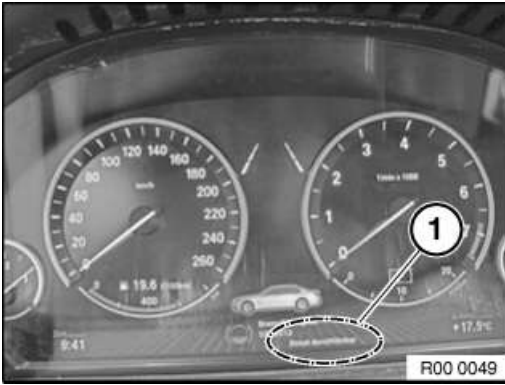


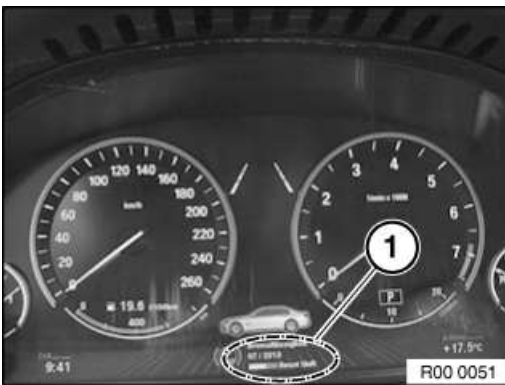


If a reset is possible, this is displayed in the instrument panel as "Reset executable" (1).

Start the reset by pressing the button for 3 seconds.



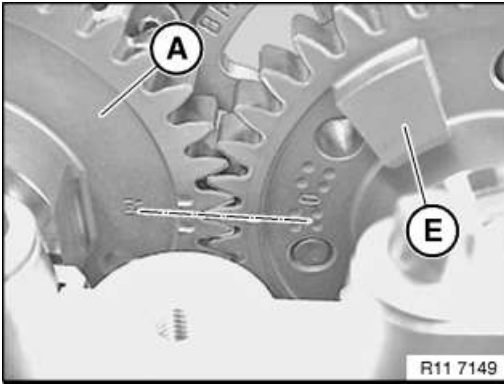
Confirm text message "Execute reset?" (1) by pressing the button for 3 seconds again.



The status of the reset is indicated in the display by a progress bar and in text as "Reset running" (1).

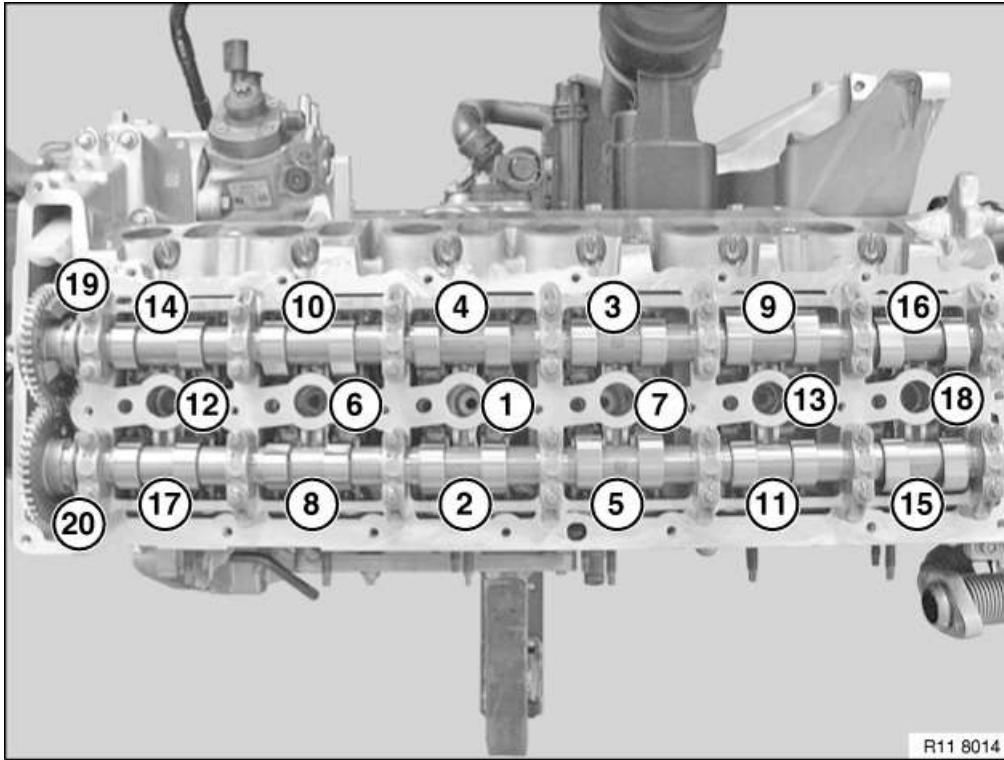


The reset is confirmed after completion as "Reset successful" (1).



