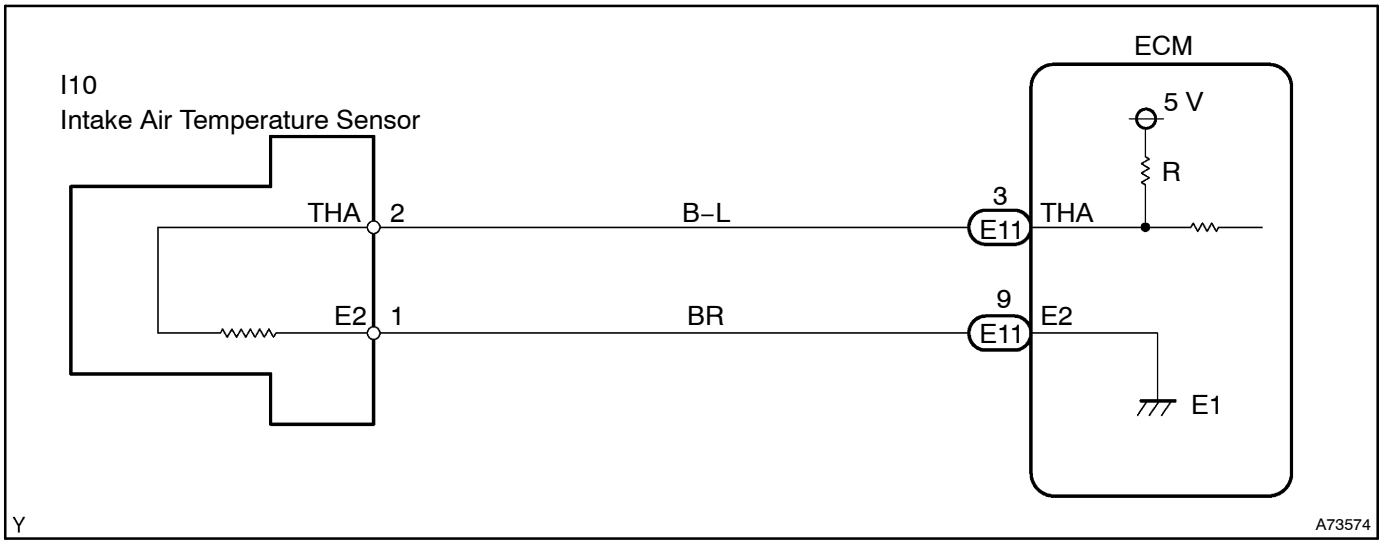
DTC 24 INTAKE AIR TEMP. SENSOR CIRCUIT

CIRCUIT DESCRIPTION

The intake air temperature sensor is built into the air cleaner hose and senses the intake air temperature. The structure of the sensor and connection to the ECM is the same as in the engine coolant temperature sensor shown on page 05–21.

DTC No.	DTC Detecting Condition	Trouble Area
24	Open or short in intake air temperature sensor circuit 0.5 sec. or more	• Open or short in intake air temperature sensor circuit • Intake air temperature sensor • ECM

WIRING DIAGRAM

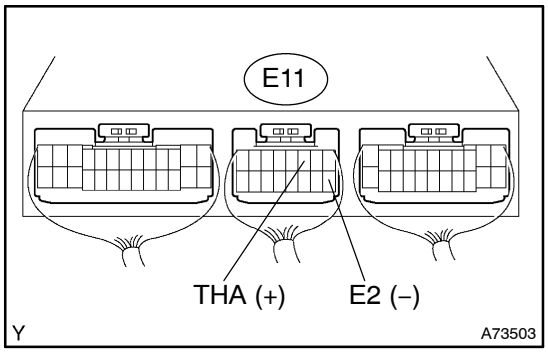


INSPECTION PROCEDURE

HINT:

If different DTCs that are related to different systems are output simultaneously while terminal E2 is used as a ground terminal, terminal E2 may be open.

1	CHECK ECM (THA VOLTAGE)



(a) Turn the ignition switch ON.

(b) Measure the voltage between terminals of E11 ECM connector.

