FUB-FUB-FB-510052-K15 FUB-FUB-FB-510052-K15 - Roller sunblind - V.3, VIN: WX12720

ISTA system version	**4.39.20.24455**	Data version	**R4.39.20**	Programming data	**-**
VIN	**WX12720**	Vehicle	**5'/G30/SEDAN/530i xDrive/B46,-/AUTO/US/LL/ - / -**		
Int.lev.works	**-**	Int.lev.(cur.)	**-**	Int.lev.(tar.)	**-**
Mileage	**-**				

Roller sunblind

The roller sunblind is optional equipment: SA415 and SA416.
The electrically powered roller sunblind is operated using the button for the rear window roller sunblind in the driver's door switch block.
If the vehicle is also equipped with roller sunblinds in the rear side windows, the vehicle is also fitted with the buttons listed below which are located on the power window switch on the passenger's side at the rear and on the power window switch on the driver's side at the rear:

- Button for roller sunblind, rear window
- Button for roller sunblind, driver's side rear
- Button for roller sunblind, passenger's side rear

As a result, the rear window roller sunblind can also be operated using the buttons installed in the rear passenger compartment.
Child safety lock switch
The child safety catch blocks the rear power window switches and the buttons for the roller sunblinds. The child safety locks are activated/deactivated by means of the child safety lock switch in the switch block in the driver's door. When the child safety locks are activated, the function LED in the button lights up. The power window regulators and roller sunblinds (depending on fitted equipment) can now only be activated using the switch block in the driver's door.
The child safety locks are deactivated in crash mode.

Note!
The roller sunblind is now guided into the C-pillar trim panel. This creates a maximum amount of shade for the rear seat passengers.

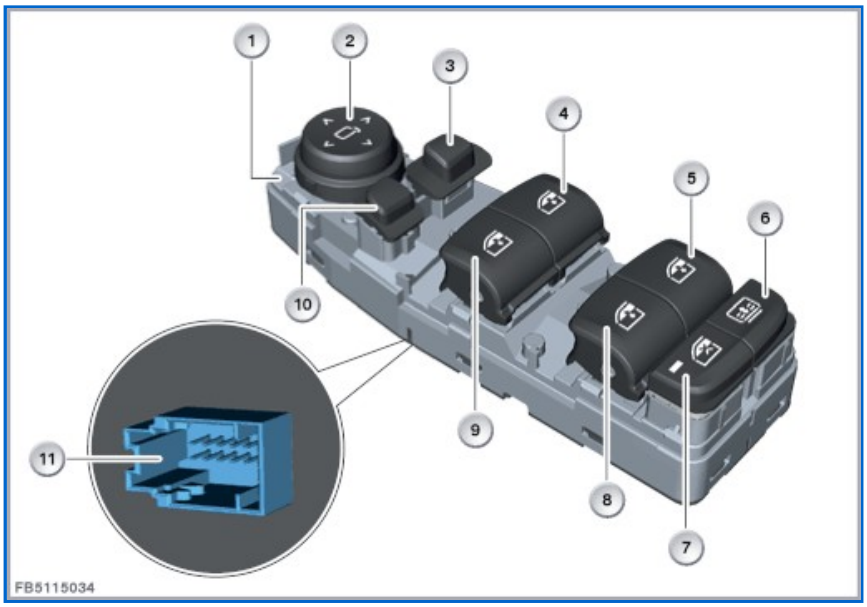
Brief component description

The following components are described for the roller sunblinds:

- Driver's door switch block
- Driver's side rear and passenger's side rear switch block
- Electric motor, roller sunblind, rear window
- Drive, driver's side rear and passenger's side rear roller sunblind

