DI6UI-01

| DTC	P1725	NT Revolution Sensor Circuit Malfunction (Input Turbine Speed Sensor)

CIRCUIT DESCRIPTION

This sensor detects the rotation speed of the input turbine. By comparing the input turbine speed signal (NT) and the counter gear speed sensor signal (NC), the ECM detects the shift timing of the gears and appropriately controls the engine torque and hydraulic pressure in response to various conditions, thus performing smooth gear shifting.

DTC No.	DTC Detecting Condition	Trouble Area
P1725	The ECM detect conditions (a), (b), (c) and (d) continuity for 5 secs or more. (1-trip detection logic) (a) Vehicle speed: 50 km/h (20 mph) or more (b) 2nd, 3rd or O/D gear (c) Solenoid valves and park/neutral position switch are normal (d) NT < 300 rpm	• Open or short in input turbine (NT) speed sensor circuit • Input turbine (NT) speed sensor • ECM

WIRING DIAGRAM
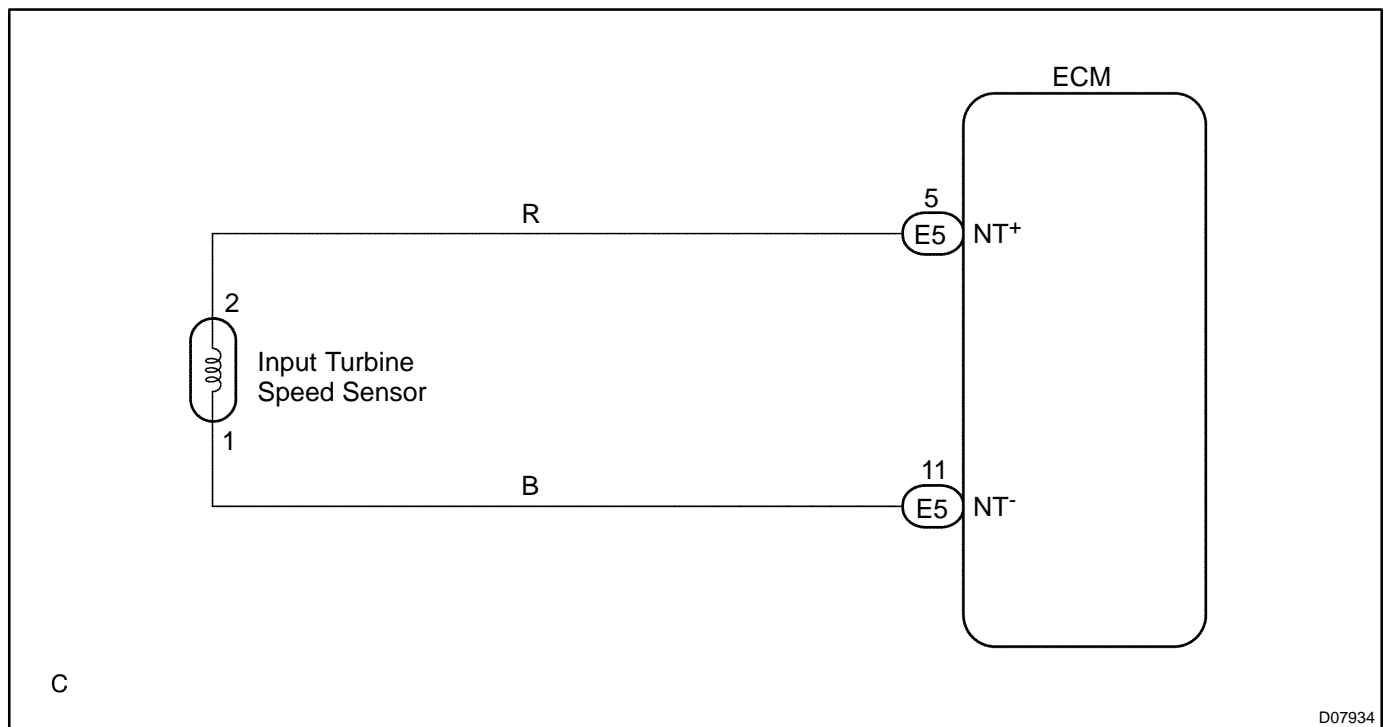
INSPECTION PROCEDURE

1	Check resistance between terminals NT$^+$ and NT$^-$ of ECM.
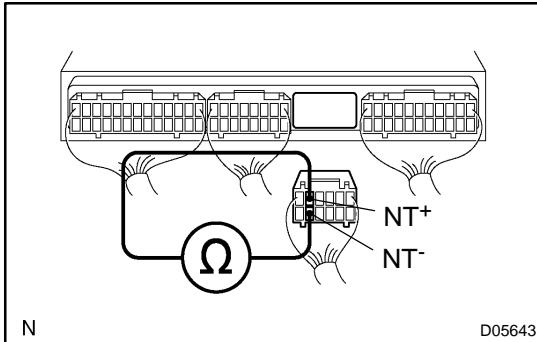
PREPARATION:
Disconnect the connector from ECM.
CHECK:
Check resistance between terminals NT$^+$ and NT$^-$ of ECM.
OK:

Resistance: 620 ± 60 Ω

OK ▷ **Check and replace the ECM.**

NG ▽

2	Check input turbine speed sensor.
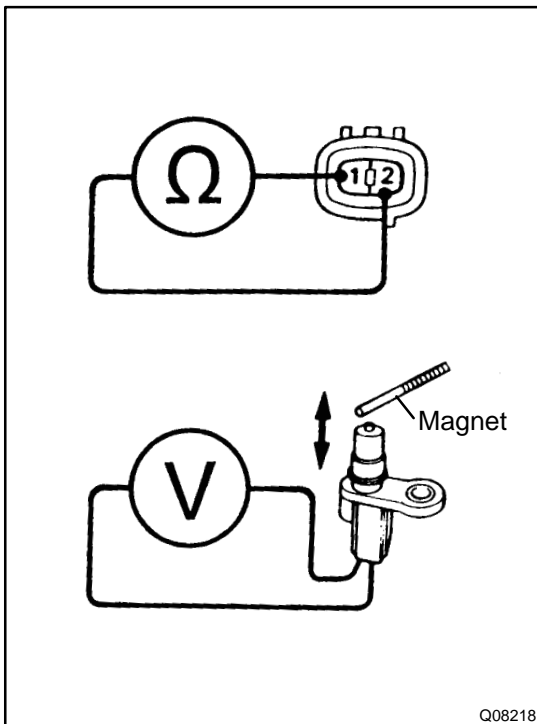
PREPARATION:
Remove the input turbine speed sensor from transaxle.
CHECK:
(a) Measure resistance between terminals 1 and 2 of speed sensor.
(b) Check voltage between terminals 1 and 2 of the speed sensor when a magnet is put close to the front end of the speed sensor then taken away quickly.
OK:

(a) Resistance: 620 ± 60 Ω at 20 ˚C (68 ˚F)
(b) Voltage is generated intermittently.

HINT:
The generated voltage is extremely low.

NG ▷ **Replace the input turbine speed sensor.**

OK ▽

Check and repair the harness and connector between ECM and input turbine speed sensor (See page IN-29).

2002 ECHO   (RM884U)