

00 Safety information for working on vehicles with automatic engine start-stop function (MSA)



Warning!

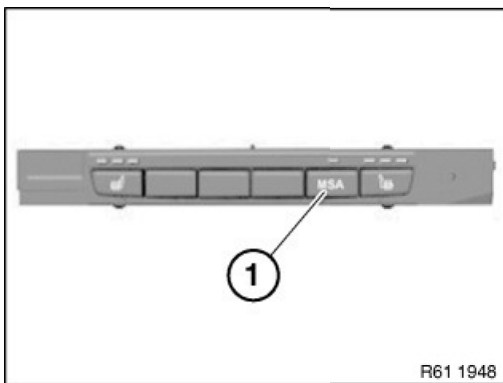
If the engine hood/bonnet contact is pulled upwards (workshop mode), the information "switch closed" is output. The automatic engine start-stop function is active.

An automatic engine start is possible.

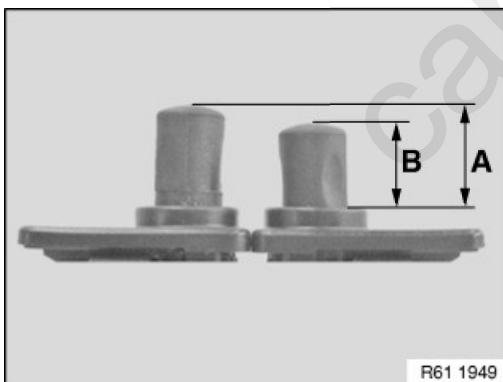
Observe safety precautions when working on MSA vehicles.

Before carrying out practical work on the engine, always ensure that the MSA functionality is deactivated so as to prevent automatic engine starting while work is being carried out in the engine compartment.

MSA function is deactivated by:



- Deactivate MSA by means of button (1) in passenger compartment
- Open seat belt buckle and driver's door



- Open engine bonnet/hood and ensure that engine hood/bonnet contact is not in workshop mode
 - Workshop mode
 $A = 10 \text{ mm}$
 - Basic setting (engine hood/bonnet open)
 $B = 7 \text{ mm}$

To make sure that the engine hood/bonnet contact is at the basic setting, if necessary press the hood/bonnet contact up to the limit position before starting work and slowly release.



When working with diagnosis tools:

- Observe instructions in diagnosis tool



Note:

For further information on automatic engine start-stop function (MSA):

- Refer to the Service Information (bulletin) (for manual transmissions) Service Information (bulletin) 61 01 07 335
- Refer to the Service Information (bulletin) (for automatic transmissions or twin-clutch gearboxes) Service Information (bulletin) 61 01 10 629

cardiagn.com

67 13 001 Replacing drive for exterior mirror adjustment, left or right



NOTICE

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

PRELIMINARY WORK

1 – Removing the mirror glass



CAUTION

Glass splinters.

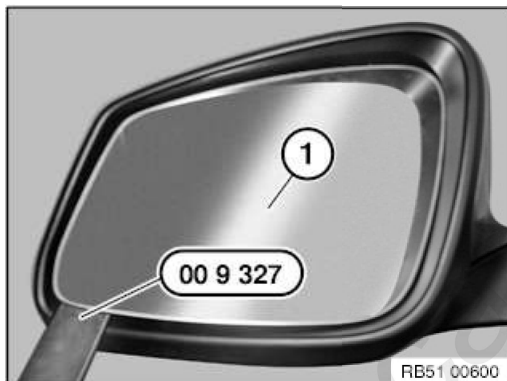
Danger of injury!

- If the mirror glass is damaged, wear safety goggles and protective gloves.

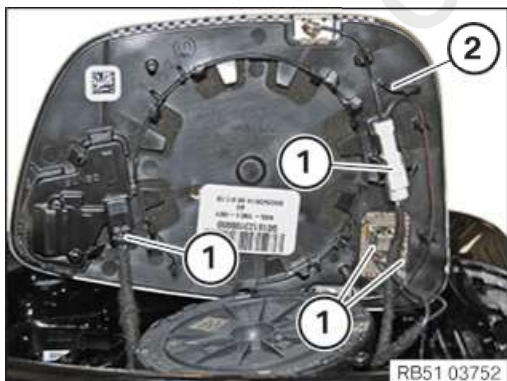


TECHNICAL INFORMATION

Carry out the work at temperatures between 18 °C and 23 °C only.



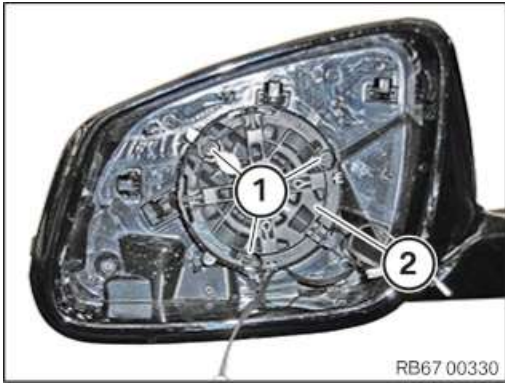
- Manually press the mirror glass (1) on the side of vehicle up to the end stop.
- Unclip the mirror glass (1) using special tool [0 496 571 \(00 9 327\)](#) all the way around, starting with the outer side.



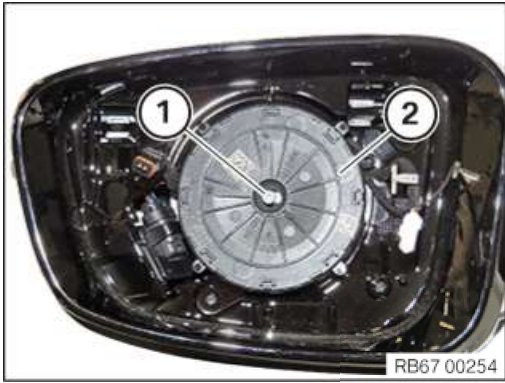
- Disconnect plug connection (1).
- Remove mirror glass (2).

MAIN WORK

2 – Removing the drive for exterior mirror adjustment



- **Version A**
- Release the screws (1) and pull out the drive for exterior mirror adjustment (2) a little.



- **Version B**
- Loosen screw (1).
- Pull off the drive for exterior mirror adjustment (2).



- Unlock plug connection (1) and disconnect and remove the drive for exterior mirror adjustment (2) .

3 – Installing the drive for exterior mirror adjustment



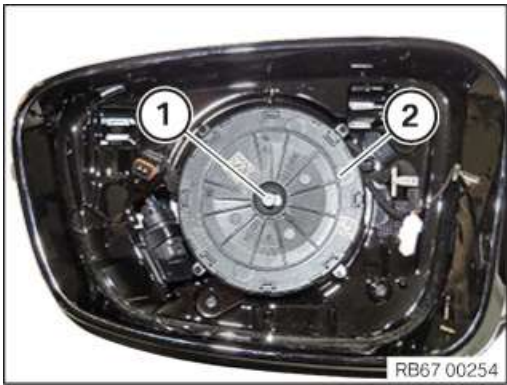
- Position drive for exterior mirror adjustment (2).
- Connect connectors (1) and lock.



- **Version A**
- Position drive for exterior mirror adjustment (2) correctly.
- Tighten the screws (1).

Drive for exterior mirror adjustment

	Tightening torque	1,2 Nm
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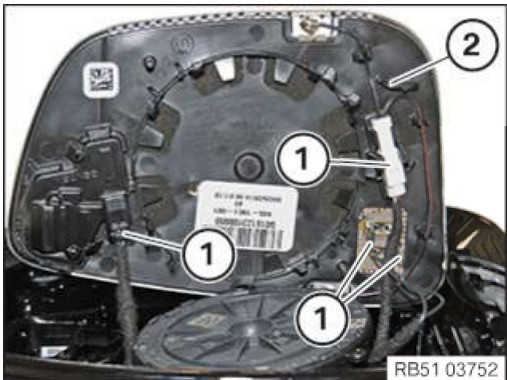
- **Version B**
- Correctly position the drive for exterior mirror adjustment (2) and press it in.
- Tighten down screw (1).

Drive for exterior mirror adjustment

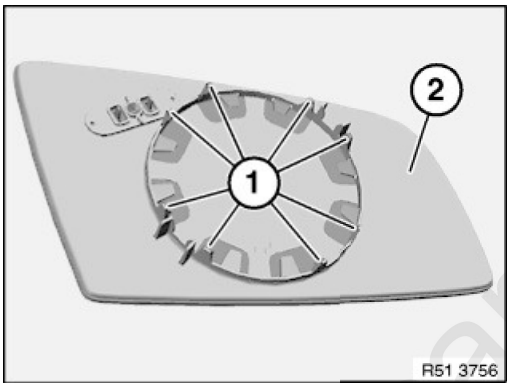
	Tightening torque	1,2 Nm
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POSTPROCESSES

4 – Installing the mirror glass



- Position mirror glass (2).
- Connect plug connections (1).



- Check whether retaining lugs (1) are missing or damaged and, if required, renew the mirror glass.
- Position the mirror glass (2) with the retaining lugs (1) flush with the drive for exterior mirror adjustment and clip in.
- Ensure correct locking.
- Check if the drive for exterior mirror adjustment is functioning correctly.

Additional Information

Overview of Tightening Torques

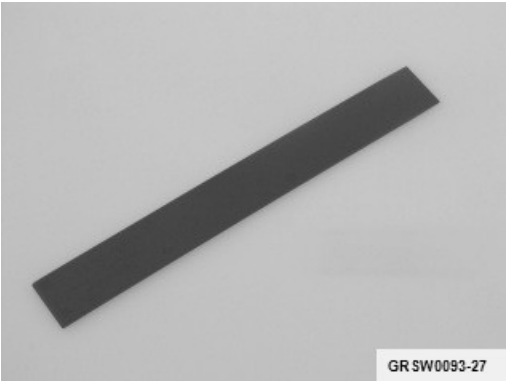
Drive for exterior mirror adjustment

Used in step 3

	Tightening torque	1,2 Nm
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Overview of Special Tools

0 496 571 (00 9 327) Wedge



Common

Used in step 1

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)

67 61 580 Replacing the drive for the glass slide/tilt sunroof panel



RISK OF DAMAGE

Fold the headlining.

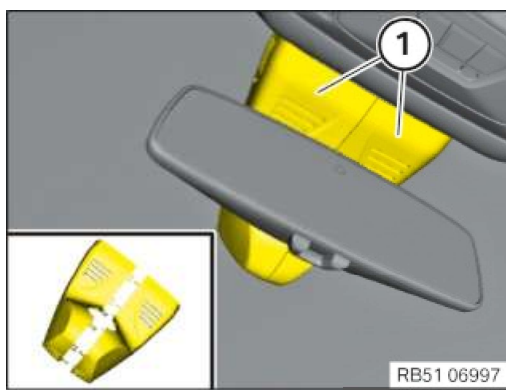
If the headlining is folded, it may have to be replaced.