Important!

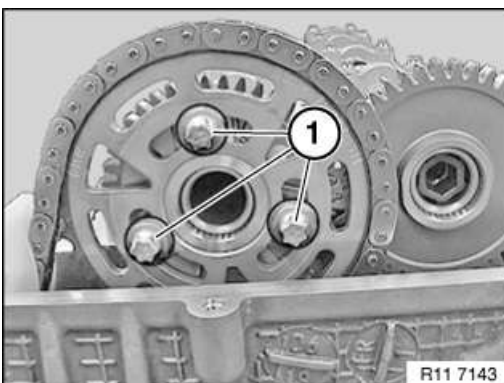
The camshaft sprockets (A and E) must be adjusted to the marking before the camshaft carrier is mounted on the cylinder head. **Risk of damage!** to engine valves.



Place camshaft carrier on cylinder head.

Tighten bolts in sequence (1 to 20).

Tightening torque: [11 31 3 AZ](#).

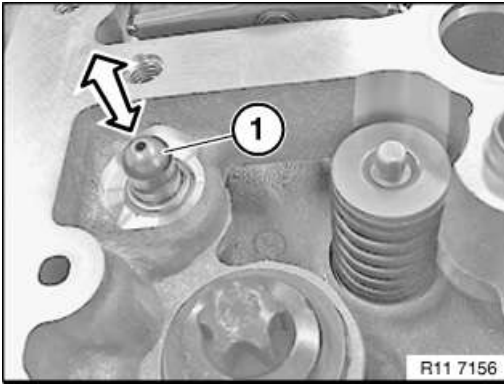


Install chain sprocket with timing chain.

Insert bolts (1).

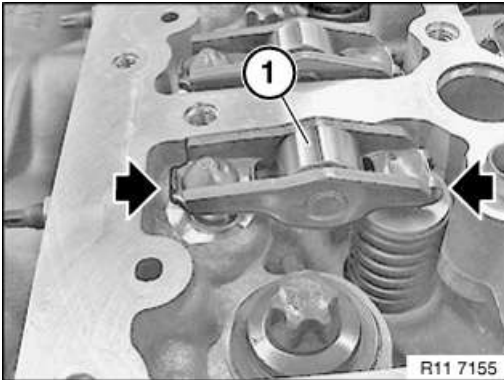
Join bolts (1) to 10 Nm.

Release bolts (1) through 90°.

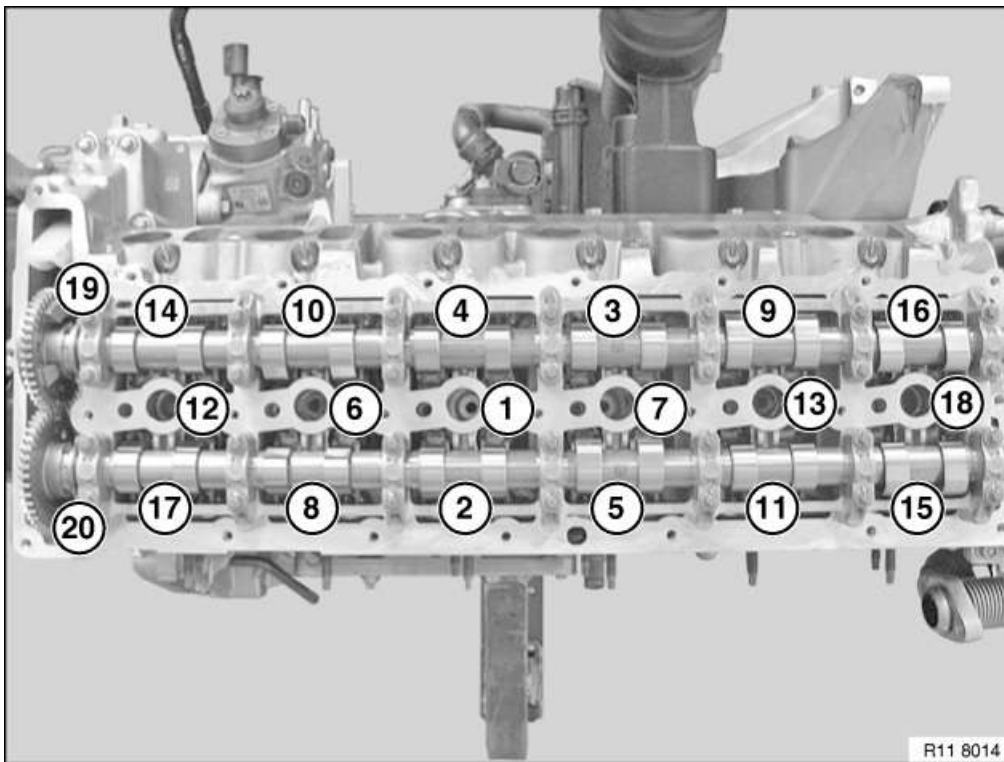


Remove compensating element (1) in direction of arrow. *Installation note:* If reusing compensating elements (1), set down in an orderly fashion in special tool [11 4 480](#).

