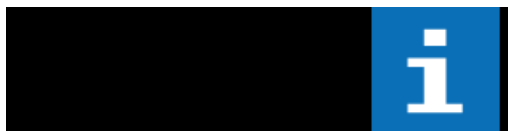
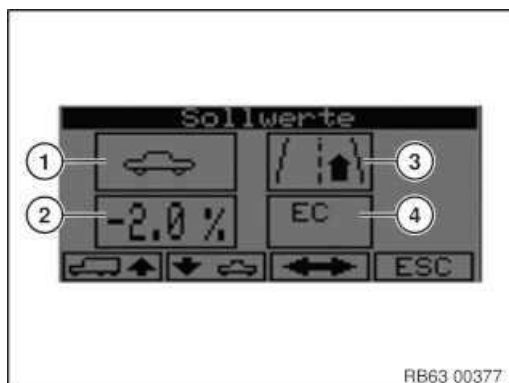


63 10 ... Adjust the fog lights (with electronic headlight adjustment device MAHA Lite 3)



[Comply with test prerequisites for headlight adjustment!](#)

Refer to the operating instructions for the headlight adjustment device!

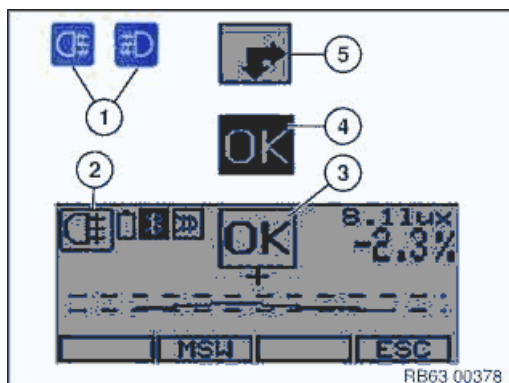


Switch on the headlight adjustment device by pressing any button. Press **F2** button. The shown display screen appears.

Perform the following settings:

1. The passenger car must be selected.
2. Enter the setting dimension for the headlight with buttons **F1/F2**:
-2,0 %
3. The right / left-hand traffic must be selected according to the country.
4. Select the fog light type with the **F3** button:
 - **EC**: for halogen fog lights
 - **EC LED**: for LED fog lights

The adjusted values are adopted for future measurements.



Press briefly the button for the applicable side of the vehicle (1) until symbol (2) appears.

The following symbols appear in the display:

- O. K. (4): Adjustment is optimal.
- O. K. (3): Adjustment is within the legal tolerance range. [Adjust fog light](#) until O. K. (4) is displayed.
- Arrows (5): Adjustment is incorrect. [Adjust fog light](#) using arrows (5) until O. K. (4) is displayed.

63 10 ... Adjust the high-beam headlight (with electronic headlight adjustment device MAHA Lite 3)



Important!

The high-beam headlight can only be adjusted in the following cases:

- The low-beam headlight and high-beam headlight are located in separate housings and each has a separate range of adjustment (e.g. E52, BMW i 01).
- Low-beam headlight and high-beam headlight are located in one housing with one separate range of adjustment each.
- With separately mounted additional headlights (e.g. MINI).

On vehicles from 1995, separate adjustment of the high-beam headlight is not possible.

(Exception E52, BMW i 01, additional headlight MINI)

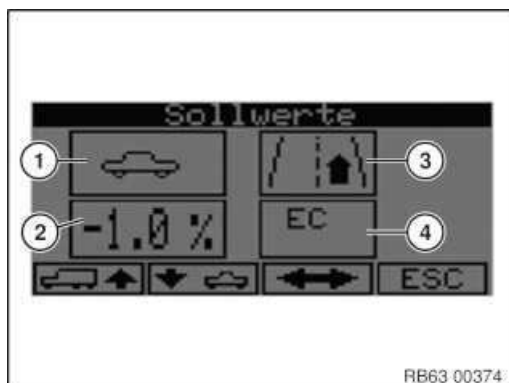


Comply with test prerequisites for headlight adjustment.

Refer to the operating instructions for the headlight adjustment device!

Necessary preliminary work:

[Adjust the low-beam headlight](#)

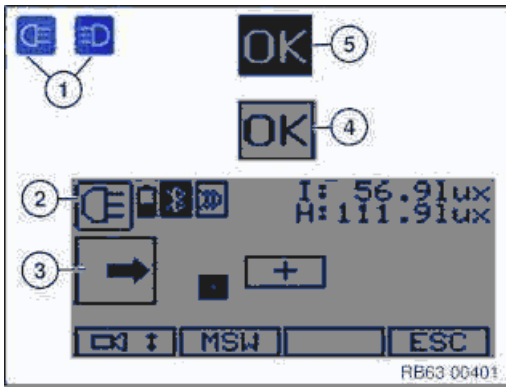


Switch on the headlight adjustment device by pressing any button. Press **F2** button. The shown display screen appears.

Perform the following settings:

1. The passenger car must be selected.
2. Enter the setting dimension of the headlight via the buttons **F1/F2**: - **1.0 % to - 1.1 %**
(see "light/dark boundary of the headlight in the headlight adjustment device" in the document [observe the test prerequisites for the headlight adjustment](#)).
3. The right / left-hand traffic must be selected according to the country.
4. Select the headlight type via the button **F3**:
 - **EC**: for halogen and xenon headlights
 - **EC LED**: for LED headlight

The adjusted values are adopted for future measurements.

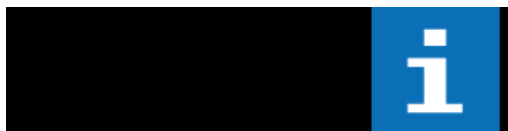


Press briefly the button for the applicable side of the vehicle (1) until symbol (2) appears.

The following symbols appear in the display:

- O. K. (5): Adjustment is optimal.
- O. K. (4): Adjustment is within the legal tolerance range. [Adjust high-beam headlight](#) until O. K. (5) is displayed.
- Arrows (3): Adjustment is incorrect. [Adjust high-beam headlight](#) using arrows (3) until O. K. (5) is displayed.

63 10 ... Adjust the low-beam headlight (with electronic headlight adjustment device MAHA Lite 3)



[Comply with test prerequisites for headlight adjustment!](#)

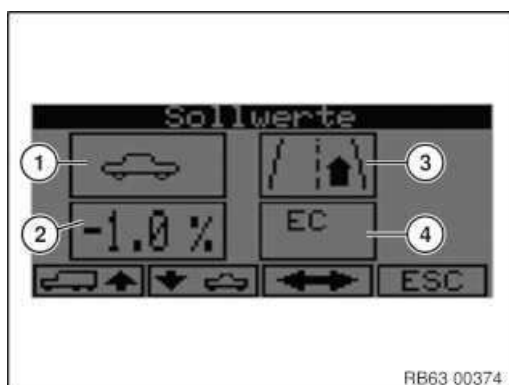
Refer to the operating instructions for the headlight adjustment device!



Note:

On vehicles with **anti-glare high-beam headlight** it is sufficient to adjust the low-beam headlight.

Only in the event of a customer complaint regarding dazzle/glare [Adjust anti-glare high-beam headlight separately.](#)

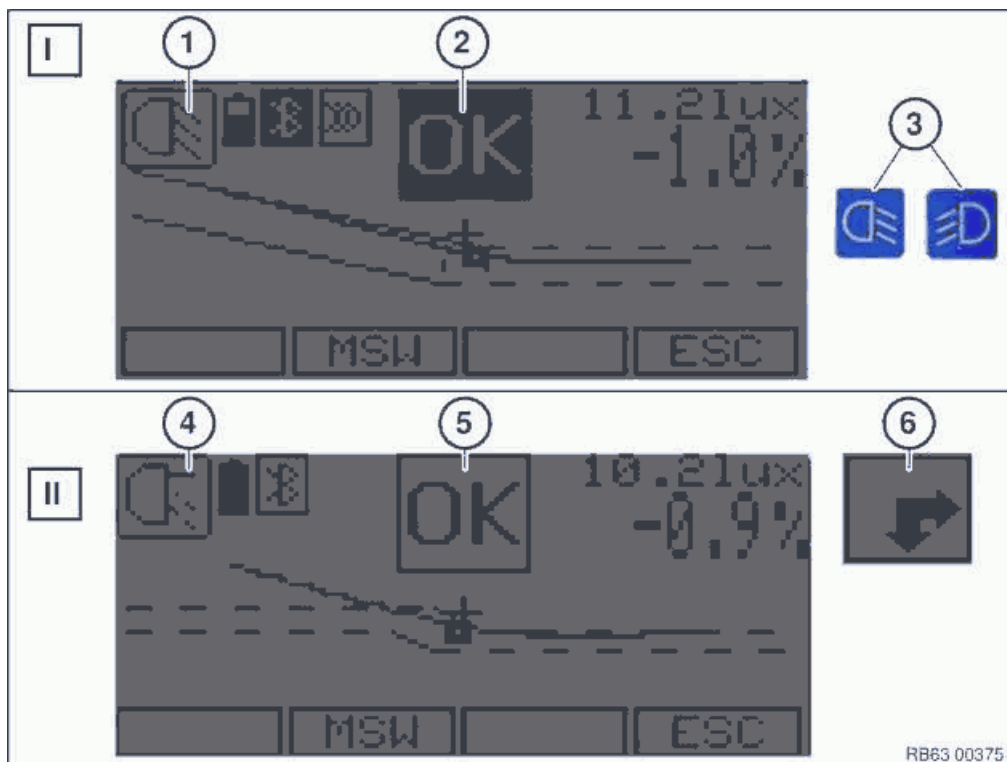


Switch on the headlight adjustment device by pressing any button. Press **F2** button. The shown display screen appears.

Perform the following settings:

1. Passenger car must be selected
2. Enter the setting dimension of the headlight via the buttons **F1/F2**:
- 1,0 % to - 1,1 %
(see "light/dark boundary of the headlight in the headlight adjustment device" in the document [observe the test prerequisites for the headlight adjustment](#)).
3. The right / left-hand traffic must be selected according to the country.
4. Select the headlight type via the button **F3**:
 - **EC**: for halogen and xenon headlights
 - **EC LED**: for LED headlight

The adjusted values are adopted for future measurements.



Important!

Before measuring/adjusting the low-beam headlight, it is absolutely necessary to determine the [transparent screen of the headlight!](#)

An incorrect selection leads to an incorrect setting!

Transparent screen **Type I:**

Press briefly the button for the applicable side of the vehicle (3) until symbol (1) appears.

Transparent screen **Type II:**

Press longer the button for the applicable side of the vehicle (3) until symbol (4) appears.

The following symbols appear in the display:

- O. K. (2): Adjustment is optimal.
- O. K. (5): Adjustment is within the legal tolerance range. [Adjust headlight](#) until O. K. (2) is displayed.
- Arrows (6): Adjustment is incorrect. [Adjust headlight](#) using arrows (6) until O. K. (2) is displayed.

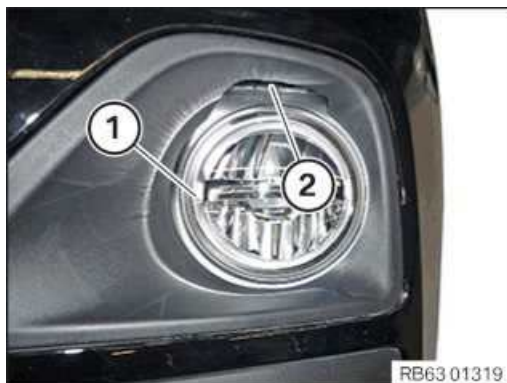
63 10 014 Adjusting fog lights

1 – Adjusting fog lights



NOTICE

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



- Adjust the fog light (1) on the adjusting screw (2).

Additional Information

Links

Repair instructions

Used in step

[63 10 ... Test requirements for headlights vertical aim adjustment](#)

63 10 004 Adjusting headlights

1 – Adjust both headlights



NOTICE

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

► Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights

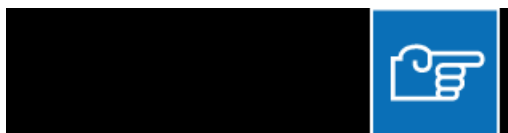


- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Links

General repair instructions	Used in step
63 12 ... US version: Setting the horizontal blocking when headlamp is set	1
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	1
Repair instructions	Used in step
63 10 ... Test requirements for headlights vertical aim adjustment	1



The following equipment-specific and model-specific headlight types are used in BMW Group vehicles:

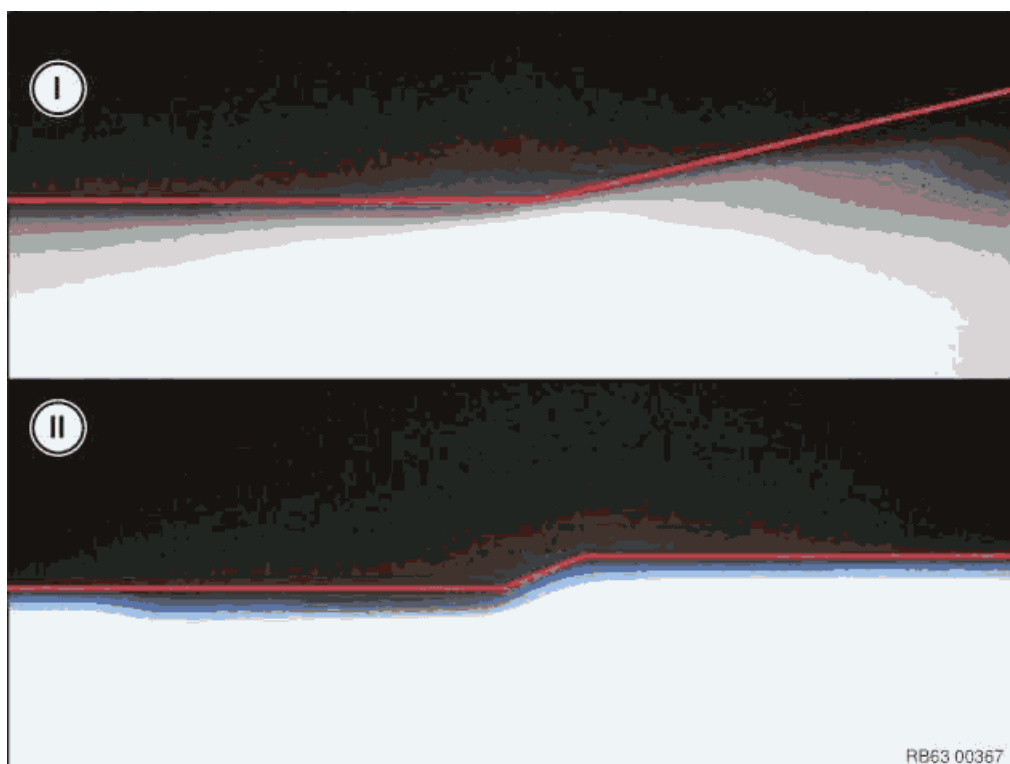
- Halogen headlights (low-beam and high-beam headlights)
- Xenon headlights (low-beam and high-beam headlights)
- LED headlights (low-beam and high-beam headlights)
- Laser headlights (high-beam headlight booster, low-beam and high-beam headlights are lit by LEDs)

Every headlight type has its specific transparent screen for the low-beam headlight. In spite of these differences, all headlight types meet statutory specifications.

The images below show transparent screens from the left headlight in the low-beam headlight switch position projected onto a wall (no automatic setting!).

The transparent screens from the right headlight are the same.

The transparent screens correspond with those in an accumulator box of a headlight adjusting device.



Important!

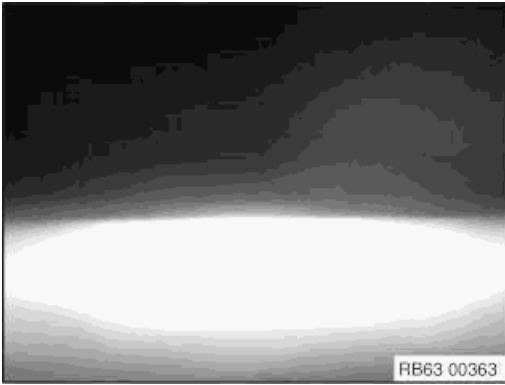
For headlight adjustment with electronic headlight adjusting devices, it is essential to determine the light pattern type!

Type I: Light pattern shows a continuous increase in the light/dark boundary.

Type II: Light pattern screen shows a short increase in the light/dark boundary.



1. Halogen headlight
Type I



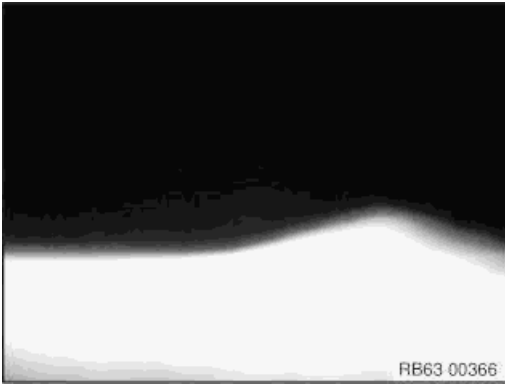
2. Halogen headlight **US version R60 only**



3. Xenon headlights
Type II



4. LED headlight e.g. F01, F02, F03
Type II



5. LED headlight e.g. F06, F12, F13, E71

Type I

63 10 ... Notes on headlight adjustment (overview of adjustment options of the lighting functions)

The following light-related components are used in BMW Group vehicles on an equipment-specific and model-specific basis:

Headlight types:

- Halogen headlights (low-beam and high-beam headlights)
- Xenon headlights (low-beam and high-beam headlights)
- LED headlights (low-beam and high-beam headlights)
- Laser headlights (high-beam booster)

Headlight:

- Headlight (low beam and high beam; cornering light, daytime driving lights, adaptive headlight, laser high-beam booster, dynamic marker light)
- High-beam headlight*
- Fog light (fog light, cornering light)
- Headlight dynamic marker light (dynamic marker light, no fog light)

Light functions:

Lighting function	Setting possible	Setting tool
Low-beam headlights	Yes	- Non-electronic headlight adjusting device - Electronic headlight adjusting device
High-beam headlight	No, Adjusted with the low-beam headlight *	
Automatic high beam (main-beam assistant)	No, Adjusted with the low-beam headlight *	
Non-dazzle high beam headlight	Yes, Adjusted with the low-beam headlight	- Non-electronic headlight adjusting device - Electronic headlight adjusting device
	Yes (with test module)	Adjustment aid for headlight
Additional laser headlight	No, Adjusted with the low-beam headlight	
Adaptive Headlight	No, Adjusted with the low-beam headlight	
Fog lights	Yes	- Non-electronic headlight adjusting device - Electronic headlight adjusting device
Dynamic marker light (to F-series)	Yes (with the test module)	- Non-electronic headlight adjusting device - Electronic headlight adjusting device Adjustment aid for headlight

Dynamic marker light (from G-series)	No, Adjusted with the low-beam headlight	
Cornering light	No	
Daytime driving lights	No	

*A setting is only possible for models with a separate housing for the high beam (E52, I01, MINI additional headlight).

Important!

All lighting functions specified above can be adjusted **both with a non-electronic as well as with an electronic headlight adjusting device.**



Attention!

Do not perform headlight adjustment immediately after lowering the vehicle on the vehicle hoist. In this case, move the vehicle for approx. 15 m on its own wheels before headlight adjustment.



Attention!

Observe the operating instructions for the headlight adjusting device!

The headlight adjusting bay must comply with the specifications as set out in StVZO (German road traffic licensing regulations) § 29 Annex 8d (or ISO 10604)!

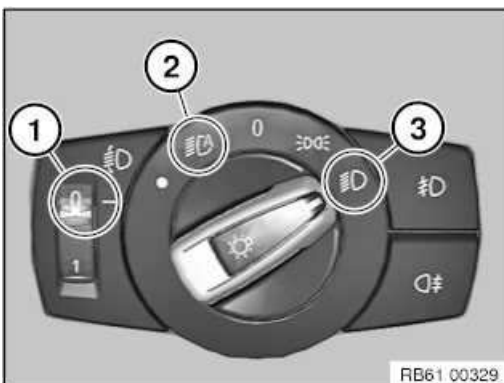
These specifications are described in "Planning principles for layout of BMW service workshops".

(Can be found in the ASAP portal, Chapter 3.2.6.1 Headlight adjusting bay)

- Park vehicle on flat and even surface.
- Replace faulty glass and mirrors and blackened light bulbs.
- Check correct adjustment of headlights in relation to engine compartment lid (gap dimensions).
- Check tyre pressure and correct if necessary.

Only halogen headlight, fog light and headlight for dynamic marker light (dynamic spotlight):

- Apply load equivalent to one person on driver's seat (approx. 75 kg).
- Vehicle with full fuel tank or appropriate additional weight in luggage compartment.



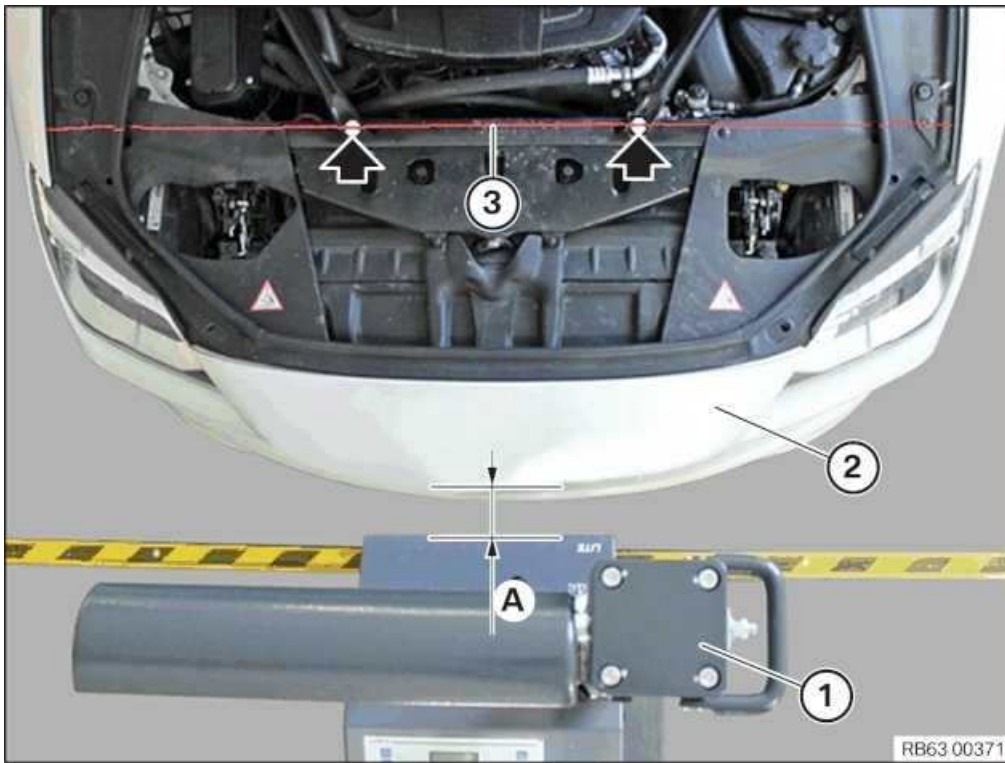
- Switch the ignition on.
- Manual headlight beam throw adjustment: Move handwheel to neutral position (1).
- **Light switch must be in "low beam/driving light" position (3).**
- Do not carry out the headlight adjustment in the "automatic driving lights control" light switch position (2).
- Version with Xenon or LED (automatic headlight beam throw adjustment): Wait 80 s after switching on lights. During this time, do not move the vehicle and avoid vibrations.



Attention!

Do not move the vehicle and steering wheel during the measuring and adjustment procedures!

Wheels must be in the straight-ahead position!



Attention!

A correct measurement/adjustment requires exact positioning of the headlight adjusting device (1)!
The headlight adjusting device (1) must stand vertically to the vehicle longitudinal axis!
This applies to all headlights!

Position the headlight adjusting device (1) centrally in front of the vehicle (2) at distance (A) = **10 cm**.

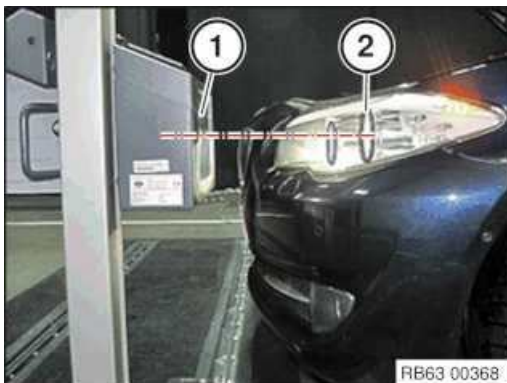
Align the headlight adjusting device (1) by laser beam (3). Laser beam (3) must hit two suitable points, e.g. marked by arrows.



Attention!

Points must be vehicle proof!
Points must be separated as wide as possible!
Trim panels are not suitable!

If the headlight adjusting device (1) does not have a laser beam (3), complete the alignment analogous with the line in the mirror.

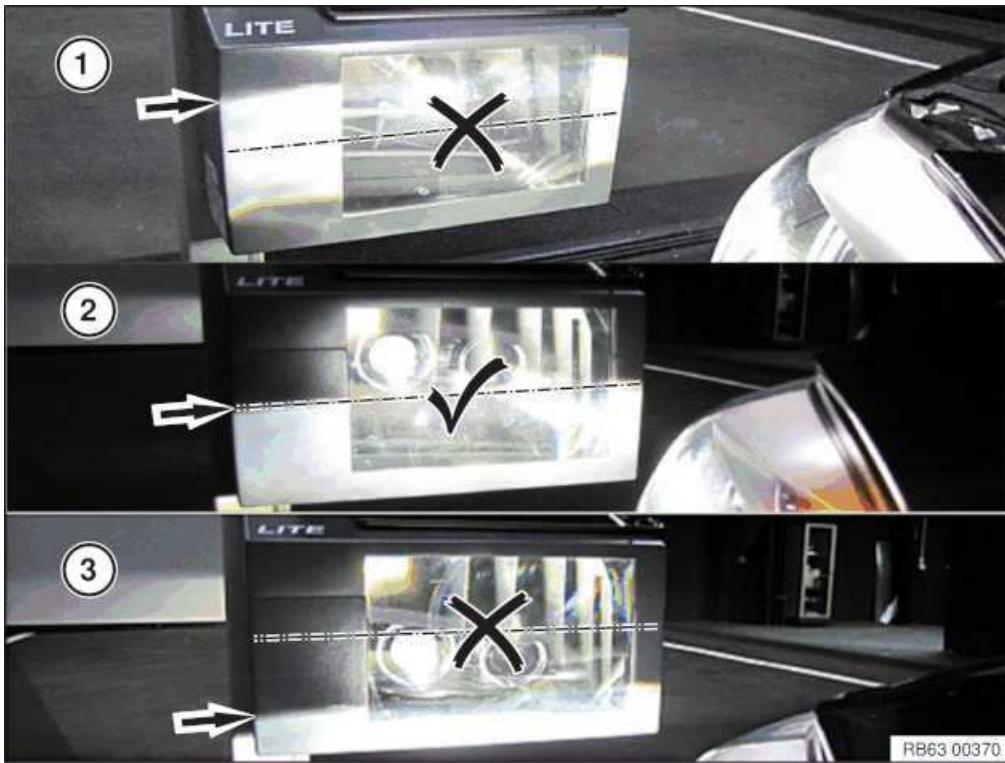


Attention!

Always perform positioning of the headlight adjusting device (1) at the outer headlight (2)!

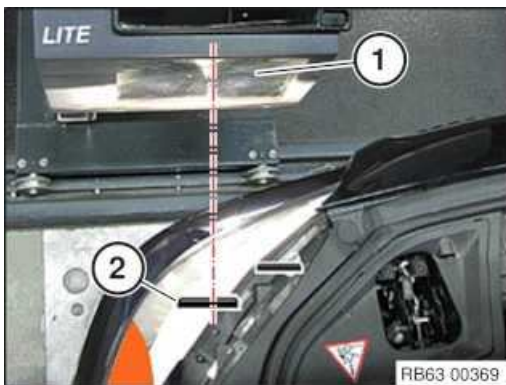
The centre of the collecting lens (1) must match the centre of headlight (2) horizontally.

Corrections are made by raising or lowering the headlight adjusting device.



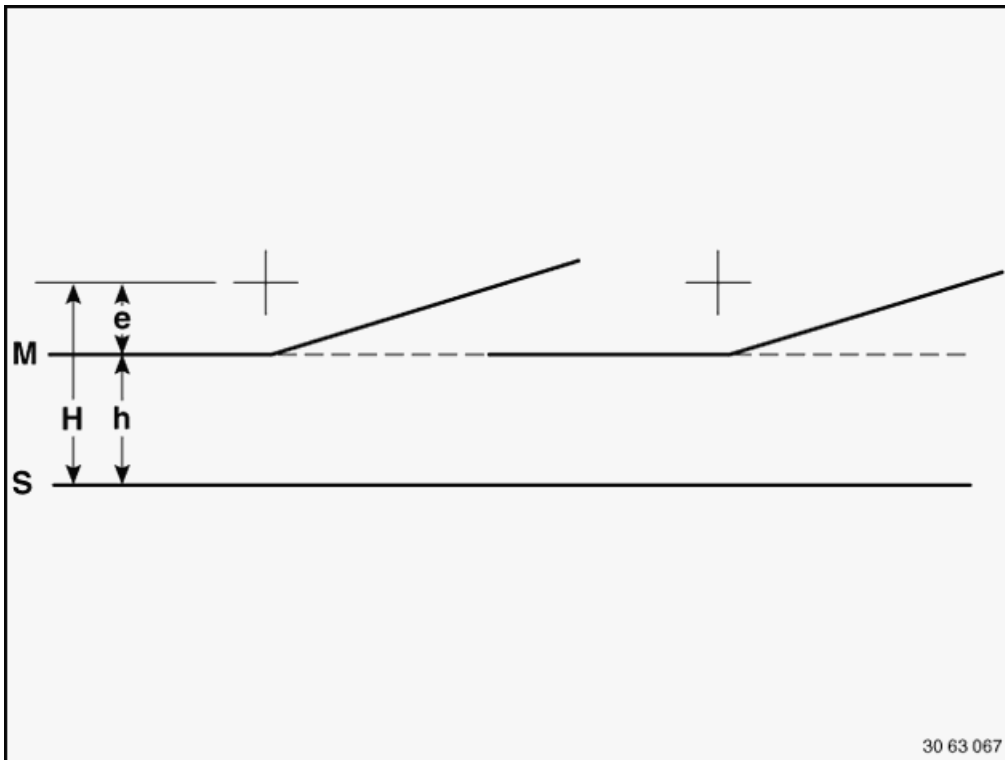
When positioned correctly, the light/dark boundary of the headlight (marked with arrow) must hit the collecting lens of the adjusting device in the centre:

1. The headlight adjusting device is too low.
2. The headlight adjusting device is positioned correctly.
3. The headlight adjusting device is too high.



The centre of the collecting lens (1) must match the centre of headlight (2) vertically.

Corrections are made by sliding the side of the headlight adjusting device to the left or right.



Note:

The figure shows an example for the transparent screen of halogen headlights.

[Overview of transparent screens of different headlight types.](#)

Set the marker line {M} on the headlight adjusting device to dimension {e}. Scale graduations on the headlight adjusting device are equal to a gradient in cm at a distance of 10 metres.

Light/dark boundary of headlights in headlight adjusting device

{e} Setting dimension, headlights:

- Value is indicated on the **headlight housing** and on vehicles with production date up to 2011 on the **type plate** in %.
(e.g.: **1.0 %** = -10 cm/10 m = **- 1.0 %** on the headlight adjusting device)
- Value **1.0 %** (adjustment value **- 1.0 %**) applies to all BMW Group vehicles.
- Exception: E53, E70, E71, E72, E83, F15, F16, F25, F26, R60, R61, F60. For these vehicles, value **1.1%** (adjustment value **- 1.1%**) applies.

Setting dimension, fog lights:

- Value **2.0%** = -20 cm/10 m = **- 2.0%** on the headlight adjustment device applies to all BMW Group vehicles.

Headlight setting dimension, dynamic marker light (dynamic spotlight):

- Value **0.0%** = 0 cm/10 m = **0%** on the headlight adjustment device applies to all BMW Group vehicles.

{H} Height of headlight centre above parking surface

{h} {H} - {e} = height of marking line above parking surface

+ Central mark = centre point of high beam headlight.

{M} Marker line of the headlight adjusting device

{S} Standing surface of the vehicle and headlight adjusting device

Adjustment dimension {e} is only valid for EUR. Observe differing national regulations.

63 11 731 Rep. LED mod (s) for L daytime dr. lights



RISK OF DAMAGE



Electrostatic discharge.

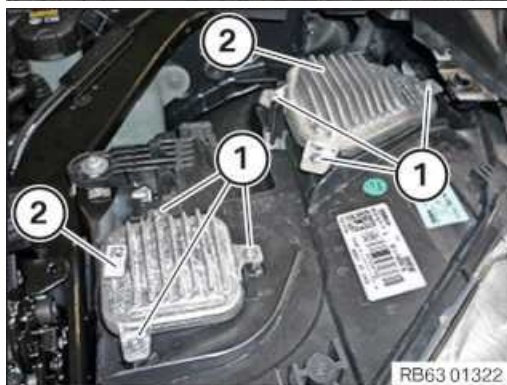
Damage to or destruction of electrical components.

- 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.

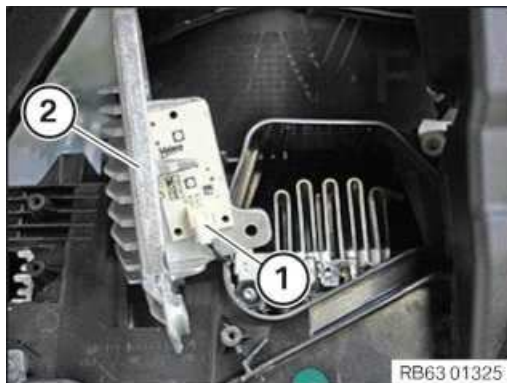
1 – Removing the LED modules for the daytime driving lights



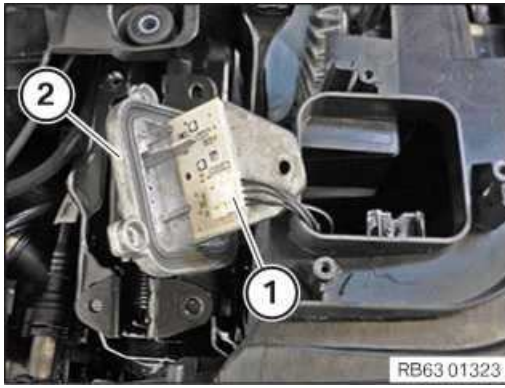
- Loosen the expanding rivet (1).
- Partially release the trim panel (2).



- Loosen screws (1).
- Pull the LED modules (2) out of the headlight.



- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

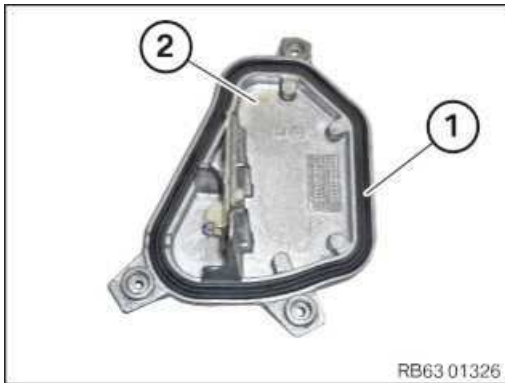


- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

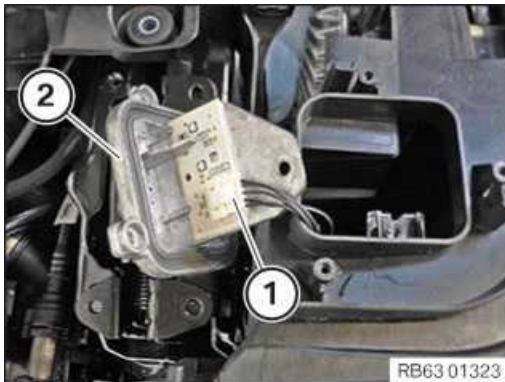
2 – Installing the LED module for the daytime driving lights



- Check the seal (1) on the LED module (2) for damage and renew where required.



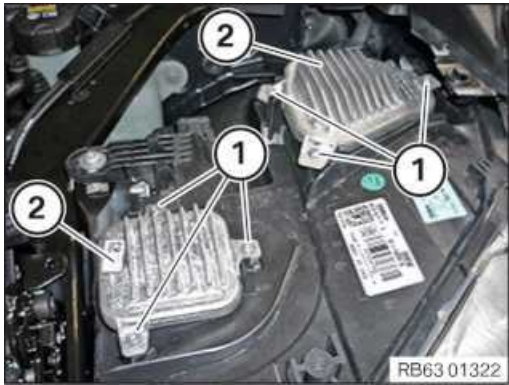
- Check seal (1) on LED module (2) for damage and renew if required.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position LED module (2) in the headlight.
- Tighten the screws (1).

LED module of daytime driving lights to headlight

Screw		1,6 Nm
-------	--	--------



- Position the trim panel (2).
- Clip in expanding rivet (1).

Additional Information

Overview of Tightening Torques

LED module of daytime driving lights to headlight		Used in step 2
Screw		1,6 Nm

Links

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

63 12 ... Repairing headlights

It is possible to repair the following damage:

- Deformed or broken holders can be replaced using the available repair kits.
Replacement of headlight is **not required!**
For reasons of pedestrian safety it is **not permitted** to use adhesive or reinforcements to repair broken holders!

Note:

Headlight repair kits are not available for every vehicles (see Electronic Parts Catalogue).

Follow the vehicle-specific repair instructions.

It is not possible to repair the following damage:

- Deformed or broken headlight housing.
- Scratched or damaged headlight lenses
The standard coating of headlight lens cannot be restored. Commercially available repair systems are unable to provide sufficient protection from ultraviolet radiation and external influences (stone chipping).

63 11 820 Replace the LED module of the left cornering light (LED headlight)

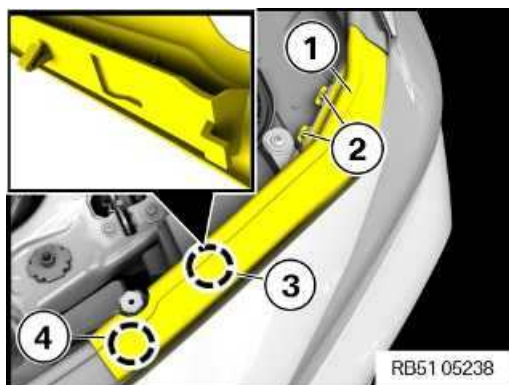
PRELIMINARY WORK

1 – Remove both bonnet seals on the side



NOTICE

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



► Remove the bonnet seal on the side

- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.

2 – Removing the seal for the front centre bonnet



- Remove the seal for the front centre bonnet (1) towards the top.

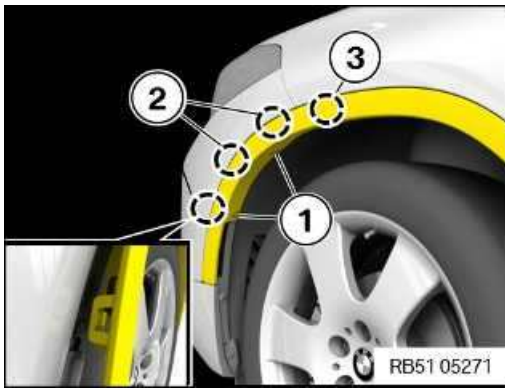
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

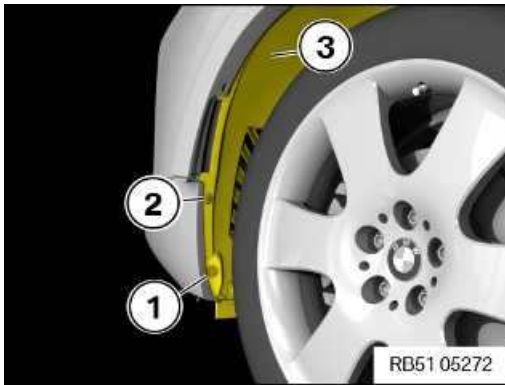
4 – Partially remove both front wheel arch covers



NOTICE

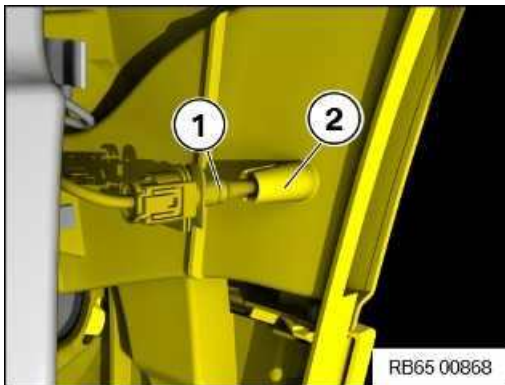
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



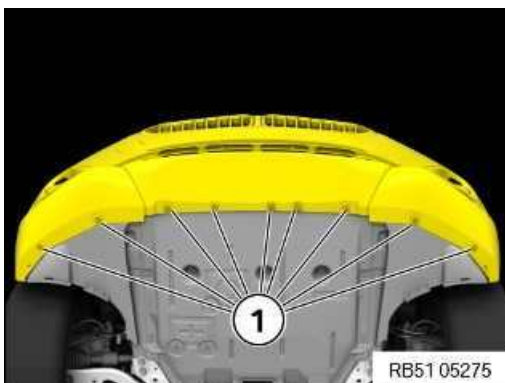
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

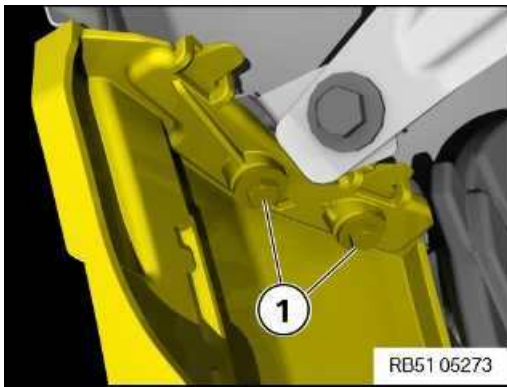


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



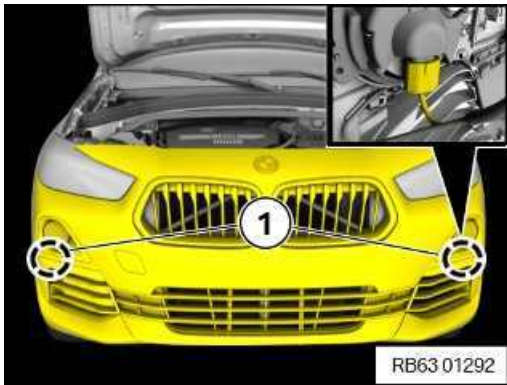
NOTICE

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

- Loosen screws (1).

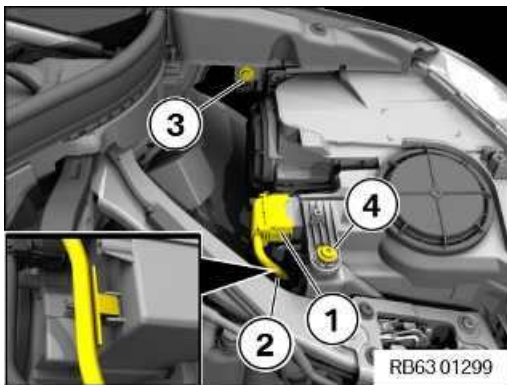


- Loosen screws (1).
- Loosen screws (2).

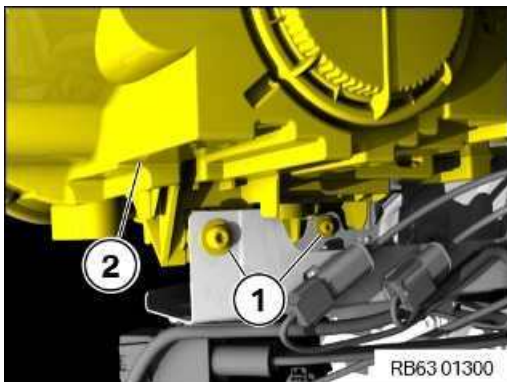


- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

7 – Remove headlight



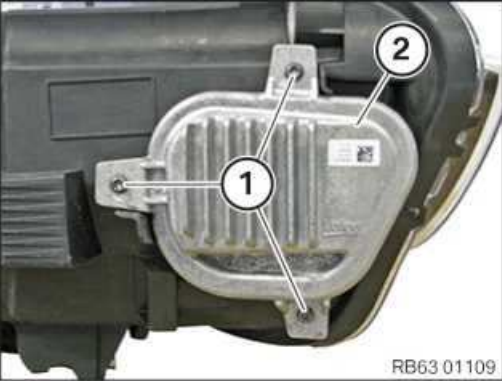
- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



- Loosen screws (1).
- Remove the headlight (2) toward the front.

MAIN WORK

8 – Removing LED module for the cornering light



- Loosen screws (1) on the LED module for the cornering light (2).
- Pull LED module for the cornering light (2) out of the headlight.

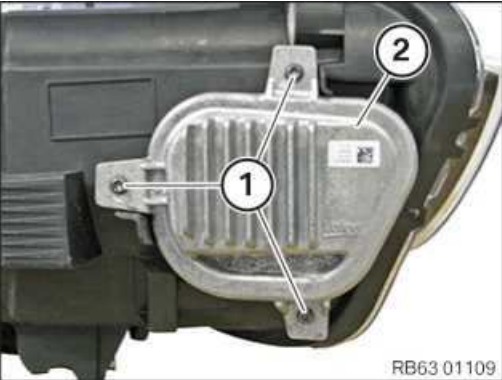


- Unlock and disconnect connector (1).
- Remove LED module for the cornering light (2).

9 – Installing the LED module for the cornering light



- Check seal (3) on the LED module for cornering light (2) for damage and renew it if necessary.
The seal (3) may not be damaged or be missing.
- Connect connectors (1) and lock.



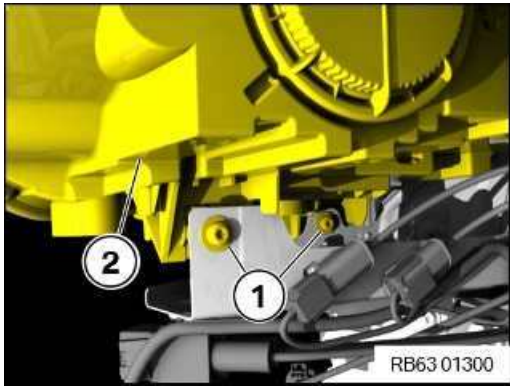
- Position the LED module for cornering light (2) in the headlight.
- Tighten the screws (1).

LED cornering light module to headlight

Screw		1,6 Nm
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POSTPROCESSES

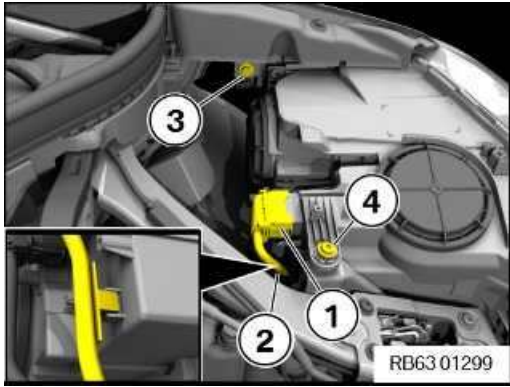
10 – Install headlight



- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
-------------	--	-------------------	------



- Tighten down screw (4).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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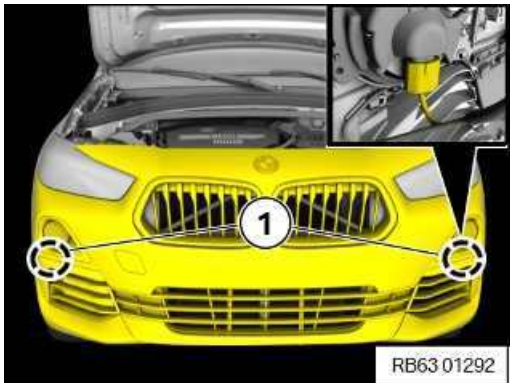
- Tighten down screw (3).

Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
---	--	-------------------	------

- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

11 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

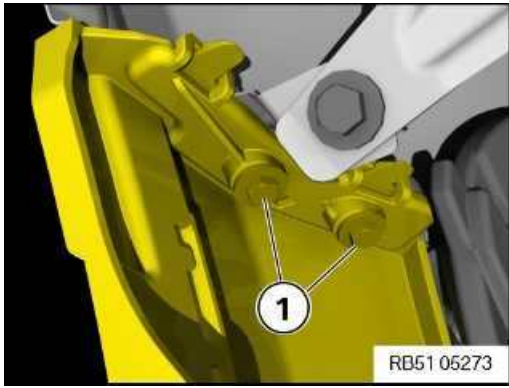
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
----------------------------------	--	-------------------	--------

- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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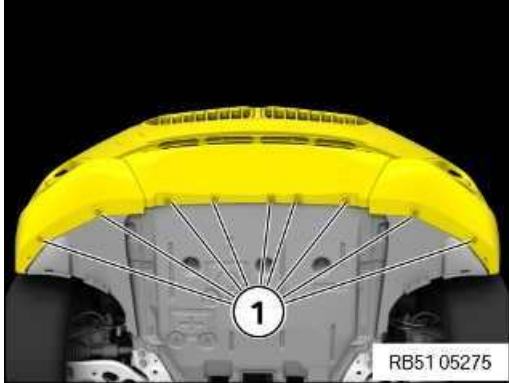
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
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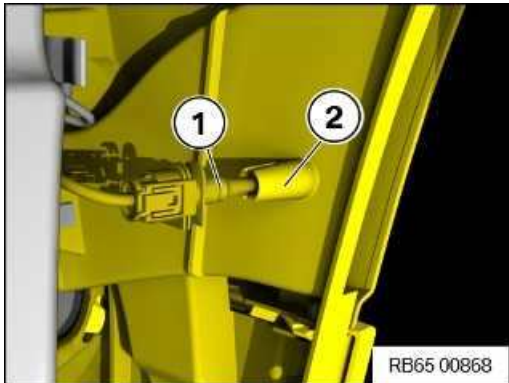


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
-----------------------------	--	-------------------	--------

12 – Install temperature sensor



- Clip temperature sensor (1) into the front bumper panel (2).

13 – Partially install both front wheel arch covers



NOTICE

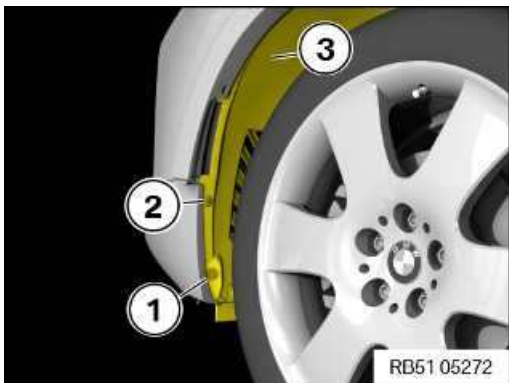
Description is for left component only. Procedure on the right side is identical.

► Partially install the front wheel arch cover

- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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14 – Partially install both front wheel arch trims

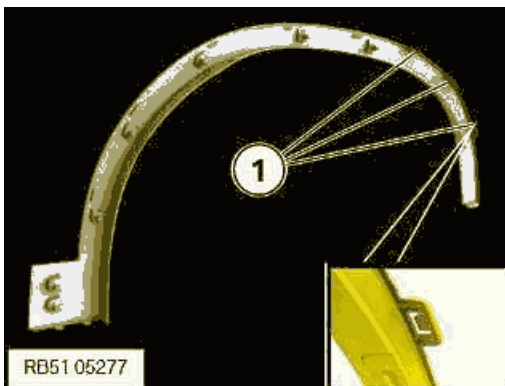
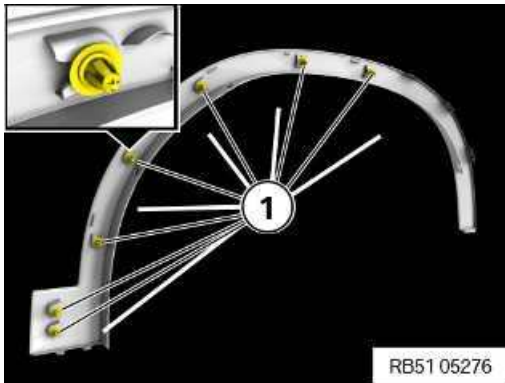


NOTICE

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

► Partly install the front wheel arch trim

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



- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

15 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

16 – Install both bonnet seals on the side



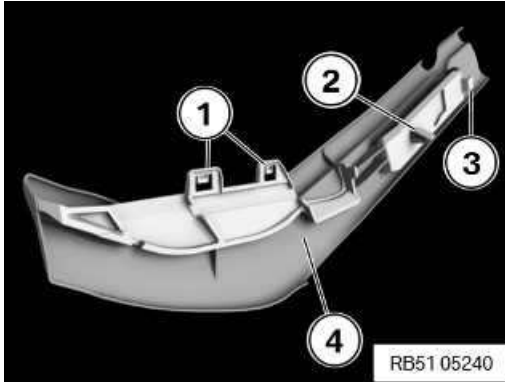
NOTICE

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

► Installing seal for side bonnet

Check

- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

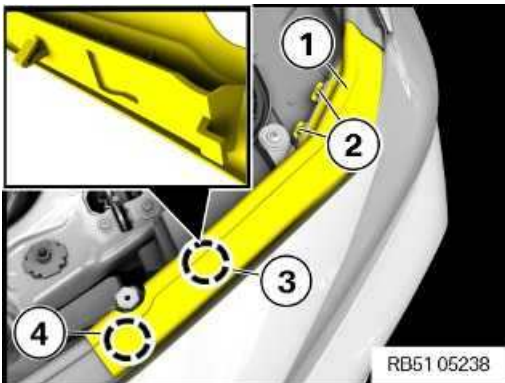


Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).
- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).



17 – Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

LED cornering light module to headlight

Used in step [9](#)

Screw			1,6 Nm
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Headlight to headlight support bracket

Used in step [10](#)

M6x35 screw		Tightening torque	5 Nm
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Headlight to carrier support extension

Used in step [10](#)

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
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Bumper panel to headlight

Used in step [11](#)

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
----------------------------------	--	-------------------	--------

Bumper panel to air duct

Used in step [11](#)

Screw M6		Tightening torque	4,6 Nm
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Front bumper panel to front side panel

Used in step [11](#)

Screw TS5X35		Tightening torque	3 Nm
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Front bumper panel to underbody panelling

Used in step [11](#)

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
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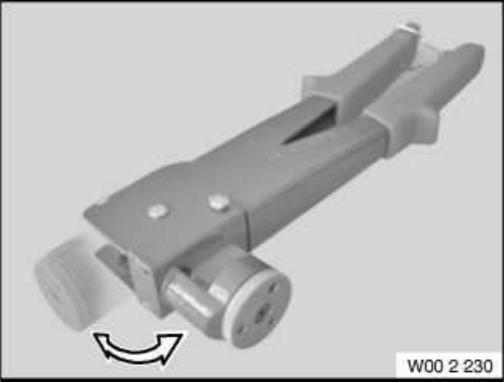
Front wheel arch cover to front bumper panel

Used in step [13](#)

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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Overview of Special Tools

0 496 521 (00 2 230) Pliers



Common		Used in step	13	14
Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm			
Included in the tool or work				
Storage location	C25			
Replaced by				
In connection with				
SI-Number	01 17 08 (478)			

Links

General repair instructions	Used in step
63 12 ... US version: Check/set the horizon lock for headlight replacement.	10
63 12 ... US version: Setting the horizontal blocking when headlamp is set	17
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	17
Repair instructions	Used in step
63 10 ... Test requirements for headlights vertical aim adjustment	17

63 11 825 Replace the LED module of the right cornering light (LED headlight)

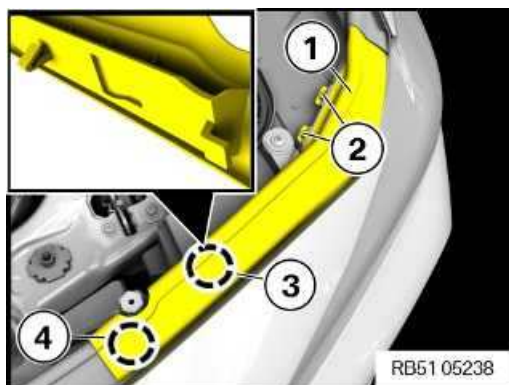
PRELIMINARY WORK

1 – Remove both bonnet seals on the side



NOTICE

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



► Remove the bonnet seal on the side

- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.

2 – Removing the seal for the front centre bonnet



- Remove the seal for the front centre bonnet (1) towards the top.

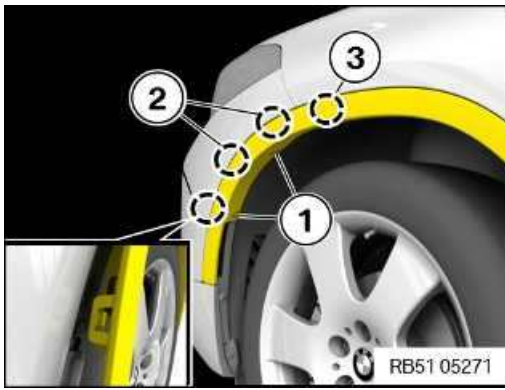
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

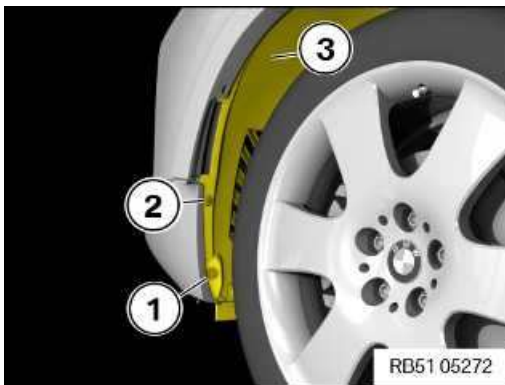
4 – Partially remove both front wheel arch covers



NOTICE

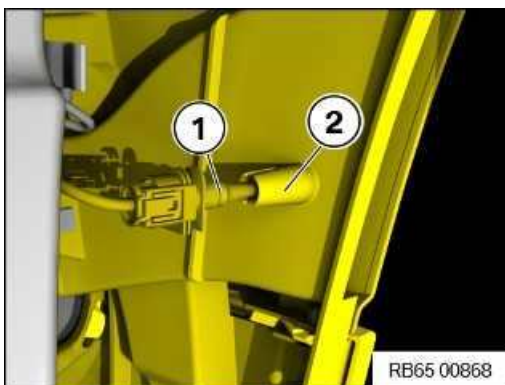
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



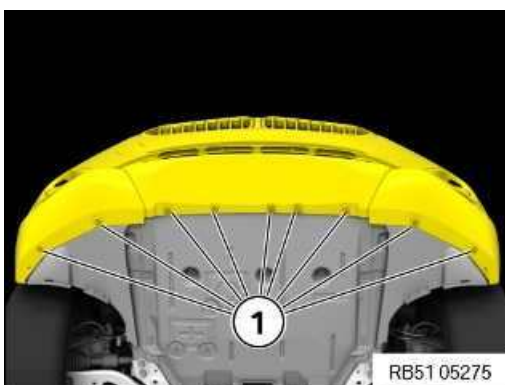
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

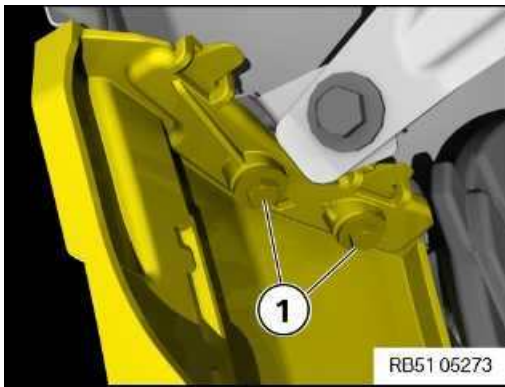


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



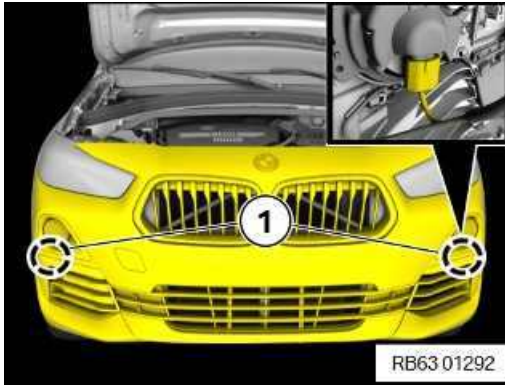
NOTICE

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

- Loosen screws (1).