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

PRELIMINARY WORK

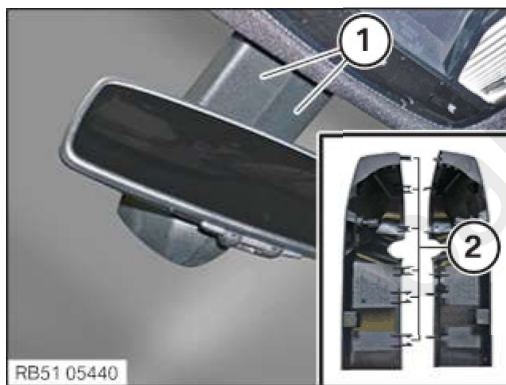
1 – Removing the covers for the interior mirror

- **Version A:**



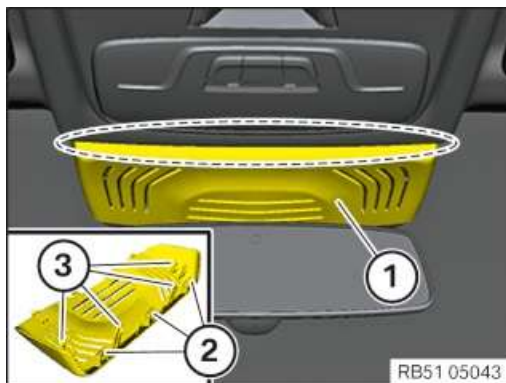
- Release the cover (1) at the centre from the latch mechanisms (2) with a suitable plastic wedge and remove.

- **Version B:**

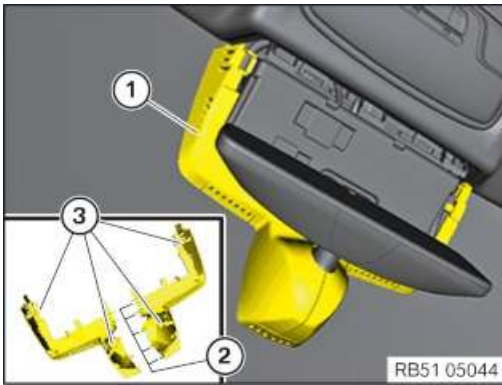


- Release the cover (1) from the latch mechanisms (2) with a suitable plastic wedge and remove sideways.

- **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

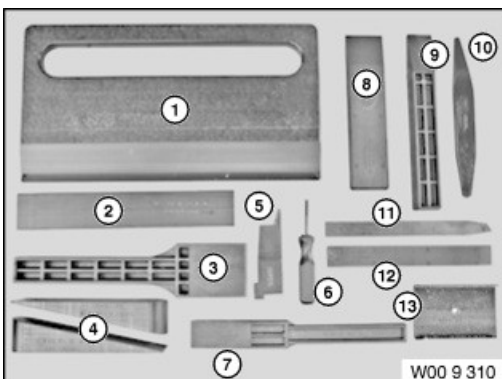


WARNING

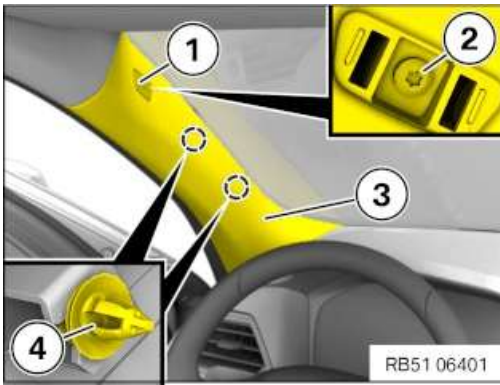
Pyrotechnic components.

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.



- 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

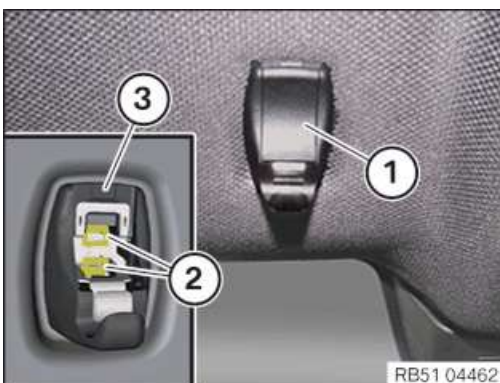
- Pull out the cover (1).
- Detach the sun visor (2) from the counter support .
- Disengage the sun visor (2) in front to the bottom and thread it out of the headlining at the rear.
- Unlock associated plug connection and disconnect.

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

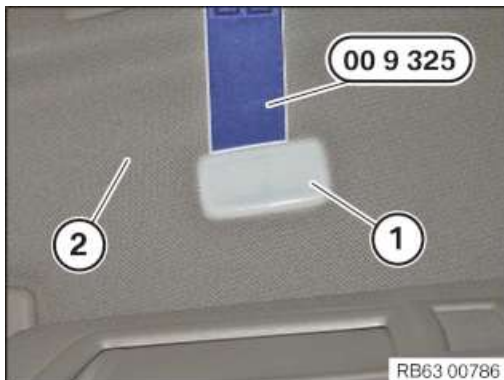
- Pull out the cover (1).
- Push the clamps (2) together and pull the counter support (3) out of the headlining.

5 – Removing front vanity mirror light



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).

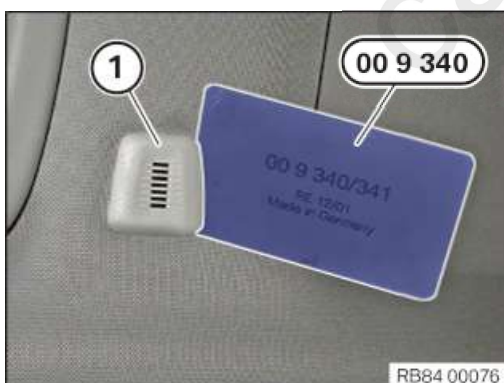
6 – Remove both microphones



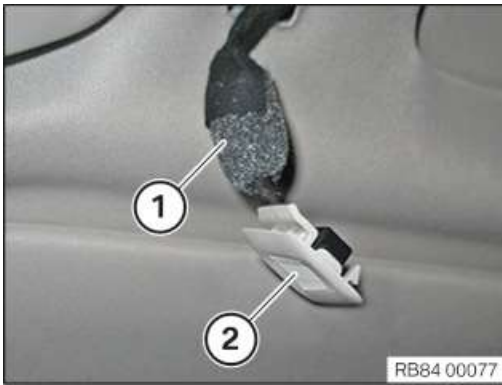
NOTICE

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 \(00 9 340\)](#).



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

7 – Removing the roof function centre (FZD)



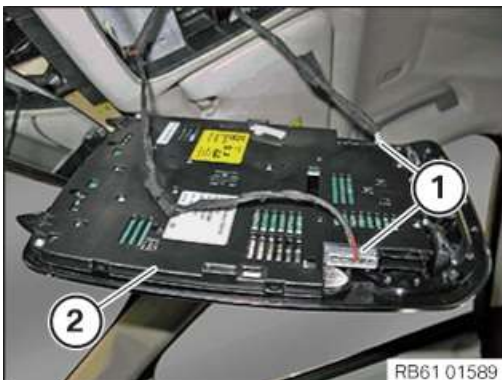
- Unclip the cover (1).



- 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.

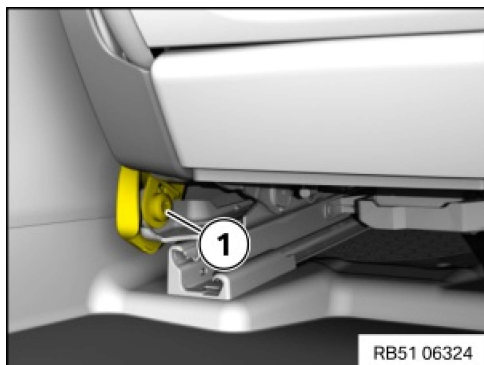
8 – Removing both B-pillar trim panels



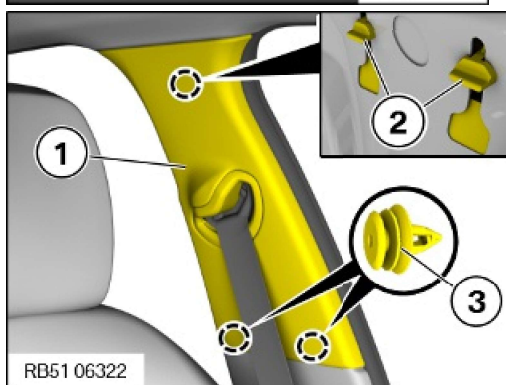
NOTICE

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

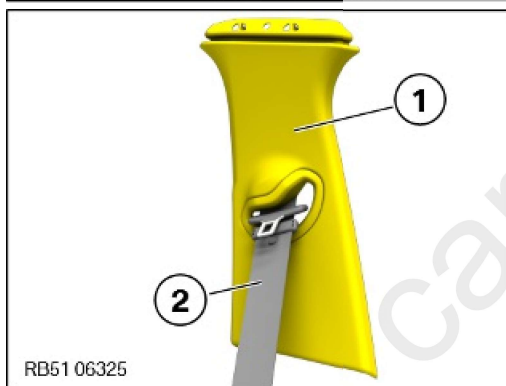
► Remove the B-pillar trim panel



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

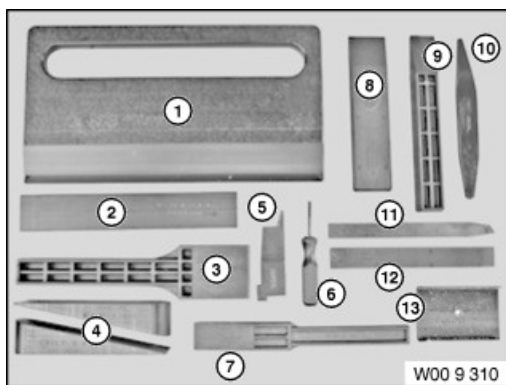


- Unclip clips (3).
- Feed B-pillar trim panel (1) out of the front and rear lip of edge protections and the guides (2).

