

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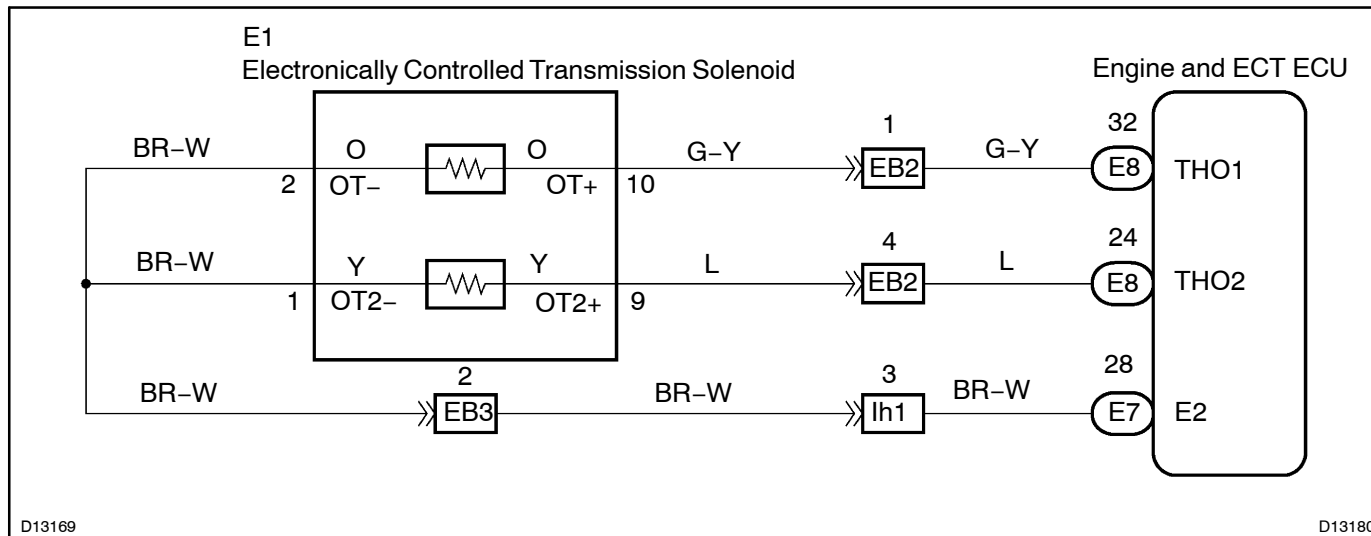
<b>DTC</b>	<b>P2743/38</b>	<b>Transmission Fluid Temperature Sensor "B" Circuit High Input</b>
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## CIRCUIT DESCRIPTION

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

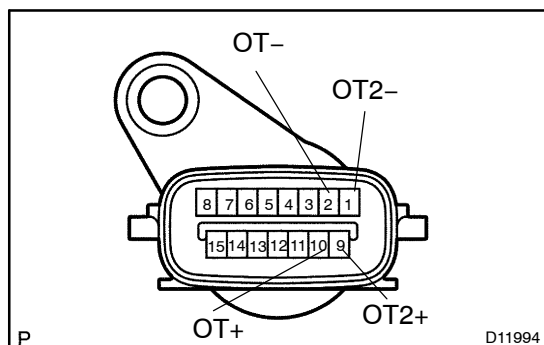
DTC No.	DTC Detecting Condition	Trouble Area
P0710/38	(a) and (b) is detected momentary within 0.5 sec. when neither P0712 or P0713 is not detected (1-trip detection logic) (a) ATF temperature sensor resistance is less than 79 $\Omega$ . (b) ATF temperature sensor resistance is more than 156 k $\Omega$ . HINT: Within 0.5 sec. the malfunction switches from (a) to (b) or from (b) to (a)	<ul style="list-style-type: none"> <li>• Open or short in ATF temperature sensor No. 1 circuit</li> <li>• ATF temperature sensor No. 1</li> <li>• Engine and ECT ECU</li> </ul>
P0712/38	ATF temperature sensor resistance is less than 79 $\Omega$ . 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 $\Omega$ . 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 $\Omega$ . after started engine for 15 minutes or more	<ul style="list-style-type: none"> <li>• Open in ATF temperature sensor No. 2 circuit</li> <li>• ATF temperature sensor No. 2</li> <li>• Engine and ECT ECU</li> </ul>

## 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:**

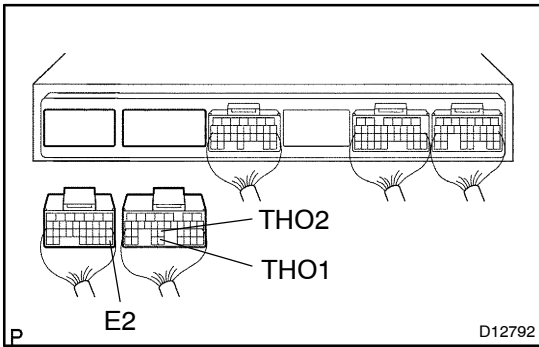
**Resistance: 1 MΩ or higher**

**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  $\Omega$  – 156 k $\Omega$

### CHECK:

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

### OK:

Resistance: 1 M $\Omega$  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).