DI6V6-04

DTC		Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	
-----	--	---	--

# **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
P0136	Voltage output of the heated oxygen sensor remains at 0.40 V or more, or 0.50 V or less when the vehicle is driven at 40 km/h (25 mph) or more after the engine is warmed up. (2 trip detection logic).	Open or short in heated oxygen sensor circuit Heated oxygen sensor

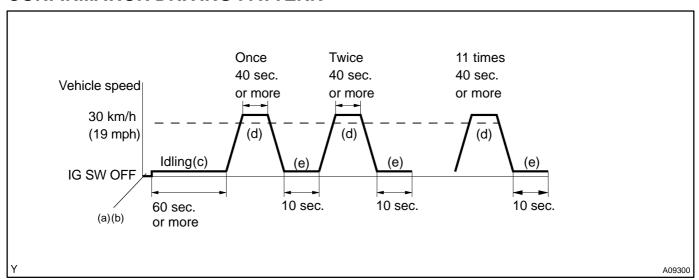
#### HINT:

Sensor 2 refers to the sensor farther away from the engine body.

## WIRING DIAGRAM

Refer to DTC P0125 (Insufficient Coolant Temp. for Closed Loop Fuel Control) on page DI-43 for the WIR-ING DIAGRAM.

## CONFIRMATION DRIVING PATTERN



- (a) Connect the hand-held tester to the DLC3.
- (b) Switch the hand-held tester from the Normal Mode to the Check (Test) Mode (See page DI-3).
- (c) Start the engine and let the engine idle for 60 seconds or more.
- (d) Drive the vehicle at 30 km/h (18 mph) or more for 40 seconds or more.
- (e) Let the engine idle for 10 seconds or more.
- (f) Preform steps (d) to (e) 11 times.

## HINT:

If a malfunction exists, the CHK ENG (MIL) will be indicated on the multi information display 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 hand-held tester, turn the ignition switch OFF after performing steps (c) to (f), then perform steps (c) to (f) again.

2002 ECHO (RM884U)

Author: Date: 227

## 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 P0136) being output?

YES

Go to relevant DTC chart.

NO

2 Check for open and short in harness and connector between ECM and oxygen sensor (See page IN-29).

NG

Repair or replace harness or connector.

OK

3 Check output voltage of oxygen sensor.

#### PREPARATION:

- (a) Connect the OBD II scan tool or TOYOTA hand-held tester to the DLC3.
- (b) Warm up the engine to normal operating temp.

## **CHECK:**

Read voltage output of oxygen sensor when engine suddenly raced.

HINT

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

#### OK:

Oxygen sensor output voltage: Alternates from 0.40 V or less to 0.50 V or more.

ok \

Check that each connector is properly connected.

NG

Replace oxygen sensor.

2002 ECHO (RM884U)

Author: Date: 228