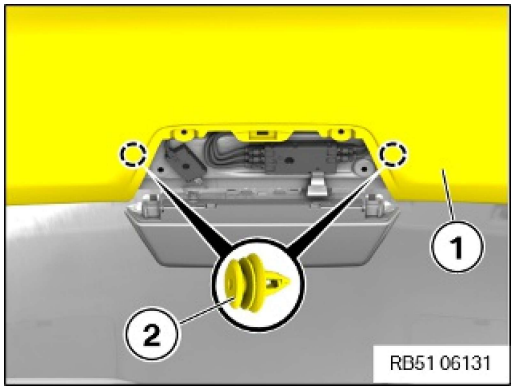
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

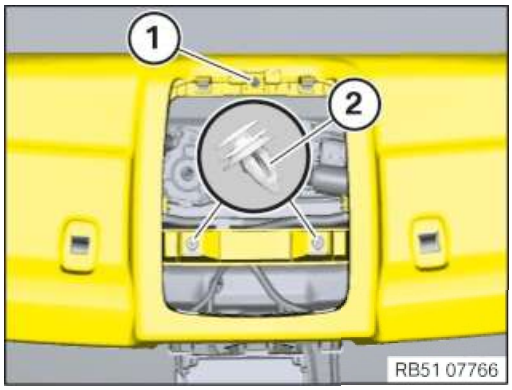
Fold the headlining.

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

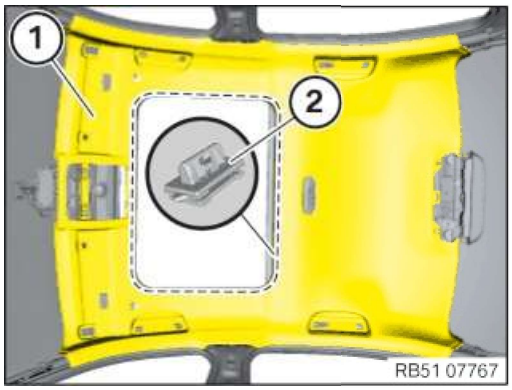
- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.



- Unclip the headlining (1) on the clips (2) downwards.



- Loosen screw (1).
- Unclip the headlining on the clips (2) downwards.

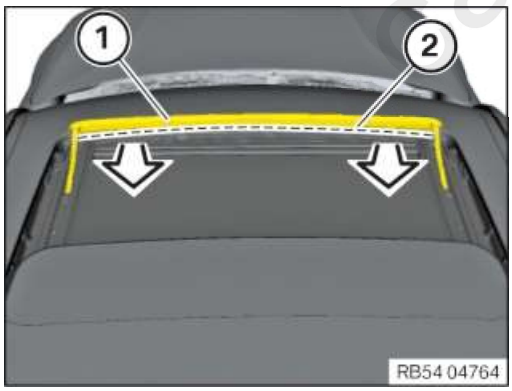


- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

14 – Remove wind deflector

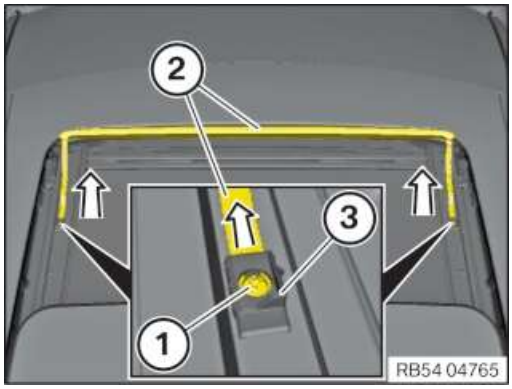
Prerequisite

The glass slide/tilt sunroof panel is open.



- Unclip the wind deflector (1) in the area (2) in the direction of arrow.

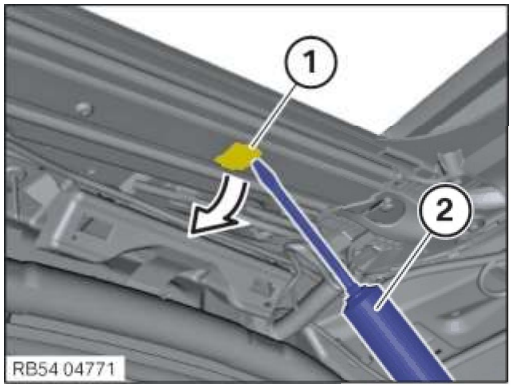
cardiagn.com



- Loosen screws (1).
- Move wind deflector (2) to the front and feed out from the wind deflector mount (3).

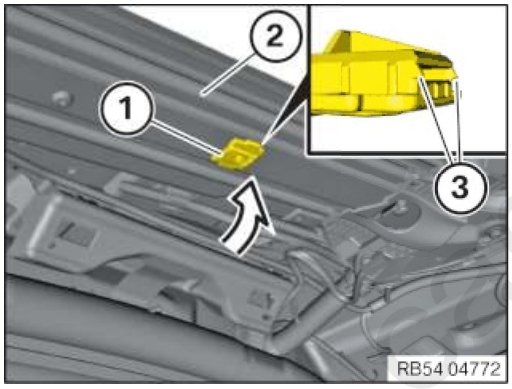
MAIN WORK

15 – Removing the wind deflector mount



- Unclip wind deflector mount (1) with a suitable tool (2) downwards.

16 – Install wind deflector bearing



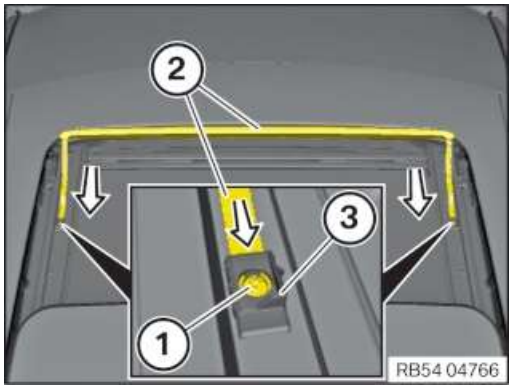
- Position wind deflector mount (1) in recess on slide/tilt sunroof frame (2).
- Clip wind deflector mount (1) into slide/tilt sunroof frame (2).
- Ensure that the retaining lugs (3) engage correctly.

POSTPROCESSES

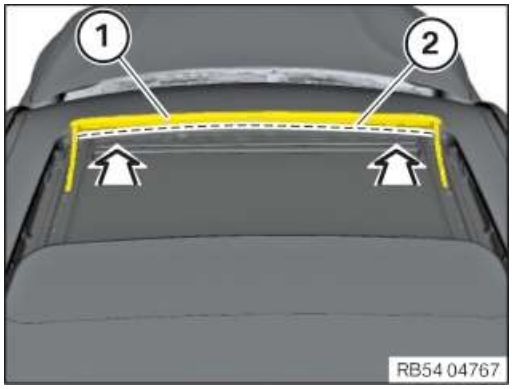
17 – Install wind deflector

Prerequisite

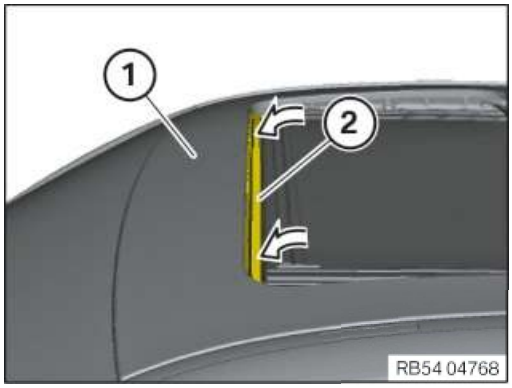
The glass slide/tilt sunroof panel is open.



- 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.

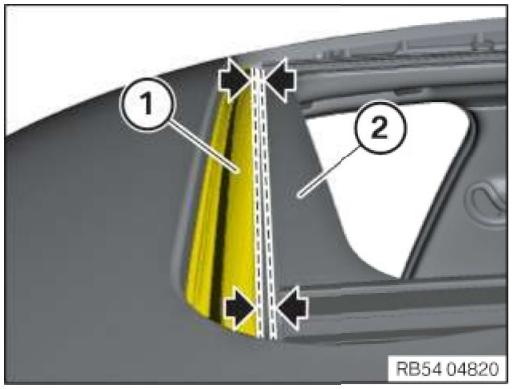


- Clip in the wind deflector (1) in area (2).

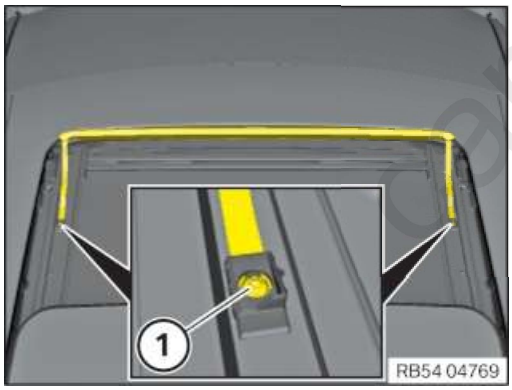


- Press wind deflector (2) down by hand.

  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.

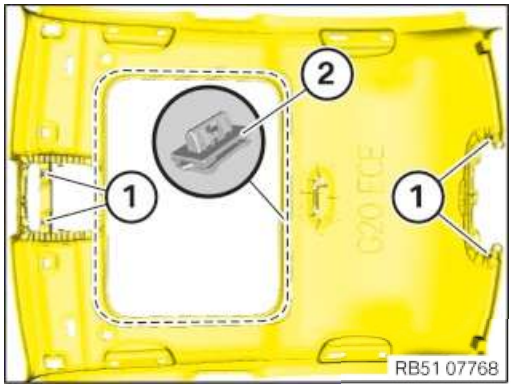
The front seat backrests have been fully adjusted towards the rear.

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.



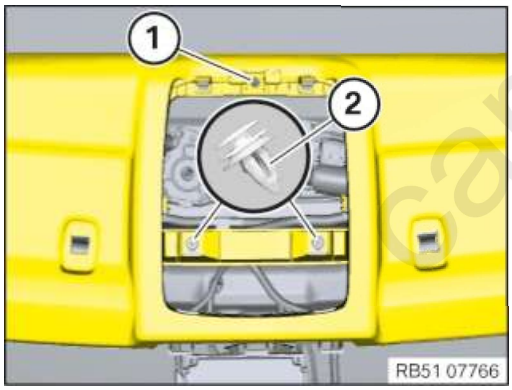
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



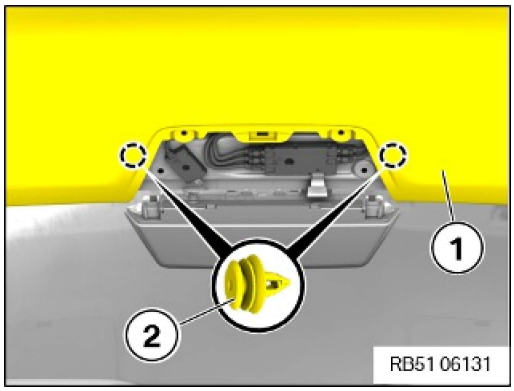
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

Oval-head screw		Tightening torque	1,5 Nm

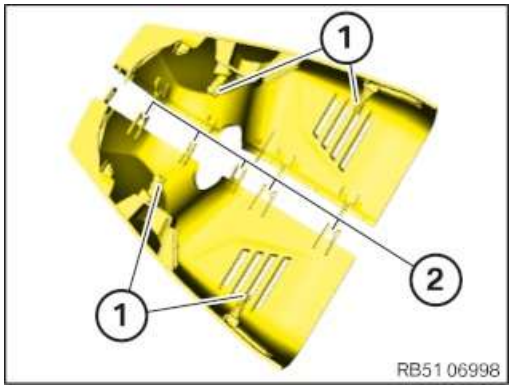


- Clip headlining (1) to the clips (2).

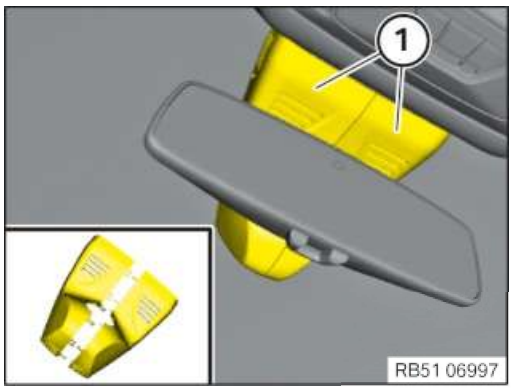
19 – Installing the covers for the interior mirror

- **Version A:**

cardiagn.com

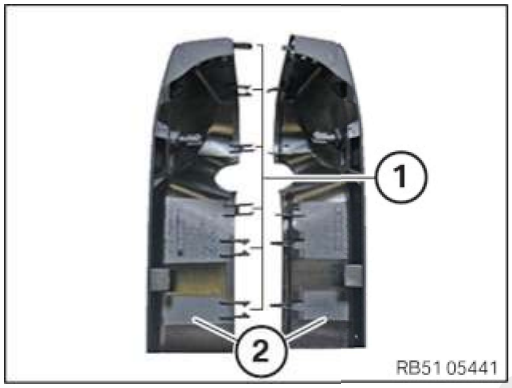


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



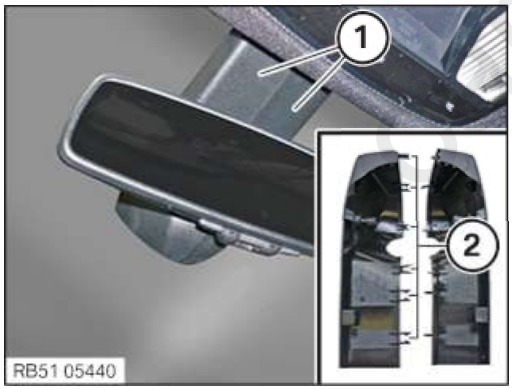
- Feed cover (1) in and lock.

- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

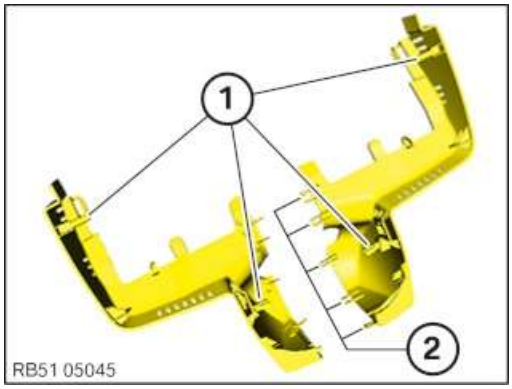
  The covers (2) must not be damaged or missing.



- 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.

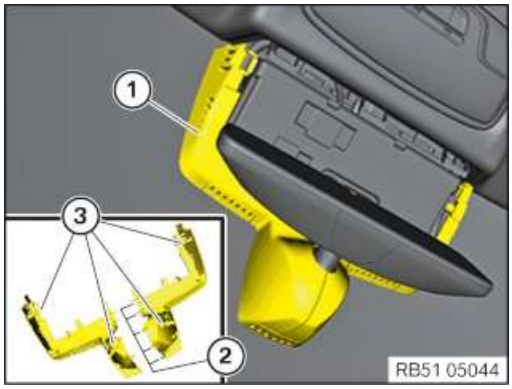
mdiagn.com

Result

» The latch mechanism is damaged.

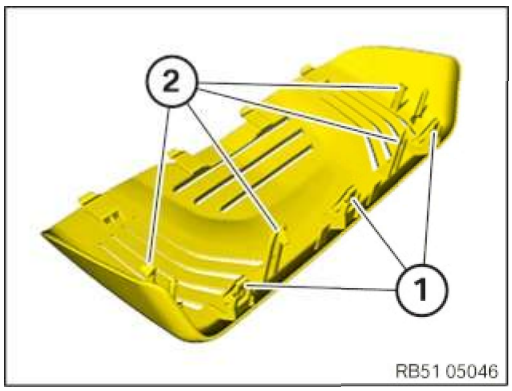
Measure

- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check



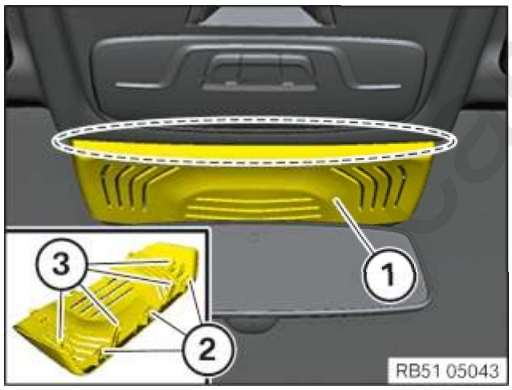
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

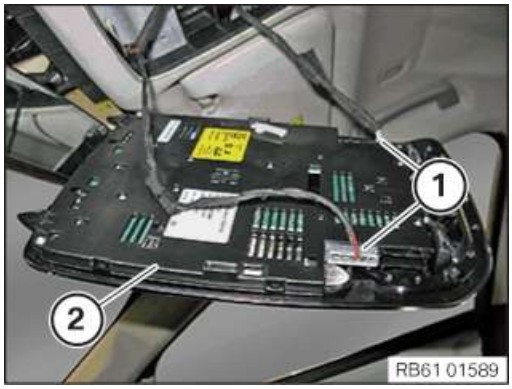
Measure

- Renew the cover.



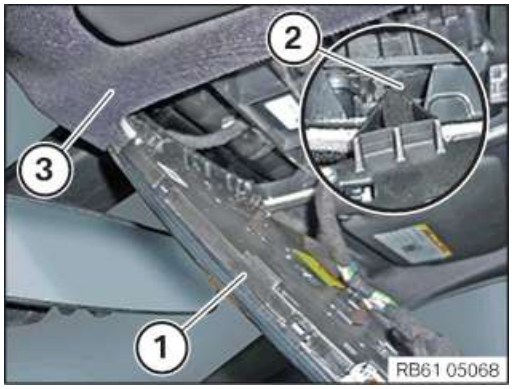
- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

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.

carlagn.com



- 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).

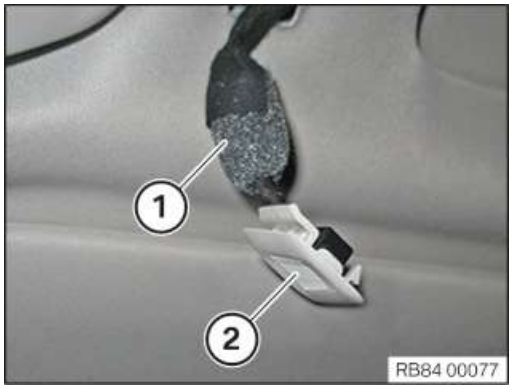
21 – Install both microphones

carldiagn.com

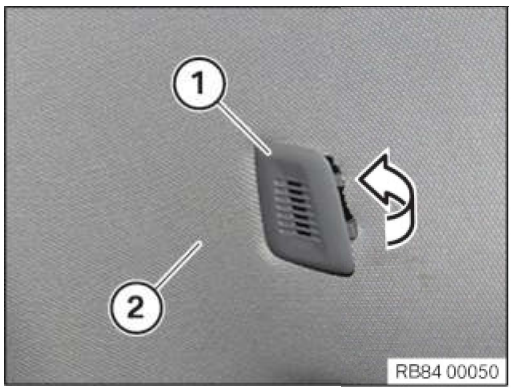
NOTICE

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).

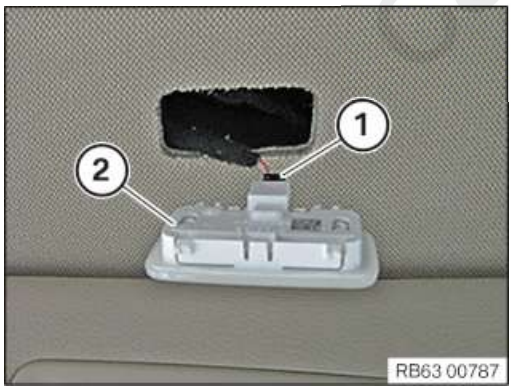


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

22 – Installing front vanity mirror light

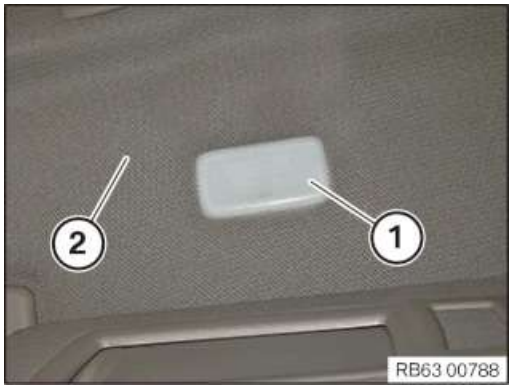
NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).

carsdiagn.com

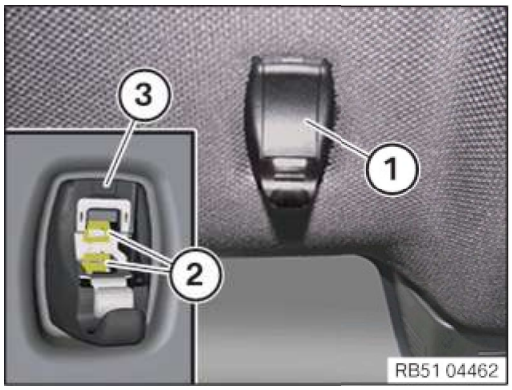


- Position the front vanity mirror light (1) in the headlining (2).

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

cardiagn.com

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!

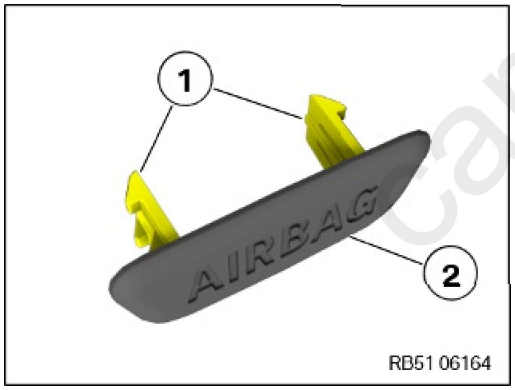
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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

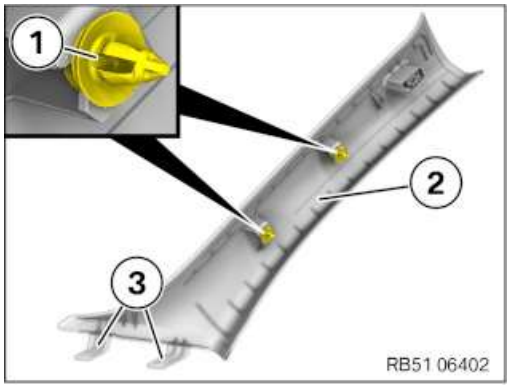
» Retaining lug is damaged.

Measure

- Renew the cover.

Check

cardiagn.com



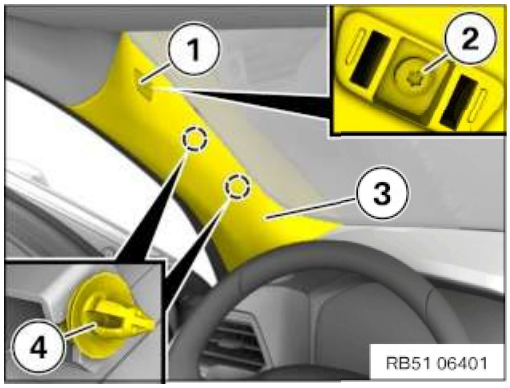
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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

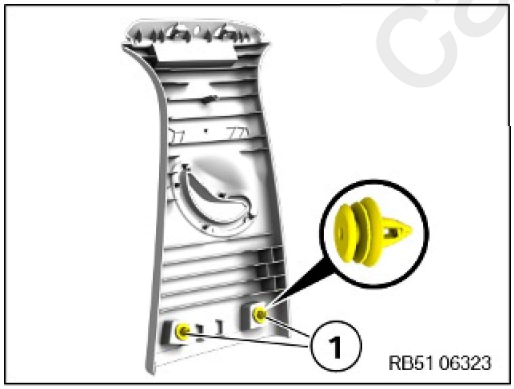
- Clip in the cover (1).

26 – Installing both B-pillar trim panels

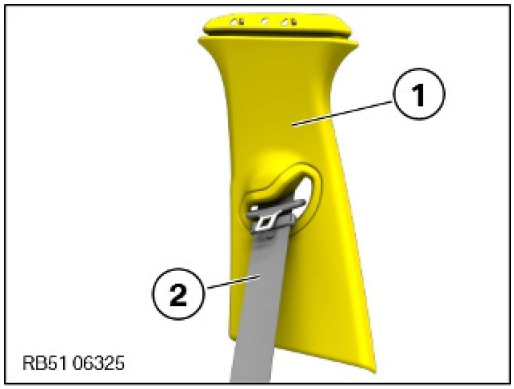
NOTICE

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

▸ **Install the B-pillar trim panel**

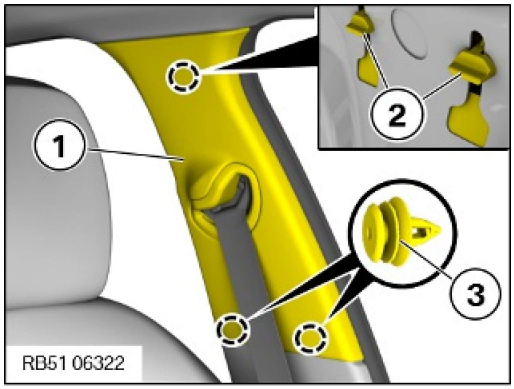


- Check the clips (1) for damage and renew if necessary.

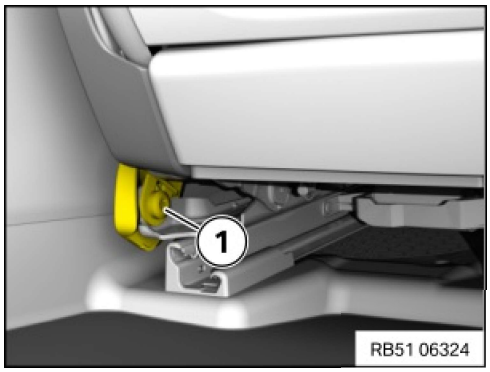


- Guide upper seat belt (2) in B-pillar trim panel (1).

cardiagn.com



- 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

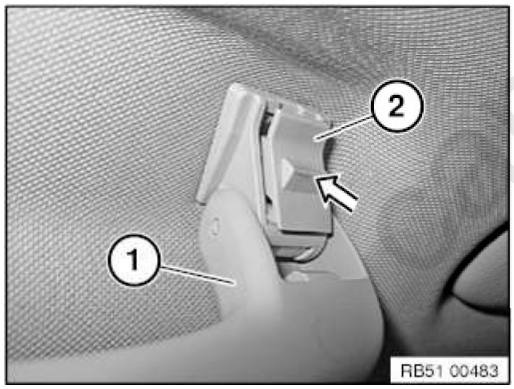
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

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**

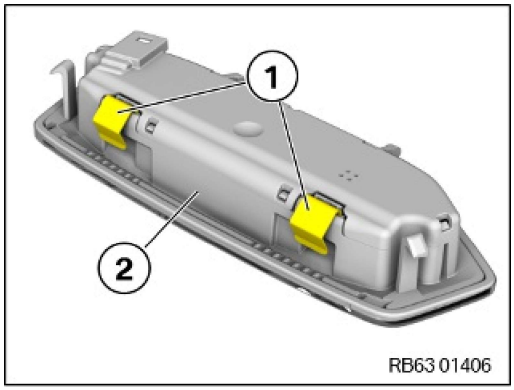


- Insert the grab handle (1) into body.
- Correctly clamp in the grab handle (1), as otherwise the locking inserts (2) on the grab handle (1) cannot correctly engage.
- Engage the locking inserts (2) on both sides of the grab handle (1).

