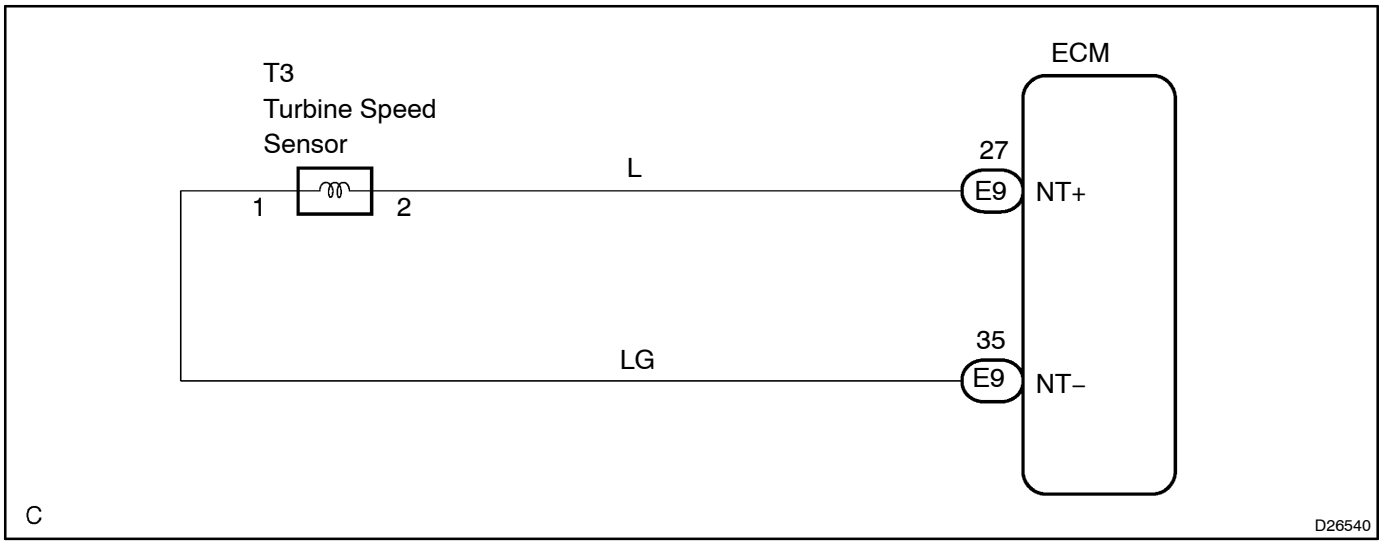
DTC	P1725/37	NT REVOLUTION SENSOR MALFUNCTION (INPUT TURBINE SPEED SENSOR)

CIRCUIT DESCRIPTION

This sensor detects the rotation speed of the input turbine. By comparing the input turbine speed signal (NT) with 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 according to various conditions. Thus smooth gear shifting is performed.

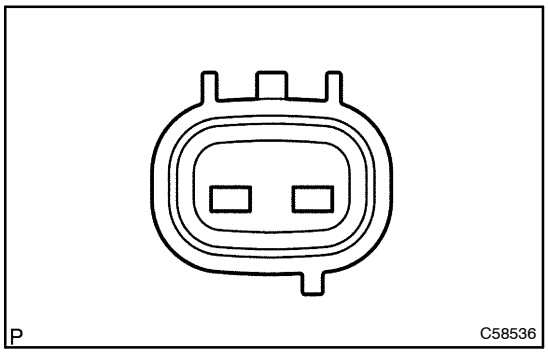
DTC No.	DTC Detection Condition	Trouble Area
P1725/37	ECM detects conditions (a), (b), (c) and (d) continuity for 5 sec. or more: (1 trip detection logic) (a) Vehicle speed: 50 km/h (20 mph) or more (b) 2nd, 3rd or O/D gear (c) Solenoid valves and neutral start switch are normal (d) NT < 300 rpm	• Open or short in speed sensor circuit • Speed sensor (NT) • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT SPEED SENSOR(NT)



(a) Disconnect the speed sensor connector ftom the transaxle.

(b) Measure the resistance between terminals of speed sensor.

OK:

Resistance:

TOYOTA made: 500 – 620 Ω at 20 °C (68 °F)

AISIN made: 560 – 680 Ω at 20 °C (68 °F)

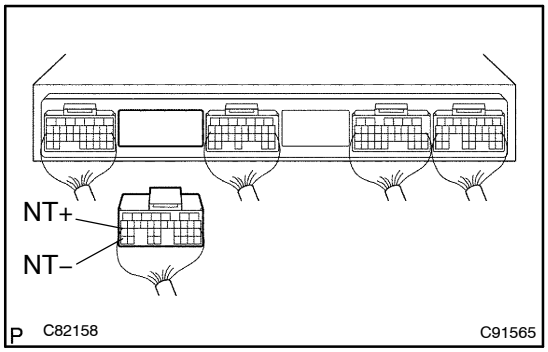
A	NG (TOYOTA made)
B	NG (AISIN made)

NG(A) → **REPLACE SPEED SENSOR(NT)**

NG(B) → **REPLACE TRANSMISSION REVOLUTION SENSOR(NT)**

OK

2	CHECK HARNESS AND CONNECTOR(SPEED SENSOR–ECM)



(a) Connect the speed sensor connector.

(b) Disconnect the ECM connector.

(c) Measure the resistance between terminals NT+ and NT–.

OK:

Resistance:

TOYOTA made: 500 – 620 Ω at 20 °C (68 °F)

AISIN made: 560 – 680 Ω at 20 °C (68 °F)

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR(See page 01–31)**

OK

CHECK AND REPLACE ECM(See page 01–31)