Driver's door switch block

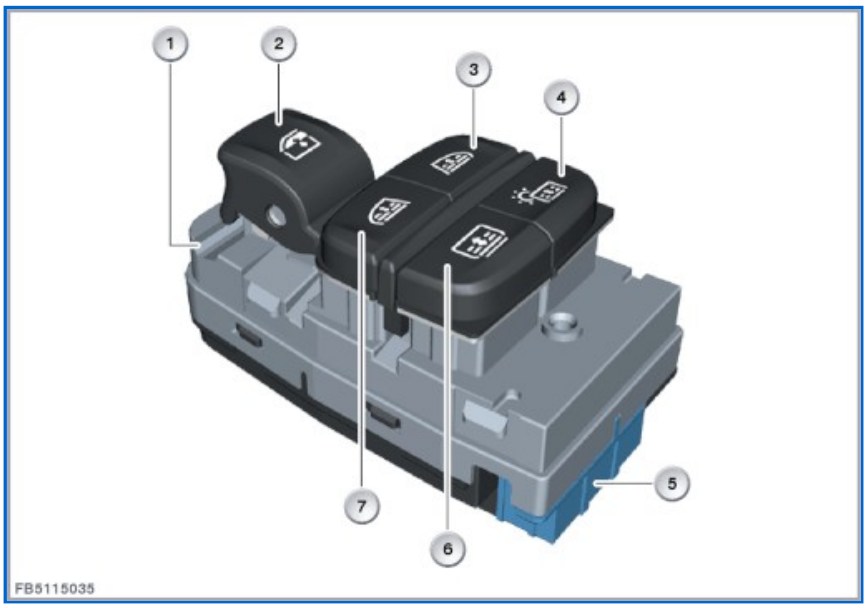
The roller sunblind is operated from the switch block in the driver's door.
The driver's door switch block transmits its signals to the Body Domain Controller (BDC) through the LIN bus.
The power distribution box supplies the switch block on the driver's door with power via terminal 30B.



Index	Explanation	Index	Explanation
1	Driver's door switch block	2	Exterior mirror setting
3	Selector key for exterior mirror on passenger's side	4	Front passenger door power window switch
5	Power window switch, rear driver's side door	6	Roller sunblind button
7	Child safety lock switch with function indicator light	8	Power window switch, rear driver's side door
9	Driver's door power windows switch	10	Selector key for exterior mirror on driver's side
11	12-pin plug connection		

Driver's side rear and passenger's side rear switch block

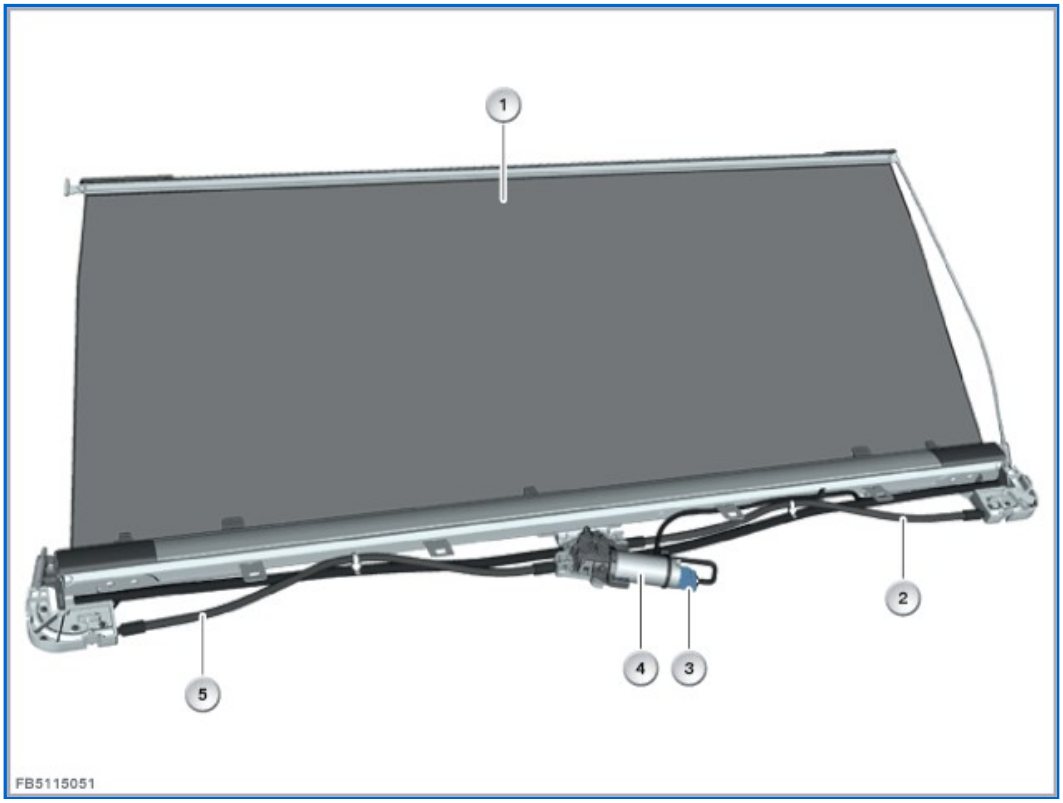
Switch blocks are installed in the rear doors on vehicles with roller sunblinds.
The switch blocks are connected for communication with the Body Domain Controller (BDC) via LIN bus.
Each of the drives for the side roller blinds are connected to a switch block.
The rear power distribution box on the right supplies the switch blocks with power via terminal 30B.



