

## CIRCUIT INSPECTION

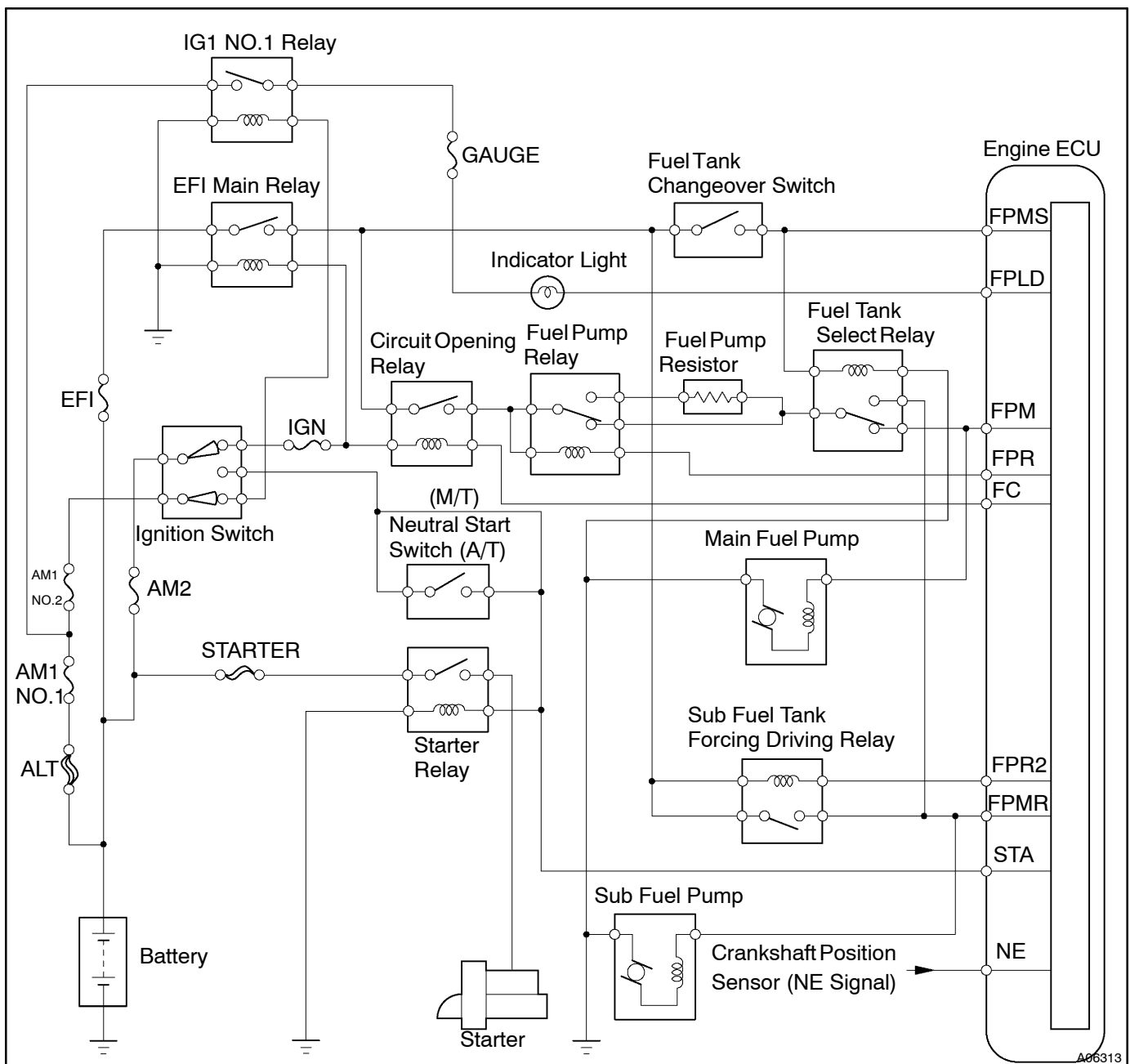
|            |           |   |
|------------|-----------|---|
| <b>DTC</b> | <b>11</b> | <b>Main Fuel Pump Circuit Malfunction</b> |
|------------|-----------|---|

## CIRCUIT DESCRIPTION

When the STA signal and NE signal are input to the engine ECU, Tr 1 is turned ON, current flows to coil of the circuit opening relay, relay switches on, power is supplied to the fuel pump via a pump select relay and the fuel pump operates.

