

DTC	P0136	HEATED OXYGEN SENSOR CIRCUIT MALFUNCTION(BANK1 SENSOR2)
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DTC	P0156	HEATED OXYGEN SENSOR CIRCUIT MALFUNCTION (BANK2 SENSOR2)
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CIRCUIT DESCRIPTION

Refer to DTC P0125 on page [05-52](#) .

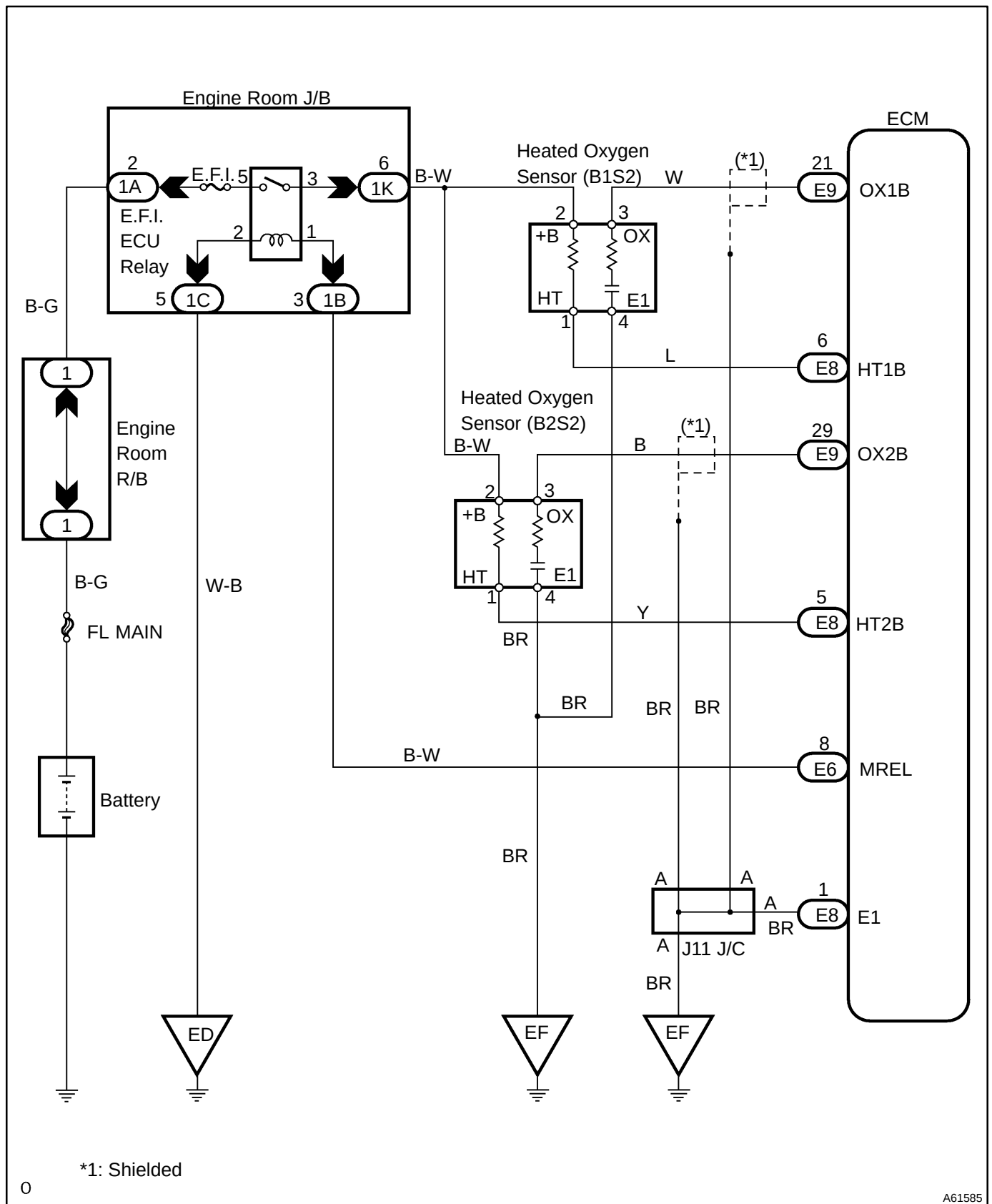
DTC No	DTC Detecting Condition	Trouble Area
P0136 P0156	Condition (a) and (b) continues for 60 secs. or more: (a) Voltage output of oxygen sensor remains at 0.35 V or more, or 0.55 V or less, during idling after engine is warmed up (b) Oxygen sensor output voltage amplitude is less than 0.3 V.	• Oxygen sensor • Fuel trim malfunction

