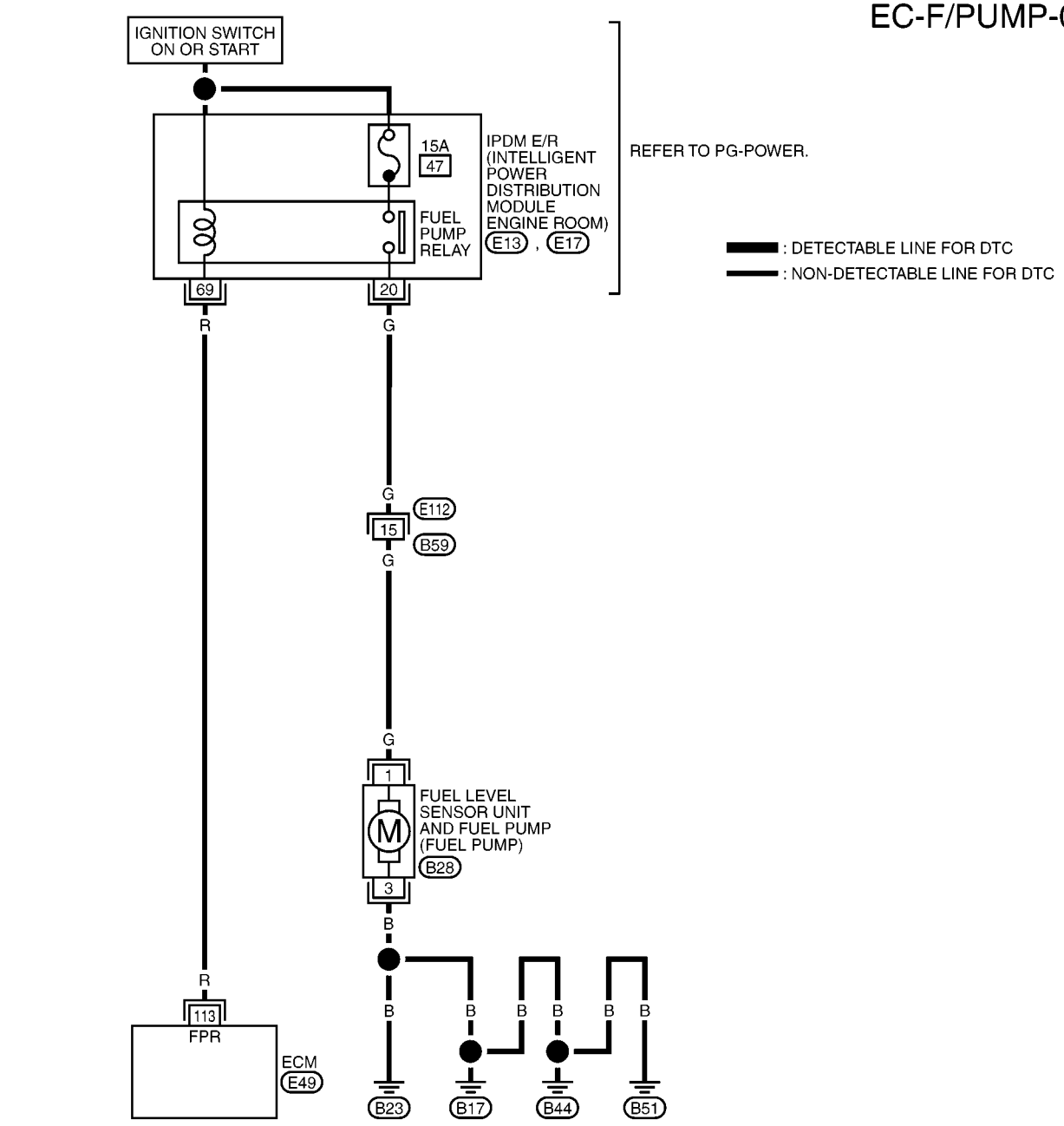
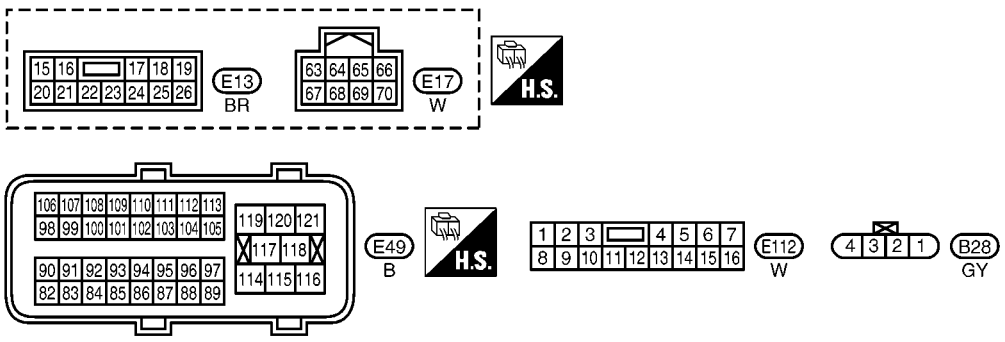
FUEL PUMP CIRCUIT

