
Soft top does open or close completely

Topic number	LI77.30-P-055304
Version	1
Design group	77.30 Vario roof, soft top - complete
Date	03-19-2013
Validity	MODEL 197.477
Reason for change	Part number updated
Reason for block	

Complaint:

Soft top inoperative and additional message in multifunction display "Fully open/close soft top".

The stored fault codes indicate a short circuit in the limit switches.

Cause:

Gearing of locking motor at soft top lock is defective

Remedy:

Open soft top lock with the aid of Xentry Diagnostics. Select VDS soft top control (N52) and actuate the soft top lock with the appropriate soft top lock/open button.

Then check actual value "Soft top lock limit switch", "Lock actuation element open sensor (S84/7)" or "Lock actuation element closed sensor (S84/8)".

Note: The soft top control can only be operated via the soft top switch when the "Lock actuation element open sensor (S84/7)" is actuated.

If it is not possible to actuate the soft top lock, the soft top can be opened by an emergency release sequence. To do this, proceed as follows:

If the front roof bow trim is installed:

1. Remove plastic cap from front roof bow trim
2. Fit a size 6 Allen wrench at least 50 mm long and carefully press upwards approx. 5 mm until the cam plate of the control rods is free (the drive shaft of the motor is pressed upwards against spring force)
3. Open lock (turn clockwise)
4. Open soft top 20-30 cm

Note: Check functionality of hall sensor by using another magnet (preferably larger than one installed). If the sensor is NOK, proceed with #5. If sensor is OK, please stop and consult with MB technical team via PTSS.

5. Remove front roof bow trim

6. Remove control rods from cam (mark them beforehand so that the ball heads are not confused when installing the control rods!)

7. Unscrew motor and replace.

8. Install in the reverse order.

Symptoms
Body / Roof system / Convertible top/vario roof / Convertible top / Does not open
Body / Roof system / Convertible top/vario roof / Convertible top / Does not close

Control unit/fault code		
Control unit	Fault code	Fault text
VDS - Soft top control (N52) (CRCM197)	B25D812	Limit switch "Actuator motor for soft top lock OPEN" has a malfunction. There is a short circuit to positive.
VDS - Soft top control (N52) (CRCM197)	B25DC12	Limit switch "Actuator motor for soft top lock LOCKED" has a malfunction. There is a short circuit to positive.
VDS - Soft top control (N52) (CRCM197)	B25DB12	Limit switch "Soft top compartment CLOSED" has a malfunction. There is a short circuit to positive.
VDS - Soft top control (N52) (CRCM197)	B25D712	Limit switch "Right soft top lock CLOSED" has a malfunction. There is a short circuit to positive.
VDS - Soft top control (N52) (CRCM197)	B25D612	Limit switch "Left soft top lock CLOSED" has a malfunction. There is a short circuit to positive.
VDS - Soft top control (N52) (CRCM197)	B25D811	Limit switch "Actuator motor for soft top lock OPEN" has a malfunction. There is a short circuit to ground.

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Other make part
A 197 776 01 64			Soft top lock	1		X	

Work units				
Op. no.	Operation text	Time	Damage code	Note
			7700R D6	

Validity		
Vehicle	Engine	Transmission
197.477	*	*

Full model designation breakdown		
Vehicle	Engine	Transmission
197.477	159.980	700.400