- Loosen screws (1).
- Loosen screws (2).



- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

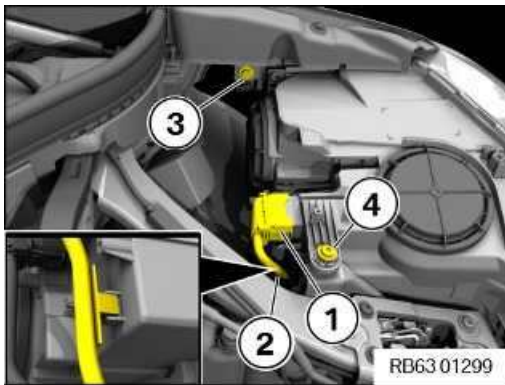
7 – Remove right headlight



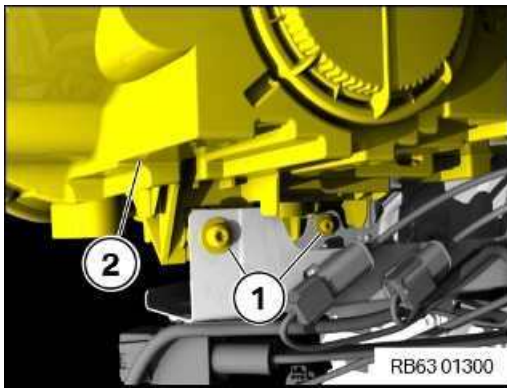
NOTICE

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

► Remove headlight



- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



- Loosen screws (1).
- Remove the headlight (2) toward the front.

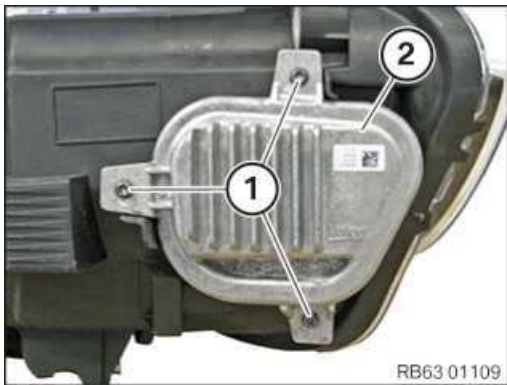
MAIN WORK

8 – Remove the LED module of the right cornering light



NOTICE

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



- Loosen screws (1) on the cornering light LED module (2).
- Pull cornering light LED module (2) out of headlight.



- Unlock and disconnect connector (1).
- Remove LED cornering light module (2).

9 – Installing right cornering light LED module

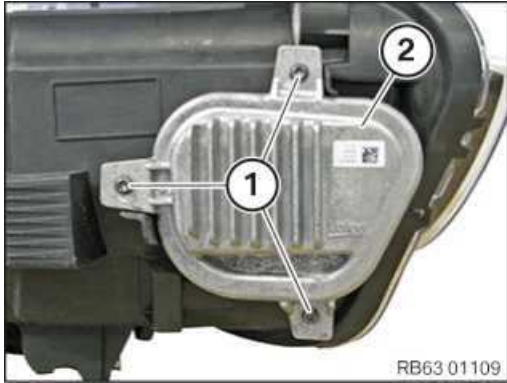


NOTICE

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



- The seal (3) gasket on the cornering light LED module (2) must not be damaged or missing.
- Connect connectors (1) and lock.



- Connect cornering light LED module (2) to the headlight.
- Tighten the screws (1).

LED cornering light module to headlight

Screw		1,6 Nm
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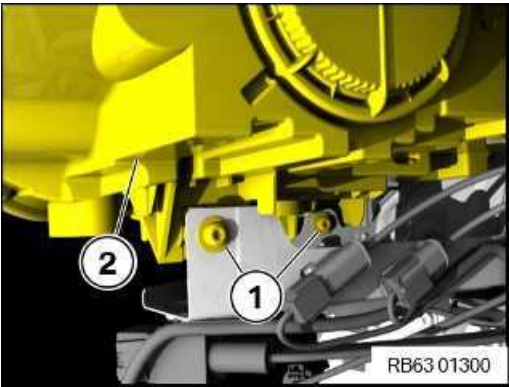
POSTPROCESSES

10 – Install right headlight



NOTICE

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

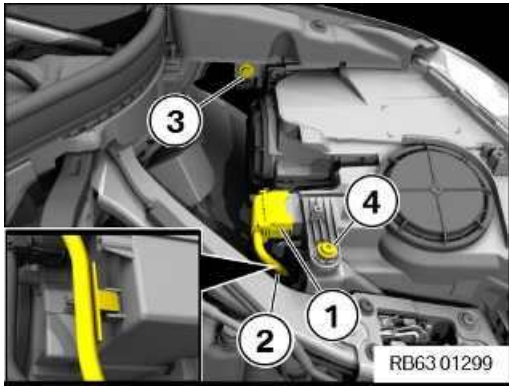


► Install headlight

- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (4).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
-------------	--	-------------------	------

- Tighten down screw (3).

Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
---	--	-------------------	------

- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

11 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

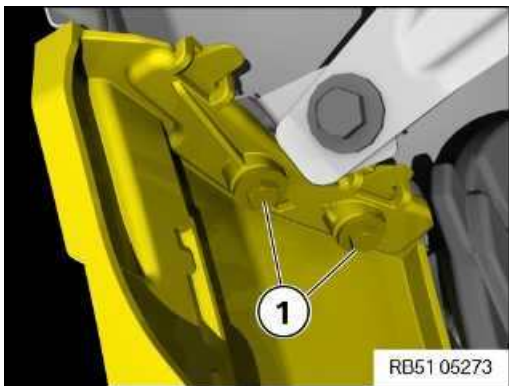
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
----------------------------------	--	-------------------	--------

- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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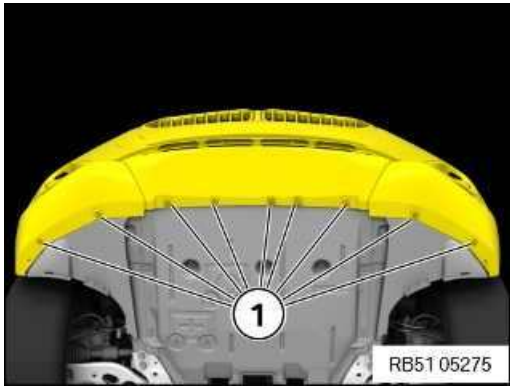
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
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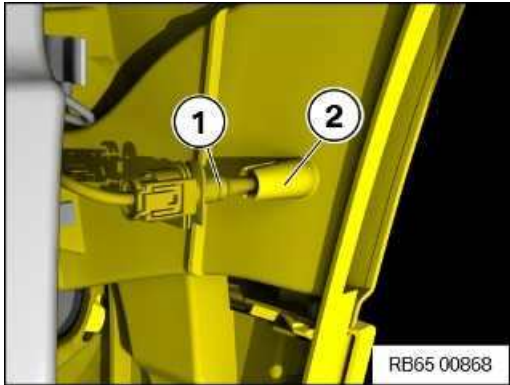


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
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12 – Install temperature sensor



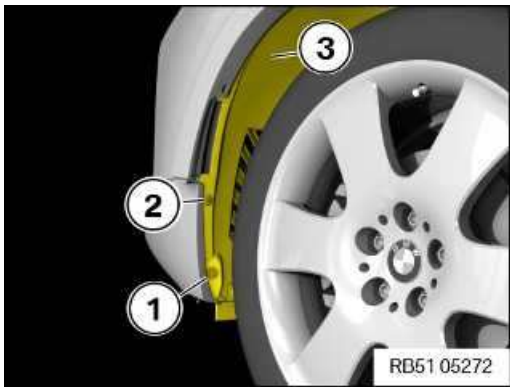
- Clip temperature sensor (1) into the front bumper panel (2).

13 – Partially install both front wheel arch covers



NOTICE

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



► Partially install the front wheel arch cover

- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
---	--	-------------------	--------

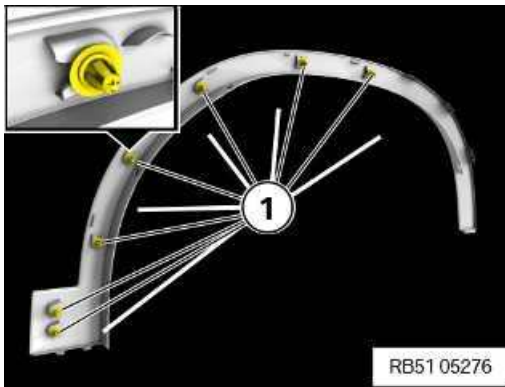
14 – Partially install both front wheel arch trims



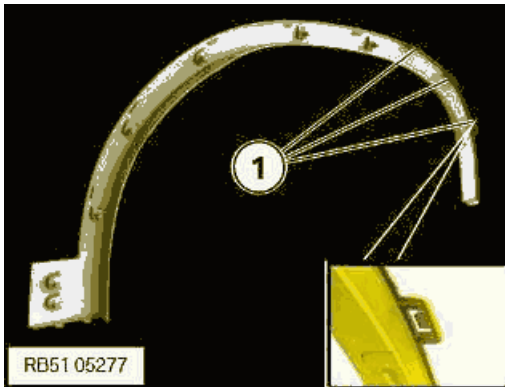
NOTICE

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

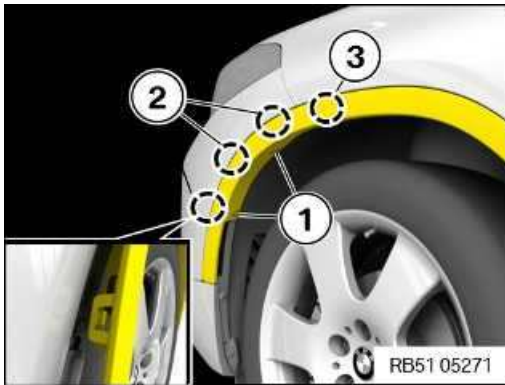
► Partly install the front wheel arch trim



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



- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

15 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

16 – Install both bonnet seals on the side

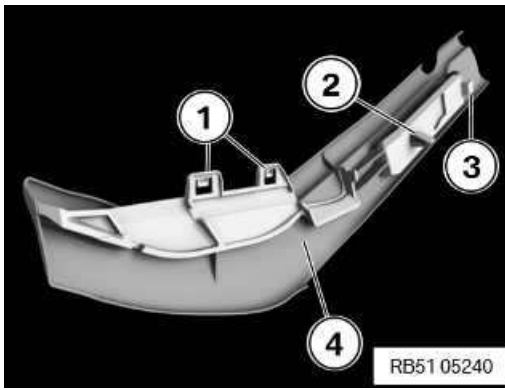


NOTICE

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

► Installing seal for side bonnet

Check



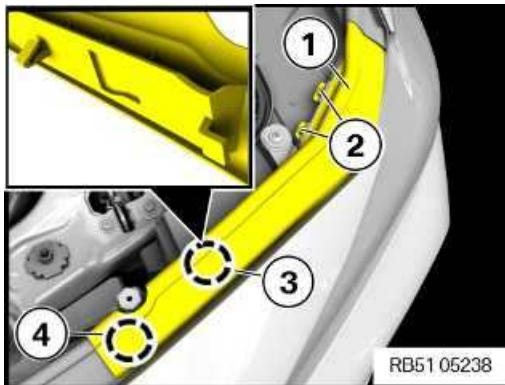
- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).
- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).



17 – Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

LED cornering light module to headlightUsed in step **9**

Screw		1,6 Nm
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Headlight to headlight support bracketUsed in step **10**

M6x35 screw	Tightening torque	5 Nm
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Headlight to carrier support extensionUsed in step **10**

Multi-purpose hexagon screw with washer	Tightening torque	5 Nm
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Bumper panel to headlightUsed in step **11**

Thermoplastic multi-purpose bolt	Tightening torque	2,5 Nm
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Bumper panel to air ductUsed in step **11**

Screw M6	Tightening torque	4,6 Nm
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Front bumper panel to front side panelUsed in step **11**

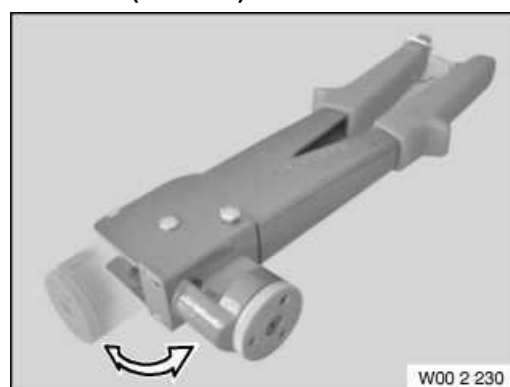
Screw TS5X35	Tightening torque	3 Nm
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Front bumper panel to underbody panellingUsed in step **11**

Thermoplastic hexagon screw	Tightening torque	2,5 Nm
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Front wheel arch cover to front bumper panelUsed in step **13**

Hexagon screw for thermoplastic plastic	Tightening torque	2,6 Nm
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Overview of Special Tools**0 496 521 (00 2 230) Pliers****Common**Used in step **13 14**

Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm
Included in the tool or work	
Storage location	C25
Replaced by	
In connection with	
SI-Number	01 17 08 (478)

Links**General repair instructions**

Used in step

63 12 ... US version: Check/set the horizon lock for headlight replacement.	10
63 12 ... US version: Setting the horizontal blocking when headlamp is set	17
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	17

Repair instructions

Used in step

63 10 ... Test requirements for headlights vertical aim adjustment	17
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63 11 760 Replacing FLEL control unit



RISK OF DAMAGE

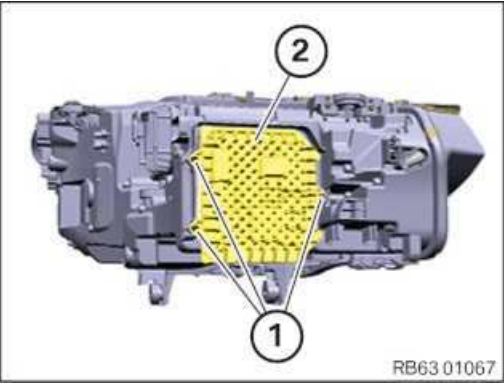


Electrostatic discharge.

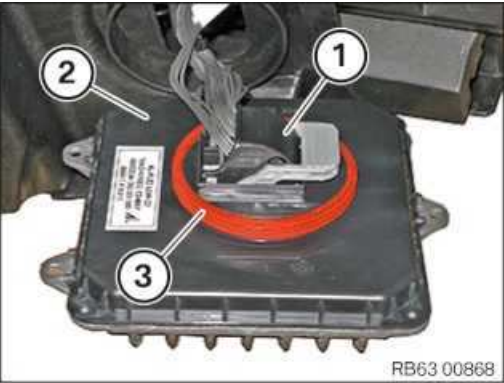
Damage to or destruction of electrical components.

- 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.

1 – Removing control unit for the Frontal Light Electronics

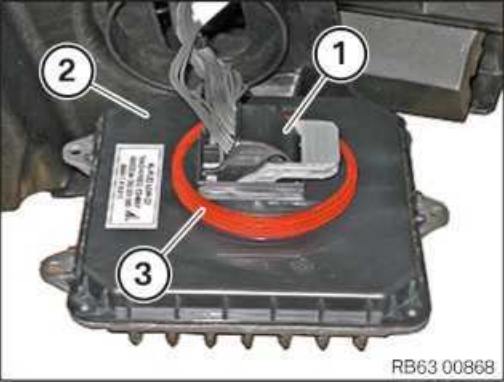


- Loosen screws (1).
- Pull control unit for the Frontal Light Electronics (2) out of the headlight.

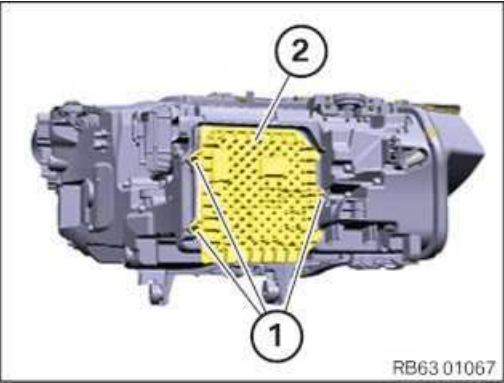


- Unlock and disconnect connector (1).
- Remove control unit for the Frontal Light Electronics (2).

2 – Installing Frontal Light Electronics control unit



- Check seal (3) on the Frontal Light Electronics control unit (2) for damage and renew if necessary.
- Connect connectors (1) and lock.



- Position the Frontal Light Electronics control unit (2) in the headlight.
- Tighten the screws (1).

Frontal light electronics (FLE)

PT-SCREW 40x12		Tightening torque	1,5 Nm
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Additional Information

Overview of Tightening Torques

Frontal light electronics (FLE)

Used in step [2](#)

PT-SCREW 40x12		Tightening torque	1,5 Nm
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Links

Repair instructions	Used in step
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61 35 ... Notes on ESD protection (Electro Static Discharge)	
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63 11 735 Replacing LED module(s) for right daytime driving lights



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.

1 – Removing the LED modules for the daytime running lights on the right

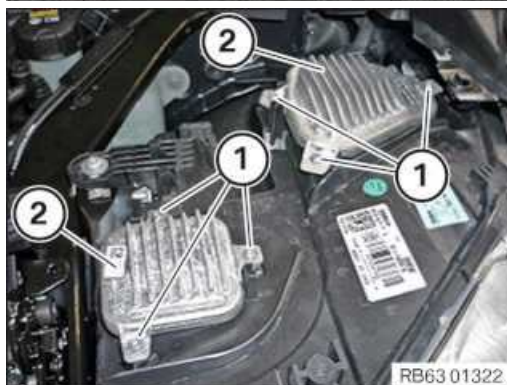


NOTICE

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



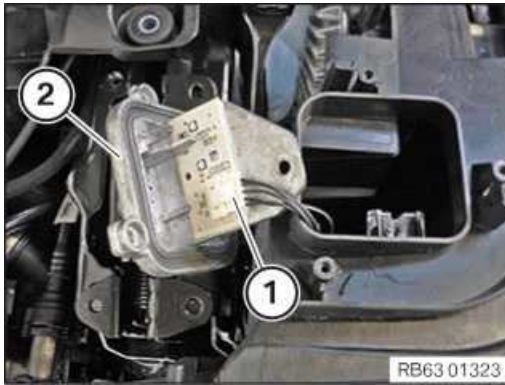
- Loosen the expanding rivet (1).
- Partially release the trim panel (2).



- Loosen screws (1).
- Pull the LED modules (2) out of the headlight.



- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).



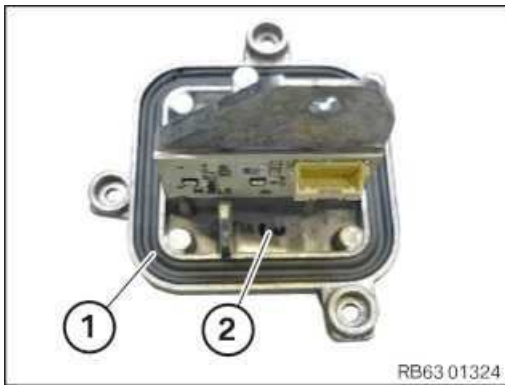
- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

2 – Installing LED module for the daytime running lights on the right

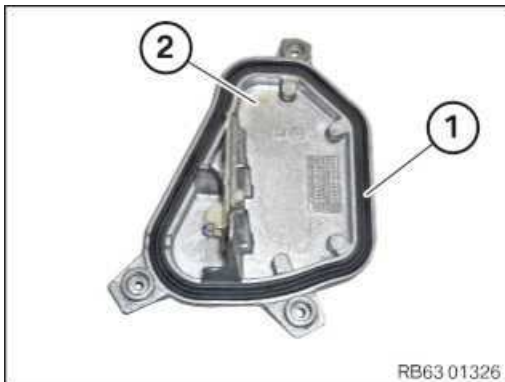


NOTICE

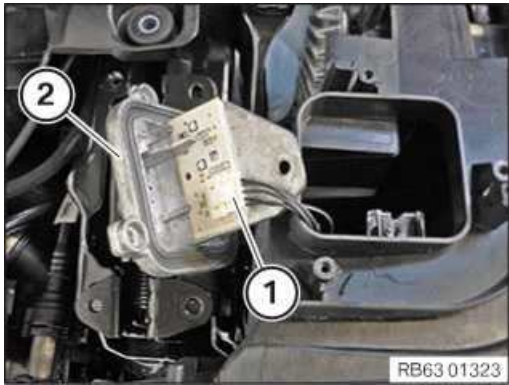
Description is for left component only. Procedure on the right side is identical.



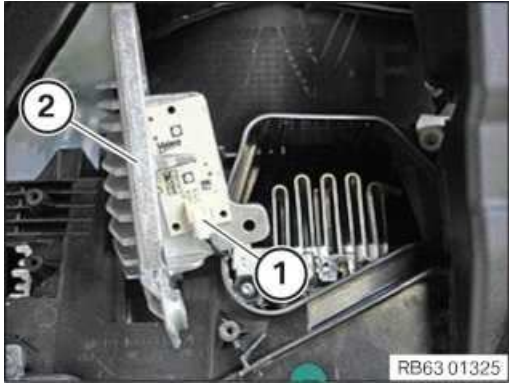
- Check the seal (1) on the LED module (2) for damage.



- Check the seal (1) on the LED module (2) for damage.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position the LED module (2) on the headlight.
- Tighten the screws (1).

LED module of daytime driving lights to headlight

Screw		1,6 Nm
-------	--	--------



- Position the trim panel (2).
- Clip in the expanding rivet (1).

Additional Information

Overview of Tightening Torques

LED module of daytime driving lights to headlight

Used in step 2

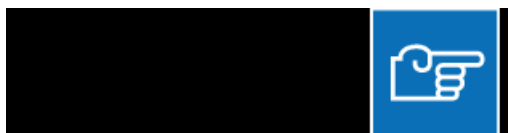
Screw		1,6 Nm
-------	--	--------

Links

Repair instructions	Used in step
---------------------	--------------

[61 35 ... Notes on ESD protection \(Electro Static Discharge\)](#)

63 12 ... Headlight fogging fault pattern



Note:

Certain weather conditions can lead to fogging on the inside of the headlight lens.

This is not necessarily a fault that requires replacement of the headlight.



Top row (A): Permissible fogging. **Headlight does not need to be replaced.**

Bottom row (B): Impermissible fogging. Replace the headlight.

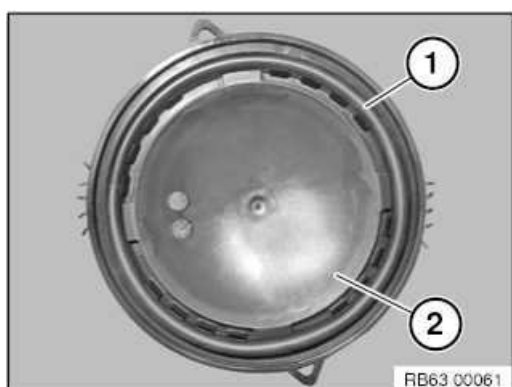
**Important!****Risk of damage!**

Damaged seals on the protective caps will lead to moisture penetration into the headlight.

This will in turn cause porous cable insulations and malfunctioning of the headlight.

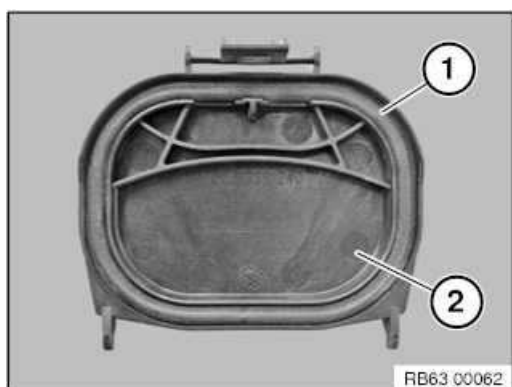


When working on the headlight system, check the protective cap seals.
Replace the protective cap in the event of damage!



Example: screwed protective cap

Seal (1) on protective cap (2).



Example: latchable protective cap

Seal (1) on protective cap (2).

63 12 021 Remove and install both headlights

PRELIMINARY WORK

1 – Remove both bonnet seals on the side

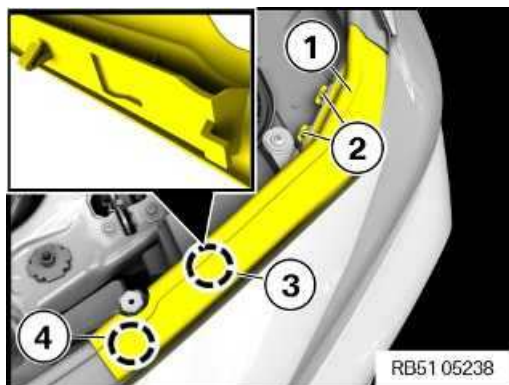


NOTICE

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

► Remove the bonnet seal on the side

- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.



2 – Removing the seal for the front centre bonnet

- Remove the seal for the front centre bonnet (1) towards the top.



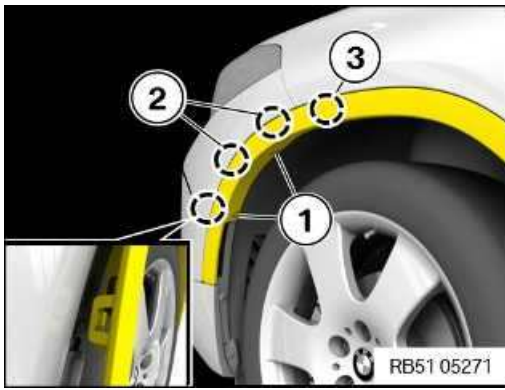
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

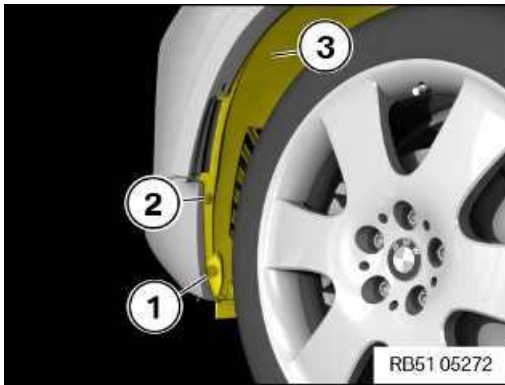
4 – Partially remove both front wheel arch covers



NOTICE

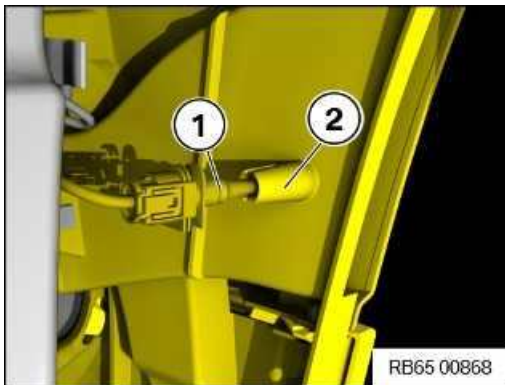
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



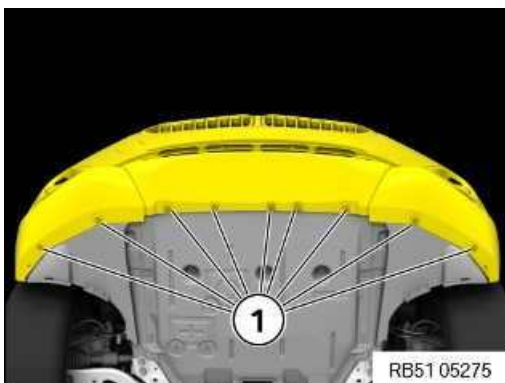
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

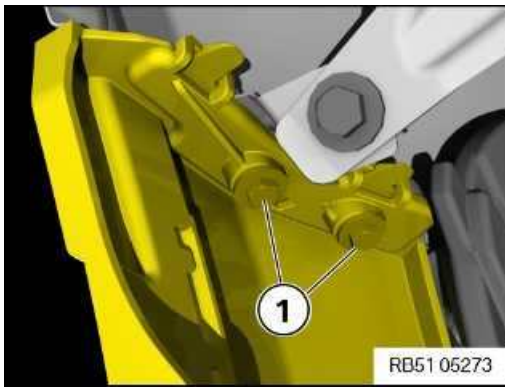


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



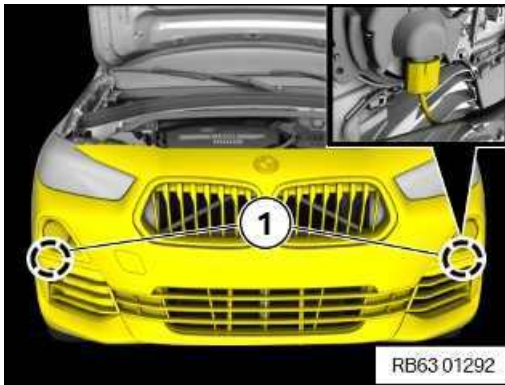
NOTICE

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

- Loosen screws (1).



- Loosen screws (1).
- Loosen screws (2).



- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

MAIN WORK

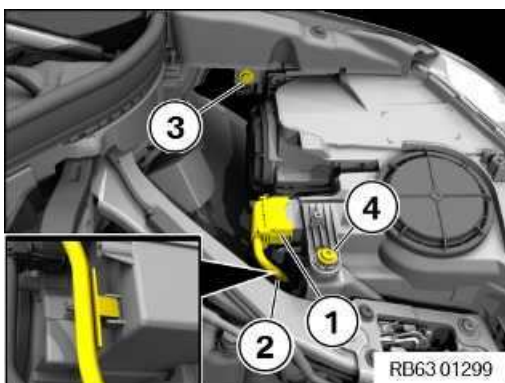
7 – Removing both headlights



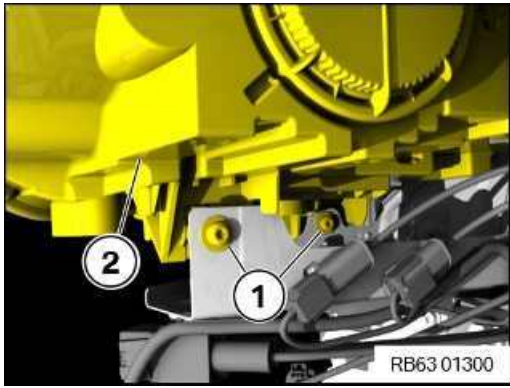
NOTICE

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

► Remove headlight



- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



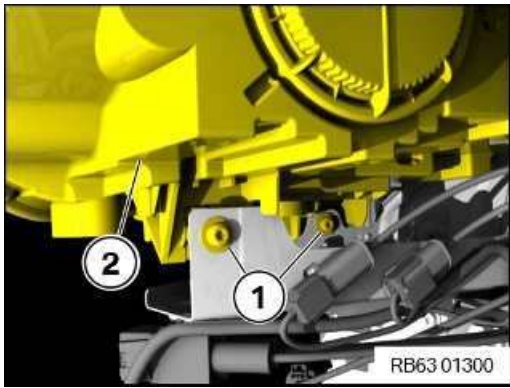
- Loosen screws (1).
- Remove the headlight (2) toward the front.

8 – Installing both headlights



NOTICE

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

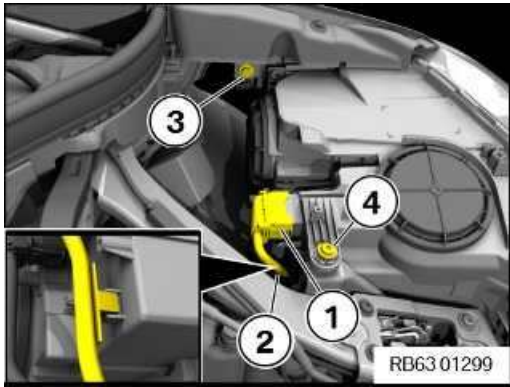


► Install headlight

- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (4).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
-------------	--	-------------------	------

- Tighten down screw (3).

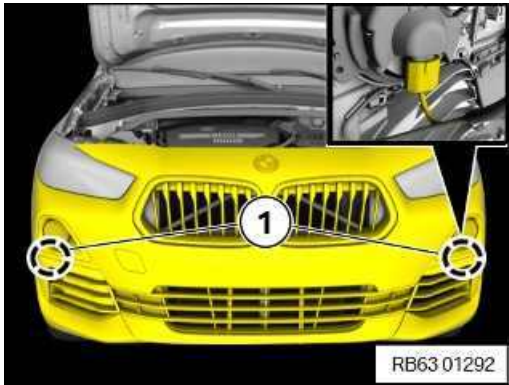
Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
---	--	-------------------	------

- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

POSTPROCESSES

9 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

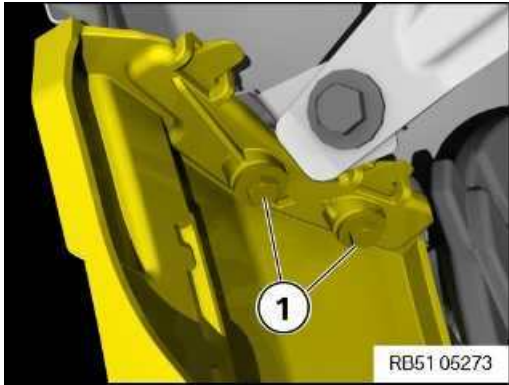
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
----------------------------------	--	-------------------	--------

- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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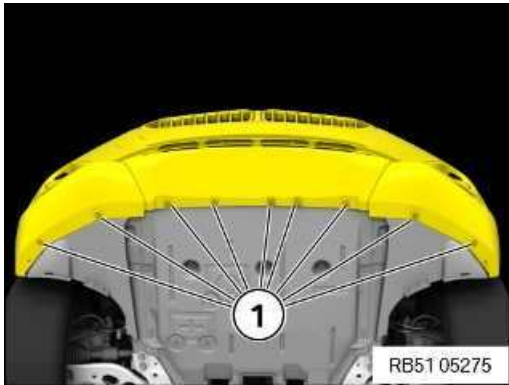
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
--------------	--	-------------------	------

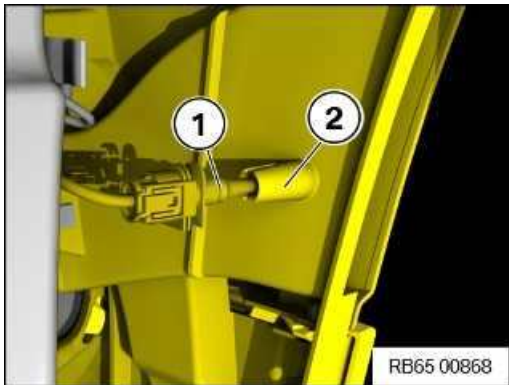


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
-----------------------------	--	-------------------	--------

10 – Install temperature sensor



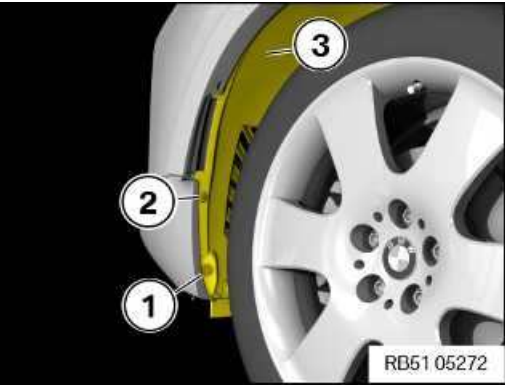
- Clip temperature sensor (1) into the front bumper panel (2).

11 – Partially install both front wheel arch covers



NOTICE

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



► Partially install the front wheel arch cover

- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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12 – Partially install both front wheel arch trims



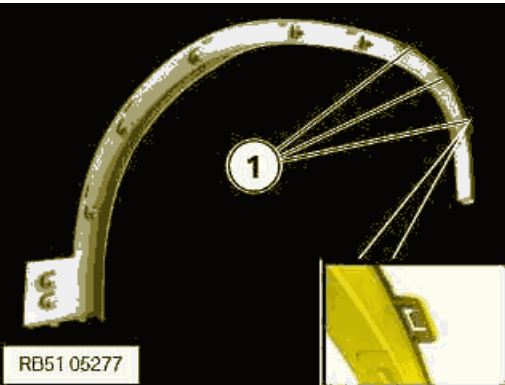
NOTICE

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

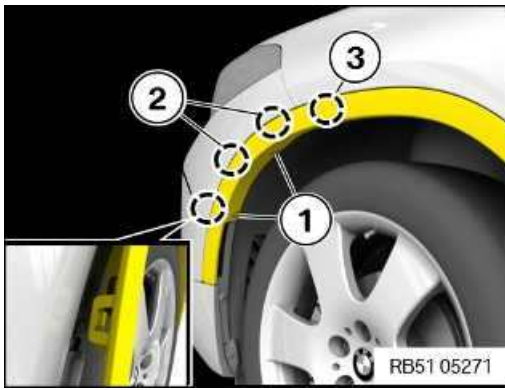


► Partly install the front wheel arch trim

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



- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

13 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

14 – Install both bonnet seals on the side



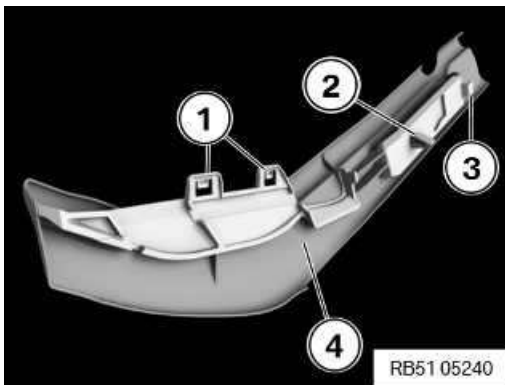
NOTICE

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

► Installing seal for side bonnet

Check

- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

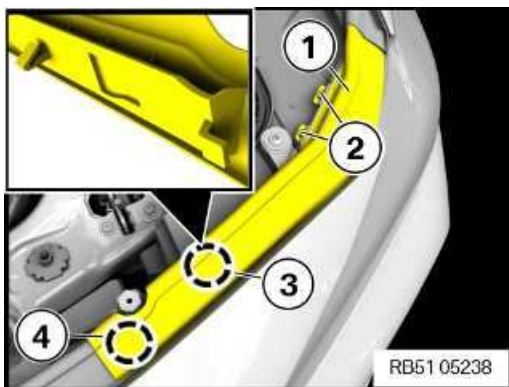


Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).



- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).

15 – Adjust both headlights



NOTICE

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

► Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

Headlight to headlight support bracket

Used in step 8

M6x35 screw	Tightening torque	5 Nm
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Headlight to carrier support extension

Used in step 8

Multi-purpose hexagon screw with washer	Tightening torque	5 Nm
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Bumper panel to headlight

Used in step 9

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
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Bumper panel to air duct

Used in step 9

Screw M6		Tightening torque	4,6 Nm
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Front bumper panel to front side panel

Used in step 9

Screw TS5X35		Tightening torque	3 Nm
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Front bumper panel to underbody panelling

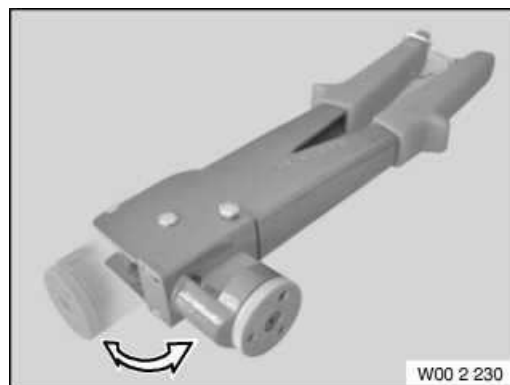
Used in step 9

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
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Front wheel arch cover to front bumper panel

Used in step 11

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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Overview of Special Tools**0 496 521 (00 2 230) Pliers****Common**

Used in step 11 12

Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm
Included in the tool or work	
Storage location	C25
Replaced by	
In connection with	
SI-Number	01 17 08 (478)

Links**General repair instructions**

Used in step

63 12 ... US version: Check/set the horizon lock for headlight replacement.	8
63 12 ... US version: Setting the horizontal blocking when headlamp is set	15
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	15

Repair instructions

Used in step

63 10 ... Test requirements for headlights vertical aim adjustment	15
--	----

63 12 003 Removing and installing left headlight

PRELIMINARY WORK

1 – Remove both bonnet seals on the side

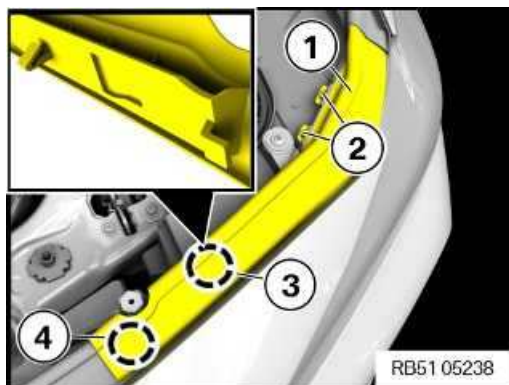


NOTICE

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

► Remove the bonnet seal on the side

- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.



2 – Removing the seal for the front centre bonnet



- Remove the seal for the front centre bonnet (1) towards the top.

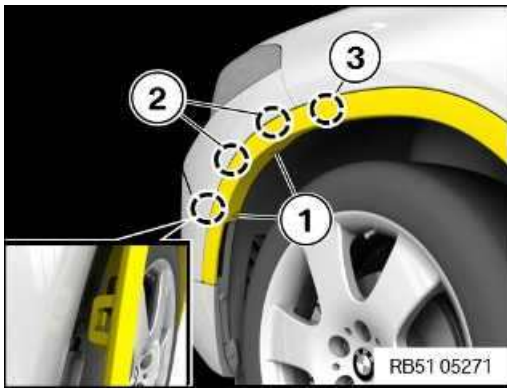
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

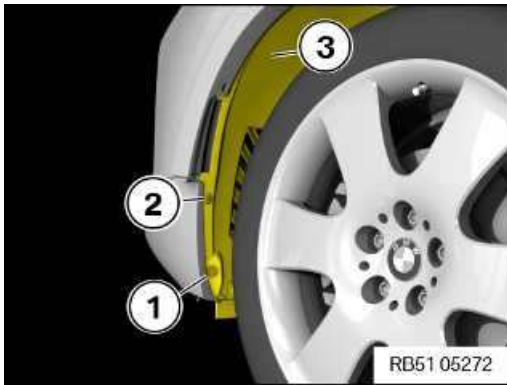
4 – Partially remove both front wheel arch covers



NOTICE

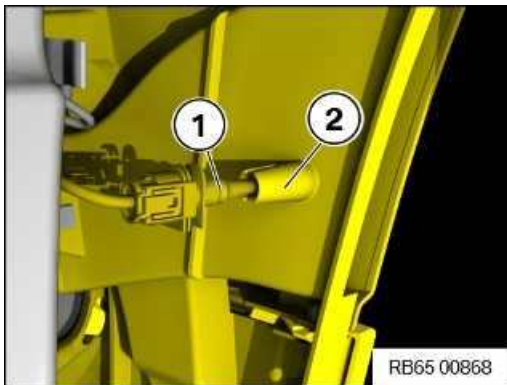
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



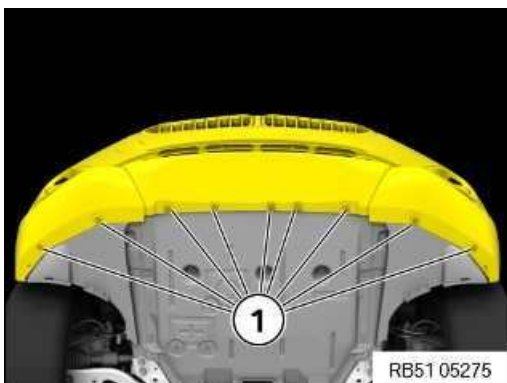
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

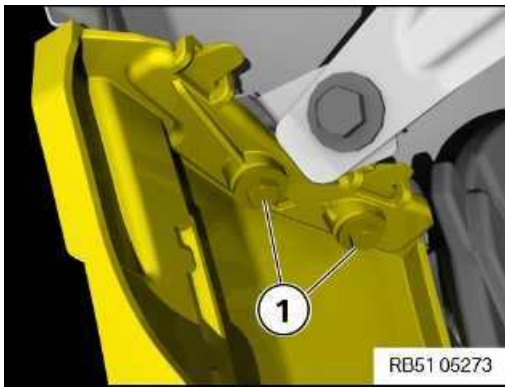


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



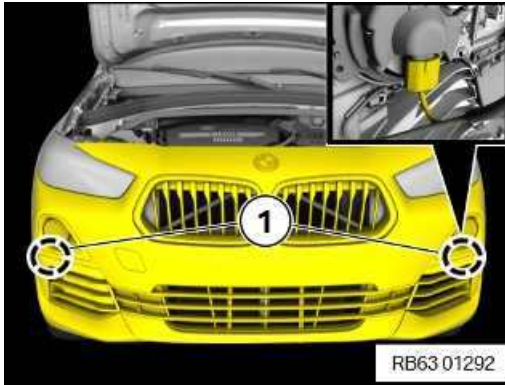
NOTICE

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

- Loosen screws (1).



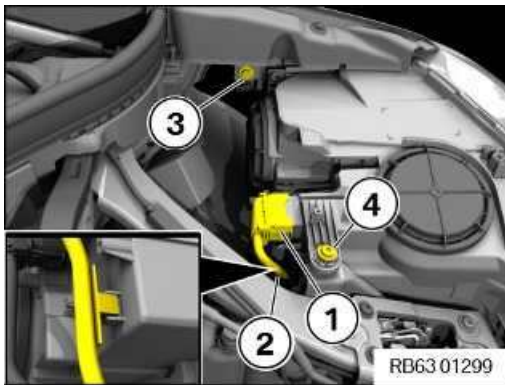
- Loosen screws (1).
- Loosen screws (2).



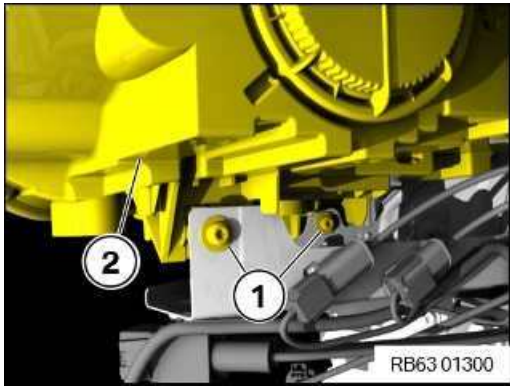
- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

MAIN WORK

7 – Remove headlight

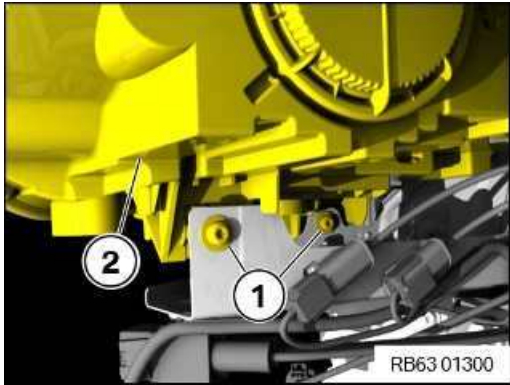


- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



- Loosen screws (1).
- Remove the headlight (2) toward the front.

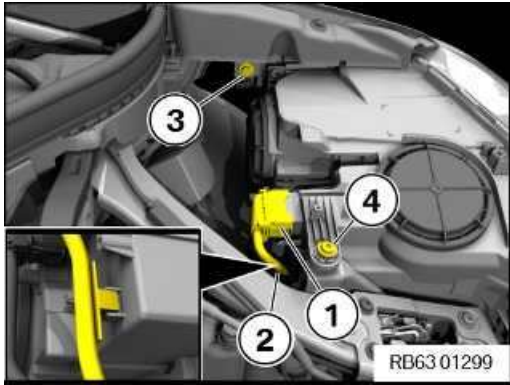
8 – Install headlight



- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (4).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (3).

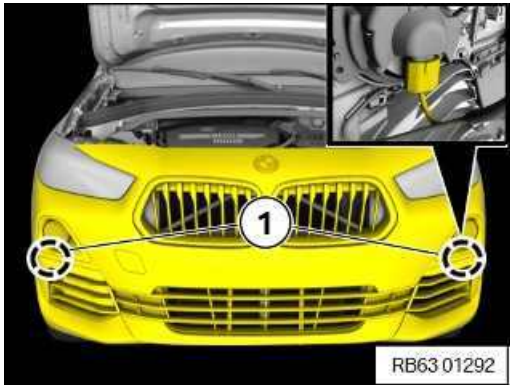
Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
---	--	-------------------	------

- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

POSTPROCESSES

9 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

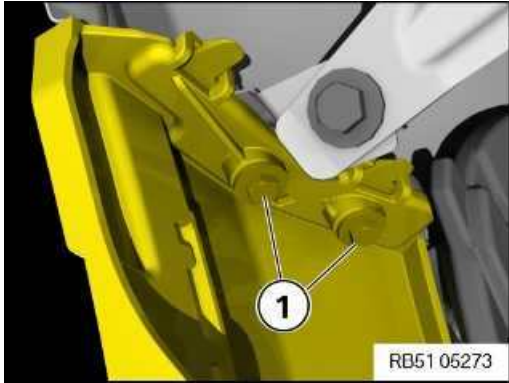
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
----------------------------------	--	-------------------	--------

- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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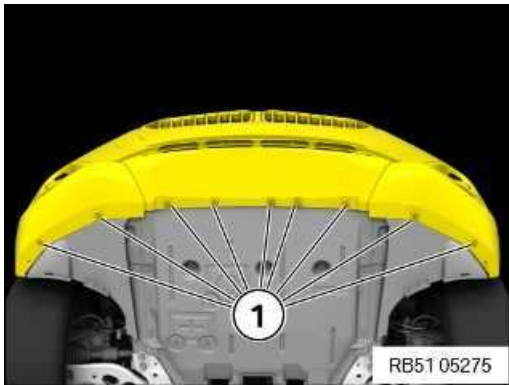
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
--------------	--	-------------------	------

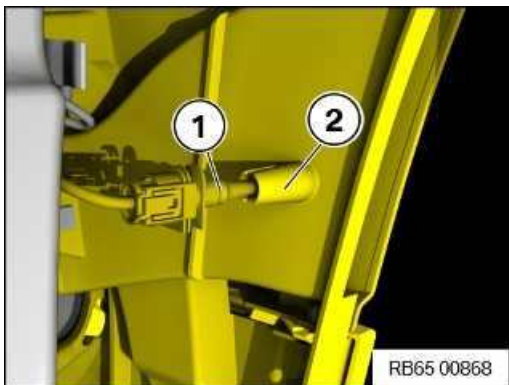


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
-----------------------------	--	-------------------	--------

10 – Install temperature sensor



- Clip temperature sensor (1) into the front bumper panel (2).

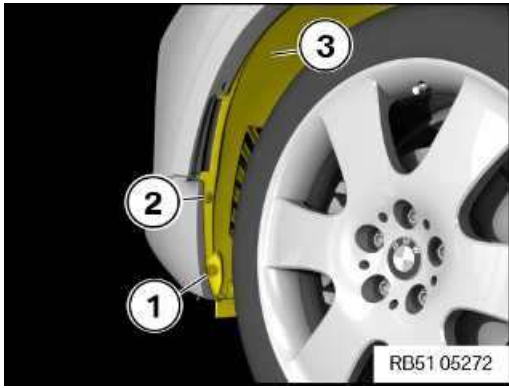
11 – Partially install both front wheel arch covers



NOTICE

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

- Partially install the front wheel arch cover



- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

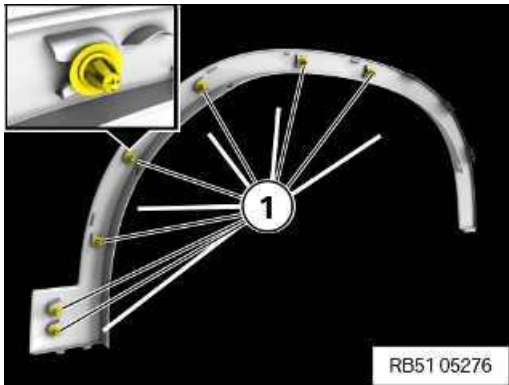
Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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12 – Partially install both front wheel arch trims



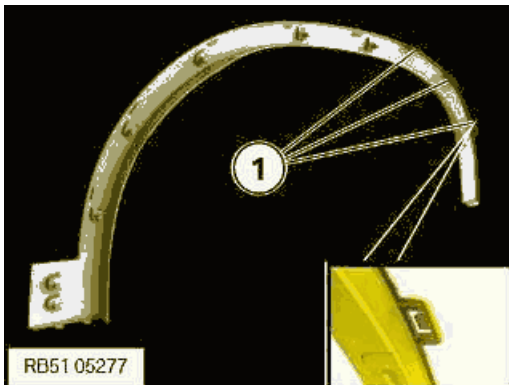
NOTICE

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

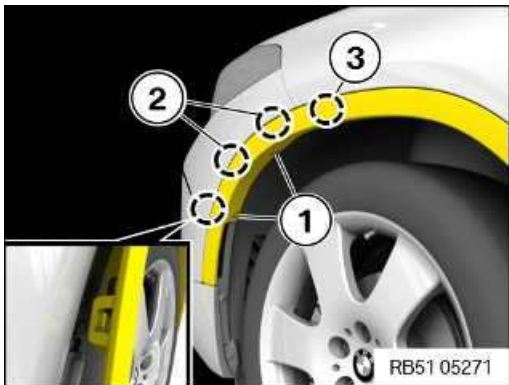


► Partly install the front wheel arch trim

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

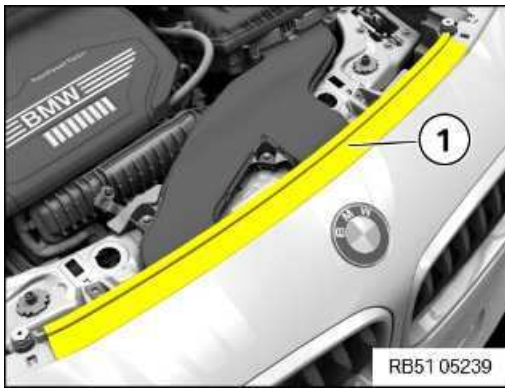


- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

13 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

14 – Install both bonnet seals on the side



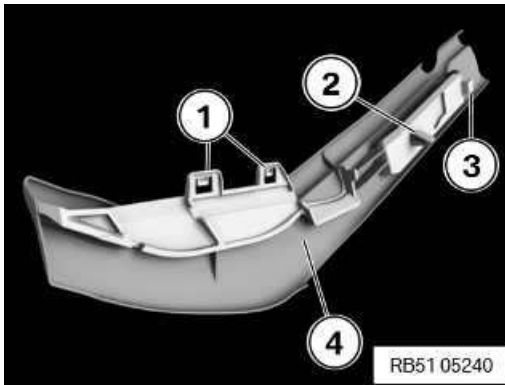
NOTICE

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

► Installing seal for side bonnet

Check

- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

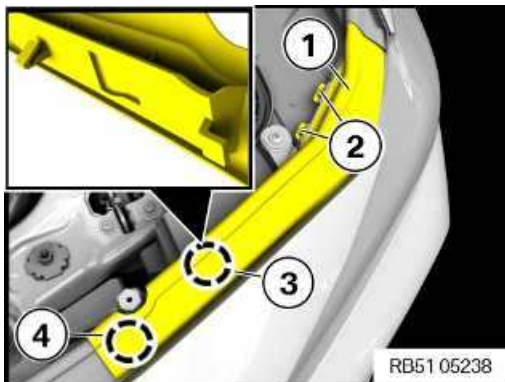


Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).
- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).



15 – Adjust both headlights



NOTICE

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

► Adjusting headlights

TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

Headlight to headlight support bracket

Used in step 8

M6x35 screw	Tightening torque	5 Nm
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Headlight to carrier support extension

Used in step 8

Multi-purpose hexagon screw with washer	Tightening torque	5 Nm
---	-------------------	------

Bumper panel to headlight

Used in step 9

Thermoplastic multi-purpose bolt	Tightening torque	2,5 Nm
----------------------------------	-------------------	--------

Bumper panel to air duct

Used in step 9

Screw M6	Tightening torque	4,6 Nm
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Front bumper panel to front side panel

Used in step 9

Screw TS5X35	Tightening torque	3 Nm
--------------	-------------------	------

Front bumper panel to underbody panelling

Used in step 9

Thermoplastic hexagon screw	Tightening torque	2,5 Nm
-----------------------------	-------------------	--------

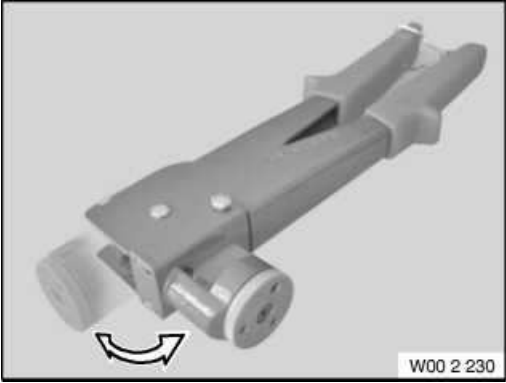
Front wheel arch cover to front bumper panel

Used in step 11

Hexagon screw for thermoplastic plastic	Tightening torque	2,6 Nm
---	-------------------	--------

Overview of Special Tools

0 496 521 (00 2 230) Pliers



Common		Used in step	11	12
Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm			
Included in the tool or work				
Storage location	C25			
Replaced by				
In connection with				
SI-Number	01 17 08 (478)			

Links

General repair instructions	Used in step
63 12 ... US version: Check/set the horizon lock for headlight replacement.	8
63 12 ... US version: Setting the horizontal blocking when headlamp is set	15
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	15
Repair instructions	Used in step
63 10 ... Test requirements for headlights vertical aim adjustment	15

63 12 009 Removing and installing right headlight

PRELIMINARY WORK

1 – Remove both bonnet seals on the side

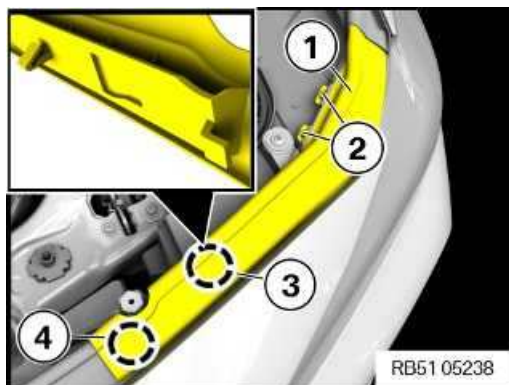


NOTICE

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

► Remove the bonnet seal on the side

- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.



2 – Removing the seal for the front centre bonnet

- Remove the seal for the front centre bonnet (1) towards the top.



