

DTC	P0710	Transmission Fluid Temperature Sensor "A" Circuit
------------	--------------	--

DTC	P0712	Transmission Fluid Temperature Sensor "A" Circuit Low Input
------------	--------------	--

DTC	P0713	Transmission Fluid Temperature Sensor "A" Circuit High Input
------------	--------------	---

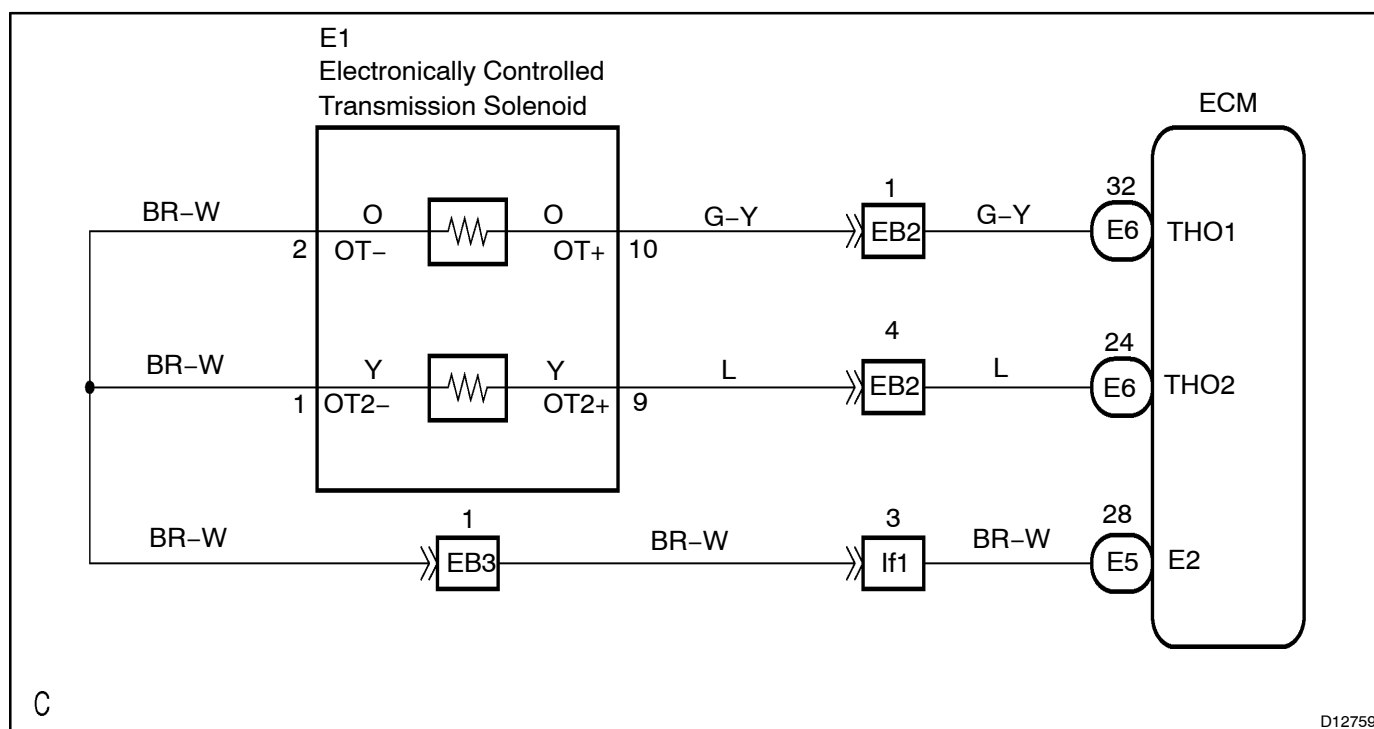
DTC	P2743	Transmission Fluid Temperature Sensor "B" Circuit High Input
------------	--------------	---

CIRCUIT DESCRIPTION

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

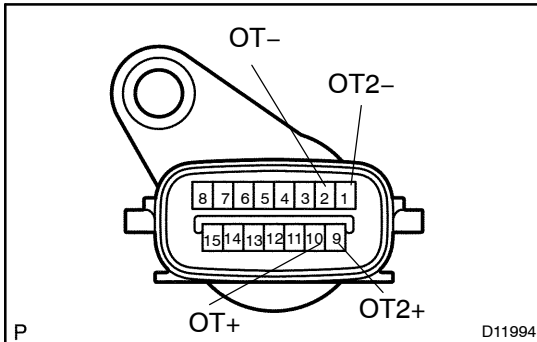
DTC No.	DTC Detecting Condition	Trouble Area
P0710	(a) and (b) is detected momentary within 0.5 sec. when neither P0712 or P0713 is not detected (1-trip detection logic) (a) ATF temperature sensor resistance is less than 79 Ω . (b) ATF temperature sensor resistance is more than 156 k Ω . HINT: Within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

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.

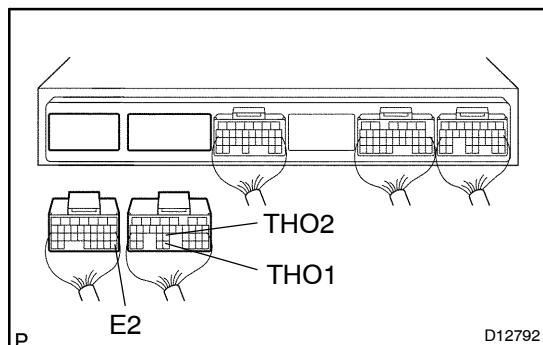
OK:

Resistance: 1 M Ω or higher

NG

Replace the transmission wire (ATF temperature sensor).

OK

2**Measure resistance between terminal THO1, THO2 and E2 of ECM connector.****PREPARATION:**

- (a) Connect the transmission wire connector.
- (b) Disconnect the connector of the ECM.

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 ECM connector and body ground.

OK:**Resistance: 1 M Ω or higher****NG**

Repair or replace the harness or connector
(See page [IN-36](#)).

OK

Check and replace the ECM (See page
[IN-36](#)**).**