

Fuel Pump Control Circuit

CIRCUIT DESCRIPTION

Refer to DTC P0230 on page [DI-168](#).

WIRING DIAGRAM

Refer to DTC P0230 on page [DI-168](#).

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).
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NG	Repair or replace fuel pump.
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OK

5	Check circuit opening relay (See page SF-39).
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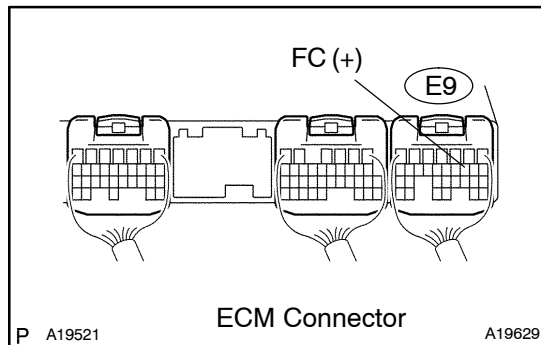
NG	Replace circuit opening relay.
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OK

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).
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NG	Repair or replace harness or connector.
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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](#)).

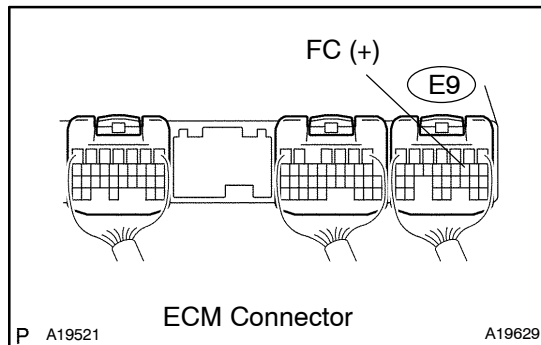
8 Check fuel pump resistor (See page [SF-42](#)).**NG**

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](#)).