DTC	P0705	TRANSMISSION RANGE SENSOR CIRCUIT MALFUNCTION (PRNDL INPUT)

CIRCUIT DESCRIPTION

When the shift lever is in the N or P position: 1) the Park/Neutral Position (PNP) switch turns on, and 2) ECM terminal NSW is grounded to the body ground via the starter relay and voltage becomes 0V. When the shift lever is in the D, 2, L or R position: 1) the PNP switch turns off, and 2) ECM terminal NSW receives current and becomes the voltage of the ECM internal power source.
If the shift lever is moved from the N position to the D position, this signal is used for air–fuel ratio correction and for idle speed control (estimated control), etc.

DTC No.	DTC Detection Condition	Trouble Area
P0705	2 or more switches are ON simultaneously at P, R, N, D, 2 and L positions (2 trip detection logic)	• Short in PNP switch circuit • PNP switch • ECM

HINT:
After confirming DTC P0705, use the hand–held tester to confirm the PNP switch signal in the ALL menu (to reach the ALL menu: DIAGNOSIS / OBD/MOBD / DATA LIST / ALL).

WIRING DIAGRAM

Refer to DTC P0705 on page 05–378.

INSPECTION PROCEDURE

Refer to DTC P0705 on page 05–378.
HINT:
Read freeze frame data using the hand–held tester. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, if the air–fuel ratio was lean or rich, and other data from the time the malfunction occurred.