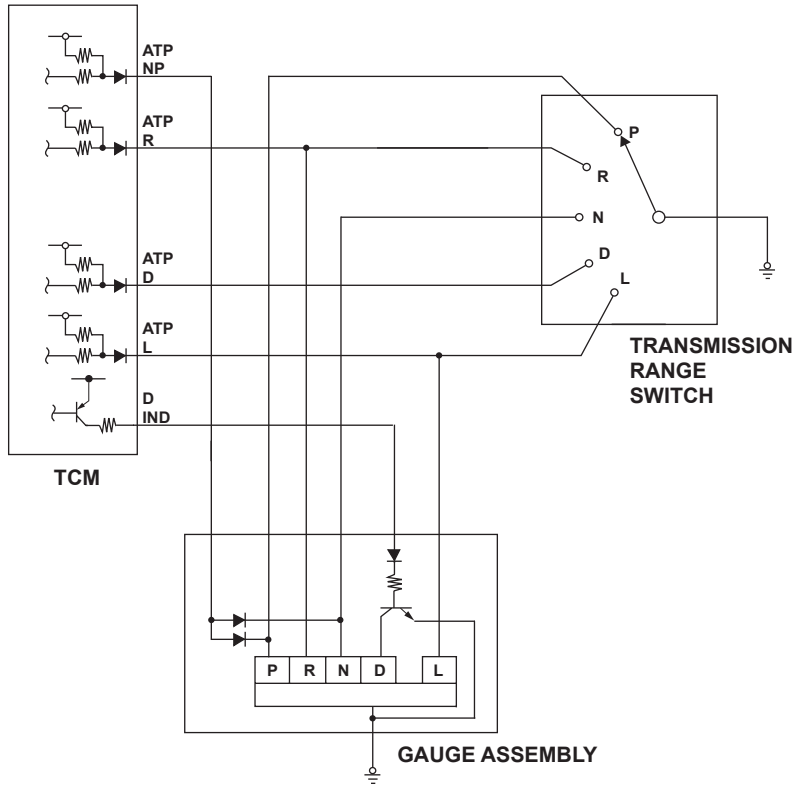


Advanced Diagnostics

DTC P1706: Open in Transmission Range Switch Circuit (no gear position inputs)



Transmission range switch contact point input matrix

P1705-0104

Shift lever position	Input per switch			
	P.N	R	D	L
P	O	X	X	X
R	X	O	X	X
N	O	X	X	X
D	X	X	O	X
L	X	X	X	O

O: Closed X: Open

General Description

The transmission range switch is attached to the control shaft. Operation of the shift lever makes the control shaft rotate via the shift cable. The A/T gear position indicator indicates which position is selected according to the four signal Low/High combinations which vary based on the control shaft rotational angle. The control shaft changes the position of the transmission range switch, activates the manual valve, and switches hydraulic pressure to shift the transmission through forward/neutral/reverse. The transmission range switch signal is used to determine the shift schedule. The voltage is 12 V (High) at the transmission control module (TCM) input terminal when each transmission range switch position is open, and it is 0 V (Low) when each switch is closed. If the D switch stays open while the vehicle repeatedly accelerates to a specified vehicle speed and then stops despite being in the D position, the TCM detects a malfunction in the transmission range switch (open) and stores a DTC.

Monitor Execution, Sequence, Duration, DTC Type

Execution	Under the Enable Conditions
Sequence	None
Duration	Depending on the driving pattern
DTC Type	Two drive cycles, MIL ON, D indicator OFF

Enable Conditions

Condition	
Shift lever position	D

Malfunction Threshold

The D switch is open during acceleration/deceleration.

Driving Pattern

Start the engine, and accelerate to a speed of 30 mph (48 km/h) or more in D position, then stop the vehicle again.

- If you have difficulty duplicating the DTC, retest after turning off electrical components such as the audio system and the A/C.
- Drive the vehicle in this manner only if the traffic regulations and ambient conditions allow.

Diagnosis Details

Conditions for illuminating the MIL

When a malfunction is detected during the first drive cycle, a Temporary DTC is stored. If the malfunction recurs during the next (second) drive cycle, the MIL comes on and the DTC and the freeze frame data are stored.

Conditions for clearing the MIL

The MIL, the DTC, the Temporary DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.