28 – Install interior roof light

Check

- Check the clamps (1) for damage.

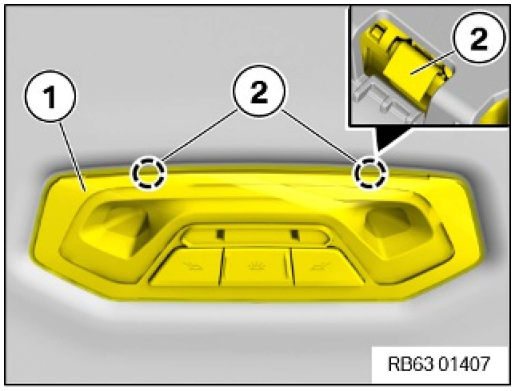


Result

» 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).

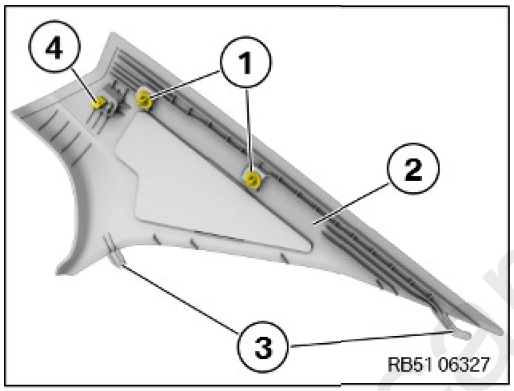
29 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

Check



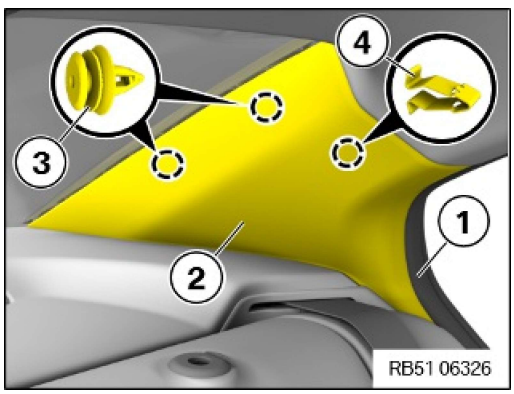
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .



NOTICE

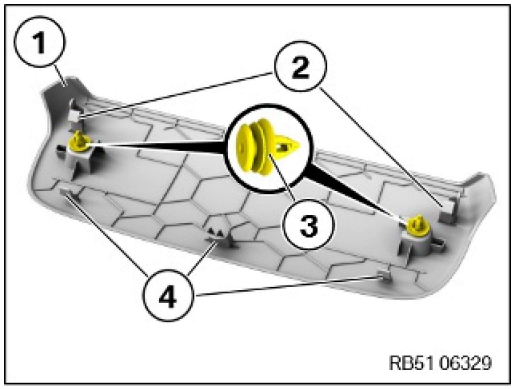
Schematic diagram is for example purposes. Some parts may differ in certain details.

- 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

cardiagn.com



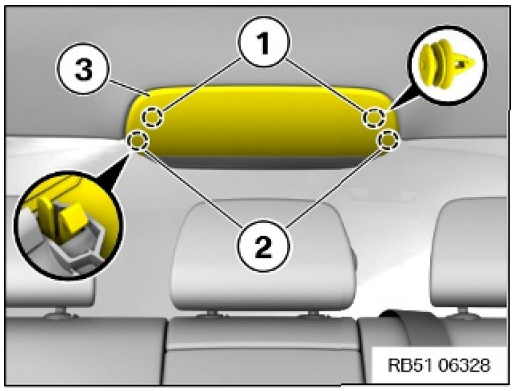
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

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

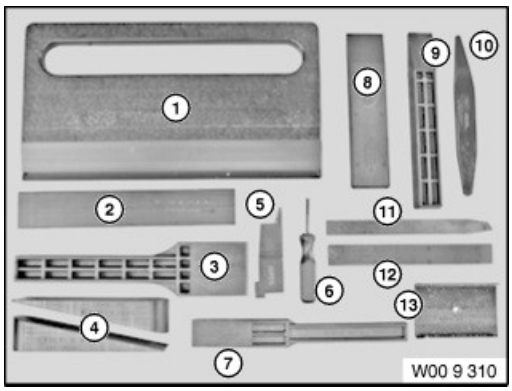
A-pillar trim panel to body			Used in step 25
Sheet metal screw 4,8x38		Tightening torque	2,6 Nm

End fitting to seat mechanism			Used in step 26
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

Overview of Special Tools

cardiagn.com

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)

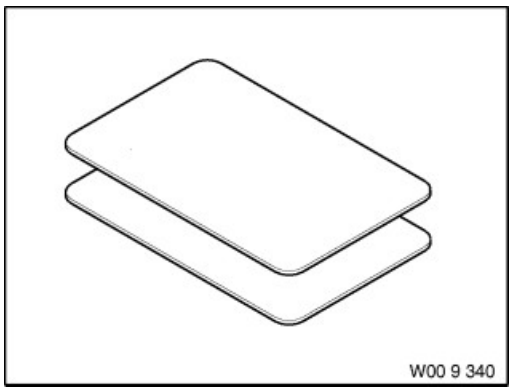
0 496 569 (00 9 325) Wedge



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)

cardiagn.com

0 493 687 (00 9 340) Removal aid



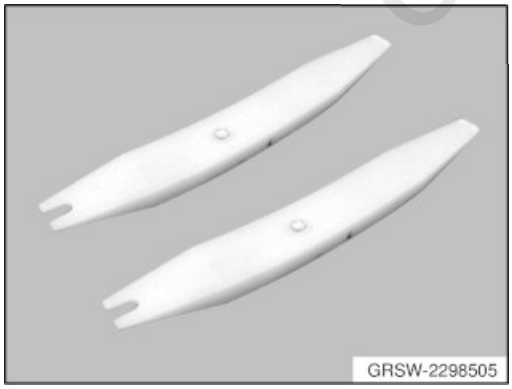
Common Used in step 6

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

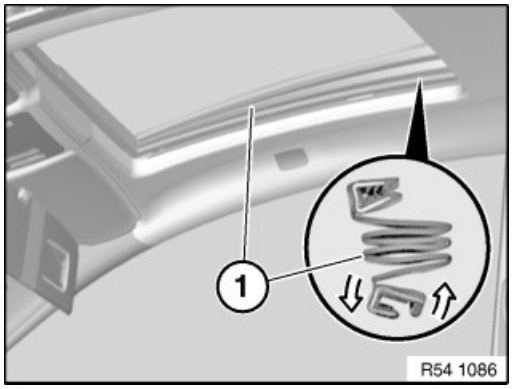
General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	2
72 00 ... Safety regulations for handling components with gas generators	2

cardiagn.com

54 12 116 Replace glass slide/tilt sunroof panel

PRELIMINARY WORK

1 – Remove the gaiter for the glass slide/tilt sunroof



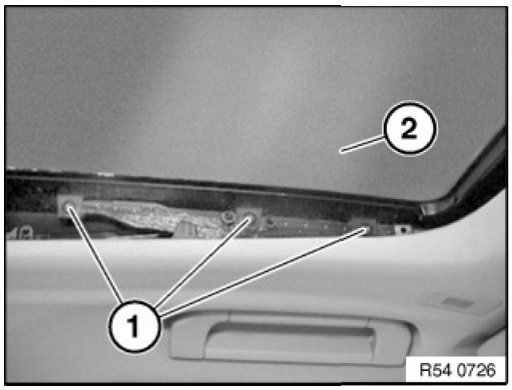
NOTICE

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.

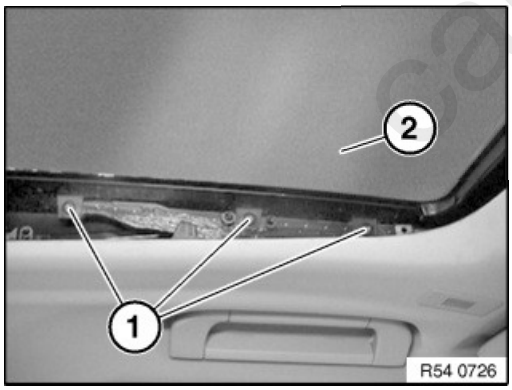
MAIN WORK

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



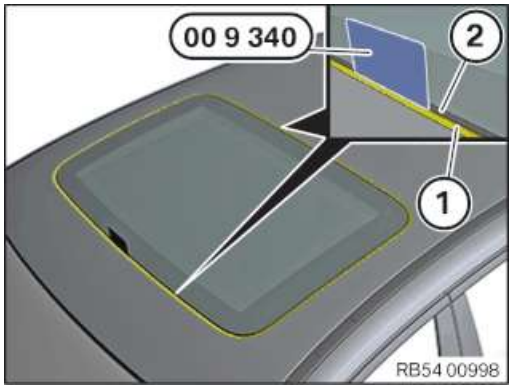
- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

POSTPROCESSES

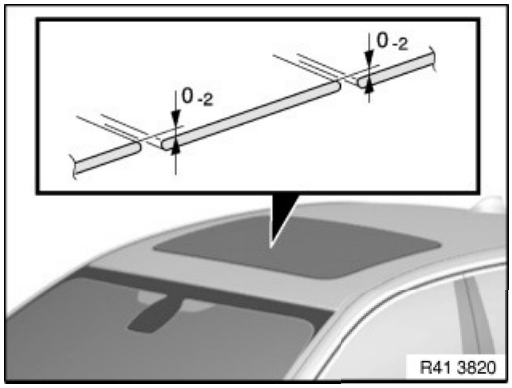
4 – Check the setting of the glass slide/tilt sunroof panel

cardiagn.com



- 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.

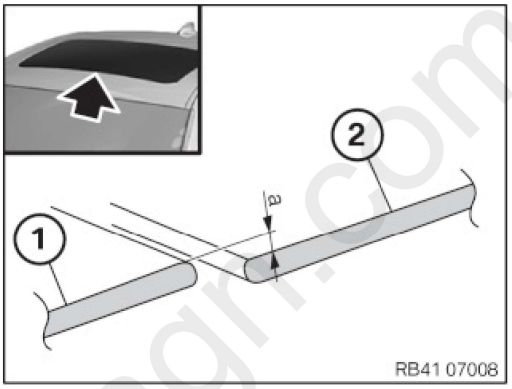


- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

Gap dimension roof outer skin to glass slide/tilt sunroof panel

1 roof outer skin; 2 glass slide/tilt sunroof panel

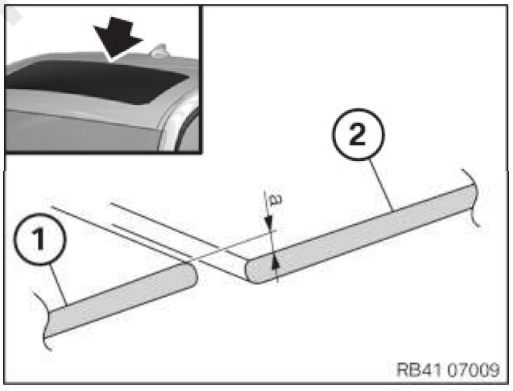
a	0,7 (-0,05 - 1,45) mm

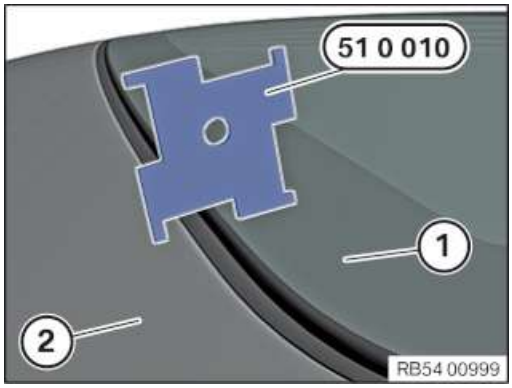


Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm

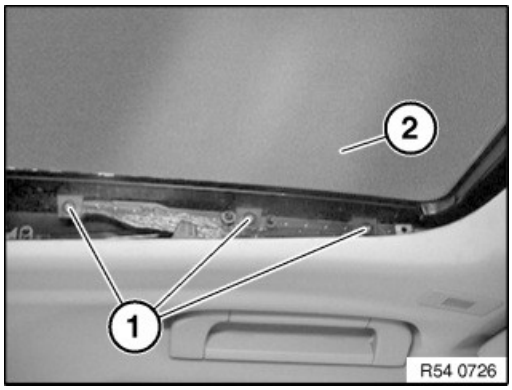




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

carflagr.com

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

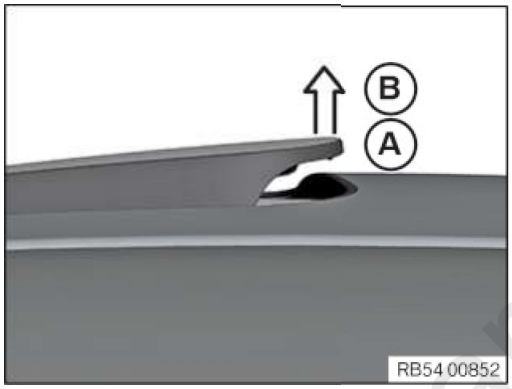
M5	Replace screws.	4,5 Nm

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.

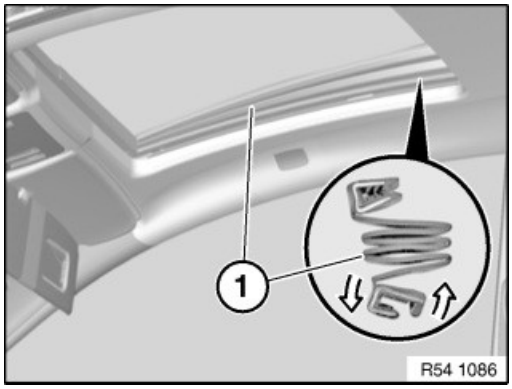
TECHNICAL INFORMATION

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

cardiag.com



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

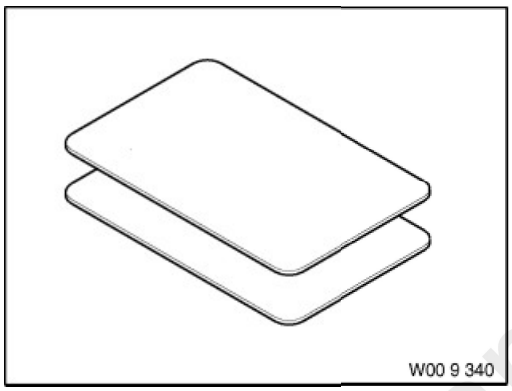
Overview of Tightening Torques

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



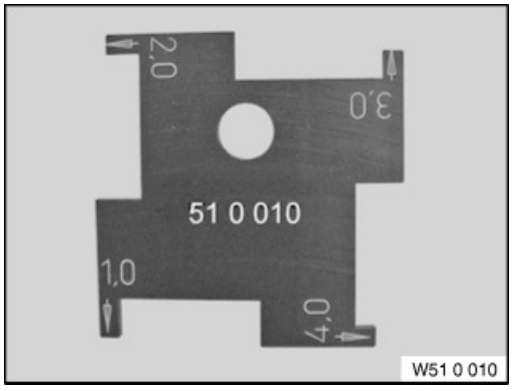
Common — Used in step 4

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)

carmagn.com

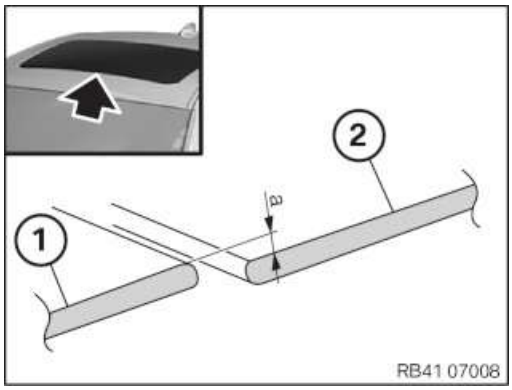
Overview Technical Data

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

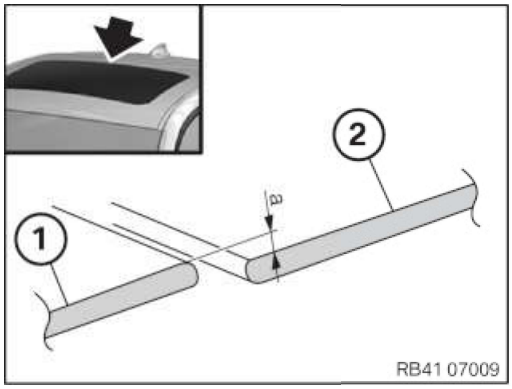


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 4

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



cardiagn.com

54 12 646 Replacing glass slide/tilt sunroof frame

RISK OF DAMAGE

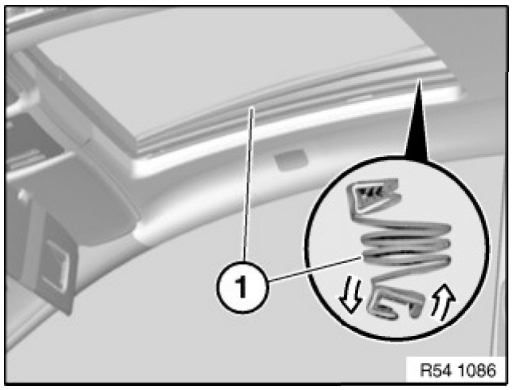
Fold the headlining.

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

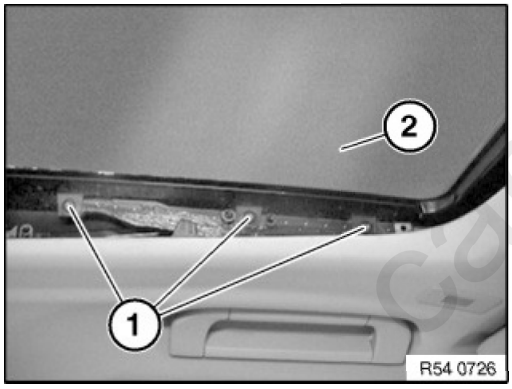


NOTICE

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

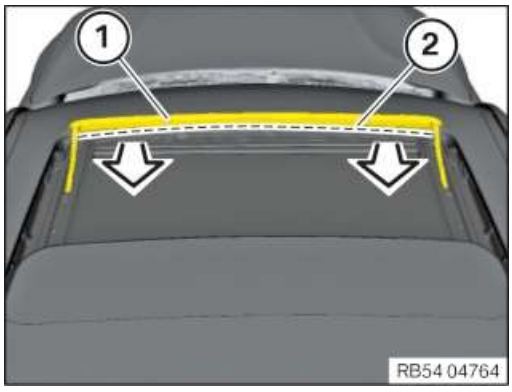


- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

3 – Remove wind deflector

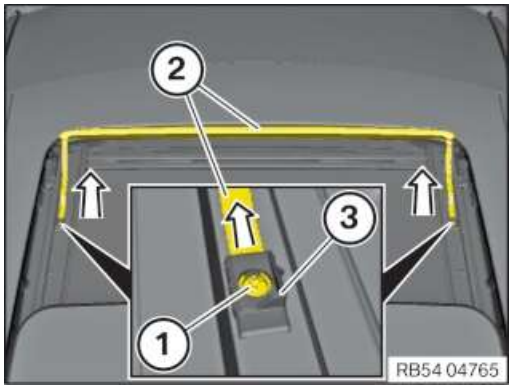
Prerequisite

The glass slide/tilt sunroof panel is open.



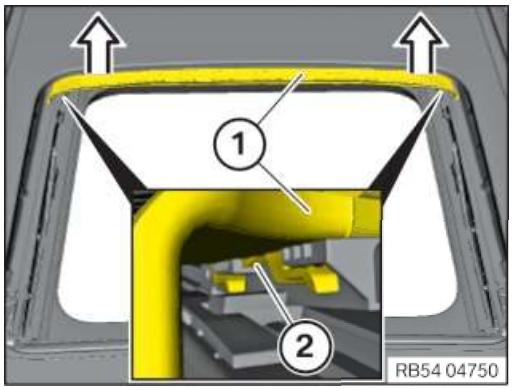
- Unclip the wind deflector (1) in the area (2) in the direction of arrow.

carldiagram.com



- Loosen screws (1).
- Move wind deflector (2) to the front and feed out from the wind deflector mount (3).

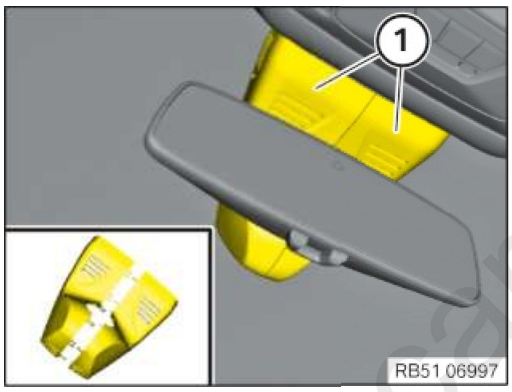
4 – Remove water channel



- Using a suitable tool, unlock the retaining lugs (2).
- Move the water channel (1) backwards and feed out.

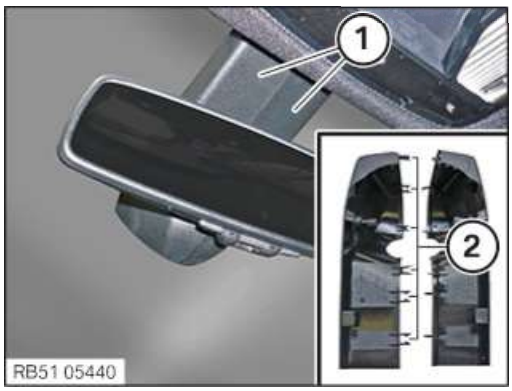
5 – Removing the covers for the interior mirror

- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

- **Version B:**



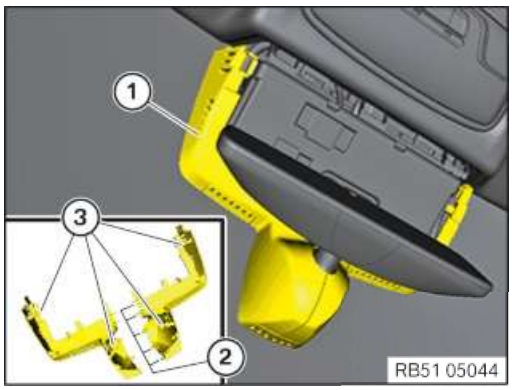
- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **Version C:**

cardiagn.com



- 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

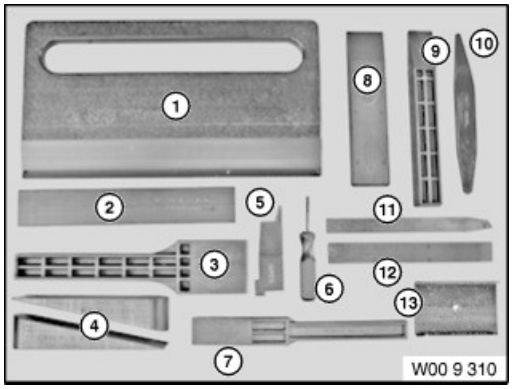
WARNING

Pyrotechnic components.

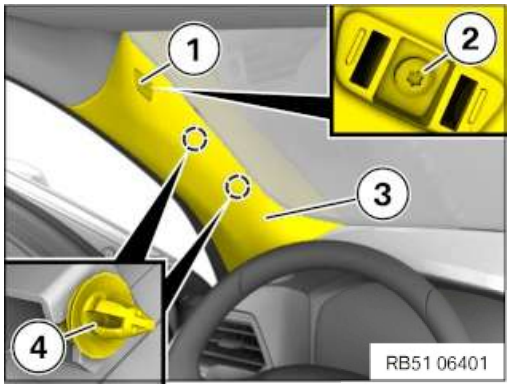
Danger! Life-threatening injuries!

- 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.

cardiagn.com



- 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**

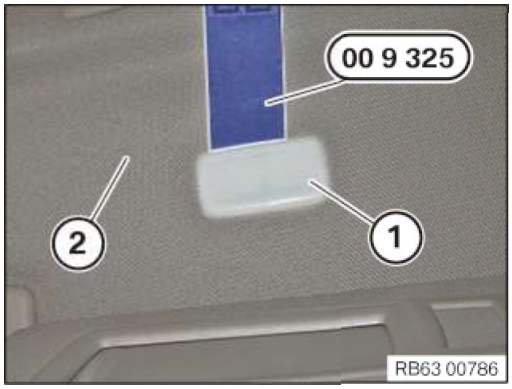


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

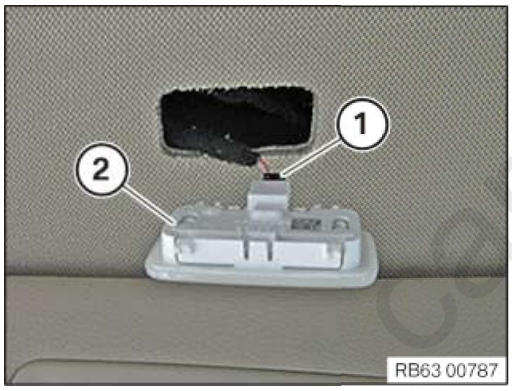
9 – Removing front vanity mirror light

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).

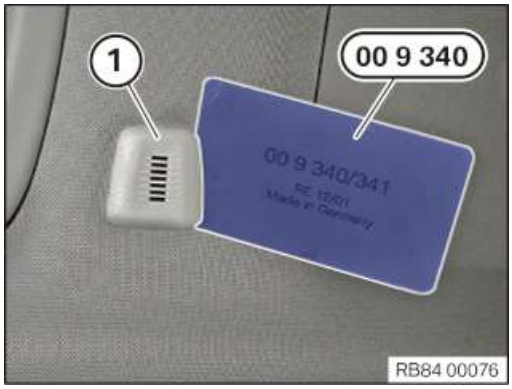
10 – Remove both microphones

NOTICE

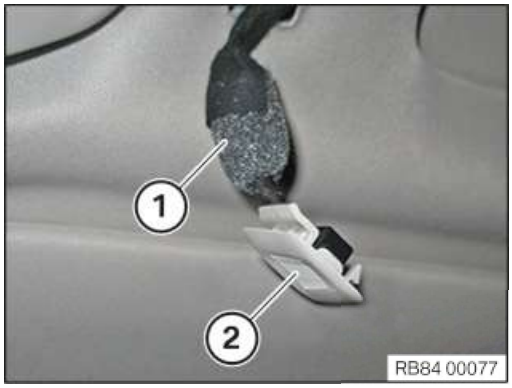
Description is for left component only. Procedure on the right side is identical.

▸ **Removing hands-free microphone**

carldiagn.com



- 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).

