

DTC	P0710/38	Transmission Fluid Temperature Sensor "A" Circuit
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DTC	P0712/38	Transmission Fluid Temperature Sensor "A" Circuit Low Input
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DTC	P0713/38	Transmission Fluid Temperature Sensor "A" Circuit High Input
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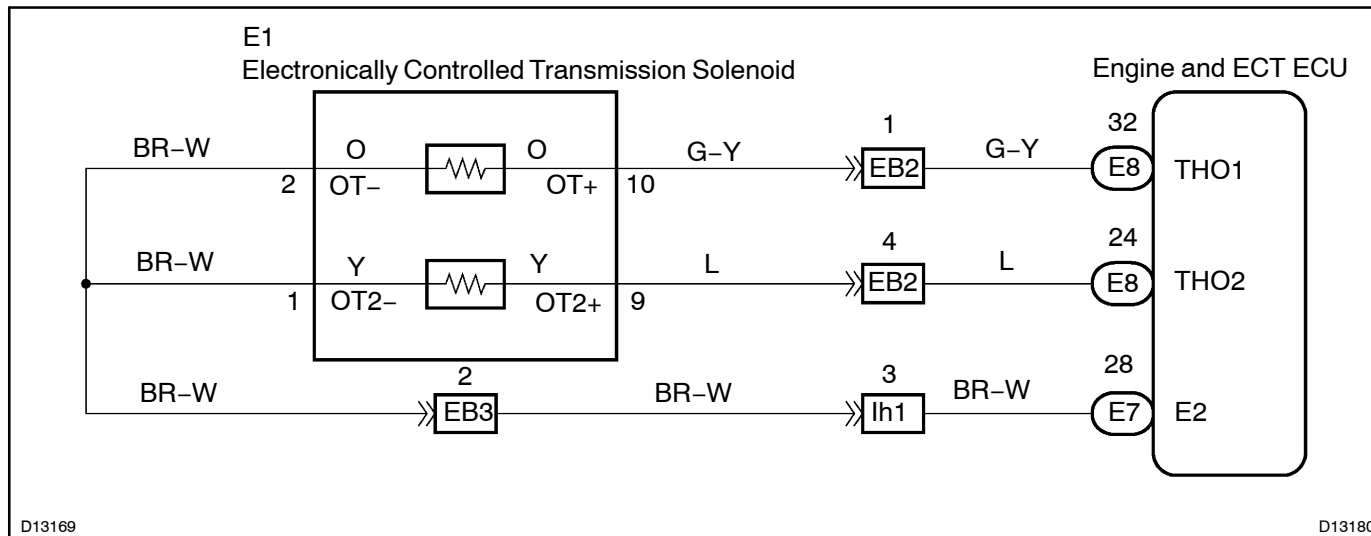
DTC	P2743/38	Transmission Fluid Temperature Sensor "B" Circuit High Input
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CIRCUIT DESCRIPTION

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

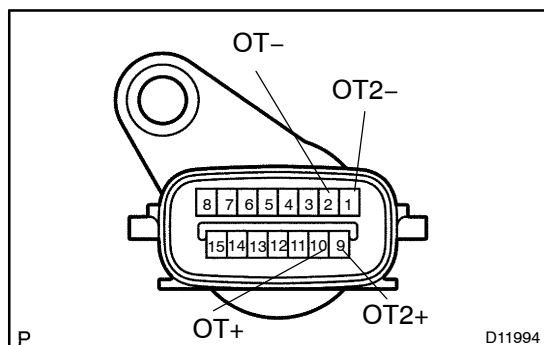
DTC No.	DTC Detecting Condition	Trouble Area
P0710/38	(a) and (b) is detected momentary within 0.5 sec. when neither P0712 or P0713 is not detected (1-trip detection logic) (a) ATF temperature sensor resistance is less than 79 Ω . (b) ATF temperature sensor resistance is more than 156 k Ω . HINT: Within 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:

- Measure the resistance between terminals OT+ and OT-.
- Measure the resistance between terminals OT2+ and OT2-.

OK:

79 Ω – 156 kΩ

CHECK:

- Measure resistance between terminals OT+ and OT- of the transmission wire connector and body ground.
- Measure resistance between terminals OT2+ and OT2- of the transmission wire connector and body ground.

OK:

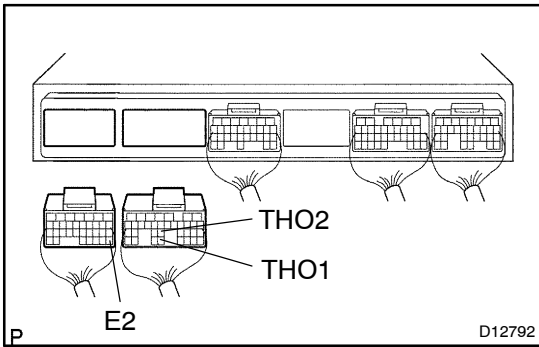
Resistance: 1 MΩ or higher

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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 k Ω

CHECK:

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

OK:

Resistance: 1 M Ω or higher

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**Repair or replace the harness or connector
(See page IN-38).**

OK

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