Reuse compensating elements in the same positions.



Position roller cam follower (1) on hydraulic valve clearance compensating element.



Installation note:

Make sure roller cam followers are in correct installation positions.

Place camshaft carrier on cylinder head.

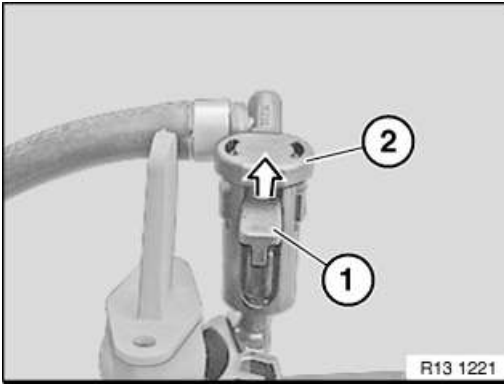
Tighten bolts in sequence (1 to 20).

Tightening torque: [11 31 3AZ](#).



Adjust [valve timing](#).

Assemble engine.

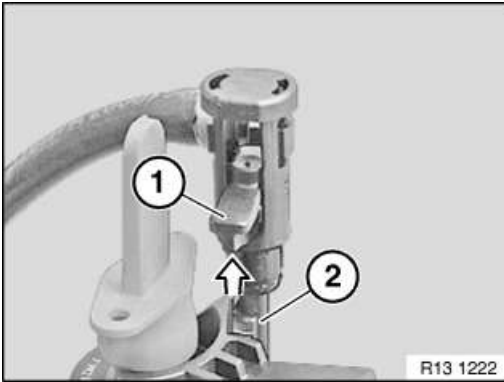


Note:
Graphic shows injector removed.

Following procedure applies to all cylinders.

Grip connection for leakage oil line (1).

Release lock (2) with special tool [13 0 170](#) in direction of arrow.

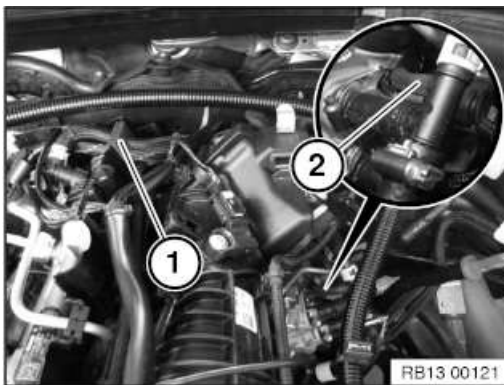


Note:
Illustration shows injector removed.

Following procedure applies to all cylinders.

Detach connection (1) for leakage oil line in direction of arrow from injector (2).

Check sealing rings on injectors, replace if damaged.



Detach leakage oil lines from the injectors. Release leakage oil line from rubber grommet (1).

Detach, thread out and remove leakage oil line from T-piece (2) of fuel line (near high pressure pump).



Reassemble the vehicle.

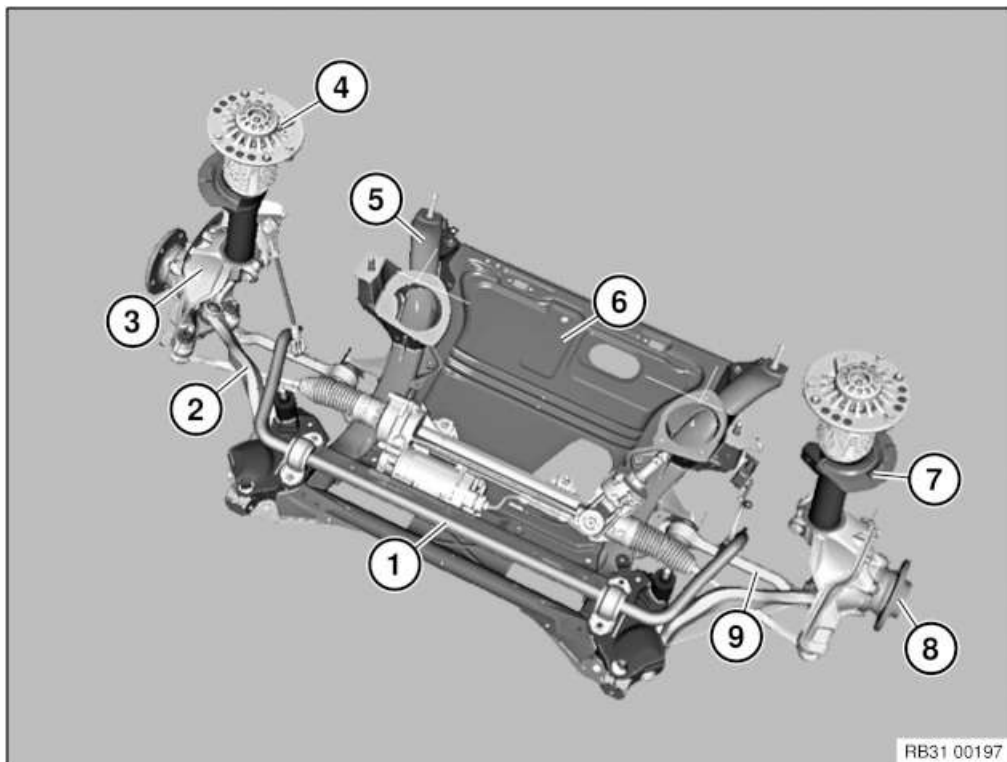
Check fuel system for tightness.

