

<b>DTC</b>	<b>P0125</b>	<b>Insufficient Coolant Temp. for Closed Loop Fuel Control</b>
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### CIRCUIT DESCRIPTION

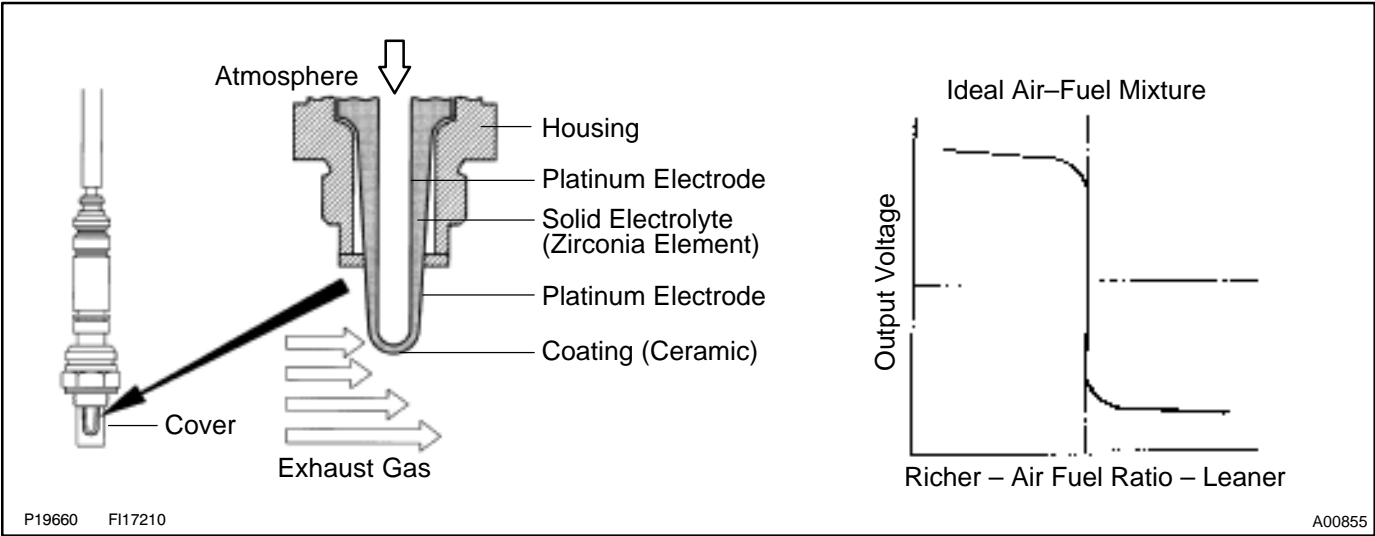
To obtain a high purification rate for the CO, HC and NOx components of the exhaust gas, a three-way catalytic converter is used, but for the most efficient use of the three-way catalytic converter, the air–fuel ratio must be precisely controlled so that it is always close to the stoichiometric air–fuel ratio.

The oxygen sensor has the characteristic whereby its output voltage changes suddenly in the vicinity of the stoichiometric air–fuel ratio. This characteristic is used to detect the oxygen concentration in the exhaust gas and provide feedback to the computer for control of the air–fuel ratio.

When the air–fuel ratio becomes LEAN, the oxygen concentration in the exhaust increases and the oxygen sensor informs the ECM of the LEAN, condition (small electromotive force: 0 V).

When the air–fuel ration is RICHER than the stoichiometric air–fuel ratio the oxygen concentration in the exhaust gas is reduced and the oxygen sensor informs the ECM of the RICH condition (large electromotive force: 1 V).

The ECM judges by the electromotive force from the oxygen sensor whether the air–fuel ratio is RICH or LEAN and controls the injection time accordingly. However, if malfunction of the oxygen sensor causes output of abnormal electromotive force, the ECM is unable to perform accurate air–fuel ratio control.



