DI9SP–01

DTC	24	Intake Air Temperature Sensor Circuit

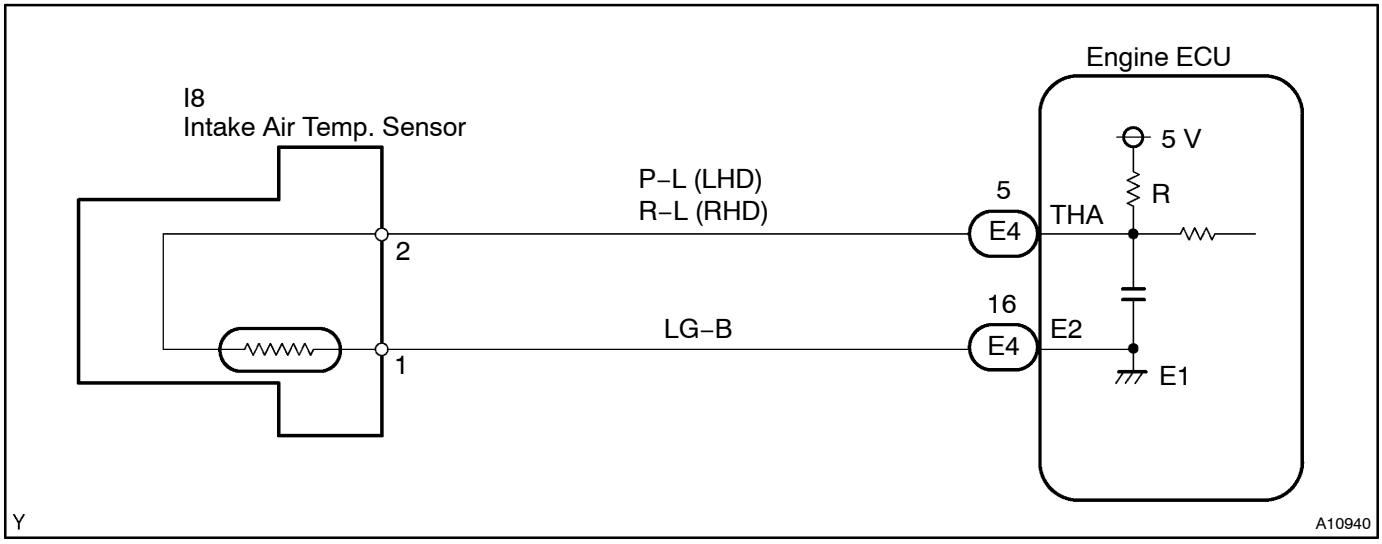
CIRCUIT DESCRIPTION

The intake air temperature sensor is built into the air cleaner cap and senses the intake air temperature. The structure of the sensor and connection to the engine ECU is the same as in the water temperature sensor shown on page DI–183.

If the engine ECU detects the DTC 24, it operates the fail–safe function in which the intake air temperature is assumed to be 20˚C (68˚F).

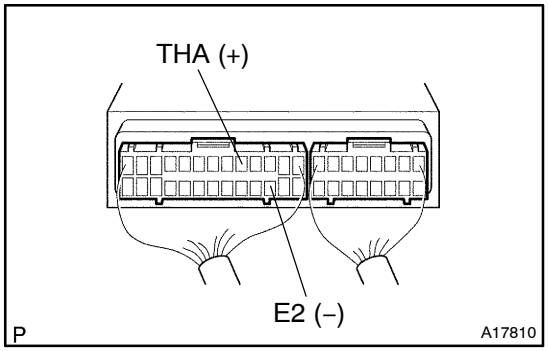
DTC No.	DTC Detection Condition	Trouble Area
24	Open or short in intake air temp. sensor circuit for 0.5 sec or more	• Open or short in intake air temp. sensor circuit • Intake air temp. sensor • Engine ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

1	Check voltage between terminals THA and E2 of engine ECU connecter.



PREPARATION:

(a) Remove the glove compartment.

(b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals THA and E2 of the engine ECU connector.

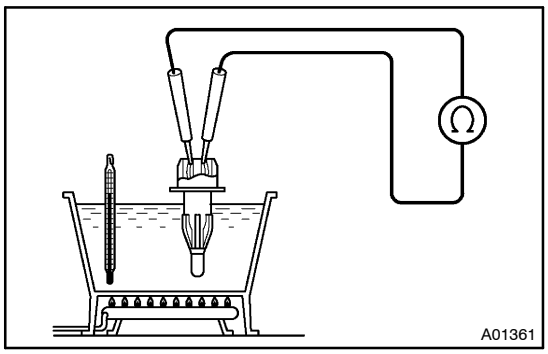
OK:

Intake air temp.	Voltage
20˚C (68˚F)	0.5 – 3.4 V
60˚C (140˚F)	0.2 – 1.0 V

OK	Check for intermittent problems (See page DI–164).

NG

2	Check intake air temperature sensor.



PREPARATION:
Disconnect the intake air temperature sensor connector.
CHECK:
The resistance is within acceptable zone on chat.
OK:

Intake air temp.	Resistance
20°C (68°F)	2 – 3 kΩ
80°C (176°F)	0.2 – 0.4 kΩ

NG → Replace intake air temperature sensor.

OK

3	Check for open and short in harness and connector between engine ECU and Intake air temperature sensor (See page IN–19).

NG → Repair or replace harness or connector.

OK

Check and replace engine ECU.