DTC	31	Sub Fuel Pump Circuit Malfunction

CIRCUIT DESCRIPTION

Refer to DTC 11 on page DI–90.

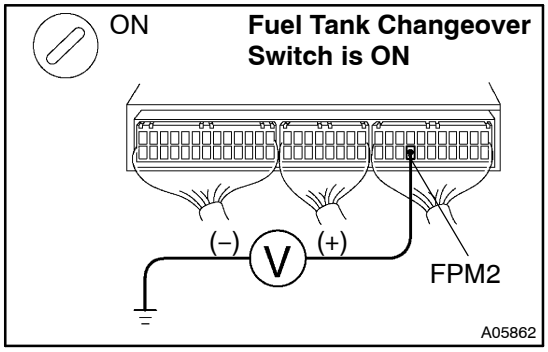
DTC No.	DTC Detection Condition	Trouble Area
31	Conditions (a), (b) and (c) continue: (a) Fuel tank changeover switch ON (Voltage of FPMS terminal is high) (b) Voltage of FPM1 terminal is low (c) Voltage of FPM2 terminal is low	• Open or short in sub fuel pump circuit • Sub fuel pump • Fuel tank select relay • Fuel pump relay • Circuit opening relay • Engine ECU

WIRING DIAGRAM

Refer to DTC 11 on page DI–90.

INSPECTION PROCEDURE

1	**Check voltage between terminal FPM2 of engine ECU connector and body ground.**



PREPARATION:

(a) Remove the glove compartment (See page IN–19).
(b) Turn the ignition switch ON.
(c) Push the fuel tank changeover switch ON.

CHECK:

Turn the ignition switch ON, and after 4 seconds or more, measure the voltage between terminal FPM2 of the engine ECU connector and body ground.

OK:

Voltage: 9 – 14 V

OK	**Go to step 5.**

NG

2	**Check fuel tank select relay (See page FI–46).**

NG	**Replace fuel tank select relay.**

OK

3	**Check fuel pump relay (See page FI–44).**

NG → **Replace fuel pump relay.**

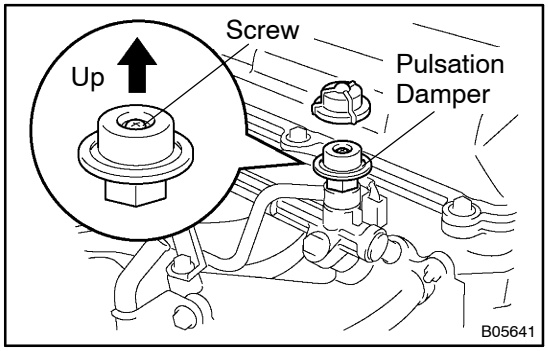
OK

4	**Check circuit opening relay (See page FI–42).**

NG → **Replace circuit opening relay.**

OK

5	**Check operation of sub fuel pump.**



PREPARATION:

(a) Connect the hand–held tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Push the fuel tank changeover switch ON.
(d) Select the ACTIVE TEST mode.

CHECK:

Check the sub fuel pump operation when it is operated by hand–held tester.

OK:

Here a sub fuel pump operation noise

HINT:

If you have no hand–held tester, and then go to step 6.

OK → **Go to step 7.**

NG

6	**Check sub fuel pump (See page FI–12).**

NG → **Replace sub fuel pump.**

OK

7	Check for open or short in harness and connector between sub fuel pump and fuel tank select relay, fuel tank select relay and fuel pump relay, and fuel pump relay and circuit opening relay (See page IN–19).

NG → Repair or replace.

OK

8	Check for open and short in harness and connector between fuel tank select relay and engine ECU (See page IN–19).

NG → Repair or replace harness for connector.

OK

Check and replace engine ECU (See page IN–19).