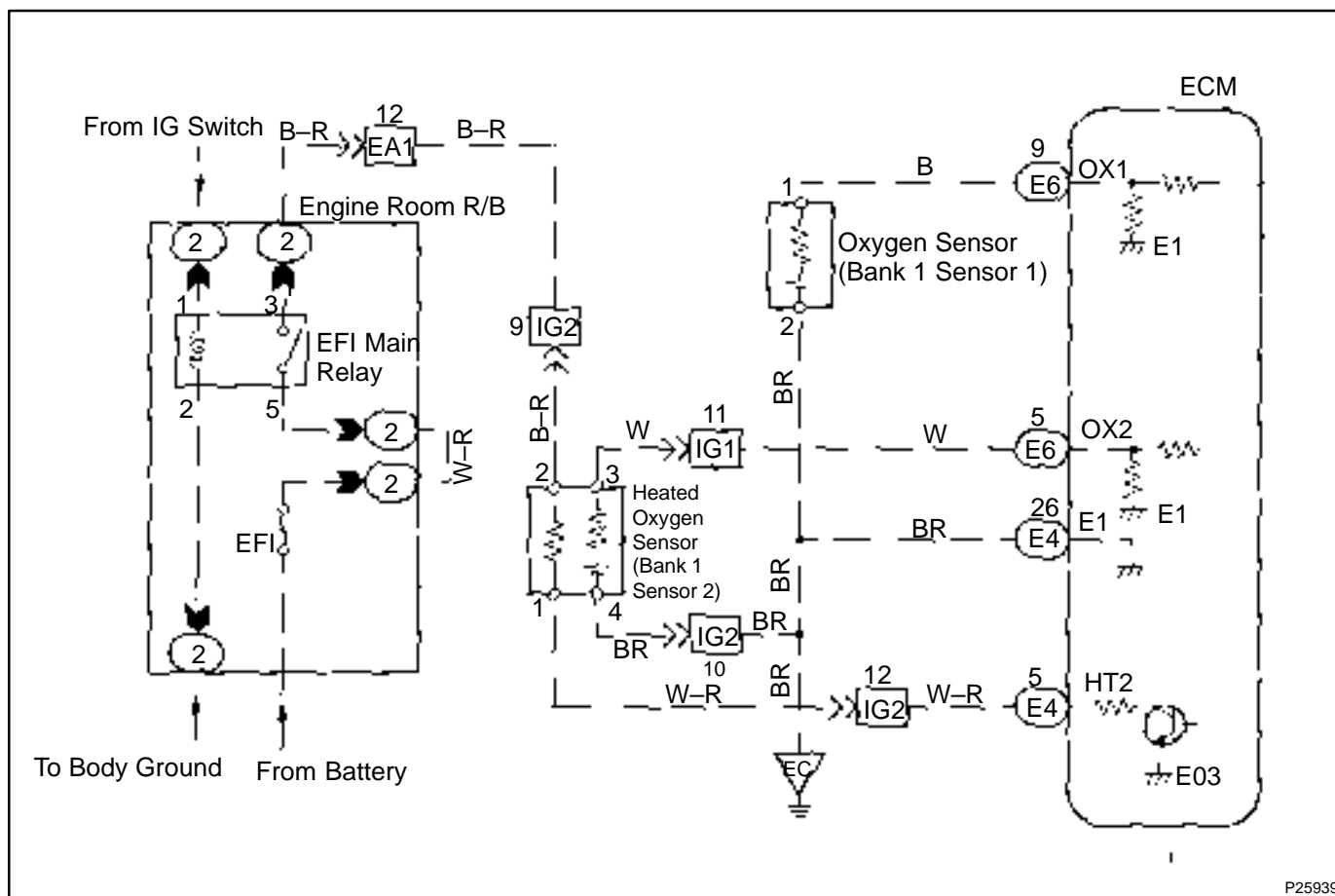
DTC No.	DTC Detecting Condition	Trouble Area
P0125	<p>After the engine is warmed up, heated oxygen sensor (bank 1 sensor 1) output does not indicate RICH even once when conditions (a), (b), and (c) continue for at least 1.5 min.</p> <p>(a) Engine speed: 1,500 rpm or more</p> <p>(b) Vehicle speed: 40 – 100 km/h (25 – 62 mph)</p> <p>(c) Throttle valve does not fully closed</p>	<ul style="list-style-type: none"> <li>• Open or short in heated oxygen sensor (bank 1 sensor 1) circuit</li> <li>• Heated oxygen sensor (bank 1 sensor 1)</li> <li>• ECM</li> </ul>

**HINT:**

After confirming DTC P0125, use the OBD II scan tool or TOYOTA hand–held tester to confirm voltage output of oxygen sensor from "CURRENT DATA".

If voltage output of oxygen sensor is 0 V, oxygen sensor circuit may be open or short.

## WIRING DIAGRAM



P25939

## INSPECTION PROCEDURE

- |          |                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>Connect the OBD II scan tool or TOYOTA hand-held tester and read value for voltage output of oxygen sensor.</b> |
|----------|--------------------------------------------------------------------------------------------------------------------|

**PREPARATION:**

- Remove the fuse cover on the instrument panel.
- Connect the OBD II scan tool or TOYOTA hand-held tester to the DLC3.
- Warm up engine to normal operating temperature.

**CHECK:**

Read voltage output of heated oxygen sensor (bank 1 sensor 1) when engine is suddenly raced.

**HINT:**

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

**OK:**

Oxygen sensor output a RICH signal (0.45 V or more) at least once.

OK

Check and replace ECM (See page [IN-27](#)).

NG

2	Check for open and short in harness and connector between ECM and oxygen sensor (bank 1 sensor 1) (See page <a href="#">IN-27</a> ).
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**NG****Repair or replace harness or connector.****OK****Replace oxygen sensor.**