

Master Pressure Sensor

Sm004-01

Master Pressure Sensor Monitor Description

MONITOR SUMMARY

The master pressure sensor, installed in the gear shift actuator (GSA), monitors hydraulic pressures of the sequential manual transmission (SMT) fluid. This pressure is monitored as it comes from the hydraulic power unit (HPU). This sensor varies its resistance with the hydraulic pressure. The ECM applies a 5 V “pull-up” voltage to the sensor terminal and calculates the hydraulic pressure based on how much the sensor can “pull-down” this voltage. If the hydraulic pressure is high and the sensor resistance is high, the voltage will stay high. When the sensor resistance is low (low hydraulic pressure), the sensor will “pull-down” the voltage to a low level.

If the output voltage of the master pressure sensor is 4.75 V or more, or if the output voltage is less than 0.25 V, the transmission ECU will conclude that there is a malfunction of the pressure sensor or circuit, illuminate the MIL and set a DTC.

RELATED DTC

Previous code:

Related DTCs	P1860	Master pressure sensor circuit is open/shorted
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Extended code:

Related DTCs	P0847	Master pressure sensor output is low
	P0848	Master pressure sensor output is high

MODEL YEAR CHART

Model Year	See Page
2001 to 2003	Sm-11