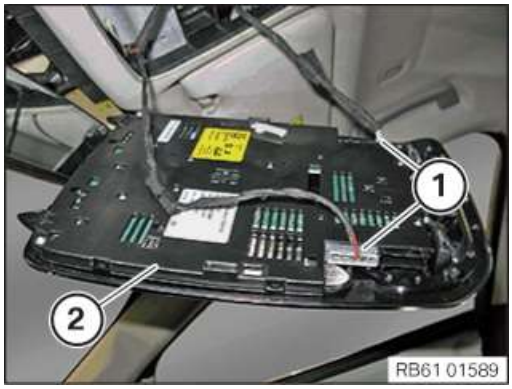


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

@diagn.com



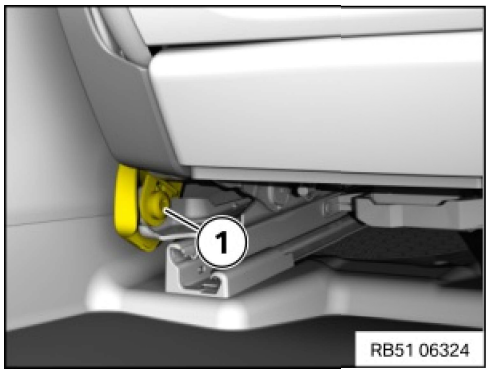
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

12 – Removing both B-pillar trim panels

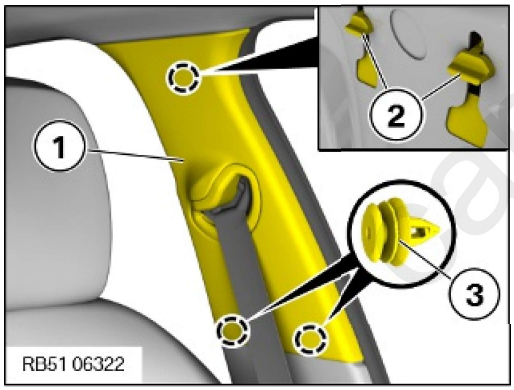
NOTICE

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

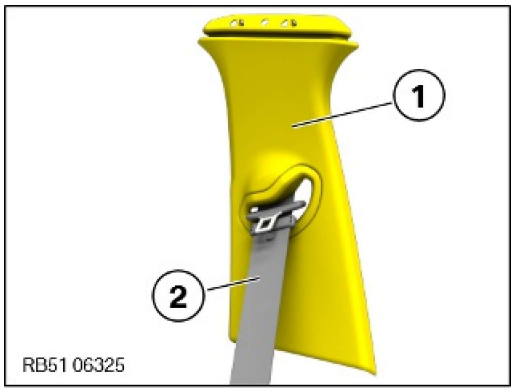
▶ **Remove the B-pillar trim panel**



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



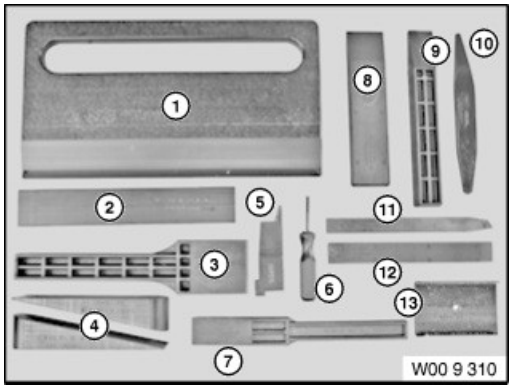
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



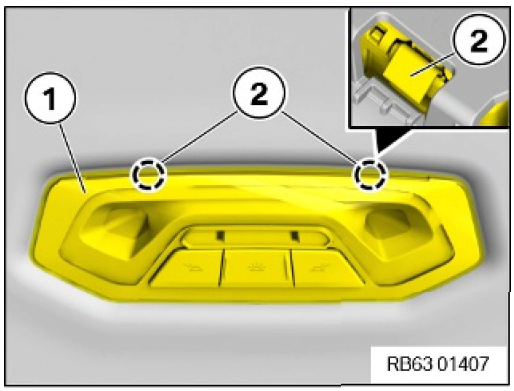
- Feed upper seat belt (2) out of B-pillar trim panel (1).

13 – Remove interior roof light

cardiagn.com

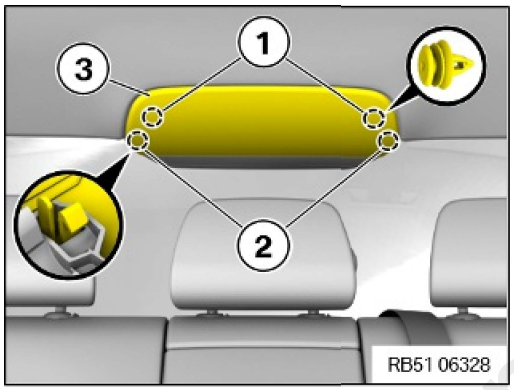


- Have the set of special tools 0 493 752 (00 9 329) ready.



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

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

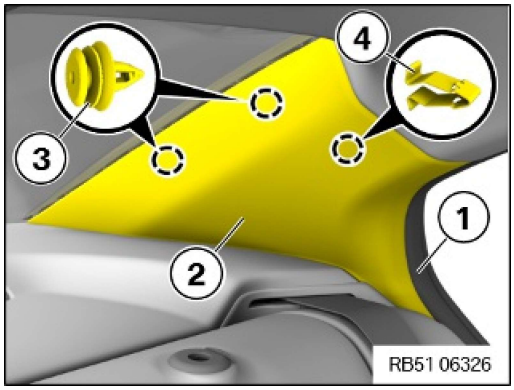
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

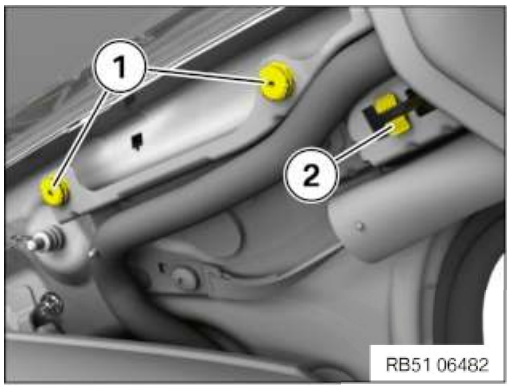
NOTICE

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

cardiagn.com



- 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).



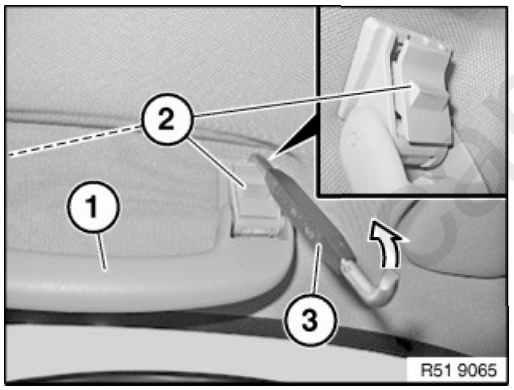
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

16 – Removing all grab handles

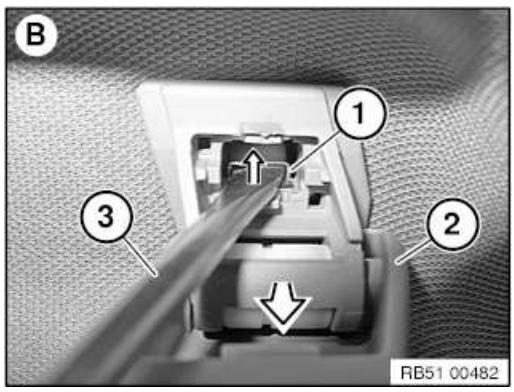
NOTICE

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.

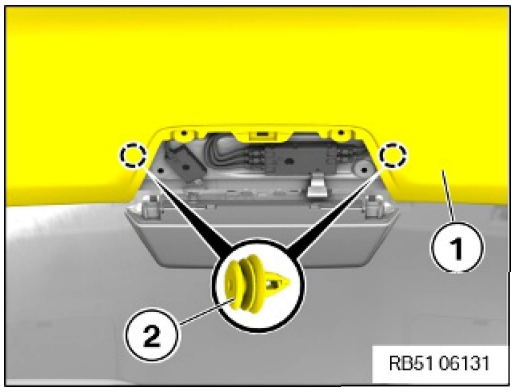
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

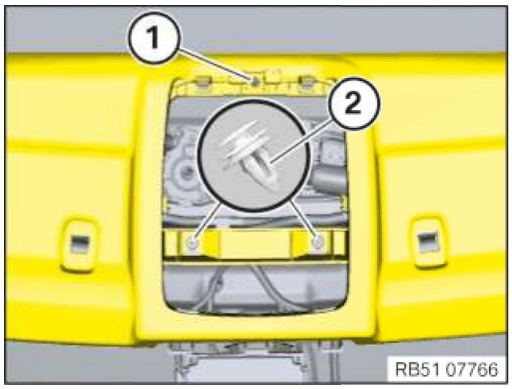
Fold the headlining.

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**

cardiagn.com

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

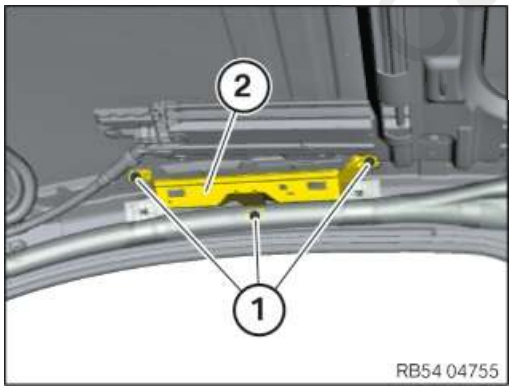
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

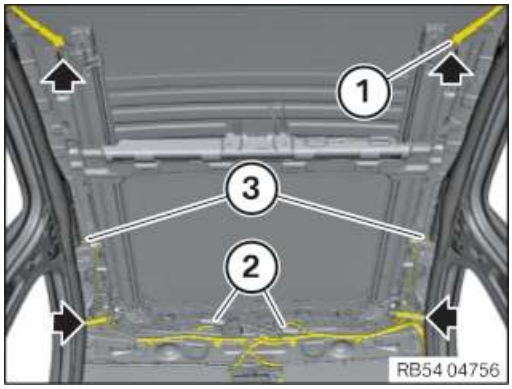


- Protect the working area with a suitable cover (1) to protect against falling swarf.

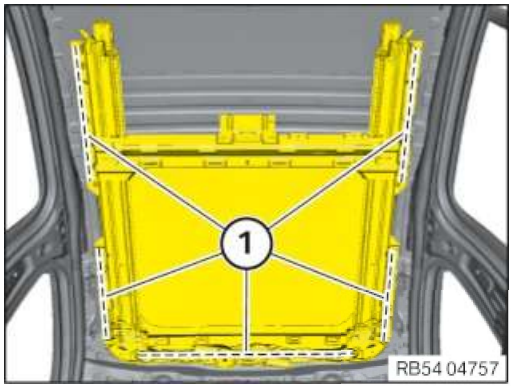


- Drill out blind rivets (1) and remove both rear holders (2).

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.

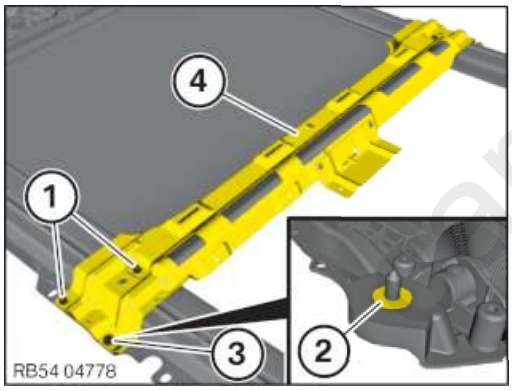
Heavy components can lead to injury or damage.

- 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

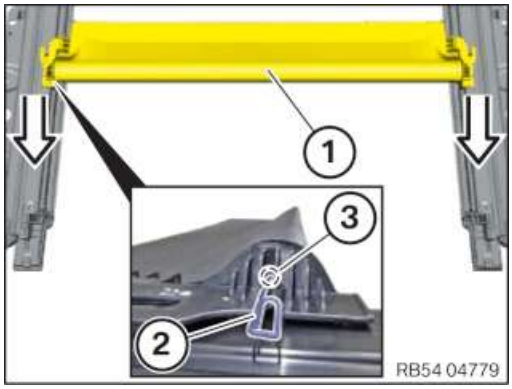


NOTICE

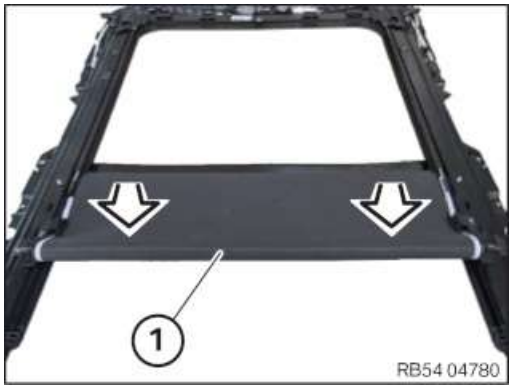
Perform the operations on the left and right side.

- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

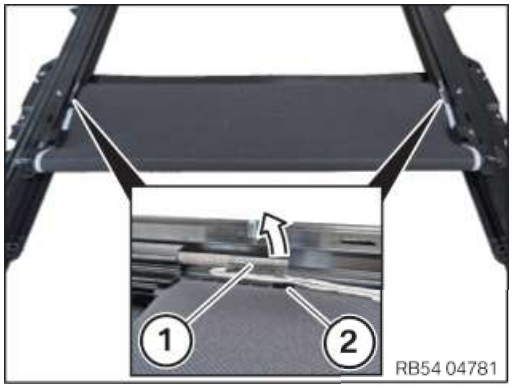
21 – Removing roller sunblind for the panorama glass roof



- 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).



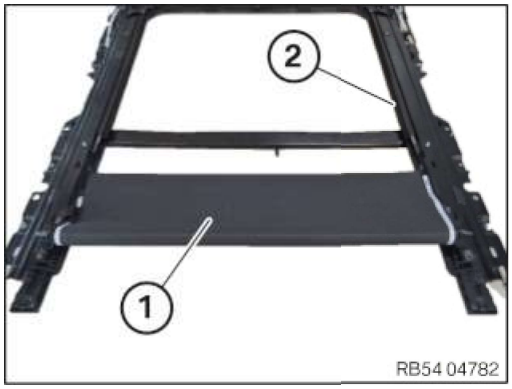
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



NOTICE

Perform the operations on the left and right side.

- Guide the driver (1) upwards out of the slider of the roller sunblind (2).



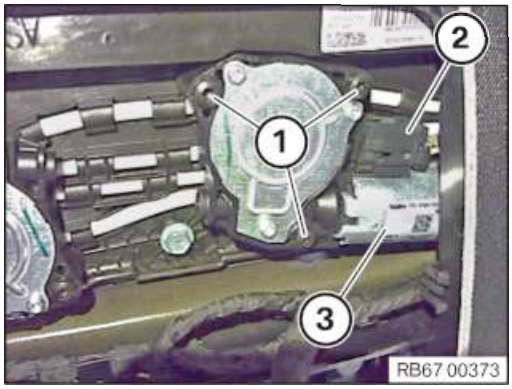
- Remove the roller sunblind (1) from the sunroof frame (2).

22 – Remove the drive cable for the roller sunblind

▶ **Remove electric motor for roller sunblind**

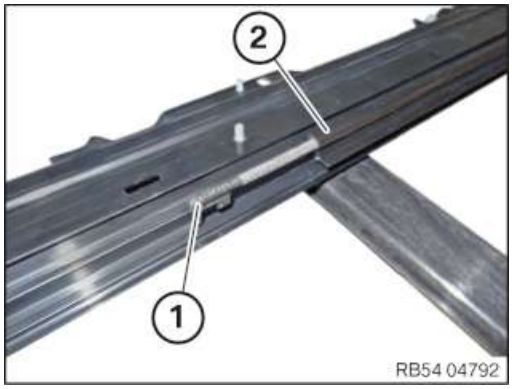
Prerequisite

Sun protection must be located in the open position.



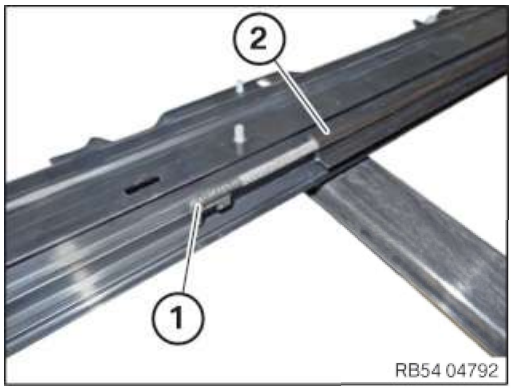
- Loosen screws (1).
- Unlock plug connection (2) and disconnect.
- Feed out drive motor for the sun protection (3).

cardiagn.com



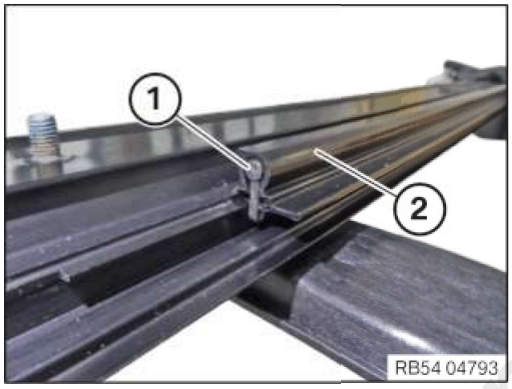
- Feed drive cable (1) out of the panorama glass roof frame (2) to the rear.

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

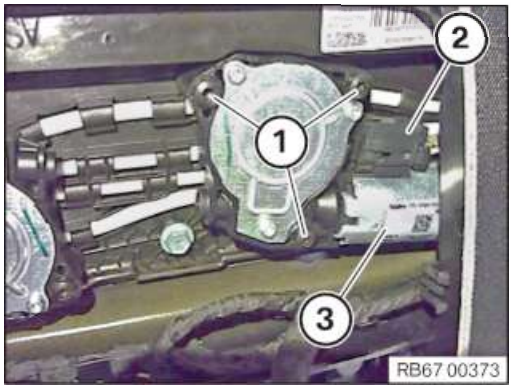
Perform the operations on the left and right side.

- 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.



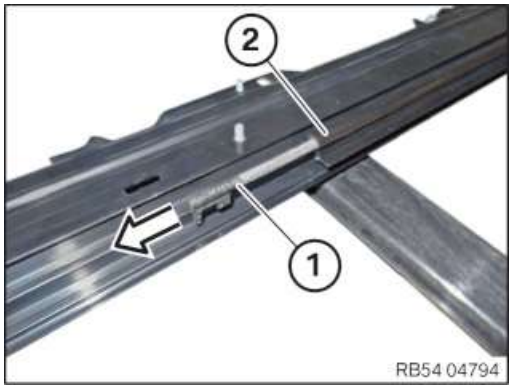
- Guide in the drive of the roller sunblind (3) and position correctly.
- Connect connectors (2) and lock.
- Tighten the screws (1).

Drive for panorama sunroof to body

Screw		Tightening torque	5,5 Nm

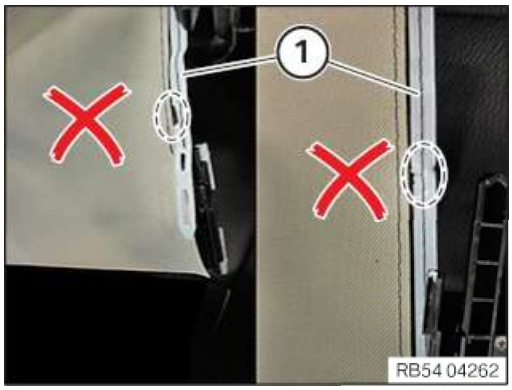
-

cardiagn.com



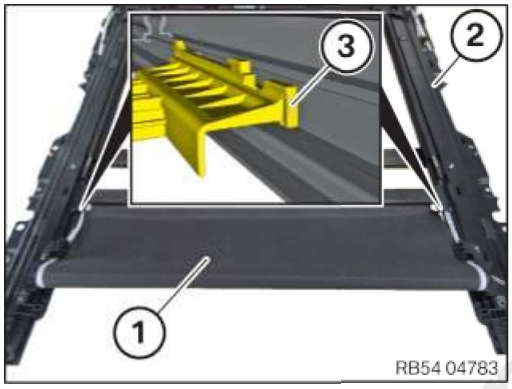
- Pull out drive cable of the sun protection (1) manually out of the slide/tilt sunroof frame (2) until a little resistance is noticeable.

24 – Installing roller sunblind for the panorama glass roof

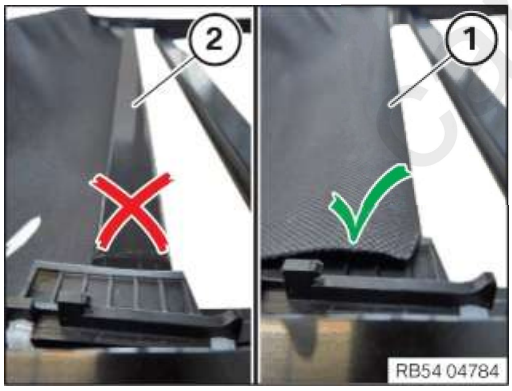


- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.

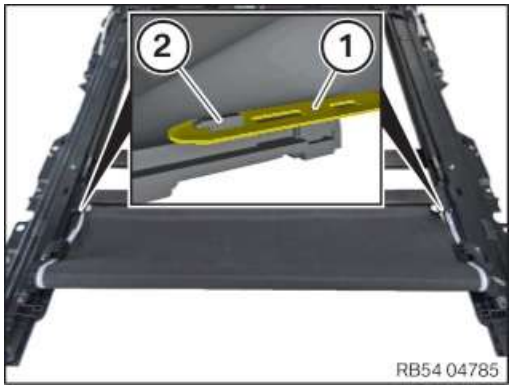


- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.



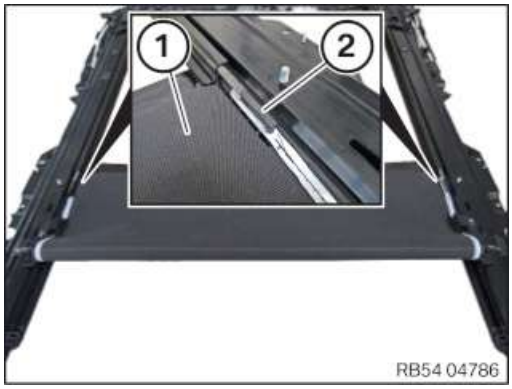
- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

  If necessary, turn the cross brace (1) through 360°.

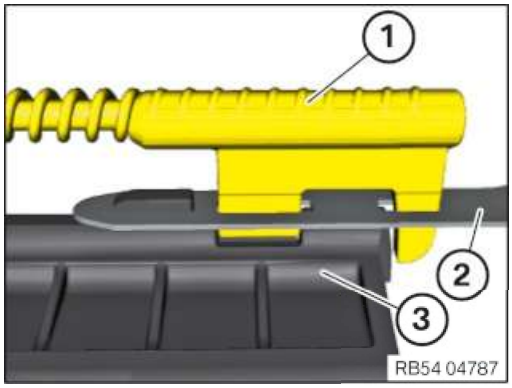


- Mount tensioning strap (1) on both sides of driver (2).

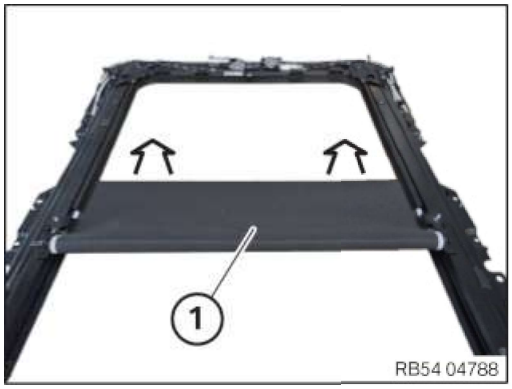
carsdiagn.com



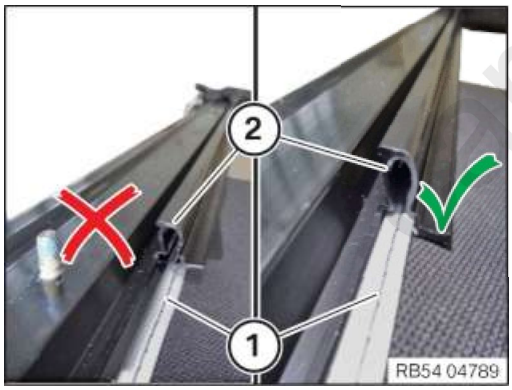
- Push the sunblind (1) forward until the drive (2) can be hooked.



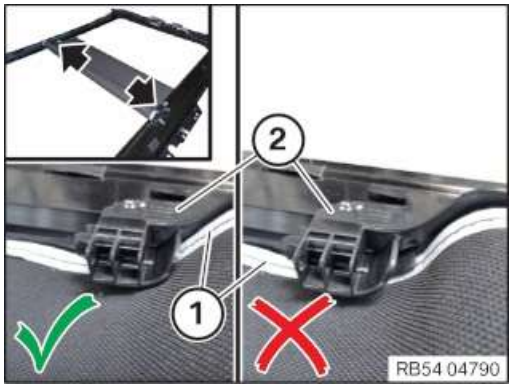
- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).



- Manually close the sunblind (1) a few cm.

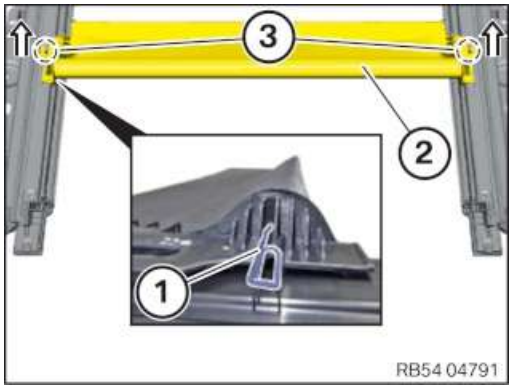


- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).



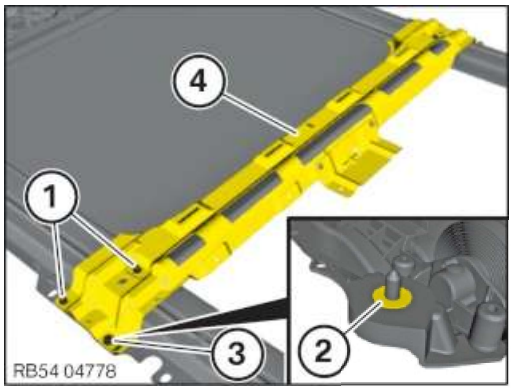
- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.

rdiagn.com



- 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

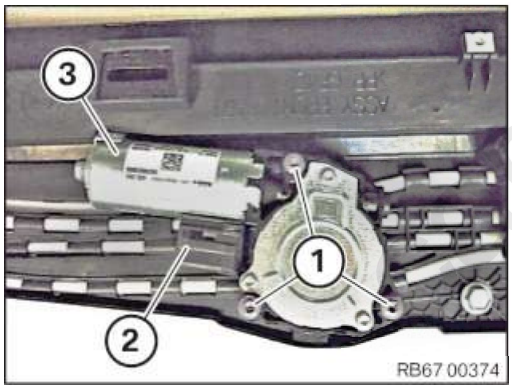
Nut		5,5 Nm

- 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.

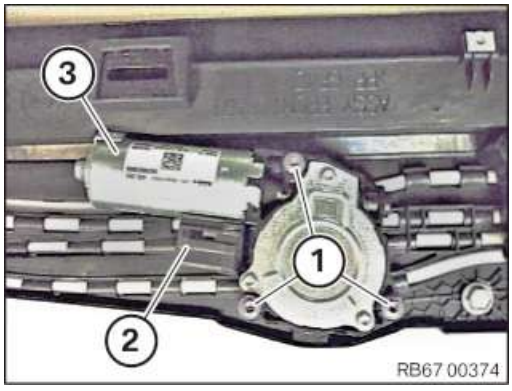


- Loosen screws (1).
- Unlock and disconnect available plug connection (2).
- Feed out drive for glass slide/tilt roof panel (3).

