DIAUJ–01

DTC	P07 10/38	Transmission Fluid Temperature Sensor ”A” Circuit

DTC	P07 12/38	Transmission Fluid Temperature Sensor ”A” Circuit Low Input

DTC	P07 13/38	Transmission Fluid Temperature Sensor ”A” Circuit High Input

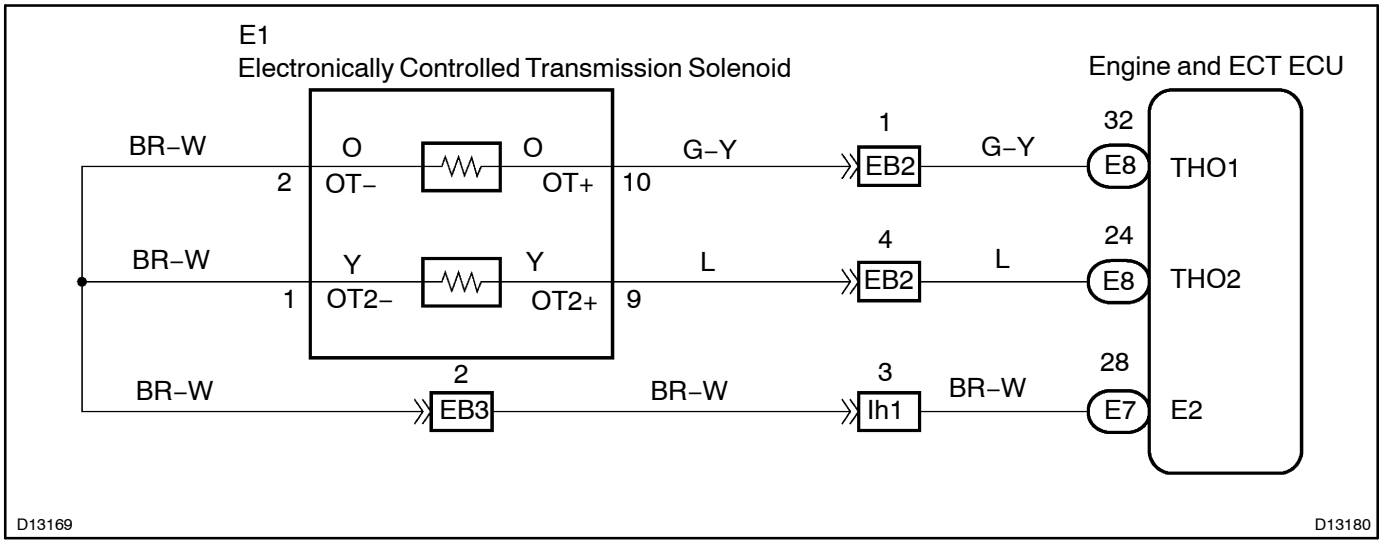
DTC	P2743/38	Transmission Fluid Temperature Sensor ”B” Circuit High Input

CIRCUIT DESCRIPTION

The ATF temperature sensor converts fluid temperature into a resistance value which is input into the Engine and ECT ECU.

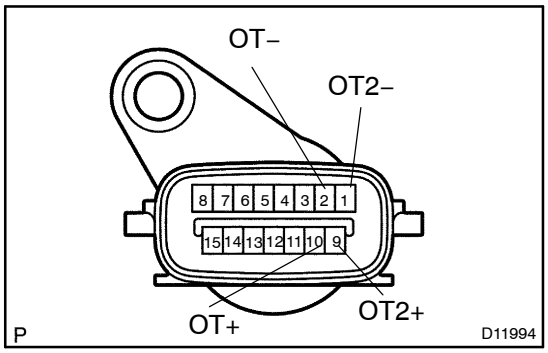
DTC No.	DTC Detecting Condition	Trouble Area
P0710/38	(a) and (b) is detected momentary within 0.5 sec. when neither P0712 or P07 13 is not detected (1–trip detection logic) (a) ATF temperature sensor resistance is less than 79 Ω. (b) ATF temperature sensor resistance is more than 156 k Ω. HINT: Wthin 0.5 sec. the malfunction switches from (a) to (b) or from (b) to (a)	• Open or short in ATF temperature sensor No. 1 circuit • ATF temperature sensor No. 1 • Engine and ECT ECU
P0712/38	ATF temperature sensor resistance is less than 79 Ω. for 0.5 sec. or more (1–trip detection logic)	
P0713/38	DTC is detected for 0.5 sec. or more (1–trip detection logic) ATF temperature sensor resistance is more than 156 k Ω. after started engine for 15 minutes or more	
P2743/38	DTC is detected for 0.5 sec. or more (1–trip detection logic) ATF temperature sensor resistance is more than 156 k Ω. after started engine for 15 minutes or more	• Open in ATF temperature sensor No. 2 circuit • ATF temperature sensor No. 2 • Engine and ECT ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check transmission wire.**



PREPARATION:

Disconnect the transmission wire connector from the transmission.

CHECK:

(a) Measure the resistance between terminals OT+ and OT –.

(b) Measure the resistance between terminals OT2+ and OT2–.

OK:

79 Ω – 156 k Ω

CHECK:

(a) Measure resistance between terminals OT+ and OT – of the transmission wire connector and body ground.

(b) Measure resistance between terminals OT2+ and OT2 – of the transmission wire connector and body ground.

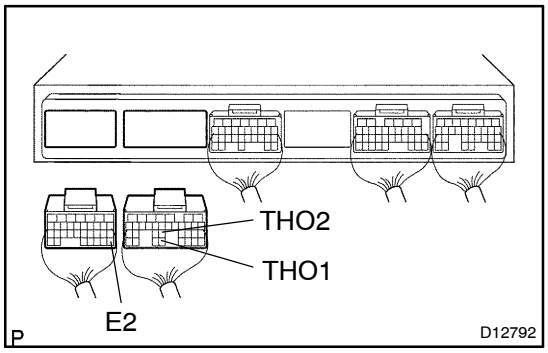
OK:

Resistance: 1 MΩ or higher

NG	**Replace the transmission wire (ATF temperature sensor).**

OK

2	**Measure resistance between terminal THO1, THO2 and E2 of Engine and ECT ECU connector.**



PREPARATION:

(a) Connect the transmission wire connector.

(b) Disconnect the connector of the Engine and ECT ECU.

CHECK:

(a) Measure the resistance between terminals THO1 and E2.

(b) Measure the resistance between terminals THO2 and E2.

OK:

79 Ω – 156 kΩ

CHECK:

Measure resistance between terminals THO1, THO2 and E2 of the Engine and ECT ECU connector and body ground.

OK:

Resistance: 1 MΩ or higher

NG → **Repair or replace the harness or connector (See page IN–38).**

OK

Check and replace the Engine and ECT ECU (See page IN–38).