7DCT300	Getrag	7DCT	DKG -7-gear
GS6-58DG/BG	Getrag		
GS6-59DG/BG	Getrag		

Automatic transmission:

BMW designation	Manufacturer	Manufacturer designation	Remarks
A4S 200R	General Motors Powertrain	GM4	
A4S 270R	General Motors Powertrain	THM-R1w	Transmission wide-stepped
A4S 310R	General Motors Powertrain	THM-R1	
A5S 300J	Jatco	Jatco	
A5S 310Z	ZF	5HP-18	
A5S 325Z	ZF	5HP-19	
A5S 440Z	ZF	5HP-24	
A5S 560Z	ZF	5HP-30	
A5S 360R / 390R	GM	GM5	
GA6F21AW	AISIN	GA6F21AW	
GA6HP19Z	ZF	6HP19	
GA6HP26Z	ZF	6HP26	
GA6HP32Z	ZF	6HP32	
GA6L45R	GM	GM6	
GA6F21AW	AISIN	GA6F21AW	
GA8F22AW	AISIN	GA8F22AW	
GA8G45	AISIN	8G45	
GA8HP45Z	ZF	8HP45	
GA8HP50Z	ZF	8HP50	
GA8HP51Z	ZF	8HP51	
GA8HP70Z	ZF	8HP70	
GA8HP75Z	ZF	8HP75	
GA8HP76Z	ZF	8HP76	
GA8P70H	ZF	8P70	Hybrid
GA8P75H	ZF	8P75	Hybrid
GA8HP90Z	ZF	8HP90	
GA8HP95Z	ZF	8HP95	

31 Front axle overview



[Safety instructions and general information](#)

[Testing/adjustment work](#)

1 [Anti-roll bar / anti-roll bar link](#)

2 [Trailing link/rubber mount](#)

3 [Swivel bearing](#)

4 [Support bearing](#)

5 [Front axle support](#)

6

7

8

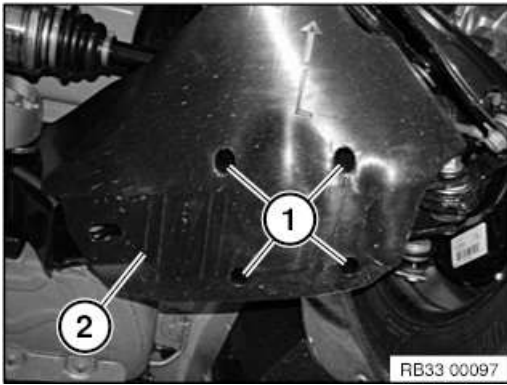
9

[Reinforcement plate](#)

[Spring strut shock absorber](#)

[Wheel bearing](#)

[Wishbone, ride height sensor](#)



Unscrew nuts (1).

Tightening torque [33 32 11AZ](#).

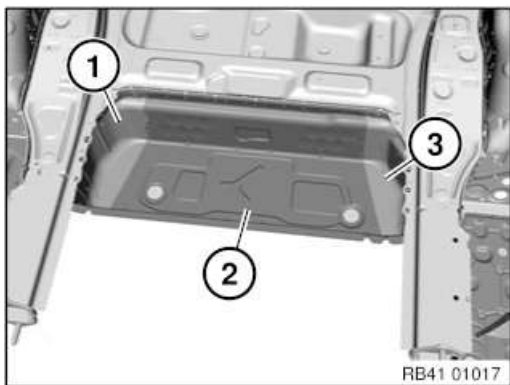
Remove cover (2).

Installation note:

Replace nuts.

Observe positions of marks for L (left) and R (right).

The arrow on the cover points toward the front of the vehicle.



