



## MERCEDES BENZ M CLASS

### TRANSMISSION IN LIMP MODE - TRANSFER CASE INOPERATIVE

**COMPLAINT:** 1998 to 2005 Mercedes Benz “M” Class vehicles may come into the shop with the transmission in limp mode and the transfer case inoperative. The “Low Range” lamp illuminates and turns off in five second intervals indicating a fault is present (figure 1). Trouble codes 51 and 147 are set in the TCM pointing to an implausible gear ratio error. P1831 may also be set for a temporary loss of communication between the Transfer Case Control Module and the Transfer Case Shift Motor (figure 2). Additionally, the “Low Range” Lamp will illuminate when the Transfer Case Control Module is disconnected but not when depressing the Low Range button.

**CAUSE:** The Transfer Case Control Module was faulty.

**CORRECTION:** Replacement of the Transfer Case Control Module allowed the transmission and transfer case to operate properly as well as the “Low Range” Lamp. The Transfer Case Control Module is located under the center console behind the shifter assembly (figure 3).

#### SERVICE INFORMATION:

Normal operation of the “Low Range Lamp is as follows:

High to Low Shift = “Low Range” Lamp flashes 3 times within 2 seconds and remains lit.

Low to High Shift = “Low Range” Lamp flashes 3 times within 2 seconds and goes out.

Failure to comply with shift conditions = “Low Range” Lamp flashes 4 times within 2 seconds and goes out.

Faults in transmission or stored fault code = “Low Range” Lamp lights up and goes out at 5 second intervals.

*Many thanks to Ralph at Alonso Transmission, Miami.*

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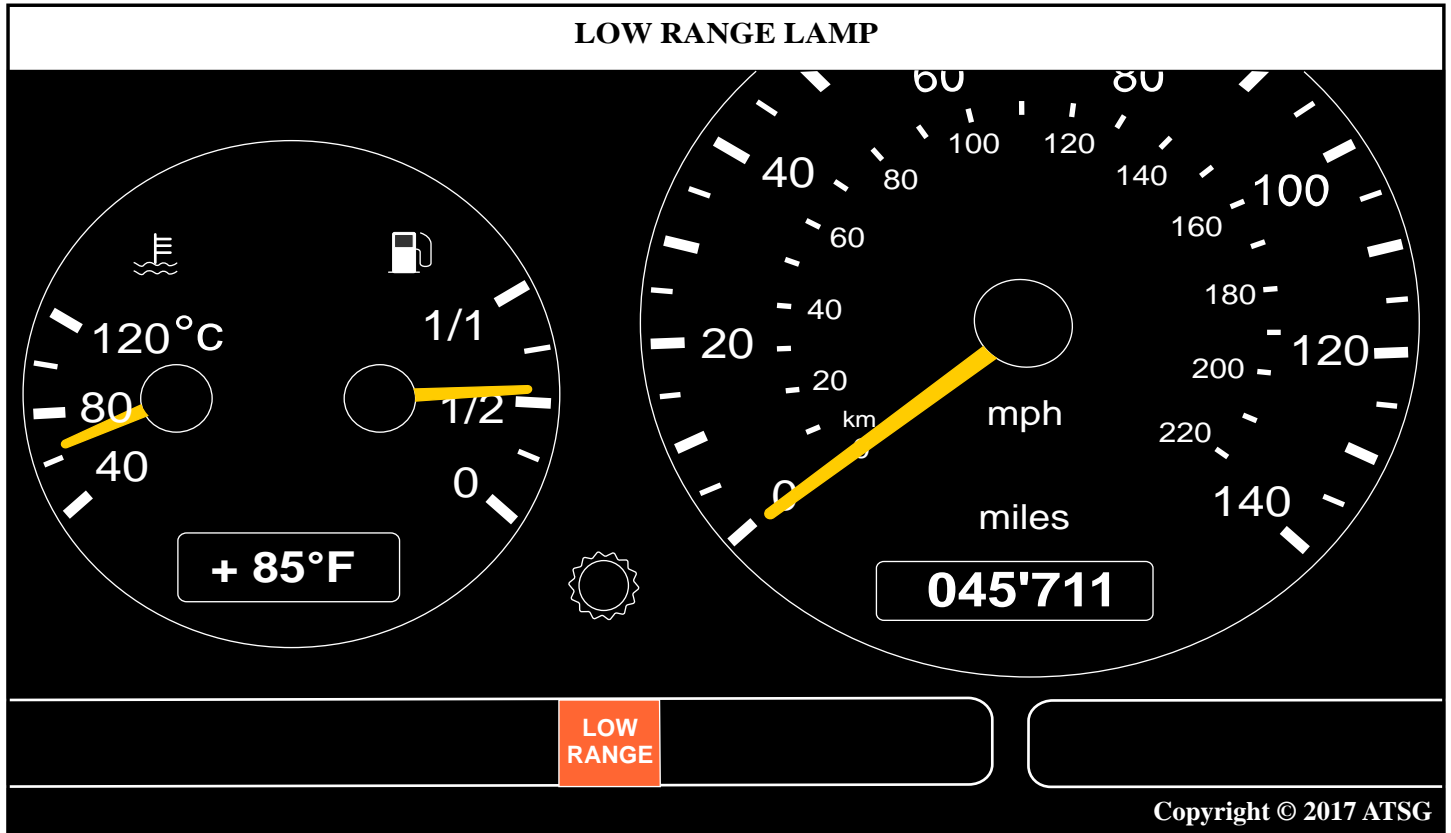