27 – Install the motor for the glass slide/tilt sunroof panel

Prerequisite

Glass slide/tilt sunroof panel must be in the closed position.

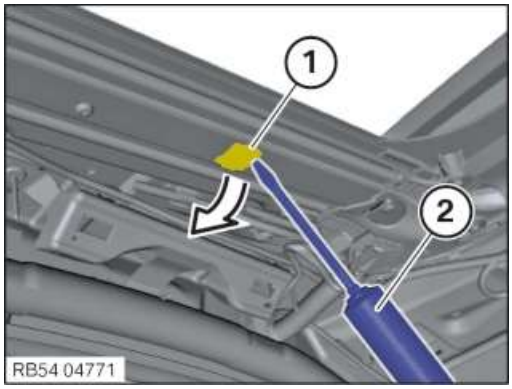


- Guide in the motor for the glass slide/tilt sunroof panel (3) and position it correctly.
- Connect and lock existing connectors (2).
- Tighten the screws (1).

Drive for panorama sunroof to body

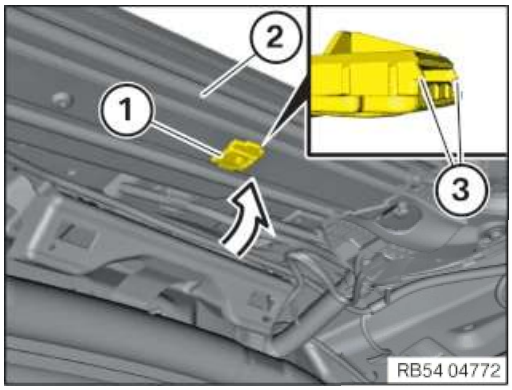
Screw		Tightening torque	5,5 Nm

28 – Removing the wind deflector mount



- Unclip wind deflector mount (1) with a suitable tool (2) downwards.

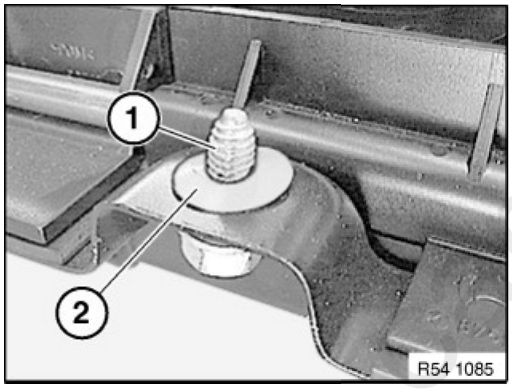
29 – Install wind deflector bearing



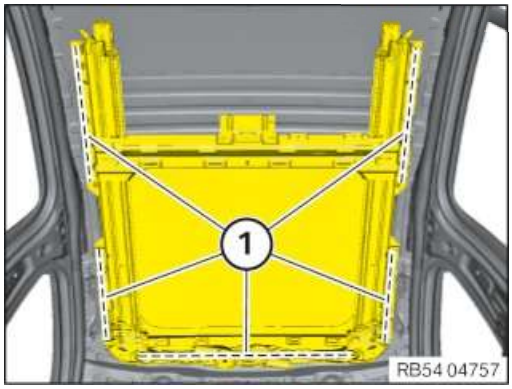
- Position wind deflector mount (1) in recess on slide/tilt sunroof frame (2).
- Clip wind deflector mount (1) into slide/tilt sunroof frame (2).
- Ensure that the retaining lugs (3) engage correctly.

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.



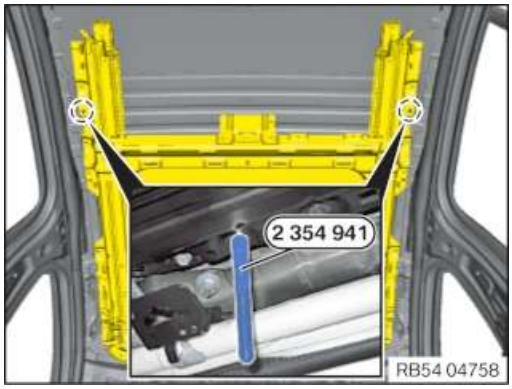
RISK OF DAMAGE

Heavy component.

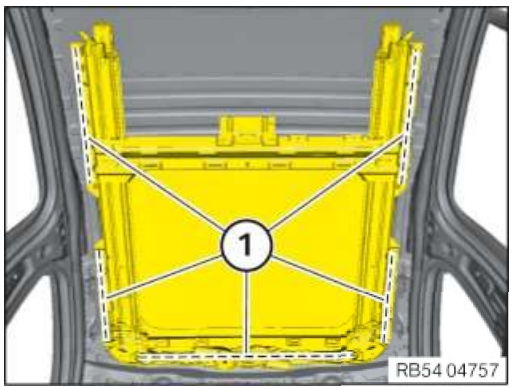
Heavy components can lead to injury or damage.

- 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.



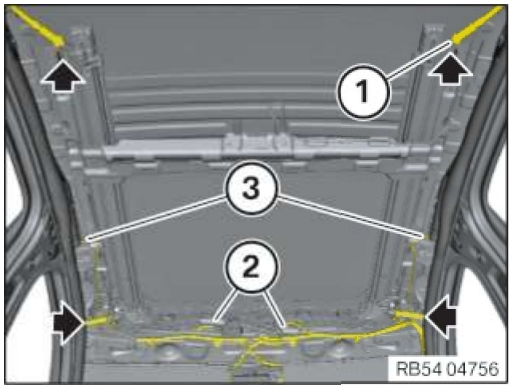
- Insert the special tool and align the panorama glass roof (1) with the roof.



- 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

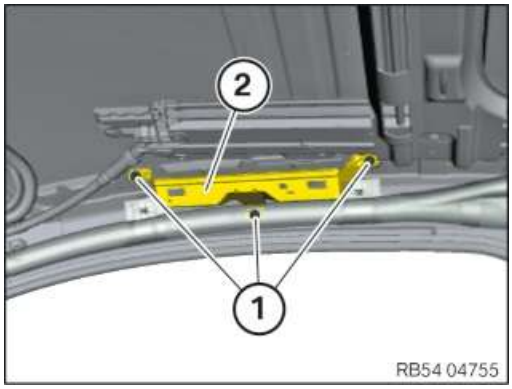
Perform the operations on the left and right side.

▸ **Installing the mounting plate for the rear grab handle**

NOTICE

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

cardiagn.com



- 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.

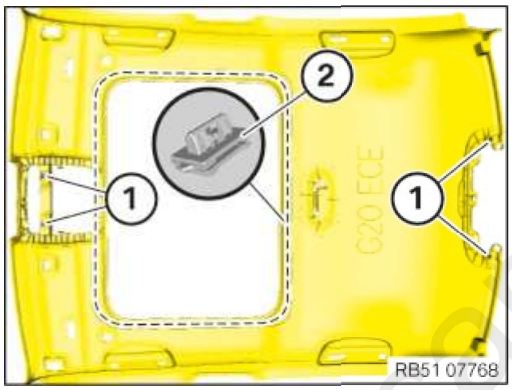
The front seat backrests have been fully adjusted towards the rear.

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.

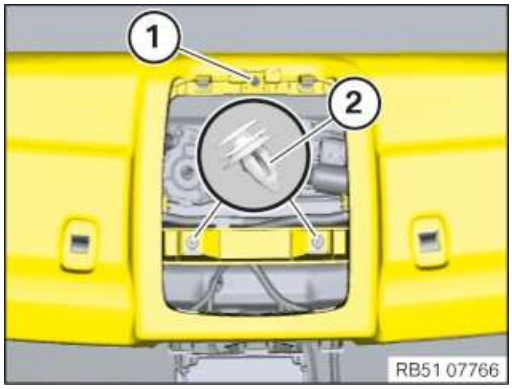
  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  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.

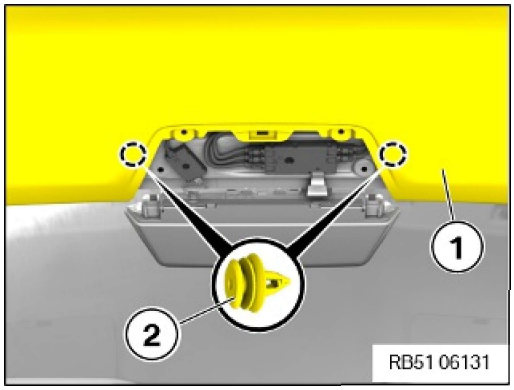
carldiag.com



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

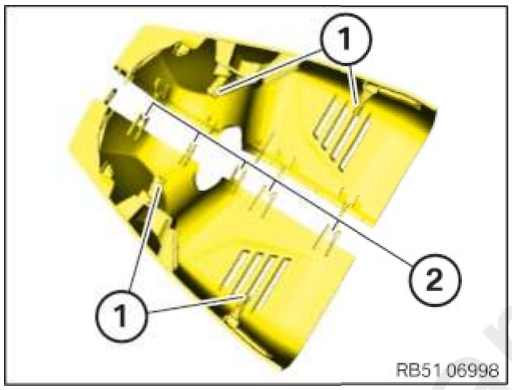
Oval-head screw		Tightening torque	1,5 Nm



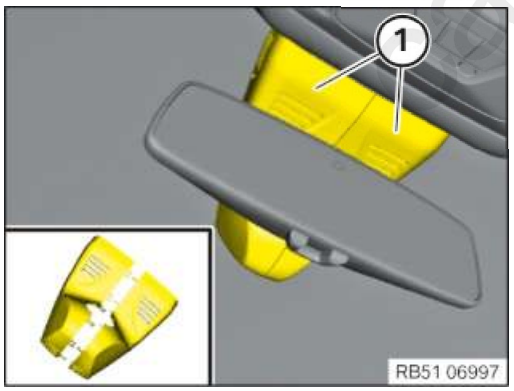
- Clip headlining (1) to the clips (2).

33 – Installing the covers for the interior mirror

- **Version A:**

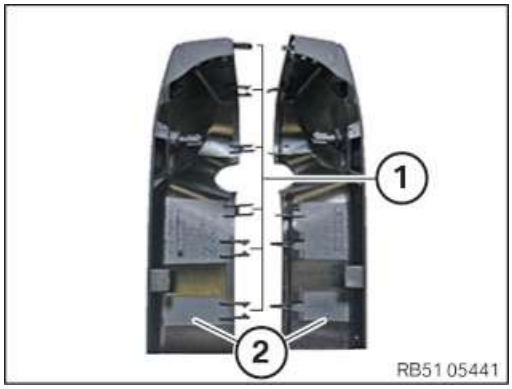


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



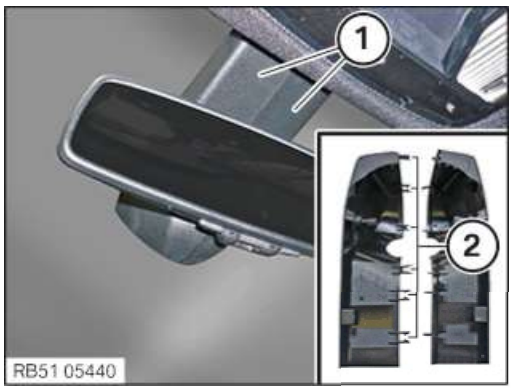
- Feed cover (1) in and lock.
- **Version B:**

carmanualsdiagram.com



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

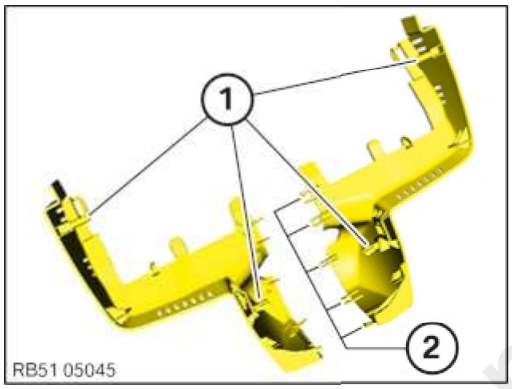
  The covers (2) must not be damaged or missing.



- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

- **Version C:**

Check



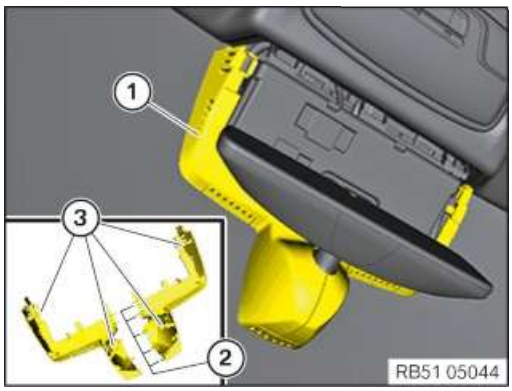
- Check the latch mechanisms (1) and (2) of the covers for damage.

Result

» The latch mechanism is damaged.

Measure

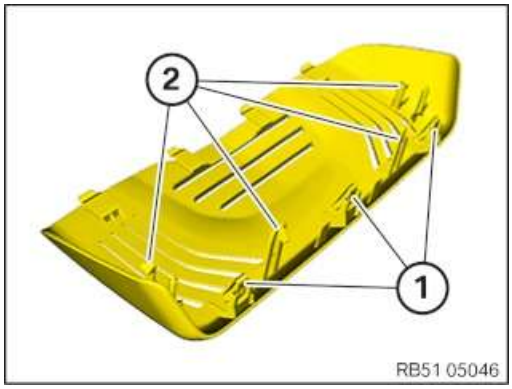
- Renew the cover.



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check

cardiagn.com



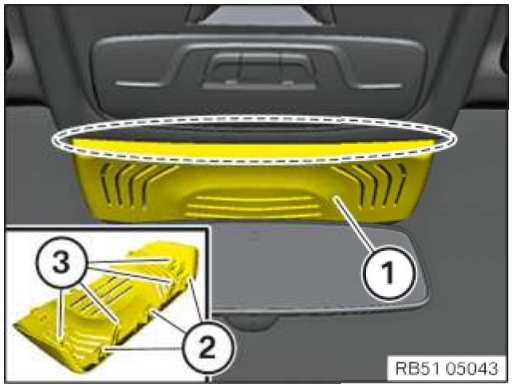
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

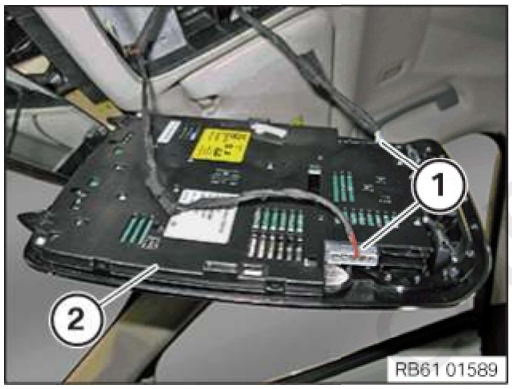
Measure

- Renew the cover.

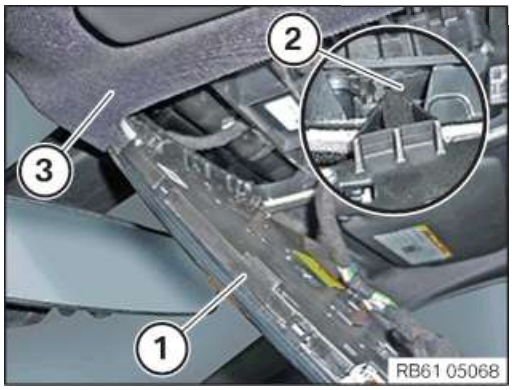


- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

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.

fdiagn.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).

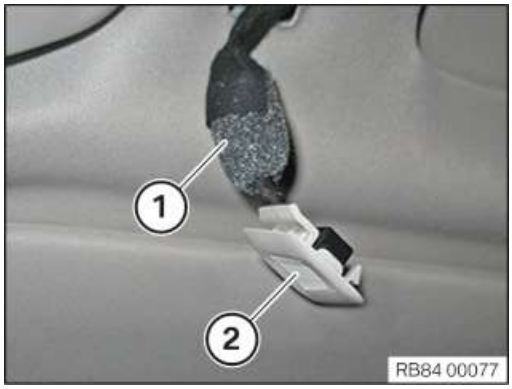
35 – Install both microphones

NOTICE

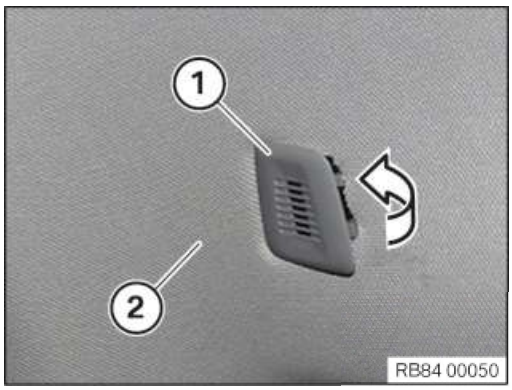
Description is for left component only. Procedure on the right side is identical.

▸ **Installing the hands-free microphone**

cardiagn.com



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

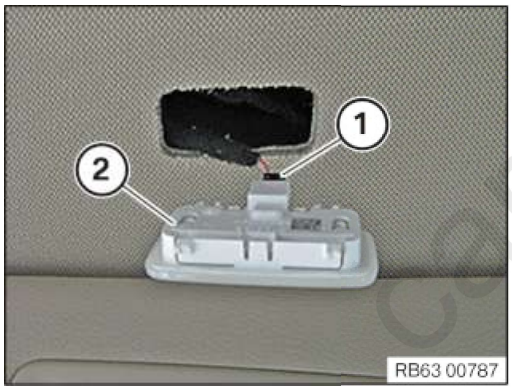


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

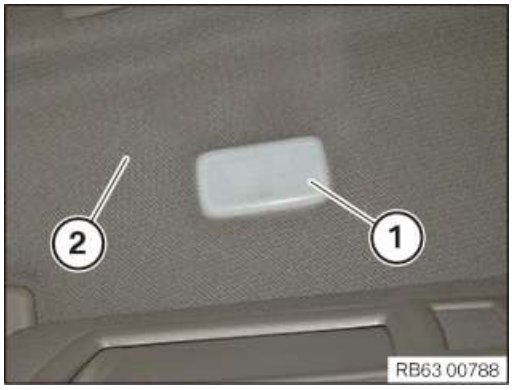
36 – Installing front vanity mirror light

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.

carldiag.com

▸ **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

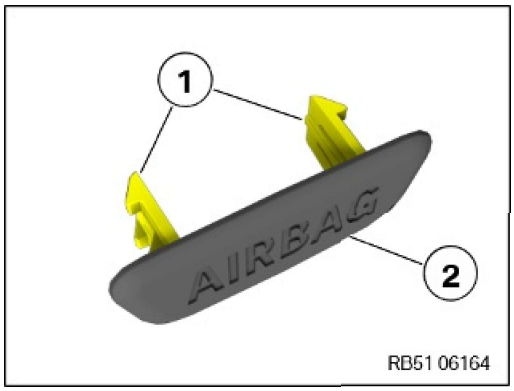
cardiagn.com

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.



Check

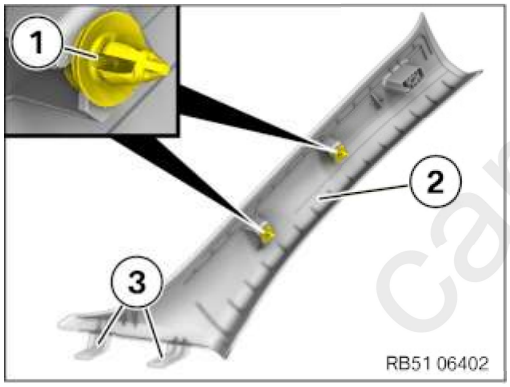
- Check retaining lugs (1) of cover (2) for damage.

Result

» Retaining lug is damaged.

Measure

- Renew the cover.



Check

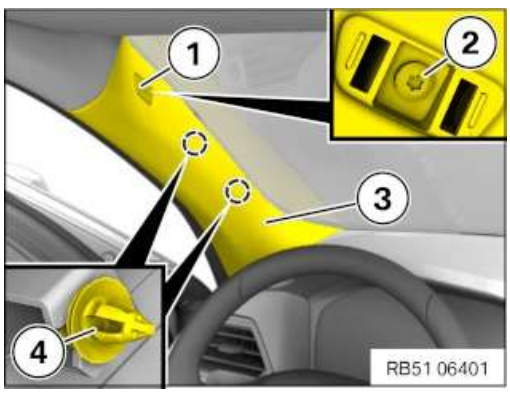
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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

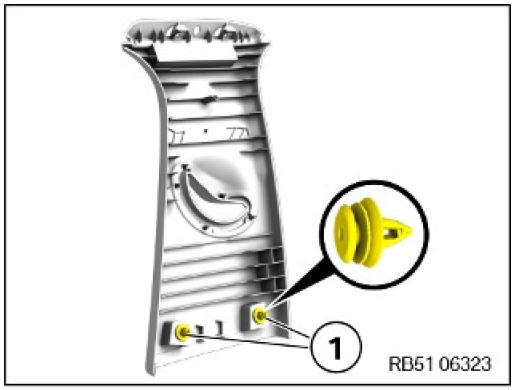
- Clip in the cover (1).

cardiagn.com

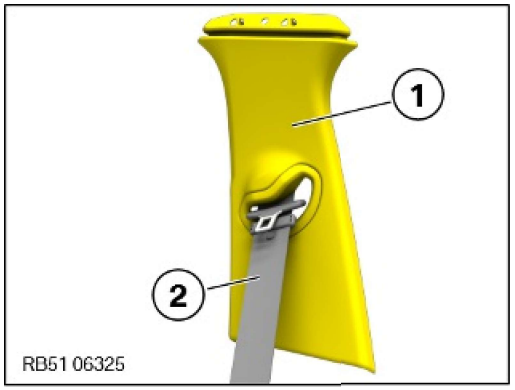
NOTICE

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

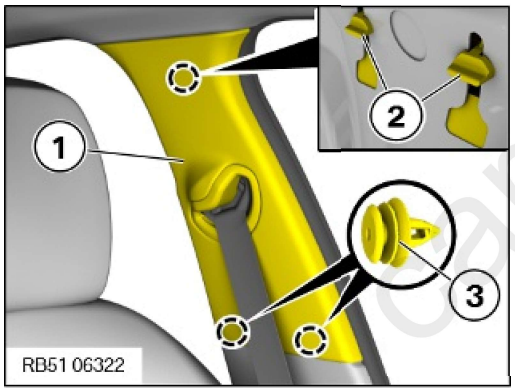
▶ **Install the B-pillar trim panel**



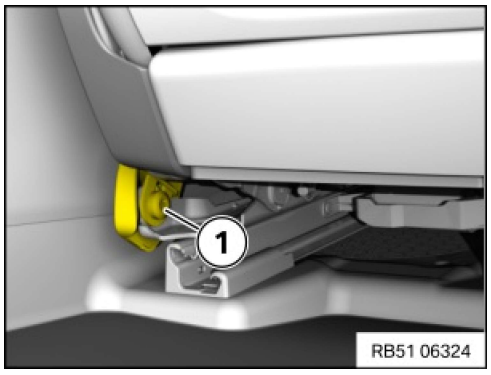
- Check the clips (1) for damage and renew if necessary.



- 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

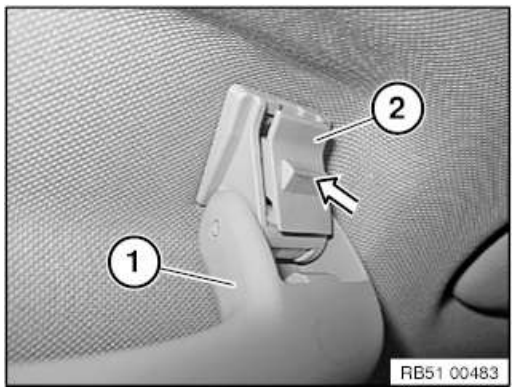
41 – Installing all grab handles

cardiagn.com

NOTICE

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

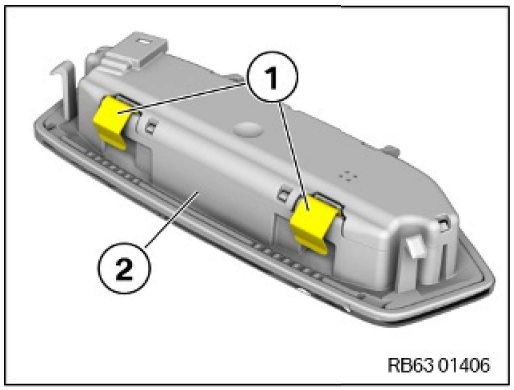
▸ **Installing the grab handle**



- 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



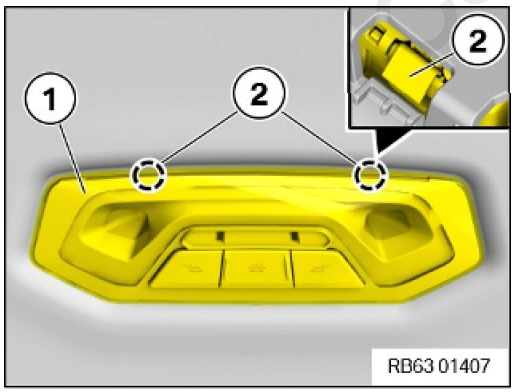
- Check the clamps (1) for damage.

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).

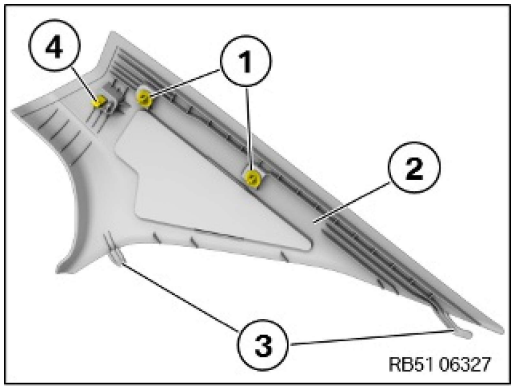
43 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

carDiagn.com



Check

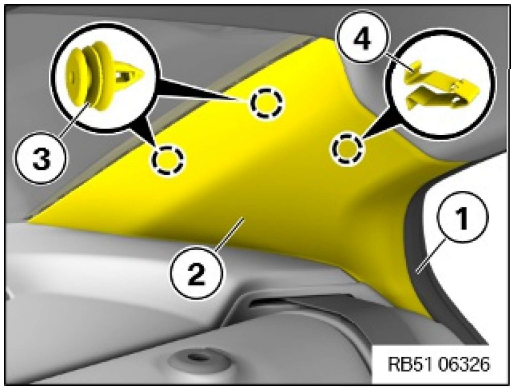
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .