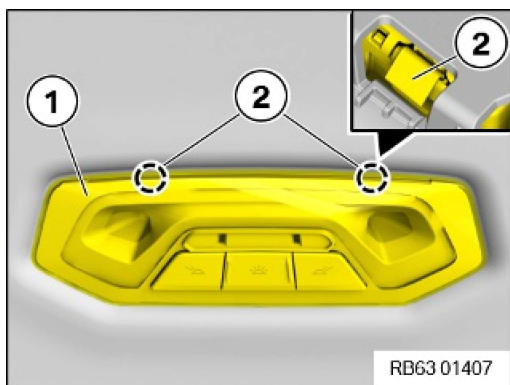


- Feed upper seat belt (2) out of B-pillar trim panel (1).

9 – Remove interior roof light

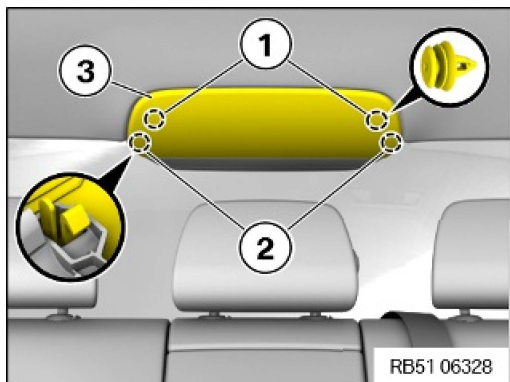


- Have the set of special tools [0 493 752 \(00 9 329\)](#) ready.



- 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

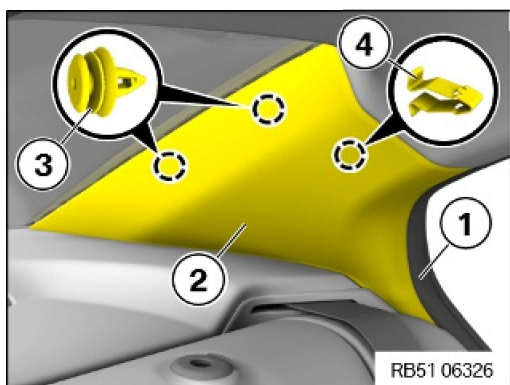
Description is for left component only. Procedure on the right side is identical.

► Remove C-pillar trim panel

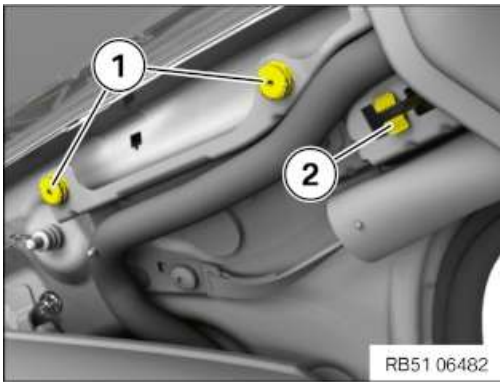


NOTICE

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).



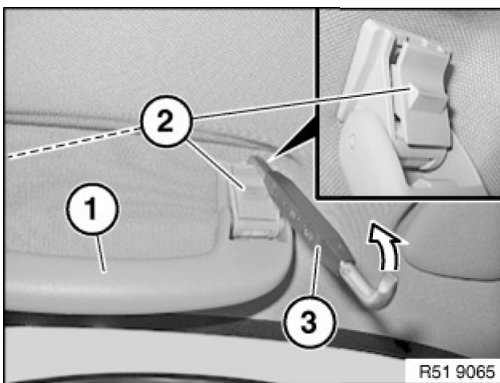
- If required, remove the clips (1) and the clamp (2) and connect it to the trim panel.

12 – Removing all grab handles



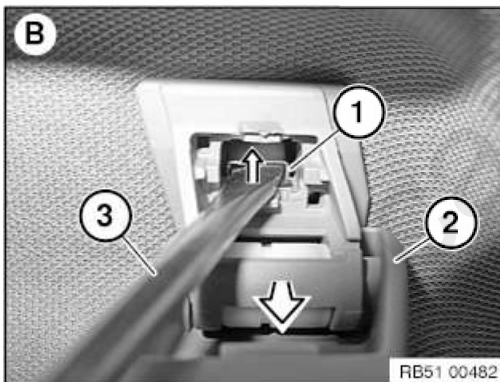
NOTICE

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.

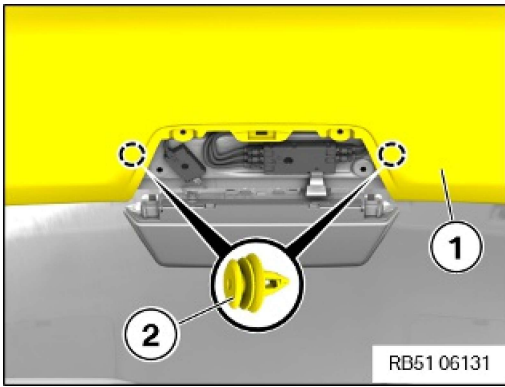


RISK OF DAMAGE

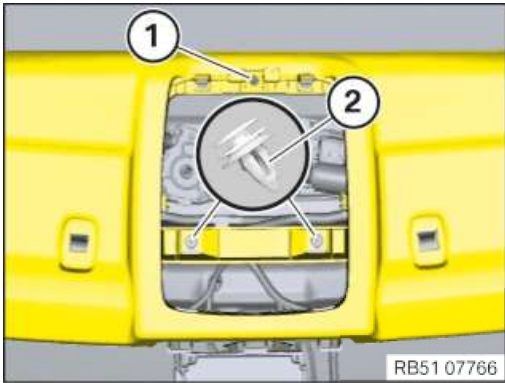
Fold the headlining.

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

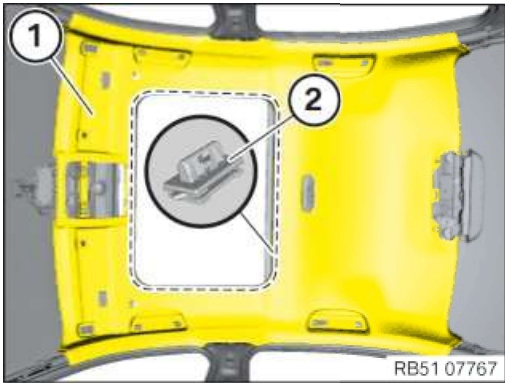
- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.



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



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



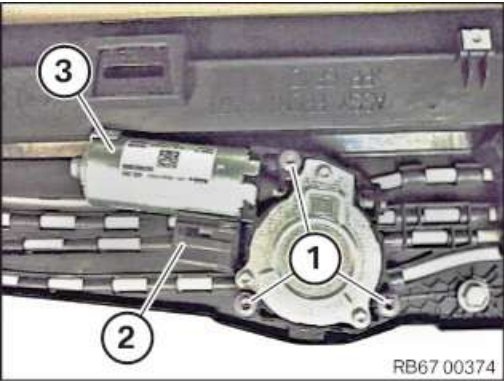
- Carefully unclip headlining (1) from the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.
- Feed out headlining (1) with the help of an auxiliary person on the particular edge protection and place it on the seats.

MAIN WORK

14 – Removing drive for the glass slide/tilt roof panel

Prerequisite

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

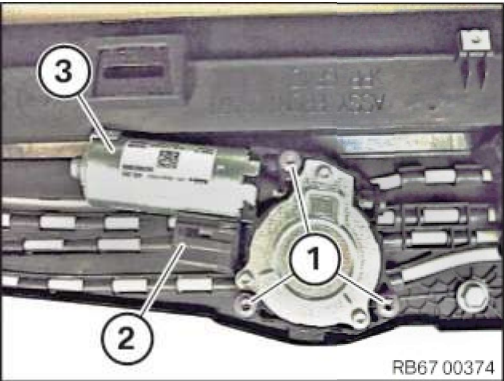


- Loosen screws (1).
- Unlock and disconnect available plug connection (2).
- Feed out drive for glass slide/tilt roof panel (3).

15 – 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

POSTPROCESSES

16 – Install the headlining (with slide/tilt sunroof) (lowered)

Prerequisite

The front seats have been fully adjusted towards the bottom.

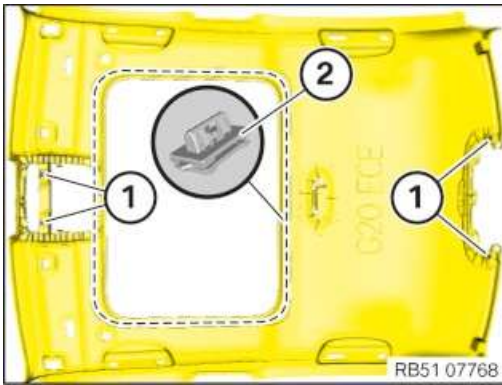
The front seat backrests have been fully adjusted towards the rear.

RISK OF DAMAGE

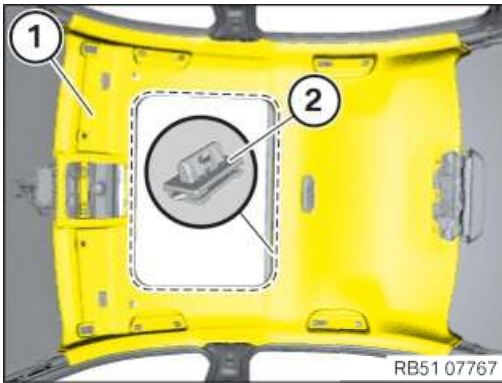
Fold the headlining.

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

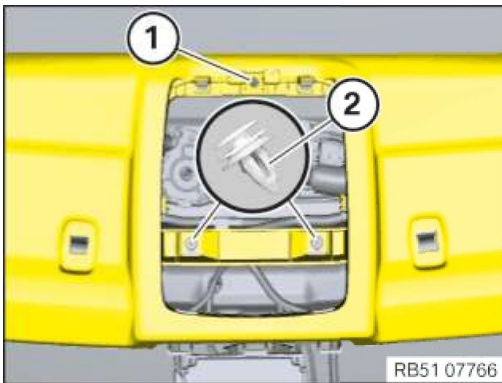
- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.



- 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).



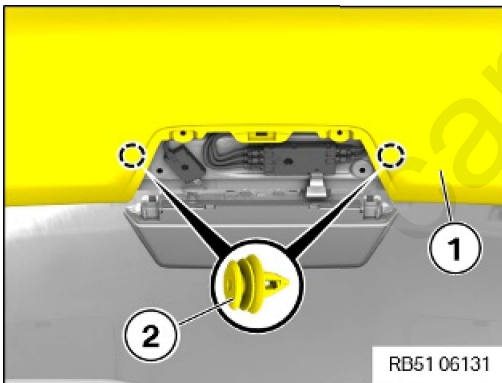
- Feed in the headlining (1) with the help of an auxiliary person on the respective edge protection.
- Clip headlining (1) into the slide/tilt sunroof unit and clamps (2) in the area of the dotted line.