Index	Explanation	Index	Explanation
1	Switch block	2	Power window switch
3	Switch for roller sunblind, side window, right	4	Switch for panorama roof roller blind (depending on equipment)
5	8-pin plug connection	6	Switch for roller sun blind, rear window (depending on equipment)
7	Switch for roller sunblind, side window, left		

Electric motor, roller sunblind, rear window

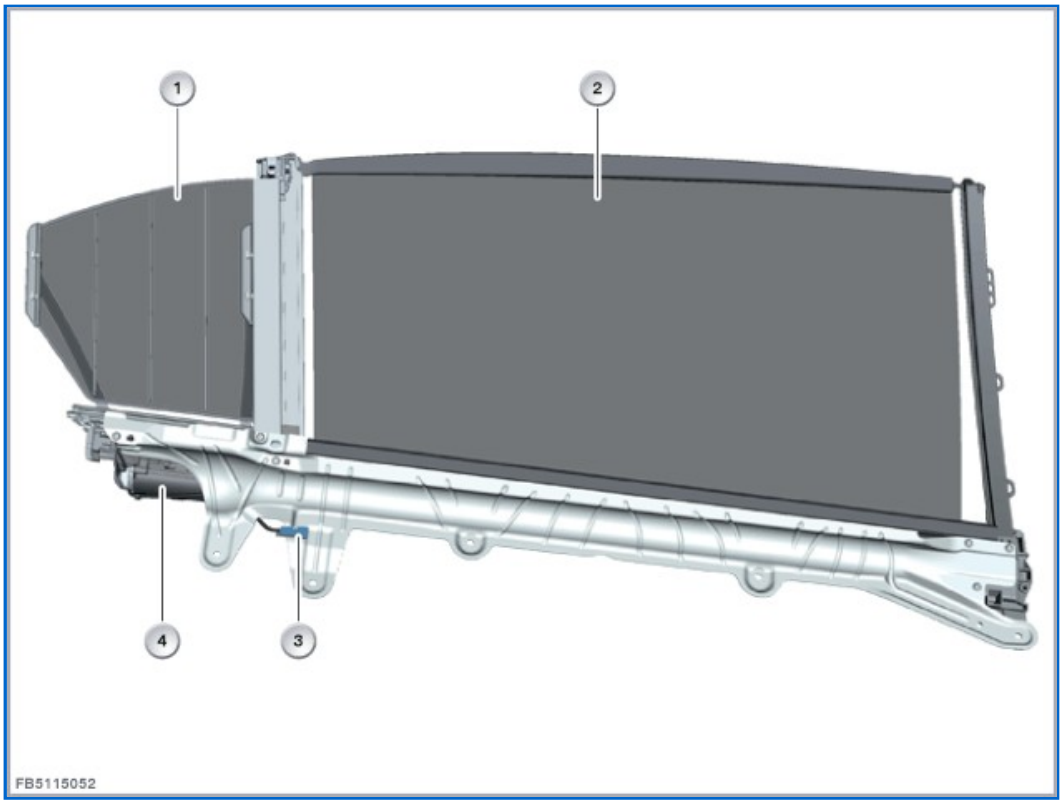
The drive for the roller sunblind on the rear window is activated by the tailgate function module (HKFM).
The drive for the roller sunblind on the rear window can be activated once the PAD mode is switched on (testing-analysis-diagnosis).
To protect the roller sunblinds, they cannot be moved when outside or interior temperatures are low. For example, the roller sunblinds can only be activated from an ambient temperature of -16°C and above and an interior temperature of 11°C and above.
If the terminal status changes while the roller sunblinds are being deployed or retracted (PWF status "parking"), the function in progress is completed, i.e. the roller sunblind will always be fully extended or retracted.
The drive for the roller sunblind on the rear window consists of a direct current motor with reduction gear. Power is transferred to the roller sunblind on the rear window via flexible shafts (improved acoustics)
Each time the button for the roller sunblind is pressed the direct current motor changes its direction of rotation. Changing the direction of rotation makes it possible to extend and retract the roller sunblind.
A blockage identification switches off the direct current motor immediately when the top or bottom end position is reached.
The current for the direct current motor increases as soon as one of the two end positions is reached. Using the difference between the currents, the HKFM control unit identifies when the end position has been reached and switches off the direct current motor.
The control currents are measured (integrated function) to actuate the direct current monitor. This measurement ensures fault detection (e.g. overload current, short circuit or locking). If certain threshold values are exceeded or undershot, the voltage supply to the electric motor is switched off.
To protect the drive, every activation of the direct current motor is terminated after a certain time (maximum 6 s) has elapsed (overload protection).
To prevent the direct current motor overheating, there is a repeat lock. If, after repeated and successive operation, it is no longer possible to operate the roller sunblinds, the system is blocked for a specific time (e. g. 30 s).