Installation

Install new parts and weld the same as series

- (1) Luggage compartment well, left
- (2) Luggage compartment well
- (3) Luggage compartment well, right

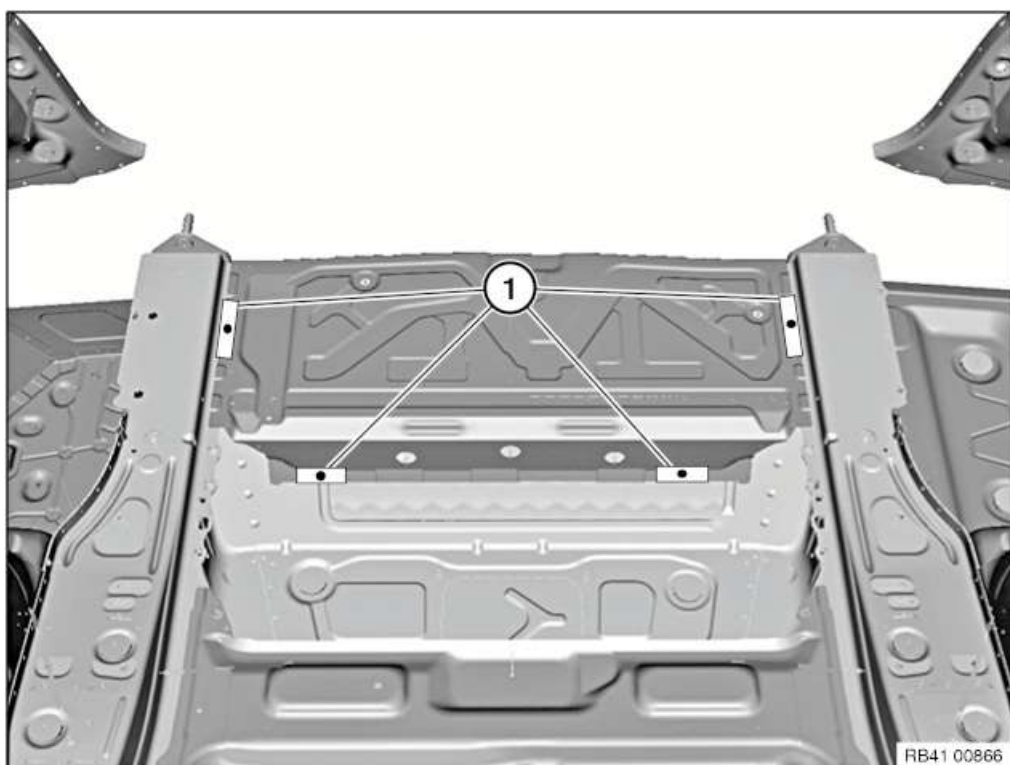


Installation of luggage compartment floor, rear

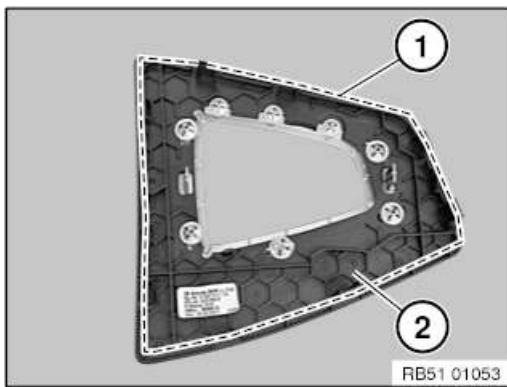
Clean all bonding surfaces with cleaning agent R1.

Apply adhesive to bonding surfaces.

Install new part and rivet with blind rivets.



After hardening of the adhesive install [4 EMC screws](#) in areas shown (1).



TECHNICAL INFORMATION

Latch mechanisms, guides and mounting elements must not be damaged or missing.



TECHNICAL INFORMATION

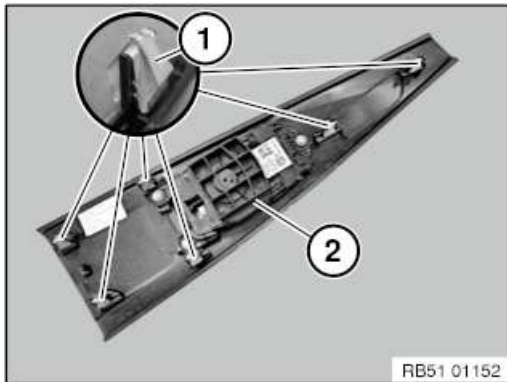
Remount the Drivelogic button when replacing the trim for the selector lever in F80/F82/F83.

For more information see: 61 31 ... Removing and installing/replacing Drivelogic button

- Check latch mechanisms for damage, if necessary replace trim for selector lever.
- Clip in trim for selector lever (1).



8 – Installing the decorative trim to the centre console



TECHNICAL INFORMATION

The controller may have to be remounted upon replacing the decorative trim, depending on the equipment specification.