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

Headlining to frame

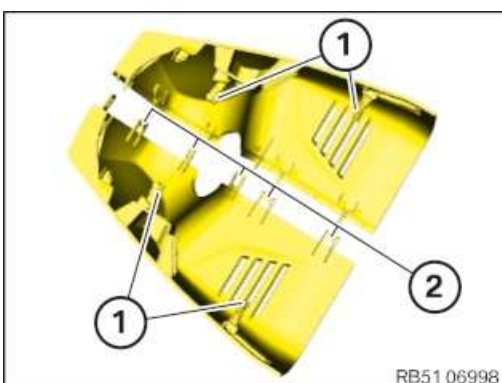
Oval-head screw		Tightening torque	1,5 Nm
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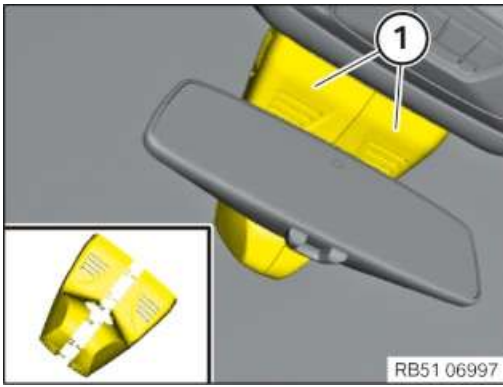
- Clip headlining (1) to the clips (2).

17 – Installing the covers for the interior mirror

• Version A:

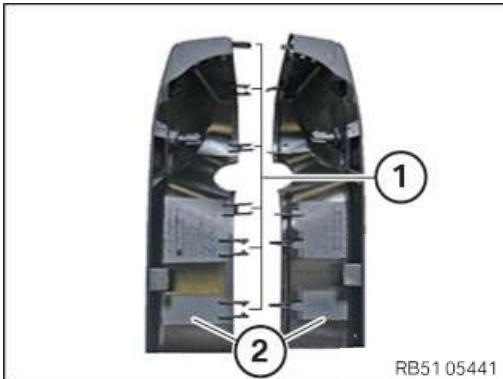


- Check latch mechanisms (1) and (2).
- If the latch mechanisms (1) or (2) are faulty, renew the covers.



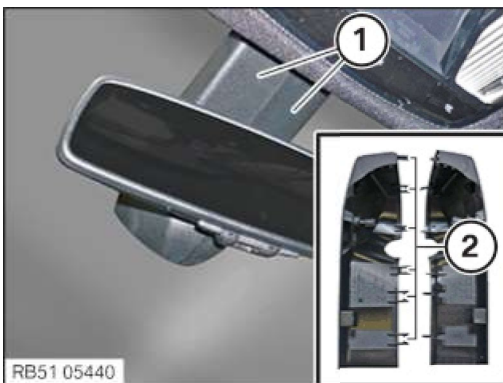
- Feed cover (1) in and lock.

• Version B:



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

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

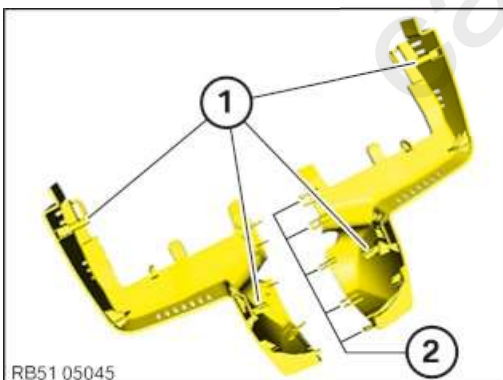


- Position the covers (1) correctly on the mirror and engage with the latch mechanisms (2).

• Version C:

Check

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

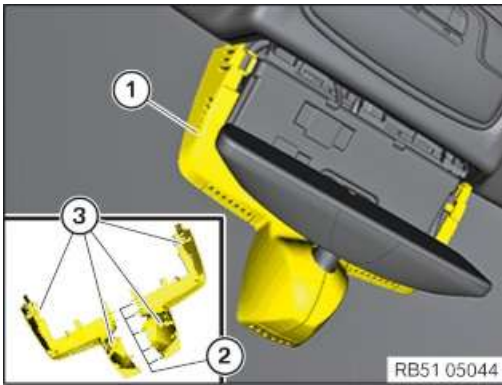


Result

- » The latch mechanism is damaged.

Measure

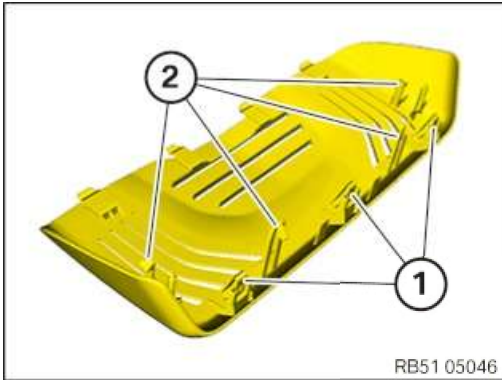
- Renew the cover.



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

Check

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

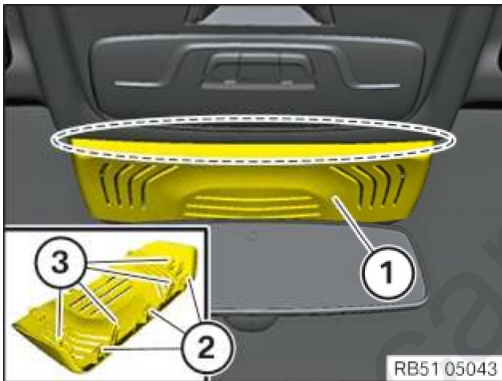


Result

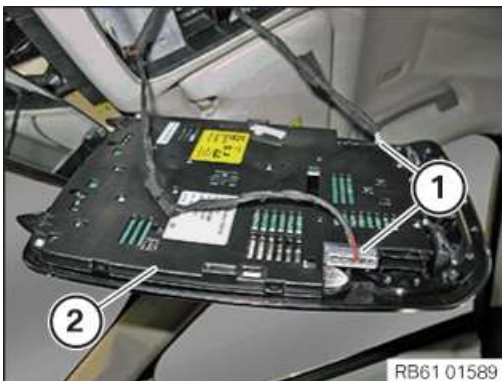
- » The latch mechanism is damaged.

Measure

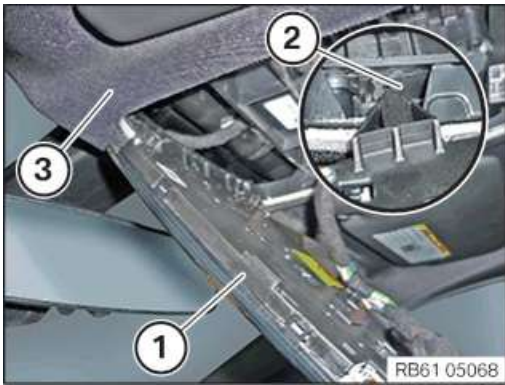
- Renew the cover.
- Guide cover (1) into front guides and engage using retaining lugs (3) and clamps (2).



18 – 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.



- 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



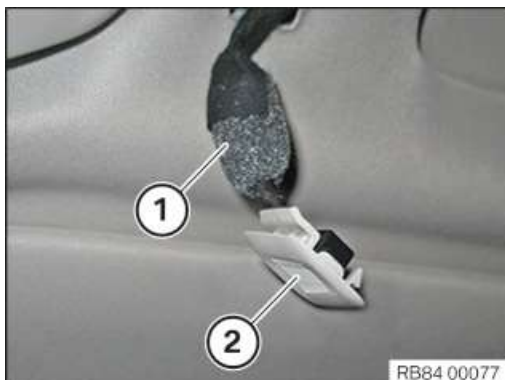
- Clip in the cover (1).



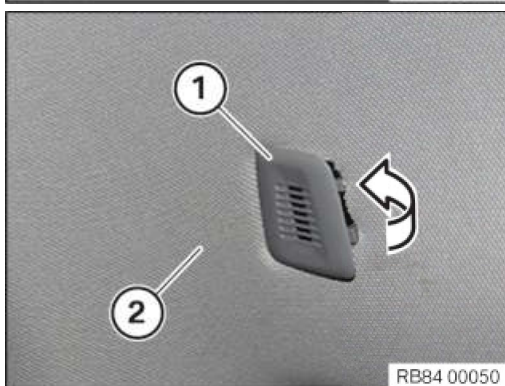
NOTICE

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.

20 – Installing front vanity mirror light

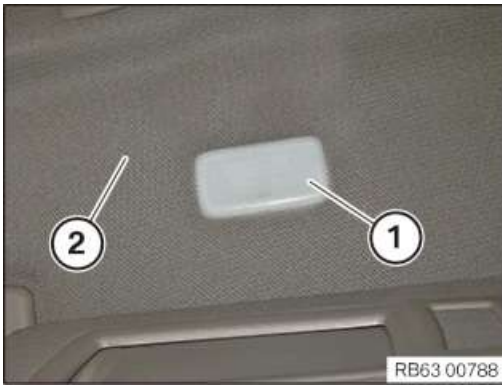


NOTICE

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



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



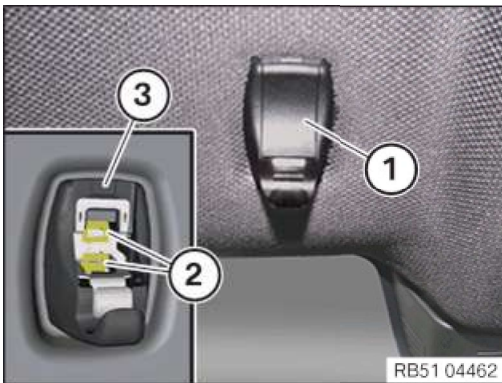
- Position the front vanity mirror light (1) in the headlining (2).

21 – 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).

22 – 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.

23 – 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

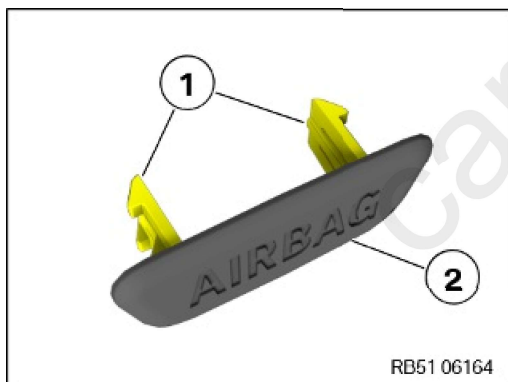


WARNING

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.