Index	Explanation	Index	Explanation
1	Roller sunblind for rear window	2	Flexible shaft, right
3	3-pin plug connection	4	Electric motor, roller sunblind, rear window
5	Flexible shaft, left		

Drive, driver's side rear and passenger's side rear roller sunblind

The drive for the roller sunblinds on the rear driver's side and rear passenger's side can be activated once the PAD mode is switched on.
To protect the roller sunblinds, they cannot be moved when outside or interior temperatures are low. For example, the roller sunblinds can only be activated from an ambient temperature of -16°C and above and an interior temperature of 11°C and above.
If the terminal status changes while the roller sunblinds are being deployed or retracted (PWF status "parking"), the function in progress is completed, i.e. the roller sunblind will always be fully extended or retracted.
The drive for the roller sunblind consists of a direct current motor with reduction gear. The roller sunblind is pulled by cables.
Each time the button for the roller sunblind is pressed the direct current motor changes its direction of rotation. Changing the direction of rotation makes it possible to extend and retract the roller sunblind.
The Body Domain Controller (BDC) controls the drive of the roller sunblinds on rear driver's side at the rear and on the passenger's side at the rear. A blockage identification switches off the direct current motor immediately when the top or bottom end position is reached.
The supply voltage for the drive is delivered to the electronic component in the switch block. Whenever the drive reaches one of its two end positions, the current for the direct current motor rises. The control currents are recorded and processed in the electronic component of the switch block by means of an integrated measurement process. This measurement ensures fault detection (e.g. overload current, short circuit or locking).
If defined upper and lower threshold values are exceeded, the BDC control unit disconnects the voltage supply to the drive unit. The threshold values are stored in the BDC control unit.
To protect the drive unit, every actuation of the direct current motor is terminated (overload protection) by the BDC control unit after a defined period of time (maximum 10 seconds).
To prevent the direct current motor overheating, there is a repeat lock. If, after repeated and successive operation, it is no longer possible to operate the roller sunblinds, the system is blocked for a specific time (e. g. 30 s).



Index	Explanation	Index	Explanation
1	Roller sunblind on fixed side window	2	Roller sunblind on side window
3	2-pin plug connection	4	Drive, driver's side rear and passenger's side rear roller sunblind