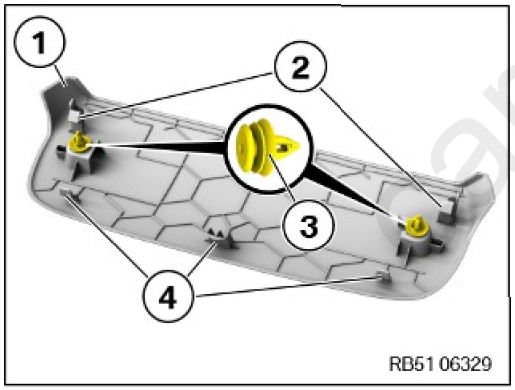


NOTICE

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

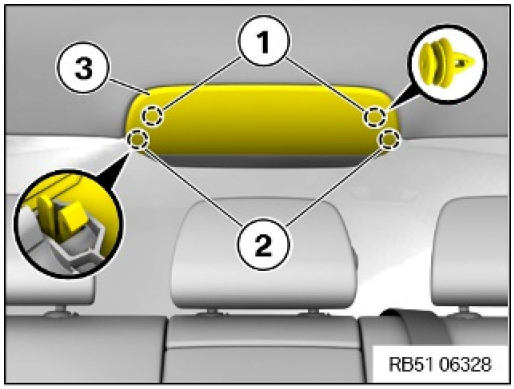
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

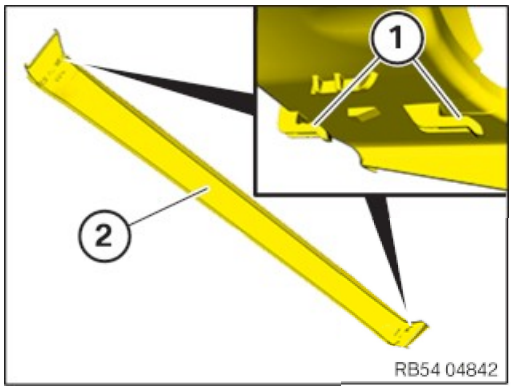
Measure

- Renew the trim for the additional brake light.

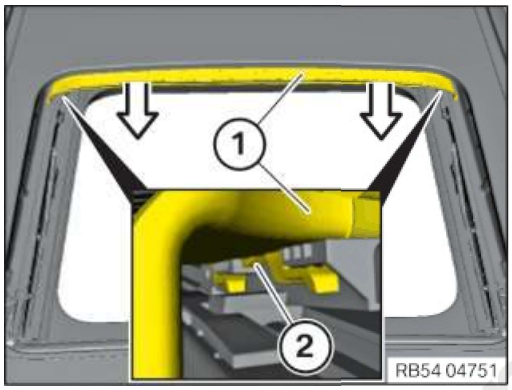


- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

45 – Install water channel



- Check retaining lugs (1) of the water channel (2) for damage and renew, if necessary.

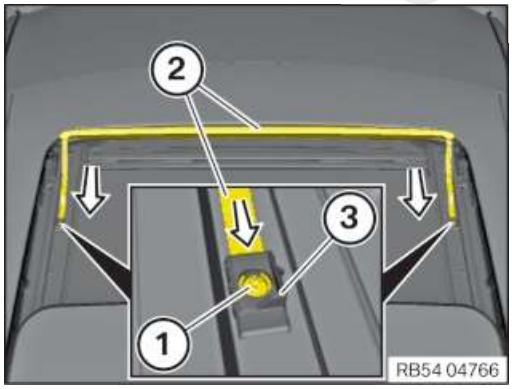


- Feed in the water channel (1) from rear and move towards front until the retaining lugs (2) engage.

46 – Install wind deflector

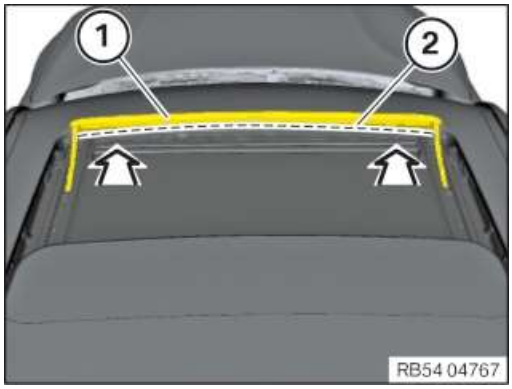
Prerequisite

The glass slide/tilt sunroof panel is open.

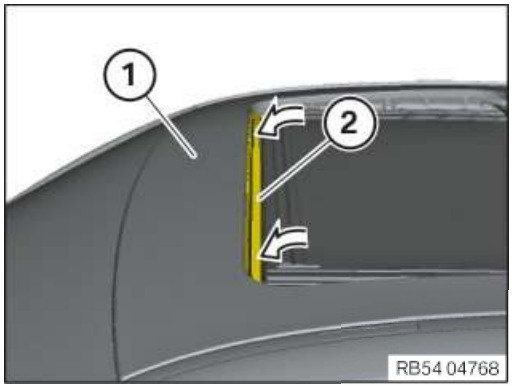


- Feed in wind deflector (2) from the front to the wind deflector mount 3.
- Screw the screws (1) by a few turns but do not tighten.

cardiagn.com

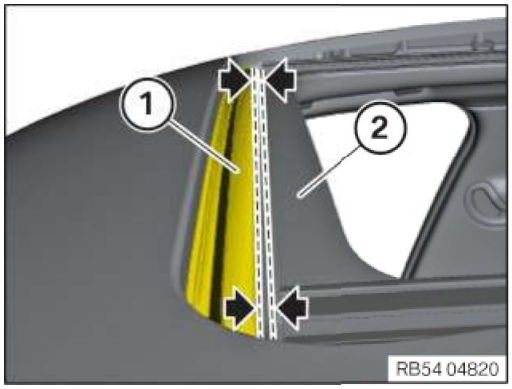


- Clip in the wind deflector (1) in area (2).

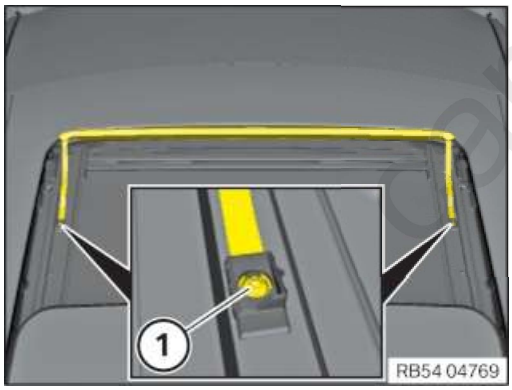


- Press wind deflector (2) down by hand.

  Ensure that it is completely clear and does not collide with the roof outer skin (1).

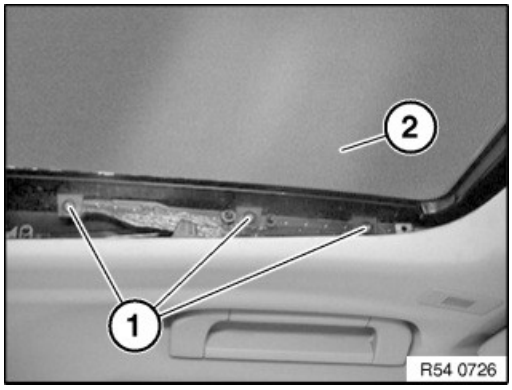


- Position the wind deflector (1) so that it is at a distance of about 2 mm from the gutter strip of the slide/tilt sunroof frame (2).



- Tighten the screws (1).

47 – Install glass slide/tilt sunroof panel

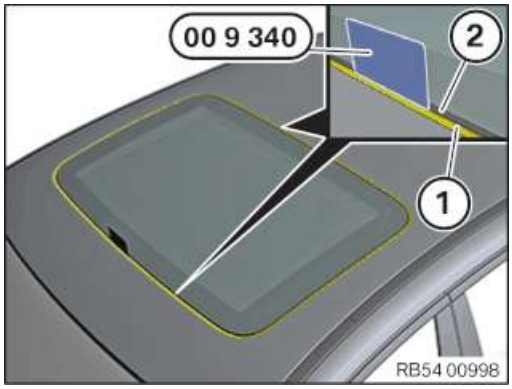


- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

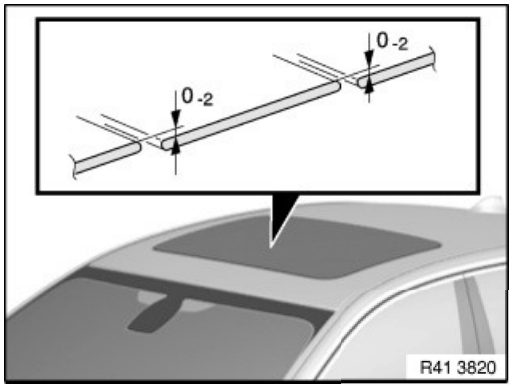
48 – Check the setting of the glass slide/tilt sunroof panel

cardiagn.com



- 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).

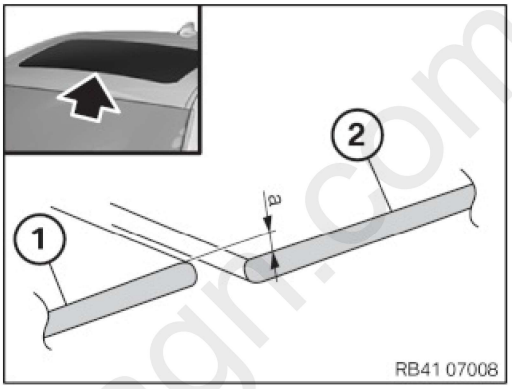
  The resistance when moving the special tool must be the same at the front and rear.



- 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.

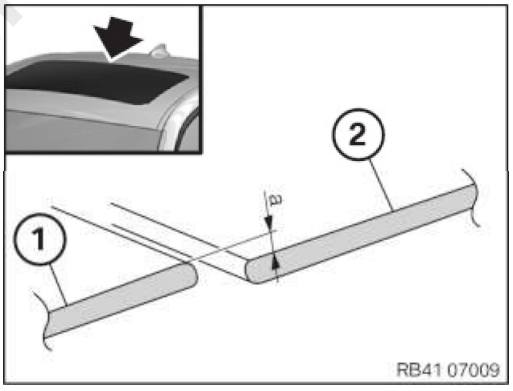
Gap dimension roof outer skin to glass slide/tilt sunroof panel

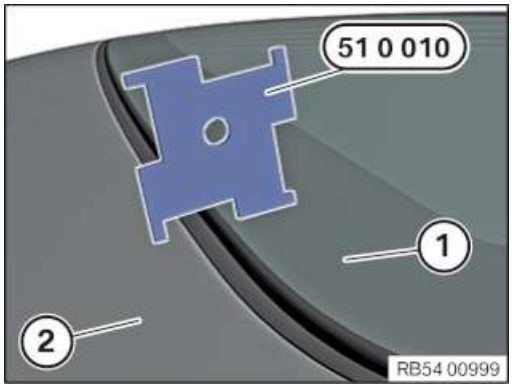
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



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

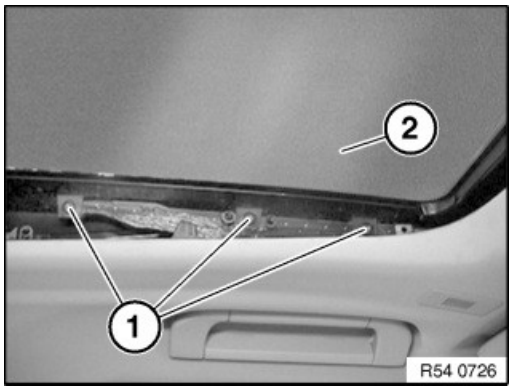




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

carflagr.com

49 – Adjusting glass slide/tilt sunroof panel

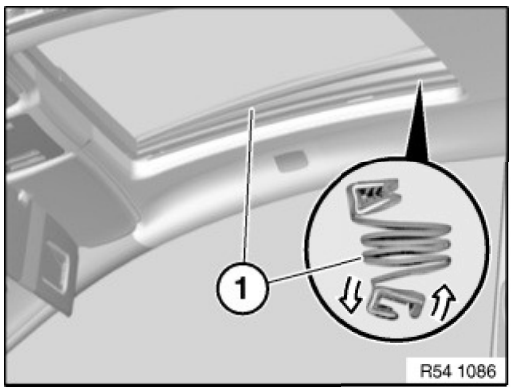


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

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.

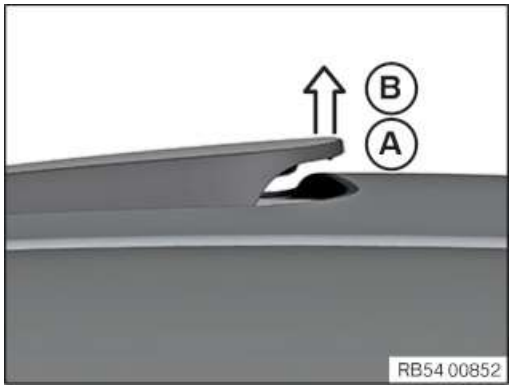
51 – Initialising the glass slide/tilt sunroof panel



- 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.

cardiagn.com



- 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

cardiagn.com

End fitting to seat mechanism Used in step 40

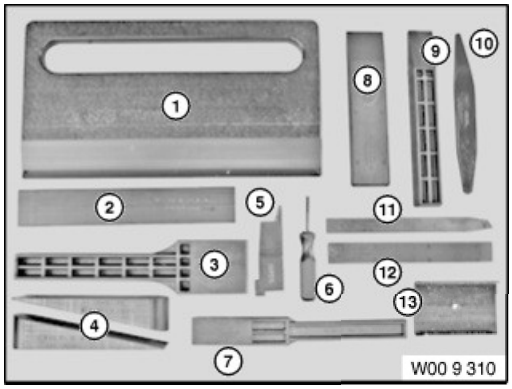
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

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)

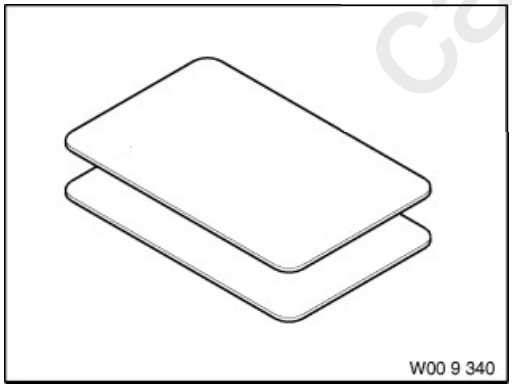
0 496 569 (00 9 325) Wedge



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

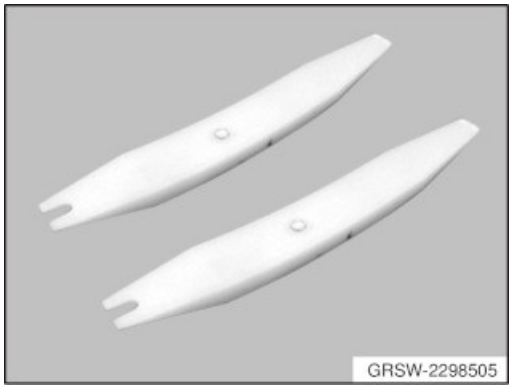
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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).	

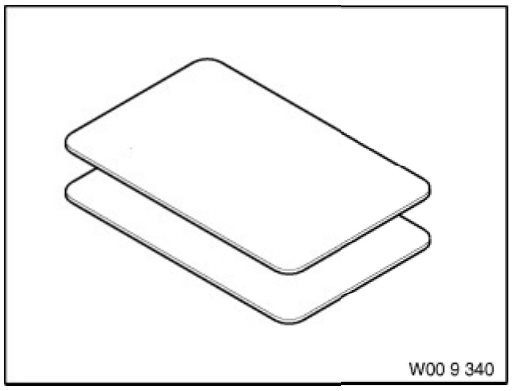
cardiagn.com

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

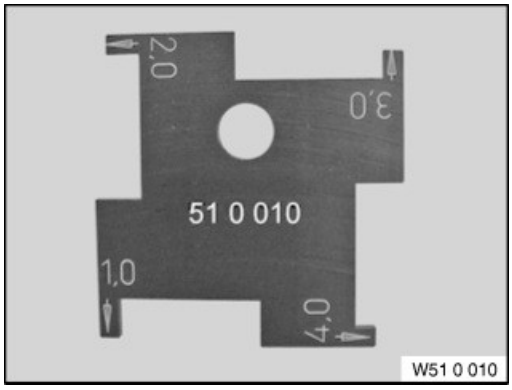


Common	Used in step 48
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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)

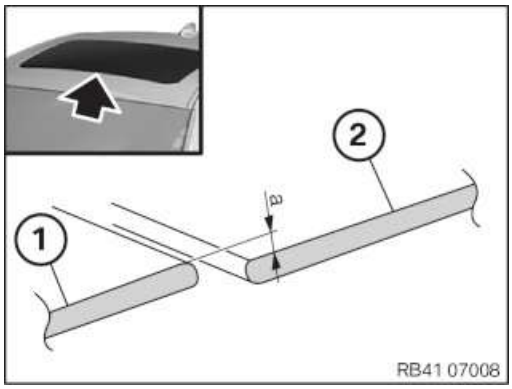
Overview Technical Data

cardiagn.com

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

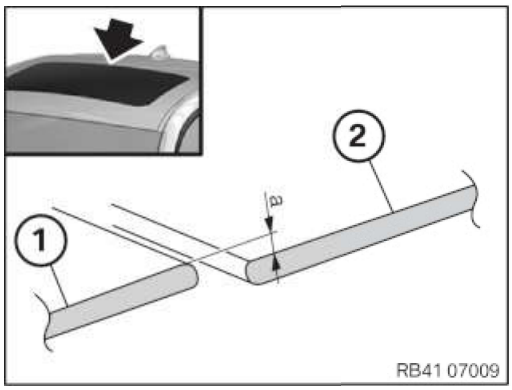
a	0,7 (-0,05 - 1,45) mm



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



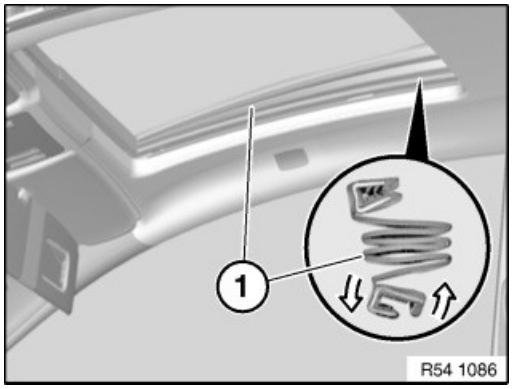
Links

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

cardiagn.com

54 12 015 Replacing left or right gaiter for glass slide/tilt sunroof

1 – Remove the gaiter for the glass slide/tilt sunroof

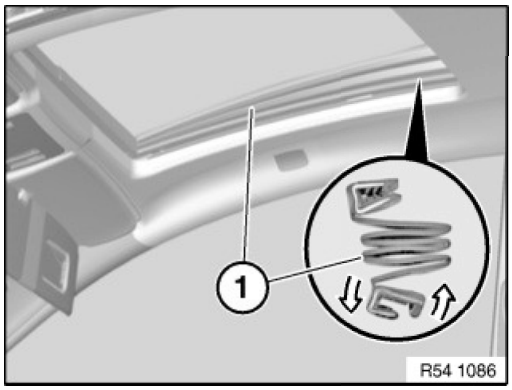


NOTICE

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.

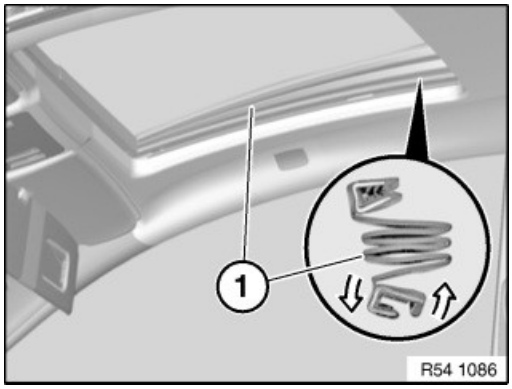
- Move the glass slide/tilt sunroof panel to the vent position.
- Carefully screw in the gaiter (1) into the bottom guide.
- Carefully screw the gaiter (1) into the top guide.
- Check the gaiter (1) is seated securely.

cardiagn.com

54 12 117 Replacing seal for glass slide/tilt roof panel

PRELIMINARY WORK

1 – Remove the gaiter for the glass slide/tilt sunroof

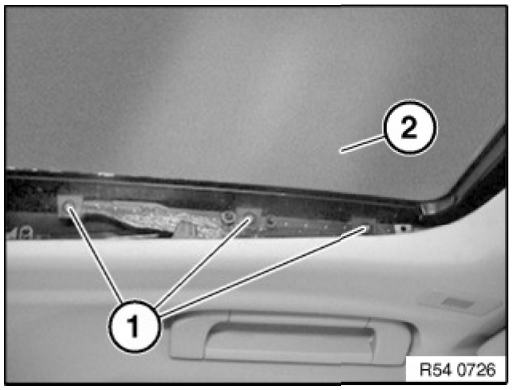


NOTICE

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

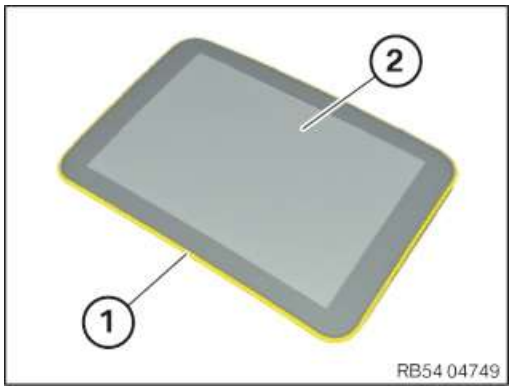


- Loosen screws (1) on left and right.
- Remove the glass slide/tilt sunroof panel (2) towards the top.

cardiagn.com

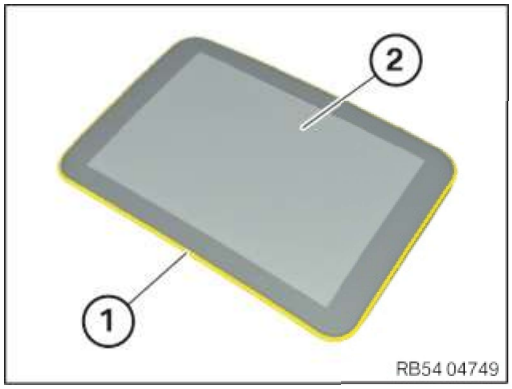
MAIN WORK

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.

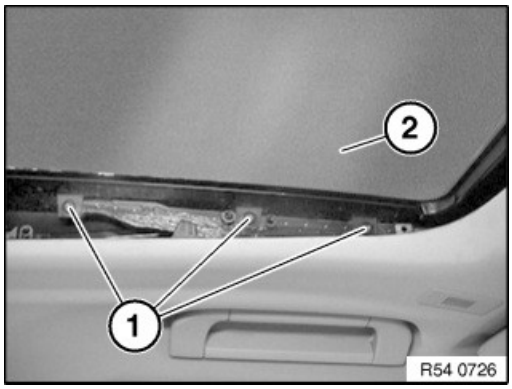
  Make sure that the seal (1) rests completely on the glass slide/tilt roof panel.

Note: Coat the seal with a suitable lubricant, if necessary.

cardiagn.com

POSTPROCESSES

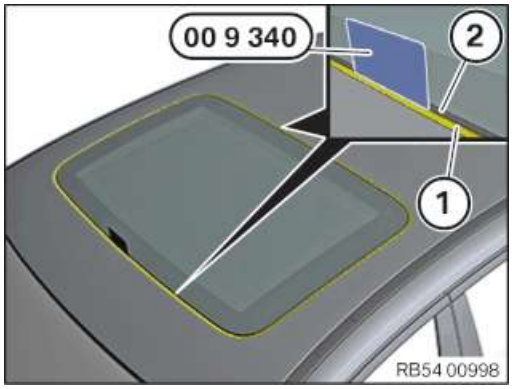
5 – Install glass slide/tilt sunroof panel



- Insert the glass slide/tilt sunroof panel (2) from the top.
- Renew screws (1).

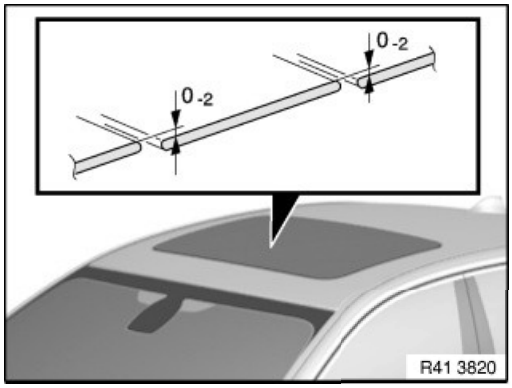
  Parts: Bolts
- Screw in the bolts (1) on the left and right, do not tighten.

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).

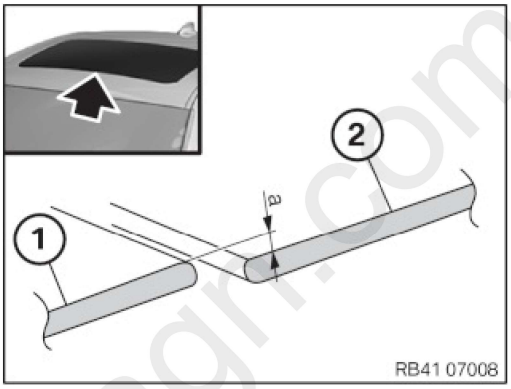
  The resistance when moving the special tool must be the same at the front and rear.



- 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.

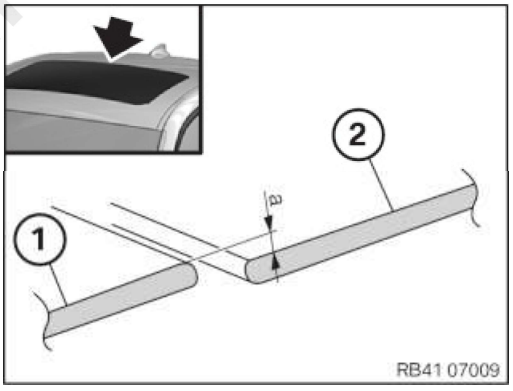
Gap dimension roof outer skin to glass slide/tilt sunroof panel

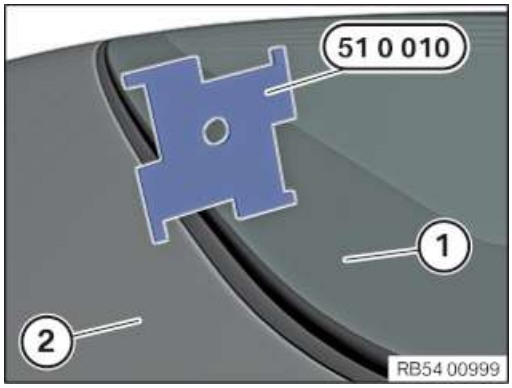
1 roof outer skin; 2 glass slide/tilt sunroof panel	
a	0,7 (-0,05 - 1,45) mm



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

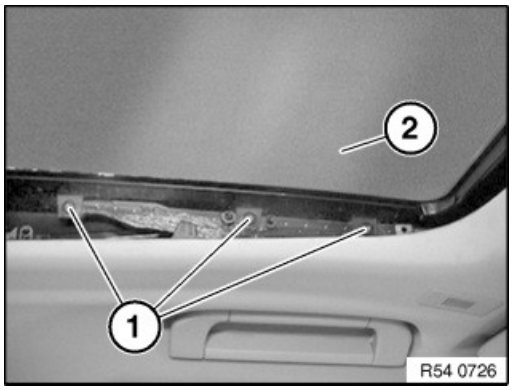




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

carflagr.com

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

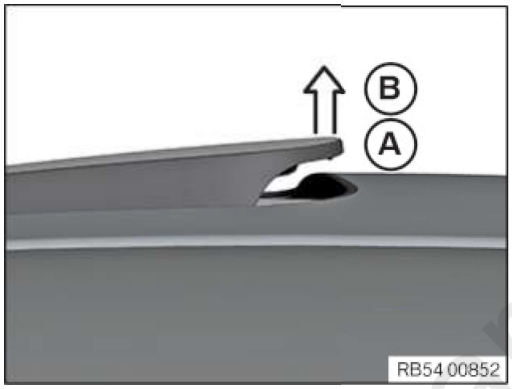
M5	Replace screws.	4,5 Nm

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.

