

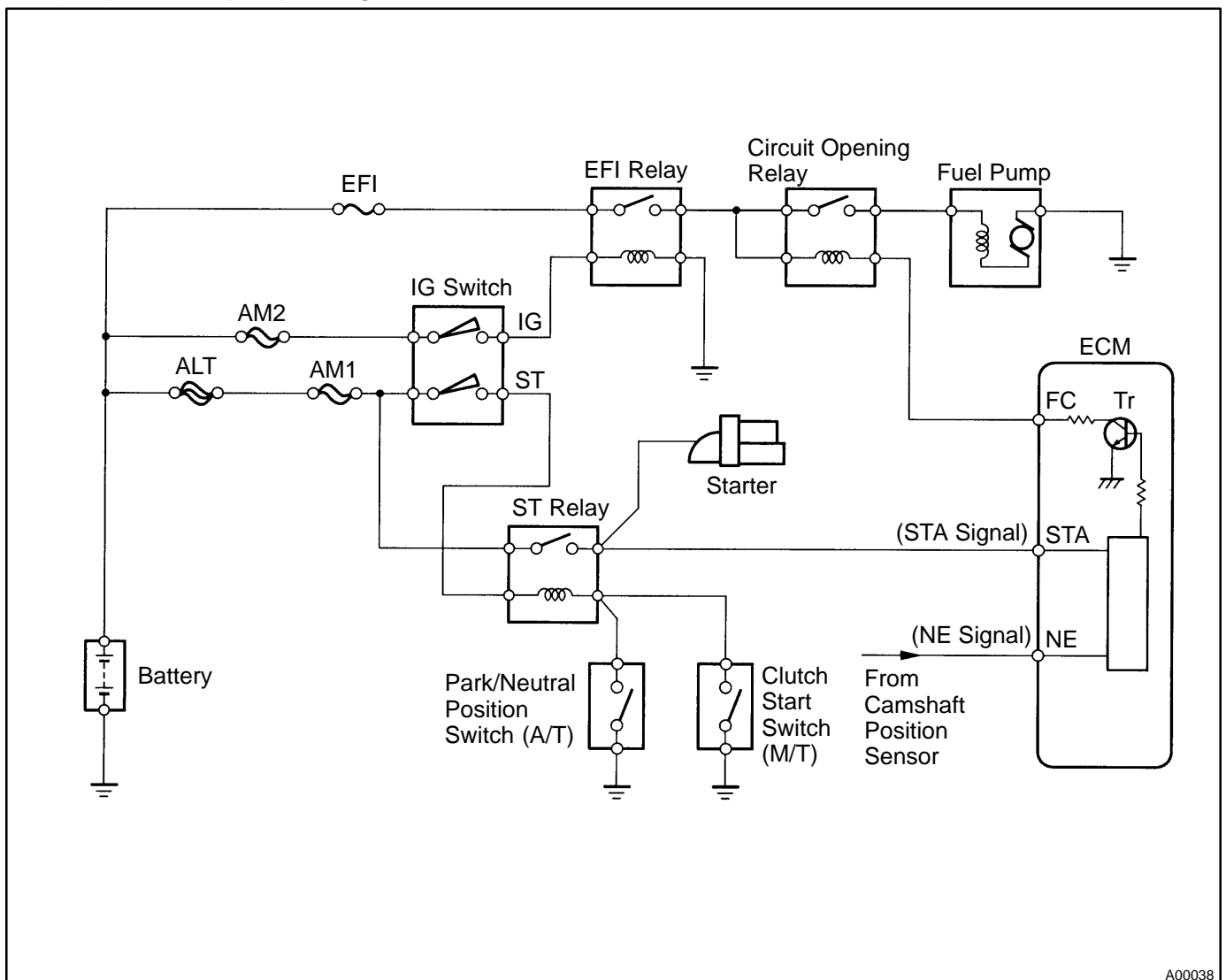
Fuel Pump Control Circuit

CIRCUIT DESCRIPTION

In the diagram below, when the engine is cranked, current flows from terminal ST of the ignition switch to the starter relay coil and also current flows to terminal STA of ECM (STA signal).

