



# Technical Service Information

## ALLISON 1000/2000 SERIES

### ERRATIC SHIFTS

**COMPLAINT:** A 2005 Chevrolet Silverado 2500 equipped with the Allison 1000 Transmission has complaints of erratic shifts followed by a no move condition. Diagnostic trouble codes P0731 “Gear Ratio Error In First Gear” and P0746 “Pressure Control Solenoid A Stuck Off” are set. During a road test the transmission hunted on the 1-2 shift and after the shift to third the transmission exhibited a neutral condition. When the transmission should have been in fourth gear the scan tool indicated the commanded gear as zero instead of fourth. When coming to a stop there was no movement until the ignition was cycled.

**CAUSE:** The Engine Speed Sensor and the Turbine Speed Sensor connectors were swapped. When speed sensor operation was checked on the scan tool the engine rpm went to zero and the turbine rpm indicated an rpm reading when the transmission was shifted into drive.

**CORRECTION:** From the 2001 model year to the 2014 model year connect the Engine Speed Sensor to the Dark Blue/White and Red/Black wire connector. The Turbine Speed Sensor connector is Light Blue and Orange, refer to figure 1.

*Many thanks to Charlie from Treasure Coast Auto Repair Inc for sharing his experience with ATSG.*

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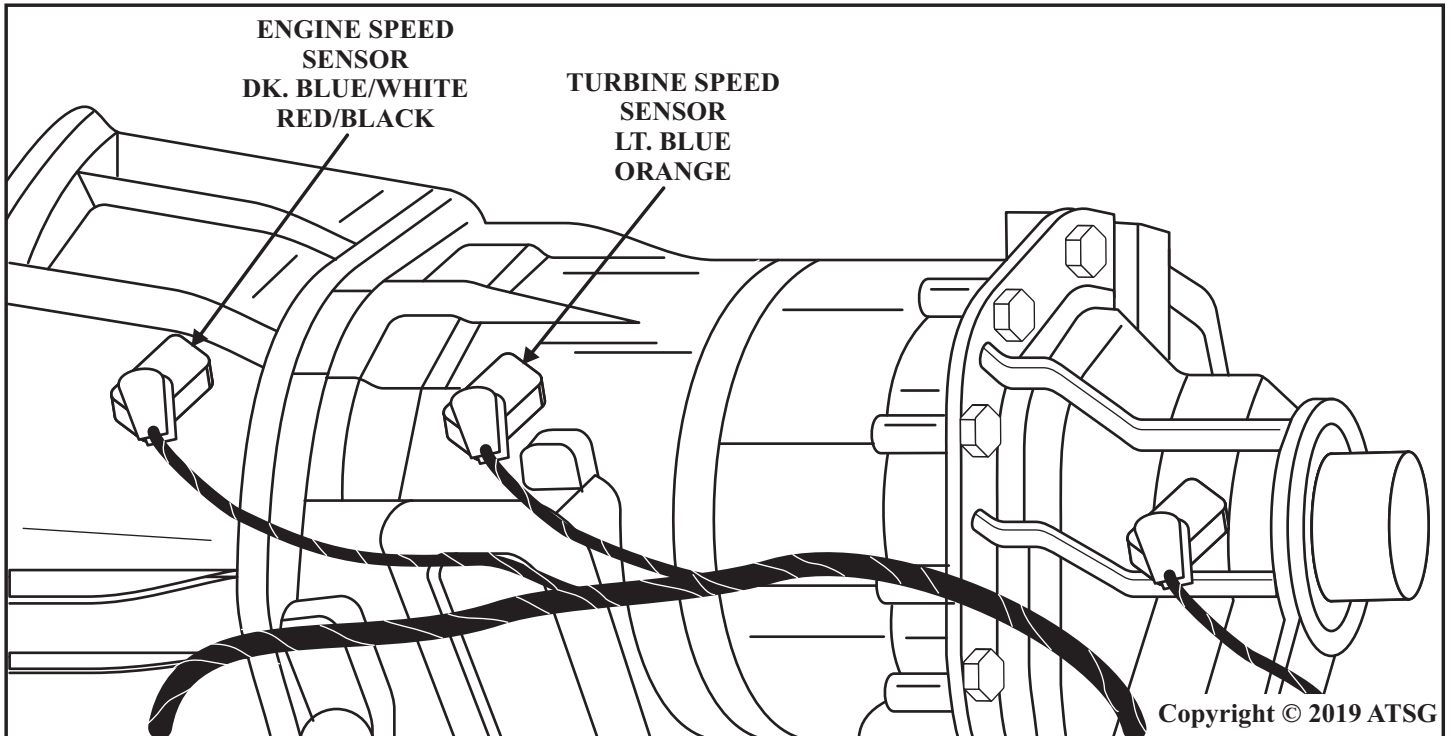


Figure 1