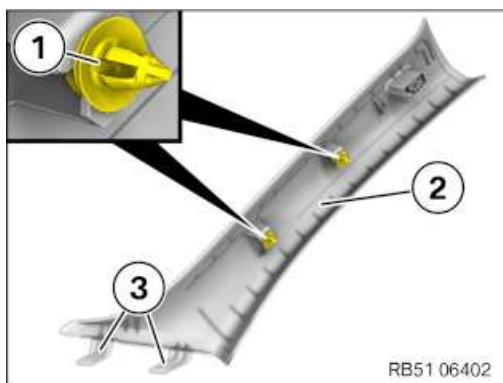
Result

» Retaining lug is damaged.

Measure

- Renew the cover.

Check



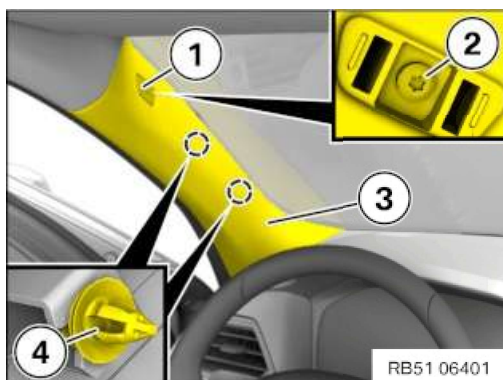
- Check the clips (1) for damage and renew if necessary.
- Check the guides (3) for damage.

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
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- Clip in the cover (1).

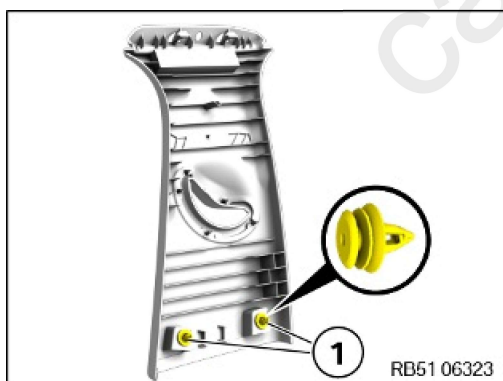
24 – Installing both B-pillar trim panels



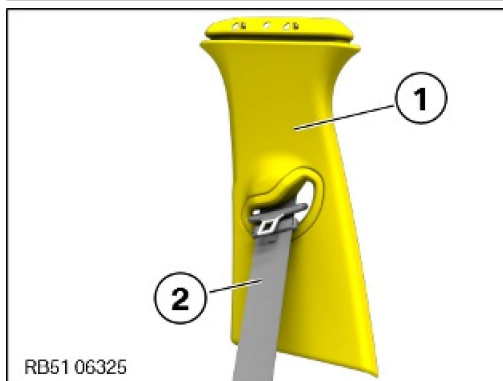
NOTICE

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

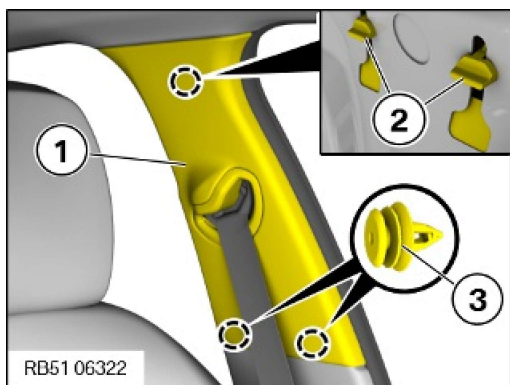
► Install the B-pillar trim panel



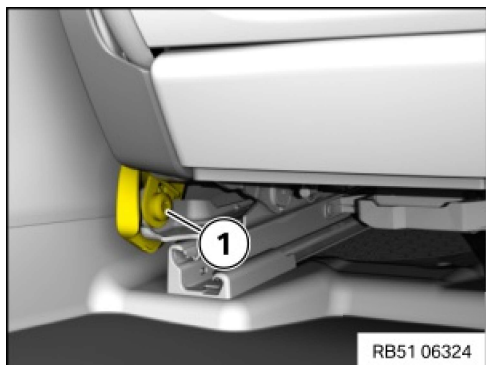
- Check the clips (1) for damage and renew if necessary.



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



- 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 screw M10	Renew screw.	Tightening torque	42 Nm
---------------------	--------------	-------------------	-------

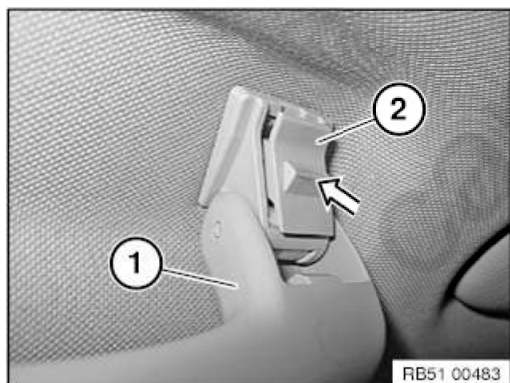
25 – Installing all grab handles



NOTICE

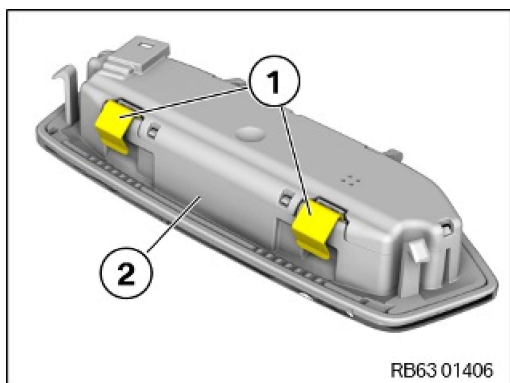
The description is for one component only. The procedure is identical for all further components.

► 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).

26 – Install interior roof light



Check

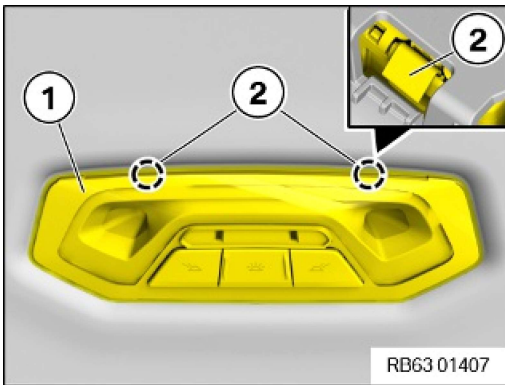
- Check the clamps (1) for damage.

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).



27 – Install both C-pillar trim panels



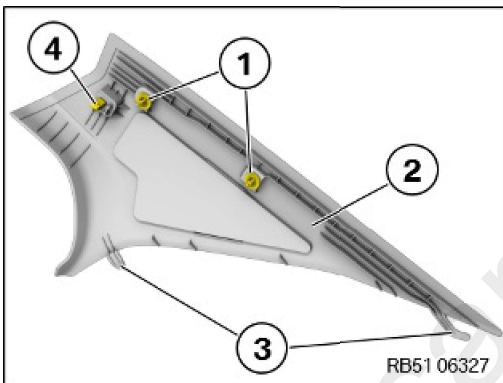
NOTICE

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.

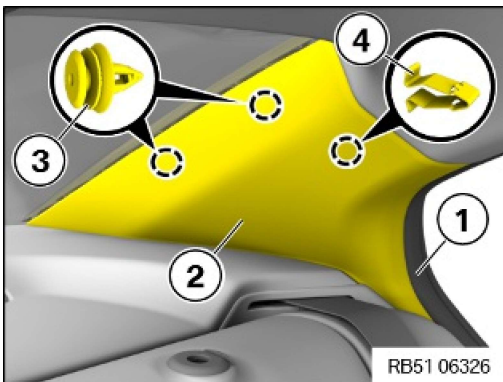


Result

» Guide is damaged.

Measure

- Renew the C-pillar trim panel .



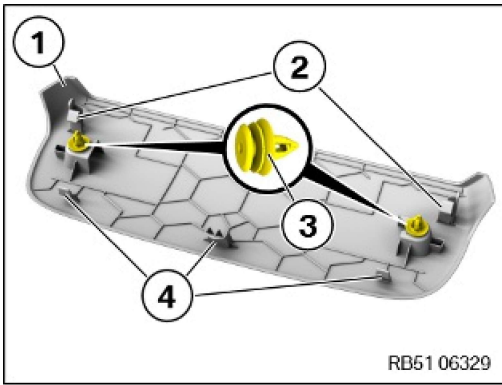
NOTICE

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).

28 – Installing trim for additional brake light

Check



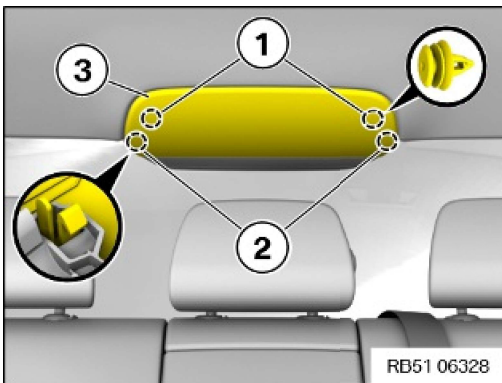
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

Measure

- Renew the trim for the additional brake light.

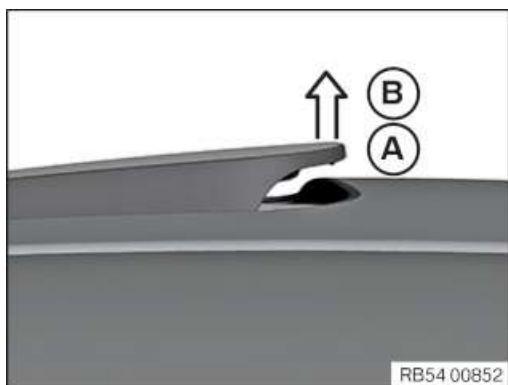


- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

29 – 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).

