DI560-02

DTC	P0133	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	
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(Bank 2 Sensor 1)	DTC		Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)
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CIRCUIT DESCRIPTION

Refer to DTC P0125 on page DI-207.

DTC No.	DTC Detecting Condition	Trouble Area
		Open or short in heated oxygen sensor circuit
	Response time for heated oxygen sensor's voltage output to	Heated oxygen sensor
P0133	change from rich to lean, or from lean to rich, is 1.1 sec. or	Air induction system
P0153	more during idling after engine is warmed up (2 trip detection	• Fuel pressure
	logic)	• Injector
		• ECM

HINT:

- Bank 1 refers to bank that includes cylinder No.1.
- Bank 2 refers to bank that does not include cylinder No.1.
- Sensor 1 refers to the sensor closer to the engine body.

WIRING DIAGRAM

Refer to DTC P0125 on page DI-207.

INSPECTION PROCEDURE

HINT:

Read freeze frame data using LEXUS 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 was warmed up or not, the air-fuel ratio was lean or rich, etc. at the time of the malfunction.

1 Are there any other codes (besides DTC P0133 or P0153) being output?

YES

Go to relevant DTC chart (See page DI-175).

NO

2 Check output voltage of heated oxygen sensor during idling.

PREPARATION:

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

2000 LEXUS SC300/SC400 (RM715U)

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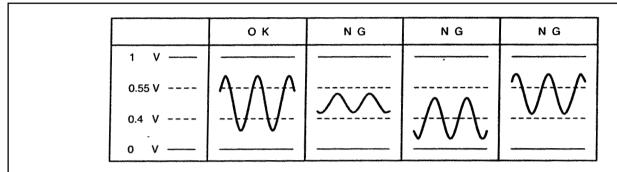
CHECK:

Use the OBD II scan tool or LEXUS hand-held tester to read the output voltage of the heated oxygen sensors during idling.

OK:

Heated oxygen sensor output voltage:

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



P18349

OK

Go to step 7.

NG

Check for open and short in harness and connector between ECM and heated oxygen sensor (See page IN-30).

NG

Repair or replace harness or connector.

OK

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

NG

Repair or replace.

OK

5 Check fuel pressure (See page SF-5).

NG

Check and repair fuel pump, pressure regulator, fuel pipe line and filter (See page SF-5).

OK

6 Check injector injection (See page SF-24).

NG

Replace injector.

OK

Replace heated oxygen sensor.

7 Perform confirmation driving pattern (See page DI-212).

Go

8 Is there DTC P0133 or P0153 being output again?

NO

Check for intermittent problems (see page DI-164).

YES

Check and replace ECM (See page IN-30).

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