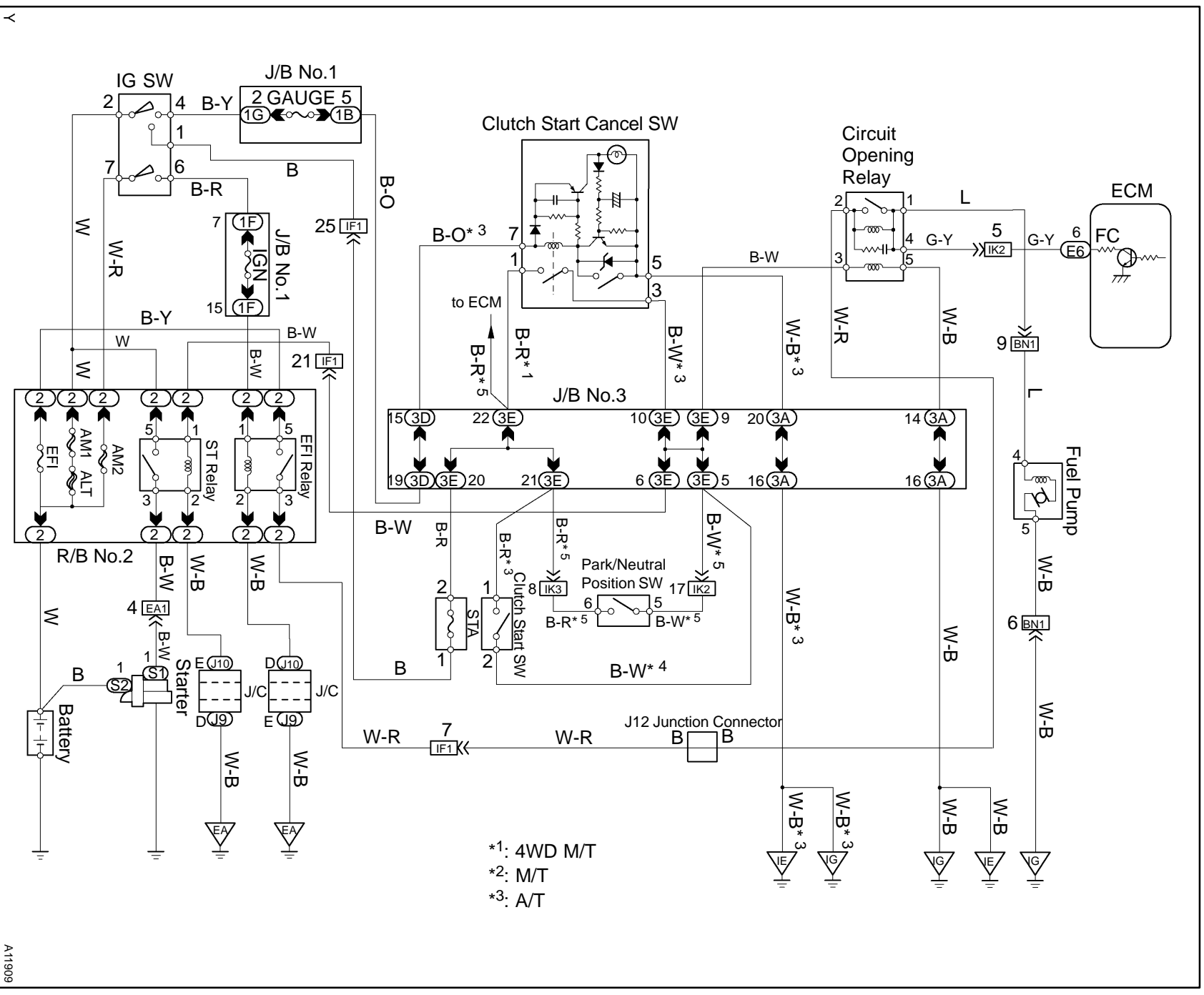
When the STA signal and NE signal are input to the ECM, Tr is turned ON, current flows to coil of the circuit opening relay, the relay switches on, power is supplied to the fuel pump and the fuel pump operates.

While the NE signal is generated (engine running), the ECM keeps Tr ON (circuit opening relay ON) and the fuel pump also keeps operating.



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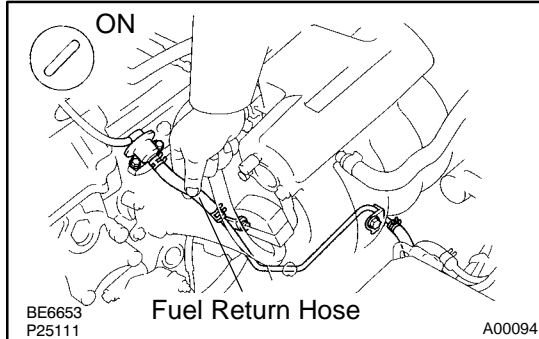
WIRING DIAGRAM



A11909

INSPECTION PROCEDURE**TOYOTA hand-held tester:**

1	Connect TOYOTA hand-held tester, and check operation of fuel pump.
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**PREPARATION:**

- (a) Connect the TOYOTA hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the TOYOTA hand-held tester main switch ON.
- (c) Use the ACTIVE TEST mode to operate the fuel pump.

CHECK:

Check for fuel pressure in the fuel return hose when it is pinched off.

OK:

There is pressure in the fuel return hose.

HINT:

At this time, you will hear a fuel flowing noise.

