



This Service Information bulletin supersedes S.I. B34 05 06 **dated August 2006.**

NEW designates changes to this revision

SUBJECT

DSC Warning - SZL FC A85D Stored

MODEL

E60, E61 (5 Series)

E63, E64 (6 Series)

Vehicles produced August 31, 2005 to May 30, 2006

SITUATION

The DSC warning shows in the Instrument Cluster. An amber "BRAKE" warning may also be displayed and, depending on vehicle equipment level, the warnings for ARS (Active Roll Stabilization) and AFS (Active Steering) may also be displayed.

The following SZL (Steering Column Switch Sensor) fault codes are stored:

- A85D – Faulty LWS

Note: Other SZL faults and associated system faults (DSC, ARS etc.) may also be stored.

CAUSE

Faulty LWS (Steering Angle Sensor)

- Contamination of internal optic element - material changed April 30, 2006.

Stocks of the old SZL have been cleared from stock. Updated parts can be recognized by the index number that is shown on the part number label immediately to the right of the part number. For example, LZ 9 111 997 **0202** – in this case, the last 7 digits of the P/N are 9 111 997, and the index number is 02.

- The index number must be 02, or higher for P/Ns in the range 9 111 997 to 9 111 999
- The index number must be 03, or higher for P/Ns in the range 9 115 165 to 9 115 167

In addition, SZL that have been repaired and have the latest optic element will have an "OK" label next to the part number label (see step 9 below)

CORRECTION

Install a new optical element in the SZL. The SZL repair kit contains:

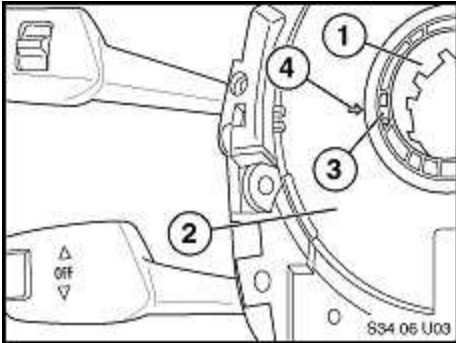
- Optical element
- "OK" label
- (2) T6 Torx screws

- Protective gloves

PROCEDURE

Perform diagnostics and work through any relevant test modules. For a defective SZL (FC A85D), repair the SZL as follows:

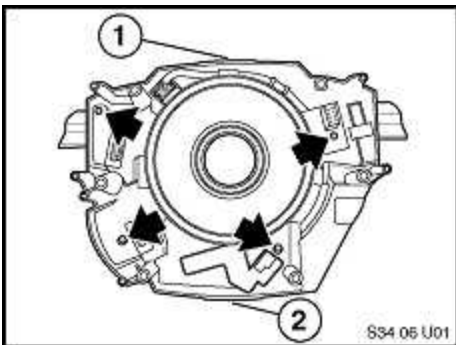
1. Remove the SZL control unit. See Repair Instructions: "Removing and installing/replacing volute spring cassette (from 09/2005)", RA 61 31 006.



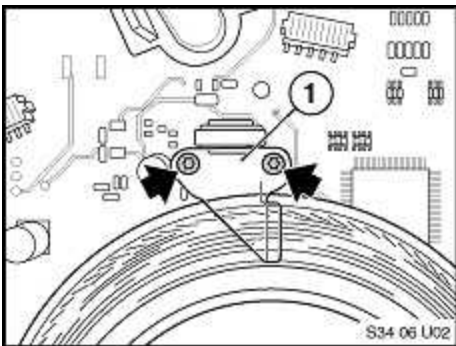
2. Remove the slip ring (rotary coupler). See Repair Instructions "Removal and fitting of the volute spring cassette", see RA 61 31 011.
3. The following should be observed in particular: Do not turn ring (1). (Even turning ring (1) through 360deg; is not allowed.) Put the slip ring aside for re-assembly later.