For more information see: 6131195 Removing and installing (replacing) the controller

- Renew the faulty clamps (1) of the decorative trim (2).
- For equipment specification with in leather instrument panel: Attach plastic adhesive tape (2) between the decorative trim (1) and the instrument panel.



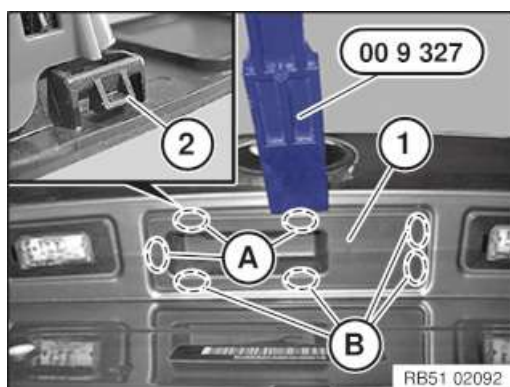
**Special tools required:**

- [00 9 327](#)

**Attention!**

Disassembly of the button is not possible without destroying it.

To avoid water ingress, the button must be replaced every time after disassembly.



Place special tool [00 9 327](#) at areas (A) between tailgate and button (1).

Destroy retaining tabs (2) in areas (A) by striking special tool [00 9 327](#).

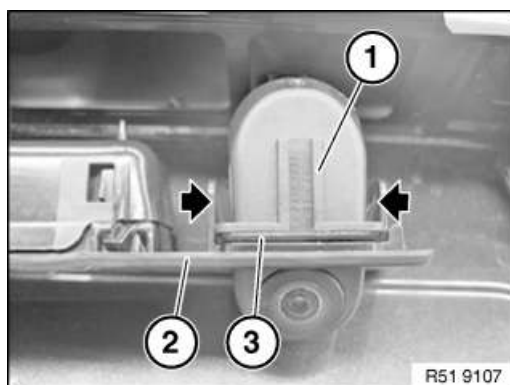
Pull out button (1) from latch mechanisms (2) in area (B).

Disconnect associated plug connections and remove button (1).

Installation note:

Check tailgate for damage, touch up if required.

Perform function check with tailgate open.

**Version with reversing camera:**

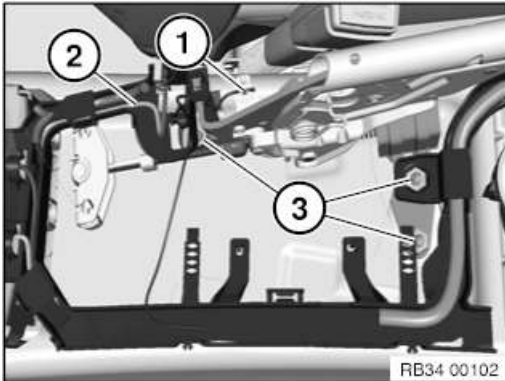
Unclip rear view camera (1) left and right and feed out of button holders (2).

Installation note:

Gasket (3) of rear view camera (1) must not be missing or damaged.

**Necessary preliminary tasks:**

- Clamp off [battery lead from negative connection point](#)
- Remove [both front seats](#)
- Remove [both side trim panels](#), rear
- Remove [complete centre console](#)
- Remove [central bass speaker trim](#) on left/right



Disconnect cable (1) from handbrake check switch.

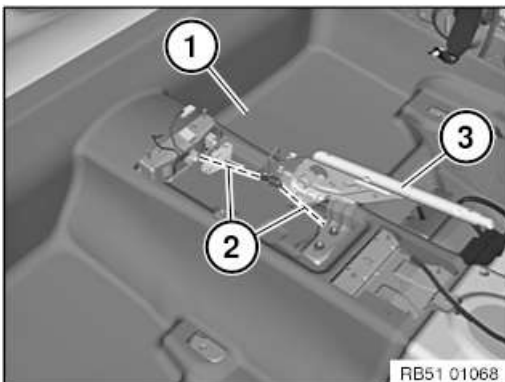
Unclip cable clip (2) from parking brake lever.

Loosen nuts (3) on cable clip only.

Installation note:

Replace self-locking nuts.

Tightening torque [34 41 1AZ](#).

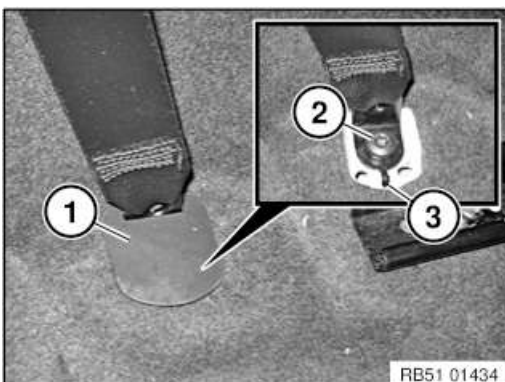
**Important!**

Risk of damage!

