DTC	P0710/38	TRANSMISSION FLUID TEMPERATURE SENSOR MALFUNCTION

DTC	P0711/38	TRANSMISSION FLUID TEMPERATURE SENSOR RANGE/PERFORMANCE PROBLEM

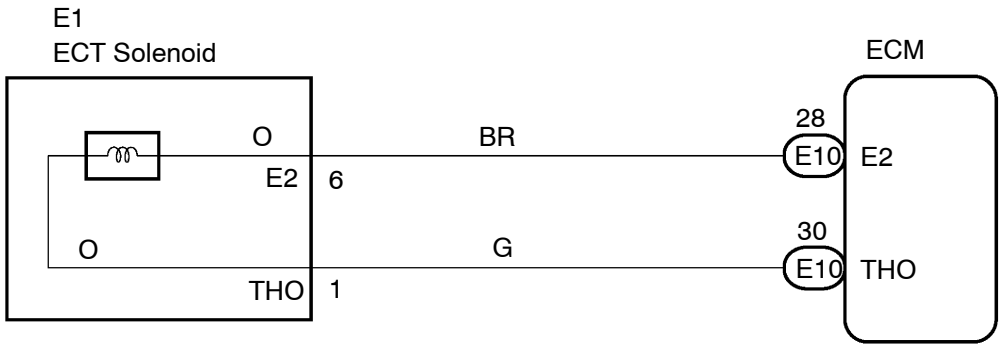
0567Z–01

CIRCUIT DESCRIPTION

The ATF temperature sensor converts the fluid temperature into a resistance value which is input into the ECM.

DTC No.	DTC Detection Condition	Trouble Area
P0710/38	Either (a) or (b) is detected for 0.5 sec. or more: (1 trip detection logic) (c) Temp. sensor resistance is less than 79 Ω (d) After engine has been operating for 15 min. or more, resistance at temp. sensor is more than 156 kΩ	• Open or short in ATF temp. sensor • ATF temp. sensor • ECM
P0711/38	Both (a) and (b) are detected: (2 trip detection logic) (a) After 12 sec. of engine start, temp. of atmosphere and that of engine coolant is more than –10°C (b) After normal driving for over 20 min. and 10 km, ATF temp. is less than 10°C	• Open in ATF temp. sensor • ATF temp. sensor • ECM

WIRING DIAGRAM



D26545

INSPECTION PROCEDURE

HINT:
Start the inspection from step 1 in case of using the hand–held tester and start from step 2 in case of not using hand–held tester.

1 READ VALUE OF HAND–HELD TESTER(THO)

(a) Warm up the engine.
(b) Turn the ignition switch OFF.
(c) Connect the Hand–held tester to the DLC3.
(d) Turn the ignition switch ON and push the Hand–held tester main SW ON.
(e) Select the item ”AT FLUID TEMP” in the DATALIST and read its value displayed on the Hand–held tester.

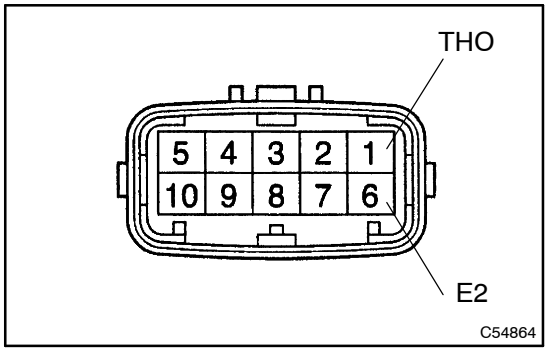
NOTICE:
The values given below for ”Normal Condition” are representative values, so a vehicle may still be normal even if its value differs from those listed here. Do not depend solely on the ”Normal Condition” here when deciding whether or not the part is faulty.

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
AT FLUID TEMP	ATF Temp. Sensor Value/ min.: –40 °C (–40 °F) max.: 225 °C (437 °F)	80 °C (176 °F) (After Stall Test)	If the value is ”–40 °C (–40 °F)” or ”225 °C (437 °F)”, ATF temp. sensor circuit is opened or shorted.

OK → CHECK AND REPLACE ECM(See page 01–31)

NG

2 INSPECT TRANSMISSION WIRE(ATF TEMPERATURE SENSOR)



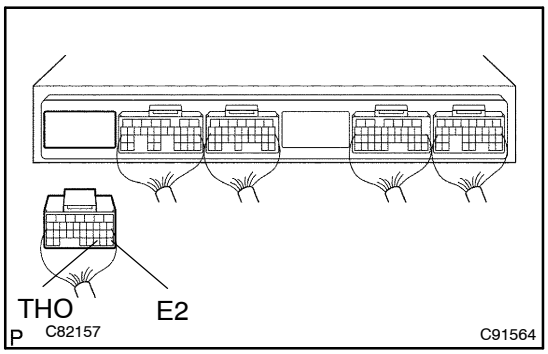
(a) Disconnect the transmission wire connector from the transaxle.
(b) Measure the resistance between terminals THO and E2.
OK:

Temperature: °C (°F)	Resistance: kΩ
10 (50)	6.4
110 (230)	0.2

NG → REPAIR OR REPLACE TRANSMISSION WIRE(See page 01–31)

OK

3	CHECK HARNESS AND CONNECTOR(TRANSMISSION WIRE – ECM)



(a) Connect the transmission wire connector from the transaxle.
(b) Disconnect the ECM connector.
(c) Measure resistance between terminals THO and E2.
OK:

Temperature: °C (°F)	Resistance: kΩ
10 (50)	6.4
110 (230)	0.2

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

OK

CHECK AND REPLACE ECM(See page 01–31)