When the fuel tank changeover switch is OFF, the pump select relay point contacts with the main fuel pump side, power is supplied to the main fuel pump and the main fuel pump operates.

When the fuel tank changeover switch is ON, current flows to coil of the pump select relay, relay point contacts with the sub fuel pump side, power supplied to the sub fuel pump and the sub fuel pump operates.



## WIRING DIAGRAM



**Fuel System**

**Engine ECU**

**Fuel Tank Changeover Switch**

**Fuel Pump Resistor**

**Fuel Tank Select Relay**

**Fuel Pump**

**Sub Fuel Pump**

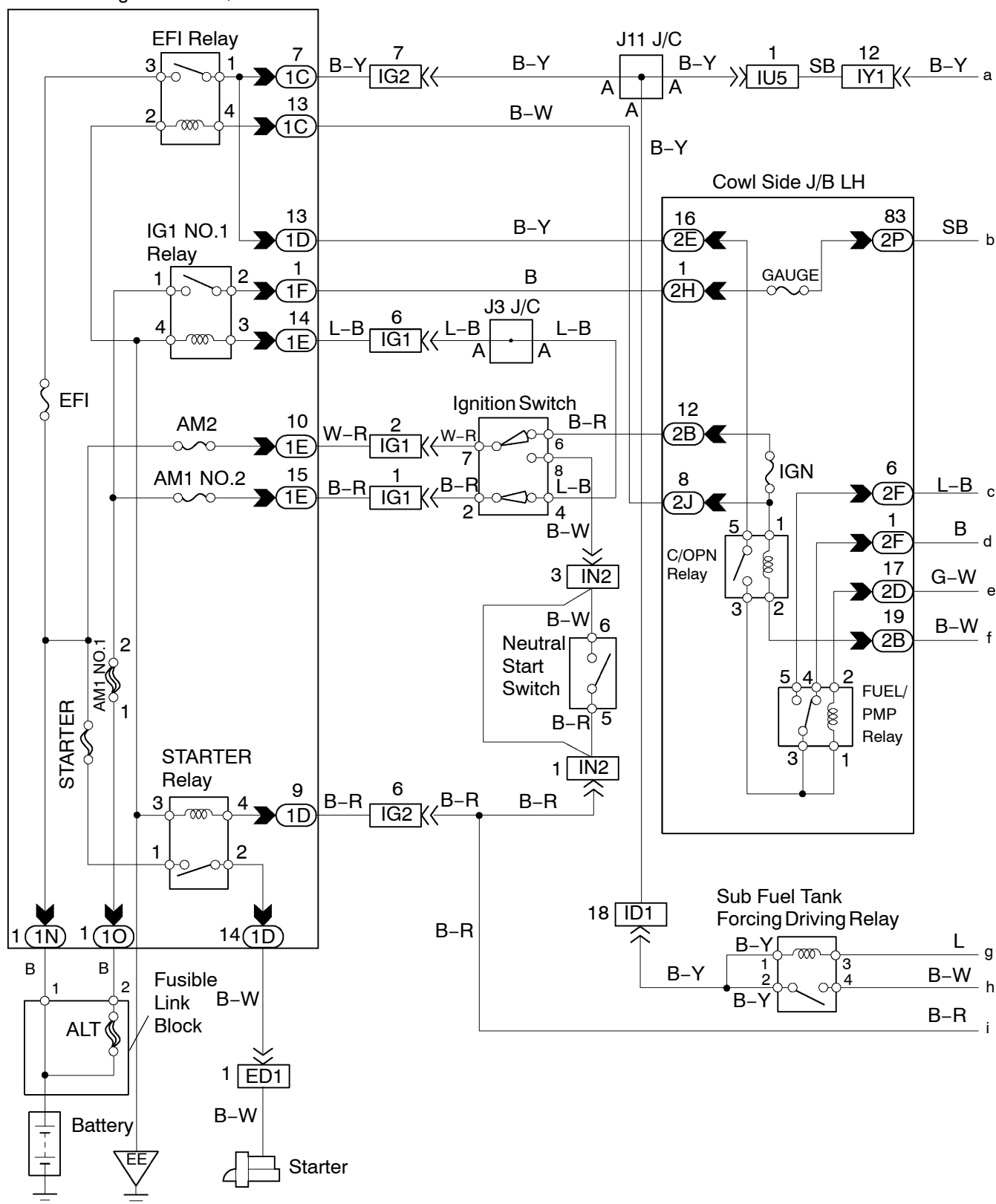
**Crankshaft Position Sensor**

**Wiring Diagram Details:**

- Engine ECU:**
  - FPMS (28 E10)
  - FPLD (8 E10)
  - FPM (27 E10)
  - FPR (4 E10)
  - FC (5 E11)
  - FPR2 (7 E10)
  - FPMR (18 E10)
  - STA (17 E10)
  - NE+ (23 E7)
  - NE- (22 E7)
- Wiring:**
  - Blue (B):** Common ground for many components.
  - White (W):** Used for fuel pump and relay control.
  - Green (G):** Used for fuel pump and relay control.
  - Black (L):** Used for fuel pump and relay control.
  - Yellow (Y):** Used for fuel pump and relay control.

2UZ-FE ENGINE (RM630E)

## Engine Room J/B



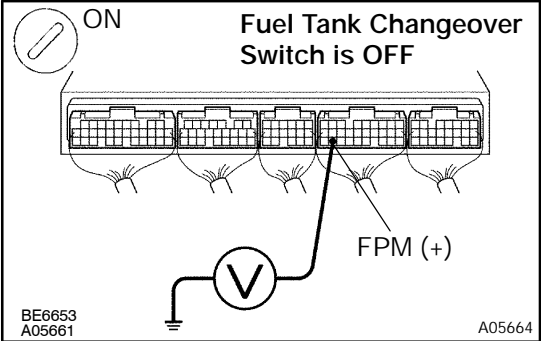
2UZ-FE ENGINE (RM630E)

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2UZ-FE ENGINE (RM630E)

INSPECTION PROCEDURE

|   |   |
|---|---|
| 1 | Check voltage between terminal FPM of engine ECU connector and body ground. |
|---|---|



**PREPARATION:**

- (a) Remove the glove compartment door.
- (b) Turn the ignition switch ON.
- (c) Fuel tank changeover switch is OFF.

**CHECK:**

Measure voltage between terminal FPM of engine ECU connector and bodyground.

**OK:**

Voltage: 9 - 14 V