Pay attention to cables when cutting.

Cut carpet (1) along line (2).

Feed carpet (1) out to the top from the parking brake lever (3).



Lift protective cap (1) and release screw (2).

Tightening torque [72 11 2AZ](#).

Installation note:

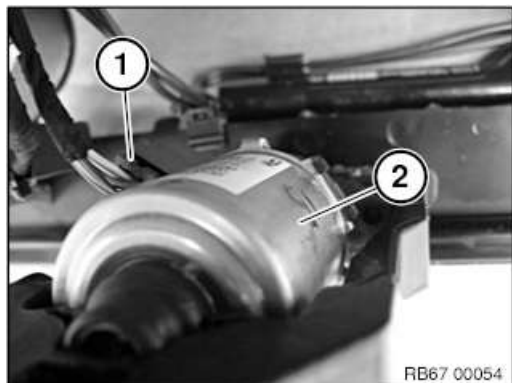
Make sure that guide (3) is correctly fitted in body.

Replace protective cap (1) after every disassembly.



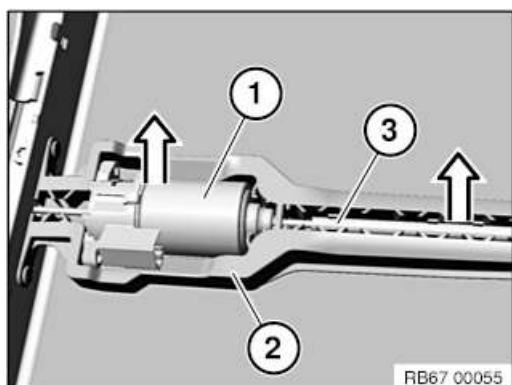
Necessary preliminary work:

- Raise front seat as far up as possible



Removal of electric motor for forward/back seat adjustment:

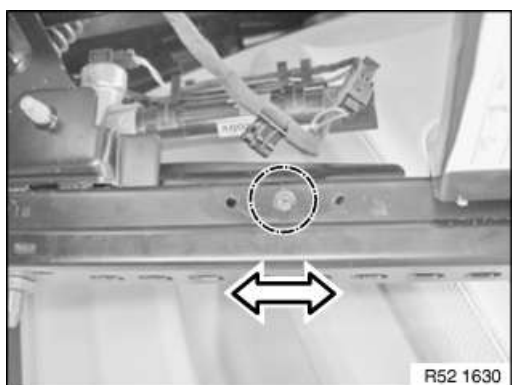
Unfasten plug connection (1) and disconnect.



Lift long flex shaft (3) out of guide in direction of arrow.

Pull out flex shaft (3) from electric motor for forward/back seat adjustment (1).

Remove electric motor for forward/back seat adjustment (1) in direction of arrow from holder (2).