HINT:

After confirming DTC P0125, use the hand-held tester to confirm voltage output of the oxygen sensor (bank 1 sensor 2) from the CURRENT DATA.

If voltage output of the oxygen sensor (bank 1 sensor 2) is less than 0.1 V, oxygen sensor (bank 1 sensor 2) circuit may be open or short.

WIRING DIAGRAM



A61585

INSPECTION PROCEDURE

NOTICE:

If the vehicle run out of fuel, the air-fuel ratio becomes LEAN and DTC P0125 will be recorded. and the check engine warning light then comes on.

HINT:

Read freeze frame data using hand-held tester. Because freeze frame 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 warmed up or not, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

1 CHECK OTHER DTC OUTPUT(BESIDES DTC P0136, P0156)

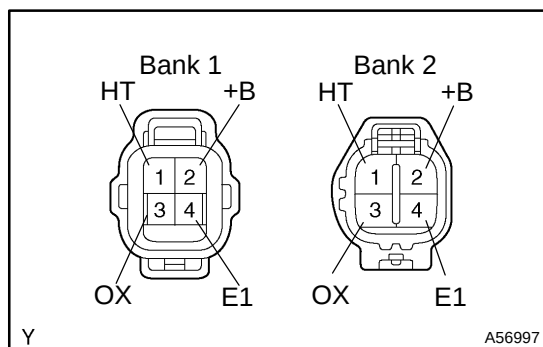
- (a) Read the DTC using the hand-held tester or OBDII scan tool.

YES

GO TO RELEVANT DTC CHART

NO

2 CHECK HARNESS AND CONNECTOR(ECM - OXYGEN SENSOR)

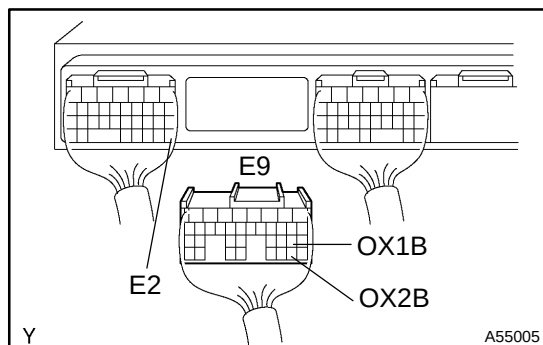


- (a) Disconnect the oxygen sensor connector.
 (b) Disconnect the ECM E9 connector.
 (c) Check continuity between the terminals OX1B and OX2B of the ECM connector and OX of the oxygen sensor connector.

Resistance: 1 Ω or less

- (d) Check for short between the terminals OX1B, OX2B and E2 of the ECM connector.

Resistance: 1 M Ω or more



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REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

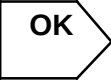
3 READ VALUE OF OBD II SCAN TOOL OR HAND-HELD TESTER(OXIGEN SENSOR)

- (a) Connect the OBD II scan tool or hand-held tester to the DLC3.
 (b) Warm up the engine to normal operating temperature.
 (c) Read the voltage output of the heated oxygen sensor when the engine is suddenly raced.

HINT:

Perform quick racing to 4,000 rpm 3 min. using the accelerator pedal.

Heated oxygen sensor output voltage: Alternates from 0.4 V or less to 0.6 V or more.

OK

CHECK THAT EACH CONNECTOR IS
PROPERLY CONNECTED

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REPLACE OXYGEN NO.2 SENSOR