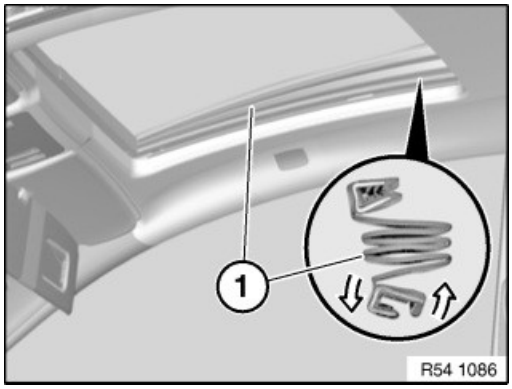
TECHNICAL INFORMATION

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

cardiag.com



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

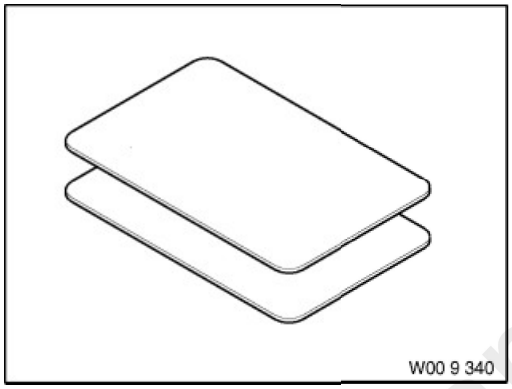
Overview of Tightening Torques

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



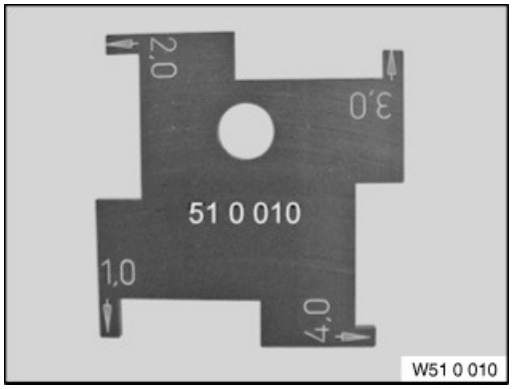
Common — Used in step 6

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)

carmagn.com

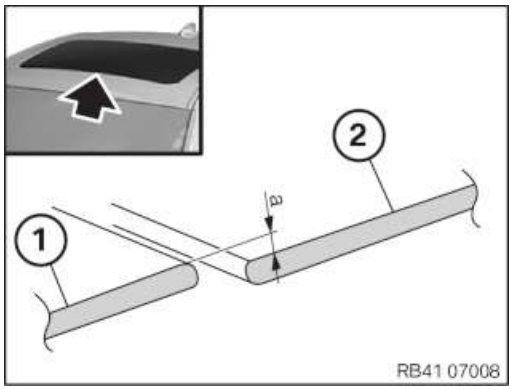
Overview Technical Data

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

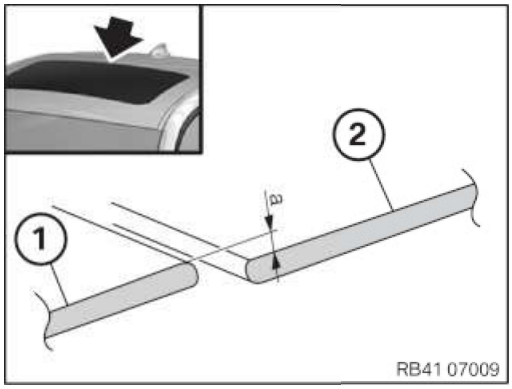


Gap dimension glass slide/tilt sunroof panel to roof outer skin

Used in step 6

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm



cardiagn.com

54 12 791 Replacing the slider for roller sunblind

RISK OF DAMAGE

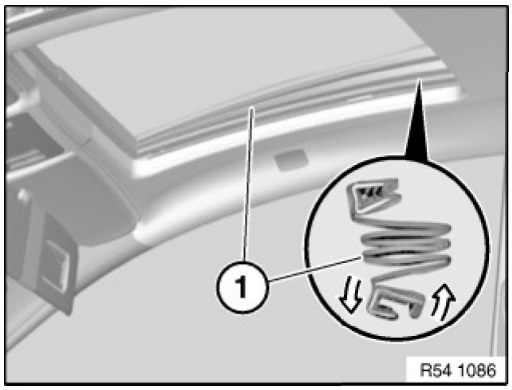
Fold the headlining.

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

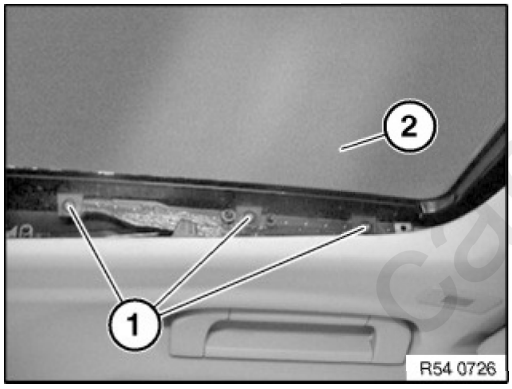


NOTICE

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.

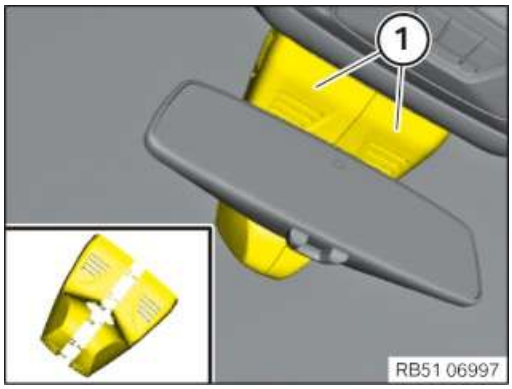
2 – Remove glass slide/tilt sunroof panel



- 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

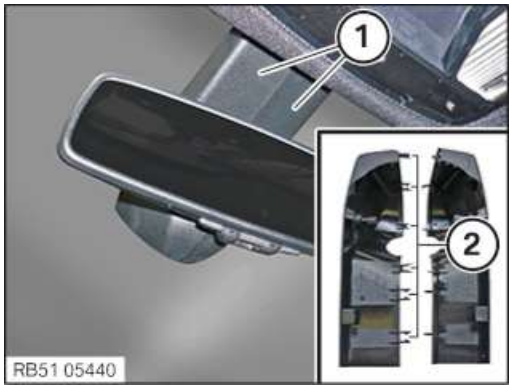
- **Version A:**



- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

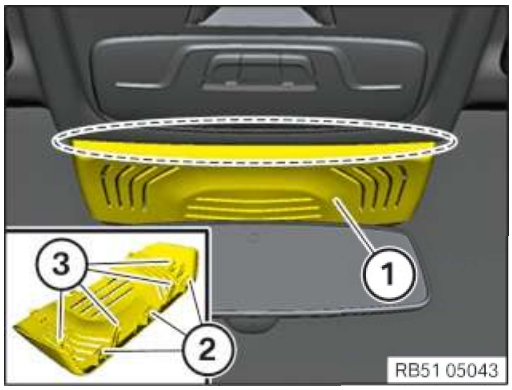
- **Version B:**

carldiagram.com

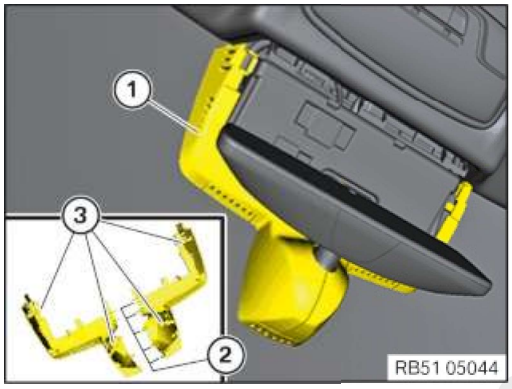


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **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

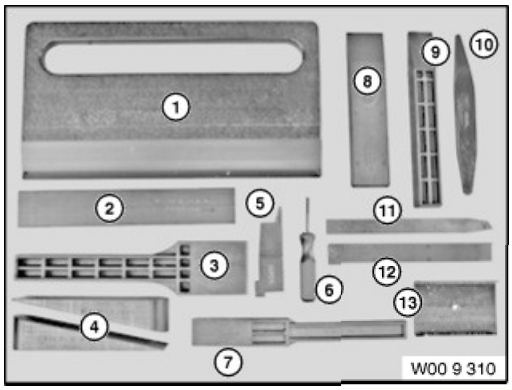
cardiagn.com

WARNING

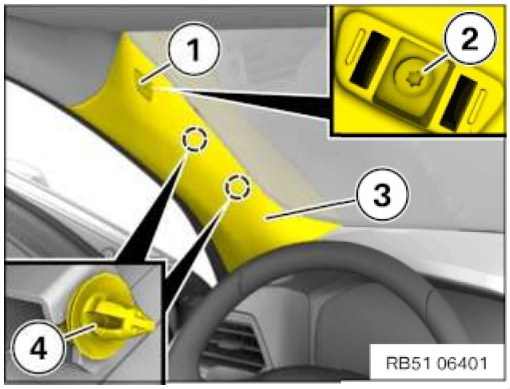
Pyrotechnic components.

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.



- 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

cardiagn.com

NOTICE

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

▸ **Remove the counter support for the sun visor**

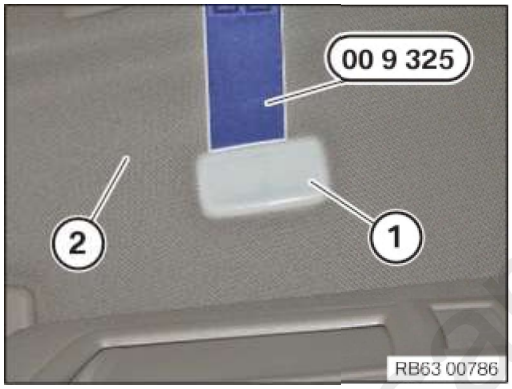


- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

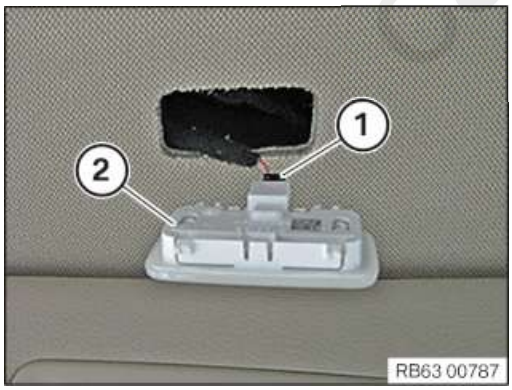
7 – Removing front vanity mirror light

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).



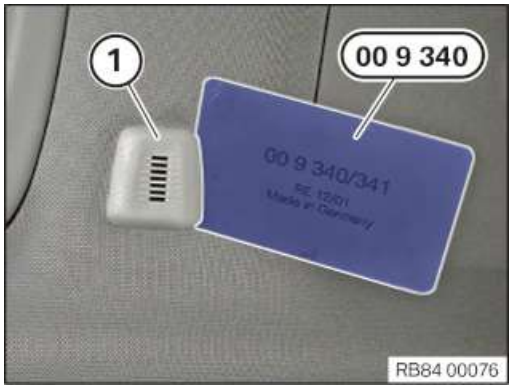
- Unlock and disconnect connector (1).
- Remove the front vanity mirror light (2).

8 – Remove both microphones

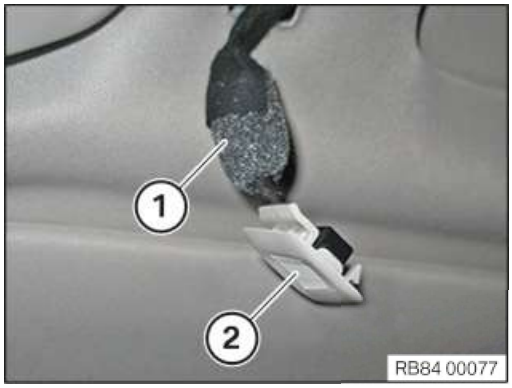
NOTICE

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).

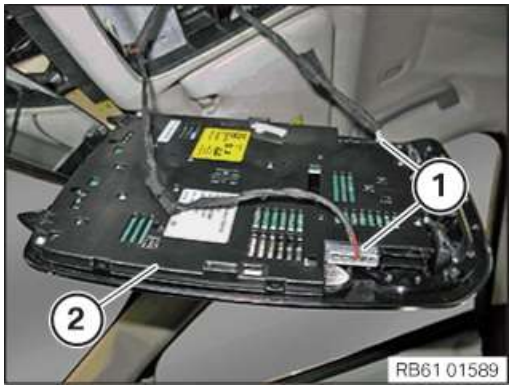


- Loosen screws (1).



- Unclip the roof function centre (FZD) (1) from the clamps (2).
- Thread the roof function centre (FZD) (1) out of the guides (3).

@diagn.com



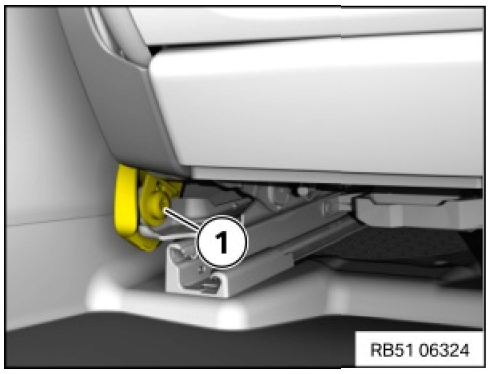
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

10 – Removing both B-pillar trim panels

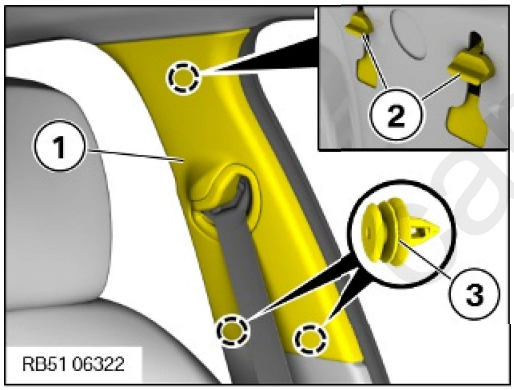
NOTICE

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

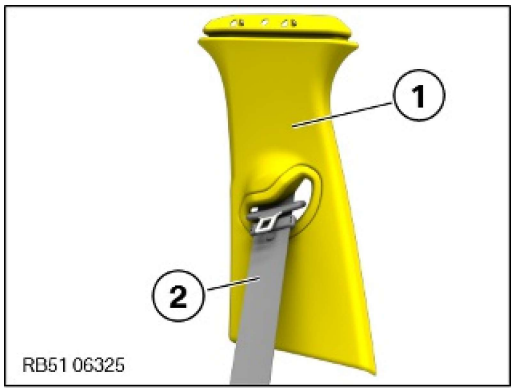
▶ **Remove the B-pillar trim panel**



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



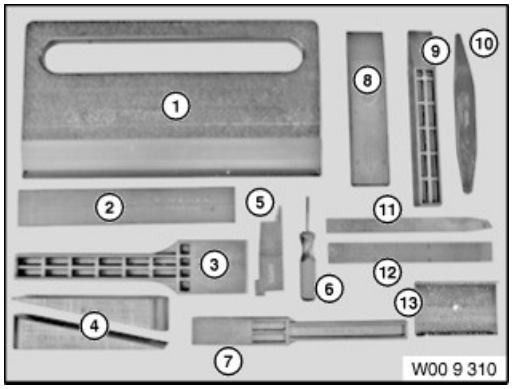
- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).



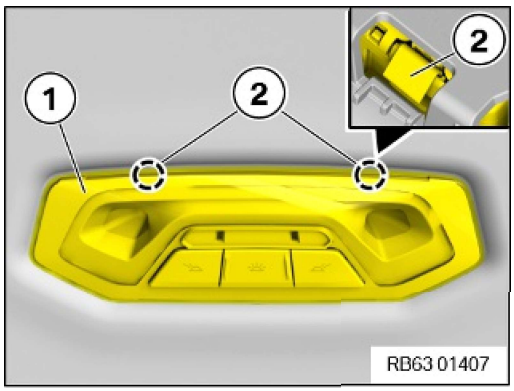
- Feed upper seat belt (2) out of B-pillar trim panel (1).

11 – Remove interior roof light

cardiagn.com

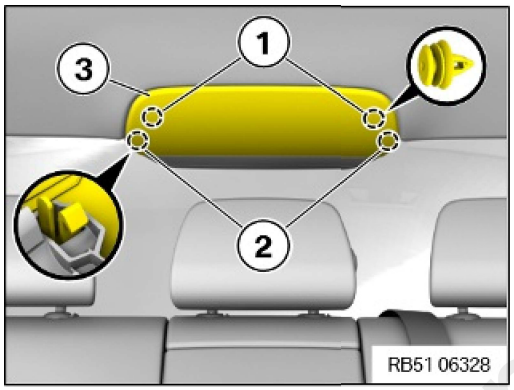


- Have the set of special tools 0 493 752 (00 9 329) ready.



- 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

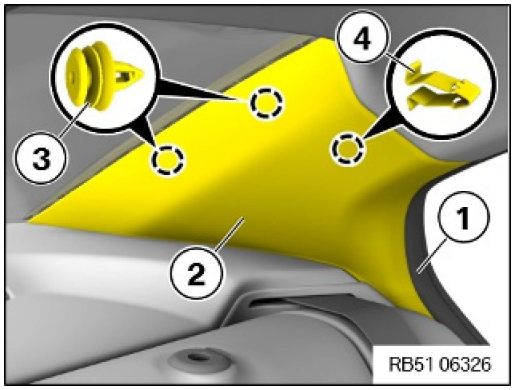
Description is for left component only. Procedure on the right side is identical.

▶ **Remove C-pillar trim panel**

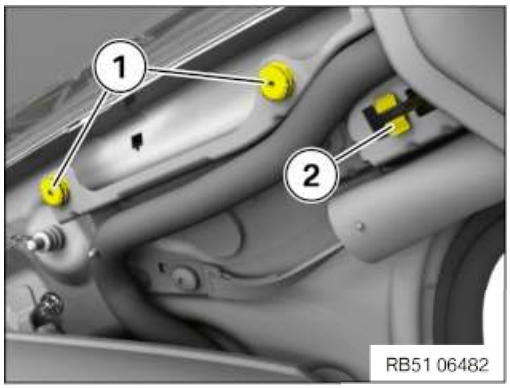
NOTICE

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

cardiagn.com



- 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).



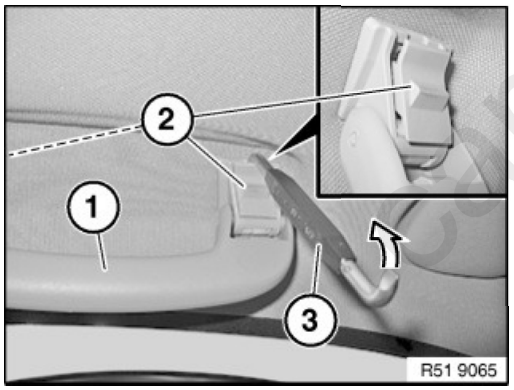
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

14 – Removing all grab handles

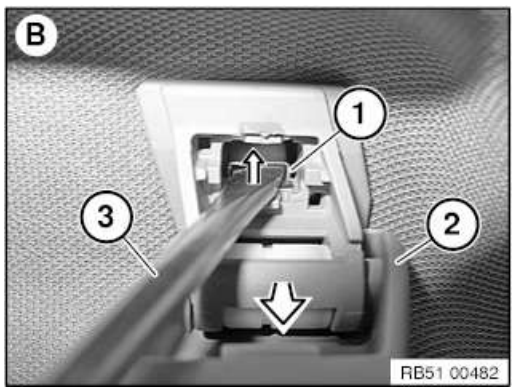
NOTICE

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.

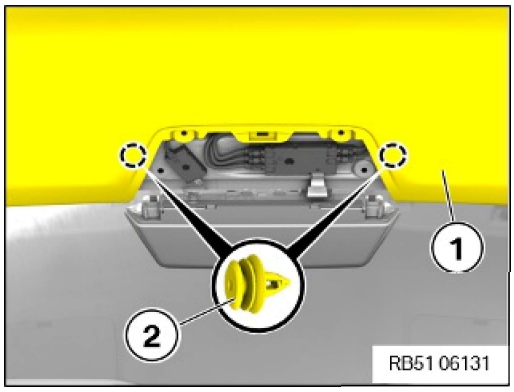
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

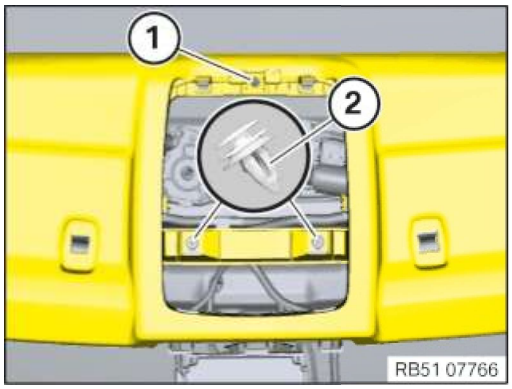
Fold the headlining.

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**

cardiagn.com

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

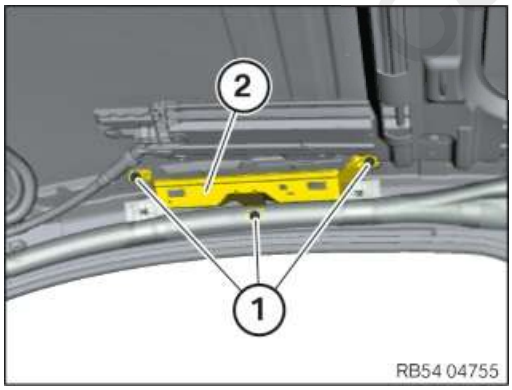
Description is for left component only. Procedure on the right side is identical.



- Position headliner (1) in the vehicle as shown in order to make place for drilling on the opposite side.

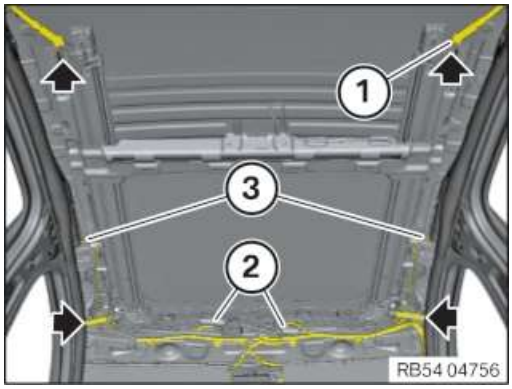


- Protect the working area with a suitable cover (1) to protect against falling swarf.

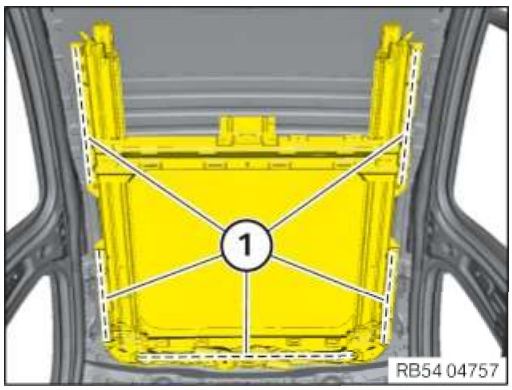


- Drill out blind rivets (1) and remove both rear holders (2).

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

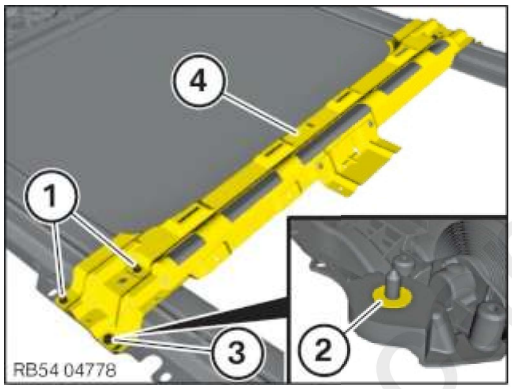
Heavy component.

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

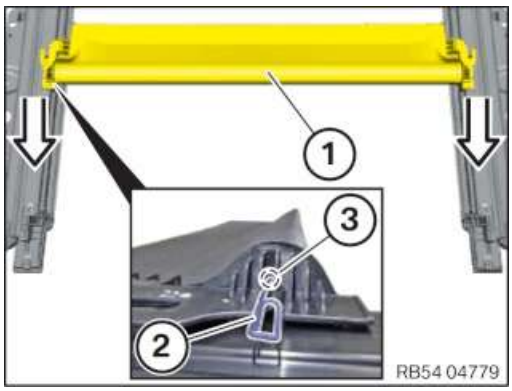


NOTICE

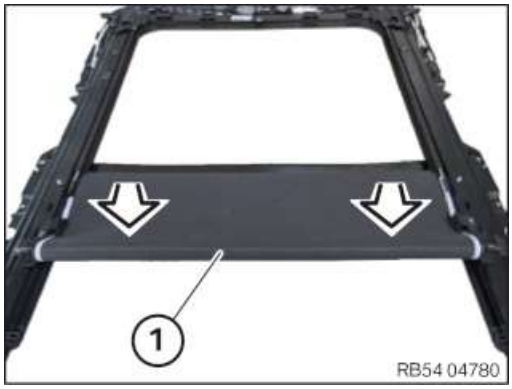
Perform the operations on the left and right side.

- Loosen nuts (1).
- Remove lock washer (2) and withdraw screw (3).
- Remove cross-member (4).

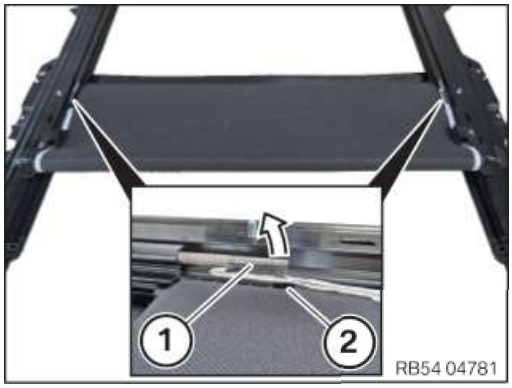
19 – Removing roller sunblind for the panorama glass roof



- 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).



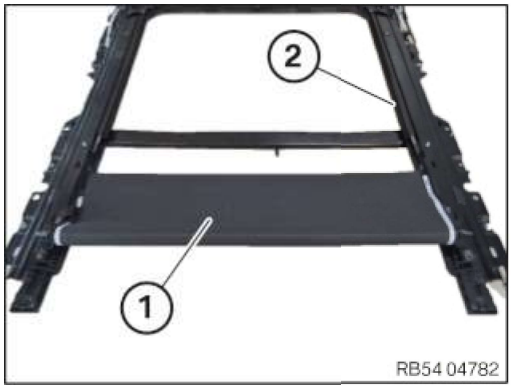
- Open the roller sunblind completely (1) by hand, until a slight resistance is felt.



NOTICE

Perform the operations on the left and right side.

- Guide the driver (1) upwards out of the slider of the roller sunblind (2).