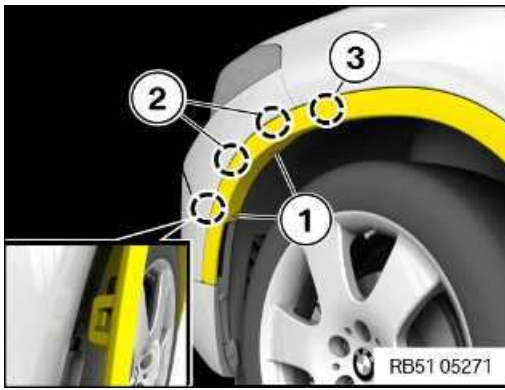
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

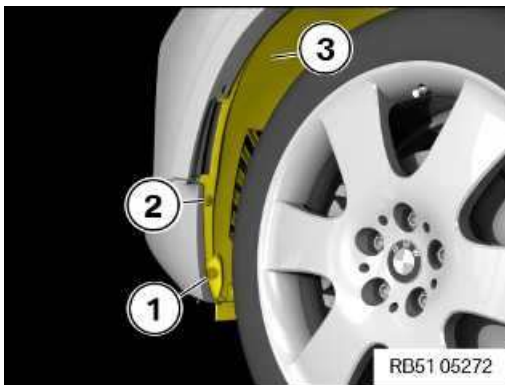
4 – Partially remove both front wheel arch covers



NOTICE

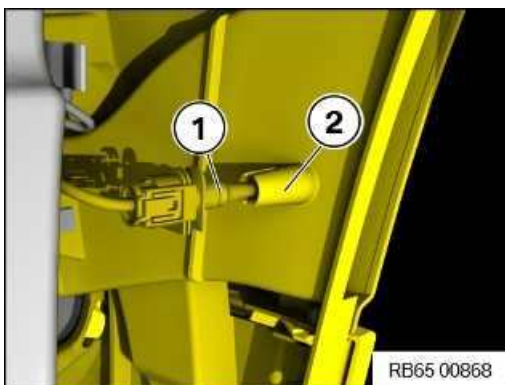
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



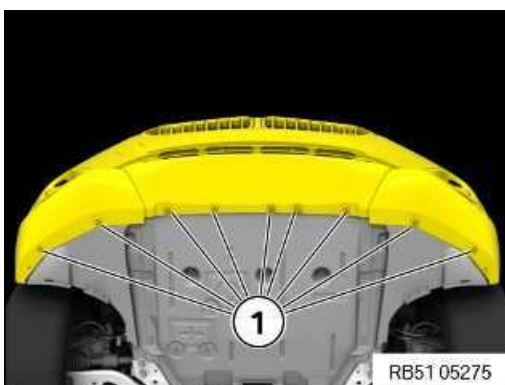
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

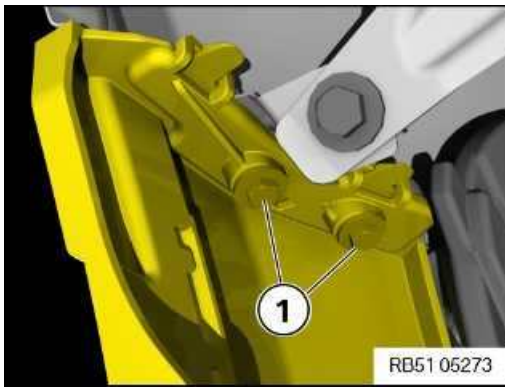


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



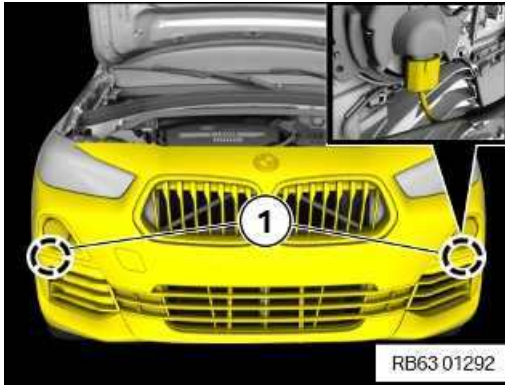
NOTICE

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

- Loosen screws (1).



- Loosen screws (1).
- Loosen screws (2).



- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

MAIN WORK

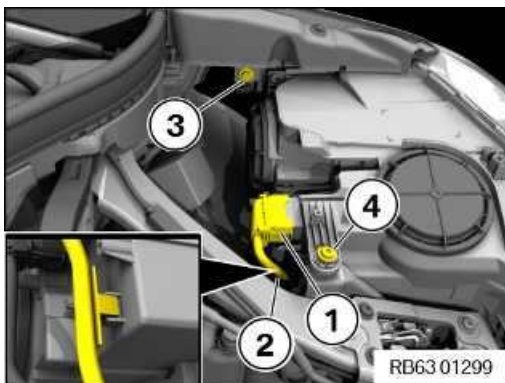
7 – Remove right headlight



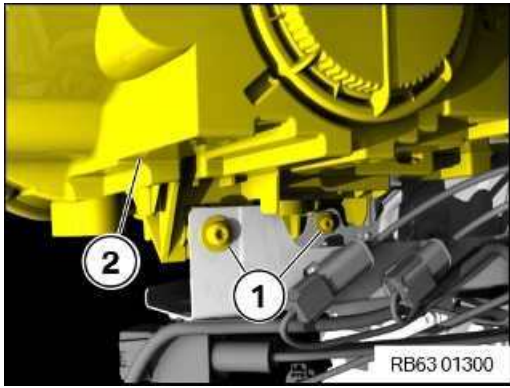
NOTICE

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

► Remove headlight



- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



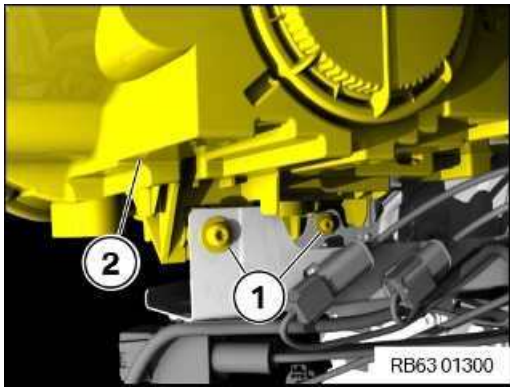
- Loosen screws (1).
- Remove the headlight (2) toward the front.

8 – Install right headlight



NOTICE

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

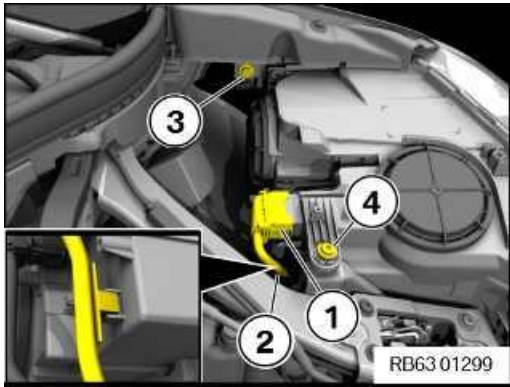


► Install headlight

- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (4).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
-------------	--	-------------------	------

- Tighten down screw (3).

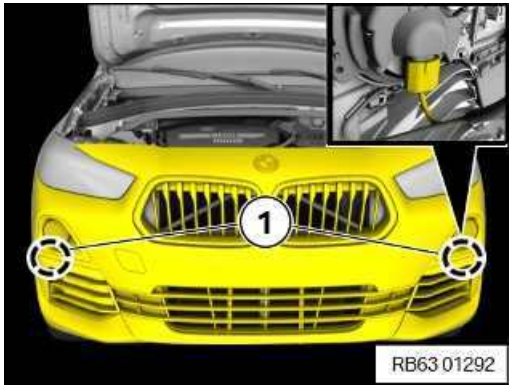
Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
---	--	-------------------	------

- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

POSTPROCESSES

9 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

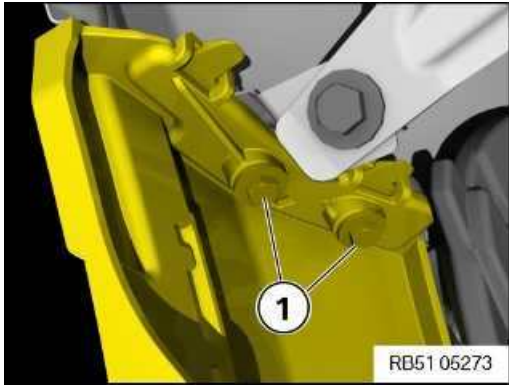
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
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- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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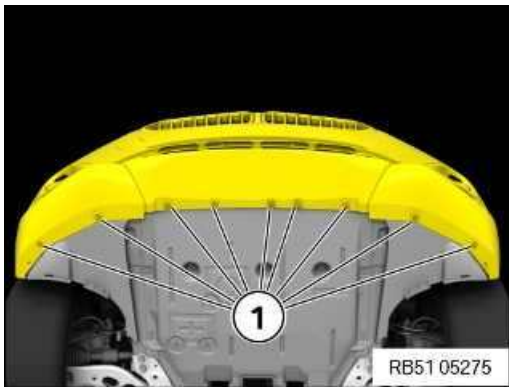
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
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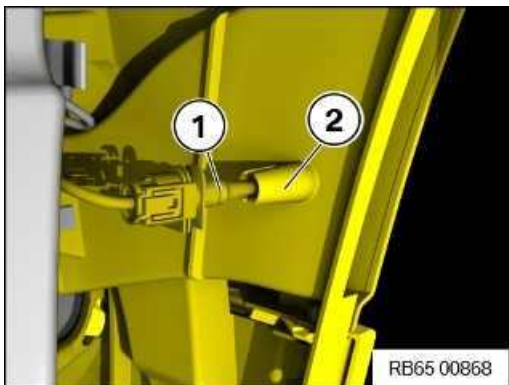


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
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10 – Install temperature sensor



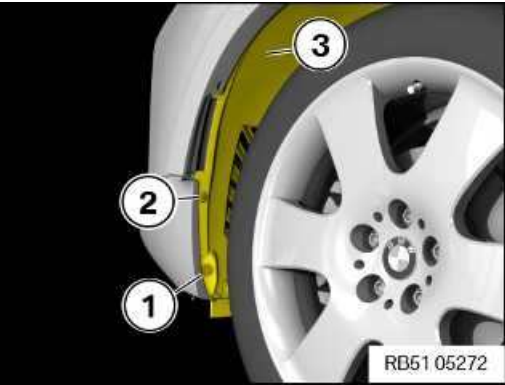
- Clip temperature sensor (1) into the front bumper panel (2).

11 – Partially install both front wheel arch covers



NOTICE

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



► Partially install the front wheel arch cover

- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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12 – Partially install both front wheel arch trims



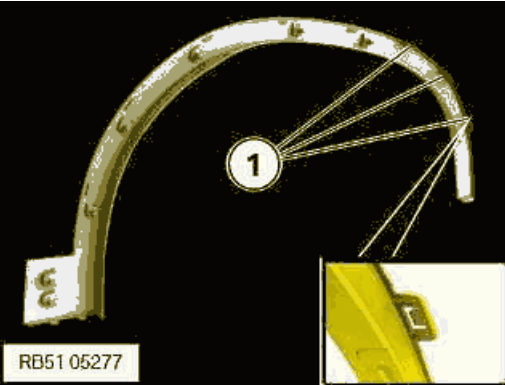
NOTICE

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

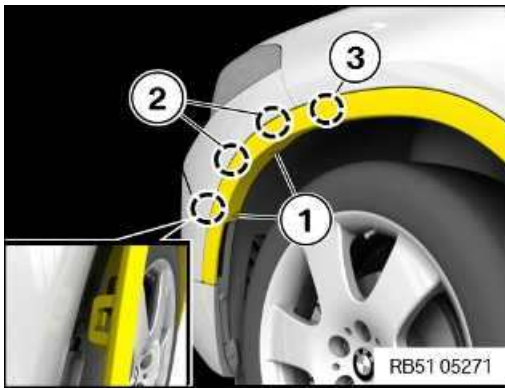


► Partly install the front wheel arch trim

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



- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

13 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

14 – Install both bonnet seals on the side



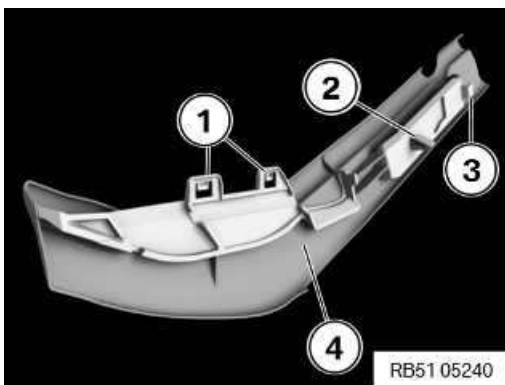
NOTICE

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

► Installing seal for side bonnet

Check

- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

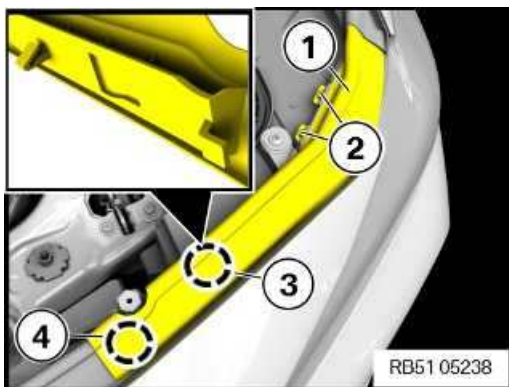


Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).



- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).

15 – Adjust both headlights



NOTICE

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

► Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

Headlight to headlight support bracket

Used in step 8

M6x35 screw	Tightening torque	5 Nm
-------------	-------------------	------

Headlight to carrier support extension

Used in step 8

Multi-purpose hexagon screw with washer	Tightening torque	5 Nm
---	-------------------	------

Bumper panel to headlight

Used in step 9

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
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Bumper panel to air duct

Used in step 9

Screw M6		Tightening torque	4,6 Nm
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Front bumper panel to front side panel

Used in step 9

Screw TS5X35		Tightening torque	3 Nm
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Front bumper panel to underbody panelling

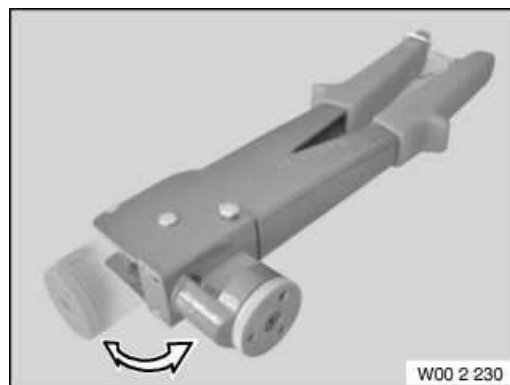
Used in step 9

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
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Front wheel arch cover to front bumper panel

Used in step 11

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
---	--	-------------------	--------

Overview of Special Tools**0 496 521 (00 2 230) Pliers****Common**

Used in step 11 12

Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm
Included in the tool or work	
Storage location	C25
Replaced by	
In connection with	
SI-Number	01 17 08 (478)

Links**General repair instructions**

Used in step

63 12 ... US version: Check/set the horizon lock for headlight replacement.	8
63 12 ... US version: Setting the horizontal blocking when headlamp is set	15
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	15

Repair instructions

Used in step

63 10 ... Test requirements for headlights vertical aim adjustment	15
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63 12 ... Repairing headlights

It is possible to repair the following damage:

- Deformed or broken holders can be replaced using the available repair kits.
Replacement of headlight is **not required!**
For reasons of pedestrian safety it is **not permitted** to use adhesive or reinforcements to repair broken holders!

Note:

Headlight repair kits are not available for every vehicles (see Electronic Parts Catalogue).

Follow the vehicle-specific repair instructions.

It is not possible to repair the following damage:

- Deformed or broken headlight housing.
- Scratched or damaged headlight lenses
The standard coating of headlight lens cannot be restored. Commercially available repair systems are unable to provide sufficient protection from ultraviolet radiation and external influences (stone chipping).

63 12 147 Replacing both LED headlights



NOTICE

Perform the operations on the left and right side.

PRELIMINARY WORK

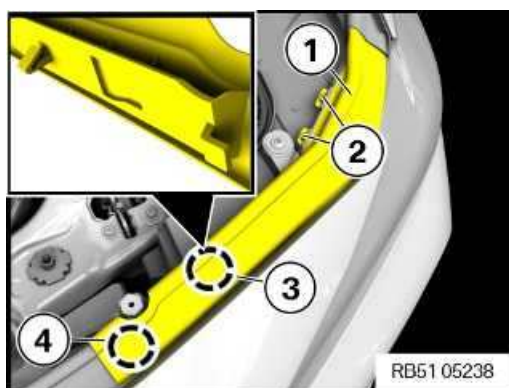
1 – Remove both bonnet seals on the side



NOTICE

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

► Remove the bonnet seal on the side



- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.

2 – Removing the seal for the front centre bonnet



- Remove the seal for the front centre bonnet (1) towards the top.

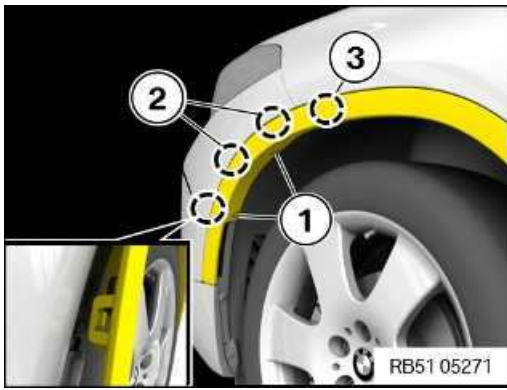
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

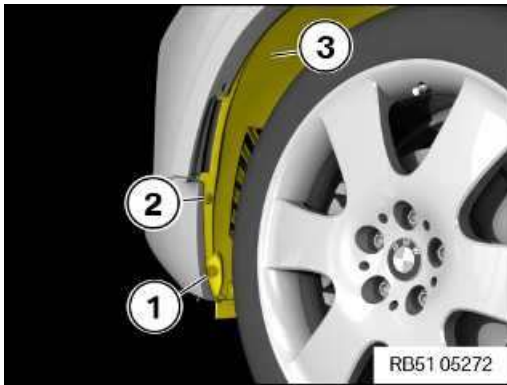
4 – Partially remove both front wheel arch covers



NOTICE

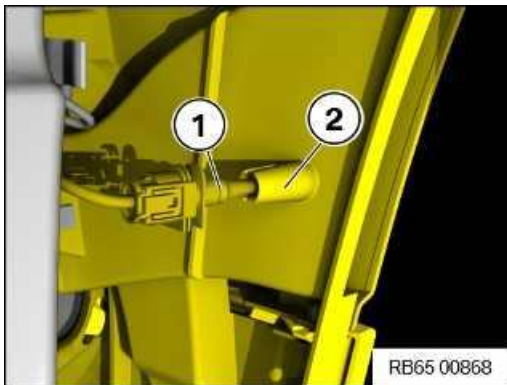
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



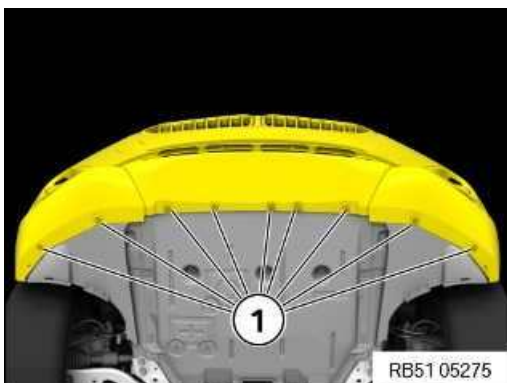
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

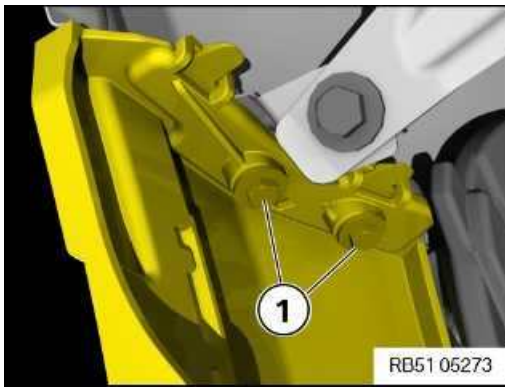


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



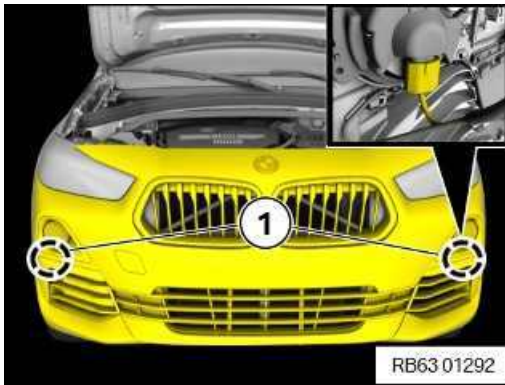
NOTICE

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

- Loosen screws (1).



- Loosen screws (1).
- Loosen screws (2).



- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

MAIN WORK

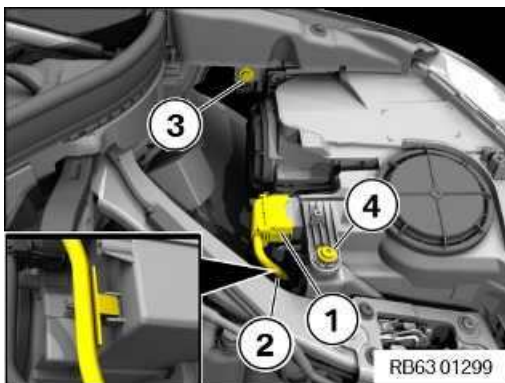
7 – Removing both headlights



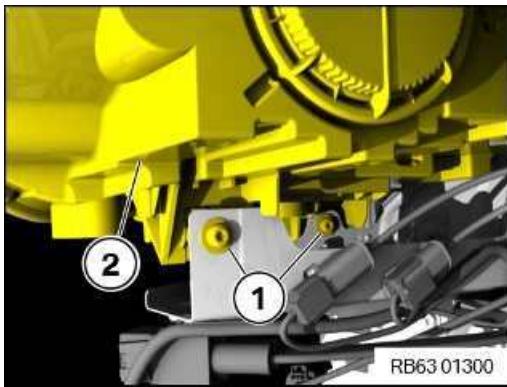
NOTICE

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

► Remove headlight



- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



- Loosen screws (1).
- Remove the headlight (2) toward the front.

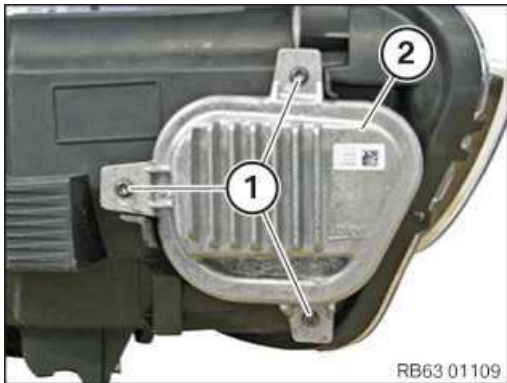
8 – Remount LED module for cornering light at left and right



NOTICE

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

► Removing LED module for the cornering light



- Loosen screws (1) on the LED module for the cornering light (2).
- Pull LED module for the cornering light (2) out of the headlight.

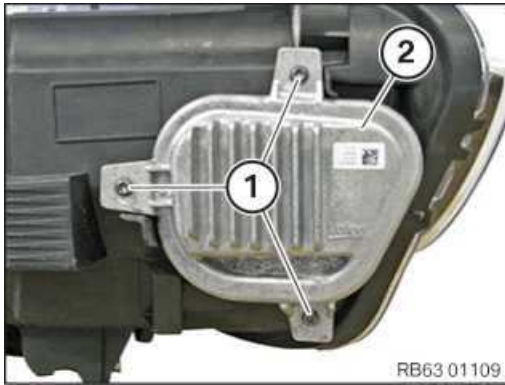


- Unlock and disconnect connector (1).
- Remove LED module for the cornering light (2).

► Installing the LED module for the cornering light



- Check seal (3) on the LED module for cornering light (2) for damage and renew it if necessary.
The seal (3) may not be damaged or be missing.
- Connect connectors (1) and lock.



- Position the LED module for cornering light (2) in the headlight.
- Tighten the screws (1).

LED cornering light module to headlight

Screw		1,6 Nm
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9 – Remounting the LED modules for the left and right daytime driving lights



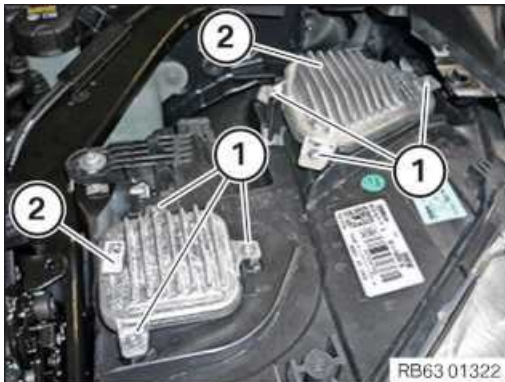
NOTICE

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

► Removing the LED modules for the daytime driving lights



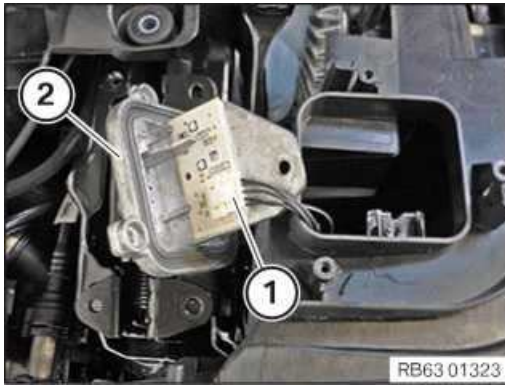
- Loosen the expanding rivet (1).
- Partially release the trim panel (2).



- Loosen screws (1).
- Pull the LED modules (2) out of the headlight.

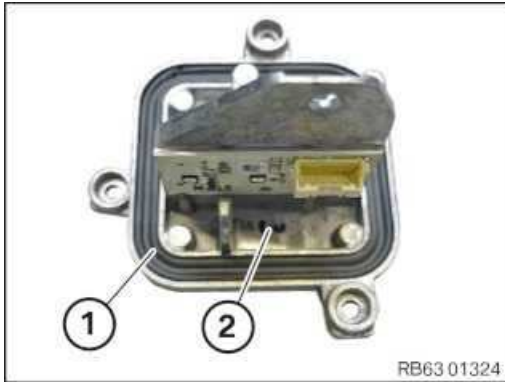


- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

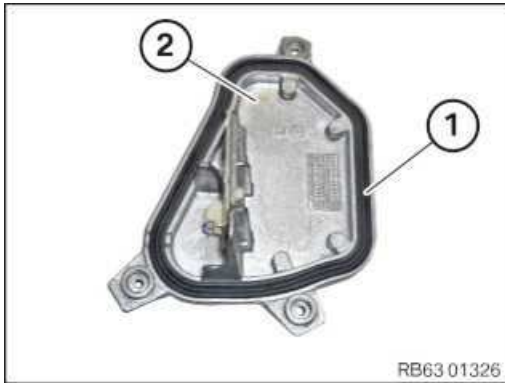


- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

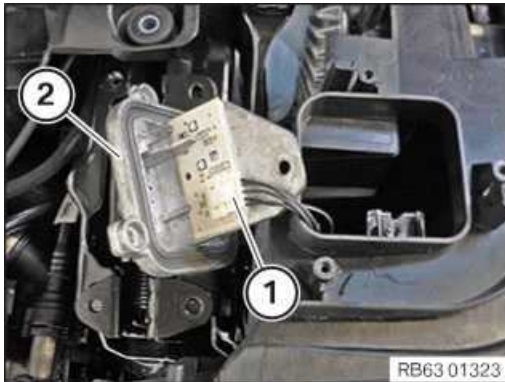
► Installing the LED module for the daytime driving lights



- Check the seal (1) on the LED module (2) for damage and renew where required.



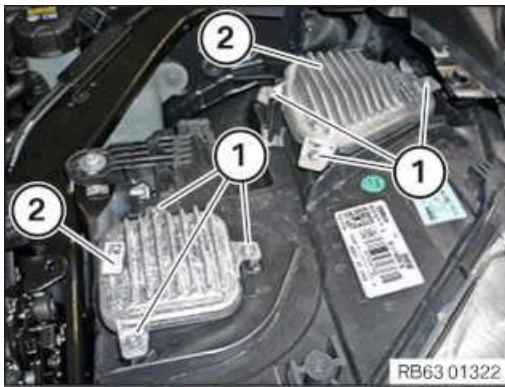
- Check seal (1) on LED module (2) for damage and renew if required.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position LED module (2) in the headlight.
- Tighten the screws (1).

LED module of daytime driving lights to headlight

Screw		1,6 Nm
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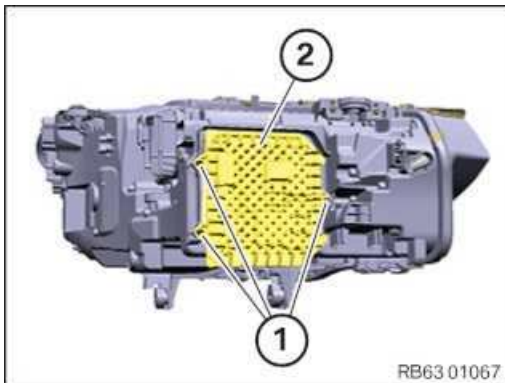
- Position the trim panel (2).
- Clip in expanding rivet (1).

10 – Remounting the control unit for the Frontal Light Electronics Left (FLEL) and Frontal Light Electronics Right (FLER)



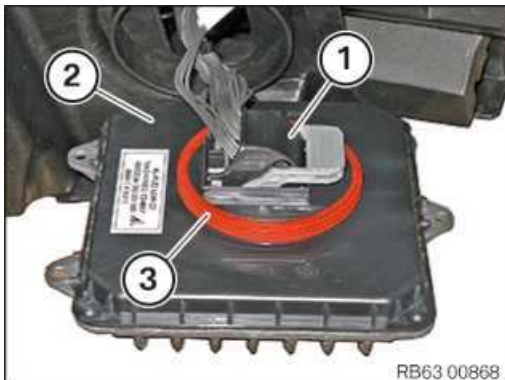
NOTICE

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



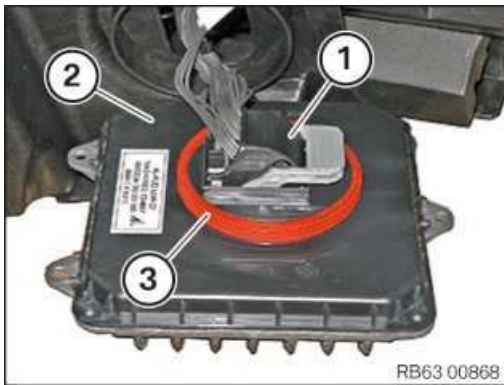
► Removing control unit for the Frontal Light Electronics

- Loosen screws (1).
- Pull control unit for the Frontal Light Electronics (2) out of the headlight.

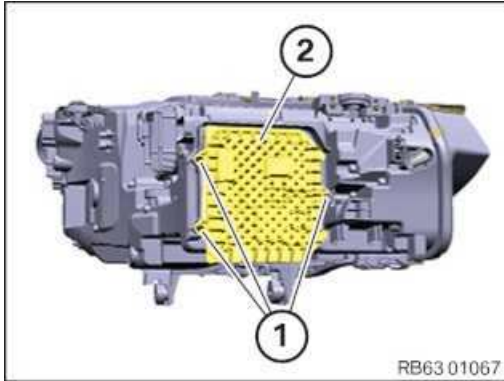


- Unlock and disconnect connector (1).
- Remove control unit for the Frontal Light Electronics (2).

► Installing Frontal Light Electronics control unit



- Check seal (3) on the Frontal Light Electronics control unit (2) for damage and renew if necessary.
- Connect connectors (1) and lock.



- Position the Frontal Light Electronics control unit (2) in the headlight.
- Tighten the screws (1).

Frontal light electronics (FLE)

PT-SCREW 40x12		Tightening torque	1,5 Nm
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11 – Installing both headlights



NOTICE

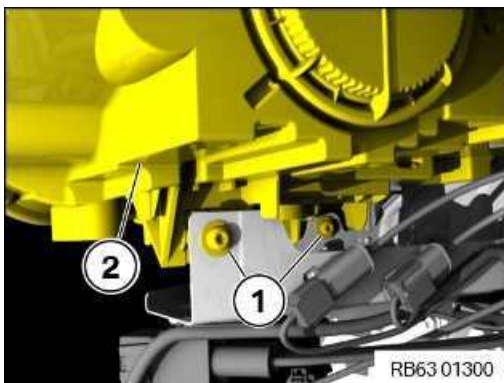
Description is for left component only. Procedure on the right side is identical.

► Install headlight

- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (4).

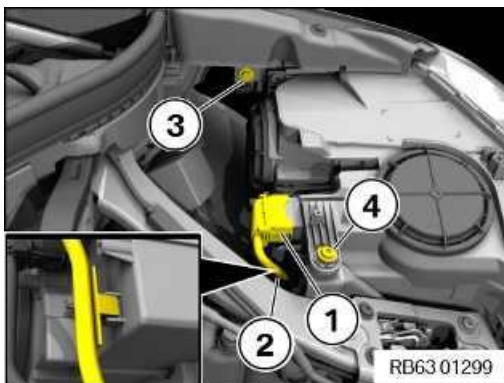
Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (3).

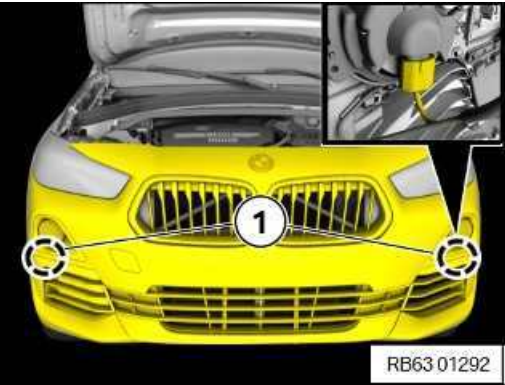
Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
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- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

12 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

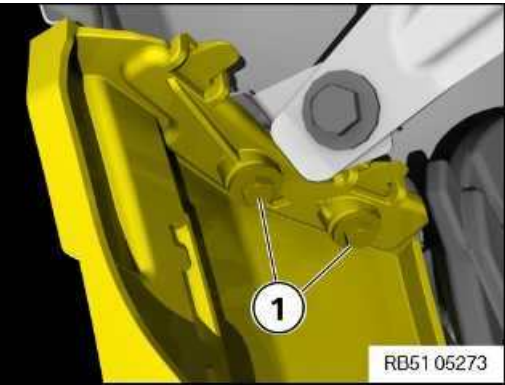
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
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- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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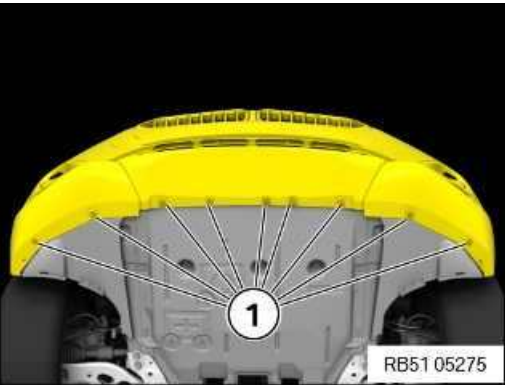
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
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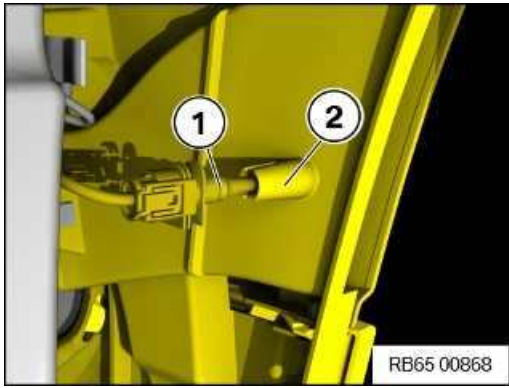


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
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13 – Install temperature sensor



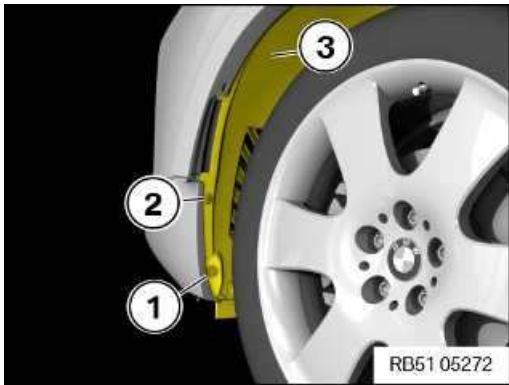
- Clip temperature sensor (1) into the front bumper panel (2).

14 – Partially install both front wheel arch covers



NOTICE

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



► Partially install the front wheel arch cover

- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

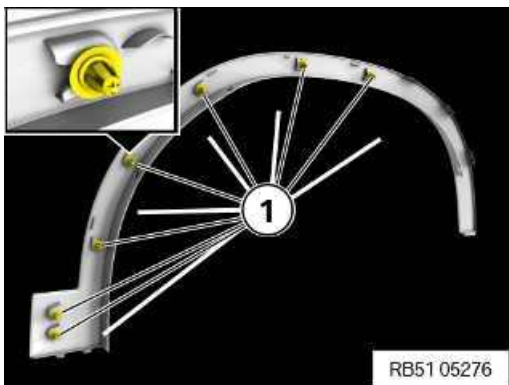
Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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15 – Partially install both front wheel arch trims



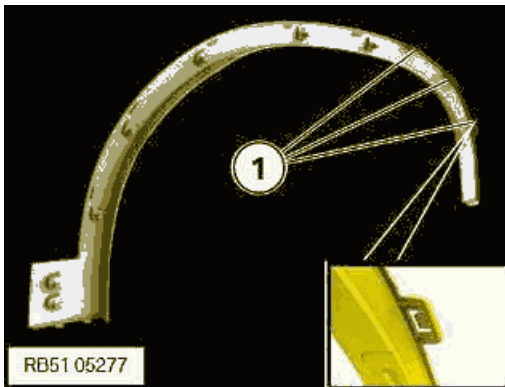
NOTICE

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



► Partly install the front wheel arch trim

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



- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

16 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

17 – Install both bonnet seals on the side



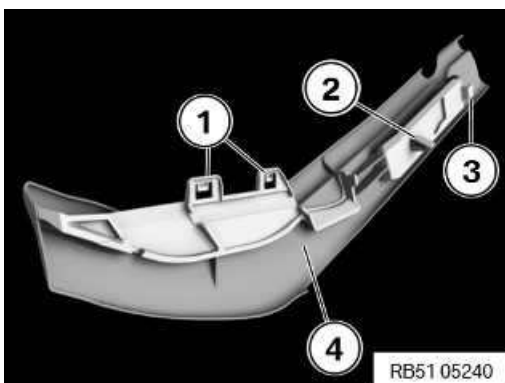
NOTICE

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

► Installing seal for side bonnet

Check

- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

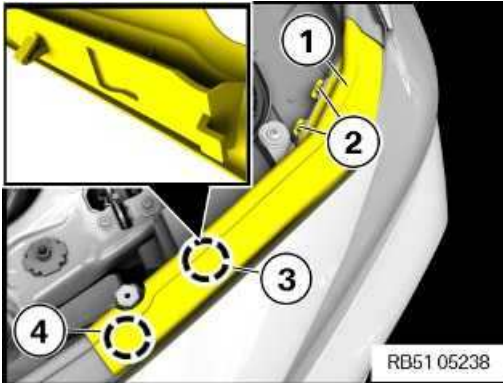


Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).
- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).



18 – Adjust both headlights



NOTICE

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

► Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected:
Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

LED cornering light module to headlightUsed in step **8**

Screw		1,6 Nm
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LED module of daytime driving lights to headlightUsed in step **9**

Screw		1,6 Nm
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Frontal light electronics (FLE)Used in step **10**

PT-SCREW 40x12	Tightening torque	1,5 Nm
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Headlight to headlight support bracketUsed in step **11**

M6x35 screw	Tightening torque	5 Nm
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Headlight to carrier support extensionUsed in step **11**

Multi-purpose hexagon screw with washer	Tightening torque	5 Nm
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Bumper panel to headlightUsed in step **12**

Thermoplastic multi-purpose bolt	Tightening torque	2,5 Nm
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Bumper panel to air ductUsed in step **12**

Screw M6	Tightening torque	4,6 Nm
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Front bumper panel to front side panelUsed in step **12**

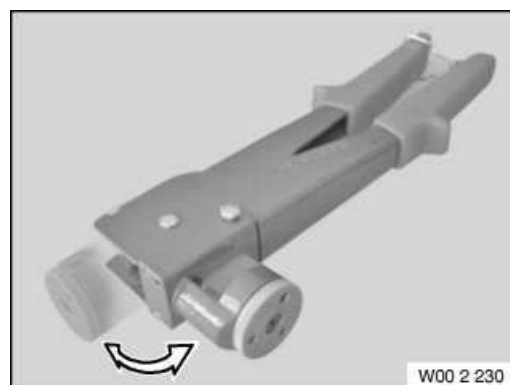
Screw TS5X35	Tightening torque	3 Nm
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Front bumper panel to underbody panellingUsed in step **12**

Thermoplastic hexagon screw	Tightening torque	2,5 Nm
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Front wheel arch cover to front bumper panelUsed in step **14**

Hexagon screw for thermoplastic plastic	Tightening torque	2,6 Nm
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Overview of Special Tools**0 496 521 (00 2 230) Pliers****Common**Used in step **14** **15**

Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm
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Included in the tool or work	
------------------------------	--

Storage location	C25
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Replaced by	
-------------	--

In connection with	
--------------------	--

SI-Number	01 17 08 (478)
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Links**General repair instructions**

Used in step

[63 12 ... US version: Check/set the horizon lock for headlight replacement.](#)**11**

63 12 ... US version: Setting the horizontal blocking when headlamp is set	18
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63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	18
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Repair instructions	Used in step
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63 10 ... Test requirements for headlights vertical aim adjustment	18
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63 12 141 Replacing left LED headlight

PRELIMINARY WORK

1 – Remove both bonnet seals on the side

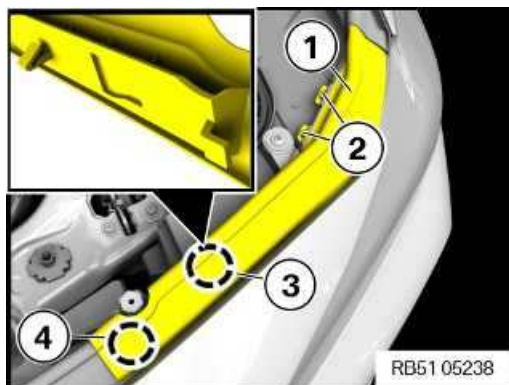


NOTICE

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

► Remove the bonnet seal on the side

- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.



2 – Removing the seal for the front centre bonnet



- Remove the seal for the front centre bonnet (1) towards the top.

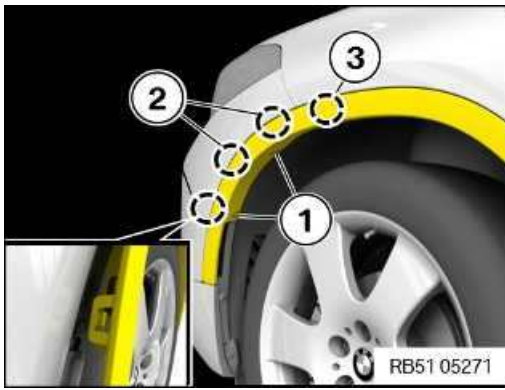
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

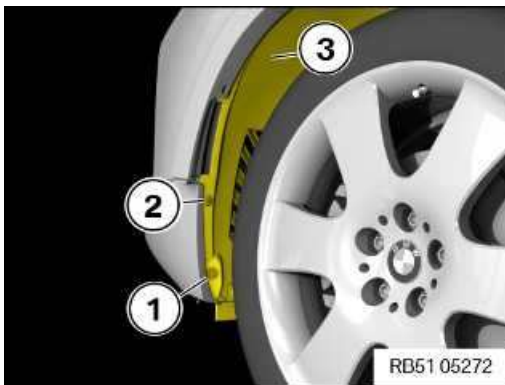
4 – Partially remove both front wheel arch covers



NOTICE

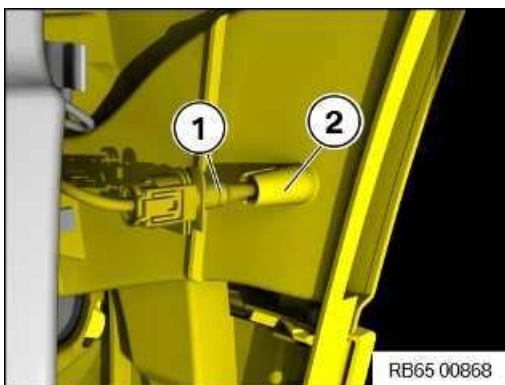
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



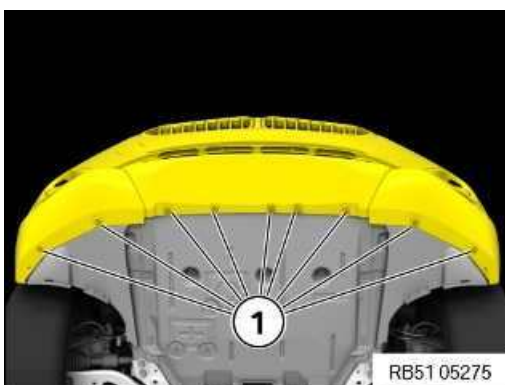
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

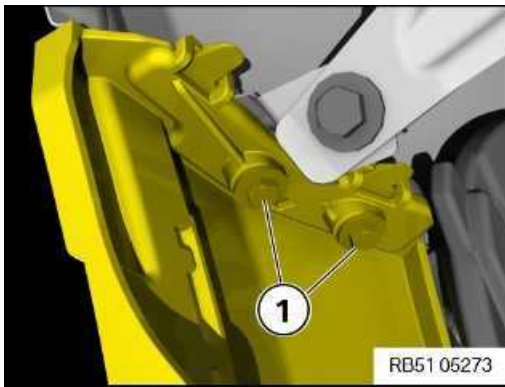


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



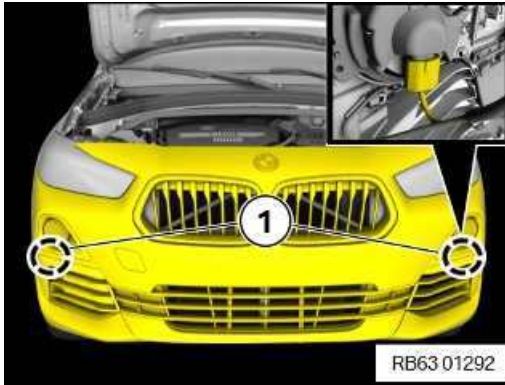
NOTICE

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

- Loosen screws (1).

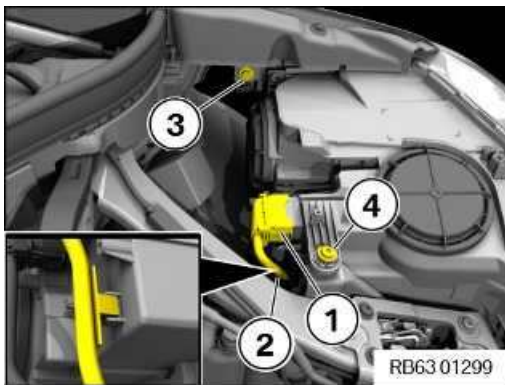


- Loosen screws (1).
- Loosen screws (2).

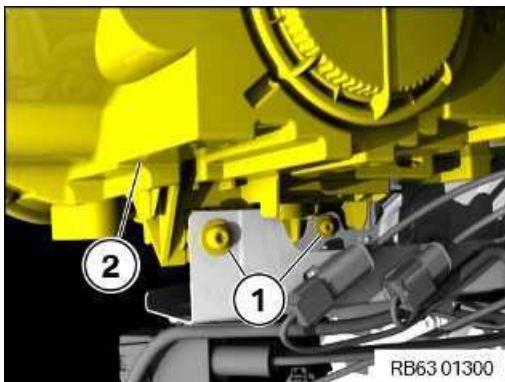


- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

7 – Remove headlight

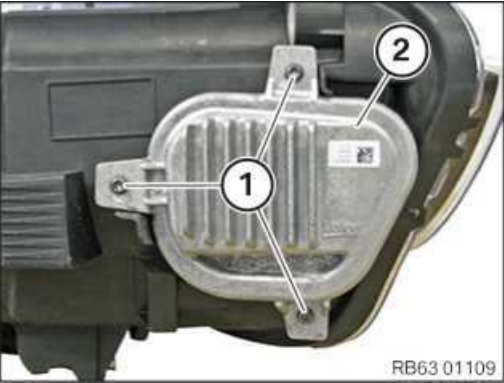


- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



- Loosen screws (1).
- Remove the headlight (2) toward the front.

8 – Remounting the LED module for the cornering light



► Removing LED module for the cornering light

- Loosen screws (1) on the LED module for the cornering light (2).
- Pull LED module for the cornering light (2) out of the headlight.

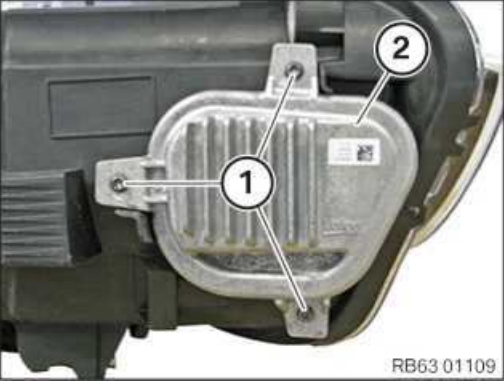


- Unlock and disconnect connector (1).
- Remove LED module for the cornering light (2).



► Installing the LED module for the cornering light

- Check seal (3) on the LED module for cornering light (2) for damage and renew it if necessary.
The seal (3) may not be damaged or be missing.
- Connect connectors (1) and lock.



- Position the LED module for cornering light (2) in the headlight.
- Tighten the screws (1).

LED cornering light module to headlight

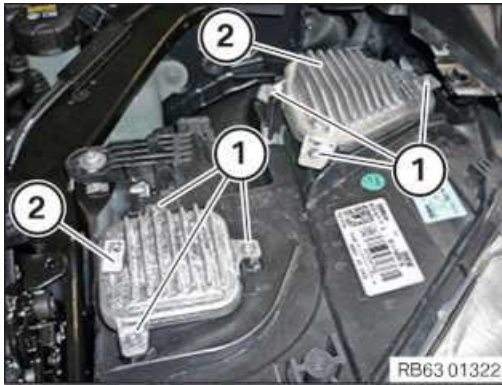
Screw		1,6 Nm
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9 – Remounting the LED modules for the daytime driving lights

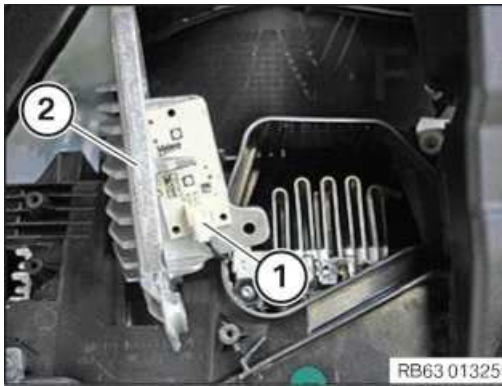
► Removing the LED modules for the daytime driving lights



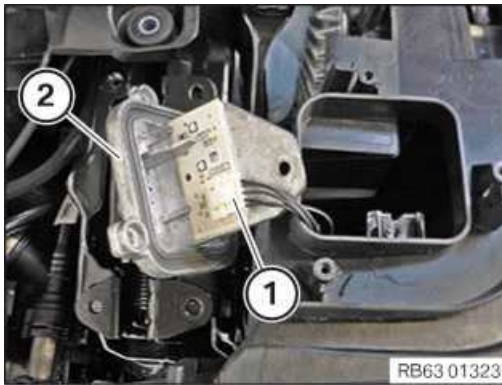
- Loosen the expanding rivet (1).
- Partially release the trim panel (2).



- Loosen screws (1).
- Pull the LED modules (2) out of the headlight.

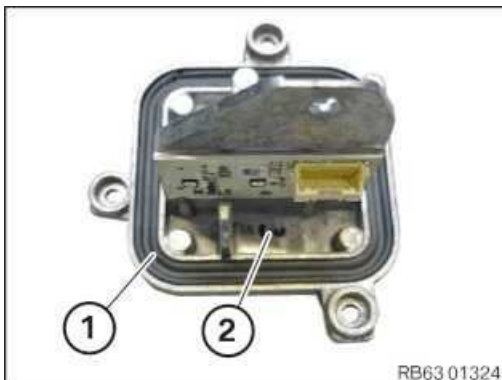


- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

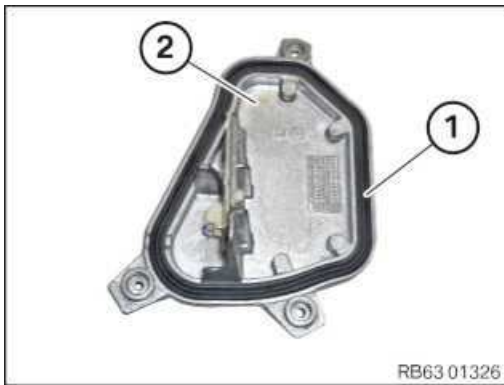


- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

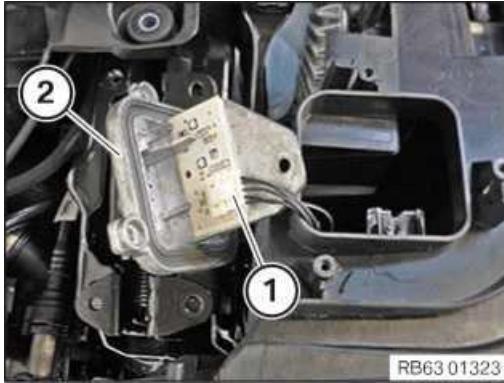
► Installing the LED module for the daytime driving lights



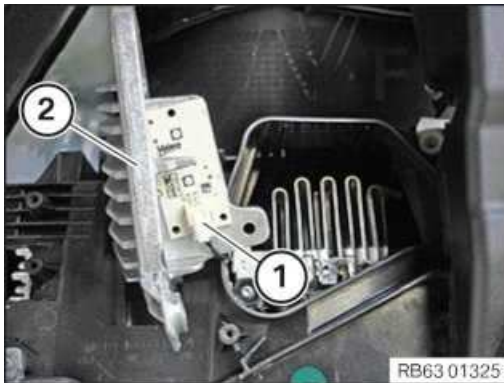
- Check the seal (1) on the LED module (2) for damage and renew where required.



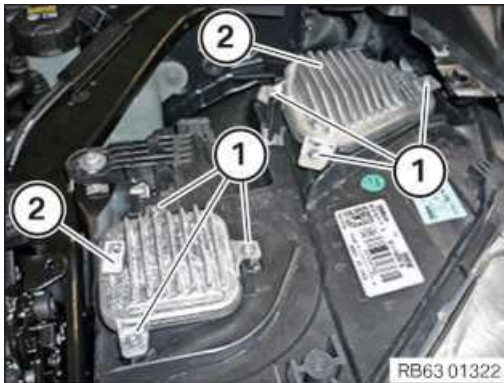
- Check seal (1) on LED module (2) for damage and renew if required.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position LED module (2) in the headlight.
- Tighten the screws (1).

LED module of daytime driving lights to headlight

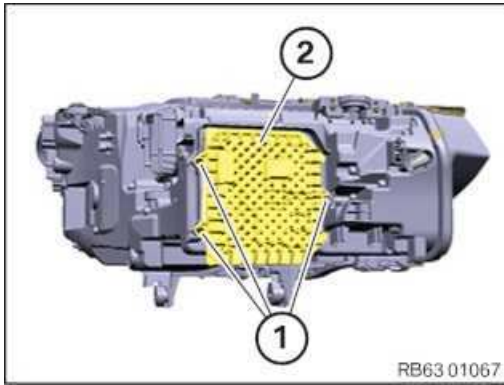
Screw		1,6 Nm
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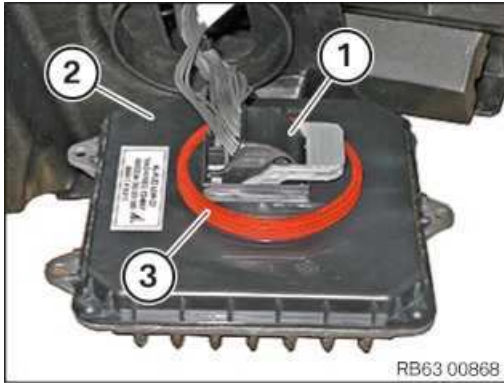
- Position the trim panel (2).
- Clip in expanding rivet (1).

10 – Remounting the Frontal Light Electronics control unit

► Removing control unit for the Frontal Light Electronics

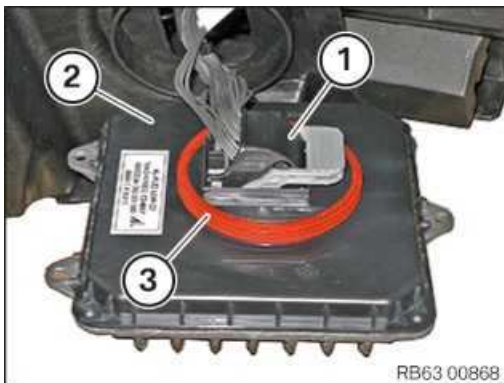


- Loosen screws (1).
- Pull control unit for the Frontal Light Electronics (2) out of the headlight.

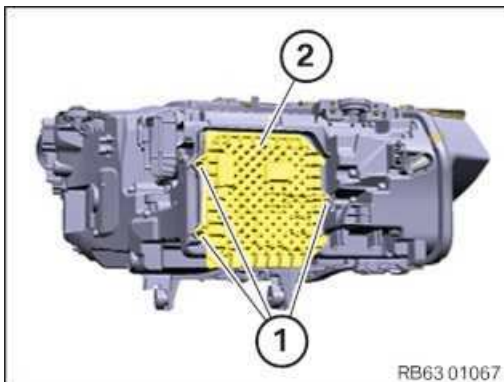


- Unlock and disconnect connector (1).
- Remove control unit for the Frontal Light Electronics (2).

► Installing Frontal Light Electronics control unit



- Check seal (3) on the Frontal Light Electronics control unit (2) for damage and renew if necessary.
- Connect connectors (1) and lock.



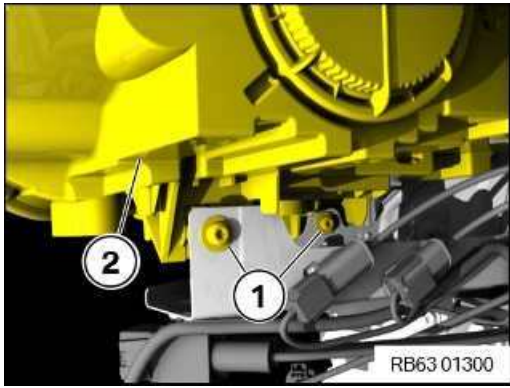
- Position the Frontal Light Electronics control unit (2) in the headlight.
- Tighten the screws (1).

Frontal light electronics (FLE)

PT-SCREW 40x12		Tightening torque	1,5 Nm
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POSTPROCESSES

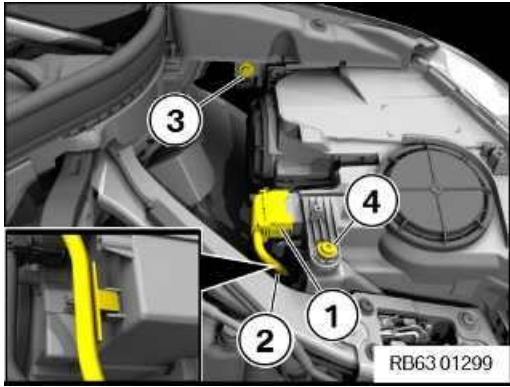
11 – Install headlight



- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (4).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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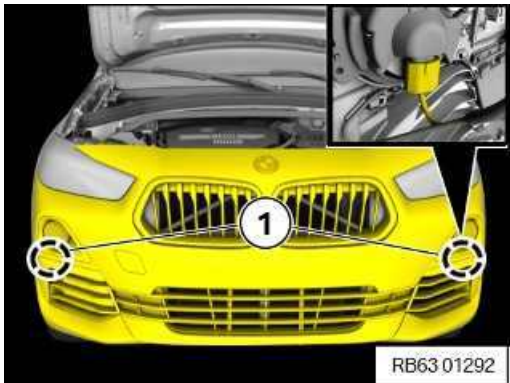
- Tighten down screw (3).

Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
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- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

12 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

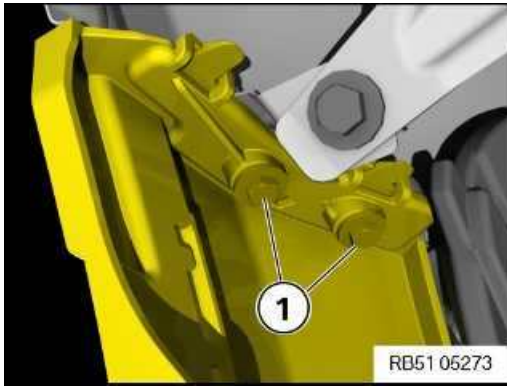
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
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- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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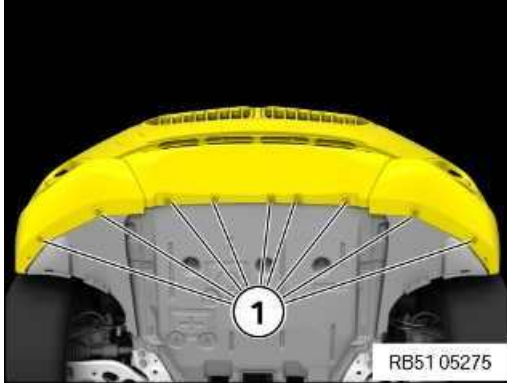
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
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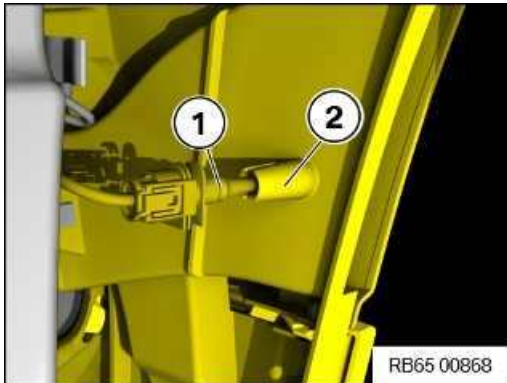


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
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13 – Install temperature sensor



- Clip temperature sensor (1) into the front bumper panel (2).

14 – Partially install both front wheel arch covers



NOTICE

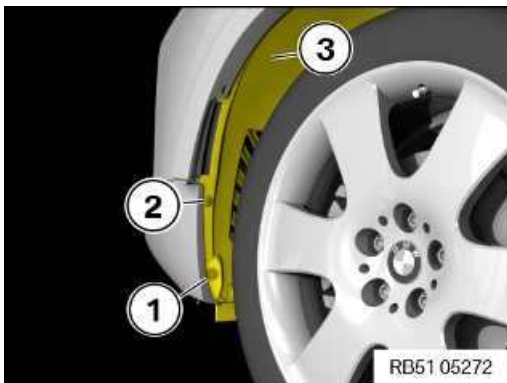
Description is for left component only. Procedure on the right side is identical.

► Partially install the front wheel arch cover

- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
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15 – Partially install both front wheel arch trims

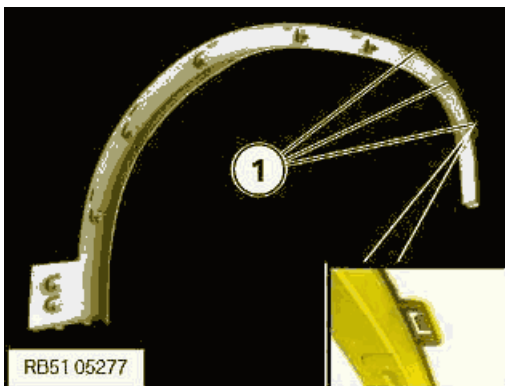
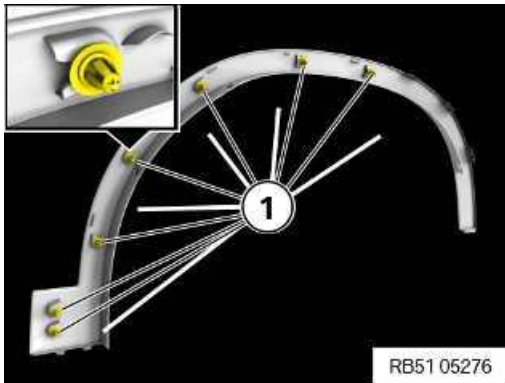


NOTICE

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

► Partly install the front wheel arch trim

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



- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

16 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

17 – Install both bonnet seals on the side



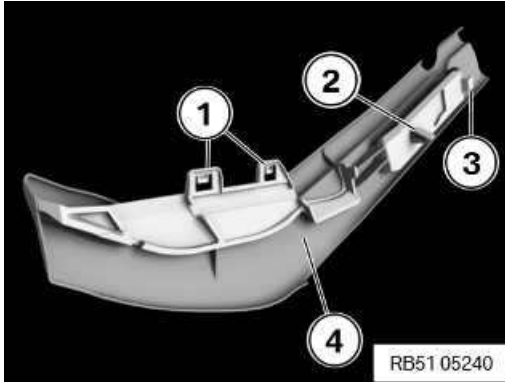
NOTICE

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

► Installing seal for side bonnet

Check

- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

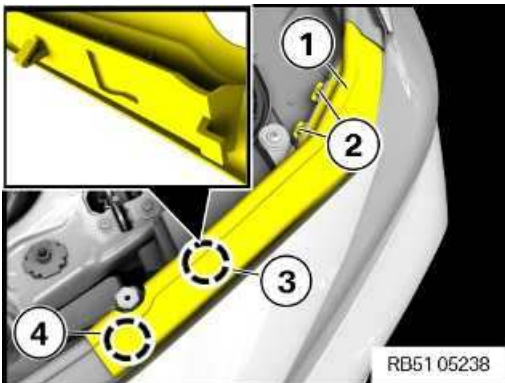


Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).
- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).



18 – Adjust both headlights



NOTICE

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

► Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

LED cornering light module to headlight

Used in step [8](#)

Screw		1,6 Nm
-------	--	--------

LED module of daytime driving lights to headlight

Used in step [9](#)

Screw		1,6 Nm
-------	--	--------

Frontal light electronics (FLE)

Used in step [10](#)

PT-SCREW 40x12	Tightening torque	1,5 Nm
----------------	-------------------	--------

Headlight to headlight support bracket

Used in step [11](#)

M6x35 screw	Tightening torque	5 Nm
-------------	-------------------	------

Headlight to carrier support extension

Used in step [11](#)

Multi-purpose hexagon screw with washer	Tightening torque	5 Nm
---	-------------------	------

Bumper panel to headlight

Used in step [12](#)

Thermoplastic multi-purpose bolt	Tightening torque	2,5 Nm
----------------------------------	-------------------	--------

Bumper panel to air duct

Used in step [12](#)

Screw M6	Tightening torque	4,6 Nm
----------	-------------------	--------

Front bumper panel to front side panel

Used in step [12](#)

Screw TS5X35	Tightening torque	3 Nm
--------------	-------------------	------

Front bumper panel to underbody panelling

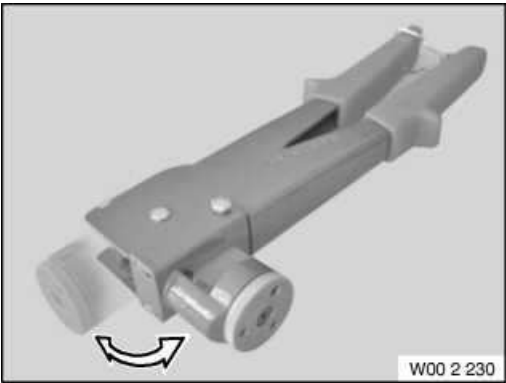
Used in step [12](#)

Thermoplastic hexagon screw	Tightening torque	2,5 Nm
-----------------------------	-------------------	--------

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
---	--	-------------------	--------

Overview of Special Tools

0 496 521 (00 2 230) Pliers



Common		Used in step	14	15
Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm			
Included in the tool or work				
Storage location	C25			
Replaced by				
In connection with				
SI-Number	01 17 08 (478)			

Links

General repair instructions	Used in step
63 12 ... US version: Check/set the horizon lock for headlight replacement.	11
63 12 ... US version: Setting the horizontal blocking when headlamp is set	18
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	18
Repair instructions	Used in step
63 10 ... Test requirements for headlights vertical aim adjustment	18

63 12 144 Replacing right LED headlight

PRELIMINARY WORK

1 – Remove both bonnet seals on the side

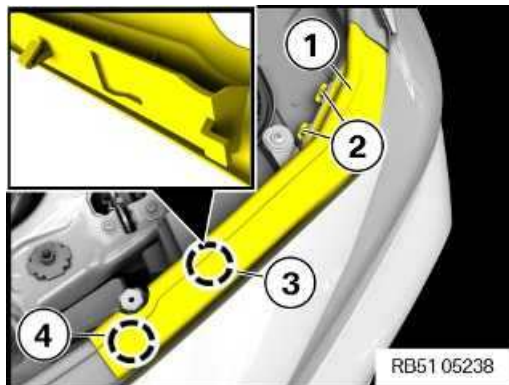


NOTICE

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

► Remove the bonnet seal on the side

- Unclip the side bonnet seal (1) from the outer latch mechanisms (2) and the inner latch mechanism (3).
- Feed out the side bonnet seal (1) from the guide (4) and remove.



2 – Removing the seal for the front centre bonnet

- Remove the seal for the front centre bonnet (1) towards the top.



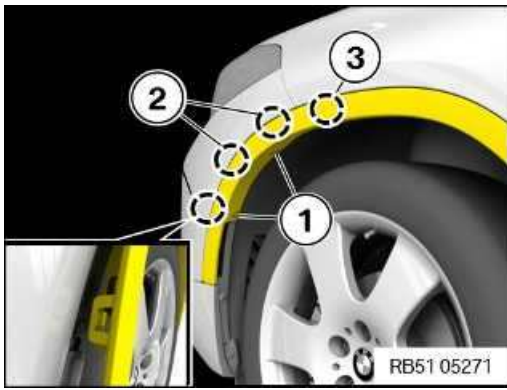
3 – Partially remove both front wheel arch trims



NOTICE

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

► Partially removing the front wheel arch trim



- Loosen blind rivet(1).
- Release front wheel arch trim in the area of the bumper panel from the latch mechanisms (2) and from the clip (3).

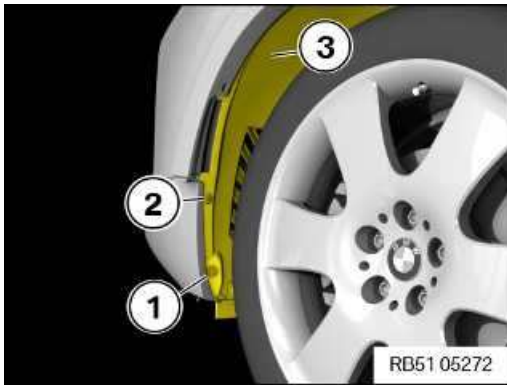
4 – Partially remove both front wheel arch covers



NOTICE

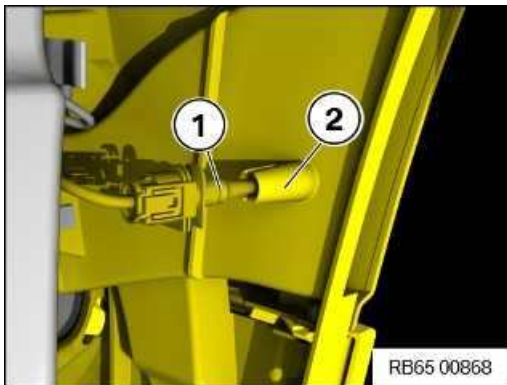
Description is for left component only. Procedure on the right side is identical.

► Partially remove the front wheel arch cover



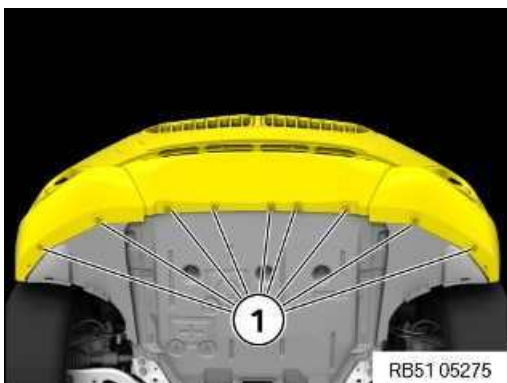
- Loosen screw (1).
- Release the blind rivet (2).
- Fold back the front wheel arch cover (3).

5 – Remove temperature sensor

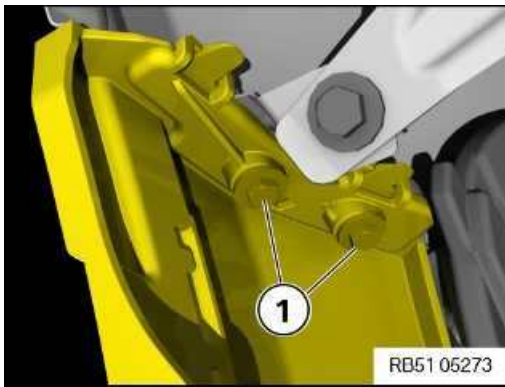


- Unclip temperature sensor (1) from front bumper panel (2).

6 – Remove front bumper panel



- Loosen screws (1).



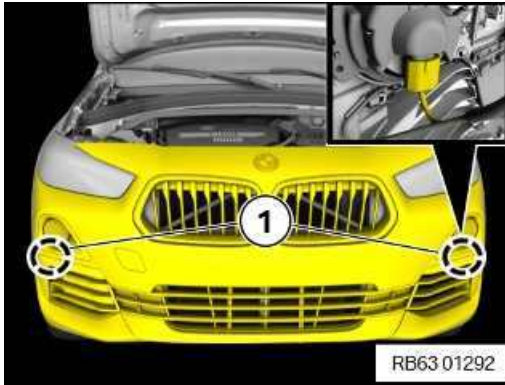
NOTICE

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

- Loosen screws (1).



- Loosen screws (1).
- Loosen screws (2).



- Pull the front bumper panel slightly forward with the help of another person.
- Unlock and disconnect the plug connections (1) on the fog lights.
- Remove the front bumper panel.

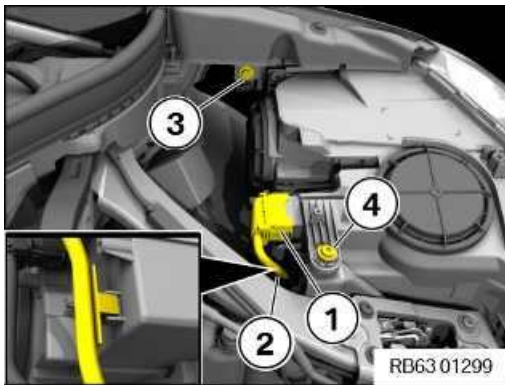
7 – Remove right headlight



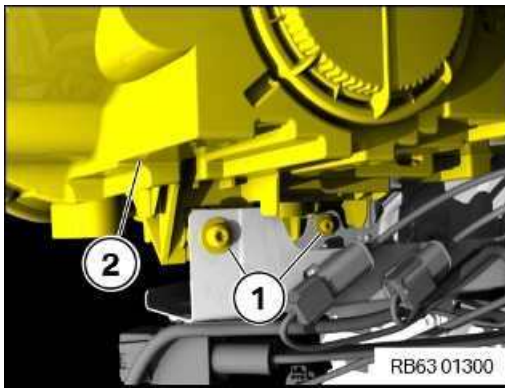
NOTICE

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

► Remove headlight



- Unlock plug connection (1) and disconnect.
- Release the cable (2) from the latch mechanism.
- Loosen screw (3).
- Loosen screw (4).



- Loosen screws (1).
- Remove the headlight (2) toward the front.

MAIN WORK

8 – Remounting the LED module for the right cornering light

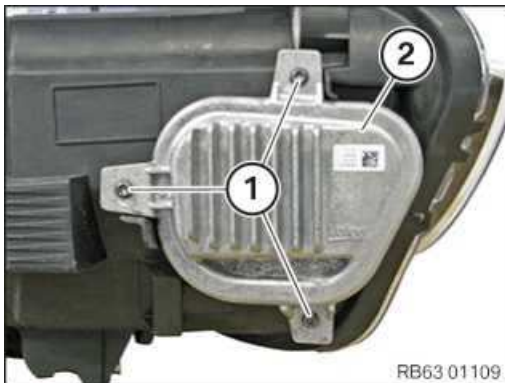


NOTICE

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

► Removing LED module for the cornering light

- Loosen screws (1) on the LED module for the cornering light (2).
- Pull LED module for the cornering light (2) out of the headlight.

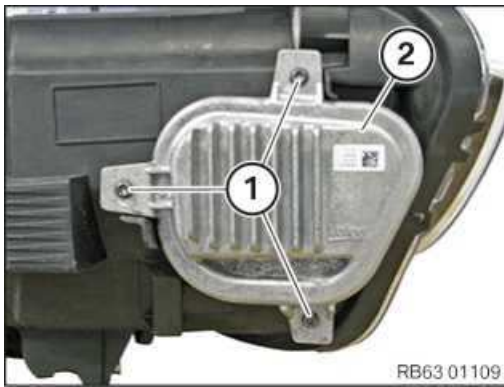


- Unlock and disconnect connector (1).
- Remove LED module for the cornering light (2).

► Installing the LED module for the cornering light

- Check seal (3) on the LED module for cornering light (2) for damage and renew it if necessary.
The seal (3) may not be damaged or be missing.
- Connect connectors (1) and lock.





- Position the LED module for cornering light (2) in the headlight.
- Tighten the screws (1).

LED cornering light module to headlight

Screw		1,6 Nm
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9 – Replace right daytime driving lights LED modules



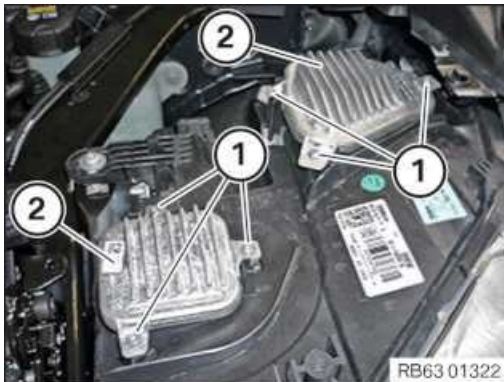
NOTICE

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

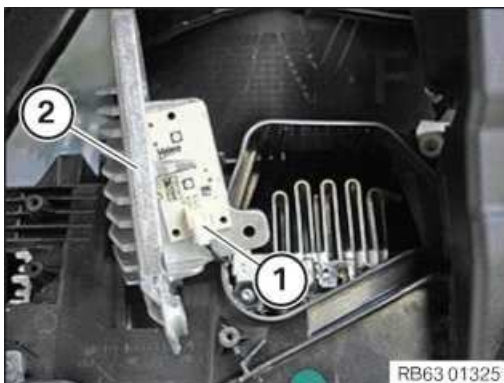
► Removing the LED modules for the daytime driving lights



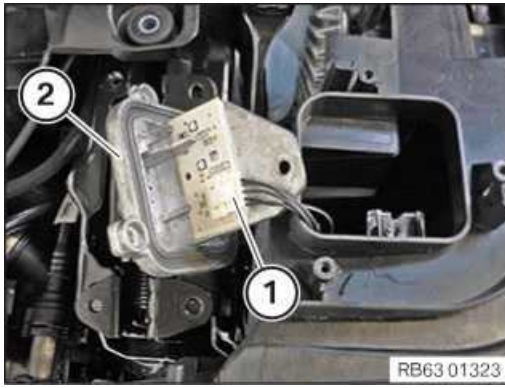
- Loosen the expanding rivet (1).
- Partially release the trim panel (2).



- Loosen screws (1).
- Pull the LED modules (2) out of the headlight.

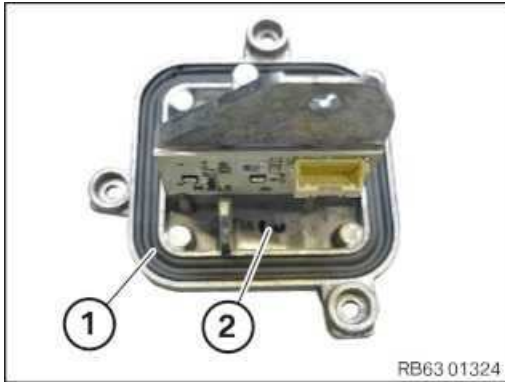


- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

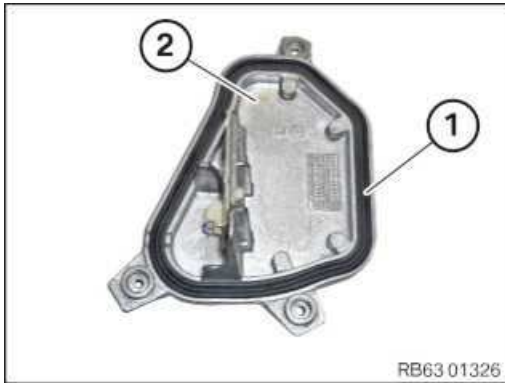


- Unlock plug connection (1) and disconnect.
- Remove the LED module (2).

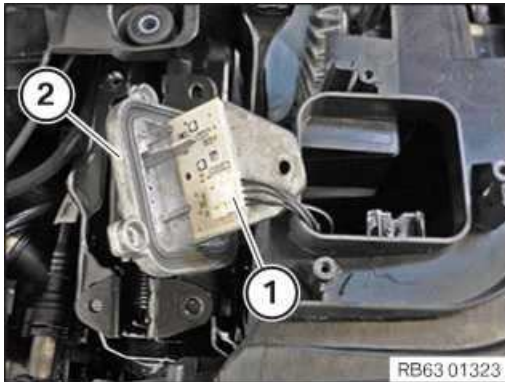
► Installing the LED module for the daytime driving lights



- Check the seal (1) on the LED module (2) for damage and renew where required.



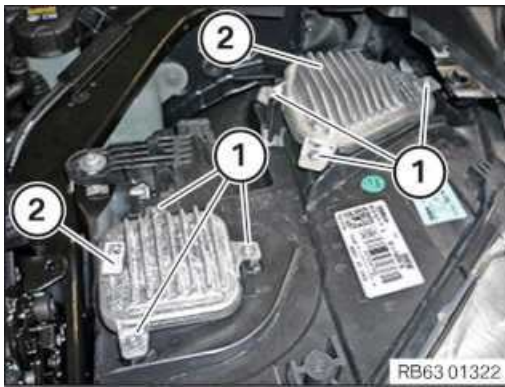
- Check seal (1) on LED module (2) for damage and renew if required.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position the LED module (2).
- Connect connectors (1) and lock.



- Position LED module (2) in the headlight.
- Tighten the screws (1).

LED module of daytime driving lights to headlight

Screw		1,6 Nm
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- Position the trim panel (2).
- Clip in expanding rivet (1).

10 – Remount right Frontal Light Electronics control unit (FLER)

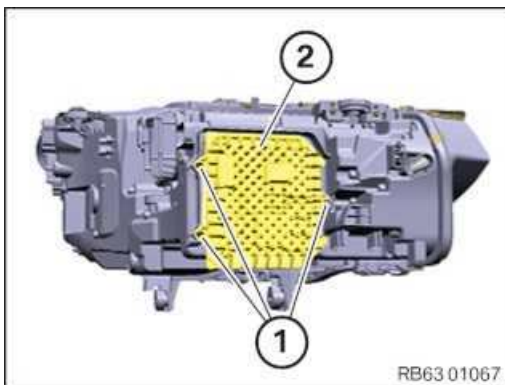


NOTICE

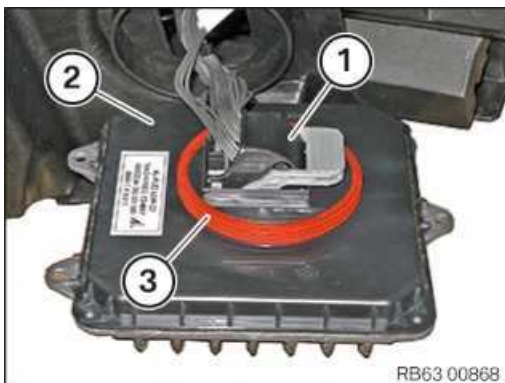
Description is for left component only. Procedure on the right side is identical.

► Removing control unit for the Frontal Light Electronics

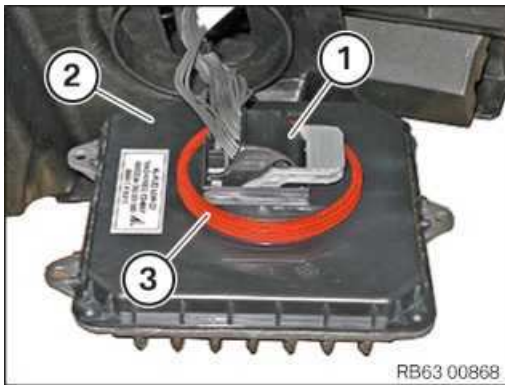
- Loosen screws (1).
- Pull control unit for the Frontal Light Electronics (2) out of the headlight.



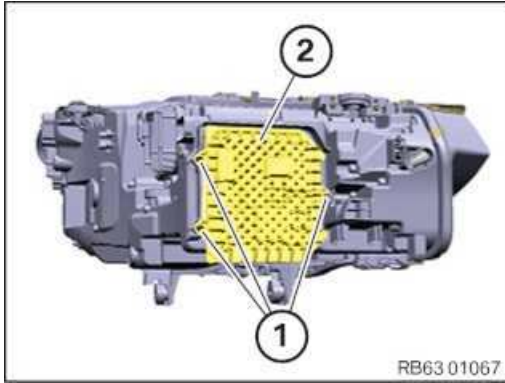
- Unlock and disconnect connector (1).
- Remove control unit for the Frontal Light Electronics (2).



► Installing Frontal Light Electronics control unit



- Check seal (3) on the Frontal Light Electronics control unit (2) for damage and renew if necessary.
- Connect connectors (1) and lock.



- Position the Frontal Light Electronics control unit (2) in the headlight.
- Tighten the screws (1).

Frontal light electronics (FLE)

PT-SCREW 40x12		Tightening torque	1,5 Nm
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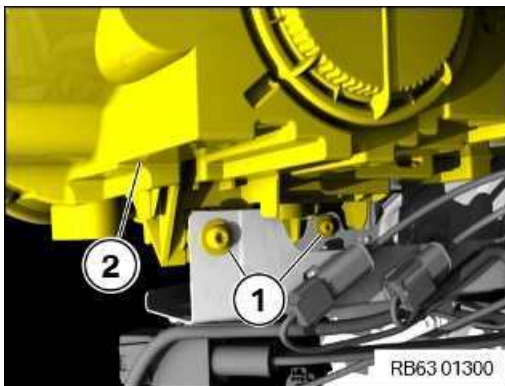
POSTPROCESSES

11 – Install right headlight



NOTICE

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

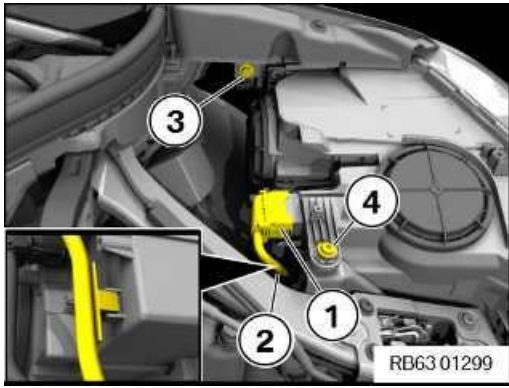


► Install headlight

- Insert the headlights (2).
- Tighten the screws (1).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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- Tighten down screw (4).

Headlight to headlight support bracket

M6x35 screw		Tightening torque	5 Nm
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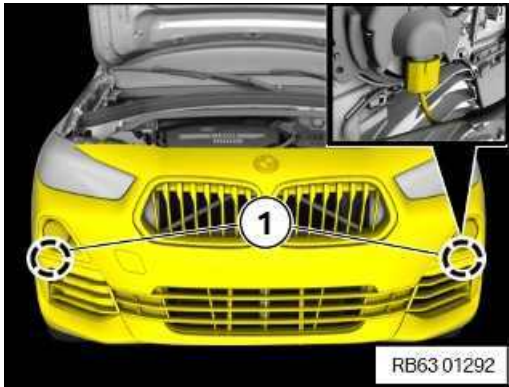
- Tighten down screw (3).

Headlight to carrier support extension

Multi-purpose hexagon screw with washer		Tightening torque	5 Nm
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- Attach the cable (2) in the latch mechanism.
- Connect connectors (1) and lock.

12 – Install bumper panel, front



- Connect the connectors (1) on the fog lights and lock.
- Join the front bumper panel and position.



- Tighten the screws (1).

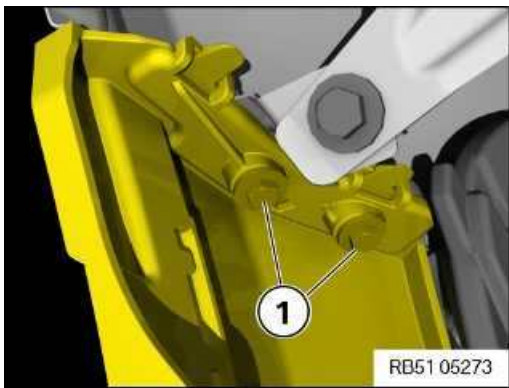
Bumper panel to headlight

Thermoplastic multi-purpose bolt		Tightening torque	2,5 Nm
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- Tighten down screws (2).

Bumper panel to air duct

Screw M6		Tightening torque	4,6 Nm
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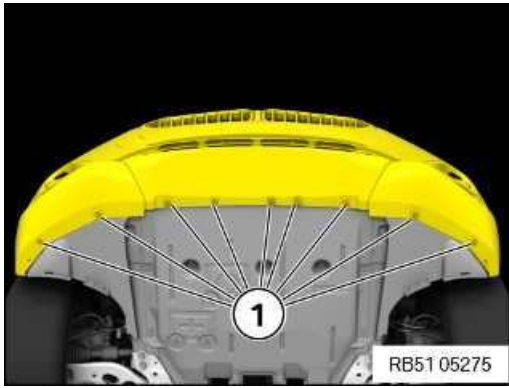
NOTICE

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

- Tighten the screws (1).

Front bumper panel to front side panel

Screw TS5X35		Tightening torque	3 Nm
--------------	--	-------------------	------

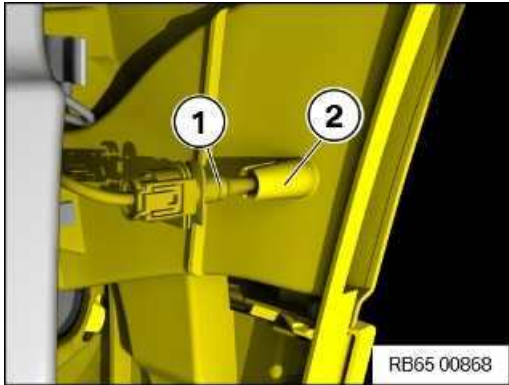


- Tighten the screws (1).

Front bumper panel to underbody panelling

Thermoplastic hexagon screw		Tightening torque	2,5 Nm
-----------------------------	--	-------------------	--------

13 – Install temperature sensor



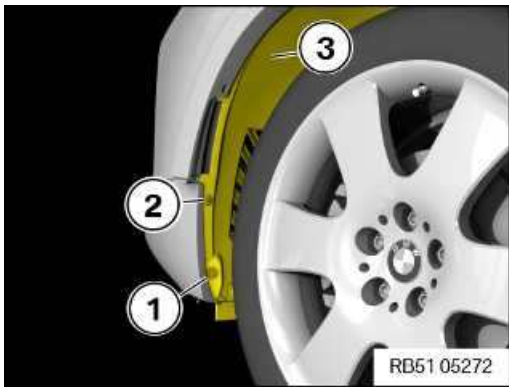
- Clip temperature sensor (1) into the front bumper panel (2).

14 – Partially install both front wheel arch covers



NOTICE

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



► Partially install the front wheel arch cover

- Fold the front wheel arch cover (3) forward.
- Mount the blind rivet (2) with the special tool **0 496 521 (00 2 230)**.
- Tighten down screw (1).

Front wheel arch cover to front bumper panel

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
---	--	-------------------	--------

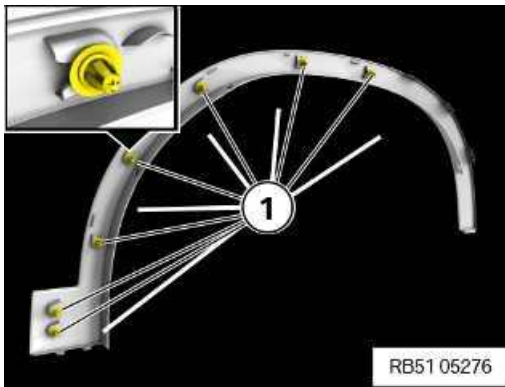
15 – Partially install both front wheel arch trims



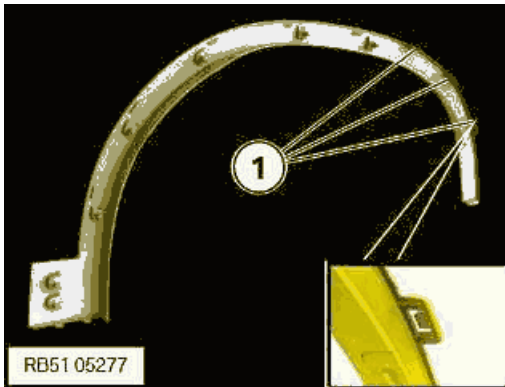
NOTICE

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

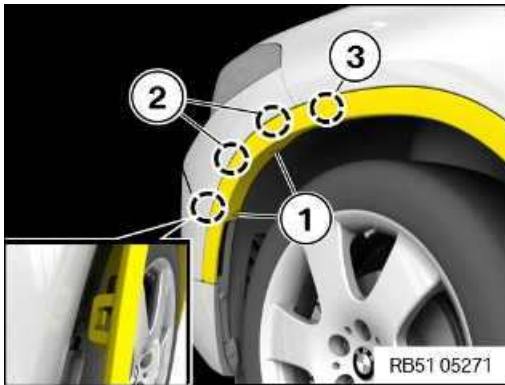
► Partly install the front wheel arch trim



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



- Check the retaining lugs (1) for damage and replace the front wheel arch trim where required.



- Clip the front wheel arch trim into the clip (3) in the area of the bumper panel and into the latch mechanisms (2).
- Mount blind rivet (1) using the special tool **0 496 521 (00 2 230)**.

16 – Install the center front bonnet seal



- Press the centre front bonnet seal (1) down into the guide.
- Make sure the centre front bonnet seal (1) is fitted correctly.

17 – Install both bonnet seals on the side

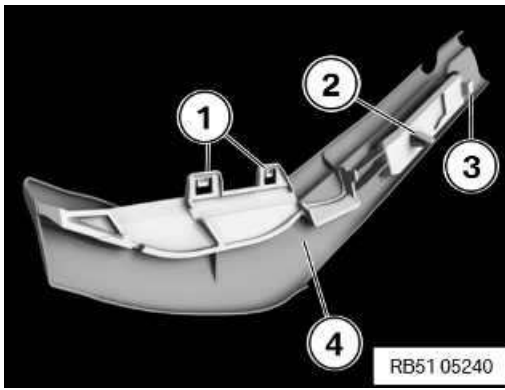


NOTICE

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

► Installing seal for side bonnet

Check



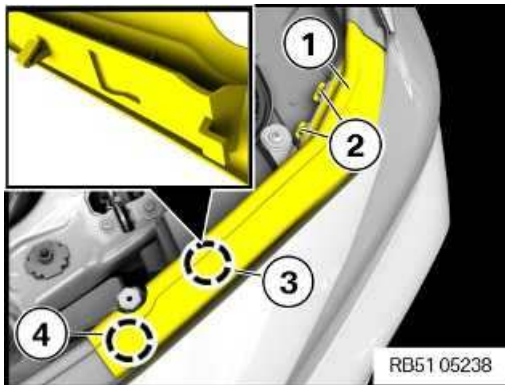
- Check latch mechanisms (1) and (2) and also the guide (3) on the bonnet seal on the side (4) for damage.

Result

» Latch mechanisms (1), (2) or the guide (3) are damaged.

Measure

- Renew the bonnet seal on the side (4).
- Insert the bonnet seal on the side (1) in the guide (4).
- Clip in the bonnet seal on the side (1) in the inner latch mechanism (3) and the outer latch mechanisms (2).



18 – Adjust both headlights



NOTICE

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

► Adjusting headlights



TECHNICAL INFORMATION

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

For additional information see: 6310 ... Test prerequisite for adjusting headlights



- Perform the headlight adjustment with the adjusting screws (1) and (2).
A definite allocation of adjusting screws is not possible.
Adjusting screw (1) is primarily used for the height adjustment.
Adjusting screw (2) is primarily used for the lateral adjustment.
- Adjust the height at the adjusting screw (1).
- **US version:** Set the lateral adjustment only if the plug on the adjusting screw for lateral adjustment is missing or damaged.
If required, remove damaged plug (see additional information).
- Make the lateral adjustment at the adjusting screw (2).
- Perform reference run. Switch the headlights off and on again.
- Check the headlight and adjust if necessary.
- **US version:** If the lateral adjustment has been checked or corrected: Renew the plug and press it into the adjusting screw **without damage** for lateral adjustment.

Additional Information

Overview of Tightening Torques

LED cornering light module to headlight

Used in step [8](#)

Screw		1,6 Nm
-------	--	--------

LED module of daytime driving lights to headlight

Used in step [9](#)

Screw		1,6 Nm
-------	--	--------

Frontal light electronics (FLE)

Used in step [10](#)

PT-SCREW 40x12	Tightening torque	1,5 Nm
----------------	-------------------	--------

Headlight to headlight support bracket

Used in step [11](#)

M6x35 screw	Tightening torque	5 Nm
-------------	-------------------	------

Headlight to carrier support extension

Used in step [11](#)

Multi-purpose hexagon screw with washer	Tightening torque	5 Nm
---	-------------------	------

Bumper panel to headlight

Used in step [12](#)

Thermoplastic multi-purpose bolt	Tightening torque	2,5 Nm
----------------------------------	-------------------	--------

Bumper panel to air duct

Used in step [12](#)

Screw M6	Tightening torque	4,6 Nm
----------	-------------------	--------

Front bumper panel to front side panel

Used in step [12](#)

Screw TS5X35	Tightening torque	3 Nm
--------------	-------------------	------

Front bumper panel to underbody panelling

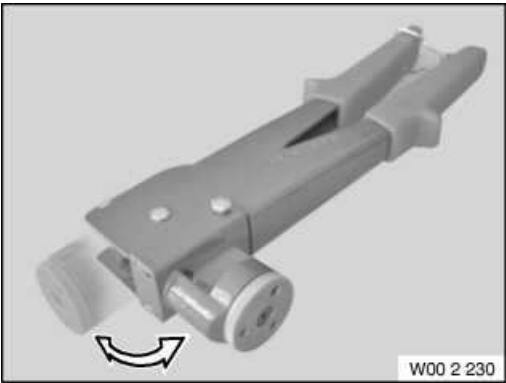
Used in step [12](#)

Thermoplastic hexagon screw	Tightening torque	2,5 Nm
-----------------------------	-------------------	--------

Hexagon screw for thermoplastic plastic		Tightening torque	2,6 Nm
---	--	-------------------	--------

Overview of Special Tools

0 496 521 (00 2 230) Pliers



Common		Used in step	14	15
Usage	(Blind rivet pliers for plastic rivets) For shaft diameters of 3.5 mm, 3.9 mm and 4.5 mm			
Included in the tool or work				
Storage location	C25			
Replaced by				
In connection with				
SI-Number	01 17 08 (478)			

Links

General repair instructions	Used in step
63 12 ... US version: Check/set the horizon lock for headlight replacement.	11
63 12 ... US version: Setting the horizontal blocking when headlamp is set	18
63 12 ... US version: Remove the horizontal blocking before adjusting the headlamp	18
Repair instructions	Used in step
63 10 ... Test requirements for headlights vertical aim adjustment	18

63 13 250 Removing and installing/replacing left side repeater mirror



RISK OF DAMAGE

Scratches.

Tools and sharp-edged components can cause scratches.

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

PRELIMINARY WORK

1 – Removing the mirror glass



CAUTION

Glass splinters.

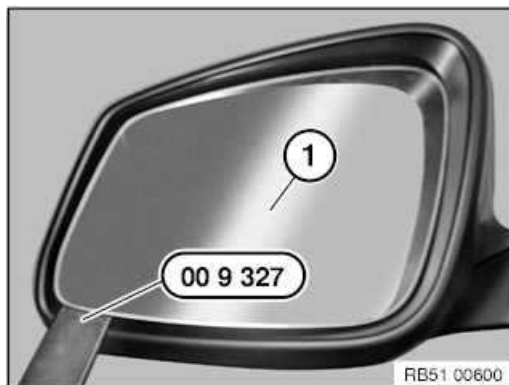
Danger of injury!

- 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.



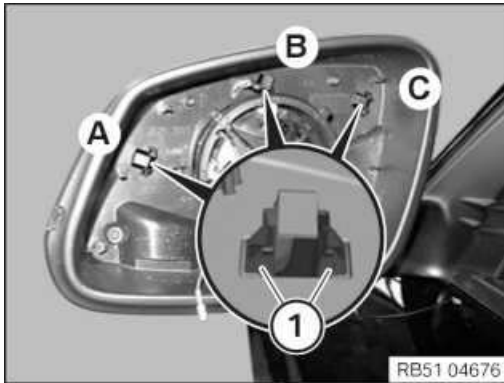
- Manually press the mirror glass (1) on the side of vehicle up to the end stop.
- Unclip the mirror glass (1) using special tool **0 496 571 (00 9 327)** all the way around, starting with the outer side.



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

2 – Remove cover cap on the exterior rearview mirror

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



- Press latch mechanisms (1) together in sequence (A), (B) and (C) and pull off the cover cap on the exterior rearview mirror to the outside at the same time.

3 – Removing the drive for exterior mirror adjustment



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

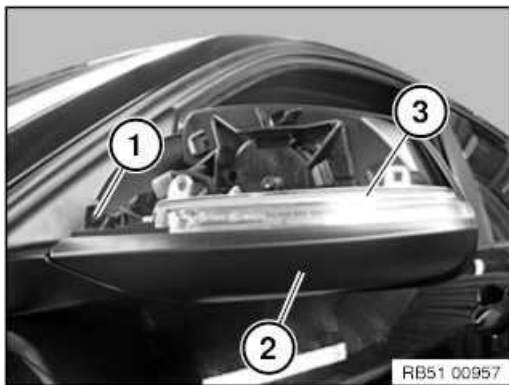


- Unlock plug connection (1) and disconnect and remove the drive for exterior mirror adjustment (2) .

4 – Removing the mirror housing



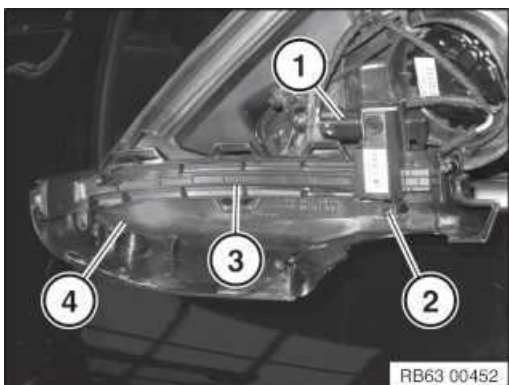
- Fold exterior mirror forwards.
- Loosen screws (1).



- Loosen screw (1).
- Carefully feed out the mirror housing (2) and disconnect the plug connection on the side repeater (3).

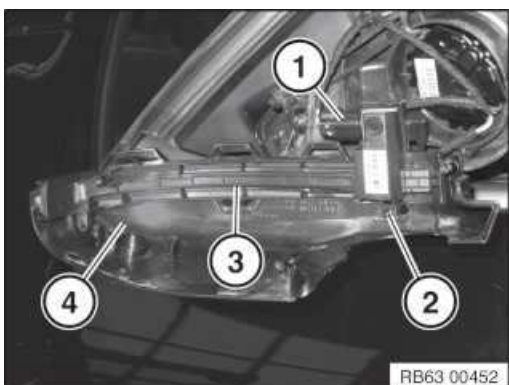
MAIN WORK

5 – Remove mirror side repeater



- Unlock and disconnect connector (1).
- Release the bolt (2) and remove the side repeater (3) from the mirror housing (4).

6 – Installing the mirror side repeater



- Join the side repeater (3) onto the mirror housing (4).
- Tighten down screw (2).

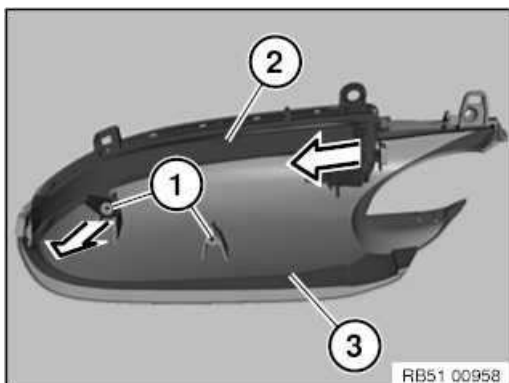
Exterior mirror to side repeater

Screw		Tightening torque	1,2 Nm
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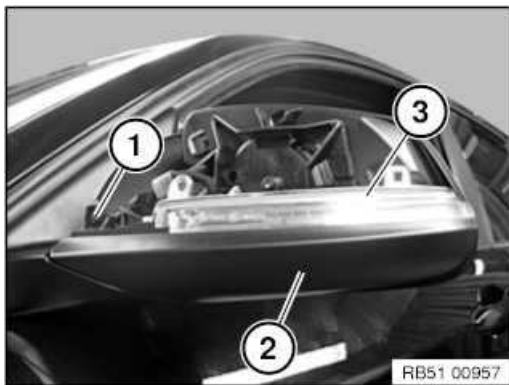
- Connect connectors (1) and lock.

POSTPROCESSES

7 – Installing the mirror housing



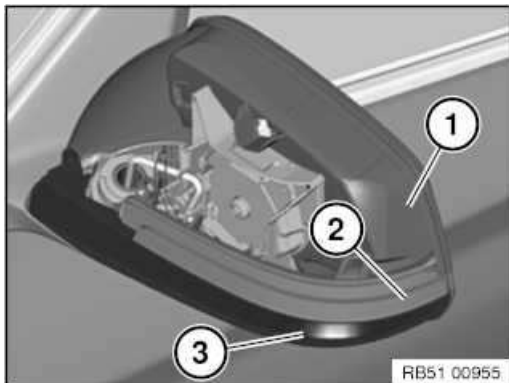
- Check the threaded holes (1) for damage and renew them if necessary.
- **Replacement:** Guide the side repeater (2) out of the mirror housing (3) in the direction of the arrow and mount it on the new mirror housing.



- Carefully guide in the mirror housing (2) and connect the connector to the side repeater (3).
- Tighten down screw (1).

Mirror housing to mirror base

Screw		Tightening torque	1,2 Nm
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- Ensure that the retaining ring (1) fit correctly on the side repeater (2) and the mirror housing (3).



- Tighten the screws (1).

Retaining ring to exterior mirror

Screw		Tightening torque	1,2 Nm
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8 – Installing the drive for exterior mirror adjustment



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



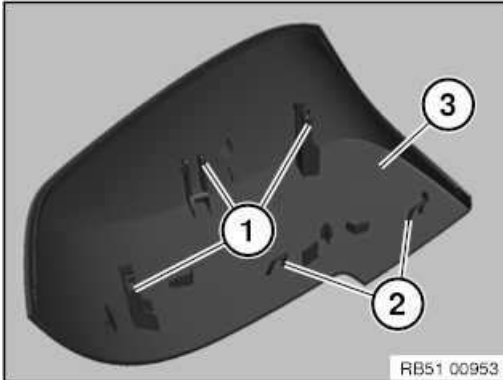
- Position drive for exterior mirror adjustment (2) correctly.
- Tighten the screws (1).

Drive for exterior mirror adjustment

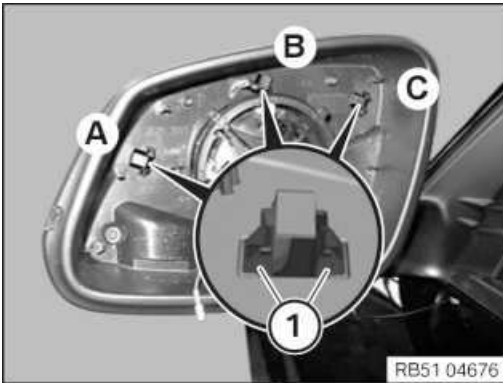
	Tightening torque	1,2 Nm
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9 – Installing protective cap on exterior mirror

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



- Latch mechanisms (1) and guides (2) on the protective cap (3) must not be missing or damaged.

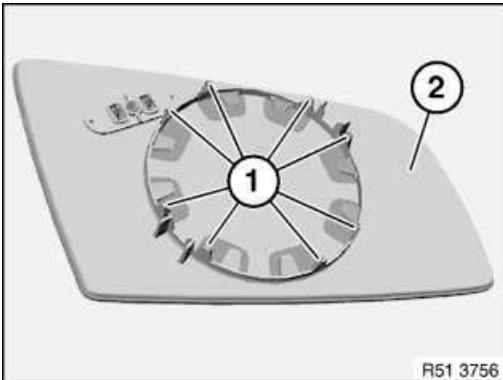


- Position protective cap on the exterior mirror and engage in the latch mechanisms (1) in order (C), (B) and (A).

10 – 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.

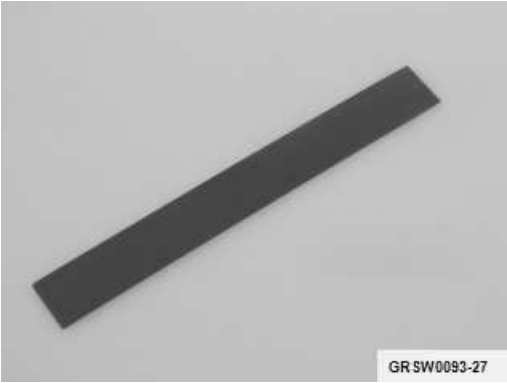
Additional Information

Overview of Tightening Torques

Exterior mirror to side repeater			Used in step 6
Screw		Tightening torque	1,2 Nm
Mirror housing to mirror base			Used in step 7
Screw		Tightening torque	1,2 Nm
Retaining ring to exterior mirror			Used in step 7
Screw		Tightening torque	1,2 Nm
Drive for exterior mirror adjustment			Used in step 8
		Tightening torque	1,2 Nm

Overview of Special Tools

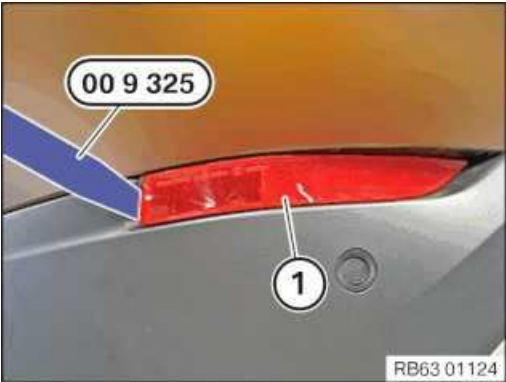
0 496 571 (00 9 327) Wedge



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)	

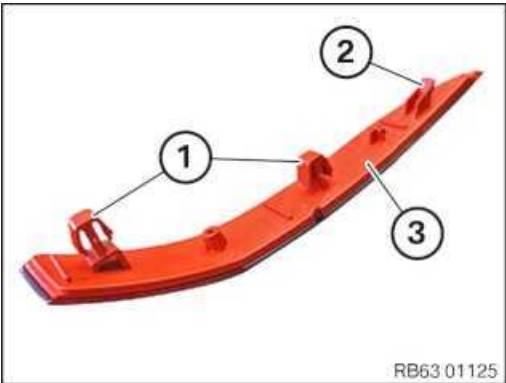
63 14 140 Replace the rear reflector (at the bumper)

1 – Remove rear reflector

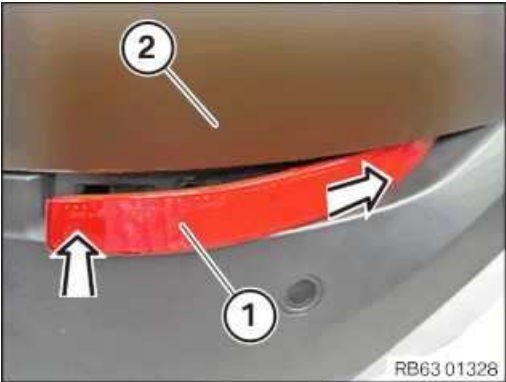


- Lift the rear reflector (1) using the special tool **0 496 569 (00 9 325)** out of the bumper panel.

2 – Installing rear reflector



- Check latch mechanism (1) and guide (2) on the rear reflector (3) for damage.



- Engage the rear reflector (1) in direction of arrow in the bumper panel (2).

Additional Information

Overview of Special Tools

0 496 569 (00 9 325) Wedge



Common		Used in step
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)	1
Included in the tool or work	0 490 527	
Storage location	Individual	
Replaced by		
In connection with		
SI-Number	41 01 09 (507)	

63 21 283 Remove and install both rear lights of side panel

PRELIMINARY WORK

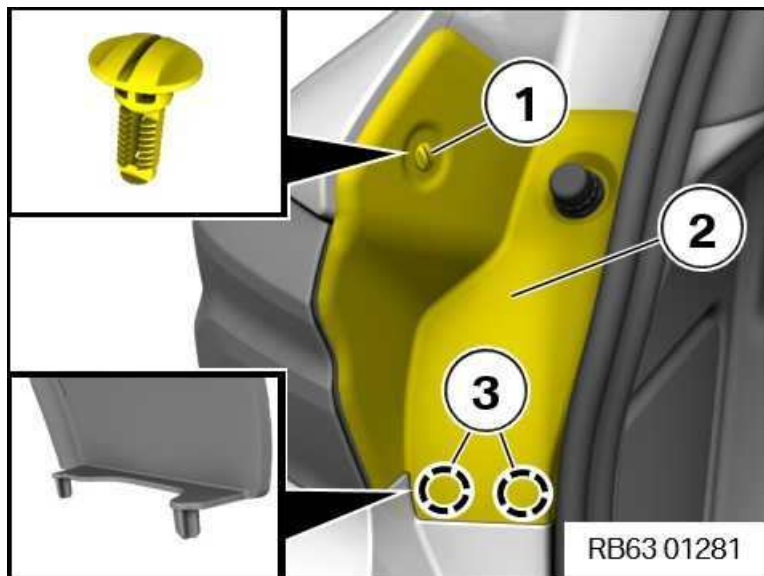
1 – Removing both trims for water channel



NOTICE

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

► Removing trim for water channel



- Detach rotary clip (1).
- Feed out and remove trim for water channel (2) from guides (3).

MAIN WORK

2 – Remove both rear lights from the side panel

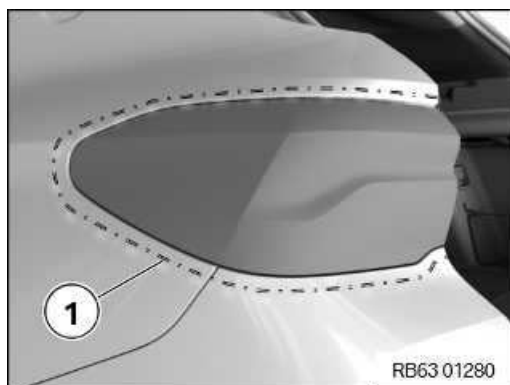


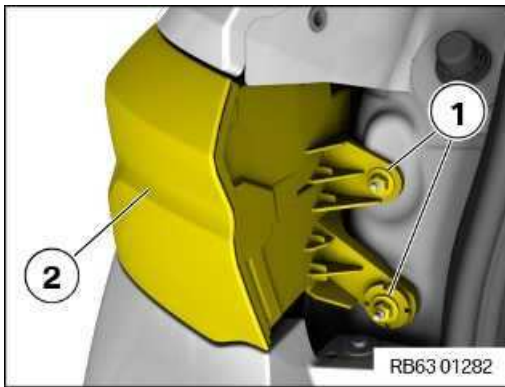
NOTICE

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

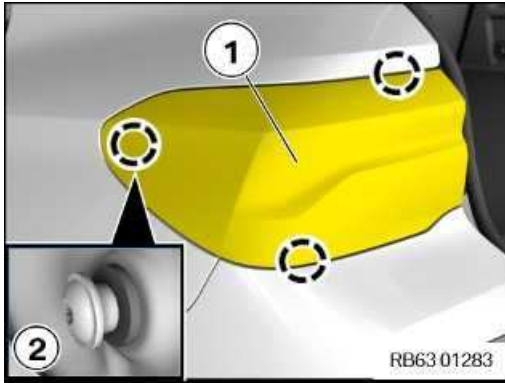
► Remove the rear light on the side panel

- Mask the body in area (1) with plastic adhesive tape.

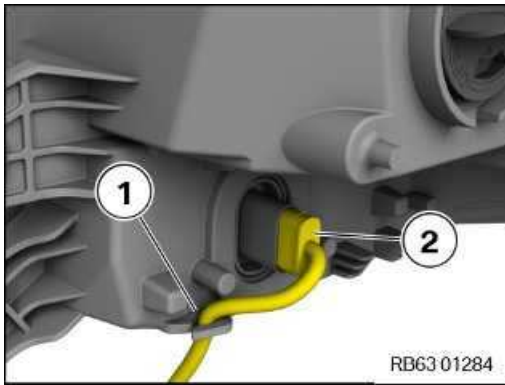




- Loosen the nuts (1) on the rear light (2).



- Remove the rear light (1) from the guides (2) towards the rear.



- Detach cable from guide (1).
- Unlock and disconnect the plug connection (2) and remove the rear light .

3 – Install both rear lights on the side panel

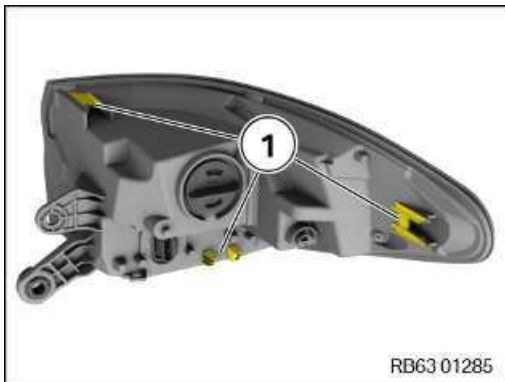


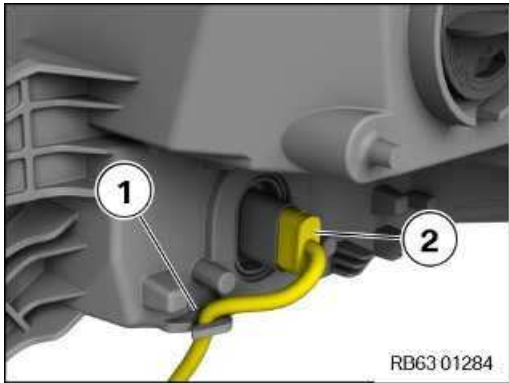
NOTICE

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

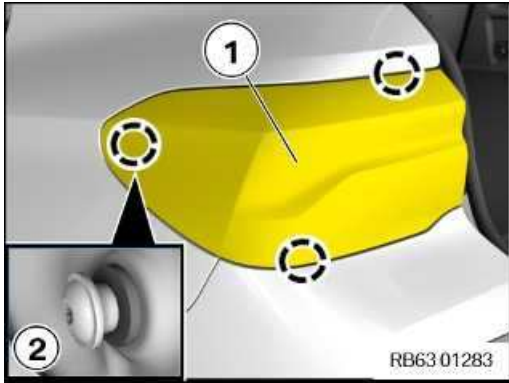
► Install the rear light on the side panel

- Make sure that the guides (1) on the rear light are not damaged or missing.

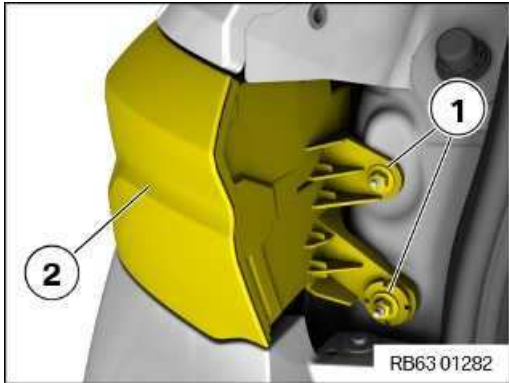




- Connect connectors (2) and lock.
- Attach the cable in the guide (1).