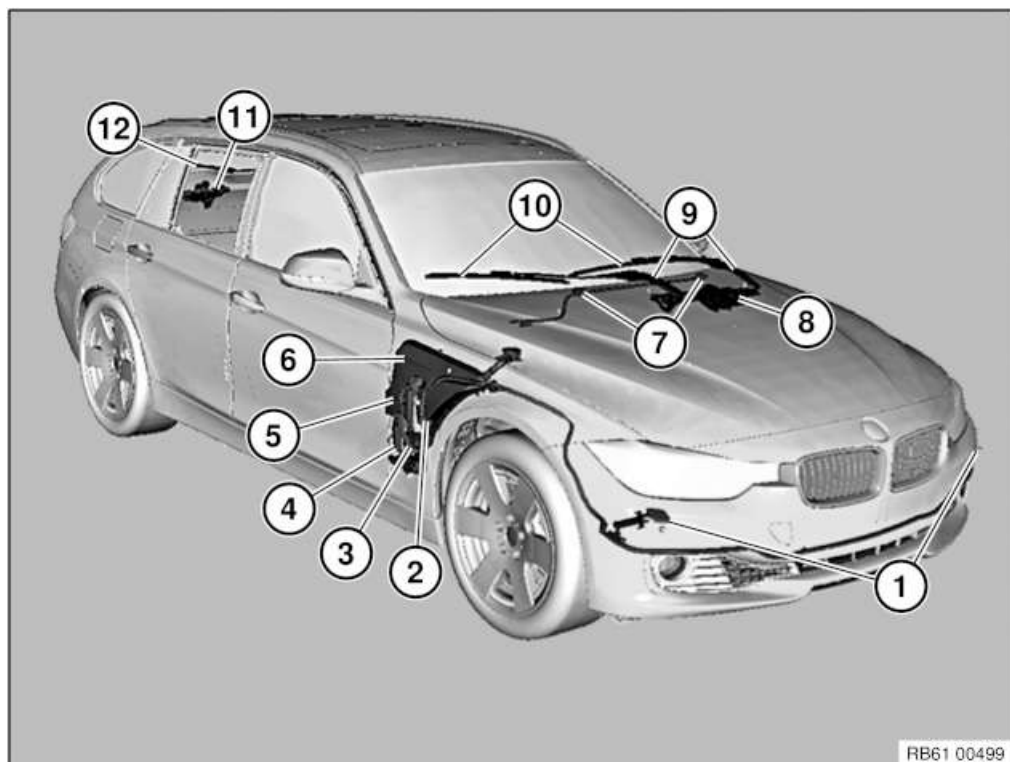


Installation of electric motor for forward/back seat adjustment:

Slide seat rail with opening forwards or back until bushing for flex shaft mounting of worm gear is flush.

Insert short flex shaft.

61 61 .. Overview of windscreen wiper and cleaning system



- | | |
|--|---|
| 1 High-pressure nozzle for headlight cleaning system | 7 Washer jet for window washer system |
| 2 Washer pump for headlight cleaning system | 8 Windscreen wiper console |
| 3 Rear washer pump (only F31) | 9 Windscreen wiper arms |
| 4 Windscreen washer pump | 10 Windscreen wiper blades |
| 5 Washer fluid level switch (integrated in washer fluid reservoir) | 11 Rear wiper motor
(F31 only) |
| 6 Washer fluid reservoir | 12 Rear window wiper arm and rear window wiper blade (only F31) |

65 12 210 Removing and installing/replacing CHAMP radio receiver (BMW Professional radio)



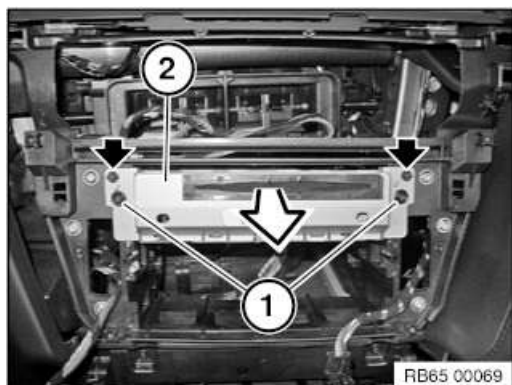
Important!

Read and comply with notes on [protection against electrostatic discharge \(ESD protection\)](#).



Necessary preliminary tasks:

- Disconnect [battery negative cable](#)
- Remove [radio and IHKA controls](#)

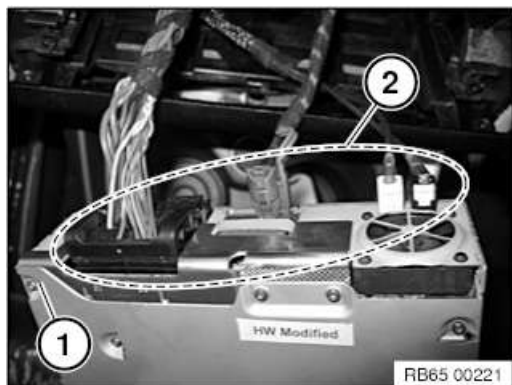


Release screws (1).

Pull out the CHAMP (2) to the front.

Installation note:

Make sure CHAMP (2) is correctly seated on retaining lugs at the marked points.



Unlock plug connections (2) and disconnect.

Remove CHAMP (1).



Replacement:

Carry out [vehicle programming/encoding](#).

For vehicles with Teleservices optional equipment:

- Update services via menu in the central information display.

Load service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

32 00 Wheel Alignment F32 Alpina / 4WD

Observe test conditions!		
Front axle:		
Total toe-in		0° 10' ± 12'
Total toe-in adjustment*		0° 10' ± 4'
Toe difference** single wheel between left/ right		max. 12'
Camber (Difference between left/right maximum 30')		- 0° 50' ± 30'
Camber adjustment*		- 0° 50' ± 25'
Toe difference angle (difference between left/right max. 30')		- 1° 26'
Castor angle		(difference between left/right max. 30')
Front wheel offset		0° ± 15'
Maximum steering angle		
- Inner cornering wheel	Ca. °	38° 06'
- Outer cornering wheel	Ca. °	32° 18'
Rear axle:		
Total toe-in		0° 18' ± 12'
Total toe-in adjustment*		0° 18' ± 4'
Camber (difference between left/right max. 30')		-1° 50' ± 25'
Camber adjustment*		-1° 50' ± 5'
Geometrical driving axis		0° ± 12'
*Note: To minimise adjusting errors (measuring inaccuracies), use a narrower tolerance for adjusting toe/camber.		
**Note: Toe difference front axle = criterion for steering wheel inclination		