DTC	P0135	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)

DTC	P0141	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)

DTC	P0155	Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 1)

DTC	P0161	Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)

CIRCUIT DESCRIPTION

Refer to DTC P0125 on page DI–113.

DTC No.	DTC Detecting Condition	Trouble Area
P0135 P0141	When the heater operates, heater current exceeds 2 A (2 trip detection logic)	• Open or short in heater circuit of oxygen sensor • Oxygen sensor heater • Engine ECU
P0155 P0161	Heater current of 0.2 A or less when the heater operates (2 trip detection logic)	

WIRING DIAGRAM
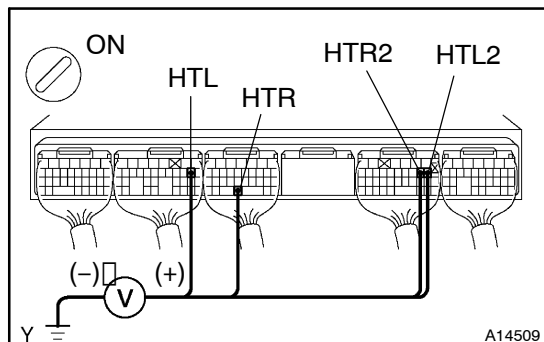
Refer to DTC P0125 on page DI–113.

INSPECTION PROCEDURE

HINT:
Read freeze frame data using OBD scan tool or 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 voltage between terminals HTR, HTR2, HTL, HTL2 of engine ECU connector and body ground.

PREPARATION:
(a) Remove the engine ECU hood and cover (See page FI−74).
(b) Turn the ignition switch ON.

CHECK:
Measure the voltage between terminals HTR, HTR2, HTL, HTL2 of the engine ECU connector and body ground.
HINT:
• Connect terminal HTL to bank 1 sensor 1.
• Connect terminal HTR to bank 2 sensor 1.
• Connect terminal HTL1 to bank 1 sensor 2.
• Connect terminal HTR2 to bank 2 sensor 2.

OK:
　　Voltage: 9 – 14 V

OK	Check and replace engine ECU (See page IN−30).

NG

2	Check resistance of oxygen sensor heater (See page FI−67).

NG	Replace oxygen sensor.

OK

Check and repair harness or connector between main relay and oxygen sensor and engine ECU (See page IN−30).