DIAVW–01

ATF Temperature Sensor No.2 Circuit

CIRCUIT DESCRIPTION

ATF temperature sensor No.2 is on the transmission and just before the oil cooler inlet pipeline.
If Engine and ECT ECU detects the abnormally high temperature of ATF by this sensor, it draws driver's attention by turning the warning lamp up.
HINT:

- The temperature of ATF easily raises when towing, climbing hills and in stack, etc.
- If the ATF temperature sensor No.2 shorts, the signal that indicates the ATF temperature is 150°C (302°F) or higher is input in Engine and ECT ECU.

Vehicle conditions when sensor is in normal and when the vehicle is in short are indicated in the table below.

ATF Temperature No.2 Sensor State	Detection Condition	Symptom	Recovery Condition
Sensor is normal	• AT fluid temp. more than 150°C (302°F).	• AT Oil Temp. warning light remains on	• AT fluid temp. less than 135°C (275°F). *1
Sensor is in short	• Any conditions.	• AT Oil Temp. warning light remains on	• Symptoms still occur

HINT:
*1: When AT fluid temperature is in normal range, it decreases to less than 135°C within 5 minutes with the shift lever in P or N range in a idling state.

WIRING DIAGRAM

See page DI–1227.

INSPECTION PROCEDURE

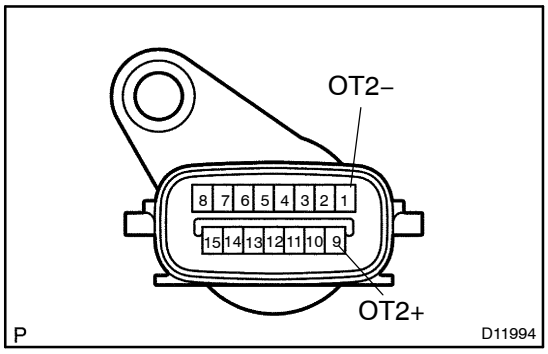
1	**Check A/T oil warning light.**

CHECK:
When parking the vehicle with the shift lever in P or N range, check that the AT oil warning light goes off within 5 minutes.
OK:
AT oil warning light goes off

OK → **END**

NG

2	Check transmission wire.



PREPARATION:

Disconnect the transmission wire connector from the transmission.

CHECK:

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

OK:

Resistance: 1 MΩ or higher

CHECK:

Measure the resistance between terminals OT2+ and OT2–.

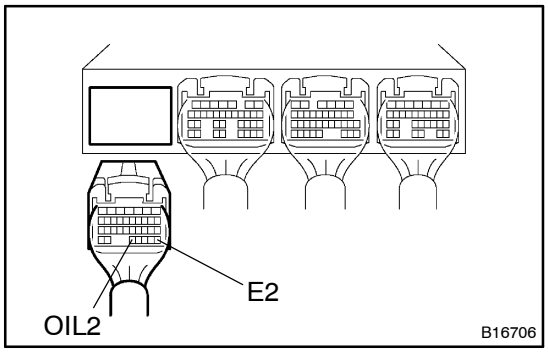
OK:

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

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

OK

3	**Measure resistance between terminal OIL2 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:

Measure the resistance between terminals OIL2 and E2.

OK:

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

CHECK:

Measure resistance between terminals OIL2 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

Proceed to next circuit inspection shown on problem symptoms table (See page DI–119).