DTC	P0141/27	OXYGEN SENSOR HEATER CIRCUIT MALFUNCTION (BANK 1 SENSOR 2)

CIRCUIT DESCRIPTION

Refer to DTC P0136/27 on page 05–178.

DTC No	DTC Detecting Condition	Trouble Area
P0141/27	• When heater operates, heater current exceeds 2 A (2 trip detection logic) • Heater current of 0.2 A or less when heater operates (2 trip detection logic)	• Open or short in heater circuit of heated oxygen sensor • Oxygen sensor • ECM

HINT:

- Bank 1 refers to the bank that includes cylinder No. 1.
- Sensor 2 refers to the sensor being farther from the engine body.

WIRING DIAGRAM

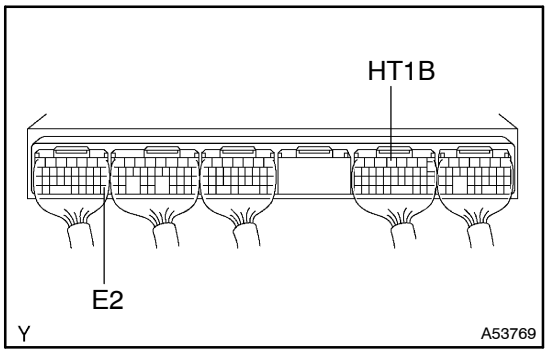
Refer to DTC P0136/27 on page 05–178.

INSPECTION PROCEDURE

HINT:

Read freeze frame data using the hand–held tester, as freeze frame data records the engine conditions when the malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air–fuel ratio was lean or rich, etc. at the time of the malfunction.

1	INSPECT ECM

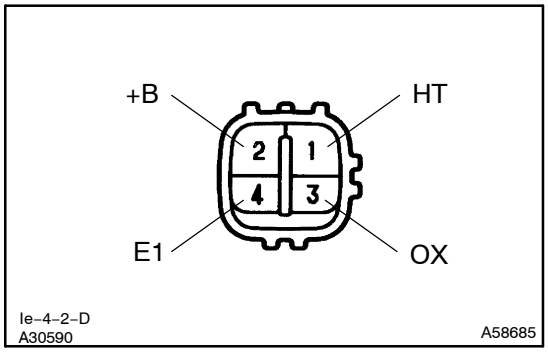


(a) Turn the ignition switch ON.
(b) Measure the voltage between terminals HT1B and E2 of the ECM connector.
Voltage: 9 – 14 V

OK → **CHECK AND REPLACE ECM**

NG

2 INSPECT OXYGEN SENSOR(OXYGEN SENSOR HEATER)

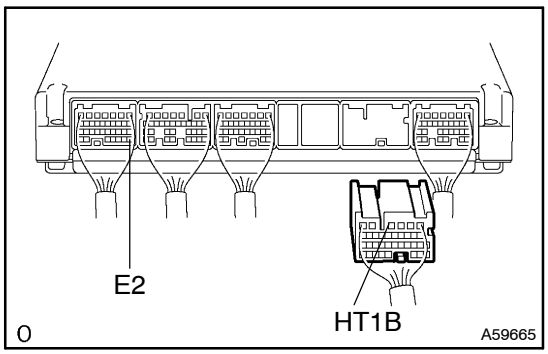


(a) Disconnect the oxygen sensor connector.
(b) Measure resistance between the terminal HT and +B of the oxygen sensor.
Resistance: 11 – 16 Ω

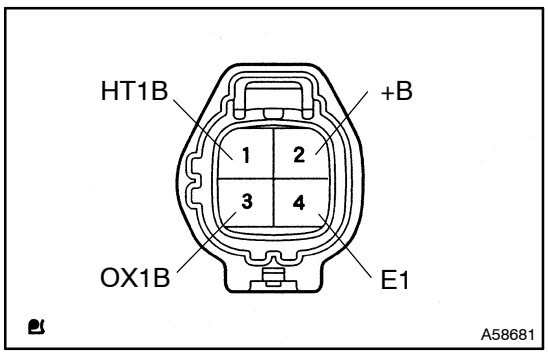
NG → **REPLACE OXYGEN SENSOR**

OK

3 CHECK WIRE HARNESS OR CONNECTOR(ECM–OXYGEN SENSOR)



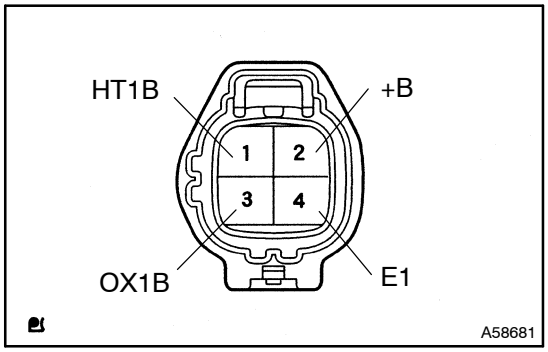
(a) Disconnect the oxygen sensor connector.
(b) Disconnect the ECM E7 connector.
(c) Check continuity between the terminals HT1B of the ECM connector and HT1B of the oxygen sensor connector.
Resistance: 1 Ω or less
(d) Check for short between the terminals HT1B and E2 of the ECM connector.
Resistance: 1 MΩ or more



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

OK

4	CHECK WIRE HARNESS OR CONNECTOR(OXYGEN SENSOR–E.F.I. ECU RELAY)



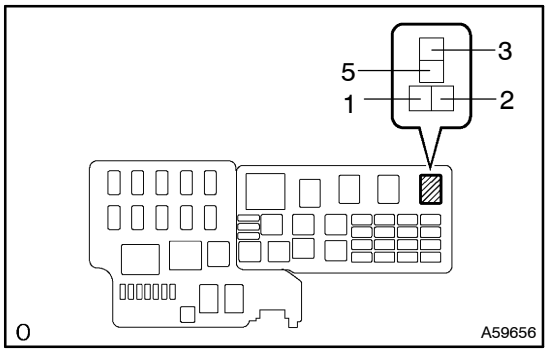
(a) Disconnect the battery negative (–) terminal.
(b) Disconnect the oxygen sensor connector.
(c) Remove the E.F.I. ECU relay.

NOTICE:

Do not insert the tester leads hard in procedure (d), or the holder may be damaged.

(d) Check continuity between the terminals HT1B of the oxygen sensor connector and E.F.I. ECU relay installation relay block.

Resistance: 1 Ω or less



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

OK

CHECK FOR ECM POWER SOURCE CIRCUIT