Additional Information

Overview of Tightening Torques

Drive for panorama sunroof to body

Used in step 15

Screw		Tightening torque	5,5 Nm
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Headlining to frame

Used in step 16

Oval-head screw		Tightening torque	1,5 Nm
-----------------	--	-------------------	--------

Roof function centre

Used in step 18

		Tightening torque	1,2 Nm
--	--	-------------------	--------

A-pillar trim panel to body

Used in step 23

Sheet metal screw 4,8x38		Tightening torque	2,6 Nm
-----------------------------	--	-------------------	--------

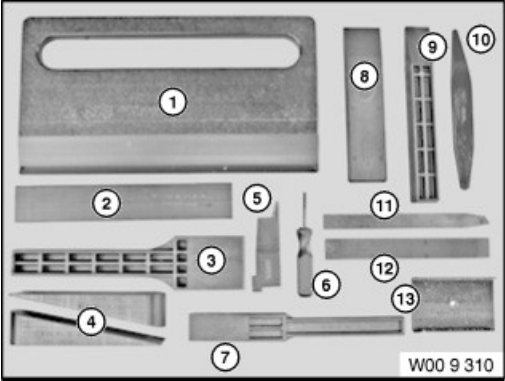
End fitting to seat mechanism

Used in step 24

Flat-head screw M10	Renew screw.	Tightening torque	42 Nm
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Overview of Special Tools

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

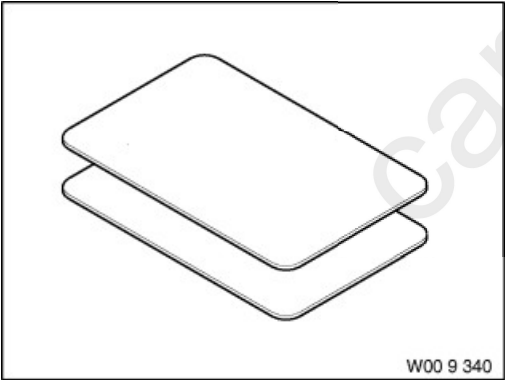


Common

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)

0 493 687 (00 9 340) Removal aid



Common

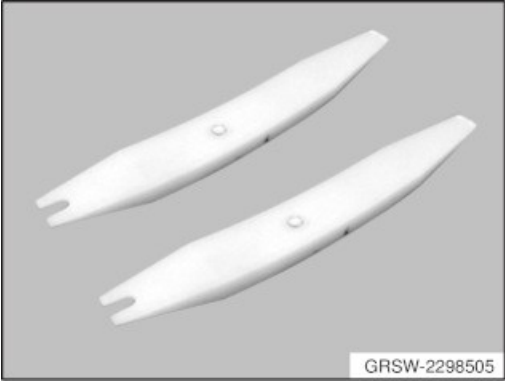
Used in step 6

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	18
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

67 61 581 Replacing the drive for the roller sunblind



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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



RISK OF DAMAGE



Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Read and comply with user information on using the associated special tool 12 7 060.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see: 61 35 Information on electrostatic discharge (ESD) protection.



TECHNICAL INFORMATION

With the optional equipment SA6UA, the camera for gesture control is integrated in the roof control module. Separate exchange of this camera in the event of a fault is not possible.

PRELIMINARY WORK

1 – Removing the roof function centre (FZD)



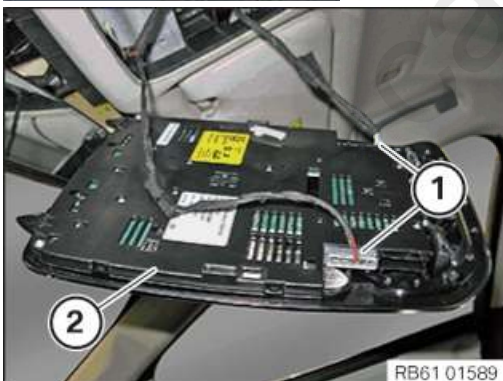
- Unclip the cover (1).



- 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).



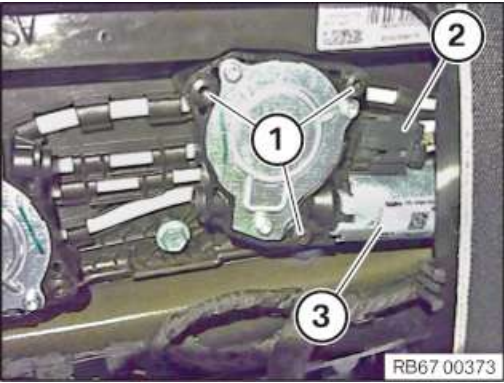
- Unlock and disconnect plug connections (1).
- Unclip the cable for the roof function centre (FZD) (2) from the cable clip.

MAIN WORK

2 – Remove electric motor for roller sunblind

Prerequisite

Sun protection must be located in the open position.

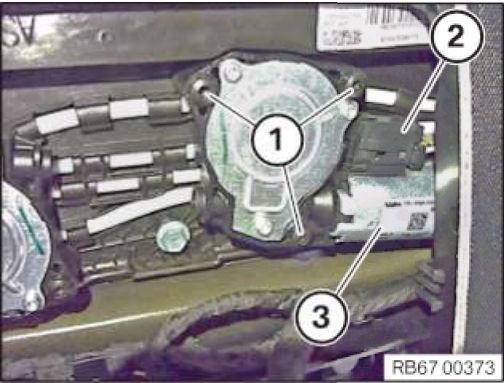


- Loosen screws (1).
- Unlock plug connection (2) and disconnect.
- Feed out drive motor for the sun protection (3).

3 – Install the roller sunblind drive

Prerequisite

The roller sunblind must be in the opened position.



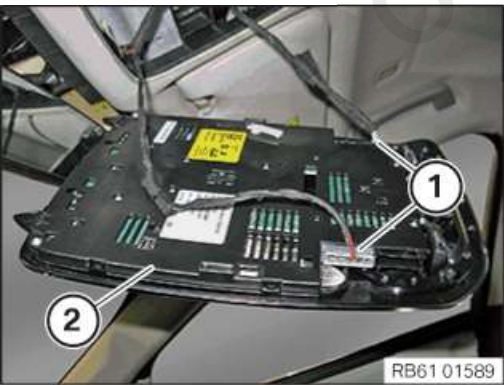
- Guide in the drive of the roller sunblind (3) and position correctly.
- Connect connectors (2) and lock.
- Tighten the screws (1).

Drive for panorama sunroof to body

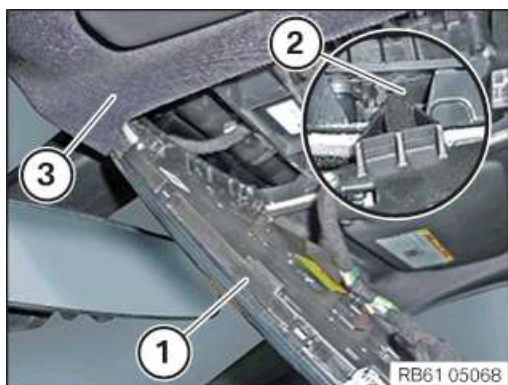
Screw	Tightening torque
	5,5 Nm

POSTPROCESSES

4 – 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.

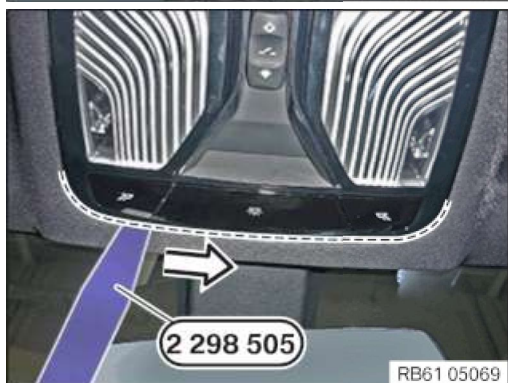


- Thread the roof function centre (FZD) (1) as shown at a steep angle into the two guides (2) on the headlining (3).

Make sure the headlining is not deformed during this operation.



- 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

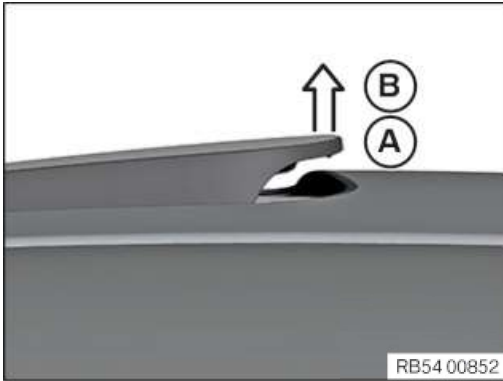


- Clip in the cover (1).

5 – 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).

Additional Information

Overview of Tightening Torques

Drive for panorama sunroof to body

Used in step 3

Screw	Tightening torque
	5,5 Nm

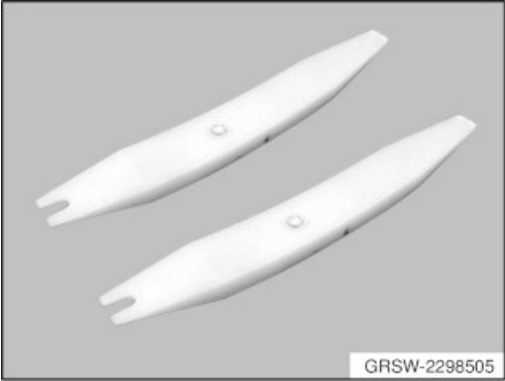
Roof function centre

Used in step 4

Tightening torque
1,2 Nm

Overview of Special Tools

2 298 505 Wedge



Common		Used in step	4
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

Repair instructions	Used in step
61 35 ... Notes on ESD protection (Electro Static Discharge)	



Note:

Initialisation is performed on the power window switch of the relevant door.

Initialisation comprises:

- Normalisation
- Learning characteristic curve

With normalisation, the mechanical end stops of the power windows are recorded and stored.

The characteristic curve is learnt immediately after normalisation.

When the characteristic curve is learnt, the mechanical closing forces of the power windows are recorded and stored for correct operation of the anti-trapping mechanism.

Initialisation, i.e. normalisation and learning of characteristic curve, is performed in a continuous operation.



Note:

An **initialisation** must be performed:

- In the event of malfunctions, e.g. no one-touch function, no opening or no convenience function possible.
- After the power windows drive or door module has been replaced.
- After work is carried out on the power windows mechanism.



Warning!

There is no anti-trap mechanism during initialisation.



Necessary preliminary tasks:

- Vehicle stationary
- Sufficient battery voltage available / connect charger if necessary
- Terminal "15" switched on
- All doors closed



Operating procedure for initialisation (manual):

Deleting the initialisation:

- Move side window into lower end position.
- Press and hold switch in "Open one-touch function" position (second switch position) for between 15 and 25 seconds.

Note:

Deletion of initialisation was successful if toll function and anti-trap mechanism have been rendered inoperative.

Performing initialisation:

- Move side window to upper end position
- Pull and hold switch in "Close one-touch function" (2nd switch position) during the entire process.

Note:

Re-initialisation was successful if toll function and anti-trap mechanism function flawlessly.



Alternatively, initialisation of the power window regulation can also be carried out via the Service function in ISTA.