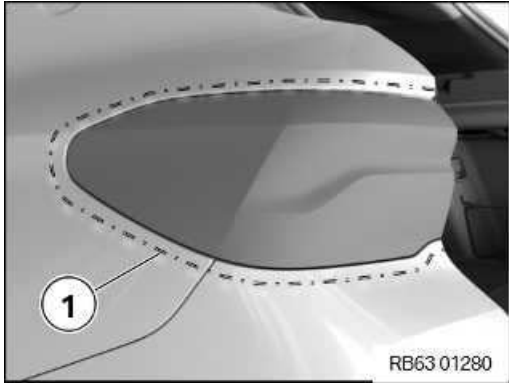
- Position the rear light (1) in the side panel.
- Make sure the rear light (1) is fitted correctly in the guides (2).



- Replace the nuts (1) on the rear light (2).
- Parts: Nuts**
- Tighten nuts (1).

Side panel rear light to body

Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm
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- Pull off the plastic adhesive tape from the body in the area (1).

POSTPROCESSES

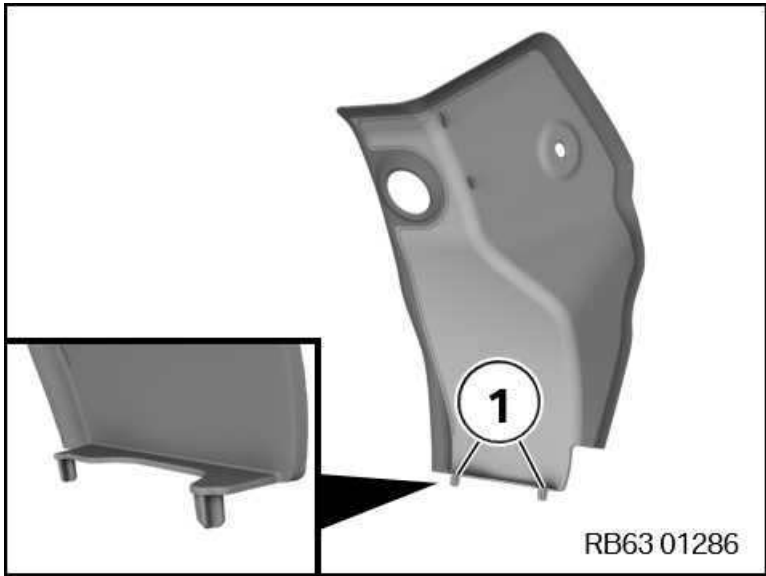
4 – Install both trim pieces for the water channel



NOTICE

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

- Install the trim for the water channel
- Check



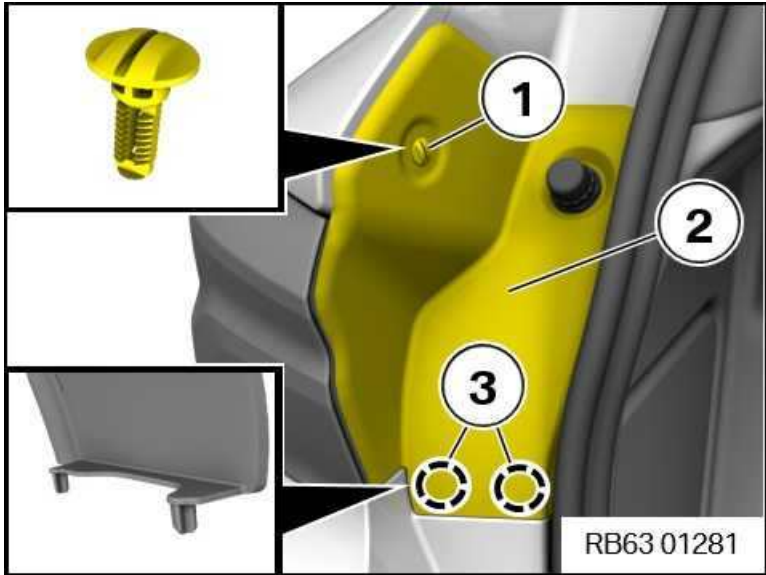
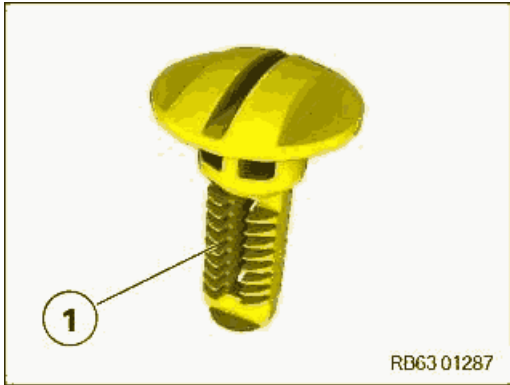
- Check the guides (1) for damage.

Result

» The guides (1) are damaged.

Measure

- Renew the trim for the water channel.
- Check rotary clip (1) for damage and, if necessary, replace it.



- Insert the trim for water channel (2) with guides (3).
- Fasten the rotary clip (1).

Additional Information

Overview of Tightening Torques

Side panel rear light to body

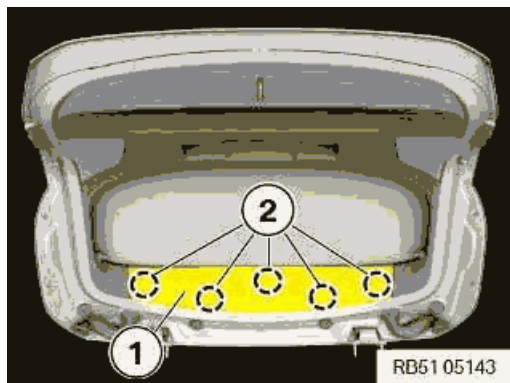
Used in step 3

Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm
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63 21 285 Remove and install both rear lights of tailgate

PRELIMINARY WORK

1 – Remove the trim for the top rear window frame



- Unclip the trim for the top rear window frame (1) at the latch mechanisms (2) and remove.

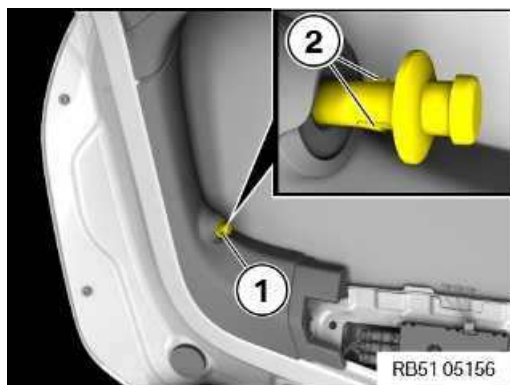
2 – Remove both trims for the rear window frame on the side



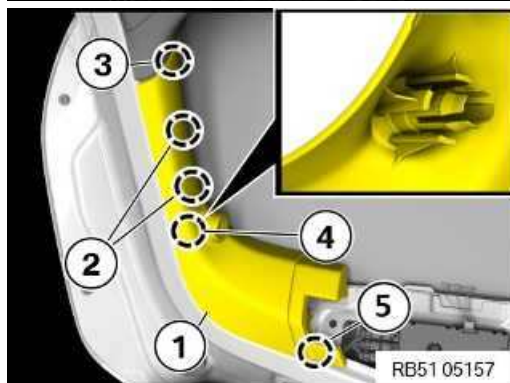
NOTICE

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

► Remove the trim for the rear window frame on the side

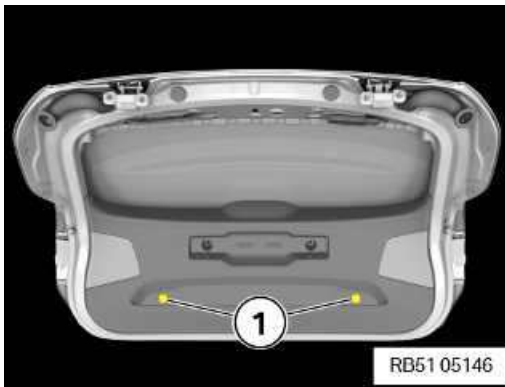


- Detach the mounting button (1) on the latch mechanisms (2) and remove it.

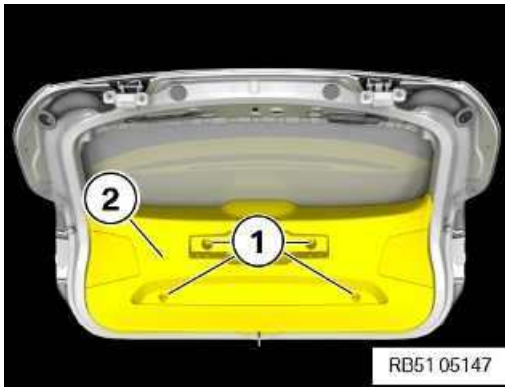


- Unclip the trim for the rear window frame on the side (1) with the clips (2) from the latch mechanisms (3), (4) and (5).

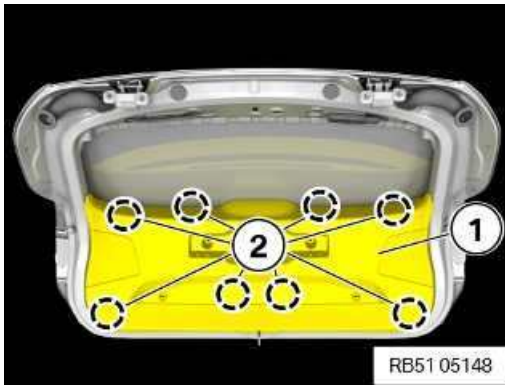
3 – Remove tailgate trim panel



- Lever out the covers of the screw points (1) with a suitable tool.

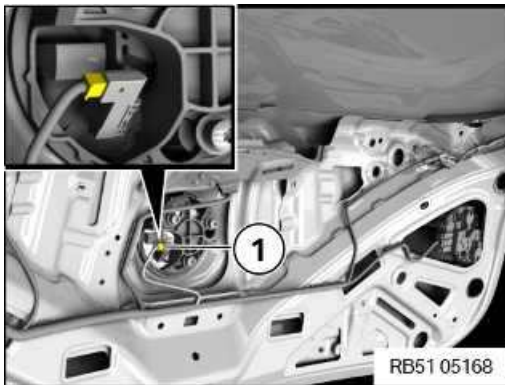


- If applicable, remove the warning triangle from the tailgate trim panel (2).
- Unscrew the bolts (1) at the tailgate trim panel (2).

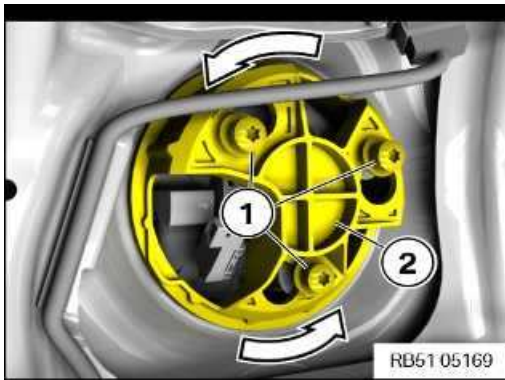


- Unclip the tailgate trim panel (1) at the latch mechanisms (2) and remove.

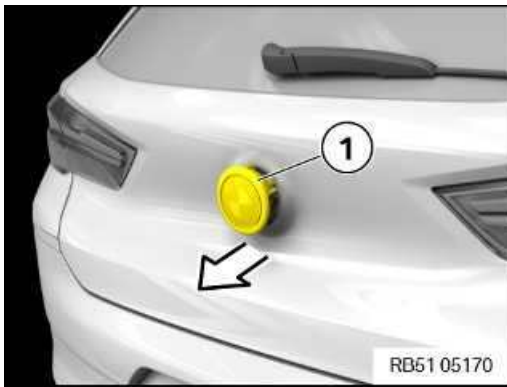
4 – Remove tailgate pushbutton



- Unlock plug connection (1) and disconnect.



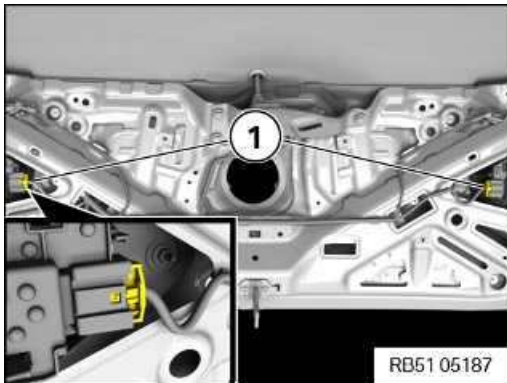
- Unscrew the bolts (1) until you can turn the retaining ring (2).
- Turn the retaining ring (2) in the direction of the arrow and remove it.



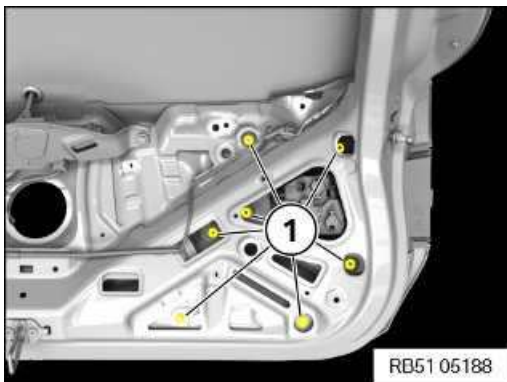
- Remove the tailgate button (1) in the direction of the arrow.

Your browser doesn't support HTML5 video.

5 – Removing the rear trim



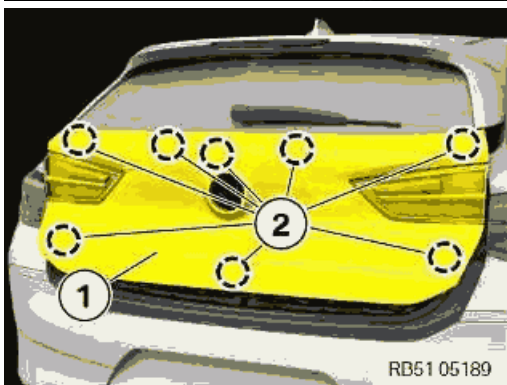
- Unlock and disconnect plug connections (1).



NOTICE

Perform the operations on the left and right side.

- Loosen nuts (1).
- Unclip the rear trim (1) at the clips (2) and remove toward the rear.



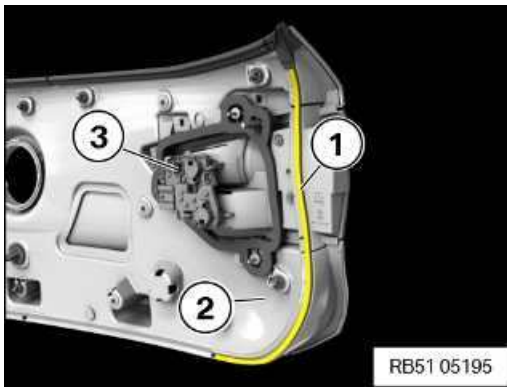
MAIN WORK

6 – Remove both rear lights from the tailgate

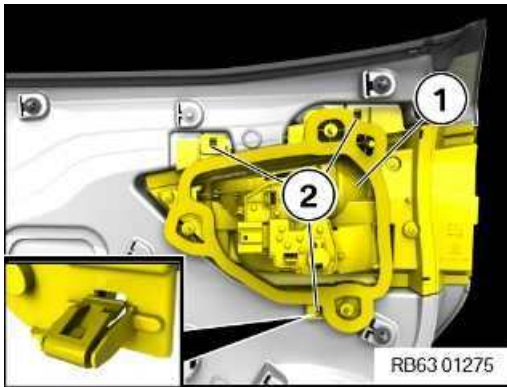


NOTICE

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



- Detach gutter strip (1) from rear trim (2) and rear light (3).



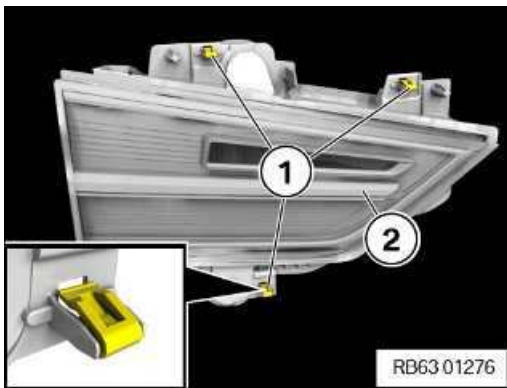
- Unclip rear light (1) with the clamps (2) and remove.

7 – Install both rear lights on the tailgate

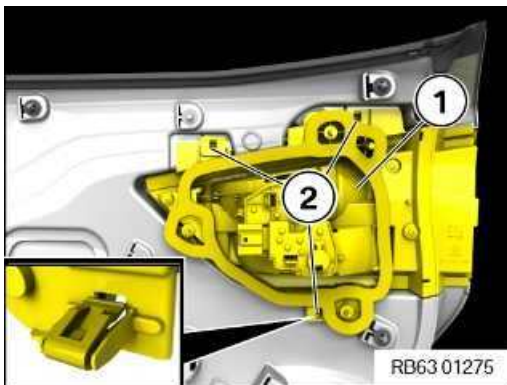


NOTICE

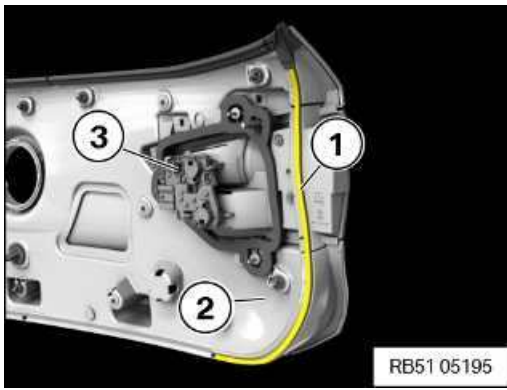
Description is for left component only. Procedure on the right side is identical.



- Check the clamps (1) at the rear light (2) for damage and renew if needed.



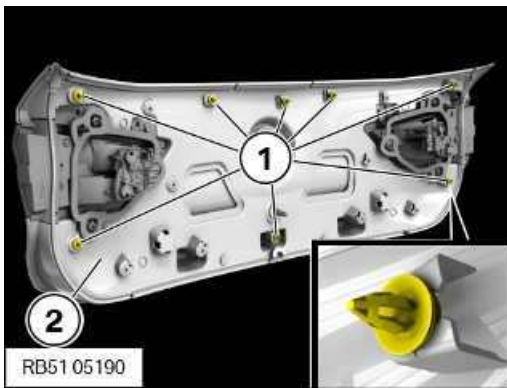
- Clip in the rear light (1) with the clamps (2).



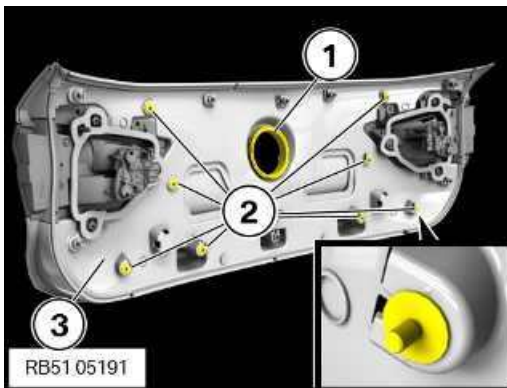
- Clean the bonding surface for gutter strip (1) on the rear trim (2) and the rear light (3).
 - Renew the gutter strip (1).
- Parts:** Gutter strip
- Bond the gutter strip (1) on the seal beginning from the top.

POSTPROCESSES

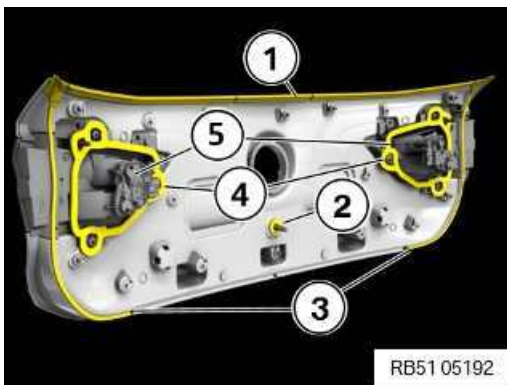
8 – Installing the rear trim



- Check clips (1) on rear trim (2) for damage and renew them if necessary.

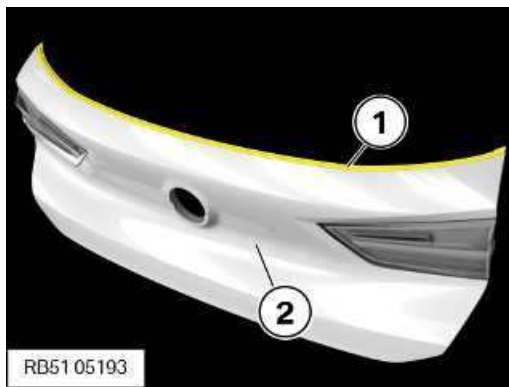


- Check spacer (1) for damage and renew it if necessary.
- Position and engage the spacer (1) correctly in the rear trim (3).
- If necessary, renew missing screws (2) on rear trim (3).

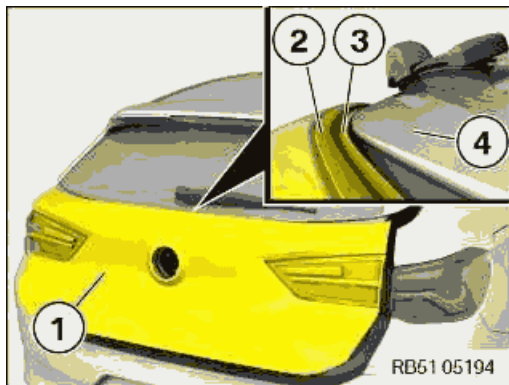


- Check the seals (1) and (2) for damage; renew if necessary.
- Check gutter strips (3) for damage and renew them if necessary.
- Check seals (4) on rear lights (5) on the tailgate for damage and renew them if necessary.

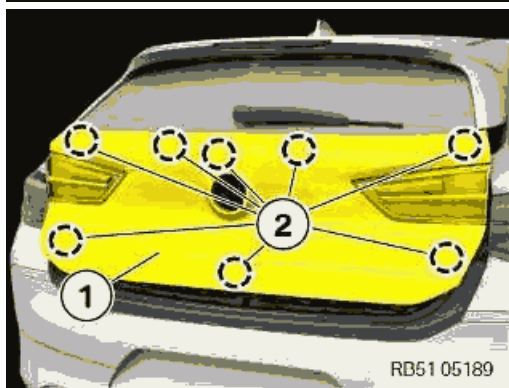
Your browser doesn't support HTML5 video.



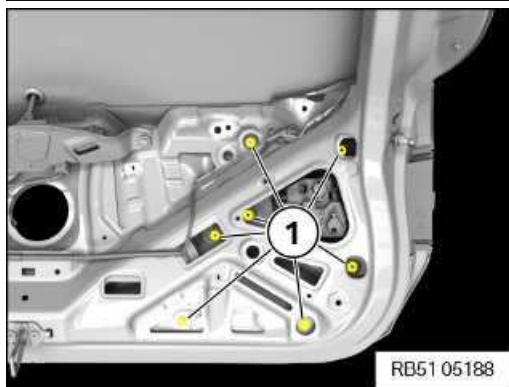
- Coat the seal (1) on the rear trim (2) with a suitable lubricant.



- Open the tailgate slightly.
- Position the rear trim (1) with the seal (2) on the rear window from the bottom.
- Thread the sealing lip (3) of the seal (2) completely under the rear window (4).
- Press on seal (2) with special tool **0 490 538 (00 9 321)**.



- Clip in the rear trim (1) with the clips (2).



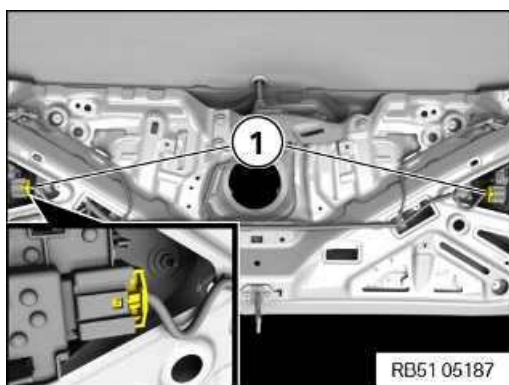
NOTICE

Perform the operations on the left and right side.

- Tighten nuts (1).

Rear trim to tailgate

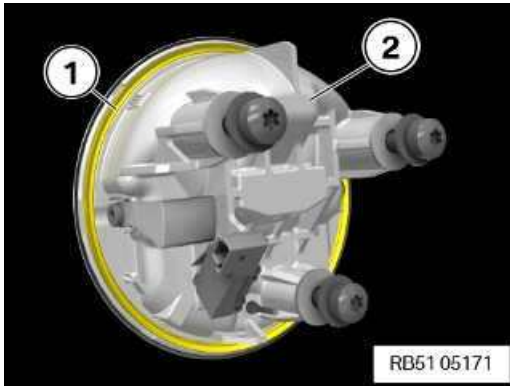
M5 nut		Tightening torque	4,5 Nm
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- Connect connectors (1) and lock.

9 – Install the tailgate button

Check



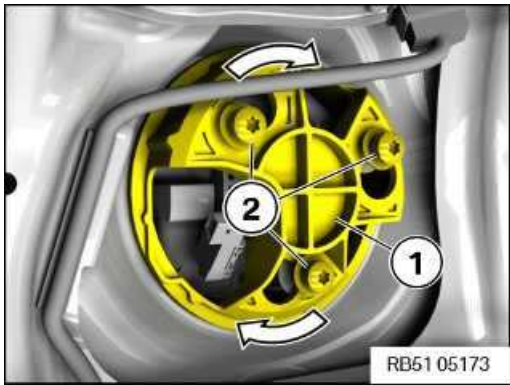
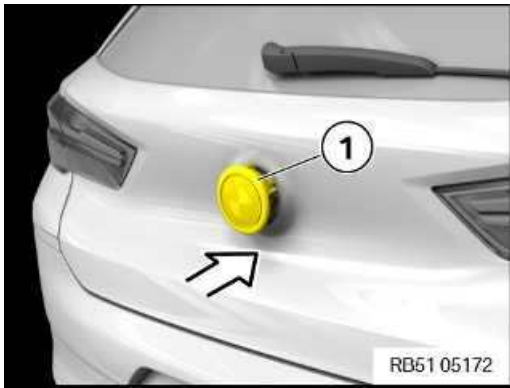
- Check the seal (1) on the tailgate button (2) for damage.

Result

» The seal (1) is damaged.

Measure

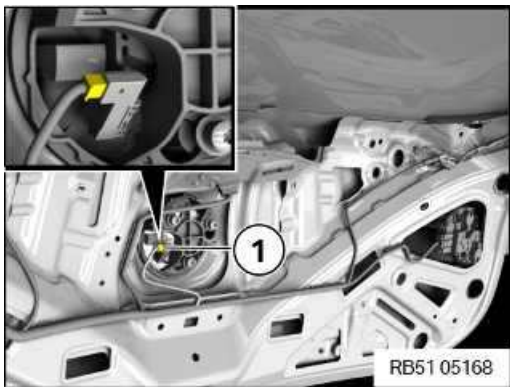
- Replace the tailgate button (2).
- Insert the tailgate button (1) in the rear trim from the outside in.
The BMW badge must be aligned correctly.



- Attach the retaining ring (1) from the inside and turn it in the direction of the arrow to the stop.
- Tighten down screws (2).

Tailgate button

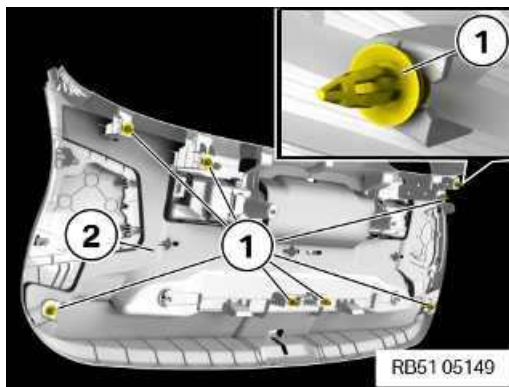
Screw with spring washer and washer M6x20		Tightening torque	8 Nm
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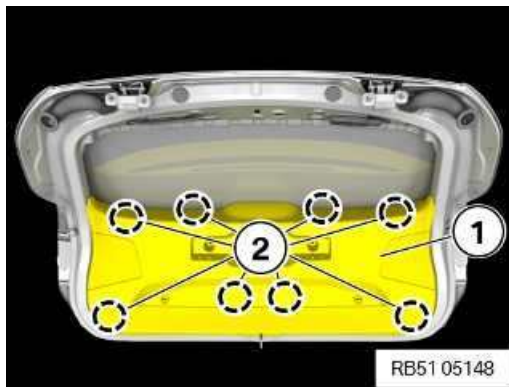
- Connect connectors (1) and lock.

Your browser doesn't support HTML5 video.

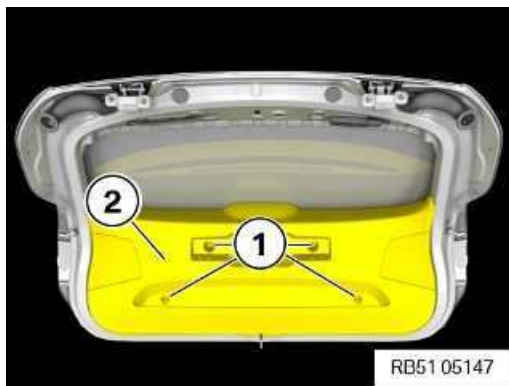
10 – Installing the tailgate trim panel



- Check the clips (1) on the tailgate trim panel (2) for damage and replace where required.



- Clip in the tailgate trim panel (1) with the clips (2).

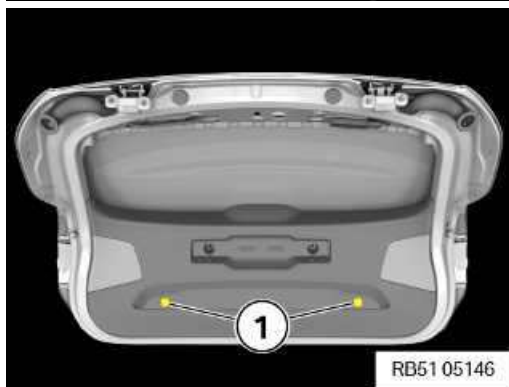


- Tighten the bolts (1) at the tailgate trim panel (2).

Tailgate trim panel

Screw		Tightening torque	1,8 Nm
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- If necessary, insert and fasten the warning triangle in the tailgate trim panel (2).



- Insert the covers of the screw points (1).

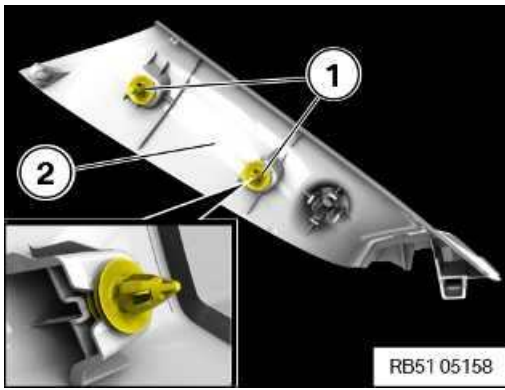
11 – Mount both trim pieces for the rear window frame on the side



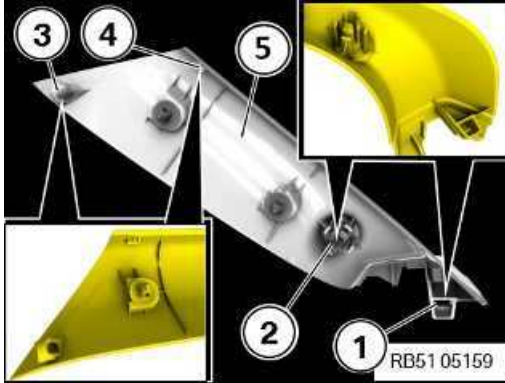
NOTICE

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

- Install the trim for the rear window frame on the side



- Check the clips (1) on the trim for the side rear window frame (2) for damage and replace where required.



Check

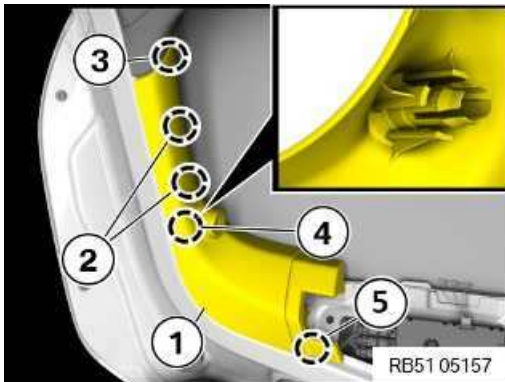
- Check the latch mechanisms (1), (2), (3) and (4) at the trim for the side rear window frame (5) for damage.

Result

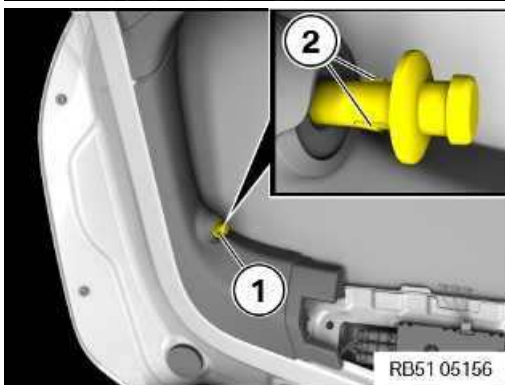
- » The latch mechanisms (1), (2), (3) or (4) are damaged.

Measure

- Renew the trim for the side rear window frame (5).

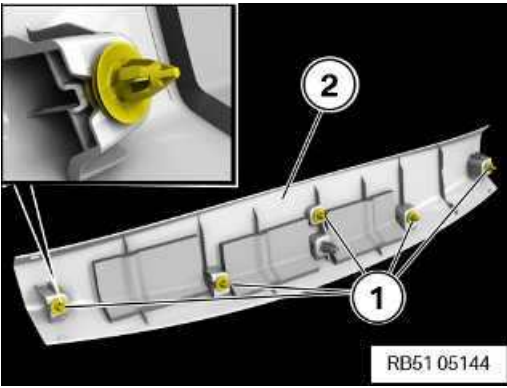


- Clip in the trim for the side rear window frame (1) with the clips (2) and in the latch mechanisms (3), (4) and (5).



- Clip in the mounting button (1) with the latch mechanisms (2).

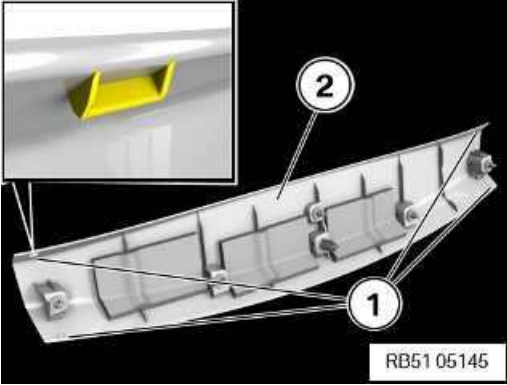
12 – Install the trim for the top rear window frame



- Check the clips (1) on the trim for the top rear window frame (2) for damage and replace where required.

Check

- Check the latch mechanisms (1) on the trim for the top rear window frame (2) for damage.

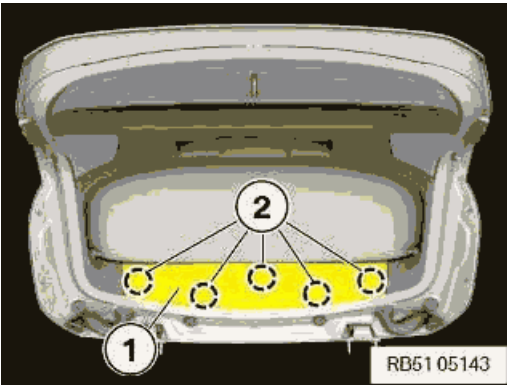


Result

- » The latch mechanisms (1) on the trim for the top rear window frame (2) are damaged.

Measure

- Renew the trim for the top rear window frame (2).
- Clip in the trim for the top rear window frame (1) with the clips (2).



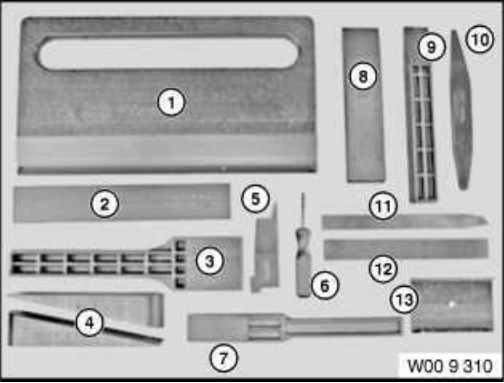
Additional Information

Overview of Tightening Torques

Rear trim to tailgate		Used in step 8	
M5 nut		Tightening torque	4,5 Nm
Tailgate button		Used in step 9	
Screw with spring washer and washer M6x20		Tightening torque	8 Nm
Tailgate trim panel		Used in step 10	
Screw		Tightening torque	1,8 Nm

Overview of Special Tools

0 490 538 (00 9 321) Folding stick



Common

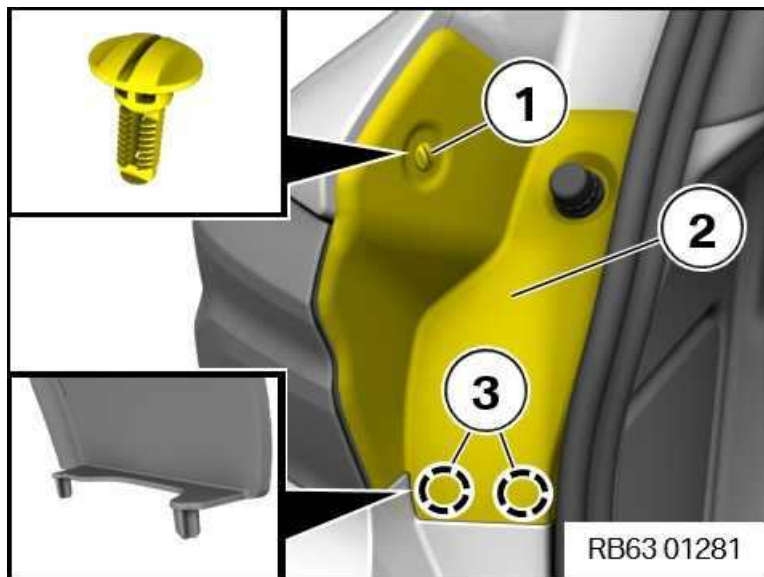
Used in step [8](#)

Usage	
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

63 21 275 Remove and install rear left light of side panel

PRELIMINARY WORK

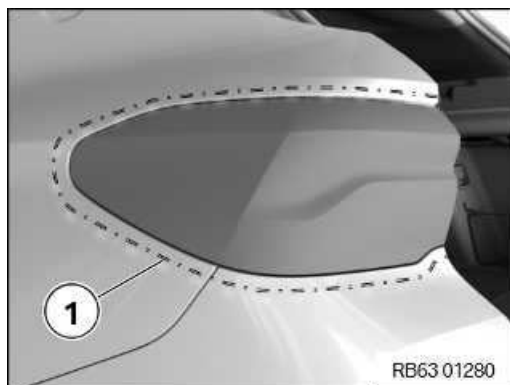
1 – Removing trim for water channel



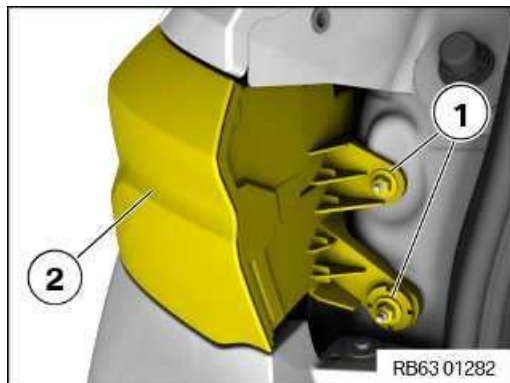
- Detach rotary clip (1).
- Feed out and remove trim for water channel (2) from guides (3).

MAIN WORK

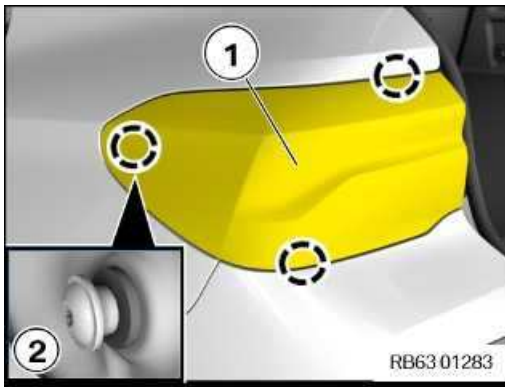
2 – Remove the rear light on the side panel



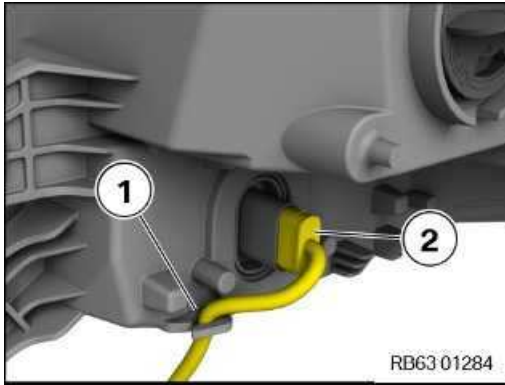
- Mask the body in area (1) with plastic adhesive tape.



- Loosen the nuts (1) on the rear light (2).

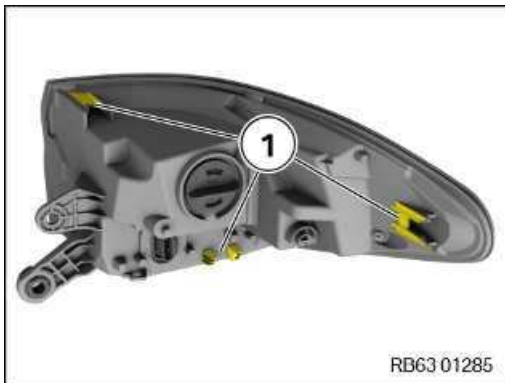


- Remove the rear light (1) from the guides (2) towards the rear.

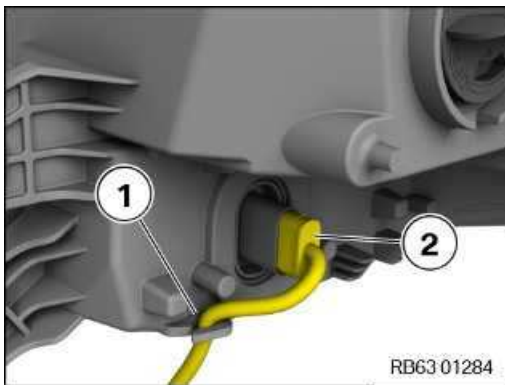


- Detach cable from guide (1).
- Unlock and disconnect the plug connection (2) and remove the rear light .

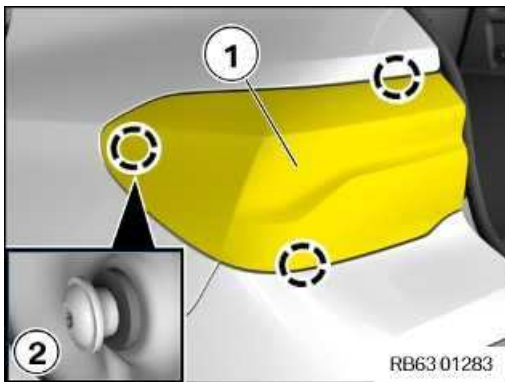
3 – Install the rear light on the side panel



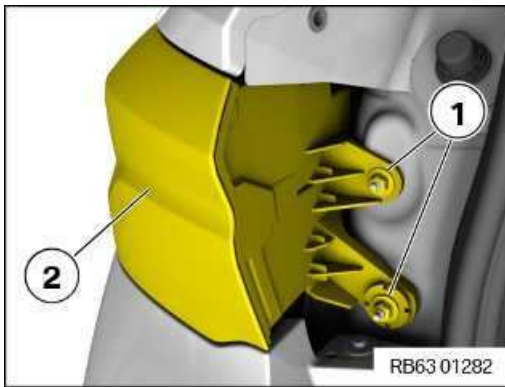
- Make sure that the guides (1) on the rear light are not damaged or missing.



- Connect connectors (2) and lock.
- Attach the cable in the guide (1).



- Position the rear light (1) in the side panel.
- Make sure the rear light (1) is fitted correctly in the guides (2).

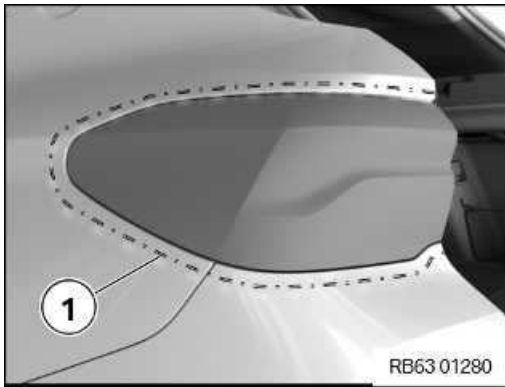


- Replace the nuts (1) on the rear light (2).
- Tighten nuts (1).

Parts: Nuts

Side panel rear light to body

Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm
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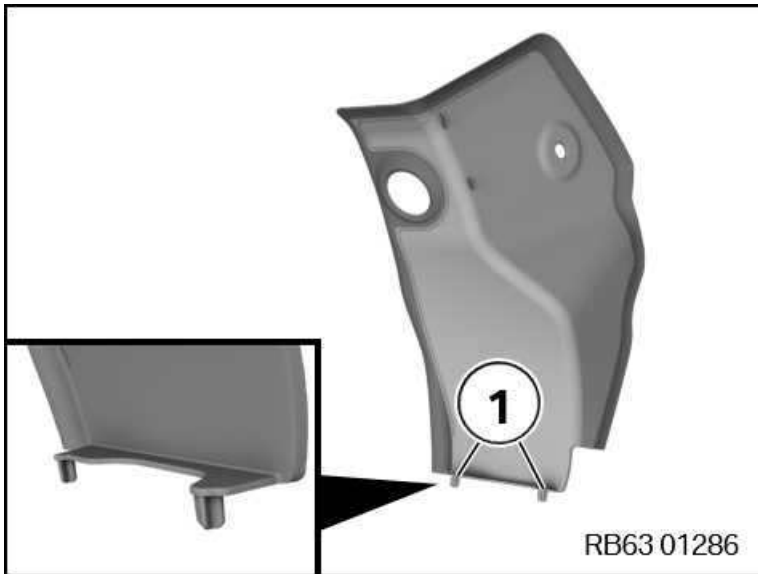


- Pull off the plastic adhesive tape from the body in the area (1).

POSTPROCESSES

4 – Install the trim for the water channel

Check



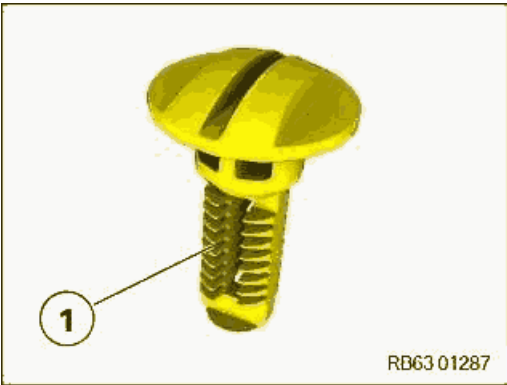
- Check the guides (1) for damage.

Result

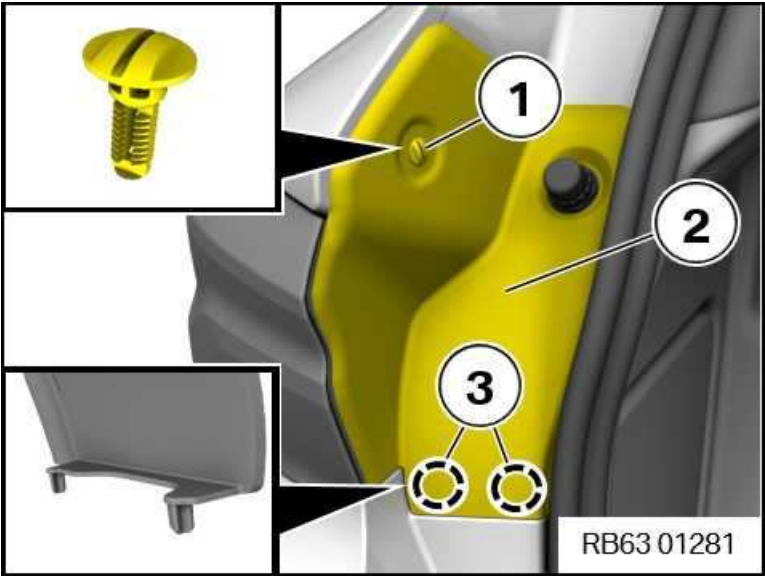
» The guides (1) are damaged.

Measure

- Renew the trim for the water channel.



- Check rotary clip (1) for damage and, if necessary, replace it.



- Insert the trim for water channel (2) with guides (3).
- Fasten the rotary clip (1).

Additional Information

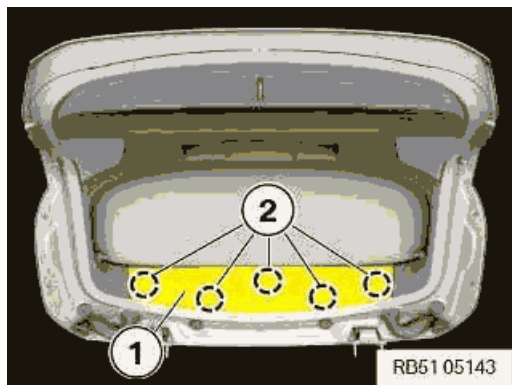
Overview of Tightening Torques

Side panel rear light to body		Used in step 3	
Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm

63 21 279 Remove and install rear left light of tailgate

PRELIMINARY WORK

1 – Remove the trim for the top rear window frame



- Unclip the trim for the top rear window frame (1) at the latch mechanisms (2) and remove.

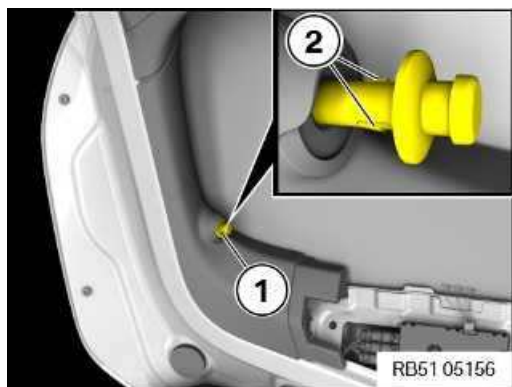
2 – Remove both trims for the rear window frame on the side



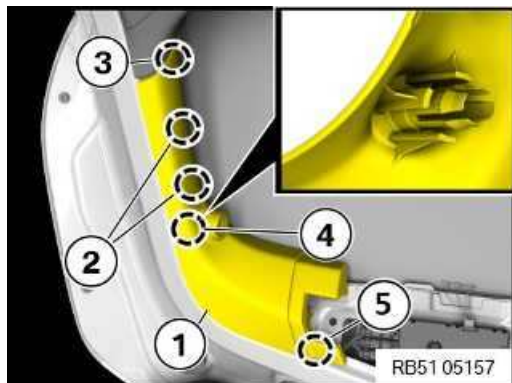
NOTICE

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

► Remove the trim for the rear window frame on the side

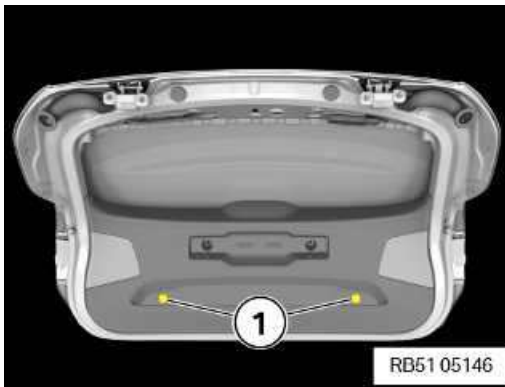


- Detach the mounting button (1) on the latch mechanisms (2) and remove it.

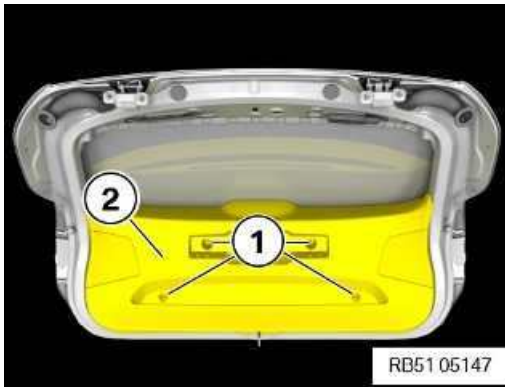


- Unclip the trim for the rear window frame on the side (1) with the clips (2) from the latch mechanisms (3), (4) and (5).

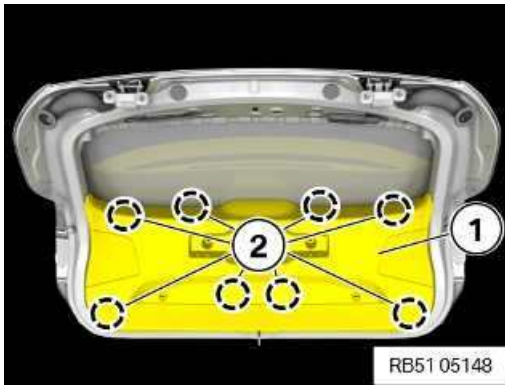
3 – Remove tailgate trim panel



- Lever out the covers of the screw points (1) with a suitable tool.

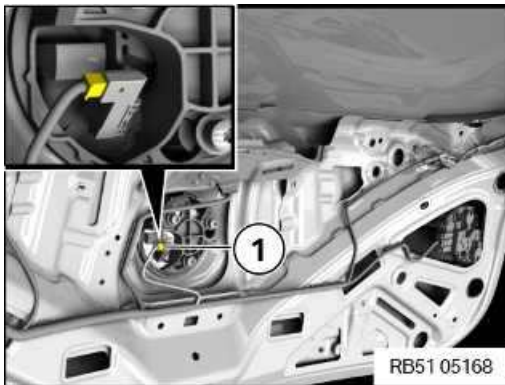


- If applicable, remove the warning triangle from the tailgate trim panel (2).
- Unscrew the bolts (1) at the tailgate trim panel (2).

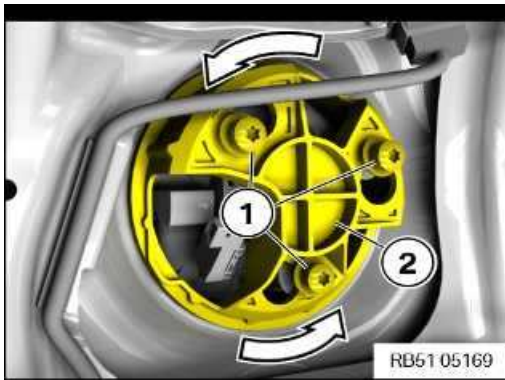


- Unclip the tailgate trim panel (1) at the latch mechanisms (2) and remove.

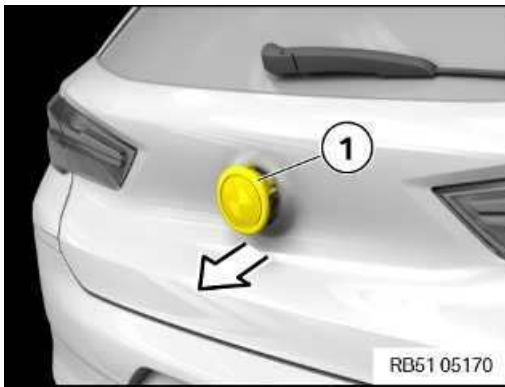
4 – Remove tailgate pushbutton



- Unlock plug connection (1) and disconnect.



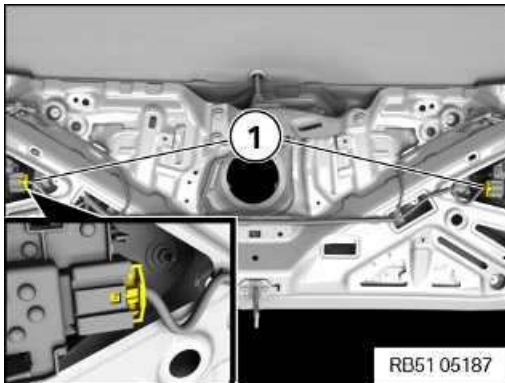
- Unscrew the bolts (1) until you can turn the retaining ring (2).
- Turn the retaining ring (2) in the direction of the arrow and remove it.



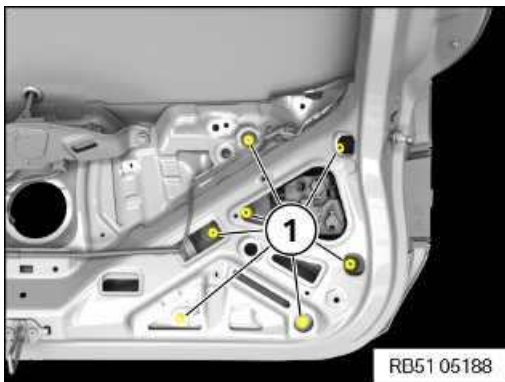
- Remove the tailgate button (1) in the direction of the arrow.

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5 – Removing the rear trim



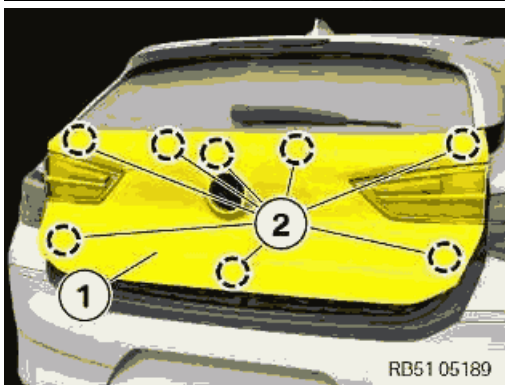
- Unlock and disconnect plug connections (1).



NOTICE

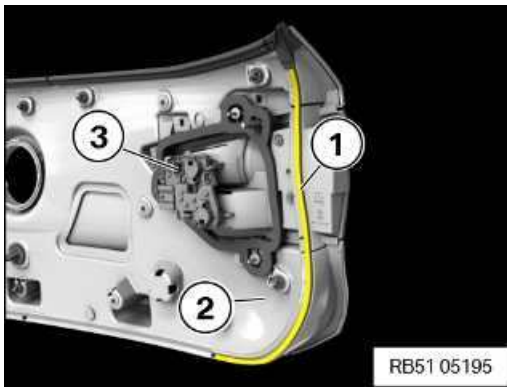
Perform the operations on the left and right side.

- Loosen nuts (1).
- Unclip the rear trim (1) at the clips (2) and remove toward the rear.

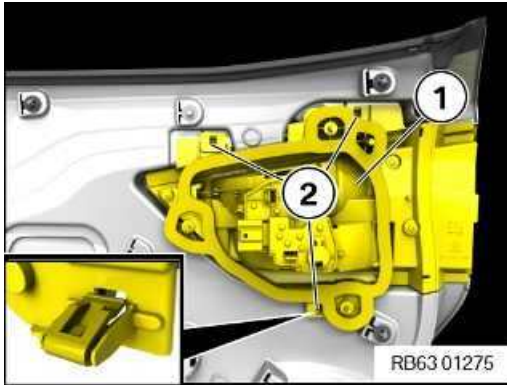


MAIN WORK

6 – Remove the rear light on the tailgate

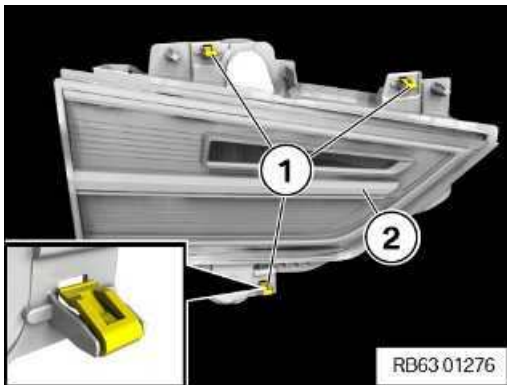


- Detach gutter strip (1) from rear trim (2) and rear light (3).