OK	Check for starter signal circuit (See page DI-132).
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NG

2	Check for ECM power source circuit (See page DI-135).
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NG	Repair or replace.
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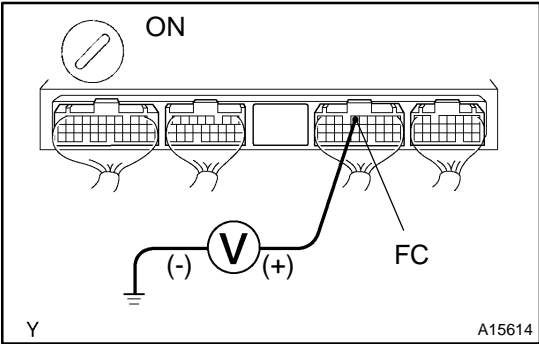
OK

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

4 Check voltage between terminal FC of ECM and body ground.



PREPARATION:

- (a) Remove the glove compartment (See page [SF-49](#)).
- (b) Turn the ignition switch ON.

CHECK:

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

OK:

Voltage: 9 - 14 V

NG → Go to Step 5

NG

Check for open in harness and connector between EFI main relay (Marking: EFI) and circuit opening relay, and circuit opening relay and ECM.

5 Check fuel pump (See page [SF-5](#)).

NG → Repair or replace fuel pump.

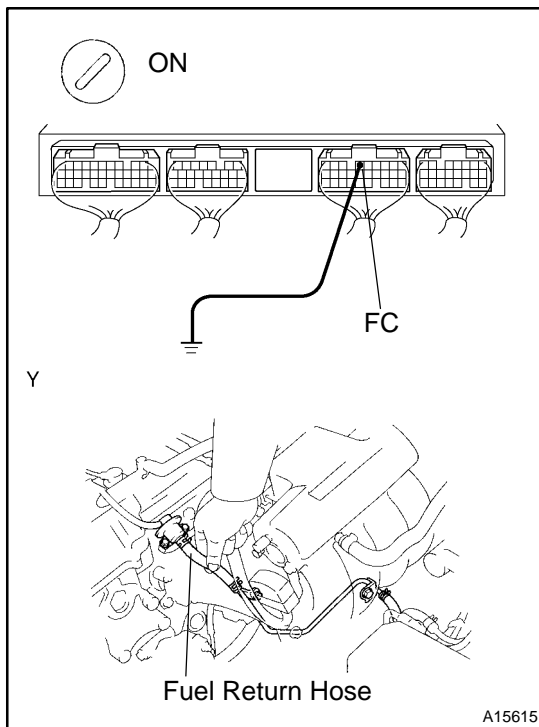
OK

6 Check for open in harness and connector between circuit opening relay and fuel pump, and fuel pump and body ground (See page [IN-28](#)).

NG → Repair or replace harness or connector.

OK

Check and replace ECM (See page [IN-28](#)).

OBD II scan tool (excluding TOYOTA hand-held tester)**1 Check operation of fuel pump.****PREPARATION:**

- (a) Remove the glove compartment (See page [SF-49](#)).
- (b) Turn the ignition switch ON.

CHECK:

- (a) Connect between terminal FC of the ECM connector and the body ground.
- (b) Check for fuel pressure in the fuel return hose when it is pinched by hand.

OK:

There is pressure in the fuel return hose.

HINT:

At this time, you will hear a fuel return flowing noise.

OK

Check for starter signal circuit (See page [DI-132](#)).

NG**2 Check for ECM power source circuit (See page [DI-135](#)).****NG**

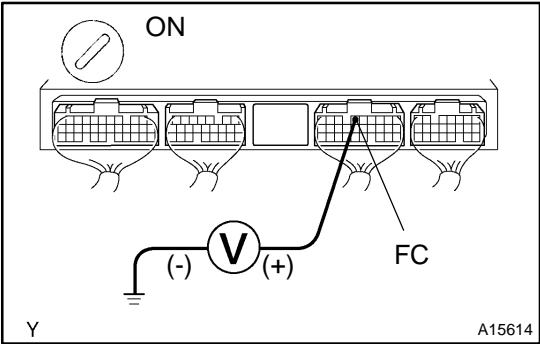
Repair or replace.

OK**3 Check circuit opening relay (See page [SF-39](#)).****NG**

Replace circuit opening relay.

OK

4 Check voltage between terminal FC of ECM and body ground.



PREPARATION:

- (a) Remove the glove compartment (See page [SF-49](#)).
- (b) Turn the ignition switch ON.

CHECK:

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

OK:

Voltage: 9 - 14 V

NG → Go to Step 5

NG

Check for open in harness and connector between EFI main relay (Marking: EFI) and circuit opening relay, and circuit opening relay and ECM.

5 Check fuel pump (See page [SF-5](#)).

NG → Repair or replace fuel pump.

OK

6 Check for open in harness and connector between circuit opening relay and fuel pump, and fuel pump and body ground (See page [IN-28](#)).

NG → Repair or replace harness or connector.

OK

Check and replace ECM (See page [IN-28](#)).