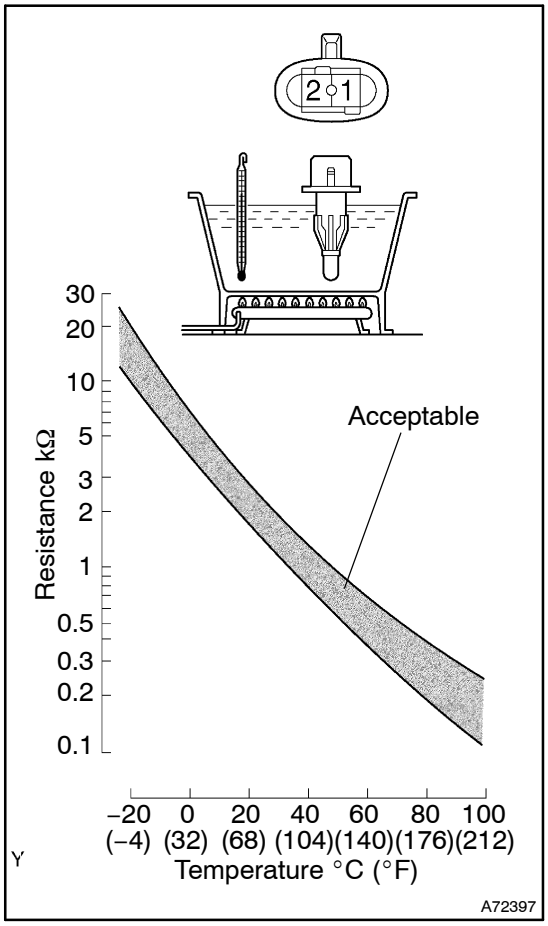
Voltage:

Symbols (Terminal No.)	Water temp.	Specified condition
THA (E11–3) ⇔ E2 (E11–9)	20°C (68°F) (Engine is cool)	0.5 – 3.4 V
	80°C (176°F) (Engine is hot)	0.2 – 1.0 V

OK → **CHECK FOR INTERMITTENT PROBLEMS (See page 05–4)**

NG

2 INSPECT INTAKE AIR TEMPERATURE SENSOR



(a) Measure the resistance between the terminals.
Resistance:

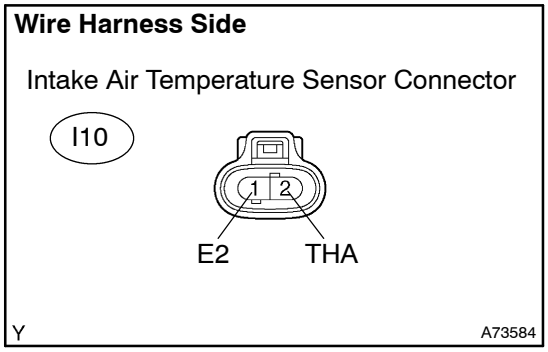
Terminal No.	Specified condition
1 ⇔ 2	2.21 – 2.69 kΩ at 20°C (68°F)

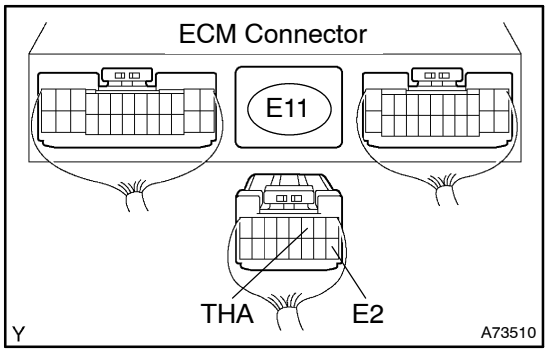
NOTICE:
In case of checking the intake air temperature sensor in the water, be careful not to allow water to go into the terminals, and after checking, wipe out the sensor.

NG → **REPLACE INTAKE AIR TEMPERATURE SENSOR**

OK

3	CHECK HARNESS AND CONNECTOR (INTAKE AIR TEMPERATURE SENSOR ⇔ ECM)





(a) Disconnect I10 intake air temperature sensor connector.
(b) Disconnect the E11 ECM connector
(c) Check the continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
THA (I10–2) ⇔ THA (E11–3)	Continuity
E2 (I10–1) ⇔ E2 (E11–9)	

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
THA (I10–2) or THA (E11–3) ⇔ Other terminals and body ground	No continuity

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CHECK AND REPLACE ECM (See page 01–36)