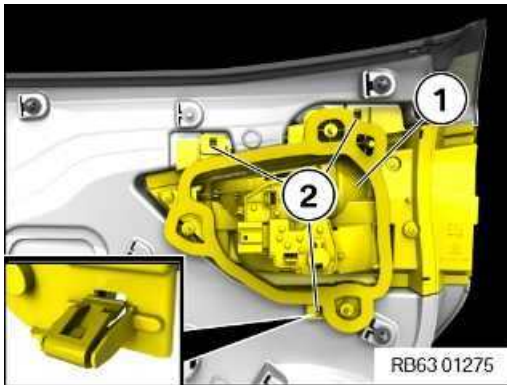


- Unclip rear light (1) with the clamps (2) and remove.

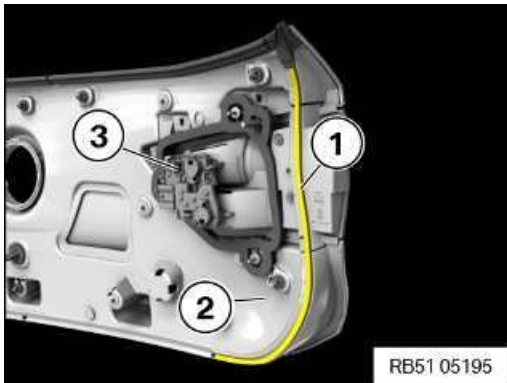
7 – Install the rear light on the tailgate



- Check the clamps (1) at the rear light (2) for damage and renew if needed.

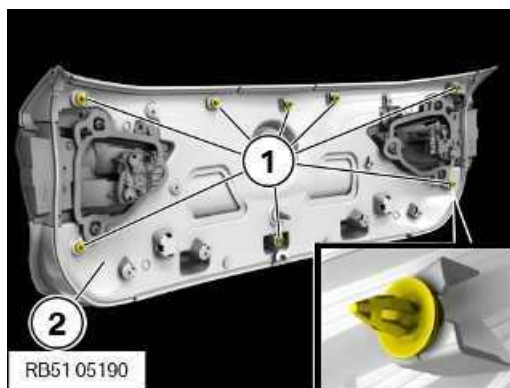


- Clip in the rear light (1) with the clamps (2).

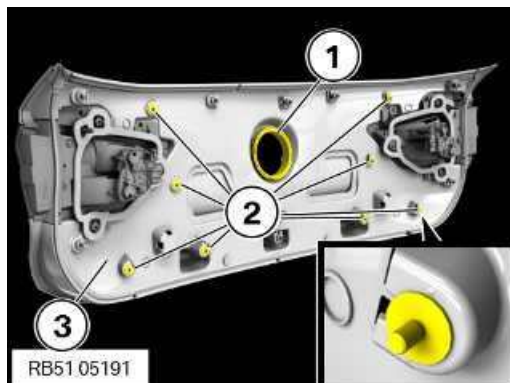


- Clean the bonding surface for the gutter strip (1) on the rear trim (2) and the rear light (3).
 - Renew the gutter strip (1).
- Parts:** Gutter strip
- Bond the gutter strip (1) on the seal beginning from the top.

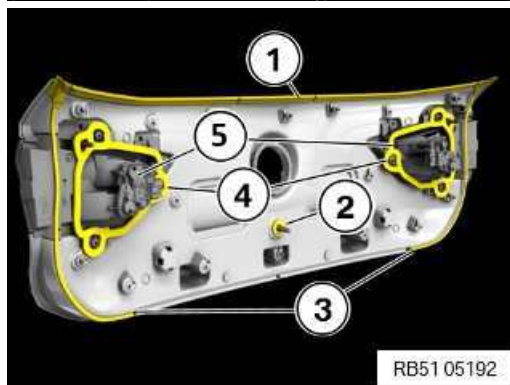
8 – Installing the rear trim



- Check clips (1) on rear trim (2) for damage and renew them if necessary.

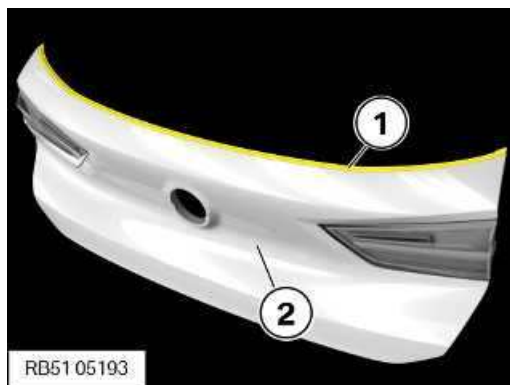


- Check spacer (1) for damage and renew it if necessary.
- Position and engage the spacer (1) correctly in the rear trim (3).
- If necessary, renew missing screws (2) on rear trim (3).

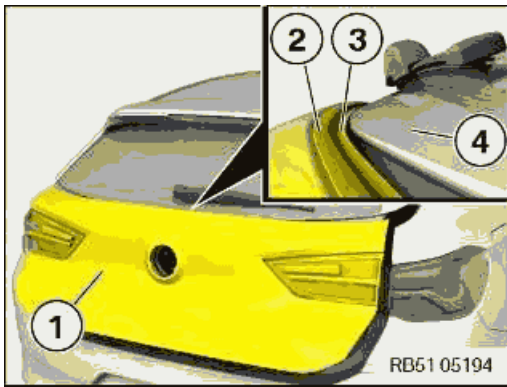


- Check the seals (1) and (2) for damage; renew if necessary.
- Check gutter strips (3) for damage and renew them if necessary.
- Check seals (4) on rear lights (5) on the tailgate for damage and renew them if necessary.

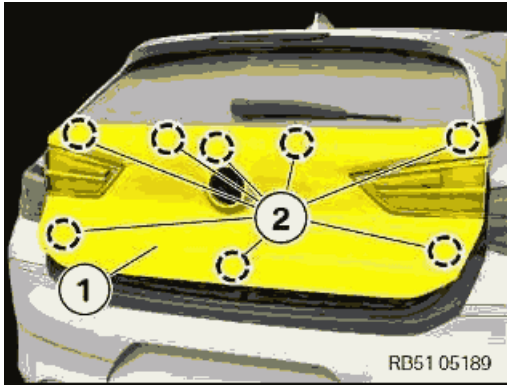
Your browser doesn't support HTML5 video.



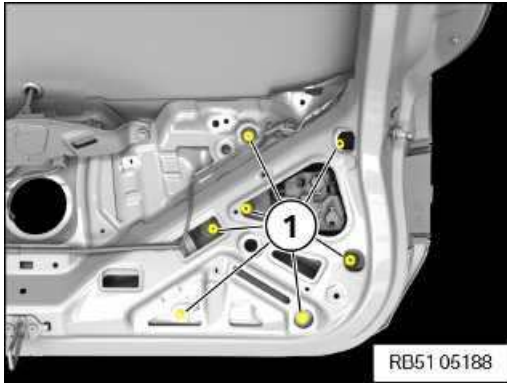
- Coat the seal (1) on the rear trim (2) with a suitable lubricant.



- Open the tailgate slightly.
- Position the rear trim (1) with the seal (2) on the rear window from the bottom.
- Thread the sealing lip (3) of the seal (2) completely under the rear window (4).
- Press on seal (2) with special tool **0 490 538 (00 9 321)**.



- Clip in the rear trim (1) with the clips (2).



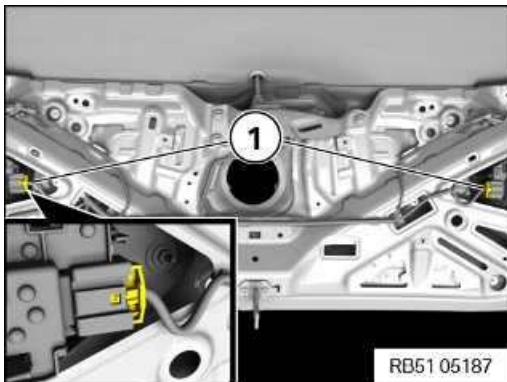
NOTICE

Perform the operations on the left and right side.

- Tighten nuts (1).

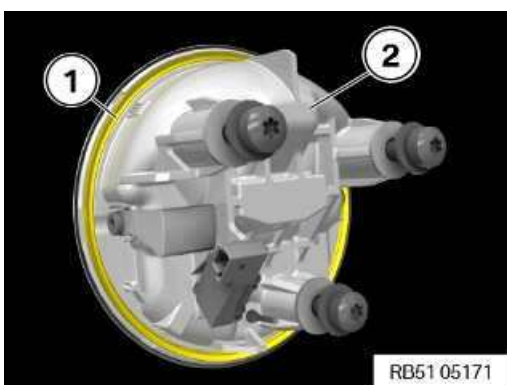
Rear trim to tailgate

M5 nut		Tightening torque	4,5 Nm
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- Connect connectors (1) and lock.

9 – Install the tailgate button



Check

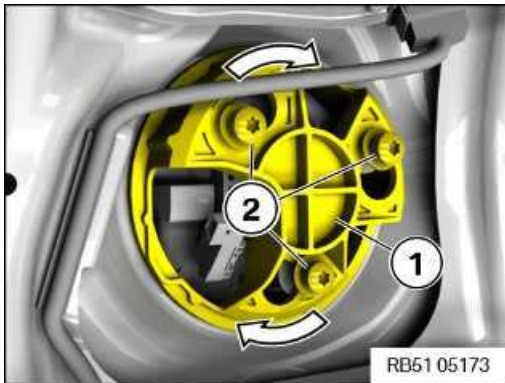
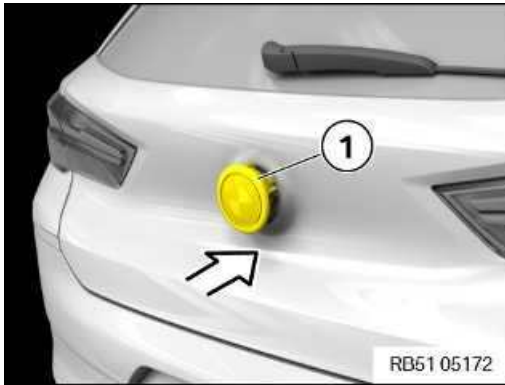
- Check the seal (1) on the tailgate button (2) for damage.

Result

» The seal (1) is damaged.

Measure

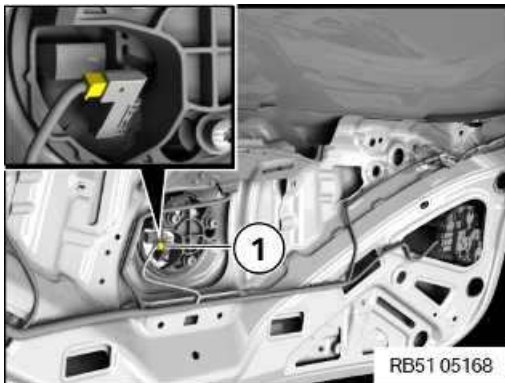
- Replace the tailgate button (2).
- Insert the tailgate button (1) in the rear trim from the outside in.
The BMW badge must be aligned correctly.



- Attach the retaining ring (1) from the inside and turn it in the direction of the arrow to the stop.
- Tighten down screws (2).

Tailgate button

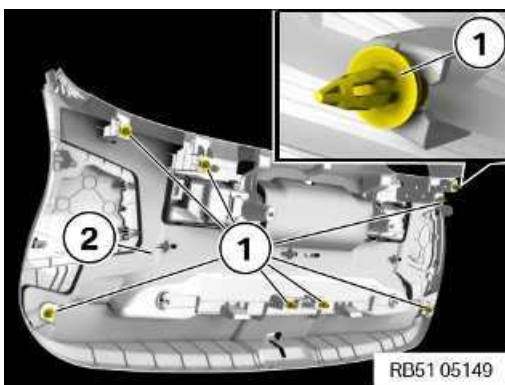
Screw with spring washer and washer M6x20		Tightening torque	8 Nm
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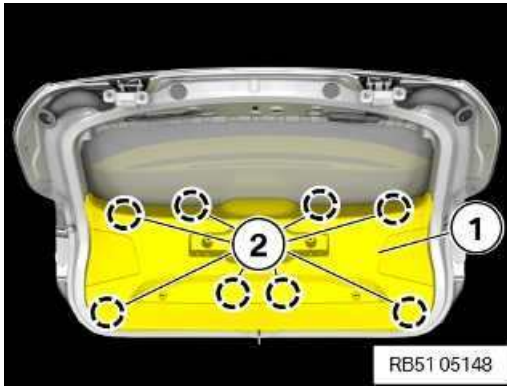
- Connect connectors (1) and lock.

Your browser doesn't support HTML5 video.

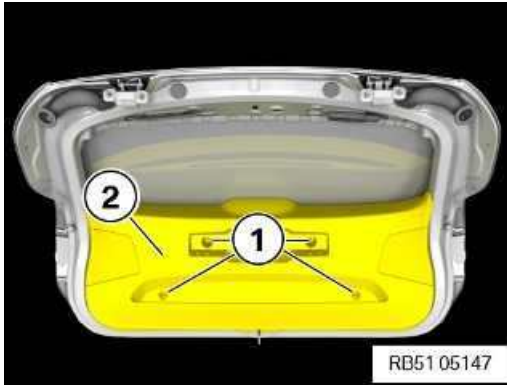
10 – Installing the tailgate trim panel



- Check the clips (1) on the tailgate trim panel (2) for damage and replace where required.



- Clip in the tailgate trim panel (1) with the clips (2).

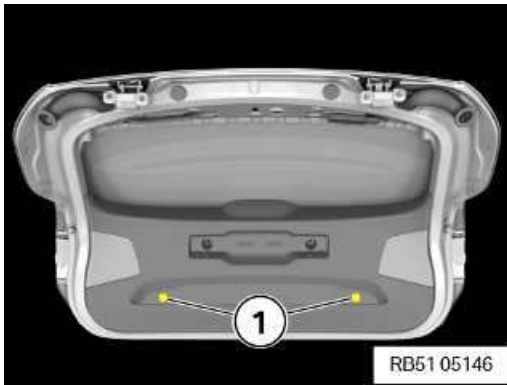


- Tighten the bolts (1) at the tailgate trim panel (2).

Tailgate trim panel

Screw		Tightening torque	1,8 Nm
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- If necessary, insert and fasten the warning triangle in the tailgate trim panel (2).



- Insert the covers of the screw points (1).

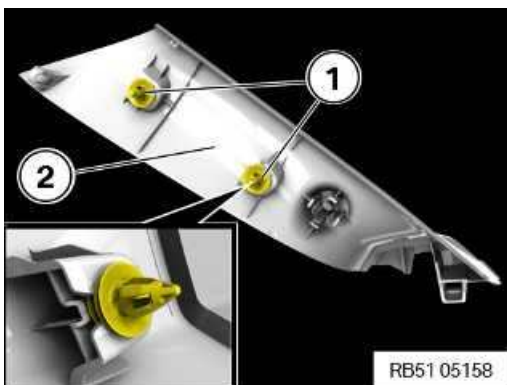
11 – Mount both trim pieces for the rear window frame on the side



NOTICE

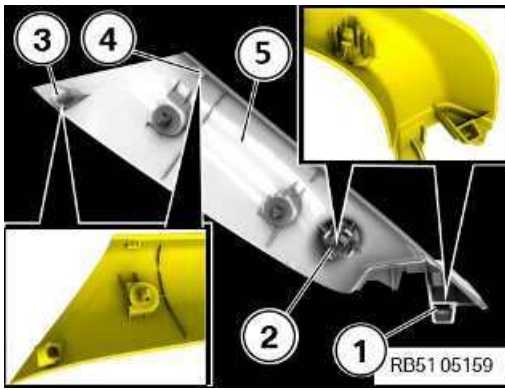
Description is for left component only. Procedure on the right side is identical.

► Install the trim for the rear window frame on the side



- Check the clips (1) on the trim for the side rear window frame (2) for damage and replace where required.

Check



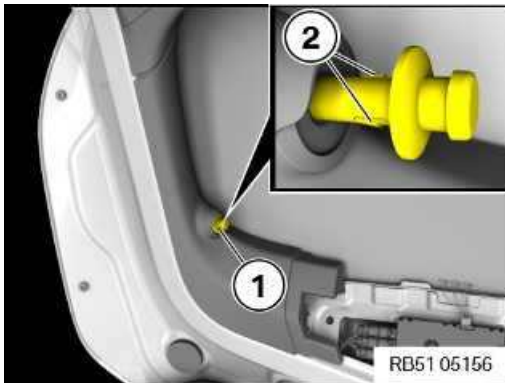
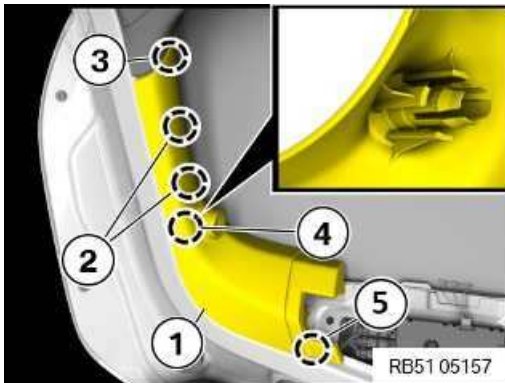
- Check the latch mechanisms (1), (2), (3) and (4) at the trim for the side rear window frame (5) for damage.

Result

» The latch mechanisms (1), (2), (3) or (4) are damaged.

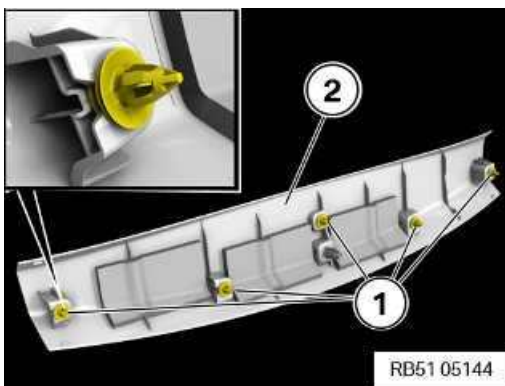
Measure

- Renew the trim for the side rear window frame (5).
- Clip in the trim for the side rear window frame (1) with the clips (2) and in the latch mechanisms (3), (4) and (5).



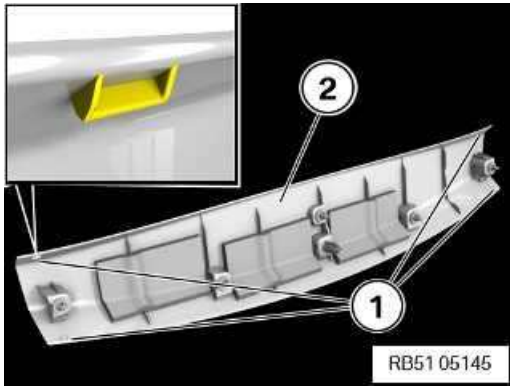
- Clip in the mounting button (1) with the latch mechanisms (2).

12 – Install the trim for the top rear window frame



- Check the clips (1) on the trim for the top rear window frame (2) for damage and replace where required.

Check



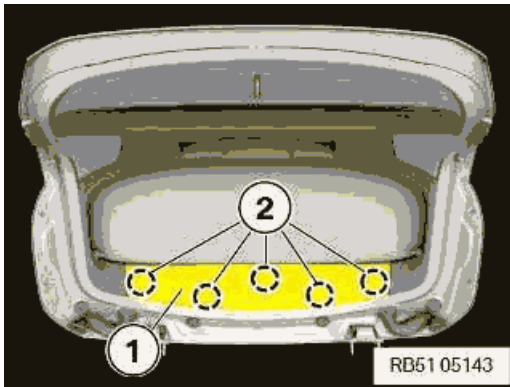
- Check the latch mechanisms (1) on the trim for the top rear window frame (2) for damage.

Result

» The latch mechanisms (1) on the trim for the top rear window frame (2) are damaged.

Measure

- Renew the trim for the top rear window frame (2).
- Clip in the trim for the top rear window frame (1) with the clips (2).



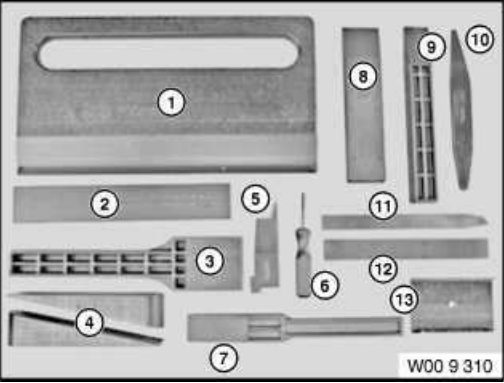
Additional Information

Overview of Tightening Torques

Rear trim to tailgate			Used in step	8
M5 nut		Tightening torque		4,5 Nm
Tailgate button			Used in step	9
Screw with spring washer and washer M6x20		Tightening torque		8 Nm
Tailgate trim panel			Used in step	10
Screw		Tightening torque		1,8 Nm

Overview of Special Tools

0 490 538 (00 9 321) Folding stick



Common

Used in step [8](#)

Usage	
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

63 21 277 Remove and install rear right light of side panel

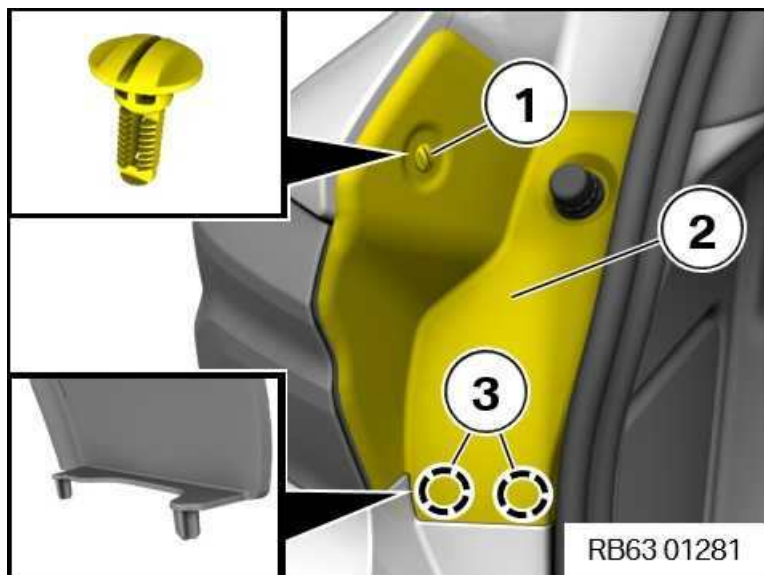
PRELIMINARY WORK

1 – Removing the trim for the right water channel



NOTICE

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



- Detach rotary clip (1).
- Feed out and remove trim (2) for water channel from guides (3).

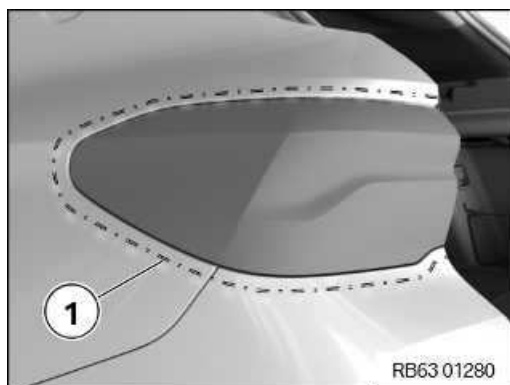
MAIN WORK

2 – Remove the rear light on the right side panel

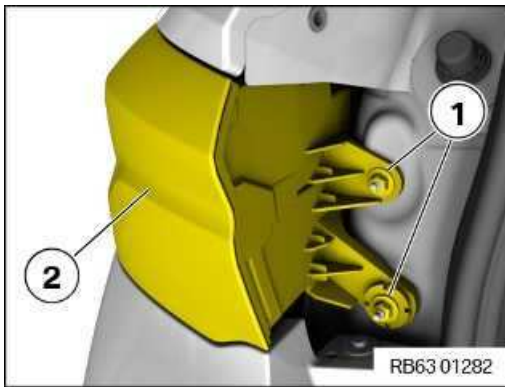


NOTICE

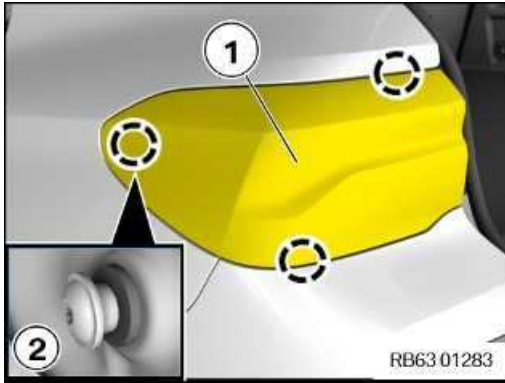
Description is for left component only. Procedure on the right side is identical.



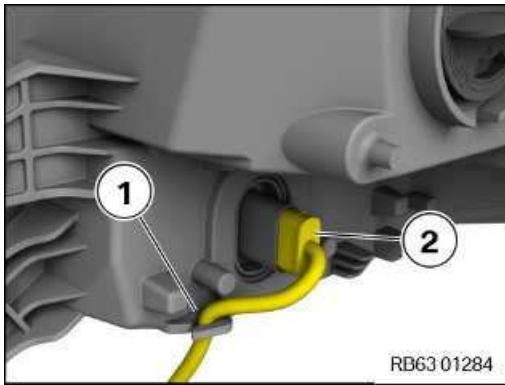
- Mask the body in area (1) with plastic adhesive tape.



- Loosen the nuts (1) on the rear light (2).



- Remove the rear light (1) from the guides (2) towards the rear.



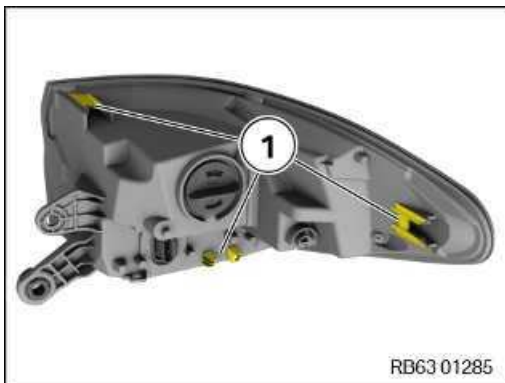
- Detach cable from guide (1).
- Unlock and disconnect the plug connection (2) and remove the rear light .

3 – Installing rear light onto side panel at right

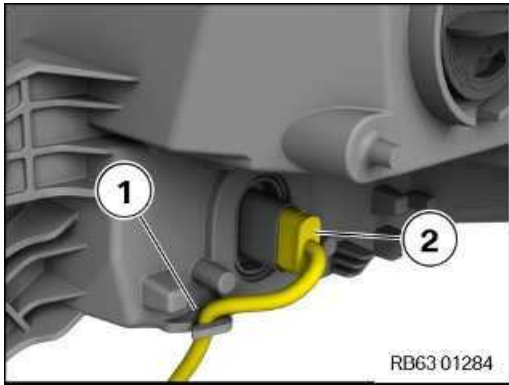


NOTICE

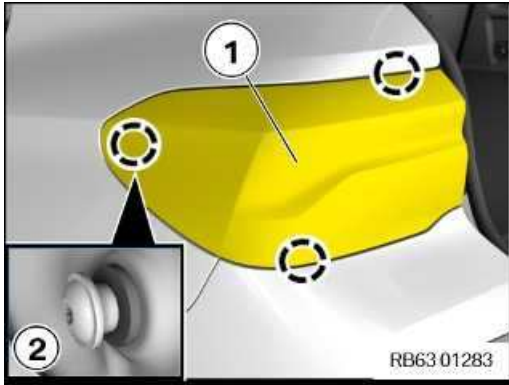
Description is for left component only. Procedure on the right side is identical.



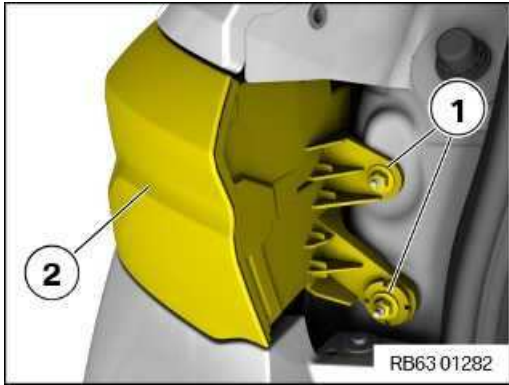
- Make sure that the guides (1) on the rear light are not damaged or missing.



- Connect connectors (2) and lock.
- Attach the cable in the guide (1).



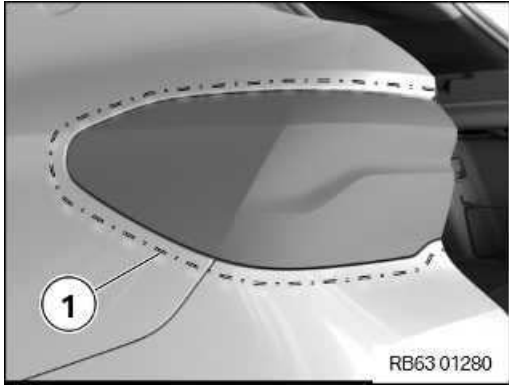
- Position the rear light (1) in the side panel.
- Make sure the rear light (1) is fitted correctly in the guides (2).



- Tighten the nuts (1) on the rear light (2).

Side panel rear light to body

Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm
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- Pull off the plastic adhesive tape from the body in the area (1).

POSTPROCESSES

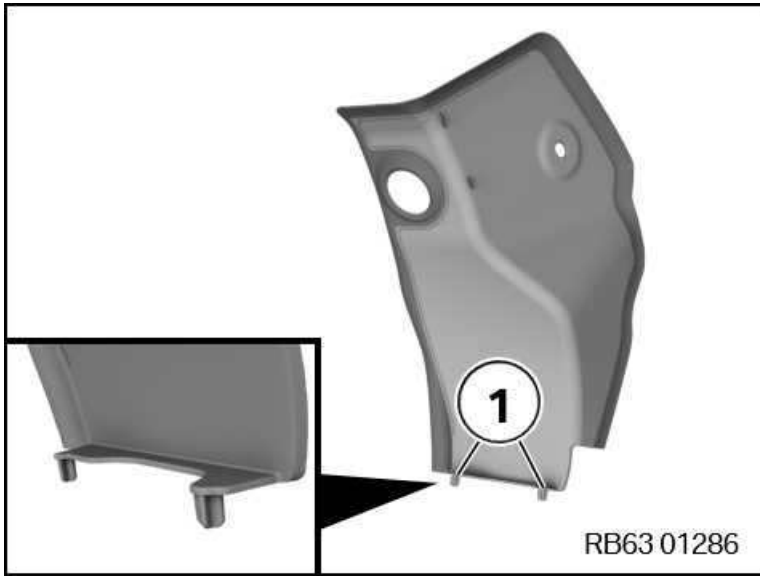
4 – Install the trim for the right water channel



NOTICE

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

Check



- Check guides (1) for damage.

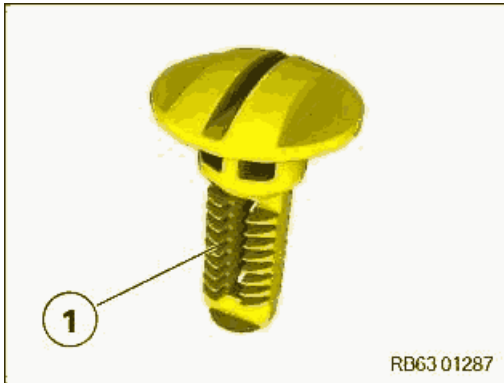
Result

» The guides (1) are damaged.

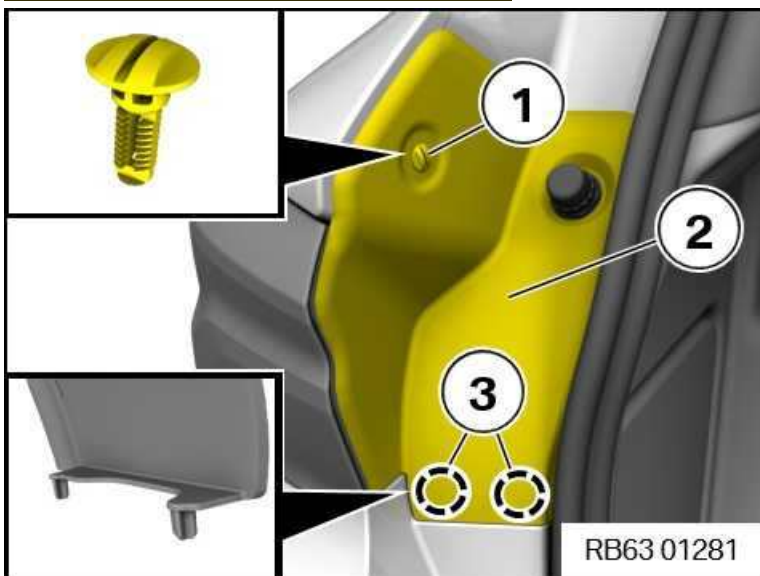
Measure

- Renew the trim for the water channel.

Parts: trim



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



- Insert trim (2) for the water channel into the guides (3).
- Fasten the rotary clip (1).

Additional Information

Overview of Tightening Torques

Side panel rear light to body

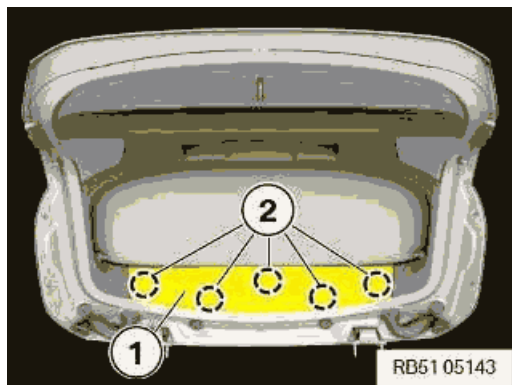
Used in step 3

Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm
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63 21 281 Removing and install rear right light of tailgate

PRELIMINARY WORK

1 – Remove the trim for the top rear window frame



- Unclip the trim for the top rear window frame (1) at the latch mechanisms (2) and remove.

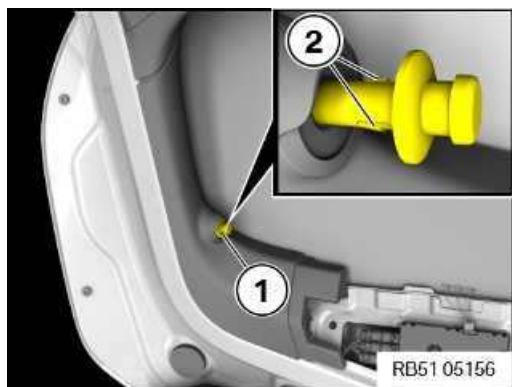
2 – Remove both trims for the rear window frame on the side



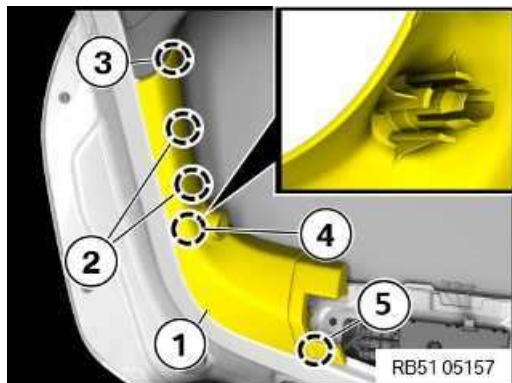
NOTICE

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

► Remove the trim for the rear window frame on the side

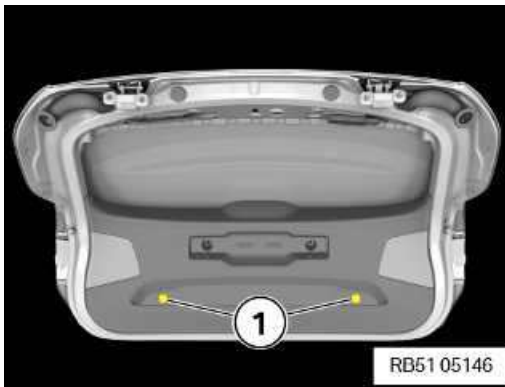


- Detach the mounting button (1) on the latch mechanisms (2) and remove it.

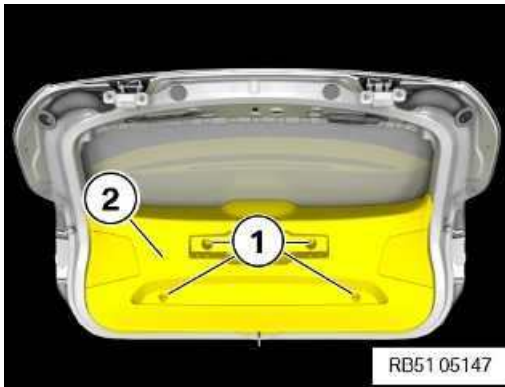


- Unclip the trim for the rear window frame on the side (1) with the clips (2) from the latch mechanisms (3), (4) and (5).

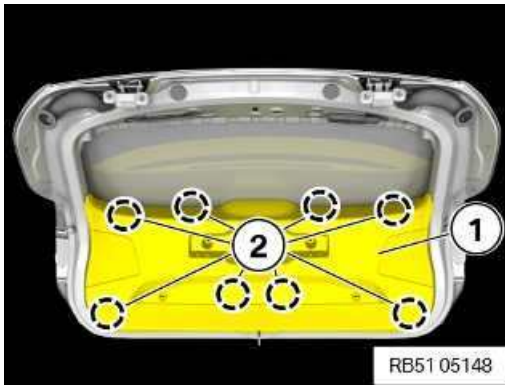
3 – Remove tailgate trim panel



- Lever out the covers of the screw points (1) with a suitable tool.

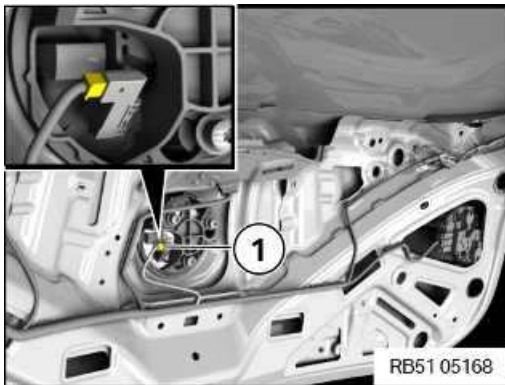


- If applicable, remove the warning triangle from the tailgate trim panel (2).
- Unscrew the bolts (1) at the tailgate trim panel (2).

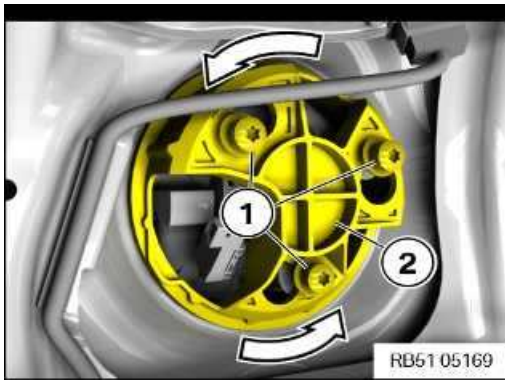


- Unclip the tailgate trim panel (1) at the latch mechanisms (2) and remove.

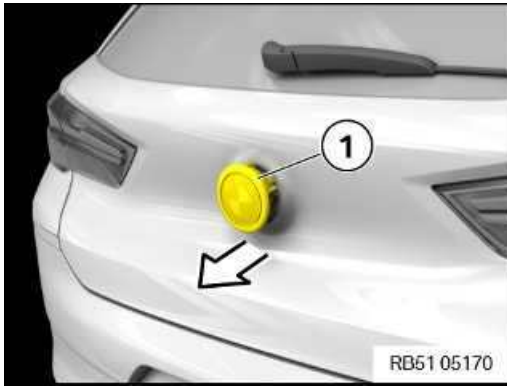
4 – Remove tailgate pushbutton



- Unlock plug connection (1) and disconnect.



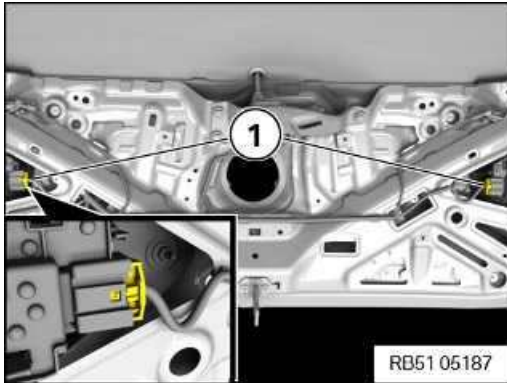
- Unscrew the bolts (1) until you can turn the retaining ring (2).
- Turn the retaining ring (2) in the direction of the arrow and remove it.



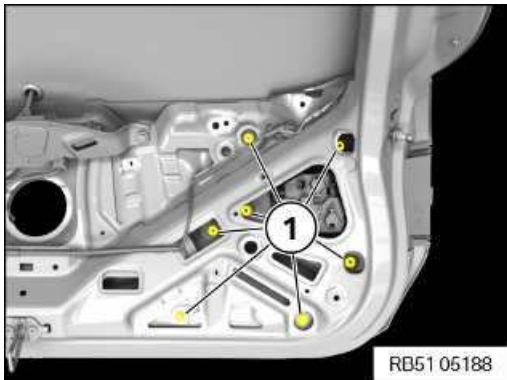
- Remove the tailgate button (1) in the direction of the arrow.

Your browser doesn't support HTML5 video.

5 – Removing the rear trim



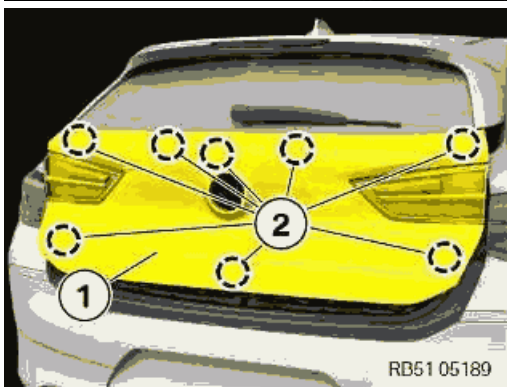
- Unlock and disconnect plug connections (1).



NOTICE

Perform the operations on the left and right side.

- Loosen nuts (1).
- Unclip the rear trim (1) at the clips (2) and remove toward the rear.



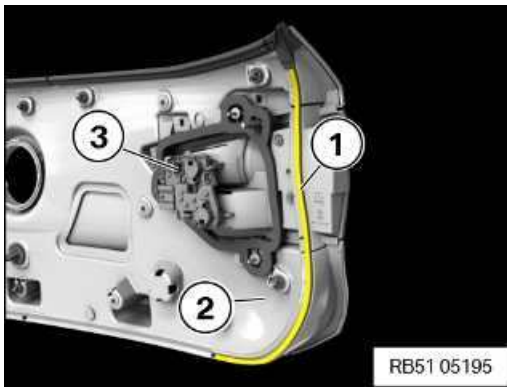
MAIN WORK

6 – Removing the rear light on the right tailgate

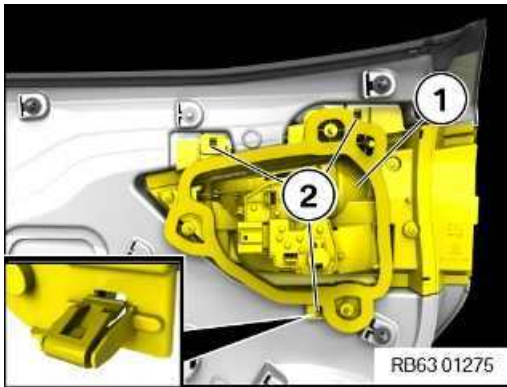


NOTICE

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



- Detach gutter strip (1) from rear trim (2) and rear light (3).



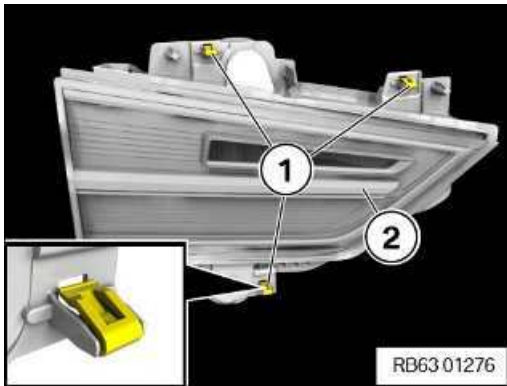
- Unclip rear light (1) with the clamps (2) and remove.

7 – Installing the right rear light on the tailgate

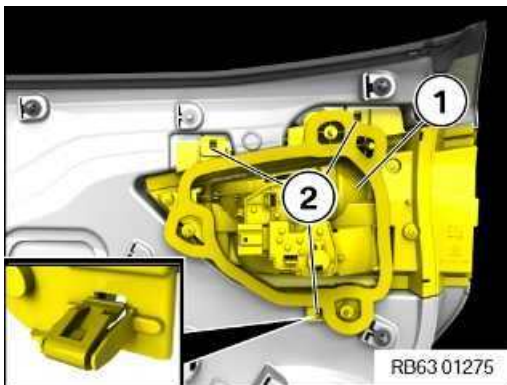


NOTICE

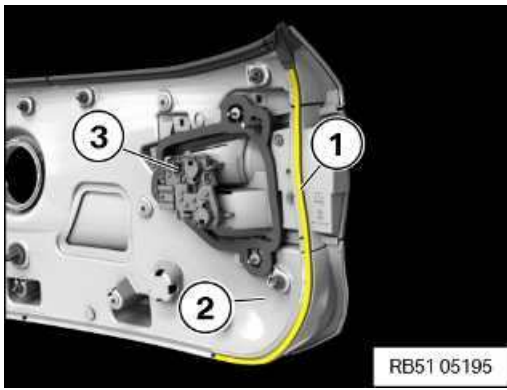
Description is for left component only. Procedure on the right side is identical.



- Check the clamps (1) at the rear light (2) for damage and renew if needed.



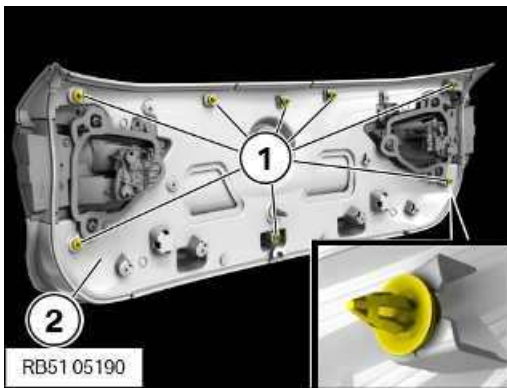
- Clip in the rear light (1) with the clamps (2).



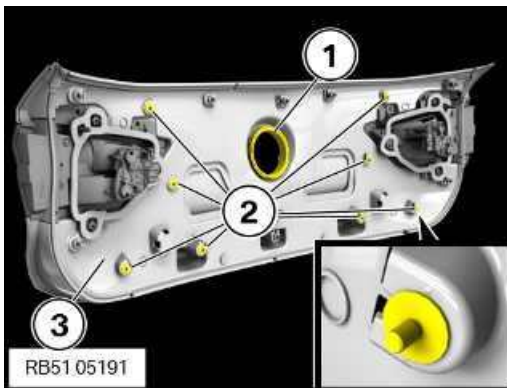
- Clean the bonding surface for gutter strip (1) on the rear trim (2) and the rear light (3).
 - Renew the gutter strip (1).
- Parts:** Gutter strip
- Bond the gutter strip (1) on the seal beginning from the top.

POSTPROCESSES

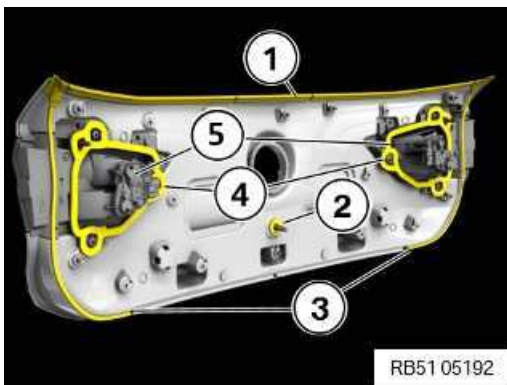
8 – Installing the rear trim



- Check clips (1) on rear trim (2) for damage and renew them if necessary.

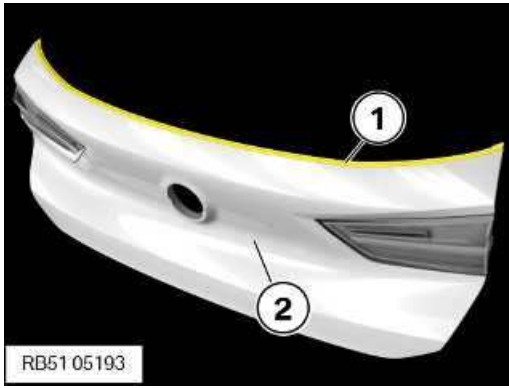


- Check spacer (1) for damage and renew it if necessary.
- Position and engage the spacer (1) correctly in the rear trim (3).
- If necessary, renew missing screws (2) on rear trim (3).

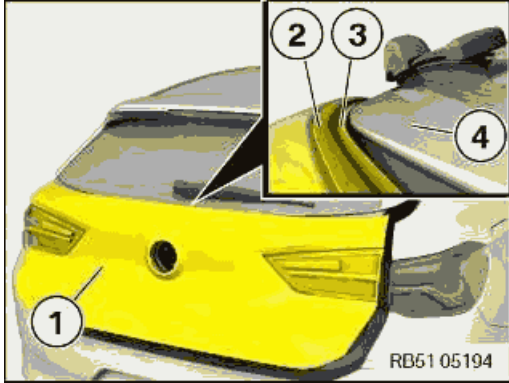


- Check the seals (1) and (2) for damage; renew if necessary.
- Check gutter strips (3) for damage and renew them if necessary.
- Check seals (4) on rear lights (5) on the tailgate for damage and renew them if necessary.

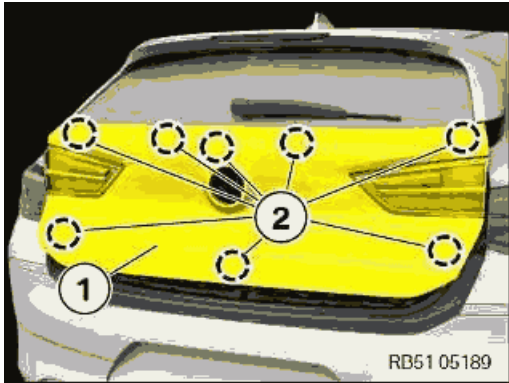
Your browser doesn't support HTML5 video.



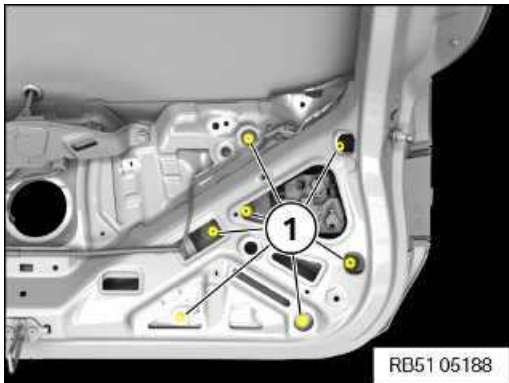
- Coat the seal (1) on the rear trim (2) with a suitable lubricant.



- Open the tailgate slightly.
- Position the rear trim (1) with the seal (2) on the rear window from the bottom.
- Thread the sealing lip (3) of the seal (2) completely under the rear window (4).
- Press on seal (2) with special tool **0 490 538 (00 9 321)**.



- Clip in the rear trim (1) with the clips (2).



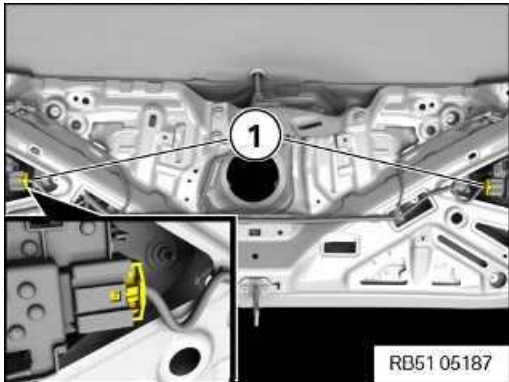
NOTICE

Perform the operations on the left and right side.

- Tighten nuts (1).

Rear trim to tailgate

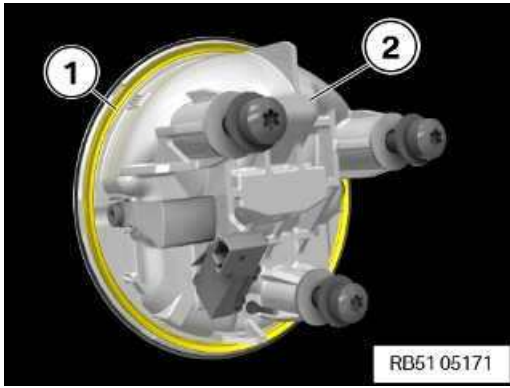
M5 nut		Tightening torque	4,5 Nm
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- Connect connectors (1) and lock.

9 – Install the tailgate button

Check



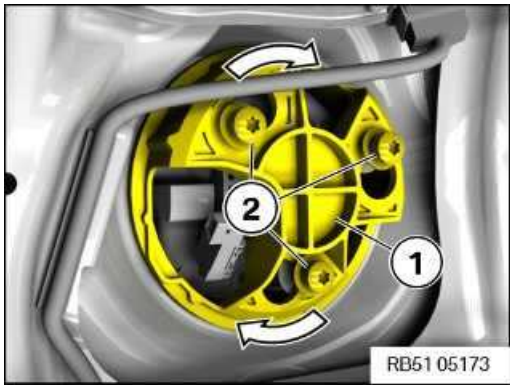
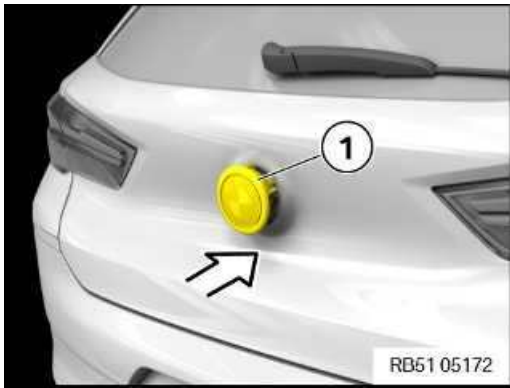
- Check the seal (1) on the tailgate button (2) for damage.

Result

» The seal (1) is damaged.

Measure

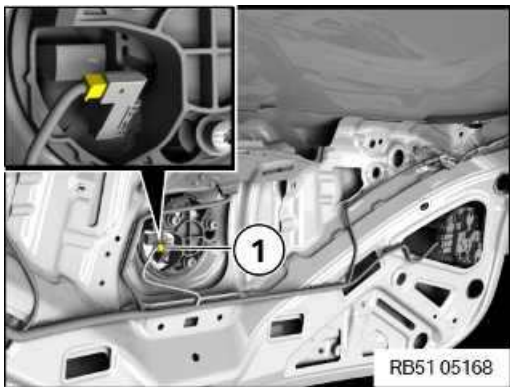
- Replace the tailgate button (2).
- Insert the tailgate button (1) in the rear trim from the outside in.
The BMW badge must be aligned correctly.



- Attach the retaining ring (1) from the inside and turn it in the direction of the arrow to the stop.
- Tighten down screws (2).

Tailgate button

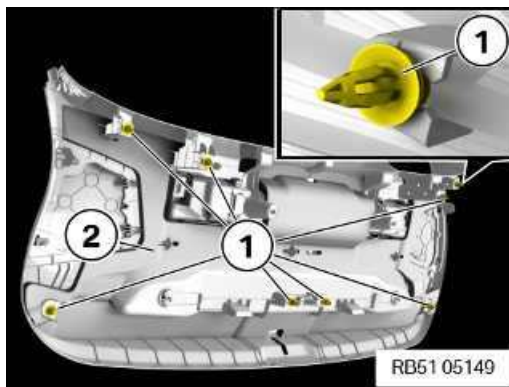
Screw with spring washer and washer M6x20		Tightening torque	8 Nm
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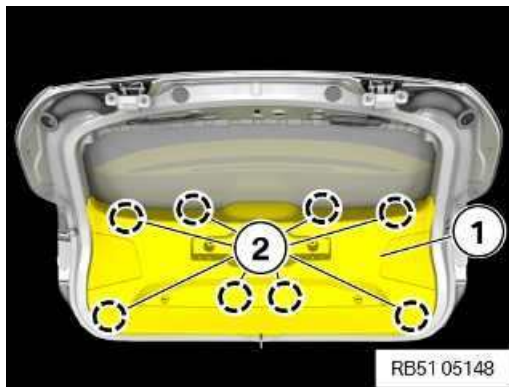
- Connect connectors (1) and lock.

Your browser doesn't support HTML5 video.

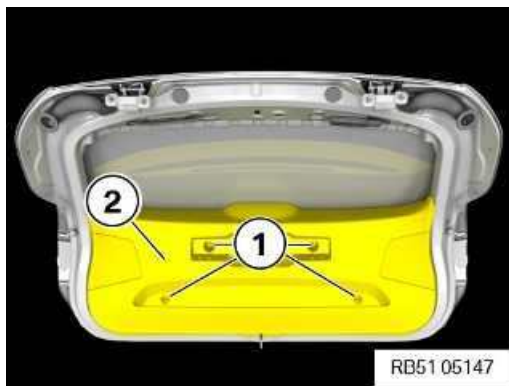
10 – Installing the tailgate trim panel



- Check the clips (1) on the tailgate trim panel (2) for damage and replace where required.



- Clip in the tailgate trim panel (1) with the clips (2).

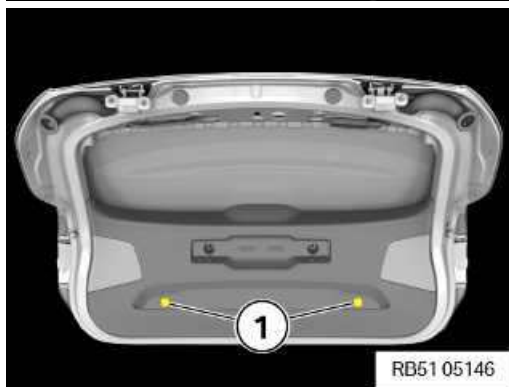


- Tighten the bolts (1) at the tailgate trim panel (2).

Tailgate trim panel

Screw		Tightening torque	1,8 Nm
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- If necessary, insert and fasten the warning triangle in the tailgate trim panel (2).



- Insert the covers of the screw points (1).

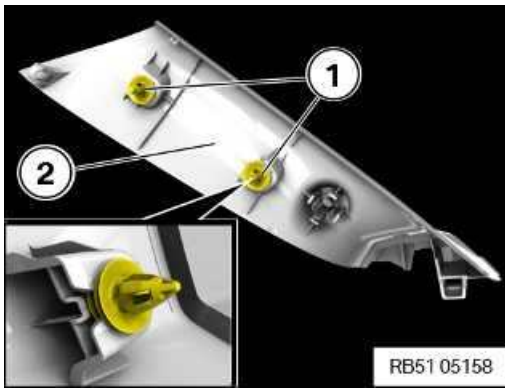
11 – Mount both trim pieces for the rear window frame on the side



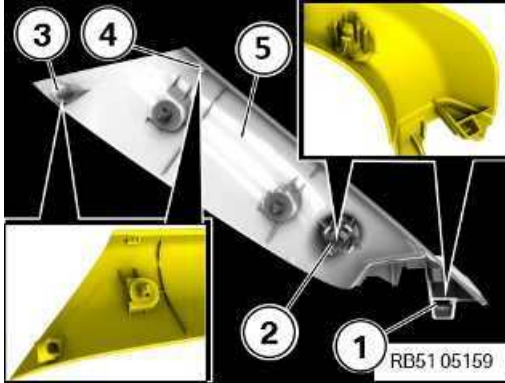
NOTICE

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

- Install the trim for the rear window frame on the side



- Check the clips (1) on the trim for the side rear window frame (2) for damage and replace where required.