|    |               |
|----|---------------|
| OK | Go to step 5. |
|----|---------------|

NG

|   |  |
|---|--|
| 2 | Check fuel tank select relay ( <a href="#">See page FI-56</a> ). |
|---|--|

|    |                                 |
|----|---------------------------------|
| NG | Replace fuel tank select relay. |
|----|---------------------------------|

OK

|   |   |
|---|---|
| 3 | Check fuel pump relay (Marking: FUEL/PMP) ( <a href="#">See page FI-54</a> ). |
|---|---|

|    |                          |
|----|--------------------------|
| NG | Replace fuel pump relay. |
|----|--------------------------|

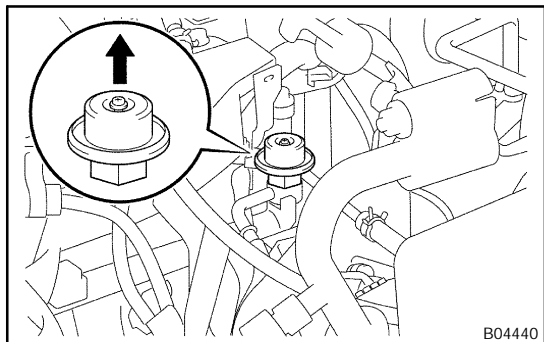
OK

|   |   |
|---|---|
| 4 | Check circuit opening relay (Marking:C/OPN) ( <a href="#">See page FI-53</a> ). |
|---|---|

|    |                                |
|----|--------------------------------|
| NG | Replace circuit opening relay. |
|----|--------------------------------|

OK

# 5 Check operation of main fuel pump.



## PREPARATION:

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON.
- (c) Fuel tank changeover switch is OFF.
- (d) Select the ACTIVE TEST mode.

## CHECK:

Check the main fuel pump operation, when it is operated by hand-held tester.

## OK:

Here a main fuel pump operation noise

## HINT:

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

OK

Go to step 8.

NG

# 6 Check main fuel pump (See page FI-7).

NG

Replace main fuel pump.

OK

# 7 Check for open or short in harness and connector between main fuel pump and fuel tank select relay, fuel tank select relay and fuel pump relay, 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 and connector.

OK

Check and replace engine ECU.  
([See page IN-19](#))