

Fuel Pump Control Circuit

CIRCUIT DESCRIPTION

Refer to DTC P0230 on page [DI-167](#).

WIRING DIAGRAM

Refer to DTC P0230 on page [DI-167](#).

INSPECTION PROCEDURE

Hand-held tester:

- | | |
|---|---|
| 1 | Check fuel pump operation (See page SF-7). |
|---|---|

OK

Go to step 8.

NG

- | | |
|---|---|
| 2 | Connect hand-held tester, and check operation of fuel pump relay. |
|---|---|

PREPARATION:

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main switch ON.
- (c) Enter the following menus: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / FUEL PUMP / SPD.

CHECK:

Check the operation of the fuel pump relay when it is switched ON and OFF by the hand-held tester.

OK:

Operating noise can be heard from the relay.

OK

Go to step 4.

NG

- | | |
|---|---|
| 3 | Check operation of fuel pump relay (See page SF-40). |
|---|---|

NG

Replace fuel pump relay.

OK

4 Check fuel pump (See page [SF-7](#)).

NG

Repair or replace fuel pump.

OK

5 Check circuit opening relay (See page [SF-39](#)).

NG

Replace circuit opening relay.

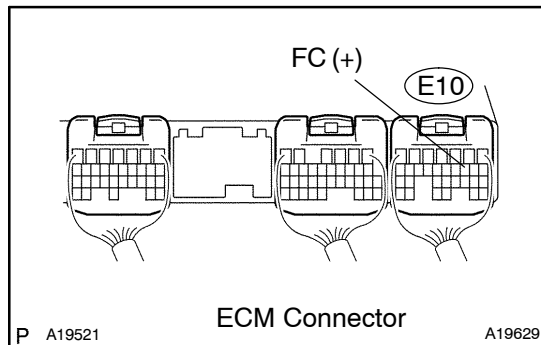
OK

6 Check for open in harness and connector between EFI or ECD relay and fuel pump, and fuel pump and body ground (See page [IN-36](#)).

NG

Repair or replace harness or connector.

OK

7 Check voltage between terminal FC and E1 of ECM connector.**PREPARATION:**

Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal FC of the ECM connector and body ground.

OK:

Voltage: 9 to 14 V

NG

Check for open in harness and connector between battery and FC terminal of ECM (See page [IN-36](#)).

OK

Proceed to problem symptoms table (See page [DI-40](#)).

8 Check fuel pump resistor (See page [SF-42](#)).**NG**

Replace fuel pump resistor.

OK

Check for open in harness and connector between circuit opening relay and fuel pump resistor, and fuel pump resistor and fuel pump (See page [IN-36](#)).

OBD II scan tool (excluding hand-held tester):

1 Check operation of fuel pump (See page [SF-7](#)).

OK

Go to step 7.

NG

2 Check operation of fuel pump relay (See page [SF-40](#)).

NG

Replace fuel pump relay.

OK

3 Check fuel pump (See page [SF-7](#)).

NG

Repair or replace fuel pump.

OK

4 Check circuit opening relay (See page [SF-39](#)).

NG

Replace circuit opening relay.

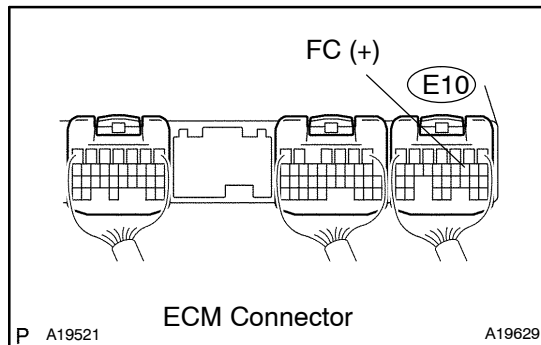
OK

5 Check for open in harness and connector between EFI or ECD relay and fuel pump, and fuel pump and body ground (See page [IN-36](#)).

NG

Repair or replace harness or connector.

OK

6 Check voltage between terminal FC of ECM connector and body ground.**PREPARATION:**

Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal FC of the ECM connector and body ground.

OK:

Voltage: 9 to 14 V

NG

Check for open in harness and connector between battery and FC terminal of ECM (See page [IN-36](#)).

OK

Proceed to problem symptoms table (See page [DI-40](#)).

7 Check fuel pump resistor (See page [SF-42](#)).**NG**

Replace fuel pump resistor.

OK

Check for open in harness and connector between circuit opening relay and fuel pump resistor, fuel pump resistor and fuel pump (See page [IN-36](#)).