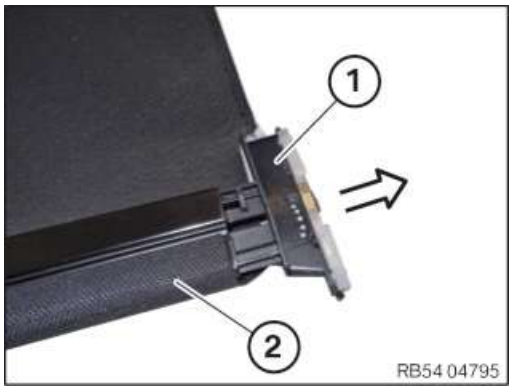


- Remove the roller sunblind (1) from the sunroof frame (2).

cardiagn.com

MAIN WORK

20 – Remove slider for sunblind

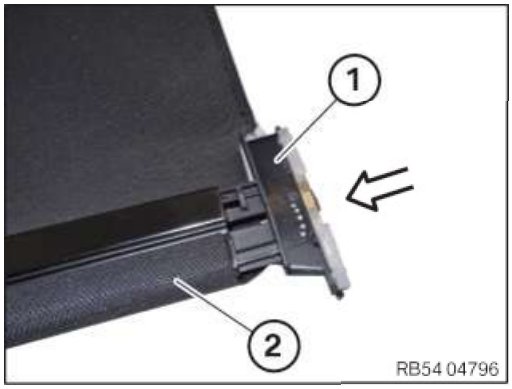


NOTICE

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

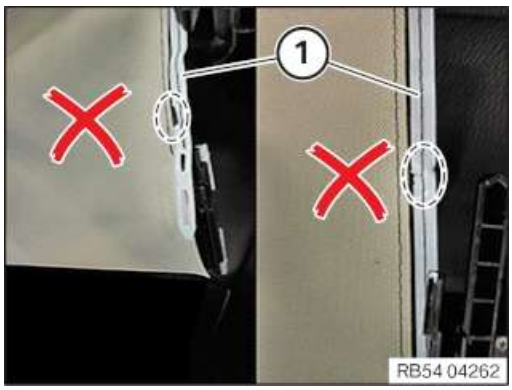
Description is for left component only. Procedure on the right side is identical.

- Feed slider (1) for sunblind (2) in and push to end stop.

cardiagn.com

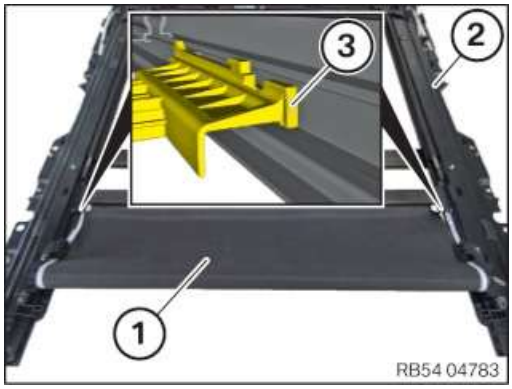
POSTPROCESSES

22 – Installing roller sunblind for the panorama glass roof

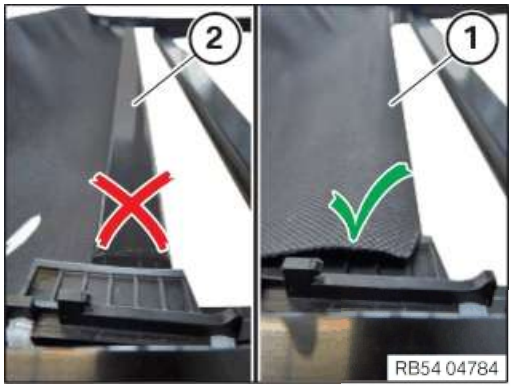


- Check the tensioning strap (1) of the roller sunblind for damage and renew the roller sunblind where required.

  The tensioning strap must be free of kinks, cracks or other defects.

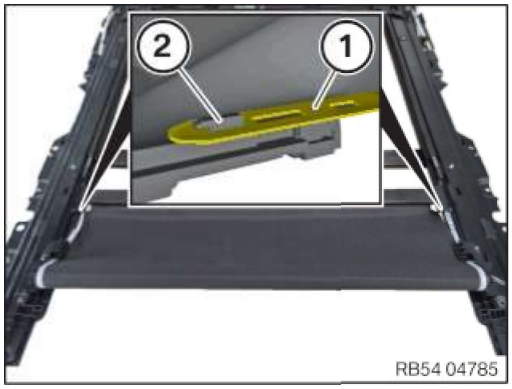


- Position the sunblind (1) on the slide/tilt sunroof frame (2).
- Ensure that the slider (3)is correctly positioned in the rail of the slide / tilt sunroof frame.

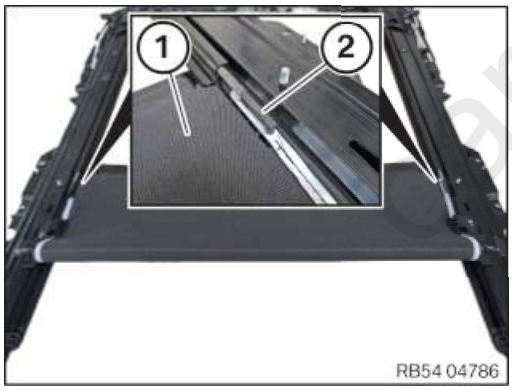


- Ensure that the sunblind lining (1) runs over the cross brace of the drive (2) as shown.

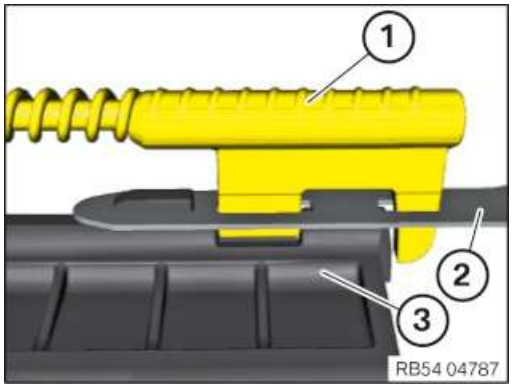
  If necessary, turn the cross brace (1) through 360°.



- Mount tensioning strap (1) on both sides of driver (2).



- Push the sunblind (1) forward until the drive (2) can be hooked.

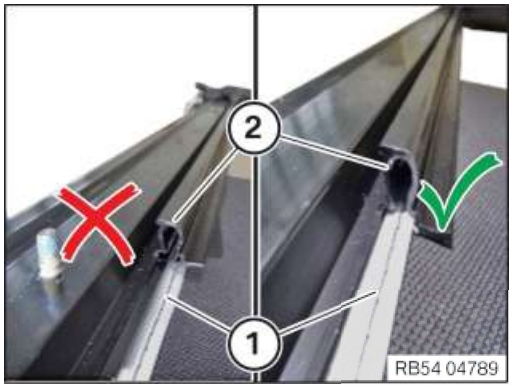


- Ensure that the drive (1) is hooked as shown by the tensioning strap (2) on the slider (3).

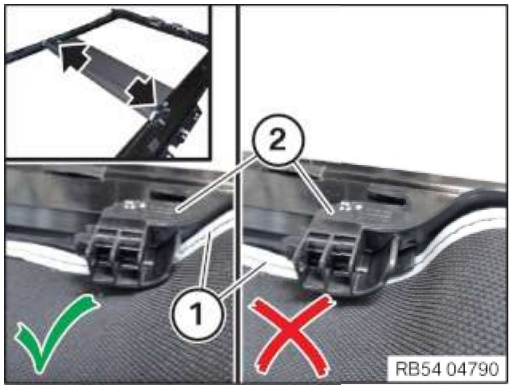
ardiagn.com



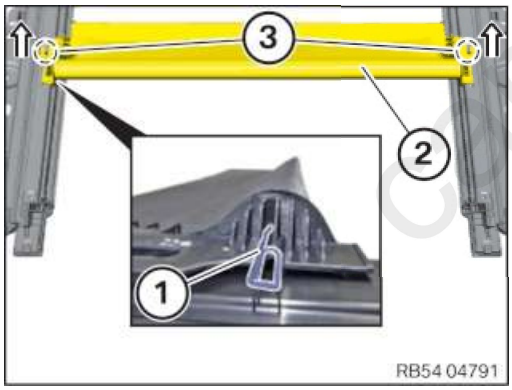
- Manually close the sunblind (1) a few cm.



- Ensure that the tensioning strap (1) runs correctly in the guide on the slide/tilt sunroof frame (2).

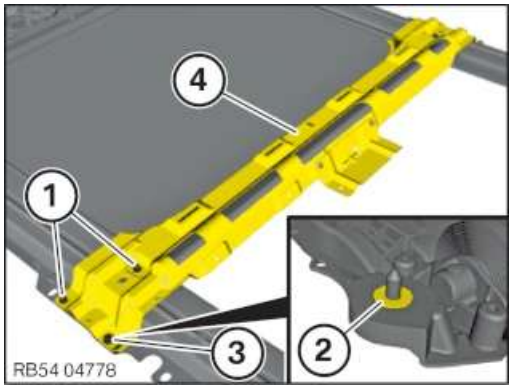


- Ensure that the tensioning strap (1) runs correctly in the guide (2) as shown.



- 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).

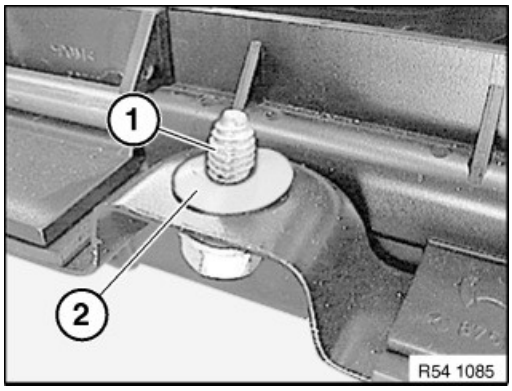
Cross member to glass slide/tilt sunroof frame

Nut		5,5 Nm

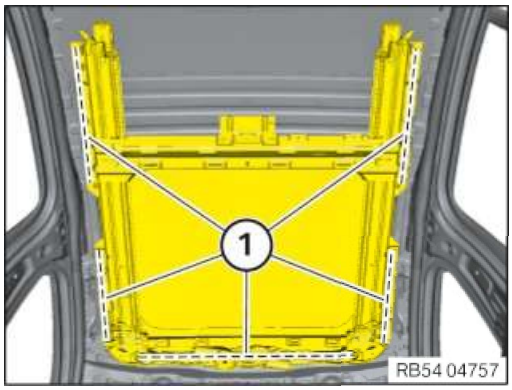
- Position retaining washer (2) and insert screw (3).

carldiagn.com

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.



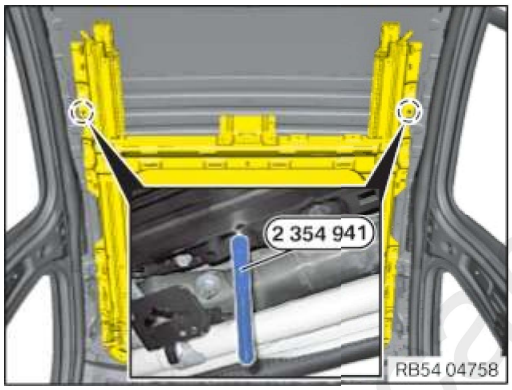
RISK OF DAMAGE

Heavy component.

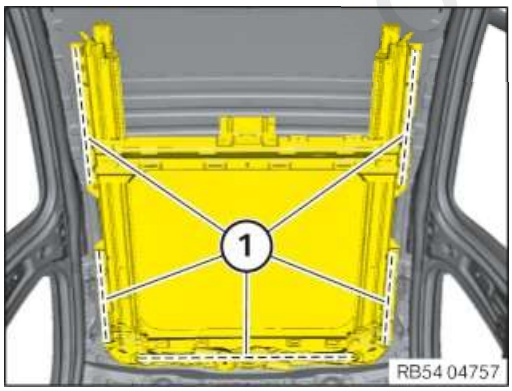
Heavy components can lead to injury or damage.

- 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.

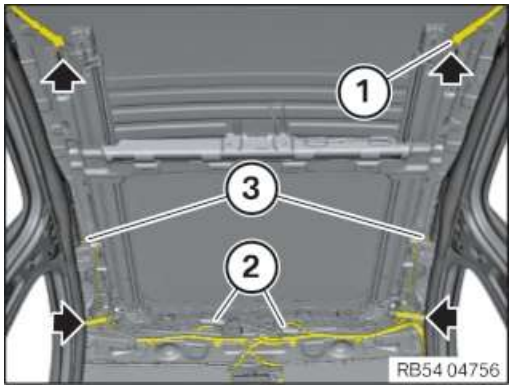


- Tighten all screws along the marked areas (1) .

Slide/tilt sunroof frame to body

M6		5,4 Nm

carldiagn.com



- 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

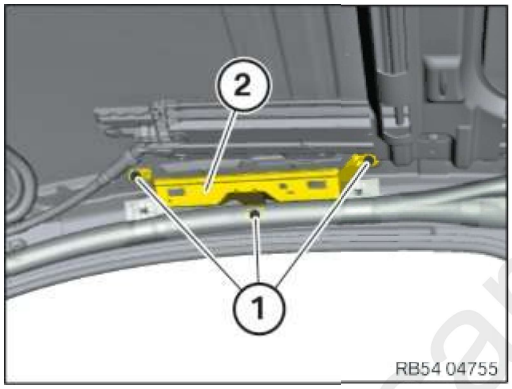
NOTICE

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.

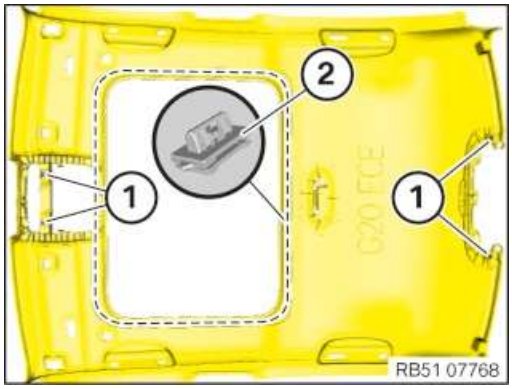
RISK OF DAMAGE

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.

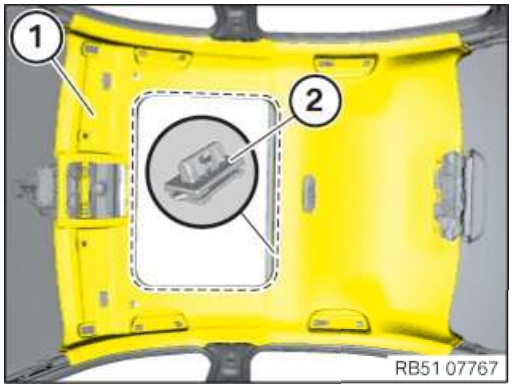
cardiagn.com



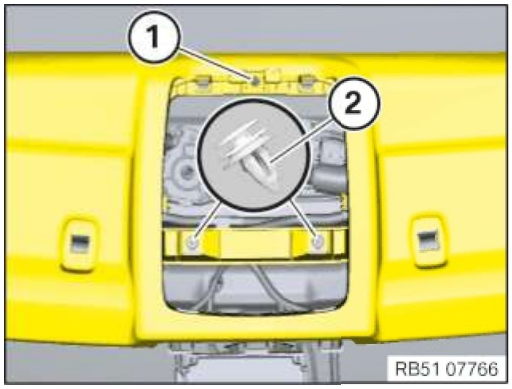
- Check the clips (1) on the headlining (2) for damage.

  Replace broken for missing clips (1).
- Check the clamps (2) along the dotted line.

  Replace broken or missing clamps (2).



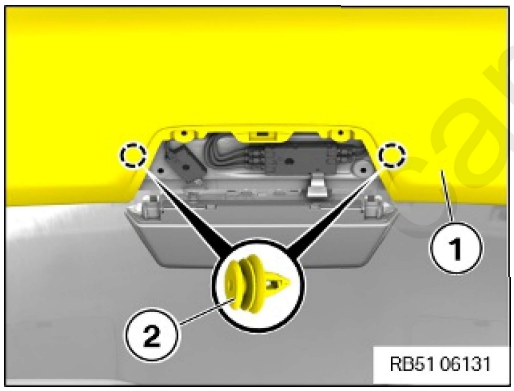
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



- Clip headlining to the clips (2).
- Tighten down screw (1).

Headlining to frame

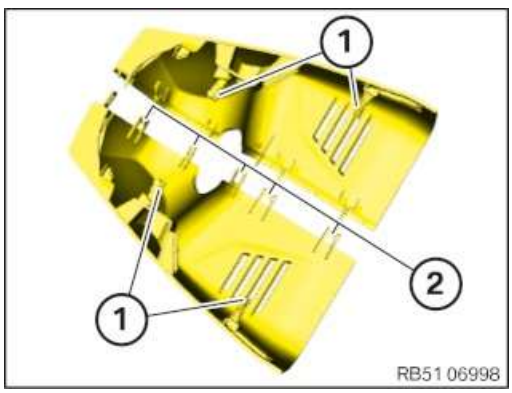
Oval-head screw		Tightening torque	1,5 Nm



- Clip headlining (1) to the clips (2).

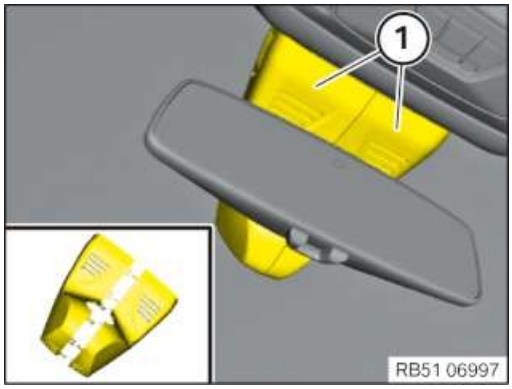
27 – Installing the covers for the interior mirror

- **Version A:**



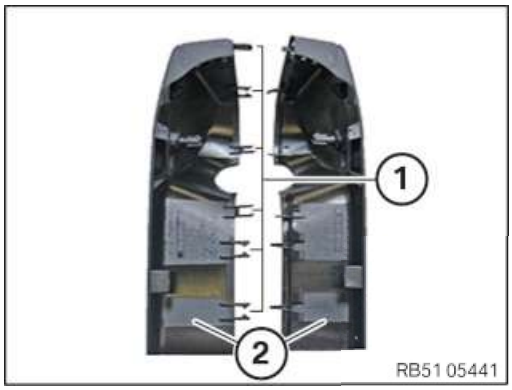
- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.

carsdiagn.com



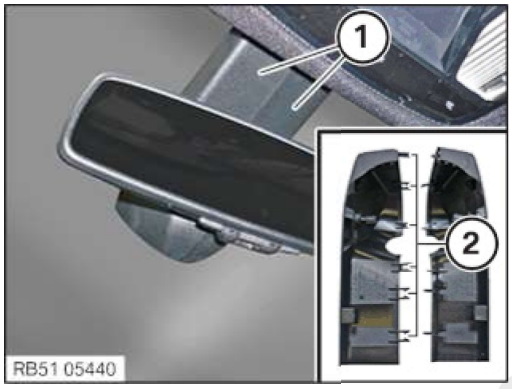
- Feed cover (1) in and lock.

- **Version B:**



- Check the latch mechanisms (1) on the two covers (2) for damage, renew the covers (2) if necessary.

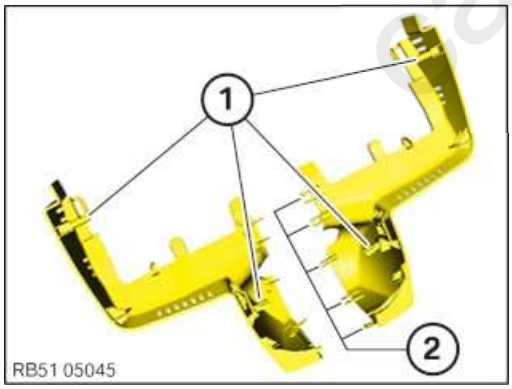
  The covers (2) must not be damaged or missing.



- 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.

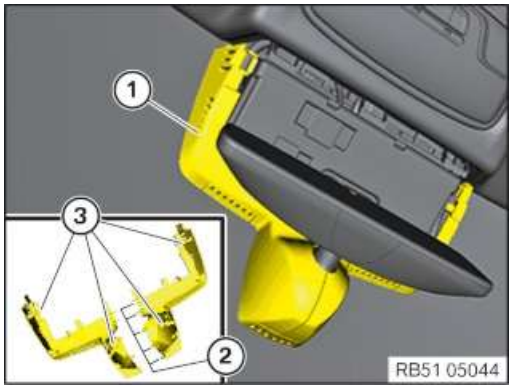
Result

» The latch mechanism is damaged.

Measure

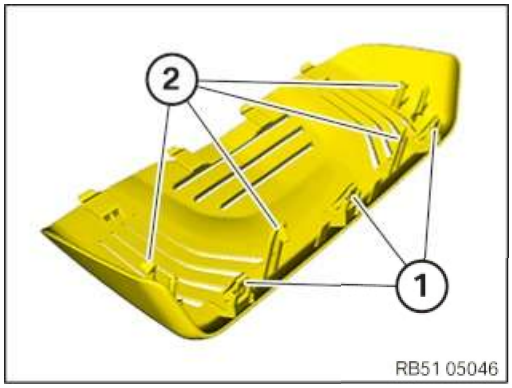
- Renew the cover.

cardiagn.com



- Guide in cover (1) on left and right and engage using latch mechanisms (2) and (3).

Check



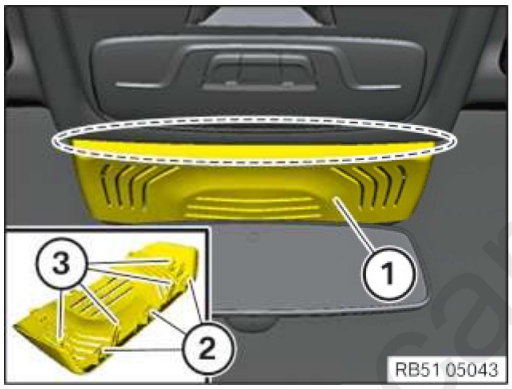
- Check clamps (1) for damage; renew if necessary.
- Check latch mechanisms (2) for damage.

Result

» The latch mechanism is damaged.

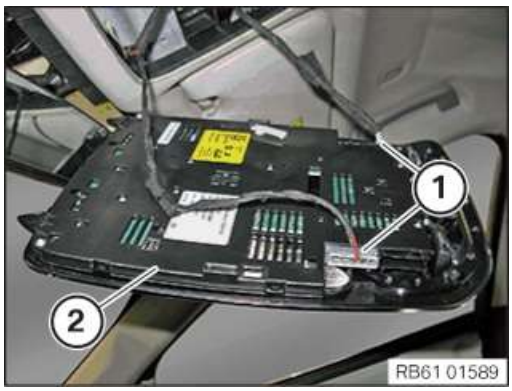
Measure

- Renew the cover.



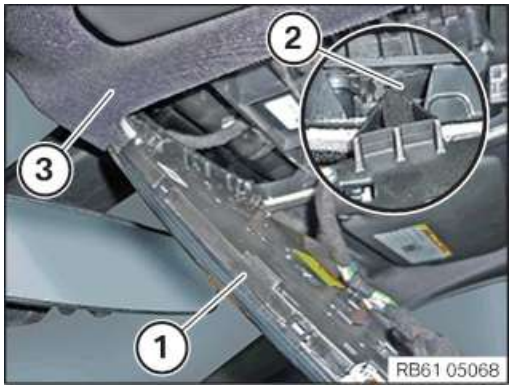
- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).

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.

cardiagn.com



- 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).

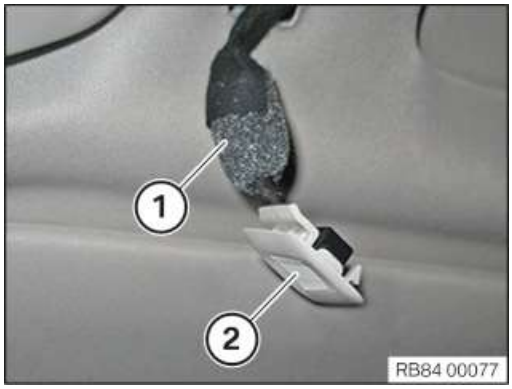
29 – Install both microphones

carldiagn.com

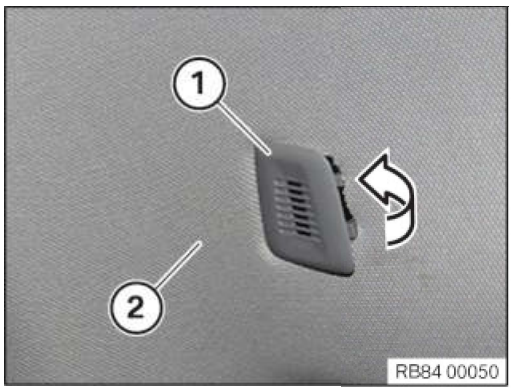
NOTICE

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).

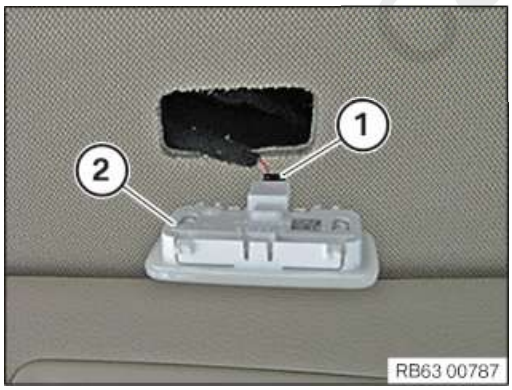


- Position hands-free microphone (1) in headlining (2) in the direction of the arrow.

30 – Installing front vanity mirror light

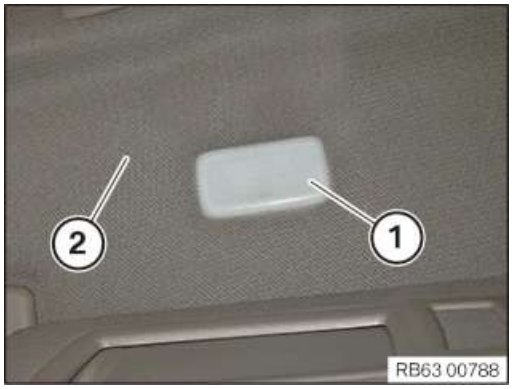
NOTICE

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



- Connect the connector (1) to the front vanity mirror light (2).

cardiagn.com



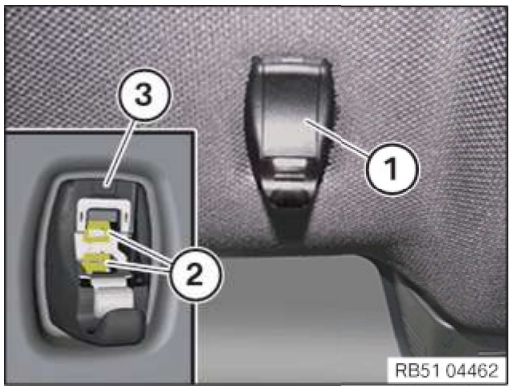
- Position the front vanity mirror light (1) in the headlining (2).

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

cardiagn.com

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!

