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 0 V. 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 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 / ENHANCED OBD II / DATA LIST / ALL).

WIRING DIAGRAM

Refer to DTC P0705 on page 05−241.

INSPECTION PROCEDURE

Refer to DTC P0705 on page 05−241.
HINT:
Read freeze frame data using the hand−held tester or the OBD II scan tool. 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.