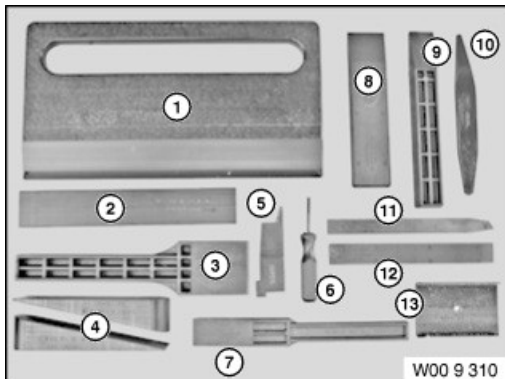
Selection via:

- Body
 - Locking and security functions
 - Power window regulator
 - Initialise power window regulators

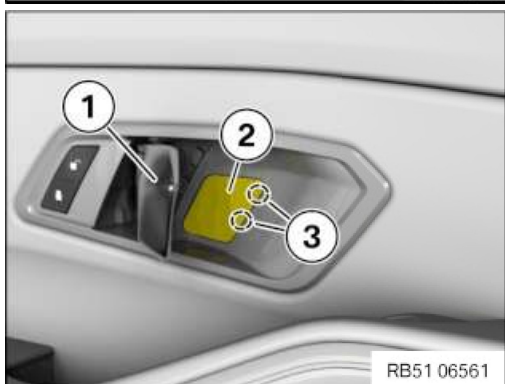
67 62 000 Removing and installing or replacing flat motor for front left or right power window regulator

PRELIMINARY WORK

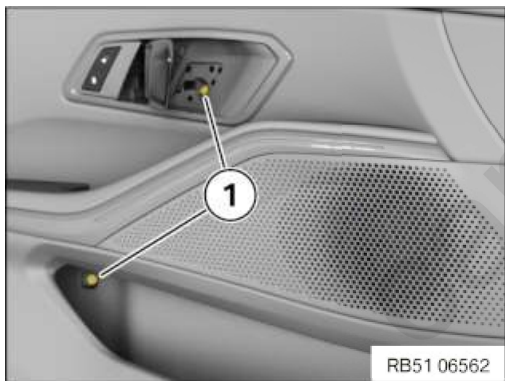
1 – Remove door trim panel



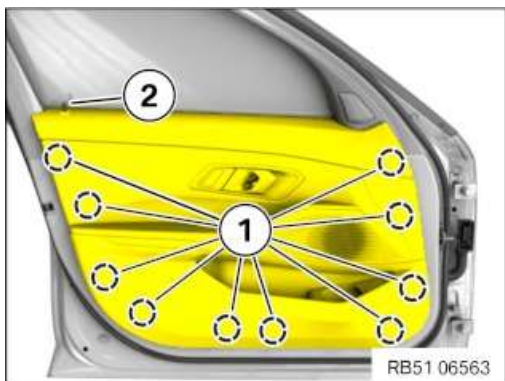
- Have the set of special tools [0 493 752 \(00 9 329\)](#) ready.



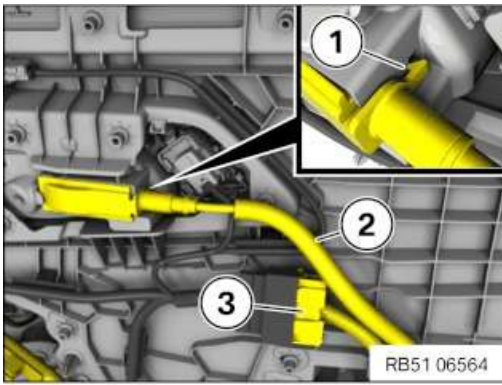
- Pull door opener (1).
- Release latch mechanisms (3) of the trim (2) with suitable special tool.
- Remove trim (2).



- Loosen screws (1).



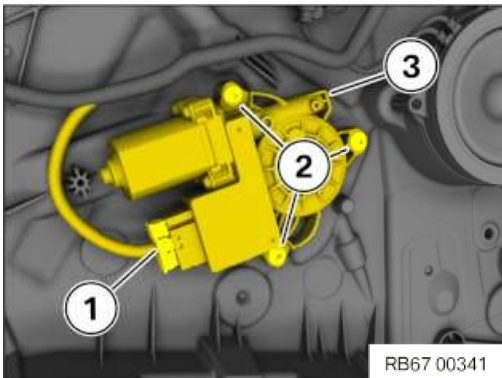
- Unclip the door trim panel at the clips (1) using a suitable special tool.
- Guide the door trim panel upwards out of the front inner weather strip and the operating rod (2).



- Release latch mechanism (1) and feed out the Bowden cable for the inner door opener (2).
In doing so, the Bowden cable for the inner door opener (2) is guided out of the door opener.
- Unlock plug connection (3), disconnect it and remove the door trim panel.

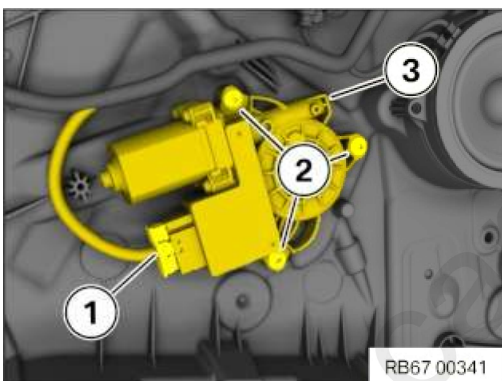
MAIN WORK

2 – Removing the flat motor for the front power windows



- Unlock plug connection (1) and disconnect.
- Loosen screws (2).
- Removing the flat motor for the front power window (3).

3 – Install the flat motor for the front power windows



- Install the flat motor for the front power window (3).
- Tighten the screws (2).

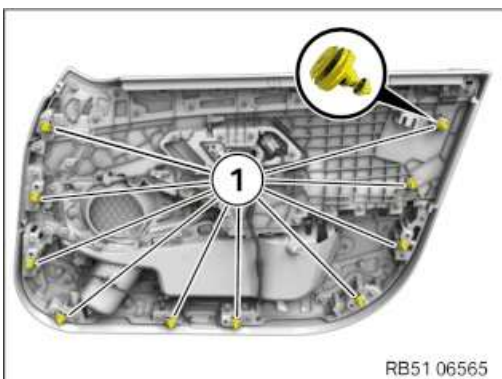
Flat motor on door module carrier

Oval-head screw for thermoplastic	Tightening torque	3,5 Nm
-----------------------------------	-------------------	--------

- Connect connectors (1) and lock.

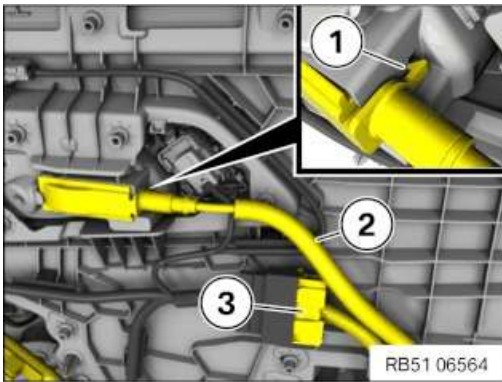
POSTPROCESSES

4 – Install door trim panel

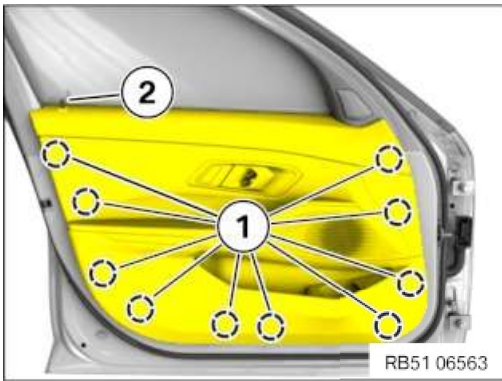


- Renew the clips (1).

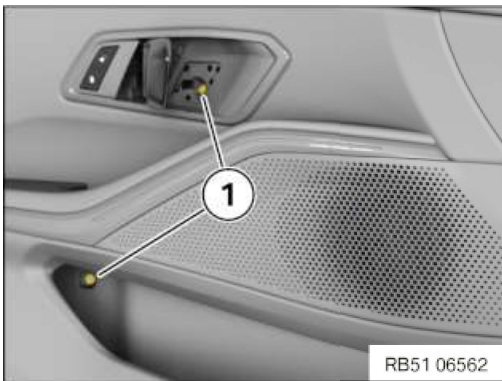
Parts: Clips



- Push the inner door opener in closed direction.
- Feed in Bowden cable for the inner door opener (2) and clip in the latch mechanism (1).
- Connect connectors (3) and lock.



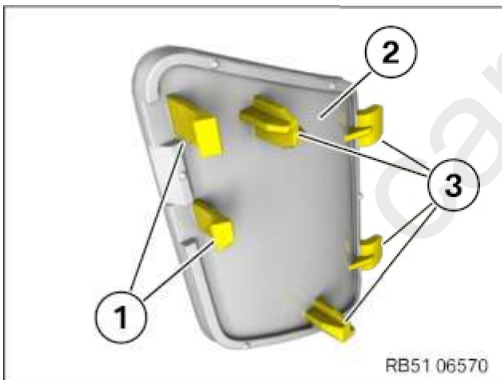
- Feed door trim panel from the top via the operating rod (2) into the inner front weather strip.
- Clip in the door trim panel with the clips (1).



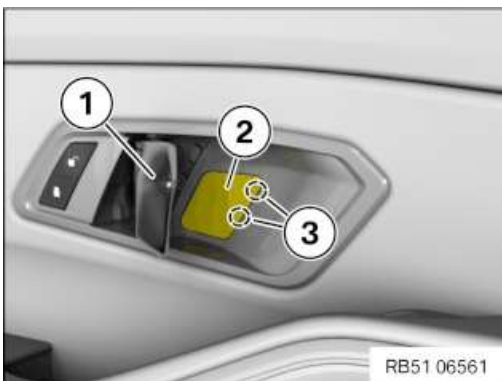
- Tighten the screws (1).

Door trim panel to door

Screw TS5x20	Tightening torque	2,6 Nm
--------------	-------------------	--------



- Check latch mechanisms (1) for damage, if necessary renew the trim (2).
- Check guides (3) for damage, if necessary renew the trim (2).



- Pull door opener (1).
- Position trim (2) and clip in using the latch mechanisms (3).

