

DTC	P0130	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 1)
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CIRCUIT DESCRIPTION

Refer to DTC P0125 (Insufficient Coolant Temp. for Closed Loop Fuel Control) on page [DI-43](#) .

DTC No.	DTC Detecting Condition	Trouble Area
P0130	Voltage output of oxygen sensor remains at 0.4 V or more, or 0.55 V or less, during idling after the engine is warmed up (2 trip detection logic)	<ul style="list-style-type: none"> • Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • ECM

HINT:

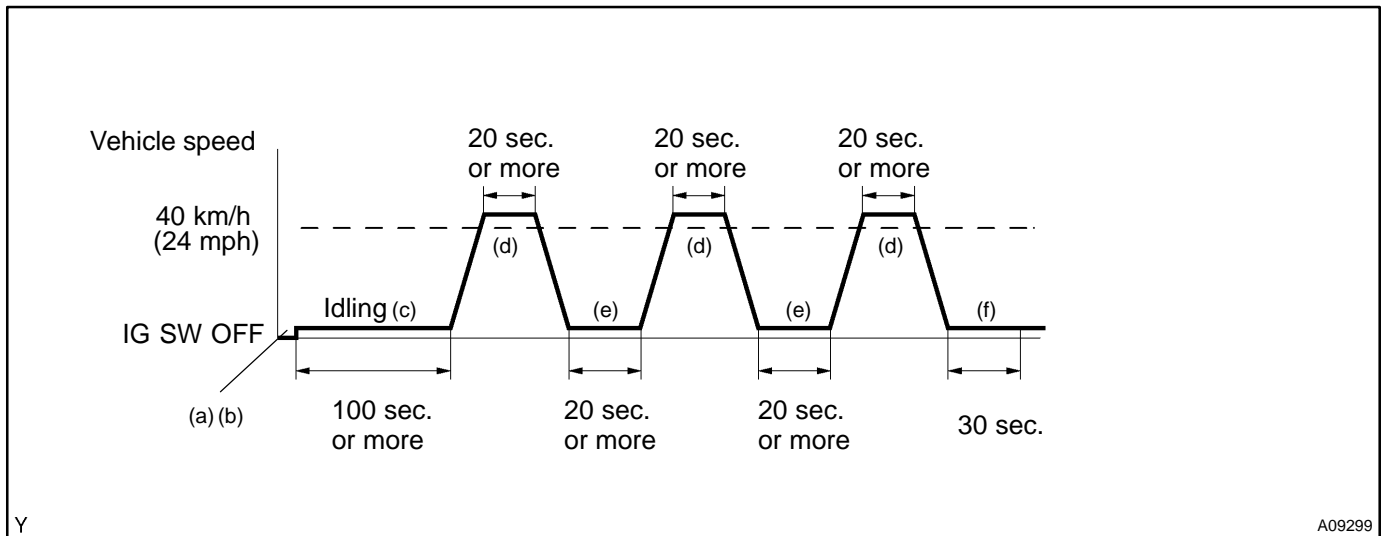
Sensor 1 refers to the sensor closer to the engine body.

The oxygen sensor's output voltage and the short-term fuel trim value can be read using the OBD II scan tool or TOYOTA hand-held tester.

WIRING DIAGRAM

Refer to DTC P0125 (Insufficient Coolant Temp. for Closed Loop Fuel Control) on page [DI-43](#) for the WIRING DIAGRAM.

CONFIRMATION DRIVING PATTERN



- (a) Connect the TOYOTA hand-held tester to the DLC3.
- (b) Switch the TOYOTA hand-held tester from normal mode to check mode (See page [DI-3](#)).
- (c) Start the engine and let the engine idle for 100 sec. or more.
- (d) Drive the vehicle at 40 km/h (24 mph) or more for 20 sec. or more.
- (e) Let the engine idle for 20 sec. or more.
- (f) Let the engine idle for 30 sec.

HINT:

If a malfunction exists, the MIL will light up during step (f).

NOTICE:

If the conditions in this test are not strictly followed, detection of the malfunction will not be possible. If you do not have a TOYOTA hand-held tester, turn the ignition switch OFF after performing steps (c) to (f), then perform steps (c) to (f) again.

INSPECTION PROCEDURE

HINT:

Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool. 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	Are there any other codes (besides DTC P0130) being output?
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YES

Go to relevant DTC chart (See page [DI-14](#)).

NO

2 Check the output voltage of oxygen sensor during idling.

PREPARATION:

Warm up the oxygen sensor the engine at 2,500 rpm for approx. 90 sec.

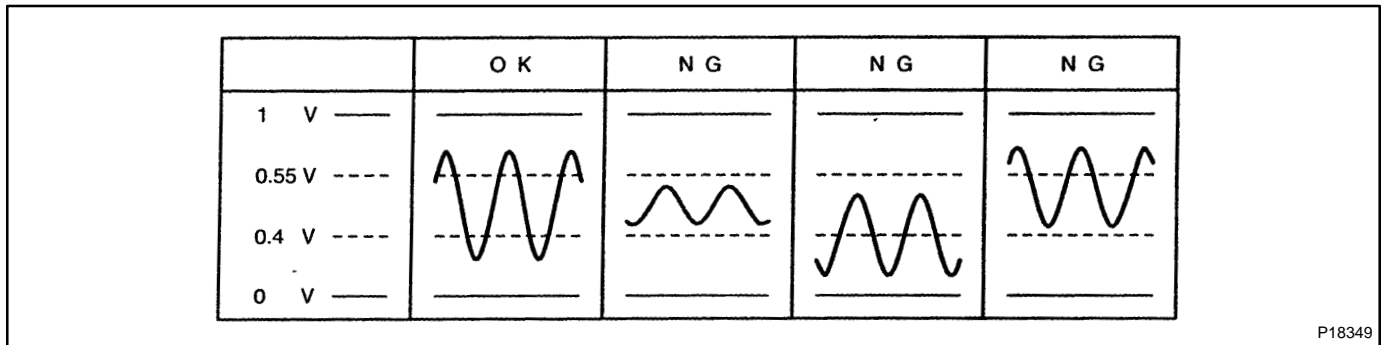
CHECK:

Use the OBD II scan tool or TOYOTA hand-held tester read the output voltage of the oxygen sensor during idling.

OK:

Oxygen sensor output voltage:

Alternates repeatedly between less than 0.4 V and more than 0.55 V (See the Following table).



OK → Perform confirmation driving pattern (See page [DI-48](#)).

NG

3 Check for open and short in harness and connector between ECM and oxygen sensor (bank 1 sensor 1) (See page [IN-19](#)).

NG → Repair or replace harness or connector.

OK

4 Check air induction system (See page [SF-1](#)).

NG → Repair or replace induction system.

OK

5 Check fuel pressure (See page [SF-6](#)).

NG Check and repair fuel pump, fuel pipe line and filter (See page [SF-1](#)).

OK

6 Check injector injection (See page [SF-21](#)).

NG Replace injector.

OK

Replace oxygen sensor (bank 1 sensor 1).

7 Perform confirmation driving pattern (See page [DI-48](#)).

Go

8 Are there DTC P0130 being output again?

YES Check for intermittent problems (See page [DI-3](#)).

NO

Check and replace ECM (See apge [IN-29](#)).