4. Locate a clean workplace for the repair. An anti-static mat **MUST** be used – see [SI B04 19 04](#). Put on the disposable gloves supplied in the parts set (only these gloves may be worn). **THE UTMOST CLEANLINESS MUST BE ENSURED.**

Important: Under no circumstances should the SZL be cleaned or wiped in any way.



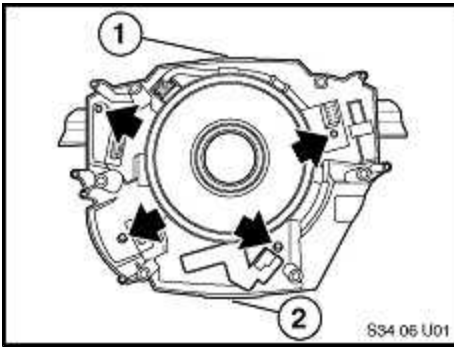
5. Unscrew the four T9 Torx screws of the SZL housing. Lift open the cover by gently prying it out at position (1) (using a screwdriver).



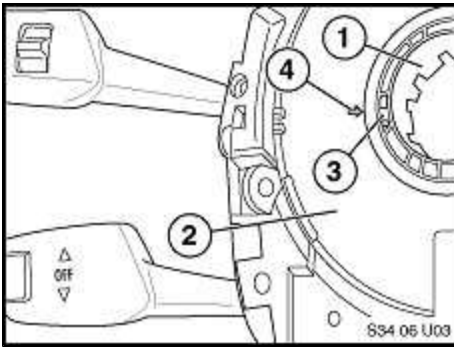
6. Unscrew the two T6 Torx screws to remove the optical element (1) from the board.
Important: Touch nothing other than the optical element.

7. Install the new optical element. Incorrect positioning is impossible because the optical element is mechanically coded. Carefully tighten the two Torx screws and do not over-tighten. (Tightening torque of approximately 0.35 Nm).

8. Reinstall the cover to the SZL control unit and screw tight the four Torx screws. (Tightening torque of approximately 0.5 Nm). Take care not to trap the cable guide for the windshield wiper switch.



9. Affix the "OK" label near the part number label position (2).



10. Reinstall the rotary coupler (slip ring)

- Note for correct installation:
- Ring (1) must be positioned in the retainer (2) in such a way that opening (3) for the driving pin (of the rotary coupler) is at arrow position (4).

11. Reinstall the SZL control unit.

Important: The SZL must not be reinstalled until all four cover screws have been tightened correctly.

12. Vehicles without Active Steering: perform steering angle sensor calibration (RA 61 31 996).

Vehicles with Active Steering: align the Active Steering (RA 32 10 005).

Note: No programming or coding is required

- 13. Carry out a short test drive to confirm a successful repair.

PARTS INFORMATION

Part Number	Description	Quantity
61 31 9 141 875	SZL repair kit	1

It is no longer necessary to order a complete SZL unit to address this specific repair.

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty.

Defect Code	61 31 90 33 00
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Vehicles without active steering (SA 217) - Read fault code, replace optical element, and perform steering angle sensor alignment

Labor Operation:	00 56 234	+00 56 896
Labor Allowance:	13 FRU (E60, E61)	11 FRU
	12 FRU (E60/M5, E63, E64)	

Vehicles with active steering (SA 217) - Read fault code, replace optical element, and calibrate active steering

Labor Operation:	NEW 00 56 235	+00 56 897
Labor Allowance:	NEW 13 FRU (E60, E61, E63, E64)	NEW 12 FRU (E60)
	NEW 12 FRU (E60/M5)	NEW 11 FRU (E60/M5, E61, E63, E64)

Note: The following explanations will spell out the correct use of the work times.

Main Work: Use this labor operation number when the only repair performed is the listed warranty repair.

OR

+Associated Work: Use this labor operation number when other repairs or services are performed along with the listed warranty repair. Under no circumstances should both labor operation numbers be claimed. Attempts to claim both times will result in an unnecessary delay in claim processing and payment.

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