Check

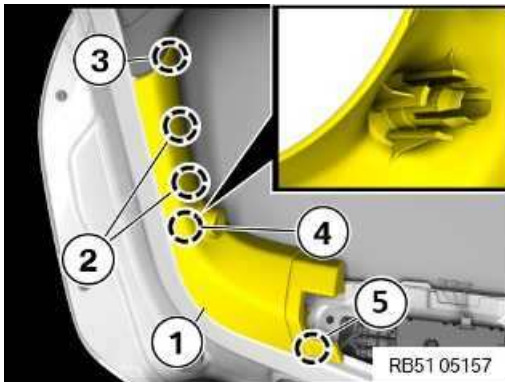
- Check the latch mechanisms (1), (2), (3) and (4) at the trim for the side rear window frame (5) for damage.

Result

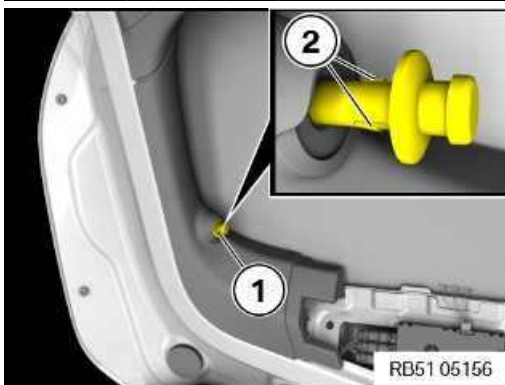
- » The latch mechanisms (1), (2), (3) or (4) are damaged.

Measure

- Renew the trim for the side rear window frame (5).

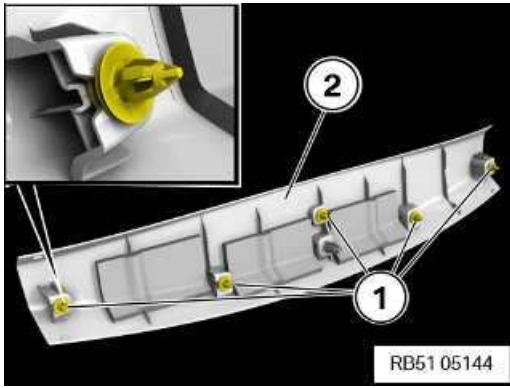


- Clip in the trim for the side rear window frame (1) with the clips (2) and in the latch mechanisms (3), (4) and (5).

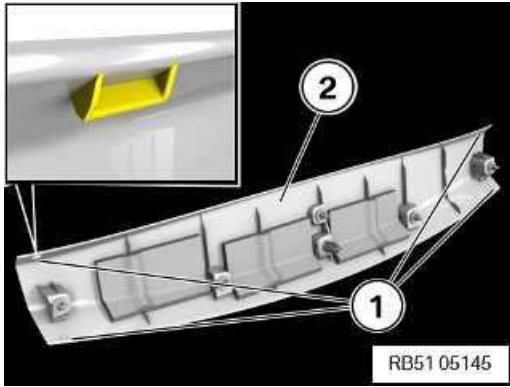


- Clip in the mounting button (1) with the latch mechanisms (2).

12 – Install the trim for the top rear window frame



- Check the clips (1) on the trim for the top rear window frame (2) for damage and replace where required.



Check

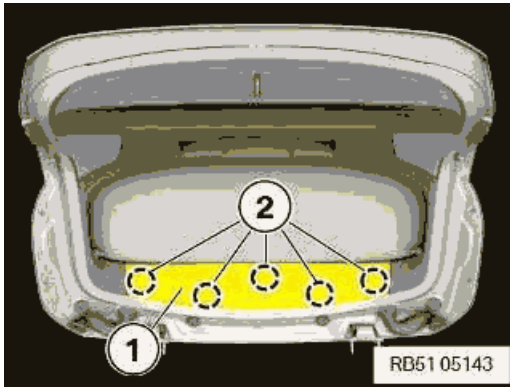
- Check the latch mechanisms (1) on the trim for the top rear window frame (2) for damage.

Result

» The latch mechanisms (1) on the trim for the top rear window frame (2) are damaged.

Measure

- Renew the trim for the top rear window frame (2).
- Clip in the trim for the top rear window frame (1) with the clips (2).



Additional Information

Overview of Tightening Torques

Rear trim to tailgate

Used in step 8

M5 nut		Tightening torque	4,5 Nm
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Tailgate button

Used in step 9

Screw with spring washer and washer M6x20		Tightening torque	8 Nm
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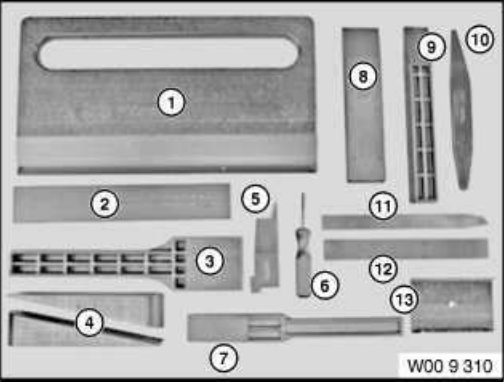
Tailgate trim panel

Used in step 10

Screw		Tightening torque	1,8 Nm
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Overview of Special Tools

0 490 538 (00 9 321) Folding stick



Common

Used in step [8](#)

Usage	
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

63 21 284 Replace both rear lights of side panel

PRELIMINARY WORK

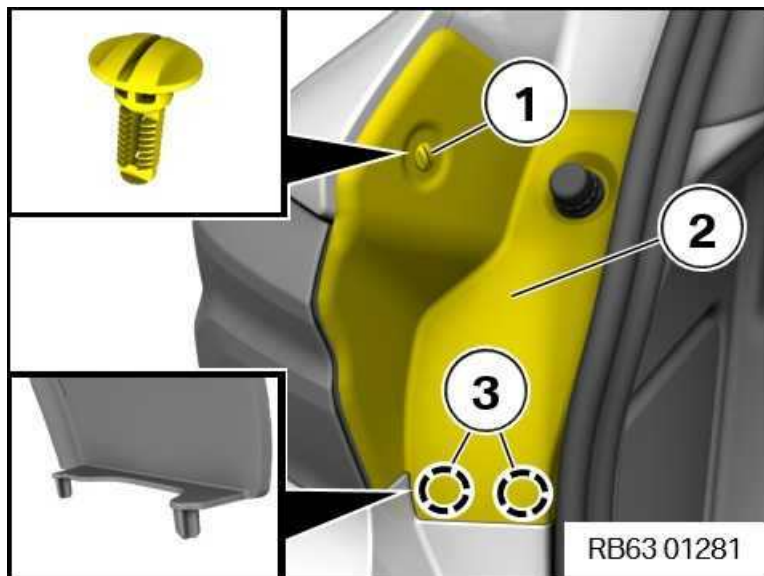
1 – Removing both trims for water channel



NOTICE

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

► Removing trim for water channel



- Detach rotary clip (1).
- Feed out and remove trim for water channel (2) from guides (3).

MAIN WORK

2 – Remove both rear lights from the side panel

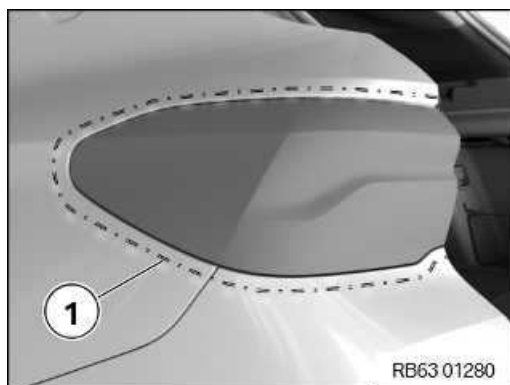


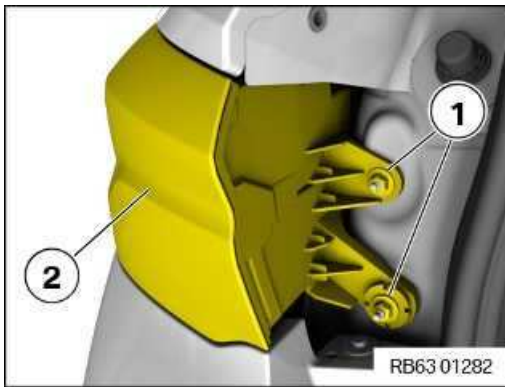
NOTICE

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

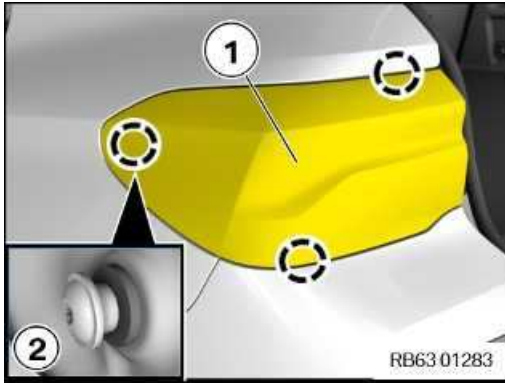
► Remove the rear light on the side panel

- Mask the body in area (1) with plastic adhesive tape.

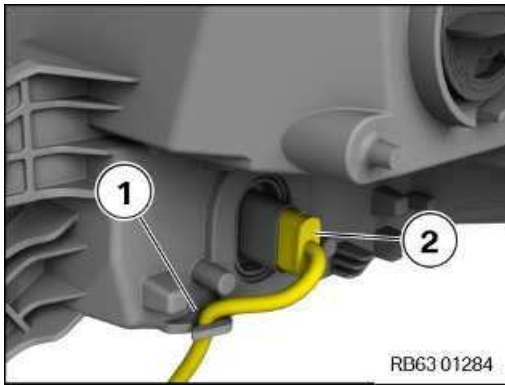




- Loosen the nuts (1) on the rear light (2).



- Remove the rear light (1) from the guides (2) towards the rear.



- Detach cable from guide (1).
- Unlock and disconnect the plug connection (2) and remove the rear light .

3 – Install both rear lights on the side panel

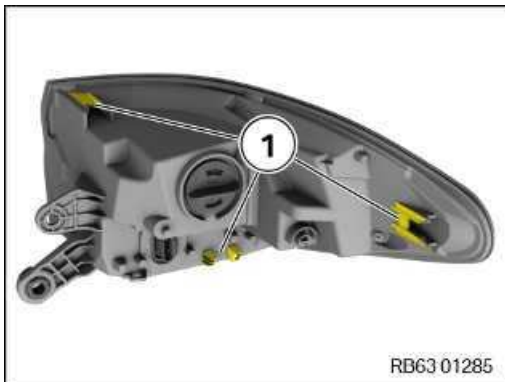


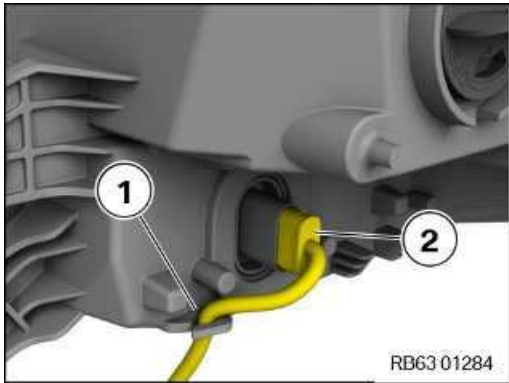
NOTICE

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

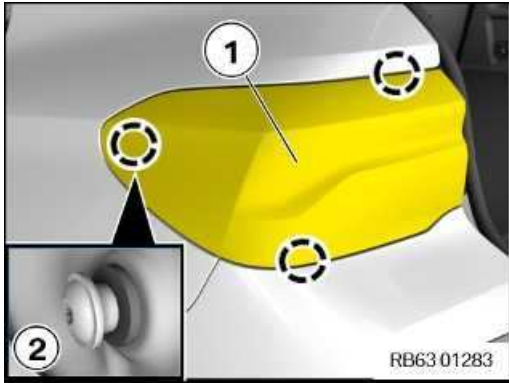
► Install the rear light on the side panel

- Make sure that the guides (1) on the rear light are not damaged or missing.

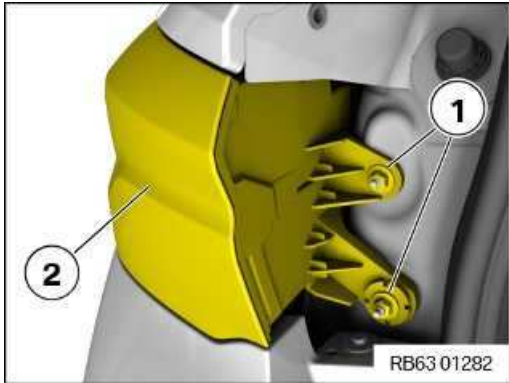




- Connect connectors (2) and lock.
- Attach the cable in the guide (1).



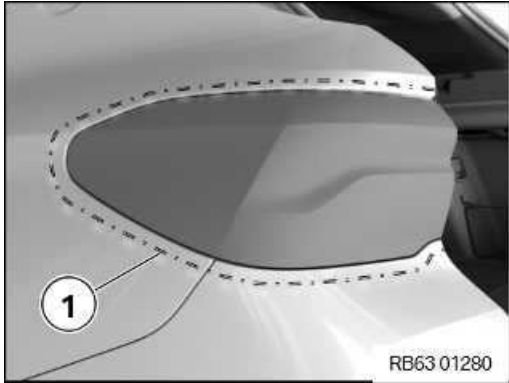
- Position the rear light (1) in the side panel.
- Make sure the rear light (1) is fitted correctly in the guides (2).



- Replace the nuts (1) on the rear light (2).
- Parts: Nuts**
- Tighten nuts (1).

Side panel rear light to body

Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm
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- Pull off the plastic adhesive tape from the body in the area (1).

POSTPROCESSES

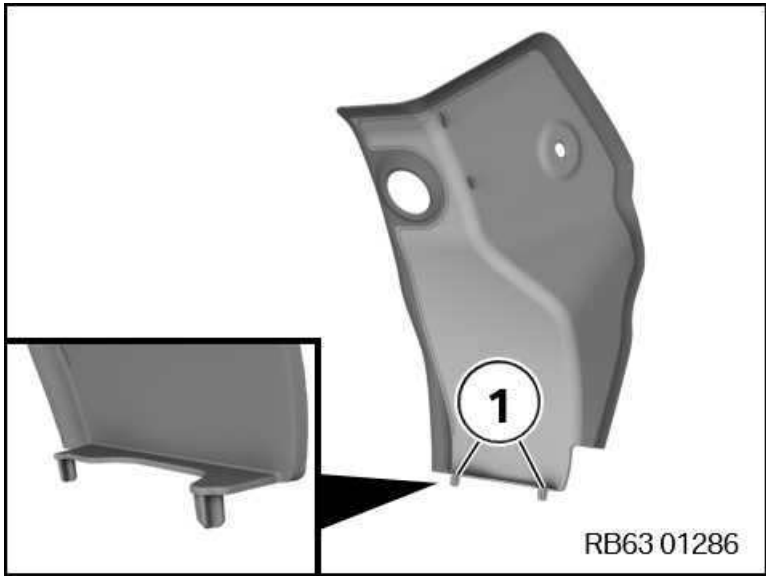
4 – Install both trim pieces for the water channel



NOTICE

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

- Install the trim for the water channel
- Check



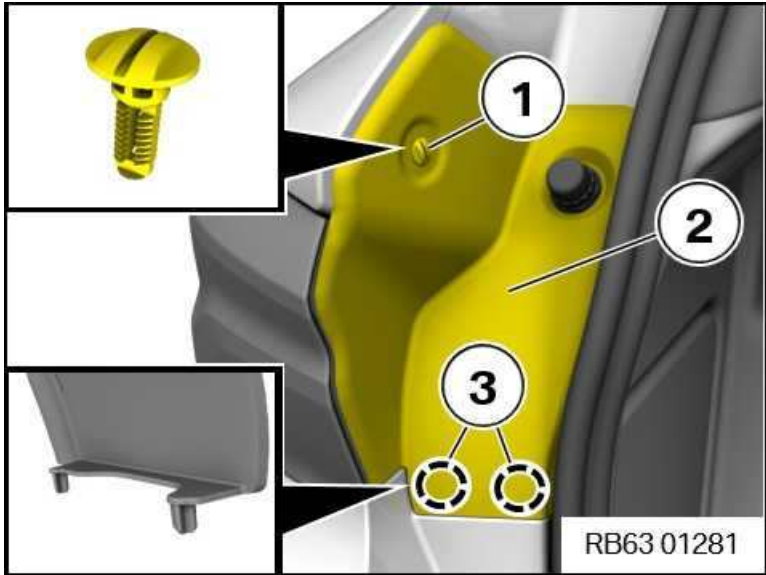
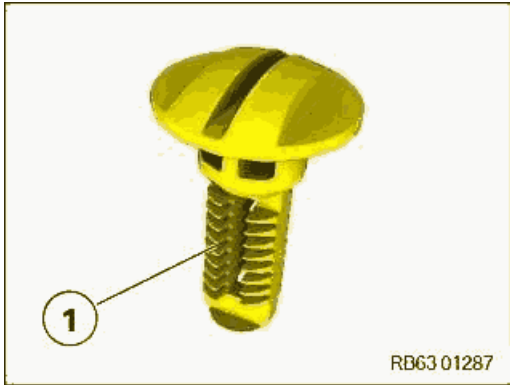
- Check the guides (1) for damage.

Result

» The guides (1) are damaged.

Measure

- Renew the trim for the water channel.
- Check rotary clip (1) for damage and, if necessary, replace it.



- Insert the trim for water channel (2) with guides (3).
- Fasten the rotary clip (1).

Additional Information

Overview of Tightening Torques

Side panel rear light to body

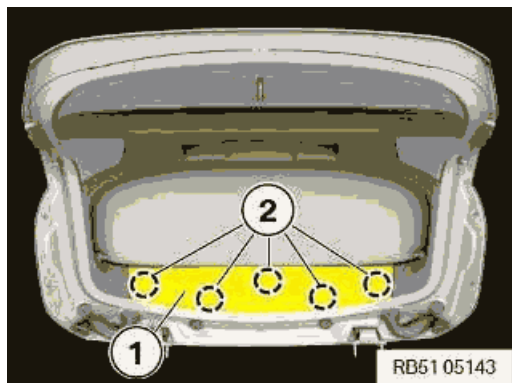
Used in step 3

Combination hexagon nut	Replace nuts.	Tightening torque	2.8 Nm
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63 21 286 Replace both rear lights of tailgate

PRELIMINARY WORK

1 – Remove the trim for the top rear window frame



- Unclip the trim for the top rear window frame (1) at the latch mechanisms (2) and remove.

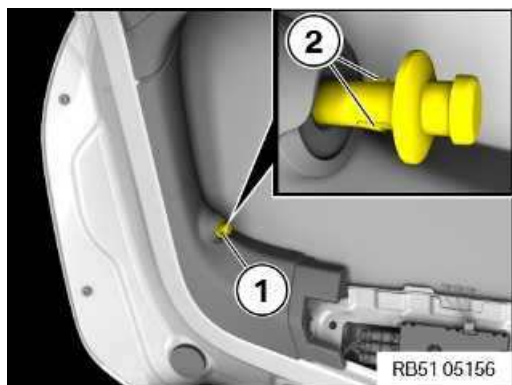
2 – Remove both trims for the rear window frame on the side



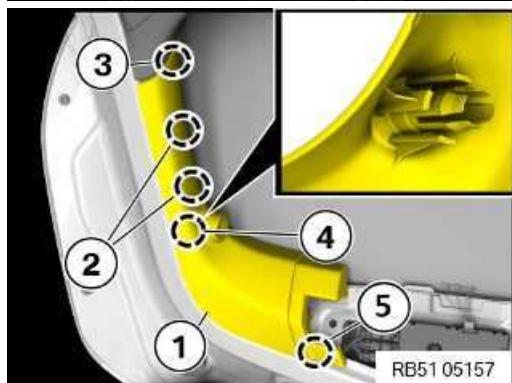
NOTICE

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

► Remove the trim for the rear window frame on the side

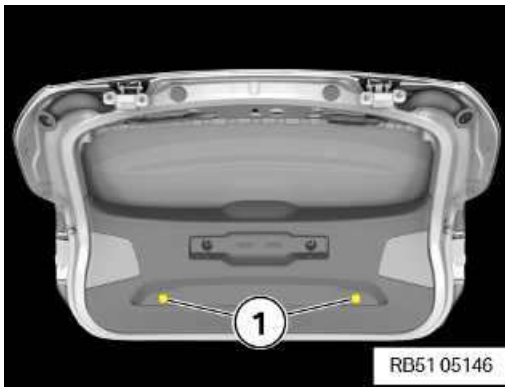


- Detach the mounting button (1) on the latch mechanisms (2) and remove it.

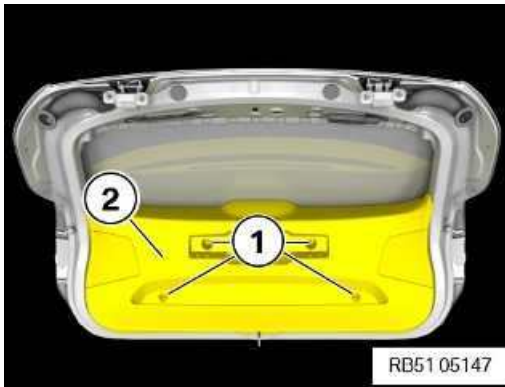


- Unclip the trim for the rear window frame on the side (1) with the clips (2) from the latch mechanisms (3), (4) and (5).

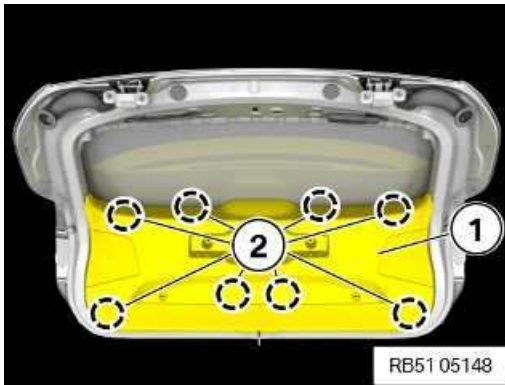
3 – Remove tailgate trim panel



- Lever out the covers of the screw points (1) with a suitable tool.

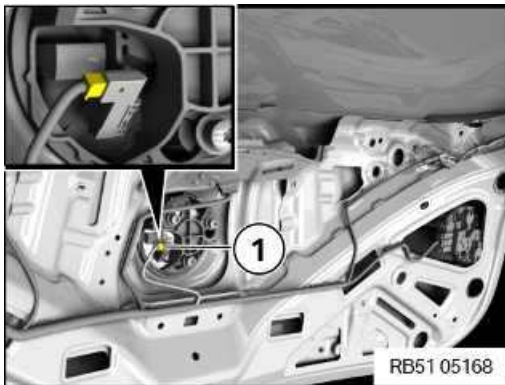


- If applicable, remove the warning triangle from the tailgate trim panel (2).
- Unscrew the bolts (1) at the tailgate trim panel (2).

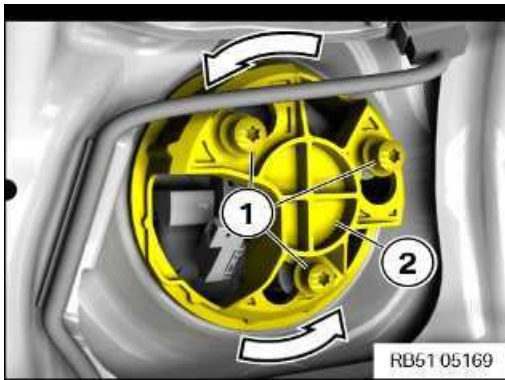


- Unclip the tailgate trim panel (1) at the latch mechanisms (2) and remove.

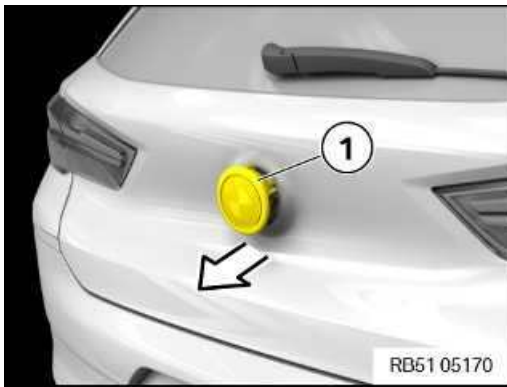
4 – Remove tailgate pushbutton



- Unlock plug connection (1) and disconnect.



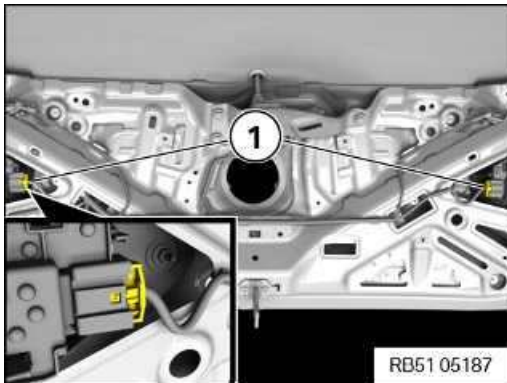
- Unscrew the bolts (1) until you can turn the retaining ring (2).
- Turn the retaining ring (2) in the direction of the arrow and remove it.



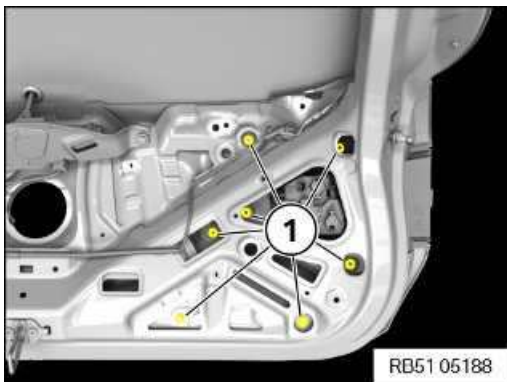
- Remove the tailgate button (1) in the direction of the arrow.

Your browser doesn't support HTML5 video.

5 – Removing the rear trim



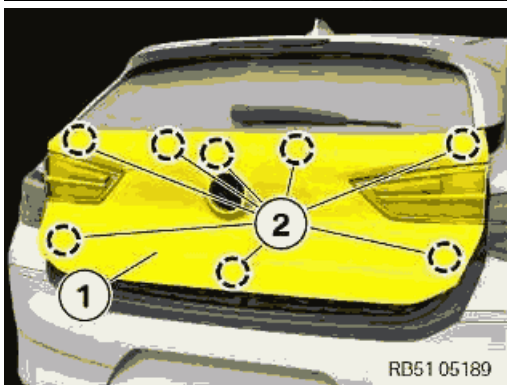
- Unlock and disconnect plug connections (1).



NOTICE

Perform the operations on the left and right side.

- Loosen nuts (1).
- Unclip the rear trim (1) at the clips (2) and remove toward the rear.



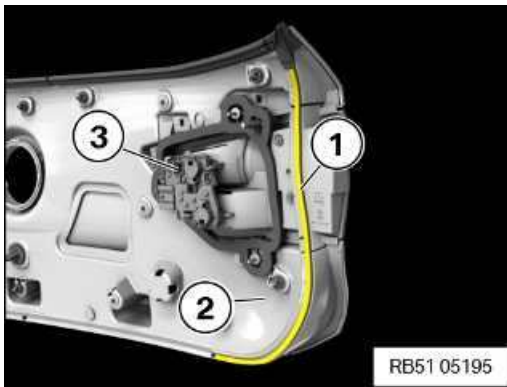
MAIN WORK

6 – Remove both rear lights from the tailgate

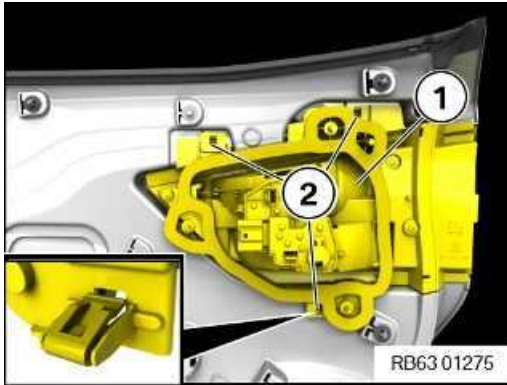


NOTICE

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



- Detach gutter strip (1) from rear trim (2) and rear light (3).



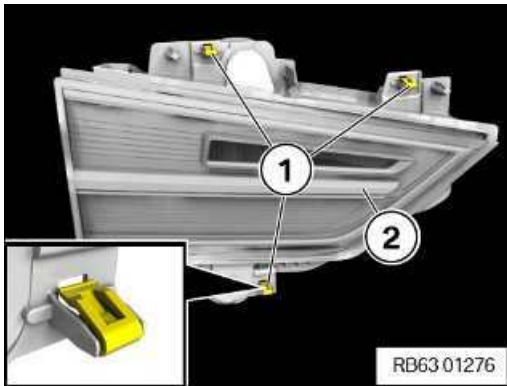
- Unclip rear light (1) with the clamps (2) and remove.

7 – Install both rear lights on the tailgate

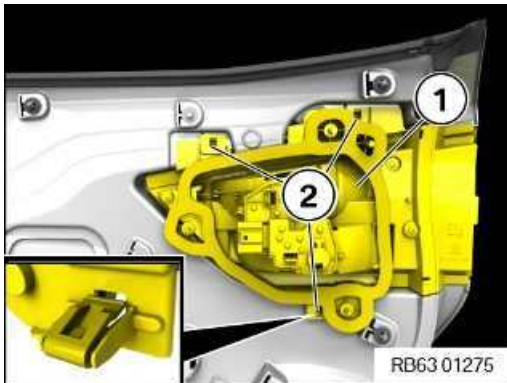


NOTICE

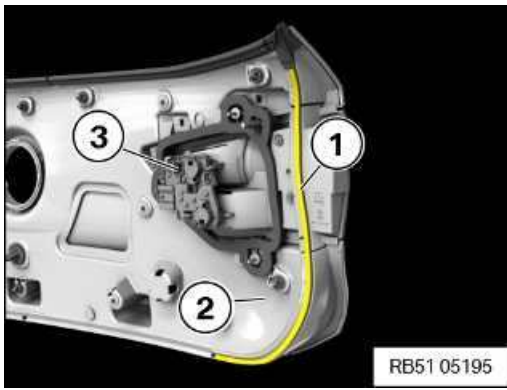
Description is for left component only. Procedure on the right side is identical.



- Check the clamps (1) at the rear light (2) for damage and renew if needed.



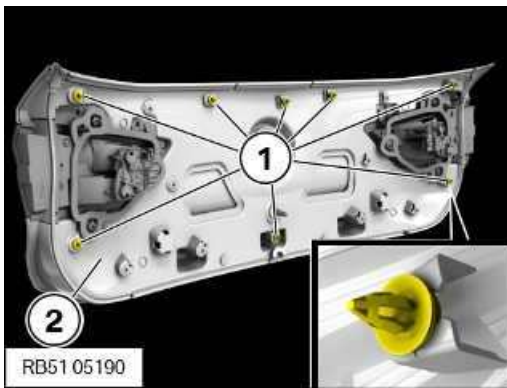
- Clip in the rear light (1) with the clamps (2).



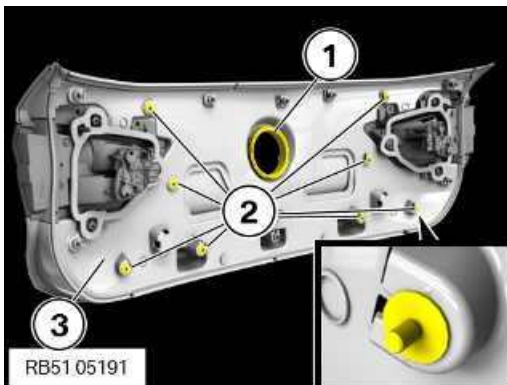
- Clean the bonding surface for gutter strip (1) on the rear trim (2) and the rear light (3).
 - Renew the gutter strip (1).
- Parts:** Gutter strip
- Bond the gutter strip (1) on the seal beginning from the top.

POSTPROCESSES

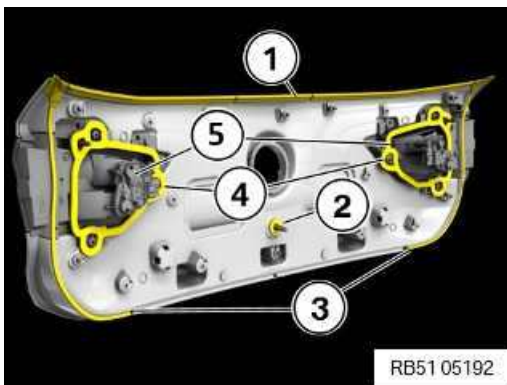
8 – Installing the rear trim



- Check clips (1) on rear trim (2) for damage and renew them if necessary.

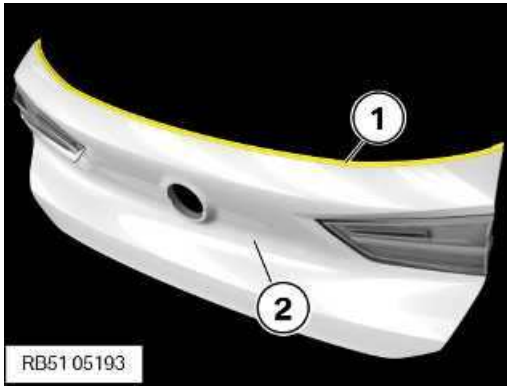


- Check spacer (1) for damage and renew it if necessary.
- Position and engage the spacer (1) correctly in the rear trim (3).
- If necessary, renew missing screws (2) on rear trim (3).

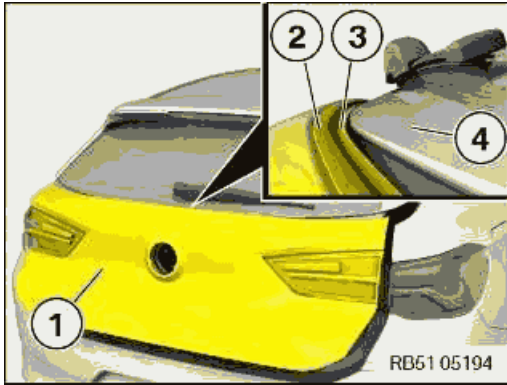


- Check the seals (1) and (2) for damage; renew if necessary.
- Check gutter strips (3) for damage and renew them if necessary.
- Check seals (4) on rear lights (5) on the tailgate for damage and renew them if necessary.

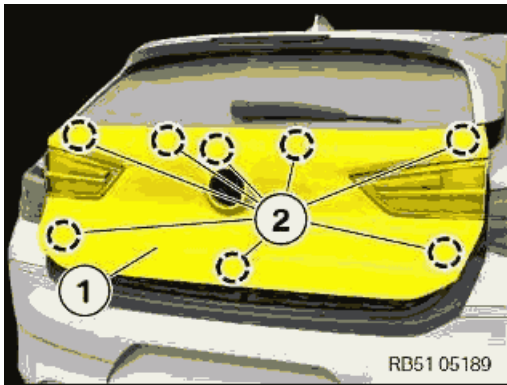
Your browser doesn't support HTML5 video.



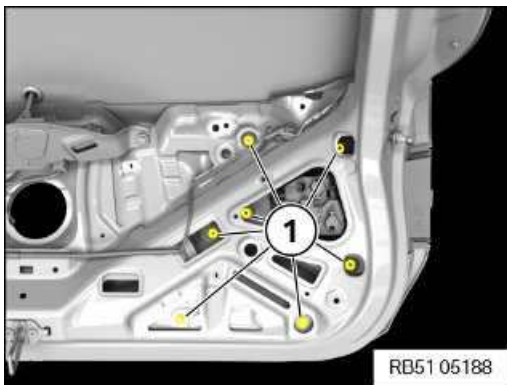
- Coat the seal (1) on the rear trim (2) with a suitable lubricant.



- Open the tailgate slightly.
- Position the rear trim (1) with the seal (2) on the rear window from the bottom.
- Thread the sealing lip (3) of the seal (2) completely under the rear window (4).
- Press on seal (2) with special tool **0 490 538 (00 9 321)**.



- Clip in the rear trim (1) with the clips (2).



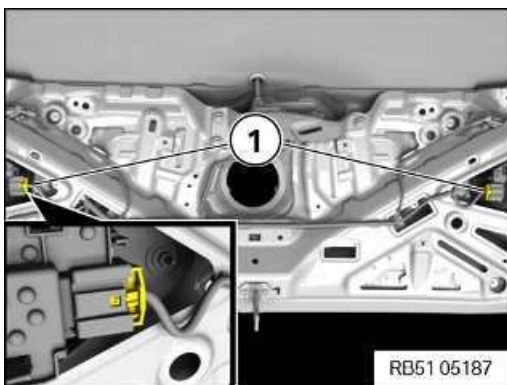
NOTICE

Perform the operations on the left and right side.

- Tighten nuts (1).

Rear trim to tailgate

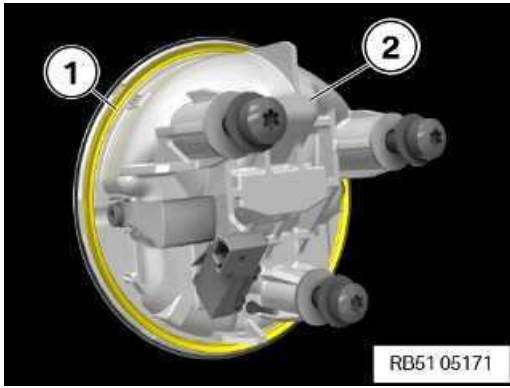
M5 nut		Tightening torque	4,5 Nm
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- Connect connectors (1) and lock.

9 – Install the tailgate button

Check



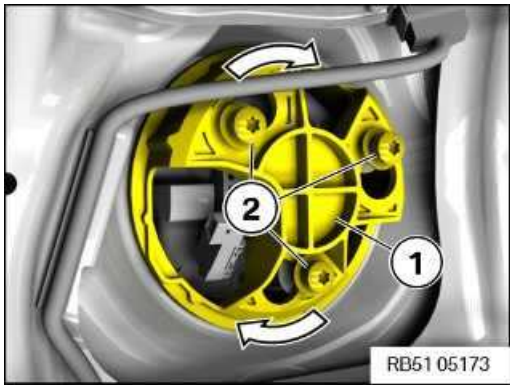
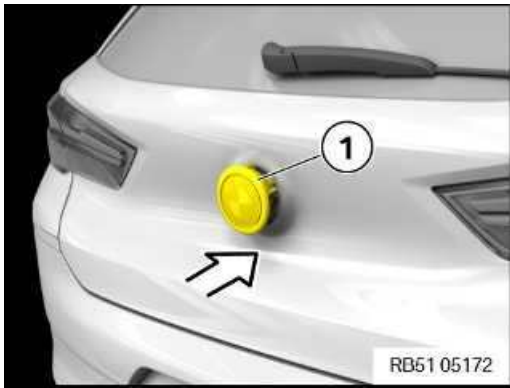
- Check the seal (1) on the tailgate button (2) for damage.

Result

» The seal (1) is damaged.

Measure

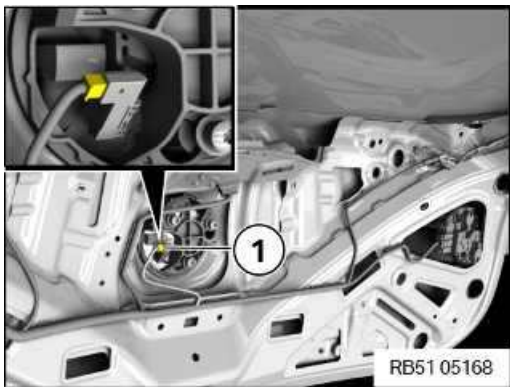
- Replace the tailgate button (2).
- Insert the tailgate button (1) in the rear trim from the outside in.
The BMW badge must be aligned correctly.



- Attach the retaining ring (1) from the inside and turn it in the direction of the arrow to the stop.
- Tighten down screws (2).

Tailgate button

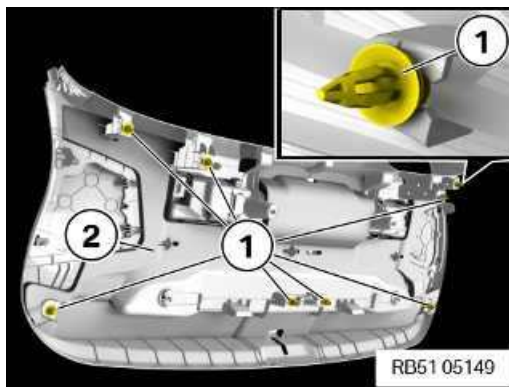
Screw with spring washer and washer M6x20		Tightening torque	8 Nm
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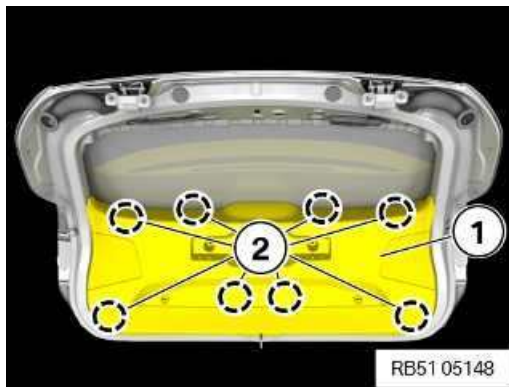
- Connect connectors (1) and lock.

Your browser doesn't support HTML5 video.

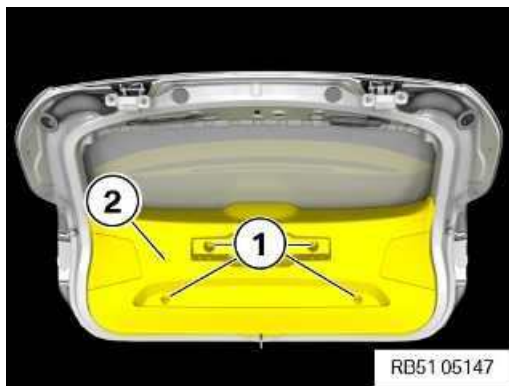
10 – Installing the tailgate trim panel



- Check the clips (1) on the tailgate trim panel (2) for damage and replace where required.



- Clip in the tailgate trim panel (1) with the clips (2).

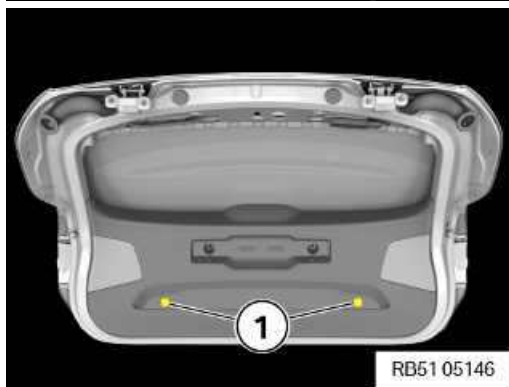


- Tighten the bolts (1) at the tailgate trim panel (2).

Tailgate trim panel

Screw		Tightening torque	1,8 Nm
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- If necessary, insert and fasten the warning triangle in the tailgate trim panel (2).



- Insert the covers of the screw points (1).

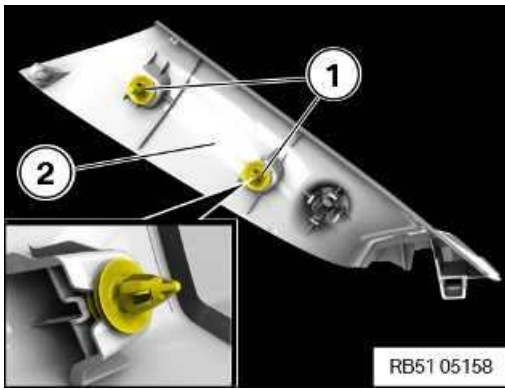
11 – Mount both trim pieces for the rear window frame on the side



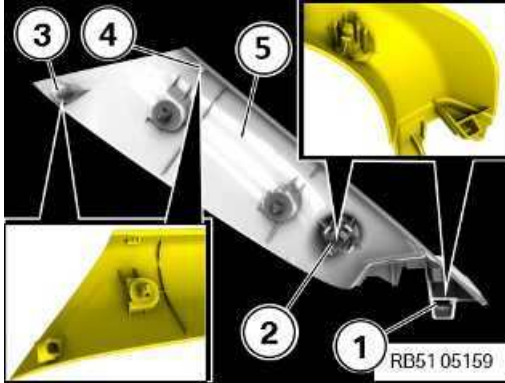
NOTICE

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

- Install the trim for the rear window frame on the side



- Check the clips (1) on the trim for the side rear window frame (2) for damage and replace where required.



Check

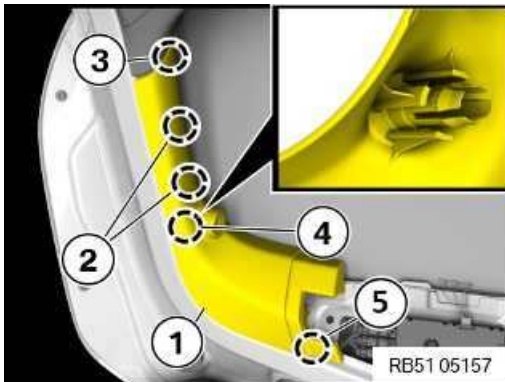
- Check the latch mechanisms (1), (2), (3) and (4) at the trim for the side rear window frame (5) for damage.

Result

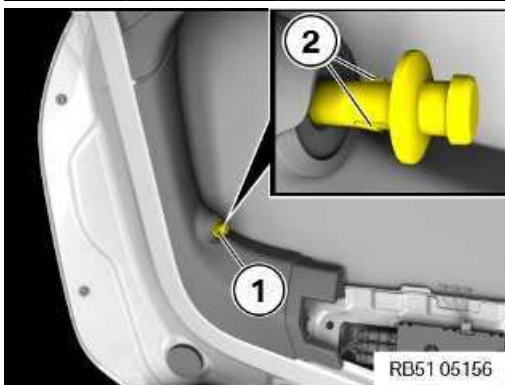
- » The latch mechanisms (1), (2), (3) or (4) are damaged.

Measure

- Renew the trim for the side rear window frame (5).

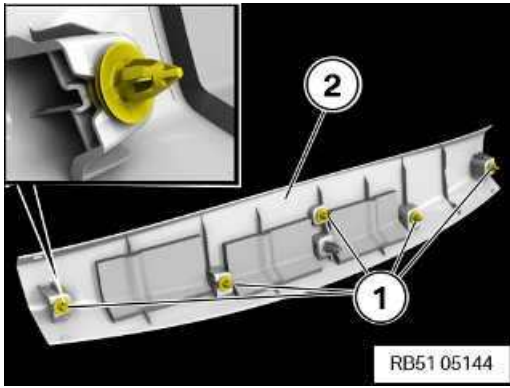


- Clip in the trim for the side rear window frame (1) with the clips (2) and in the latch mechanisms (3), (4) and (5).

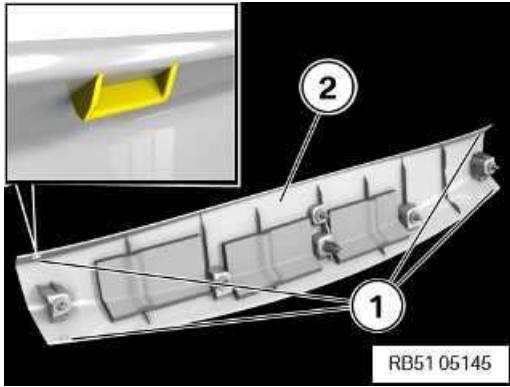


- Clip in the mounting button (1) with the latch mechanisms (2).

12 – Install the trim for the top rear window frame



- Check the clips (1) on the trim for the top rear window frame (2) for damage and replace where required.



Check

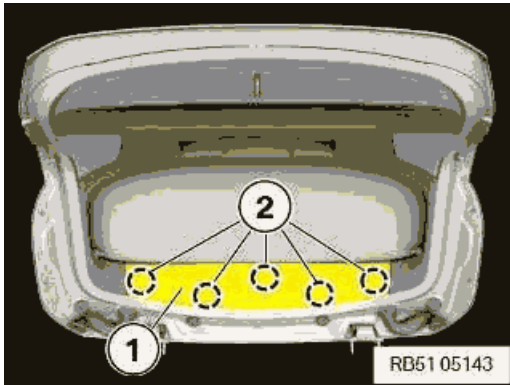
- Check the latch mechanisms (1) on the trim for the top rear window frame (2) for damage.

Result

» The latch mechanisms (1) on the trim for the top rear window frame (2) are damaged.

Measure

- Renew the trim for the top rear window frame (2).
- Clip in the trim for the top rear window frame (1) with the clips (2).



Additional Information

Overview of Tightening Torques

Rear trim to tailgate

Used in step 8

M5 nut		Tightening torque	4,5 Nm
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Tailgate button

Used in step 9

Screw with spring washer and washer M6x20		Tightening torque	8 Nm
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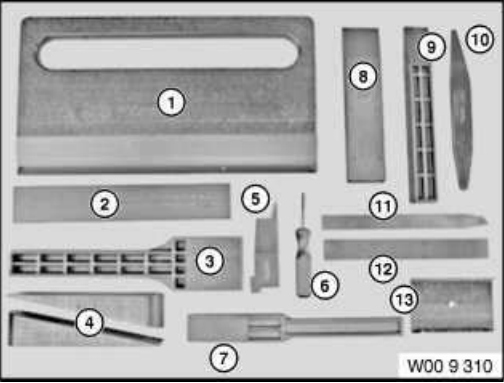
Tailgate trim panel

Used in step 10

Screw		Tightening torque	1,8 Nm
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Overview of Special Tools

0 490 538 (00 9 321) Folding stick



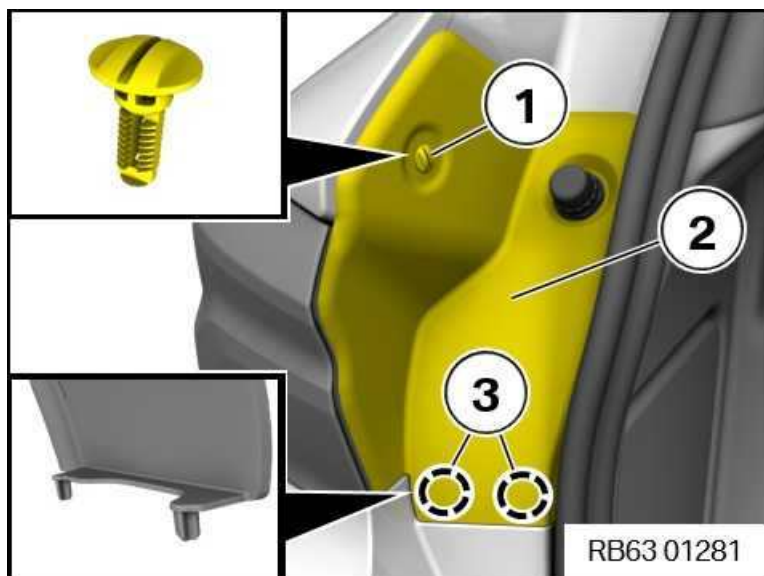
Common

Used in step [8](#)

Usage	
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

63 21 400 Replace the water channel trim on the left (on side panel)

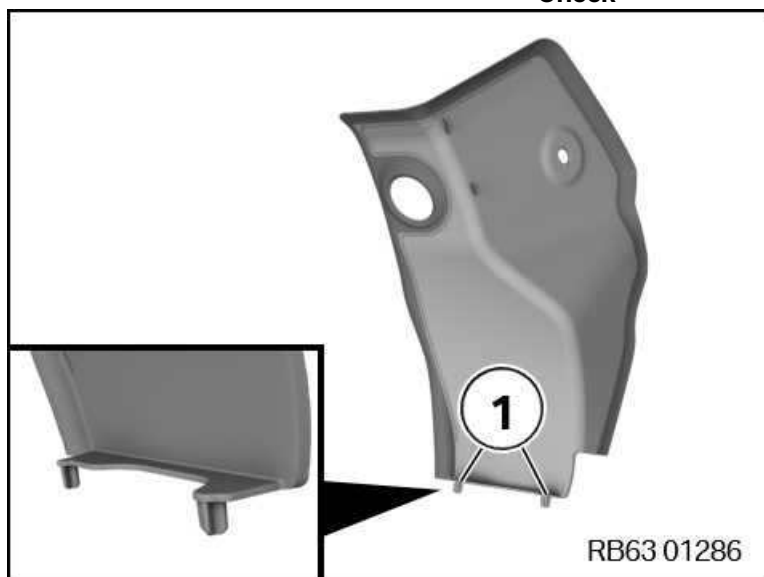
1 – Removing trim for water channel



- Detach rotary clip (1).
- Feed out and remove trim for water channel (2) from guides (3).

2 – Install the trim for the water channel

Check



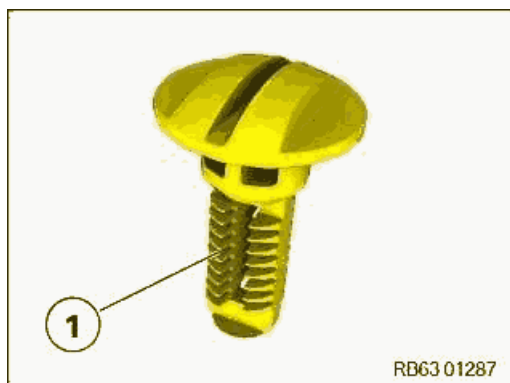
- Check the guides (1) for damage.

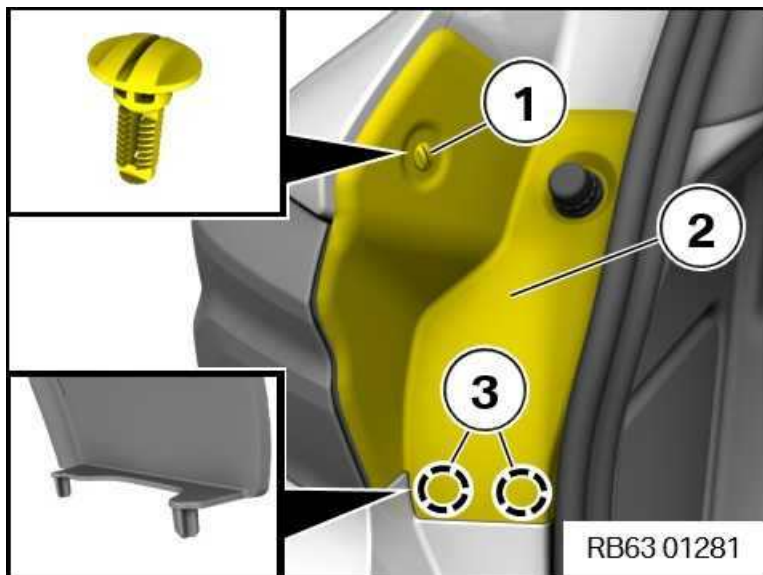
Result

» The guides (1) are damaged.

Measure

- Renew the trim for the water channel.
- Check rotary clip (1) for damage and, if necessary, replace it.



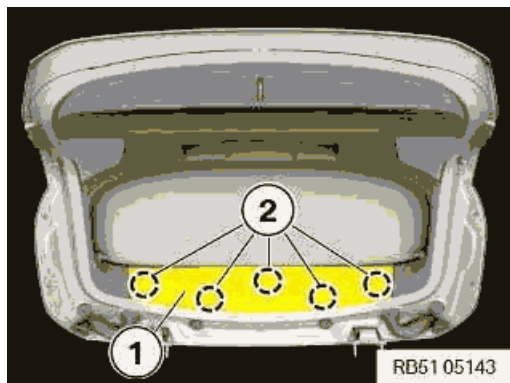


- Insert the trim for water channel (2) with guides (3).
- Fasten the rotary clip (1).

63 25 000 3. Removing and installing/replacing the brake light

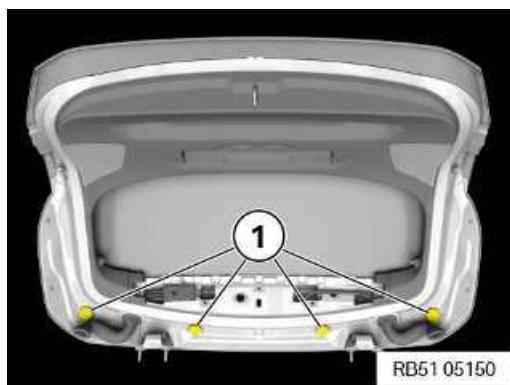
PRELIMINARY WORK

1 – Remove the trim for the top rear window frame

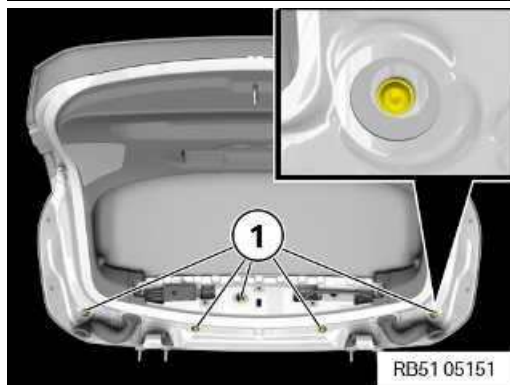


- Unclip the trim for the top rear window frame (1) at the latch mechanisms (2) and remove.

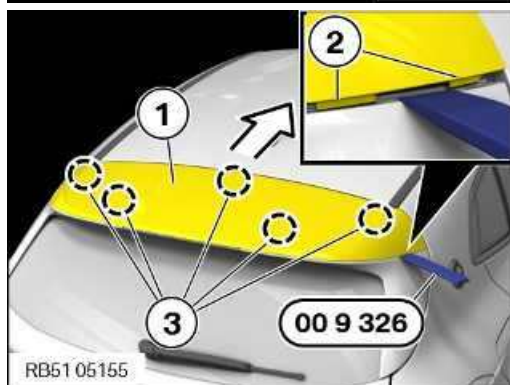
2 – Remove rear spoiler



- Unclip the covers (1) with a suitable tool and remove.



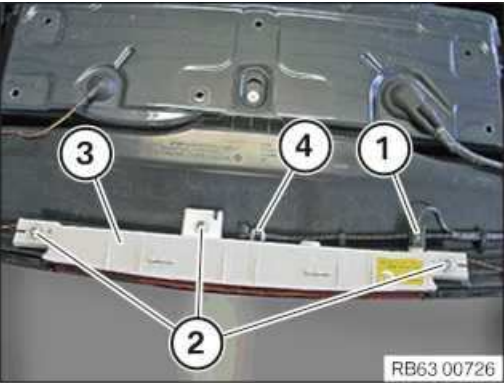
- Loosen screws (1).



- Release rear spoilers (1) on both outer sides with the special tool **0 496 570 (00 9 326)** out of the latch mechanisms (2).
- Unclip rear spoiler (1) from the clips (3).
- Slightly lift rear spoiler (1) in the front area and remove in direction of arrow.

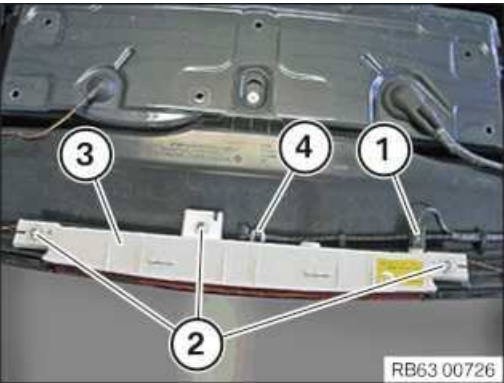
MAIN WORK

3 – 3. Removing the brake light



- Unlock and disconnect the connector (1) at the 3rd brake light (3).
- Loosen screws (2).
- 3. Remove the brake light (3) and disconnect the hose line (4).

4 – 3. Installing the brake light



- Connect the hose line (4) with the 3rd brake light (3).
- 3. Correctly position the brake light (3) and tighten the screws (2).

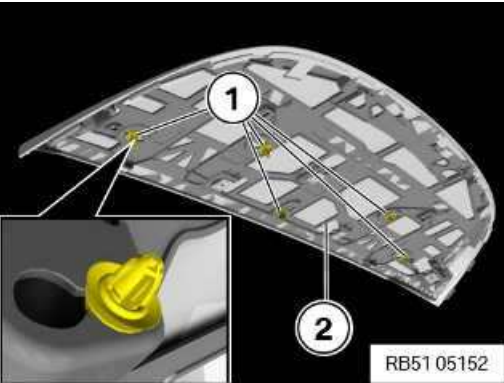
3. Brake light to roof spoiler

Sheet metal screw		Tightening torque	2,0 Nm
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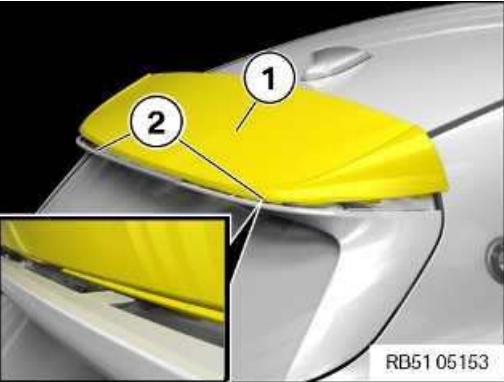
- Connect the connector (1) with the 3rd brake light (3).

