



SUBJECT

Sport Transmission Paddle Shifters Inoperative - Diagnosis

MODEL

E60, E61 with 6HP19TU, 6HP26TU transmissions and option code 2STBA

E63, E64 with 6HP26TU transmission and option code 2STBA

SITUATION

- The customer may complain that the steering wheel paddle shifters ("sport transmission option code 2STBA") are inoperative.
- Also, the GWS gear shifter will not stay in the manual/sport gate (left side), but moves back immediately to the D center position.
- When diagnosing with the DIS/GT1 testers, fault code 5087 ("Hardware, inputs one touch function") is found to be stored in the EGS transmission control module.

CAUSE

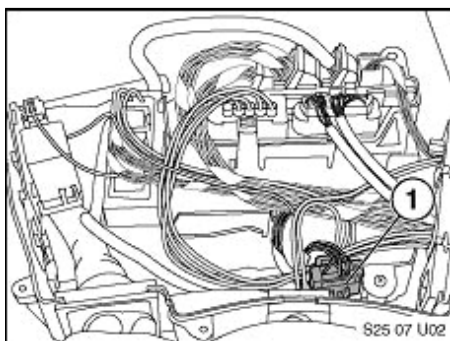
The direct communication input line between the paddle shifters and the EGS transmission control module is interrupted.

CORRECTION

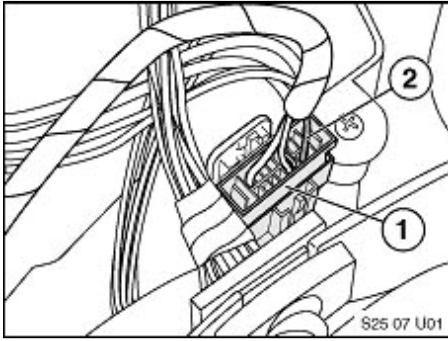
The current version of the wiring schematic (both in DIS Diagnostic and Centernet TIS) does not provide a correct wiring diagram of the SZL (Steering Column Switch Center) with the paddle shifters option.

On a customer complaint basis and when the complaint can be reproduced, follow the diagnostic hints below.

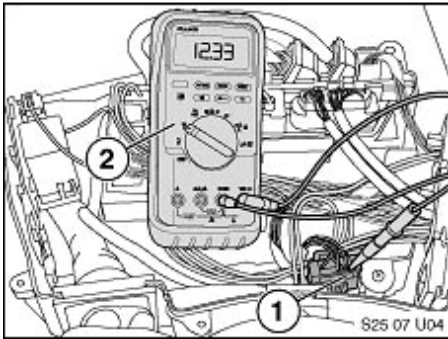
Upshift and downshift requests from both paddle shifters are transferred directly to the EGS transmission control module via a single wire connection: from the paddle shifters via SZL connector X1880, then engine connector X6031 up to the transmission control module (via Mechatronic connector X8500).



The most convenient location to monitor the paddle shifter signals is the connector X6031 (12-pin black), located inside the E-box on the front wall next to the ground harness (1).



1. Remove the left lower side of the microfilter housing (refer to RA64 31 061).
2. Remove the E-box cover and locate the 12-pin connector X6031 (1).
3. In the connector X6031, locate the blue/grey (2) wire (pin #11) – paddle shifter signal from the SZL.

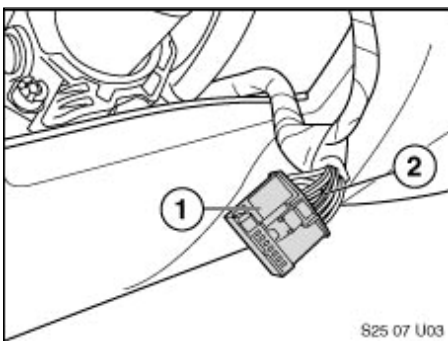


4. Using the appropriate multimeter (2), monitor the voltage reading on pin #11 (1). With the ignition ON (KL15) and the GWS gear shifter in the P position, the battery voltage should be present at the pin #11.
5. If the voltage is not found, then continue troubleshooting the signal wire between X6031 pin #11 and the transmission connector X8500 pin #12. (Look for the backed-up pins or lost continuity in the signal wire.) Perform repairs as needed.

6. Continue monitoring the voltage at pin #11 of the connector X6031 when operating the steering wheel paddle shifters with the engine running and the transmission in position D.

7. The correct voltage values should be the following:

- "D" position – between 3.7 V - 3.8 V
- "Upshift" – between 2.4 V - 2.5 V
- "Downshift" – between 1.2 V - 1.25 V



8. If incorrect values (or no voltage changes) are present when the paddles are operated, then continue troubleshooting the signal wire between the connector X6031 pin #11 and the SZL (Steering Column Switch Center) 16-pin connector X1880, pin #13. Look for the backed-up pins or lost continuity in the signal wire. Note: Remove the lower section of the steering column trim in order to gain access to the connector X1880 (refer to repair instruction RA32 31 020).

9. If the wiring and connectors X1880 and X6031 are not at fault, then check the connection between both paddle shifters and the SZL in the steering wheel.

The corrected wiring diagrams will be available with the future release of the DIS diagnosis DVD.

WARRANTY INFORMATION

For information only.

