

Fuel Pump Control Circuit

CIRCUIT DESCRIPTION

Refer to DTC P0230 on page [DI-174](#).

WIRING DIAGRAM

Refer to DTC P0230 on page [DI-174](#).

INSPECTION PROCEDURE

- | | |
|---|-------------------------------------------------------------|
| 1 | Check fuel pump operation (See page SF-5). |
|---|-------------------------------------------------------------|

OK

Go to step 8.

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- | | |
|---|-------------------------------------------------------------------|
| 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 to ON and push the hand-held tester main switch ON.
- (c) Enter the following menu: 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:

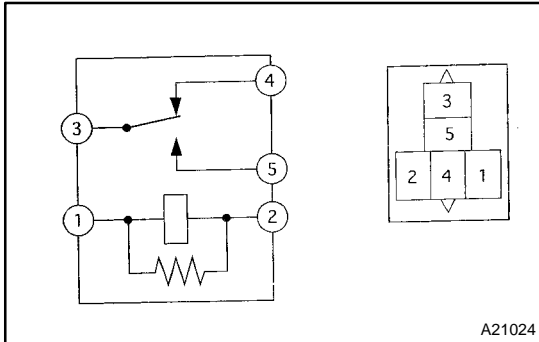
Operating noise can be heard from the fuel pump relay.

OK

Go to step 4.

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3 Check fuel pump relay.



PREPARATION:

Remove the fuel pump relay from the engine room R/B.

CHECK:

Inspect the fuel pump relay.

OK:

| Terminal No. | Condition | Specified Condition |
|--------------|------------------------------------|-------------------------|
| 3 - 4 | Apply B+ between terminals 1 and 2 | 10 K Ω or higher |
| 3 - 4 | Always | Below 1 Ω |
| 3 - 5 | Always | 10 K Ω or higher |
| 3 - 5 | Apply B+ between terminals 1 and 2 | Below 1 Ω |

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Replace fuel pump relay.

OK

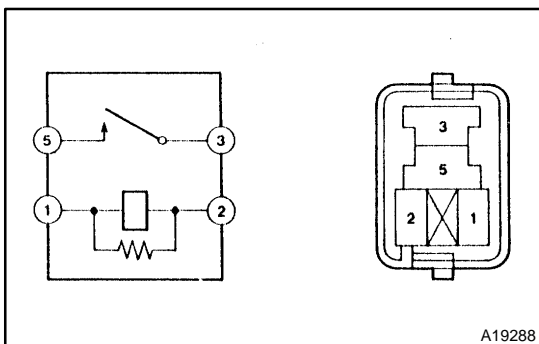
4 Check fuel pump (See page [SF-13](#)).

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Repair or replace fuel pump.

OK

5 Check circuit opening relay.



PREPARATION:

Remove the C/OPN relay from the engine room J/B.

CHECK:

Inspect the C/OPN relay.

OK:

Standard:

| Terminal No. | Condition | Specified Condition |
|--------------|------------------------------------|-------------------------|
| 3 - 5 | Always | 10 K Ω or higher |
| 3 - 5 | Apply B+ between terminals 1 and 2 | Below 1 Ω |

NG

Replace circuit opening relay.

OK

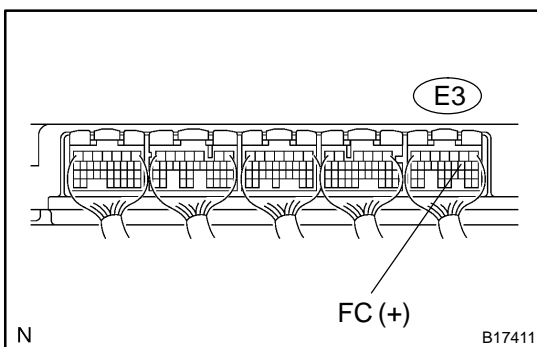
- 6** Check for open in harness and connector between EFI relay and fuel pump, and fuel pump and body ground (See page [IN-30](#)).

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Repair or replace harness or connector.

OK

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



PREPARATION:

Turn the ignition switch to ON.

CHECK:

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

OK:

Voltage: 9 to 14 V

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Check for open in harness and connector between battery and FC terminal of ECM (See page [SF-66](#)).

OK

Proceed to problem symptoms table
(See page [DI-33](#)).

- 8** Check fuel pump resistor (See page [SF-57](#)).

NG

Replace fuel pump resistor.

OK

Check and repair harness and connector between fuel pump relay and fuel pump resistor, and fuel pump resistor and fuel pump (See page [IN-30](#)).