Additional Information

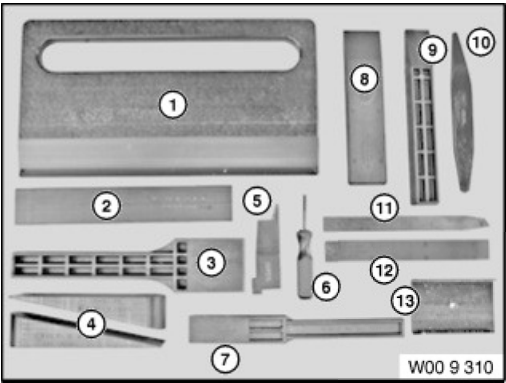
Overview of Tightening Torques

Overview of Tightening Torques

Flat motor on door module carrier		Used in step 3	
Oval-head screw for thermoplastic		Tightening torque	3,5 Nm
Door trim panel to door		Used in step 4	
Screw TS5x20		Tightening torque	2,6 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common		Used in step 1
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)	

67 62 020 Removing and installing/replacing flat motor for rear left or right power window regulator



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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



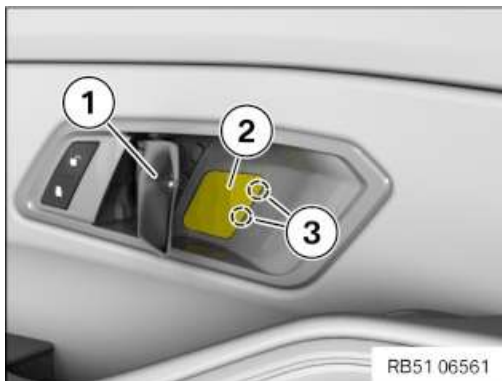
NOTICE

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

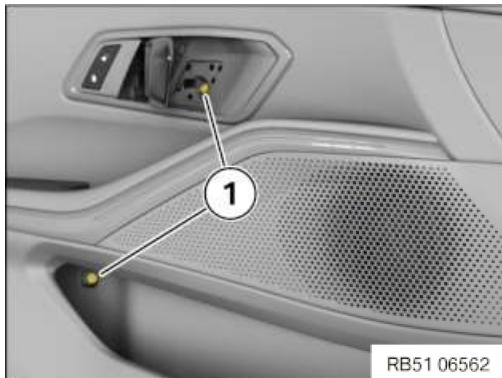
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PRELIMINARY WORK

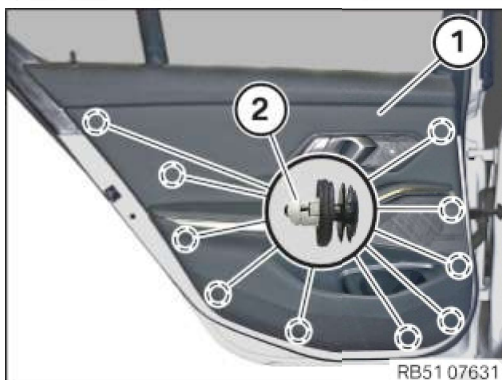
1 – Remove rear door trim



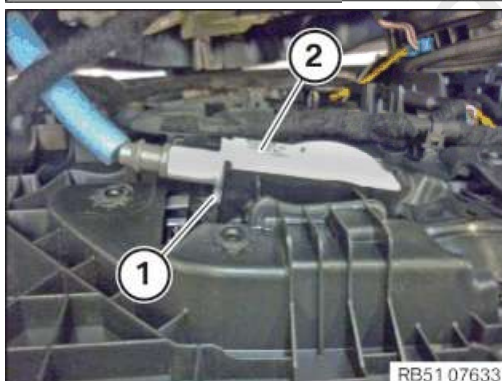
- Pull door opener (1).
- Release latch mechanisms (3) of the trim (2) with suitable tool.
- Remove trim (2).



- Loosen screws (1).



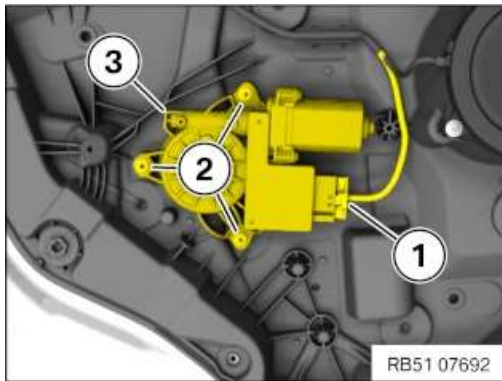
- Unclip the door trim panel (1) with the special tool [0 496 569 \(00 9 325\)](#) at the clips (2).
- Guide the door trim panel (1) upwards out of the weather strip.



- Release latch mechanism (1) and feed out the Bowden cable for the inner door opener (2).
In doing so, the Bowden cable for the inner door opener (2) is guided out of the door opener.
- Unlock available plug connections and disconnect.
- Remove door trim panel.

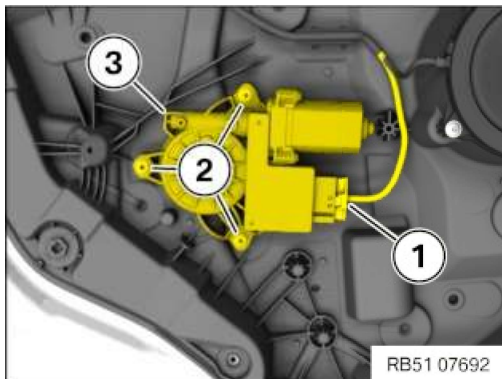
MAIN WORK

2 – Removing the flat motor for the rear power window



- Unlock plug connection (1) and disconnect.
- Release the screws (2) and remove the flat motor for the rear power window. (3)

3 – Installing the flat motor for the rear power window



- Correctly position the flat motor for the rear power window (3) and tighten the screws (2).

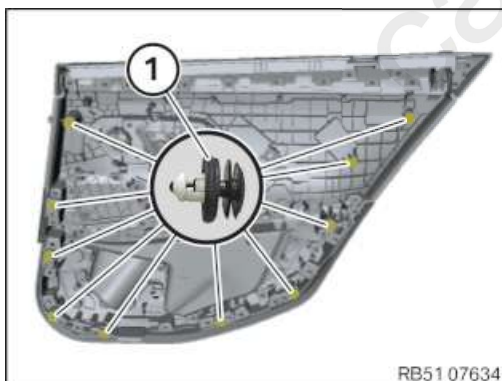
Flat motor on door module carrier

Oval-head screw for thermoplastic		Tightening torque	3,5 Nm
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- Connect connectors (1) and lock.

POSTPROCESSES

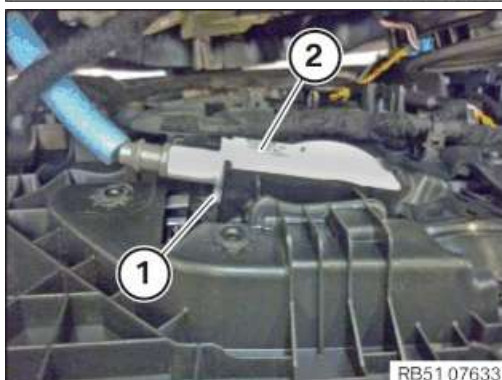
4 – Installing rear door trim panel



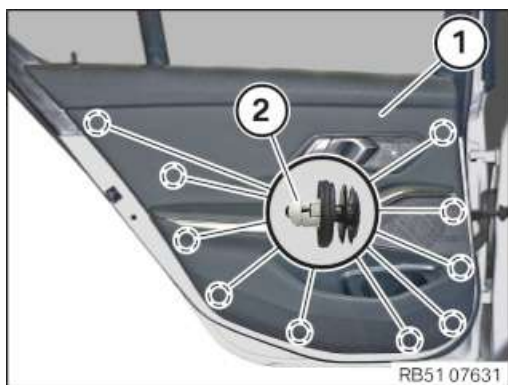
- Renew the clips (1).

Parts: Clips

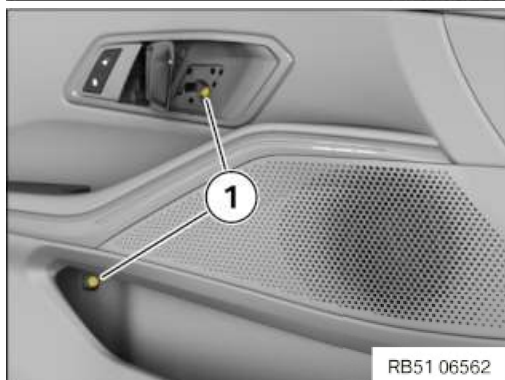
The clips (1) must not be engaged. The disengaged state is shown.



- Push the inner door opener in closed direction.
- Feed in Bowden cable for the inner door handle (2) and clip in to the latch mechanism (1).
- Connect existing connectors and lock.



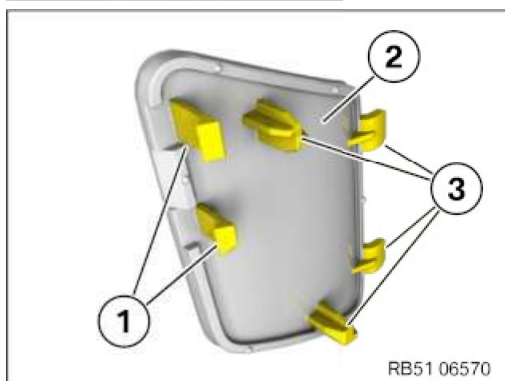
- Feed door trim panel from the top into the inner window recess finisher strip.
- Carefully clip in the door trim panel onto the clips (1).



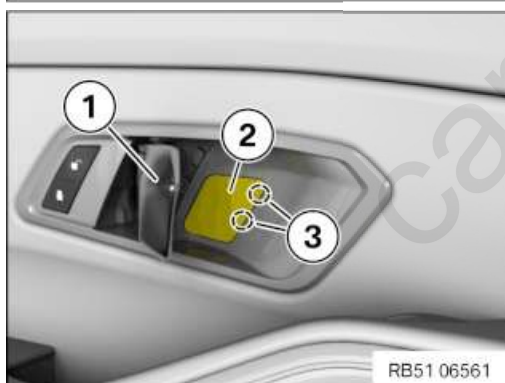
- Tighten the screws (1).

Door trim panel to door

Screw TS5x20	Tightening torque	2,6 Nm
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- Check latch mechanisms (1) for damage, if necessary renew the trim (2).
- Check guides (3) for damage, if necessary renew the trim (2).



- Pull door opener (1).
- Position trim (2) and clip in using the latch mechanisms (3).

Additional Information

Overview of Tightening Torques

Flat motor on door module carrier

Used in step 3

Oval-head screw for thermoplastic	Tightening torque	3,5 Nm
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Door trim panel to door

Used in step 4

Screw TS5x20	Tightening torque	2,6 Nm
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Overview of Special Tools

0 496 569 (00 9 325) Wedge



Common		Used in step 1
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)	

61 00 ... Parking-residing-driving

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

Functional description of the parking-residing-driving terminal control

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