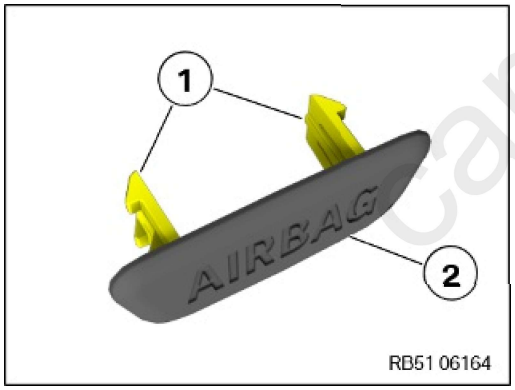
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: 72 00 ... Safety regulations on handling airbag system components/gas generators

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

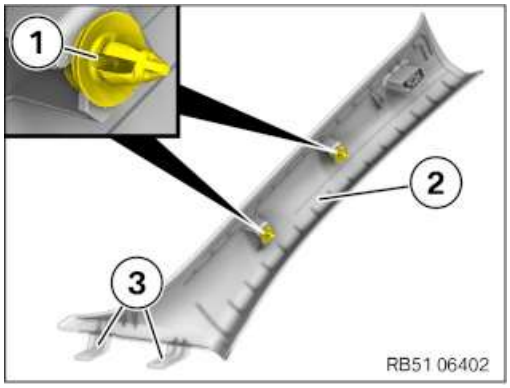
» Retaining lug is damaged.

Measure

- Renew the cover.

Check

cardiagn.com



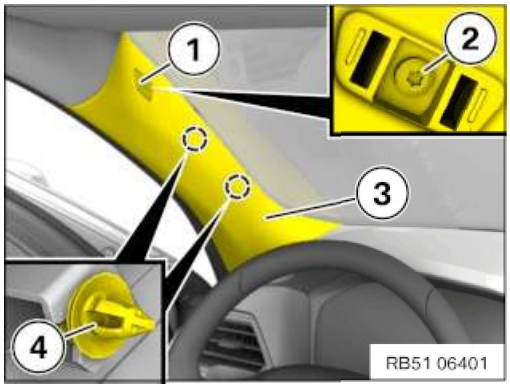
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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

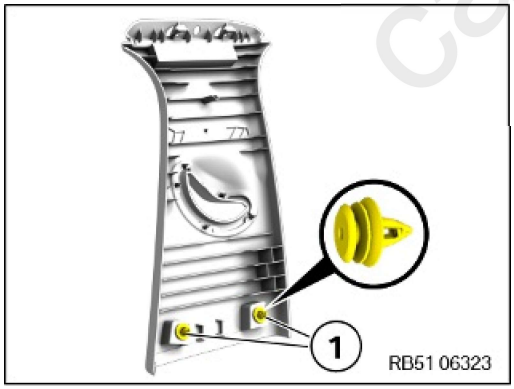
- Clip in the cover (1).

34 – Installing both B-pillar trim panels

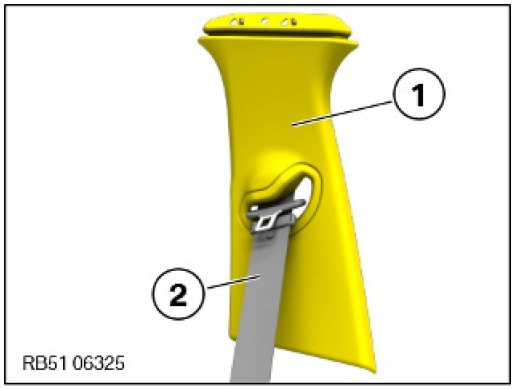
NOTICE

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

▸ **Install the B-pillar trim panel**

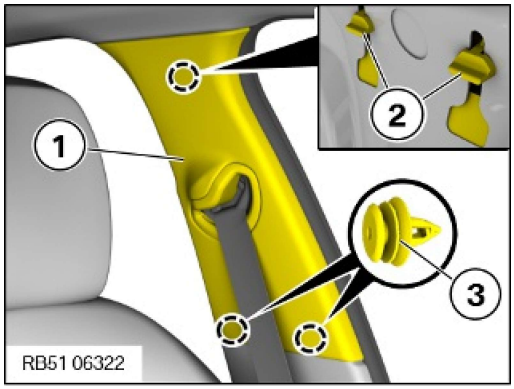


- Check the clips (1) for damage and renew if necessary.

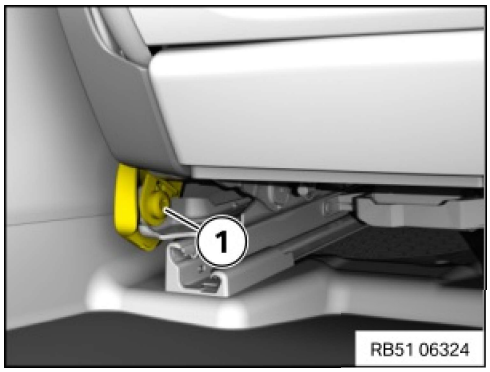


- Guide upper seat belt (2) in B-pillar trim panel (1).

cardiagn.com



- 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

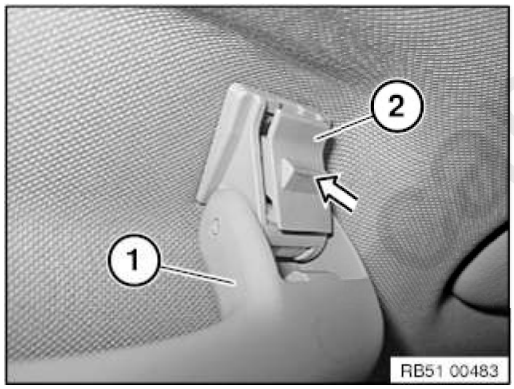
Flat-head screwM10	Renew screw.	Tightening torque	42 Nm

35 – Installing all grab handles

NOTICE

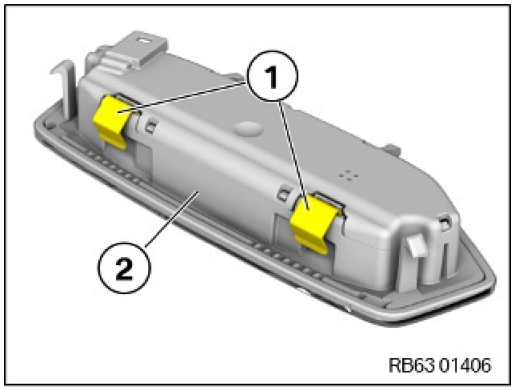
The description is for one component only. The procedure is identical for all further components.

▸ **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

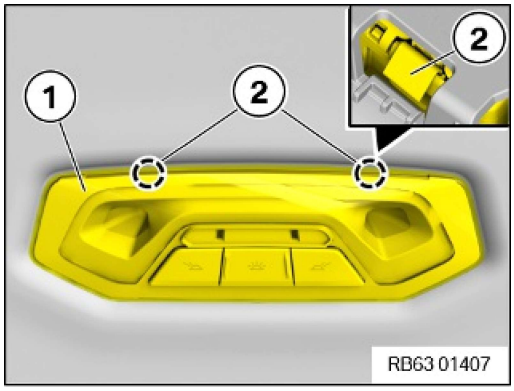
- Check the clamps (1) for damage.

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).

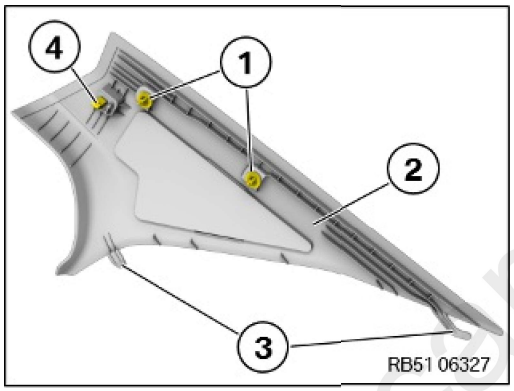
37 – Install both C-pillar trim panels

NOTICE

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

▸ **Installing C-pillar trim panel**

Check



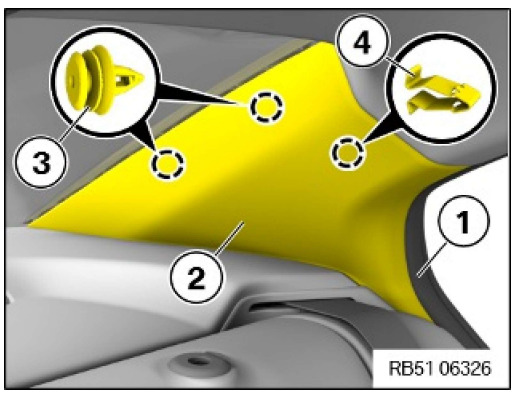
- Check clips (1) and clamp (4) for damage, renew if necessary.
- Check the guides (3) for damage.

Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .



NOTICE

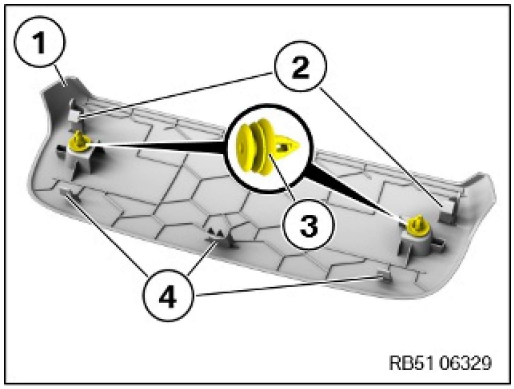
Schematic diagram is for example purposes. Some parts may differ in certain details.

- 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

cardiagn.com



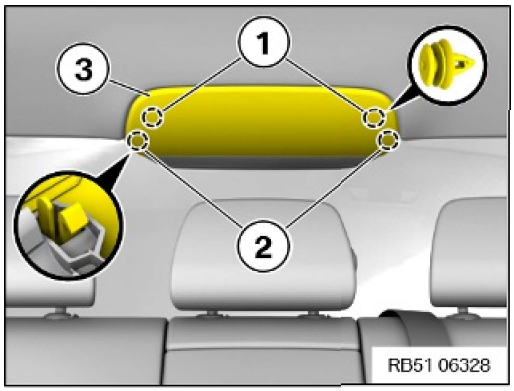
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

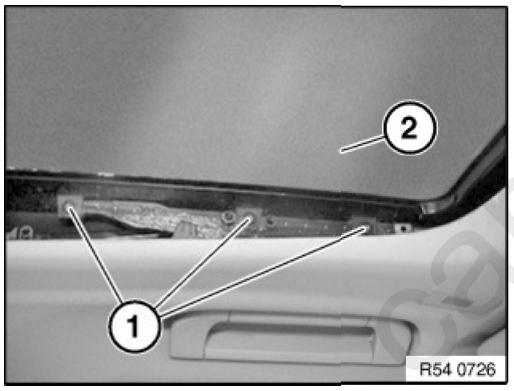
Measure

- 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).

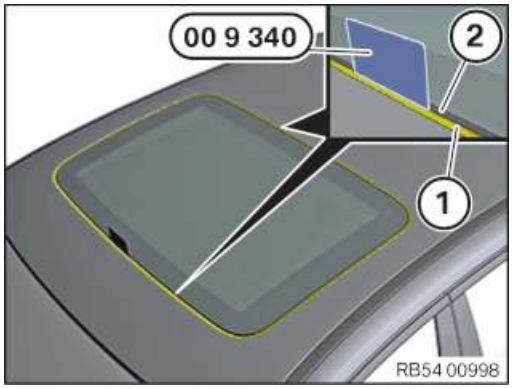
39 – Install glass slide/tilt sunroof panel



- 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.

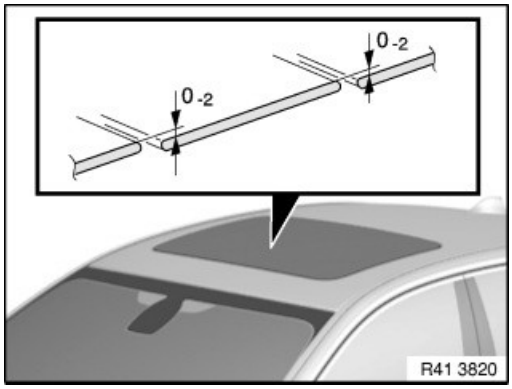
40 – Check the setting of the glass slide/tilt sunroof panel



- 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.

cardiagn.com

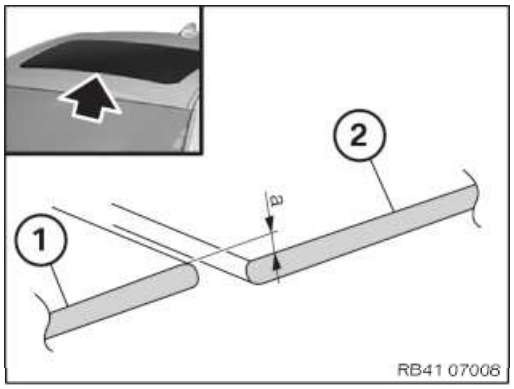


- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the front or is up to a maximum of 2 mm lower.
- Make sure that the glass slide/tilt roof panel is flush with the roof outer skin at the rear or is up to a maximum of 2 mm higher.

Gap dimension roof outer skin to glass slide/tilt sunroof panel

1 roof outer skin; 2 glass slide/tilt sunroof panel

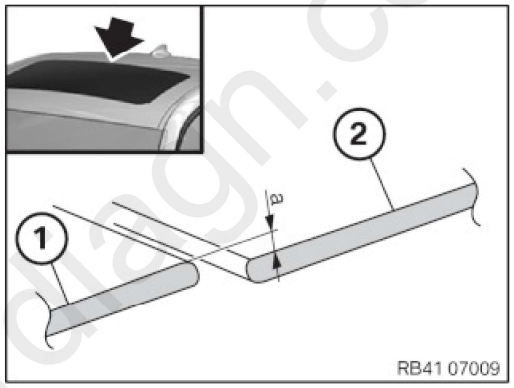
a	0,7 (-0,05 - 1,45) mm

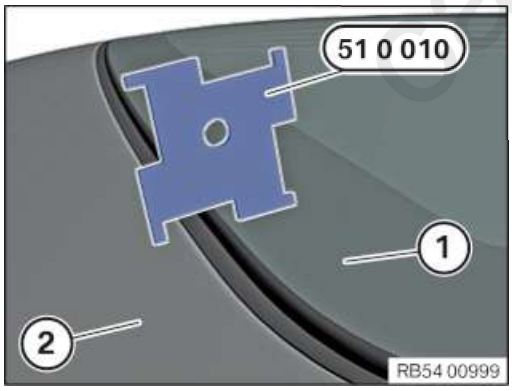


Gap dimension glass slide/tilt sunroof panel to roof outer skin

1 glass slide/tilt sunroof panel; 2 roof outer skin

a	0,7 (-0,05 - 1,45) mm

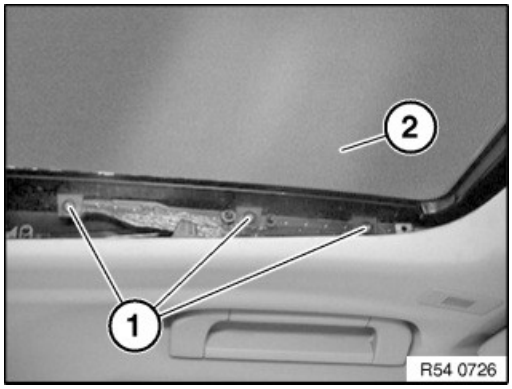




- Measure the position of the glass slide/tilt roof panel (1) to roof (2) with special tool 0 495 259 (51 0 010).

41 – Adjusting glass slide/tilt sunroof panel

cardiagn.com

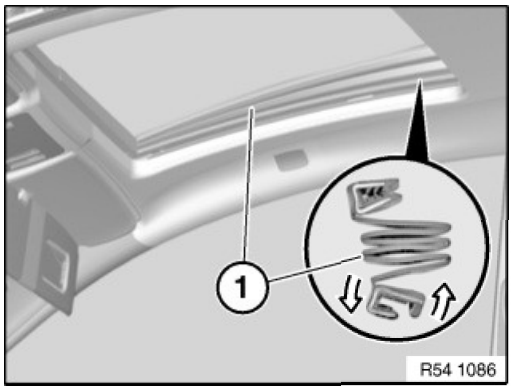


- Close glass slide/tilt sunroof lid (2).
- Slacken screws (1) at the left and right such that the glass slide/tilt roof panel (2) can just be moved.
- Move the glass slide/tilt roof panel (2) until the right position is reached.
- Tighten the screws (1).

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.

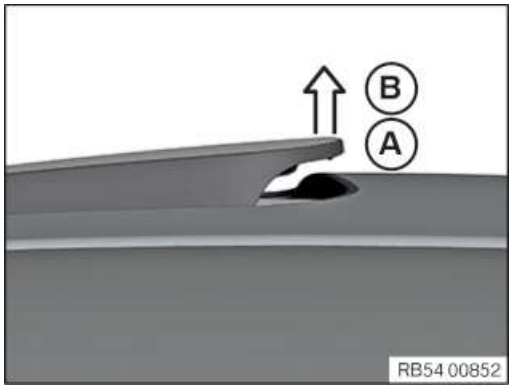
43 – Initialising the glass slide/tilt sunroof panel



- 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.

cardiagn.com



- 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).

cardiagn.com

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

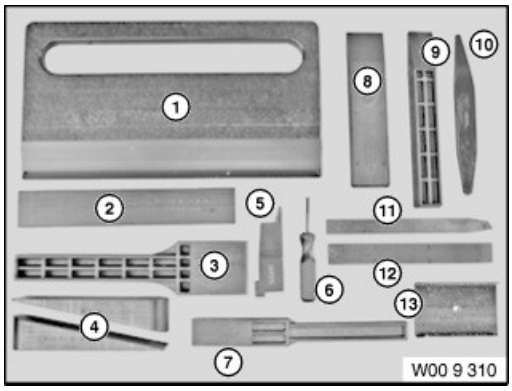
End fitting to seat mechanism — Used in step 34

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



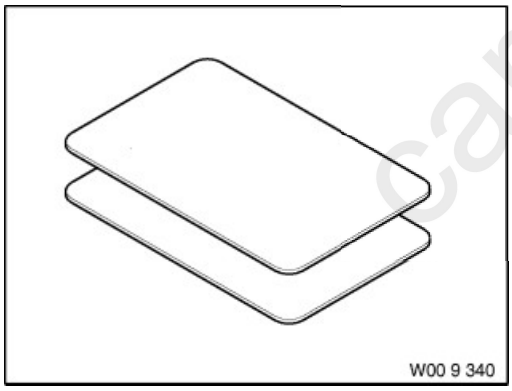
Common		Used in step 411
Usage	(Case) with insert not incl. panel wedges	
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	01 07 09 (530)	

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



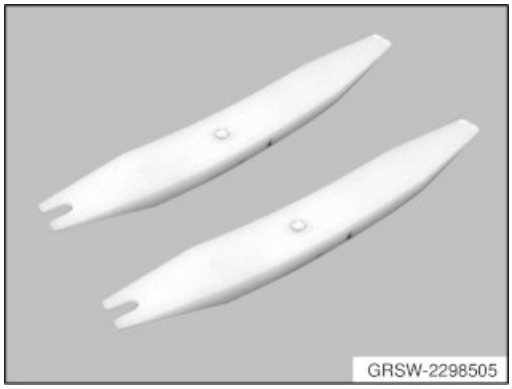
Common		Used in step 8
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

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).	

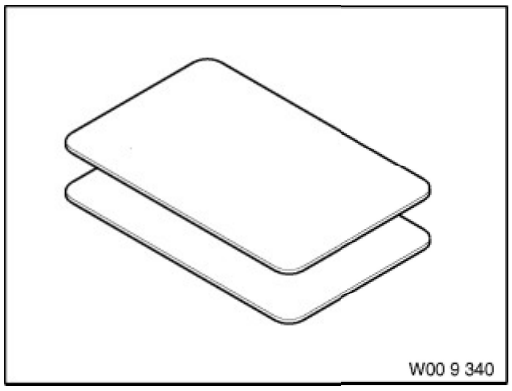
cardiagn.com

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

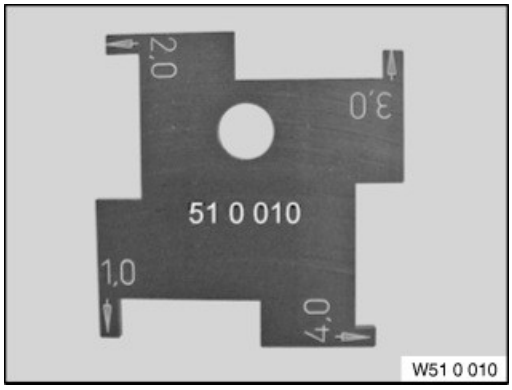


Common	Used in step 40
Usage	(Removal aid (2 x)) For levering out switch block on driver's door.
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

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)

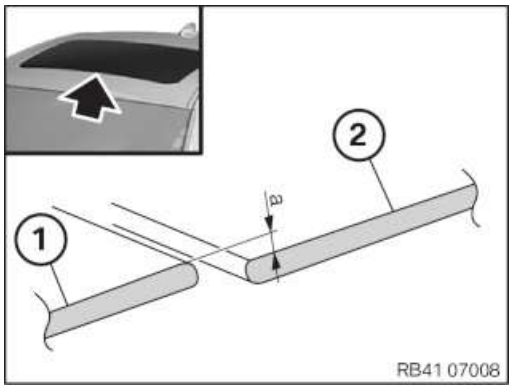
Overview Technical Data

cardiagn.com

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

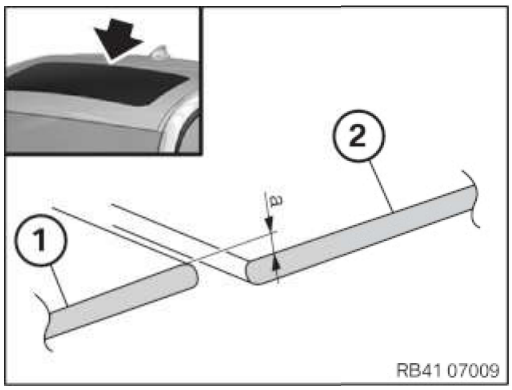
a	0,7 (-0,05 - 1,45) mm



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

cardiagn.com

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.

cardiagn.com

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.

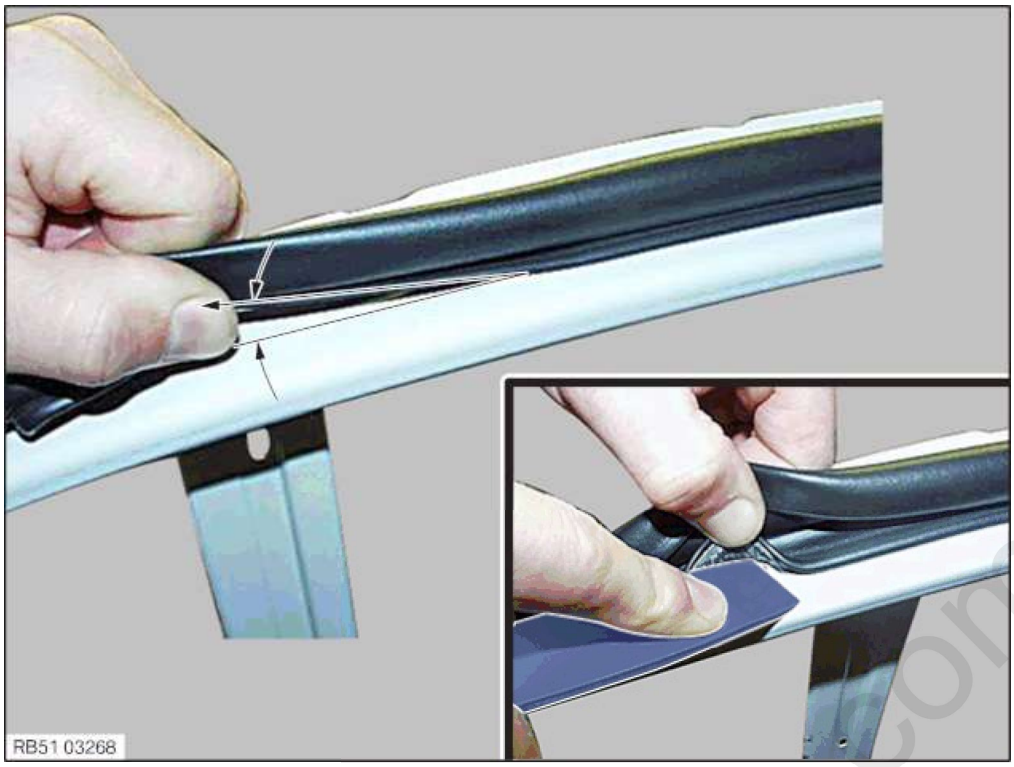
Attention:

Load can be applied to the bonding only after a period of 2 minutes. This waiting time is absolutely essential.

cardiagn.com

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:

cardiagn.com

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.

cardiagn.com

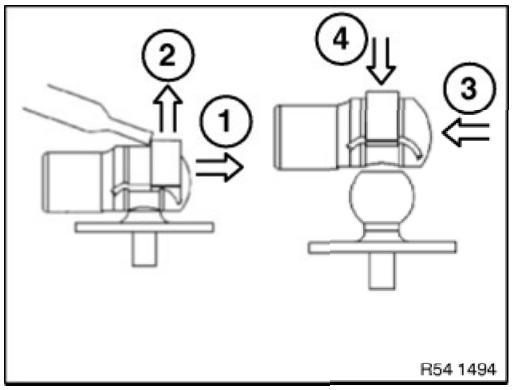
51 23 ... Removing/installing ball sockets with clip

Warning!

Danger of injury! When installed, the gas pressurised shock absorber is under preload. Minimise preload as far as possible before removing.

Important!

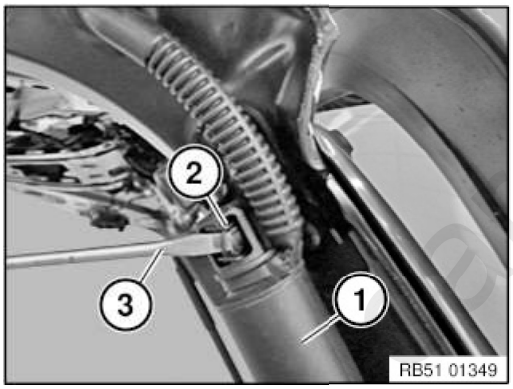
Never lift off ball socket with engaged clamp.



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.

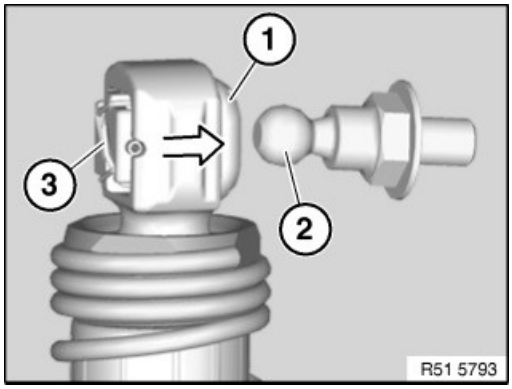
Warning!

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

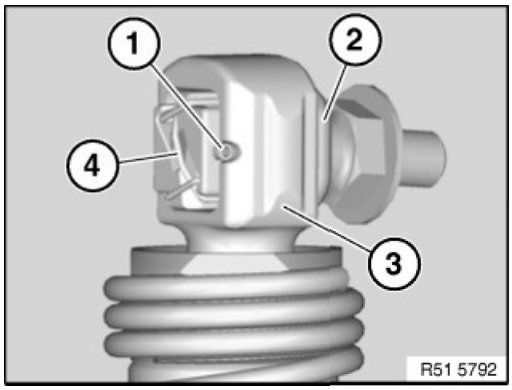


Attention!

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.

cardiagn.com

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

cardiagn.com

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

cardiagn.com