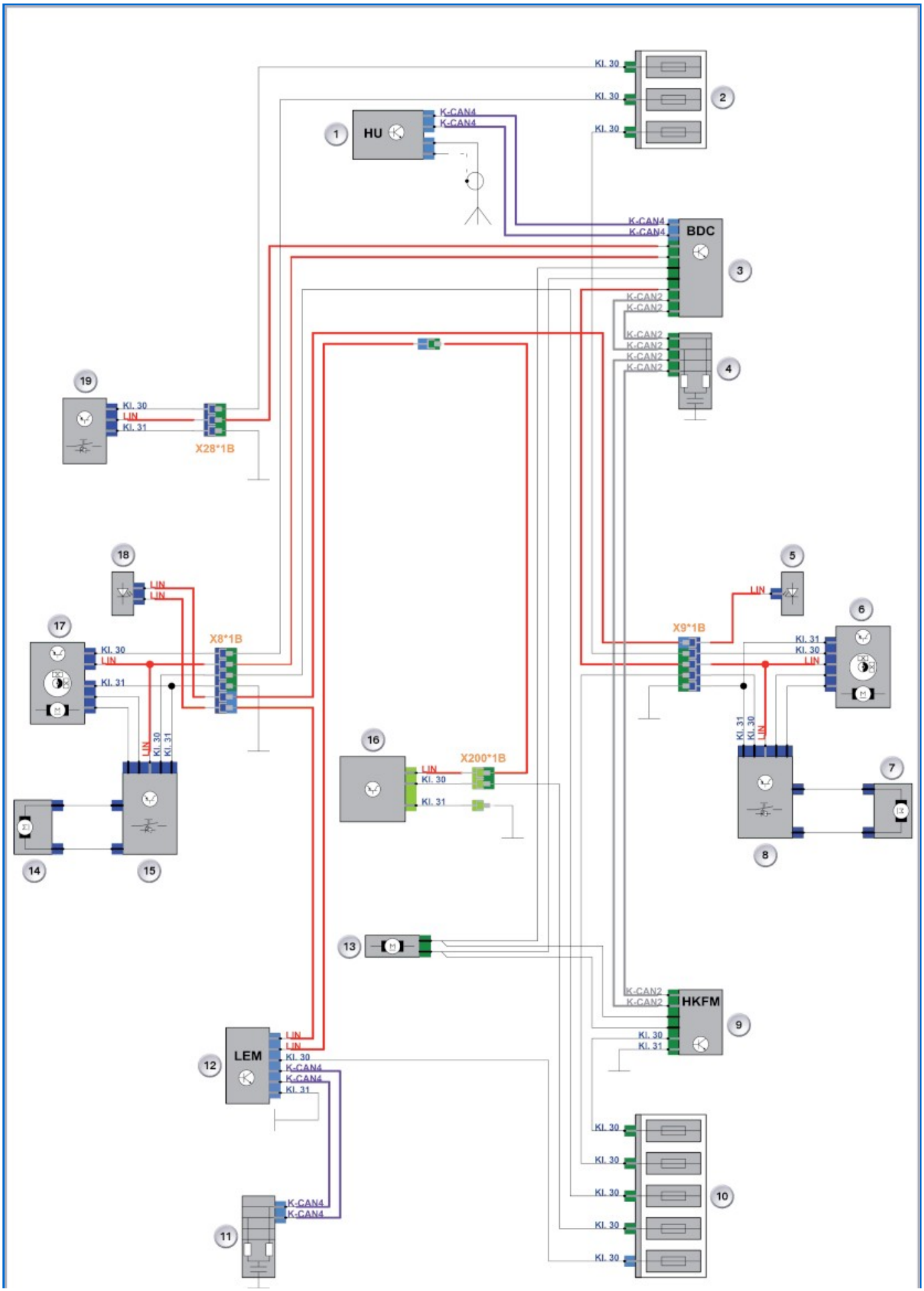
System functions

The following functions are described for the roller sunblind:

- Functional networking

Functional networking

The following graphic shows the functional networking of the roller sunblinds.



Index	Explanation	Index	Explanation
1	Head unit (HU)	2	Power distribution box, front
3	Body Domain Controller (BDC)	4	CAN terminator
5	Rear passenger compartment lighting feature, right	6	Passenger's side rear power window drive with control electronics
7	Roller sunblind drive, passenger's side rear	8	Power window switch, rear passenger's side
9	Tailgate function module (HKFM)	10	Power distribution box, rear
11	CAN terminator	12	Light Effect Manager (LEM)
13	Electric motor, roller sunblind, rear window	14	Roller sunblind drive, driver's side rear
15	Power window switch, rear driver's side	16	BMW Touch Command
17	Driver’s side rear power window drive with control electronics	18	Rear passenger compartment lighting feature, left
19	Driver's door switch block		

Notes for Service department

Note!
The roller sunblinds can also be operated via BMW Touch Command.

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