Figure 1

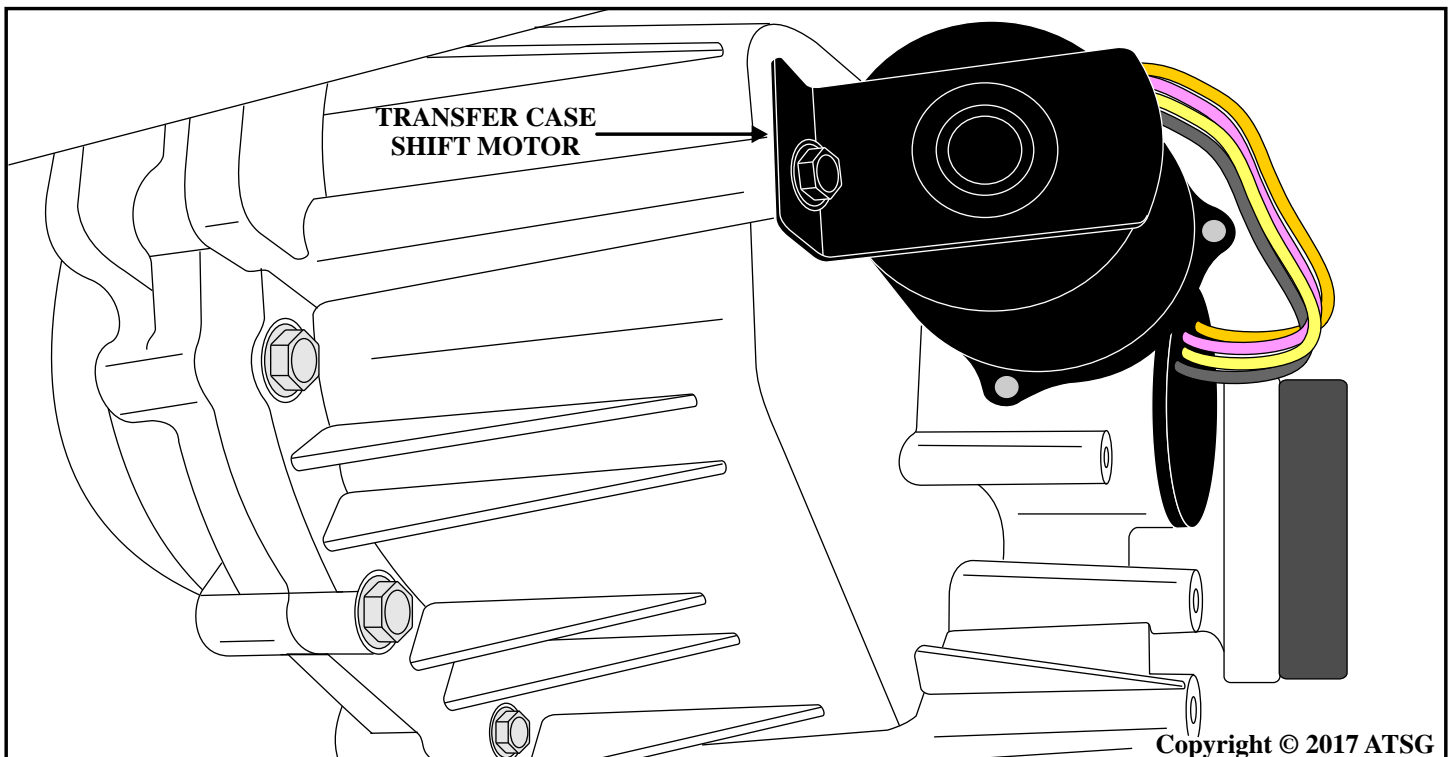


Figure 2