POSTPROCESSES

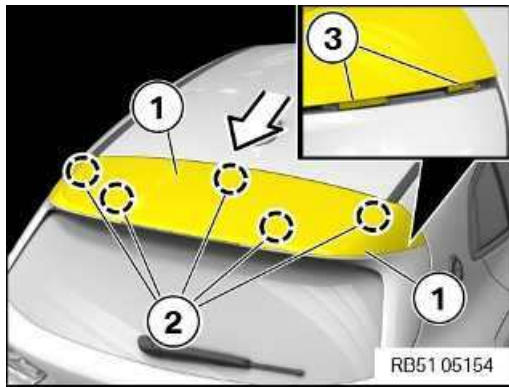
5 – Attach rear spoiler



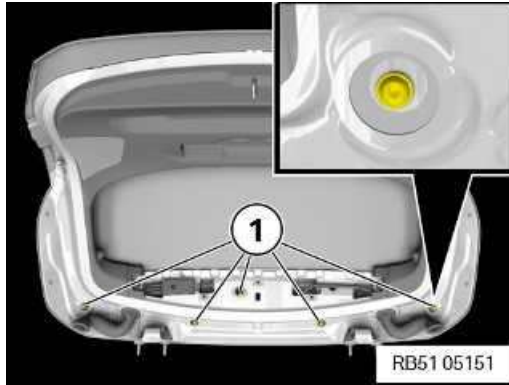
- Check clips (1) on the rear spoiler (2) for damage, renew if required.



- Position the rear spoiler (1) on the guides (2) .



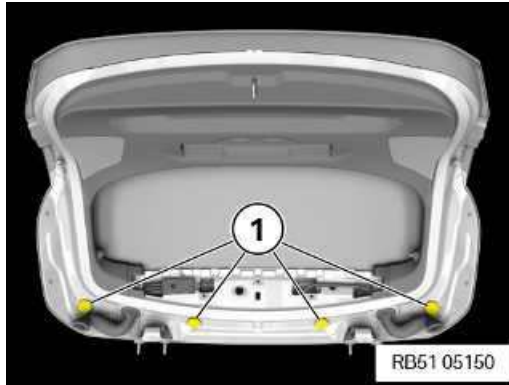
- Slide the rear spoiler (1) onto the lower section of the rear spoiler in the direction of the arrow.
- Clip in the rear spoiler (1) with the clips (2) and clip on the latch mechanisms (3) on both sides.



- Tighten the screws (1).

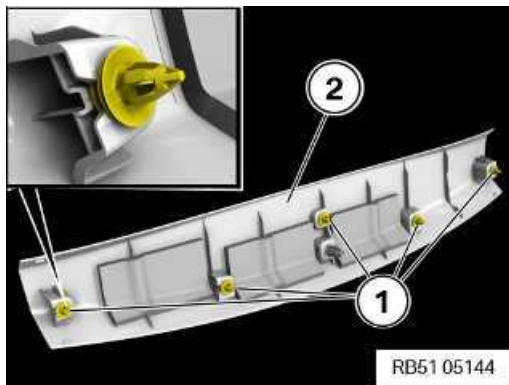
Rear spoiler to tailgate

Oval-head screw		Tightening torque	3,1 Nm
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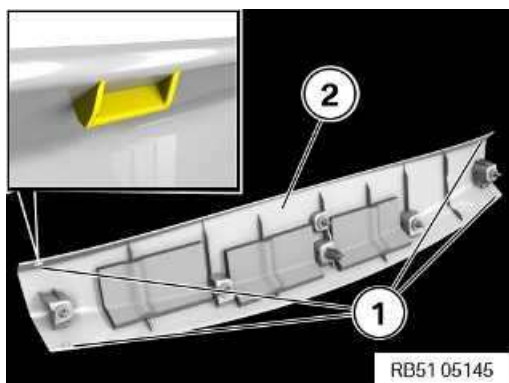


- Insert the covers (1).

6 – Install the trim for the top rear window frame



- Check the clips (1) on the trim for the top rear window frame (2) for damage and replace where required.



Check

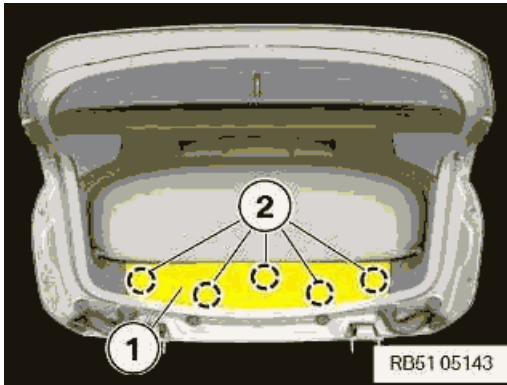
- Check the latch mechanisms (1) on the trim for the top rear window frame (2) for damage.

Result

» The latch mechanisms (1) on the trim for the top rear window frame (2) are damaged.

Measure

- Renew the trim for the top rear window frame (2).
- Clip in the trim for the top rear window frame (1) with the clips (2).



Additional Information

Overview of Tightening Torques

3. Brake light to roof spoiler

Used in step [4](#)

Sheet metal screw		Tightening torque	2,0 Nm
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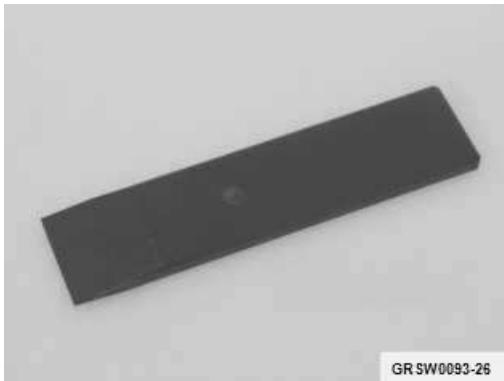
Rear spoiler to tailgate

Used in step [5](#)

Oval-head screw		Tightening torque	3,1 Nm
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Overview of Special Tools

0 496 570 (00 9 326) Wedge



Common

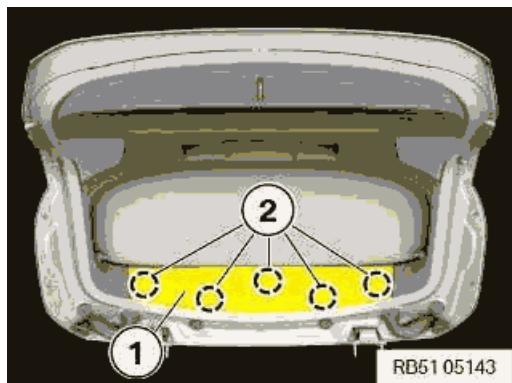
Used in step [2](#)

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)

63 25 003 Removing and installing add. brake light

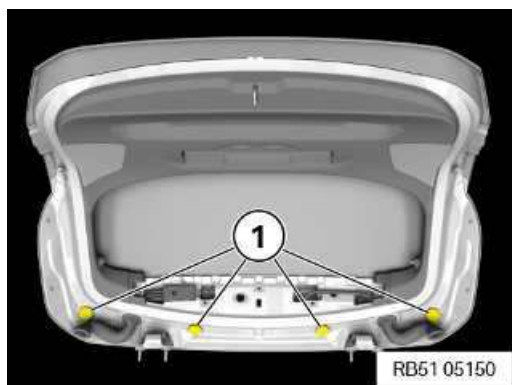
PRELIMINARY WORK

1 – Remove the trim for the top rear window frame

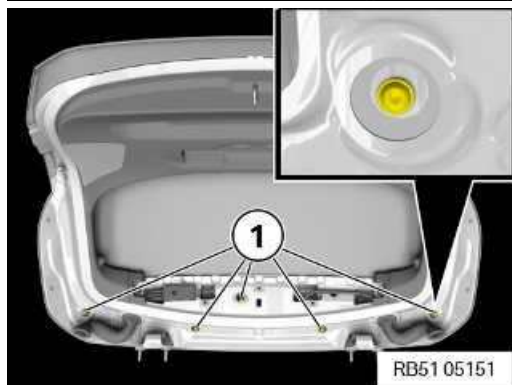


- Unclip the trim for the top rear window frame (1) at the latch mechanisms (2) and remove.

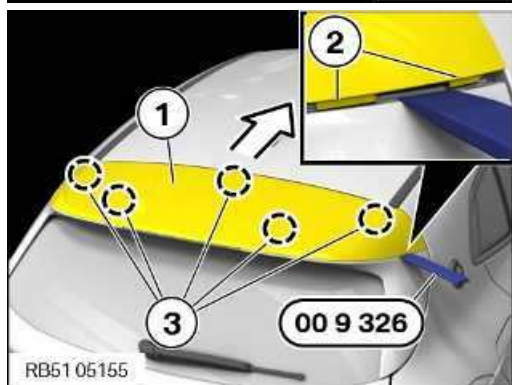
2 – Remove rear spoiler



- Unclip the covers (1) with a suitable tool and remove.



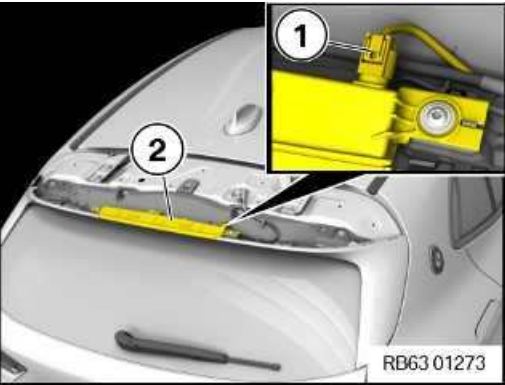
- Loosen screws (1).



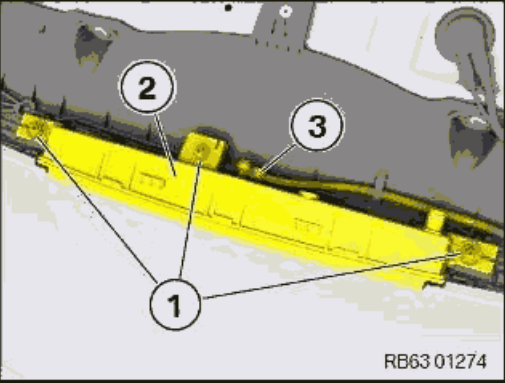
- Release rear spoilers (1) on both outer sides with the special tool **0 496 570 (00 9 326)** out of the latch mechanisms (2).
- Unclip rear spoiler (1) from the clips (3).
- Slightly lift rear spoiler (1) in the front area and remove in direction of arrow.

MAIN WORK

3 – Remove additional brake light

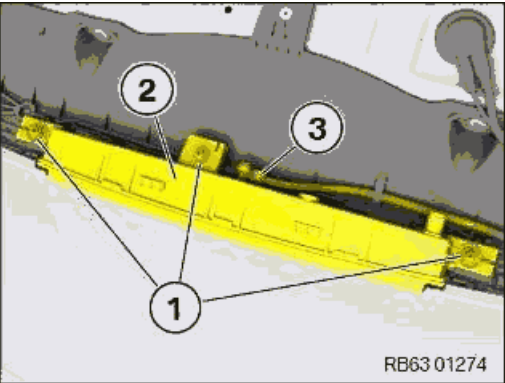


- Unlock and disconnect the plug connection (1) of the additional brake light (2).



- Loosen screws (1).
- Feed the additional brake light (2) out towards the top.
- Disconnect the hose pipe (3) and remove the additional brake light (2).

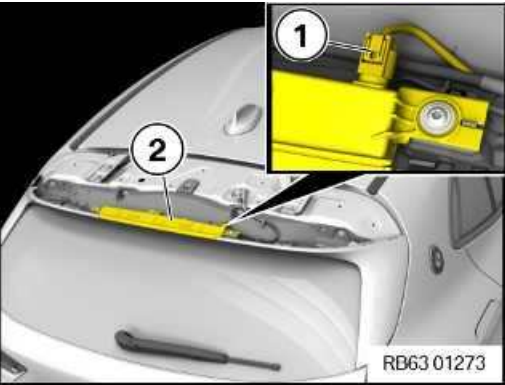
4 – Install the auxiliary stop lamp



- Connect hose pipe (3) and position the additional brake light (2).
- Tighten the screws (1).

Additional brake light to tailgate

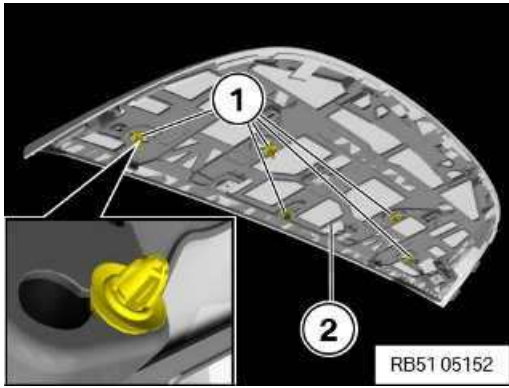
Sheet metal screw 4.8 x 16		Tightening torque	2 Nm
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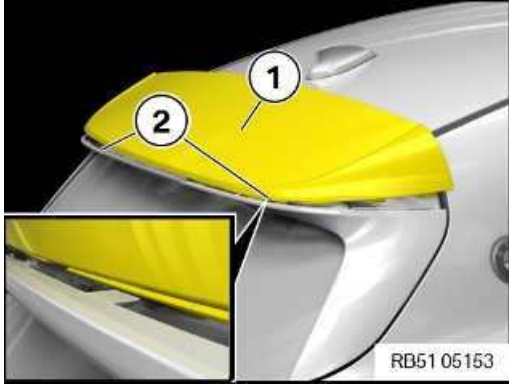
- Connect and lock the connector (1) with the additional brake light (2).

POSTPROCESSES

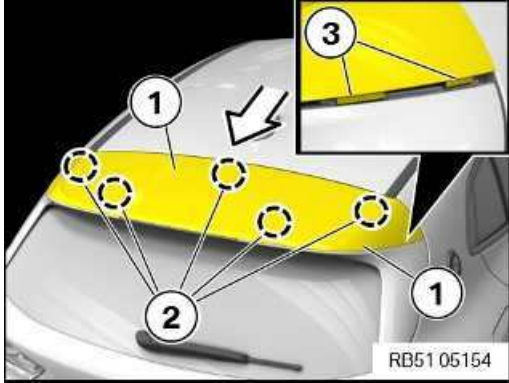
5 – Attach rear spoiler



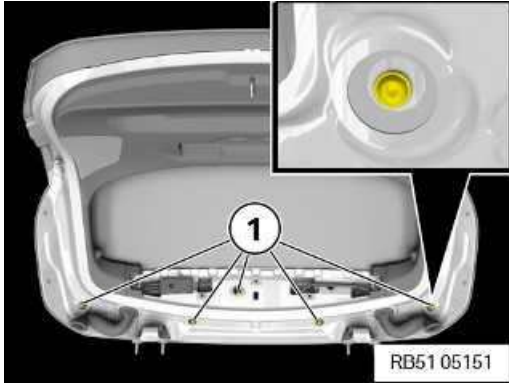
- Check clips (1) on the rear spoiler (2) for damage, renew if required.



- Position the rear spoiler (1) on the guides (2) .



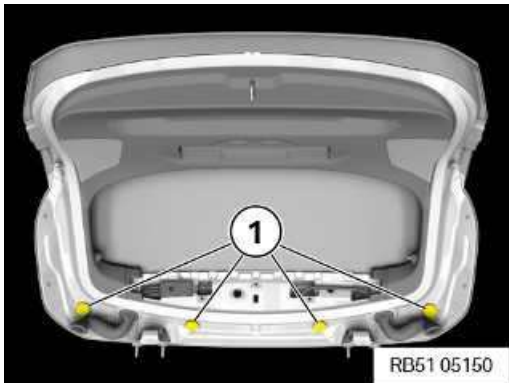
- Slide the rear spoiler (1) onto the lower section of the rear spoiler in the direction of the arrow.
- Clip in the rear spoiler (1) with the clips (2) and clip on the latch mechanisms (3) on both sides.



- Tighten the screws (1).

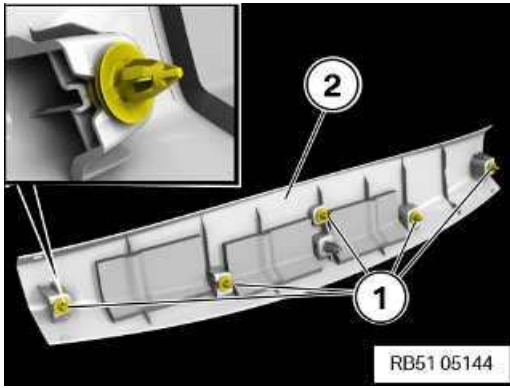
Rear spoiler to tailgate

Oval-head screw		Tightening torque	3,1 Nm
-----------------	--	-------------------	--------

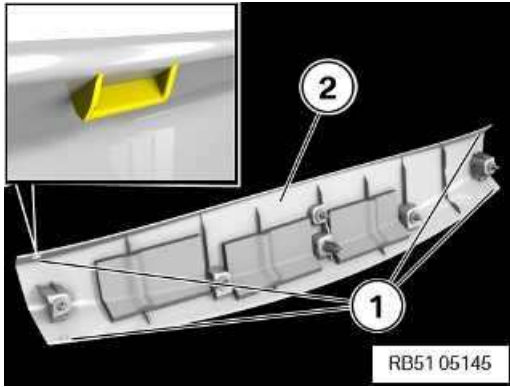


- Insert the covers (1).

6 – Install the trim for the top rear window frame



- Check the clips (1) on the trim for the top rear window frame (2) for damage and replace where required.



Check

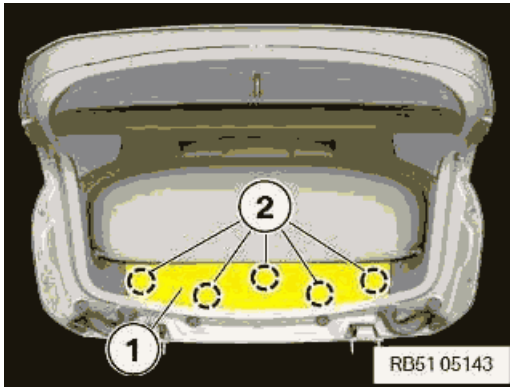
- Check the latch mechanisms (1) on the trim for the top rear window frame (2) for damage.

Result

» The latch mechanisms (1) on the trim for the top rear window frame (2) are damaged.

Measure

- Renew the trim for the top rear window frame (2).
- Clip in the trim for the top rear window frame (1) with the clips (2).



Additional Information

Overview of Tightening Torques

Additional brake light to tailgate

Used in step [4](#)

Sheet metal screw 4.8 x 16	Tightening torque	2 Nm
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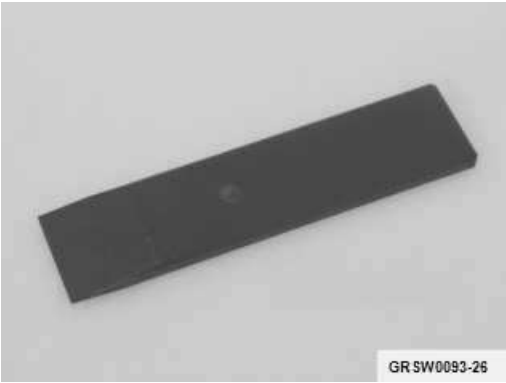
Rear spoiler to tailgate

Used in step [5](#)

Oval-head screw	Tightening torque	3,1 Nm
-----------------	-------------------	--------

Overview of Special Tools

0 496 570 (00 9 326) Wedge



Common		Used in step 2
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)	

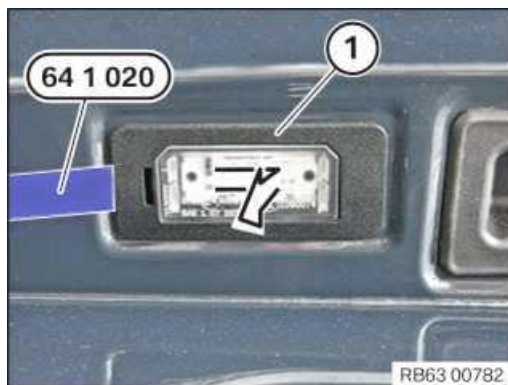
63 26 020 Removing and installing/replacing both number plate lights

1 – Remove both number plate lights



NOTICE

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



► Remove number plate light

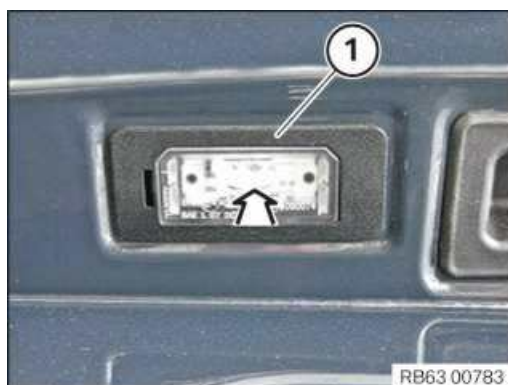
- Release the number plate light (1) with special tool **0 493 681 (64 1 020)** from the tailgate in direction of arrow.
- Disconnect the associated plug connection and remove the number plate light (1).

2 – Install both number plate lights



NOTICE

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



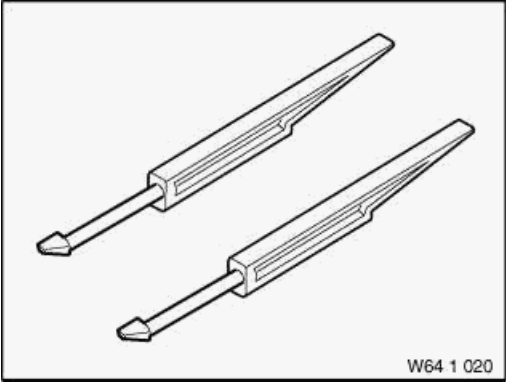
► Installing number plate light

- Connect the associated connector to the number plate light (1).
- Install the number plate light (1) in the tailgate in direction of arrow.

Additional Information

Overview of Special Tools

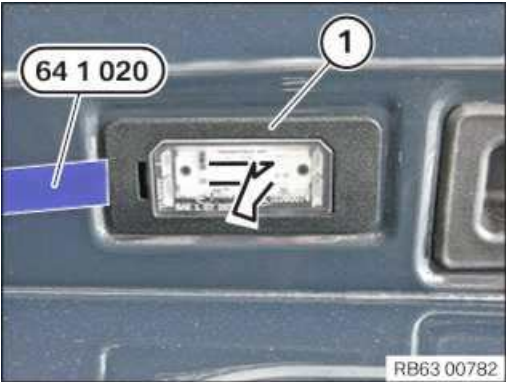
0 493 681 (64 1 020) Hook



Common		Used in step	1
Usage	(release hook) For releasing and removing fresh air grille. For removing various covers.		
Included in the tool or work			
Storage location	C2		
Replaced by			
In connection with			
SI-Number	01 15 99 (483)		

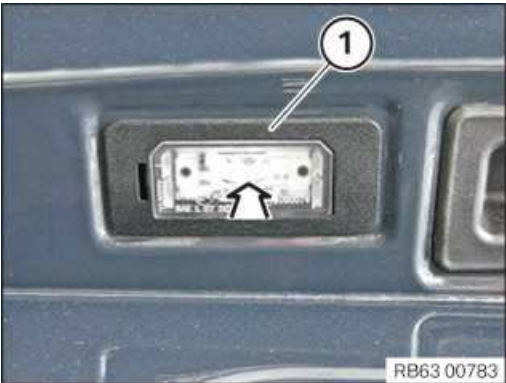
63 26 000 Removing and installing/replacing left or right number/license plate light

1 – Remove number plate light



- Release the number plate light (1) with special tool **0 493 681 (64 1 020)** from the tailgate in direction of arrow.
- Disconnect the associated plug connection and remove the number plate light (1).

2 – Installing number plate light

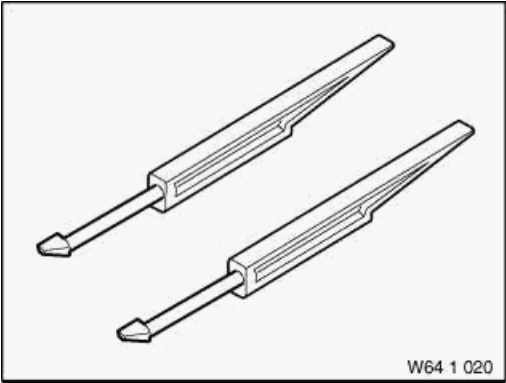


- Connect the associated connector to the number plate light (1).
- Install the number plate light (1) in the tailgate in direction of arrow.

Additional Information

Overview of Special Tools

0 493 681 (64 1 020) Hook



Common		Used in step	1
Usage	(release hook) For releasing and removing fresh air grille. For removing various covers.		
Included in the tool or work			
Storage location	C2		
Replaced by			
In connection with			
SI-Number	01 15 99 (483)		

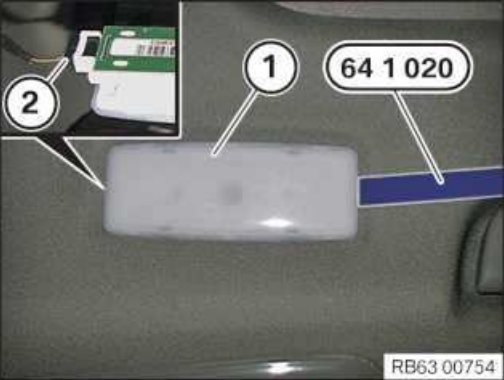
63 31 015 Remove and install/replace interior light on left or right



NOTICE

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

1 – Remove the left or right interior light



- Lift out the interior light (1) using the special tool **0 493 681 (64 1 020)**.
- Unlock and disconnect connector (2).

2 – Install the left or right interior light

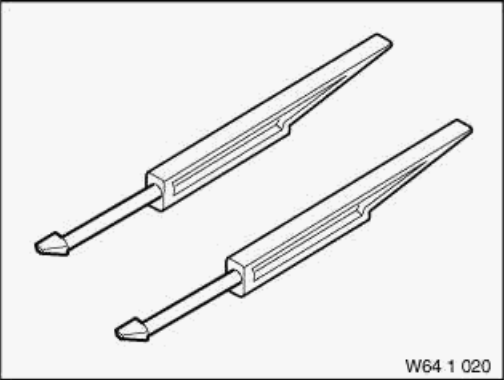


- Connect connector (2) and fit the interior light (1) into the headlining.

Additional Information

Overview of Special Tools

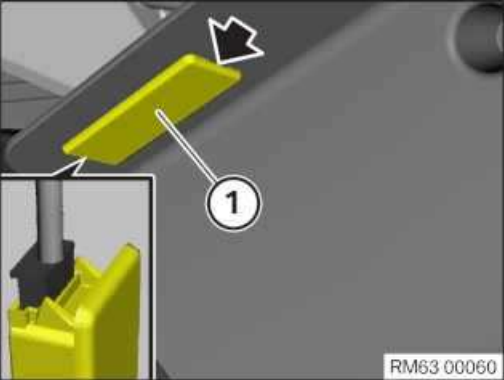
0 493 681 (64 1 020) Hook



Common		Used in step	1
Usage	(release hook) For releasing and removing fresh air grille. For removing various covers.		
Included in the tool or work			
Storage location	C2		
Replaced by			
In connection with			
SI-Number	01 15 99 (483)		

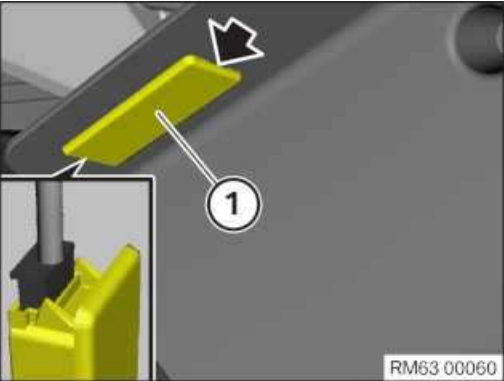
63 31 020 Removing and installing/renewing footwell light

1 – Remove footwell light



- Remove the footwell light (1) using the special tool **0 493 681 (64 1 020)**.
- Unlock and disconnect the associated plug connection and remove the footwell light (1).

2 – Install footwell light

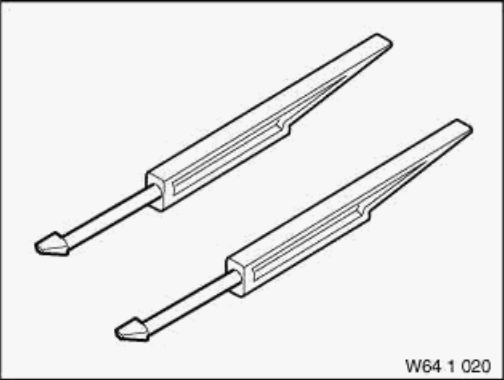


- Connect the associated connector and remove the footwell light (1) .

Additional Information

Overview of Special Tools

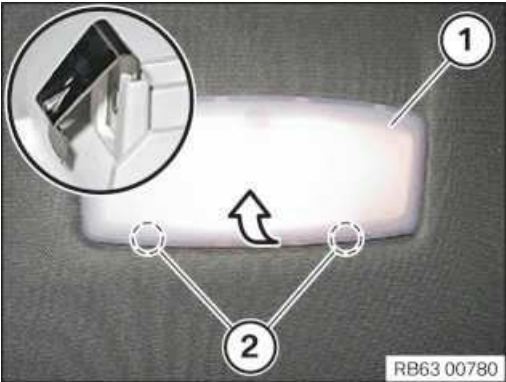
0 493 681 (64 1 020) Hook



Common		Used in step
Usage	(release hook) For releasing and removing fresh air grille. For removing various covers.	1
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

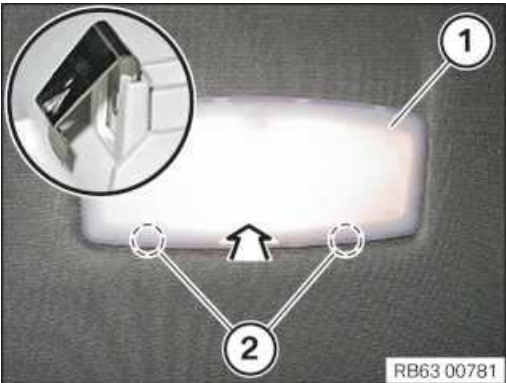
63 31 003 Removing and installing/replacing complete interior roof light (rear)

1 – Remove interior roof light



- Carefully remove the interior roof light (1) with the special tool **0 496 569 (00 9 325)** in direction of arrow on the metal clamps (2).
- Unlock associated plug connection and disconnect.

2 – Install interior roof light



- Connect and lock corresponding connectors.
- Check the metal clamps (2) on the interior roof light (1) for damage.
- Install the interior roof light (1) in the direction of the arrow.

Additional Information

Overview of Special Tools

0 496 569 (00 9 325) Wedge



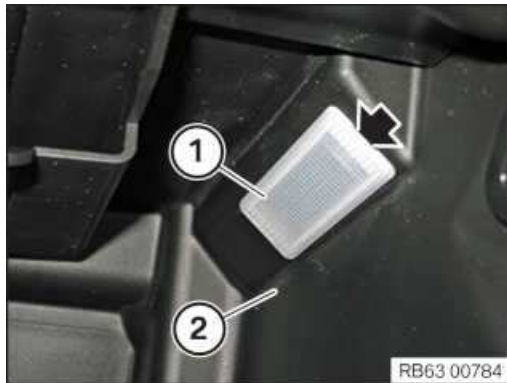
Common		Used in step	1
Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)		
Included in the tool or work	0 490 527		
Storage location	Individual		
Replaced by			
In connection with			
SI-Number	41 01 09 (507)		

63 31 150 Removing and installing/replacing glovebox light

Prerequisite

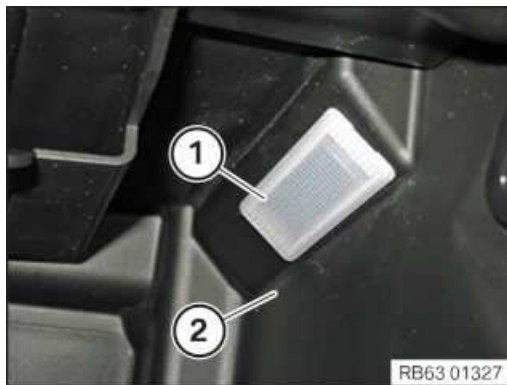
- Glove box is opened.

1 – Remove glove box light



- Lever out the glove box light (1) from the glove box (2).
- Unlock and disconnect associated connector.

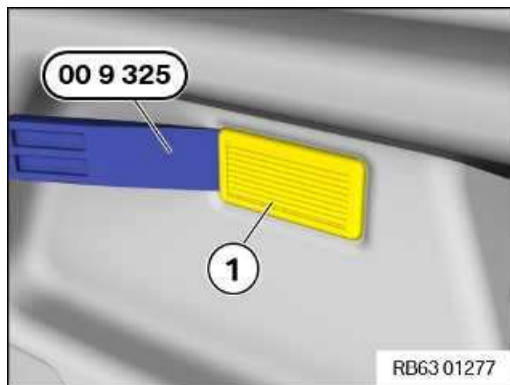
2 – Installing the glove box light



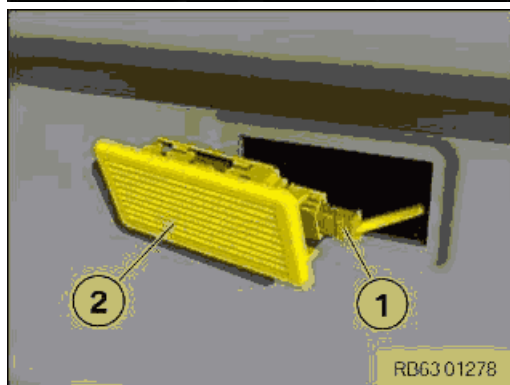
- Connect and lock corresponding connectors.
- Join glove box light (1) from glove box (2).

63 31 080 Removing and installing/replacing luggage compartment light

1 – Removing the luggage compartment light

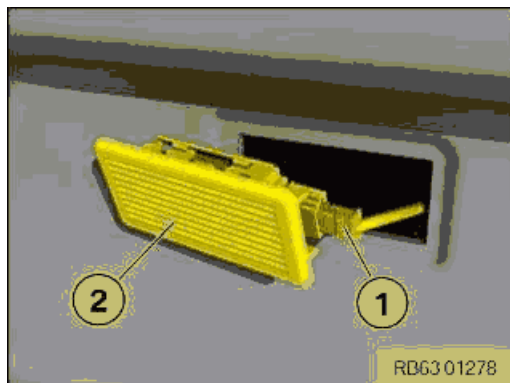


- Lever out the luggage compartment light (1) with the special tool **0 496 569 (00 9 325)**.

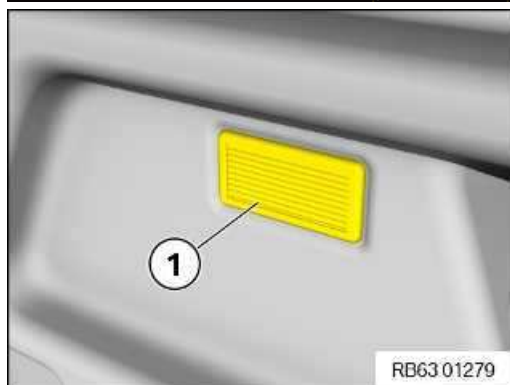


- Disconnect plug connection (1) and remove luggage compartment light (2).

2 – Installing the luggage compartment light



- Connect the connector (1) to the luggage compartment light (2).



- Install the luggage compartment light (1).

Additional Information

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)		

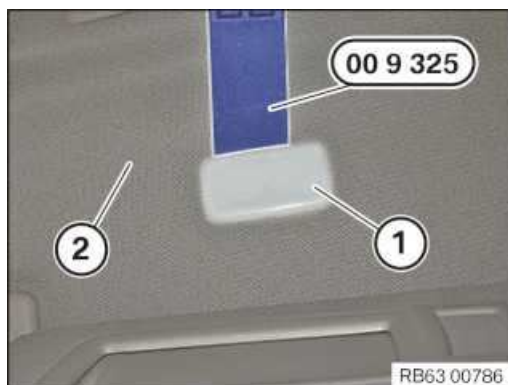
63 31 050 Removing and installing/replacing mirror light

1 – Removing front vanity mirror light



NOTICE

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



- Lever out the vanity mirror light (1) using special tool **0 496 569 (00 9 325)** from the headlining (2).



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

2 – Installing front vanity mirror light

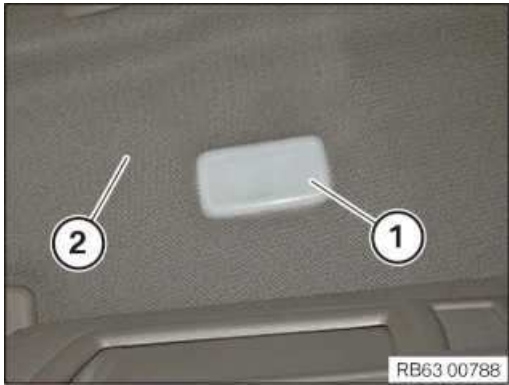


NOTICE

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



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



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

Additional Information

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)		

63 31 320 Replace the LED module in the front door trim panel on the left or right

PRELIMINARY WORK

1 – Remove cover on door handle



RISK OF DAMAGE

Scratches.

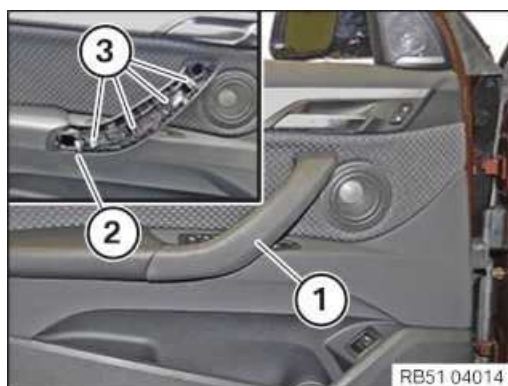
Tools and sharp-edged components can cause scratches.

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



NOTICE

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



- Lever out the cover (1) with a small screwdriver through the recess (2) toward the inside from the clamps (3) and remove.

2 – Remove front door trim panel

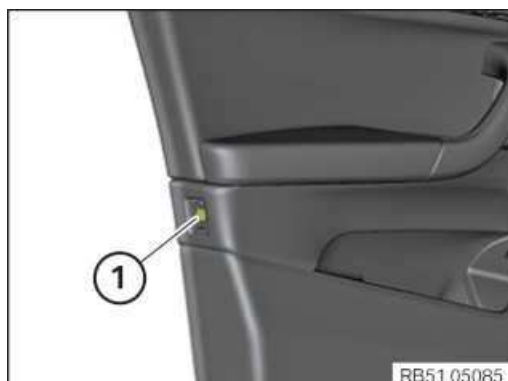


RISK OF DAMAGE

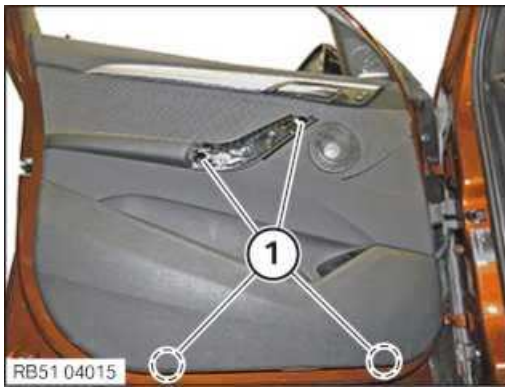
Scratches.

Tools and sharp-edged components can cause scratches.

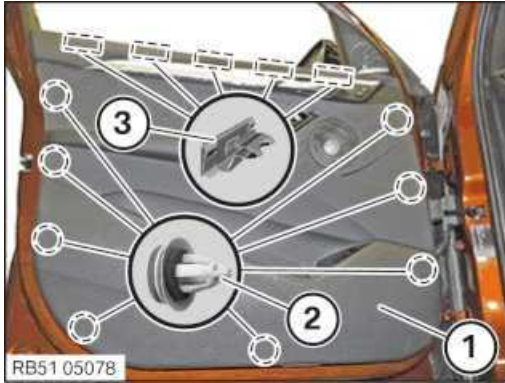
- Protect working area.
- Handle tools and components carefully.



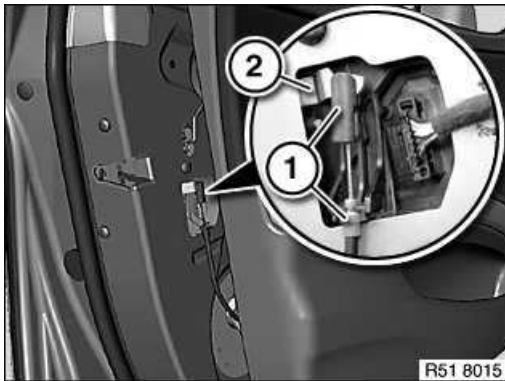
- If fitted: Remove the cover and unscrew the bolt (1).



- Loosen screws (1).



- Unclip the door trim panel (1) from the clips (2) with a suitable plastic wedge.
- Pull the door trim panel (1) from the clamps (3) at the top.



- Detach Bowden cable (1) from door lock (2).
- Disconnect all plug connections and remove door trim panel.

MAIN WORK

POSTPROCESSES

3 – Install front door trim panel



RISK OF DAMAGE

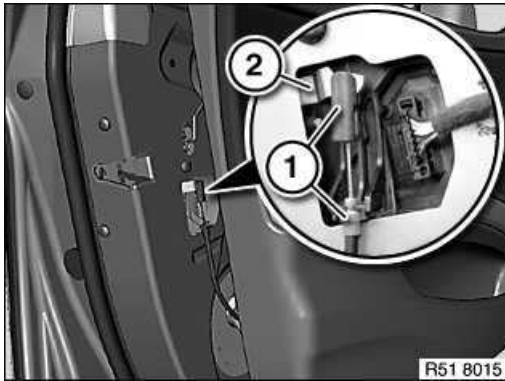
Scratches.

Tools and sharp-edged components can cause scratches.

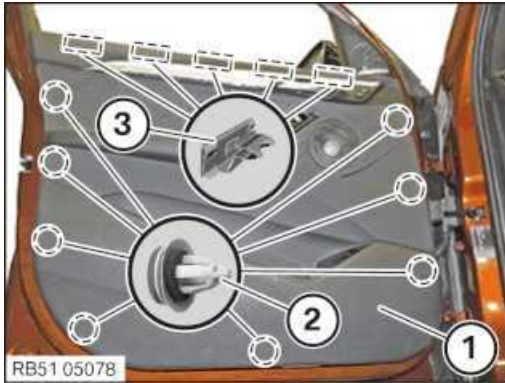
- Protect working area.
- Handle tools and components carefully.



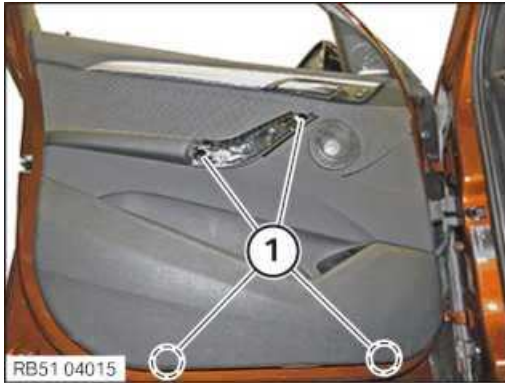
- Check the clips (1) and the stop pad (2) for damages, and replace if necessary.
- The clips (1) and the stop pads (2) must not be damaged or missing.



- Install door trim panel and connect all the connectors.
- Attach the Bowden cable (1) on the door lock (2).



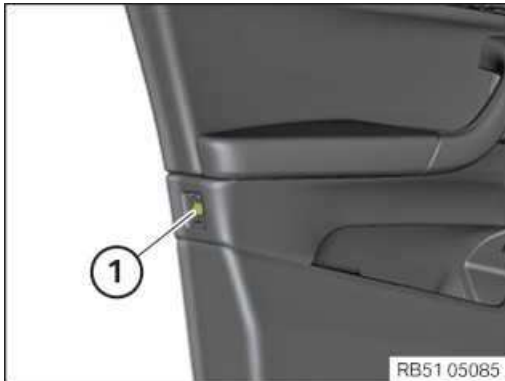
- Engage the door trim panel (1) in the clamps (3) at the top.
- Position the door trim panel (1) correctly and clip it into the clips (2).



- Tighten the screws (1).

Door trim panel to door

Screw TS5x20		Tightening torque	2,5 Nm
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- If fitted: Tighten down screw (1).

Door trim panel to door

Screw TS5x20		Tightening torque	2,5 Nm
--------------	--	-------------------	--------

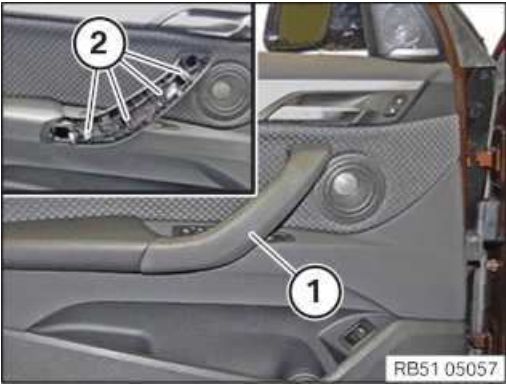
- Mount cover .

4 – Install the cover on the door handle



NOTICE

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



- Check clamps (2) for damage; renew if necessary.
The clamps (2) must not be damaged or missing.
- Position the cover (1) and engage it in the clamps (2).

Additional Information

Overview of Tightening Torques

Door trim panel to door		Used in step 3	
Screw TS5x20		Tightening torque	2,5 Nm

63 31 325 Replace the LED module in the rear door trim panel on the left or right

PRELIMINARY WORK

1 – Remove cover on door handle



RISK OF DAMAGE

Scratches.

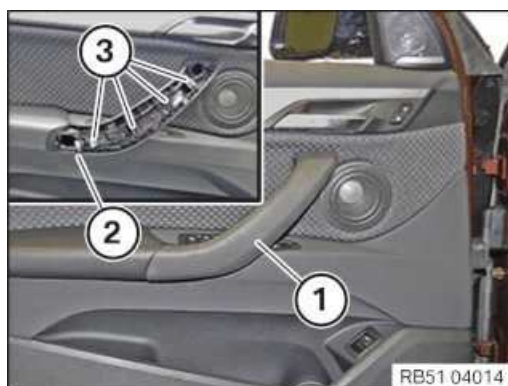
Tools and sharp-edged components can cause scratches.

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



NOTICE

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



- Lever out the cover (1) with a small screwdriver through the recess (2) toward the inside from the clamps (3) and remove.

2 – Remove rear door trim

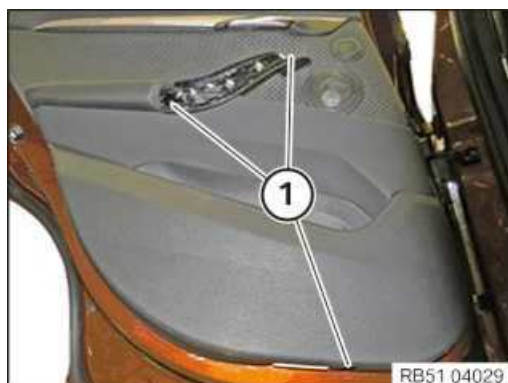


RISK OF DAMAGE

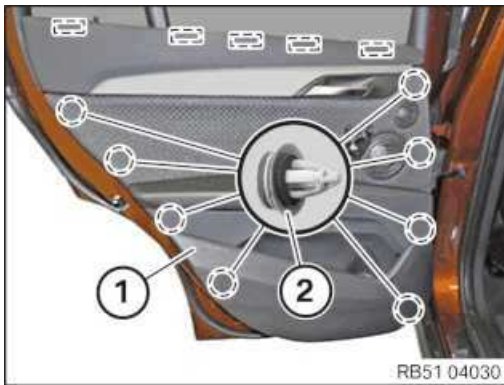
Scratches.

Tools and sharp-edged components can cause scratches.

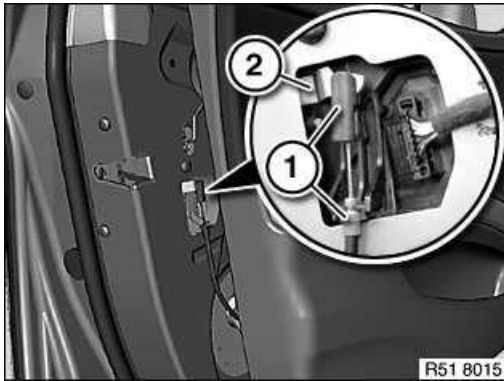
- Protect working area.
- Handle tools and components carefully.



- Loosen screws (1).



- Unclip the door trim panel (1) from the clips (2) with a suitable plastic wedge.
- Pull the door trim panel (1) from the clamps on top.



- Detach Bowden cable (1) from door lock (2).
Disconnect all plug connections and remove door trim panel.

MAIN WORK

3 – Removing the LED module (rear door trim panel)



RISK OF DAMAGE

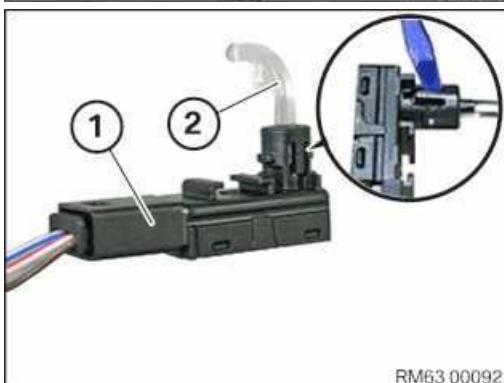
Sensitive optical fibres.

Damaged optical fibres can result in operating failure of the LED.

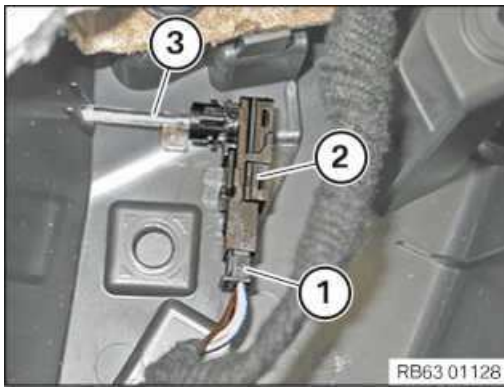
- Do not bend optical fibres too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
- Avoid pressure and tensile loads and heat influences on the optical fibre.



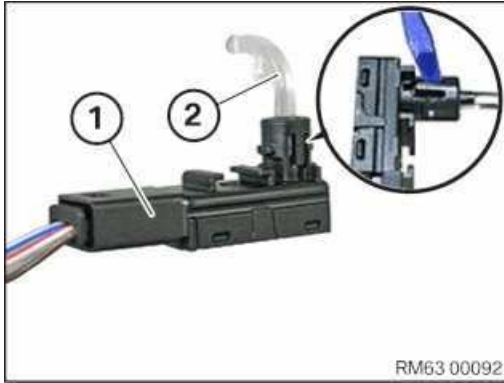
- Do not damage the fibre-optic conductor (3).
- Loosen the LED module (2) from the bracket.
- Disconnect the connector (1).



- Release the fibre-optic conductor (2) on the latch mechanism using a screwdriver (3 mm blade).
- Pull the fibre-optic conductor (2) out of the LED module (1).



- Do not damage the fibre-optic conductor (3).
- Loosen the LED module (2) from the bracket.
- Disconnect the connector (1) .



- Release the fibre-optic conductor (2) on the latch mechanism using a screwdriver (3 mm blade).
- Pull the fibre-optic conductor (2) out of the LED module (1).

4 – Installing the LED module (rear door trim panel)



RISK OF DAMAGE

Sensitive optical fibres.

Damaged optical fibres can result in operating failure of the LED.

- Do not bend optical fibres too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
- Avoid pressure and tensile loads and heat influences on the optical fibre.



- Fit the fibre-optic conductor (3) in the LED module (2).
- Insert the LED module (2) into the bracket.
- Connect connector (1).



- Fit the fibre-optic conductor (3) in the LED module (2).
- Insert the LED module (2) into the bracket.
- Connect connector (1).

POSTPROCESSES

5 – Installing rear door trim panel

RISK OF DAMAGE

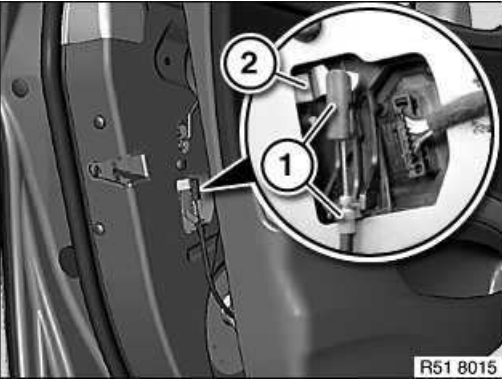
Scratches.

Tools and sharp-edged components can cause scratches.

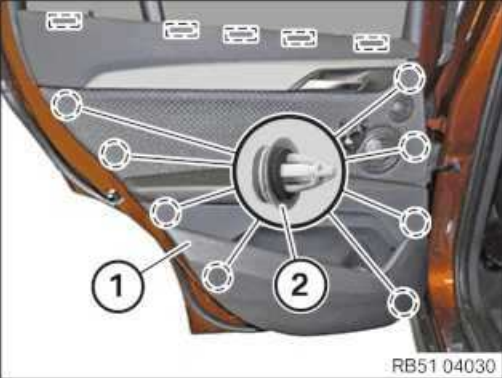
- Protect working area.
- Handle tools and components carefully.



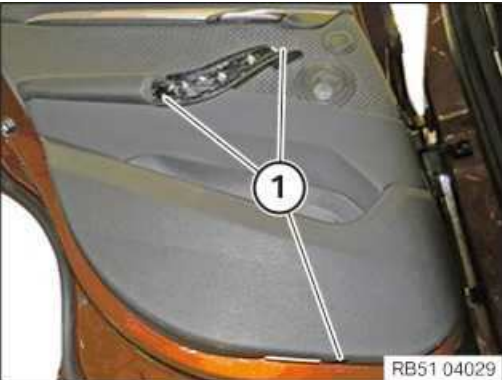
- Check the clips (1) and the stop pad (2), they must not be damaged or missing, renew if necessary.



- Install the door trim panel and connect all plug connections.
- Attach the Bowden cable (1) on the door lock (2).



- Engage the door trim panel (1) in the clamps at the top.
- Position the door trim panel (1) correctly and clip it into the clips (2).



- Tighten the screws (1).

Door trim panel to door

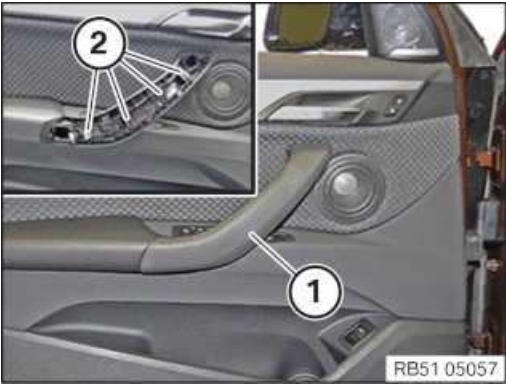
Screw TS5x20		Tightening torque	2,5 Nm
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6 – Install the cover on the door handle



NOTICE

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



- Check clamps (2) for damage; renew if necessary.
The clamps (2) must not be damaged or missing.
- Position the cover (1) and engage it in the clamps (2).

Additional Information

Overview of Tightening Torques

Door trim panel to door		Used in step 5	
Screw TS5x20		Tightening torque	2,5 Nm

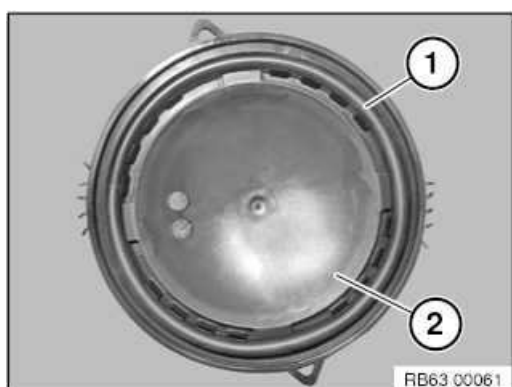
**Important!****Risk of damage!**

Damaged seals on the protective caps will lead to moisture penetration into the headlight.

This will in turn cause porous cable insulations and malfunctioning of the headlight.

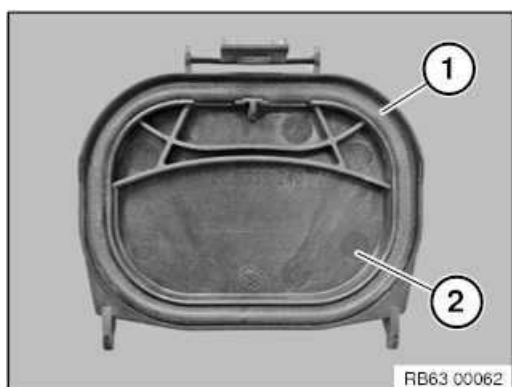


When working on the headlight system, check the protective cap seals.
Replace the protective cap in the event of damage!



Example: screwed protective cap

Seal (1) on protective cap (2).



Example: latchable protective cap

Seal (1) on protective cap (2).

**Warning!**

All headlight types, regardless of the type of light sources used, can be dangerous due to their dazzling effect!

Do not look directly and for long periods of time into the light.

**Warning!**

Laser, LED and Xenon headlights in particular can be very dangerous due to their dazzling effect:

Do not look directly and unprotected into the light.

**Warning!**

Xenon headlight: Danger to life due to high voltage!

Disconnect all components from voltage supply before removal.

Work on the entire xenon lighting system (ignition device, control unit and xenon bulb) may only be carried out by qualified personnel.

**Warning!**

Halogen bulbs are under pressure:

To avoid injury, wear protective goggles and gloves.

**Important!**

To avoid short circuits:

Disconnect bulbs / light sources from the voltage supply before changing them (lighting system and ignition off).



Do not touch glass bulbs with bare hands, as even the smallest amount of contamination will burn in and reduce bulb service life.

Only touch light bulbs with clean gloves or a clean cloth.

Do not expose light bulbs to mechanical vibrations.

Use only recommended light bulbs.

Follow the light bulb manufacturer's notes without fail.

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



Warning!

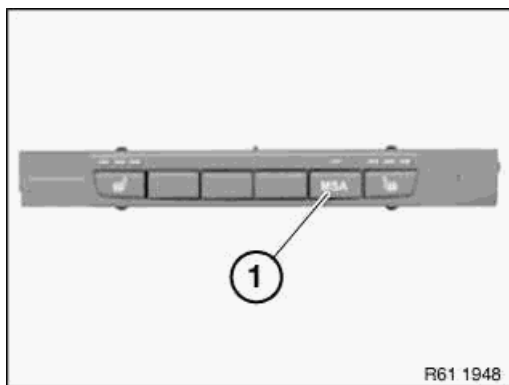
If the engine hood/bonnet contact is pulled upwards (workshop mode), the information "switch closed" is output. The automatic engine start-stop function is active.

An automatic engine start is possible.

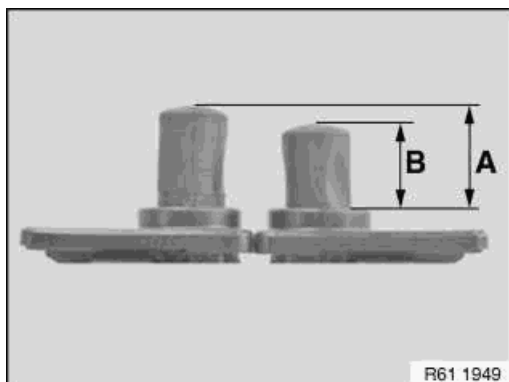
Observe safety precautions when working on MSA vehicles.

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](#)