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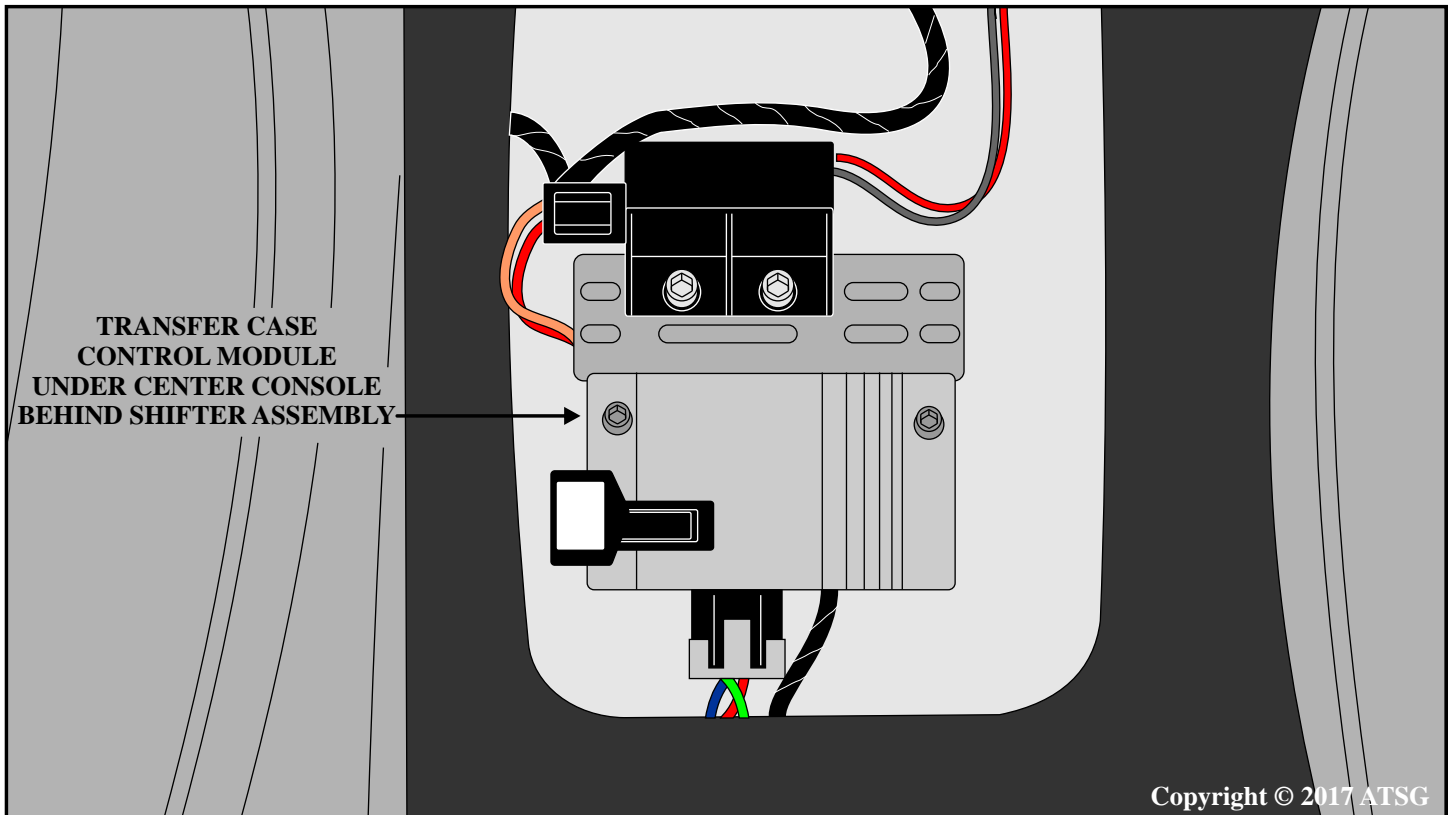


Figure 3