Wiring Diagram

To ESM

EC-F/PUMP-01





MBWA1102E

Specification data are reference values and are measured between each terminal and ground.

CAUTION:

Do not use ECM ground terminals when measuring input/output voltage. Doing so may result in damage to the ECM's transistor. Use a ground other than ECM terminals, such as the ground.

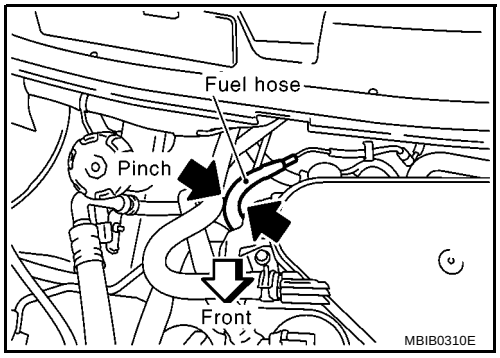
TERMINAL NO.	WIRE COLOR	ITEM	CONDITION	DATA (DC Voltage)
113	R	Fuel pump relay	**[Ignition switch ON]** ● For 1 second after turning ignition switch ON **[Engine is running]**	0 - 1.0V
			[Ignition switch ON] ● More than 1 second after turning ignition switch ON	BATTERY VOLTAGE (11 - 14V)

Diagnostic Procedure

To ESM

1. CHECK OVERALL FUNCTION

1. Turn ignition switch ON.
2. Pinch fuel feed hose with two fingers.
   Fuel pressure pulsation should be felt on the fuel hose for 1 second after ignition switch is turned ON.



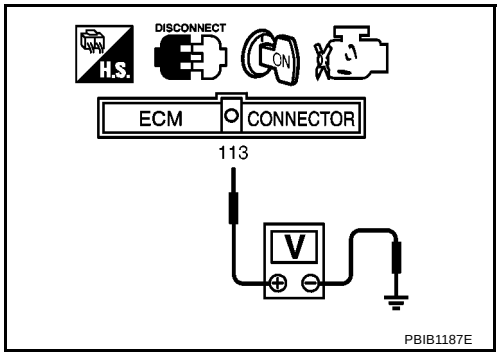
OK or NG

OK >> **INSPECTION END**
NG >> GO TO 2.

2. CHECK FUEL PUMP RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect ECM harness connector.
3. Turn ignition switch ON.
4. Check voltage between ECM terminals 113 and ground with CONSULT-II or tester.

Voltage: Battery voltage



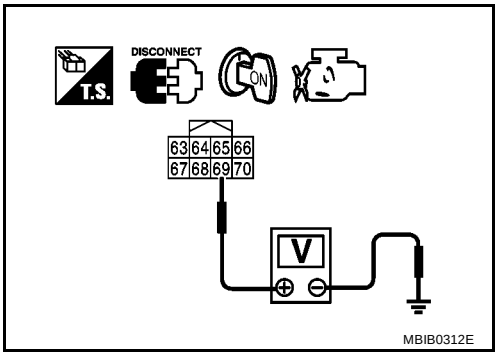
OK or NG

OK >> GO TO 5.
NG >> GO TO 3.

3. CHECK FUEL PUMP POWER SUPPLY CIRCUIT-I

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector E17.
3. Turn ignition switch ON.
4. Check voltage between IPDM E/R terminal 69 and ground with CONSULT-II or tester.

Voltage: Battery voltage



OK or NG

OK >> GO TO 4.
NG >> GO TO 8.

4. DETECT MALFUNCTIONING PART

Check the following.

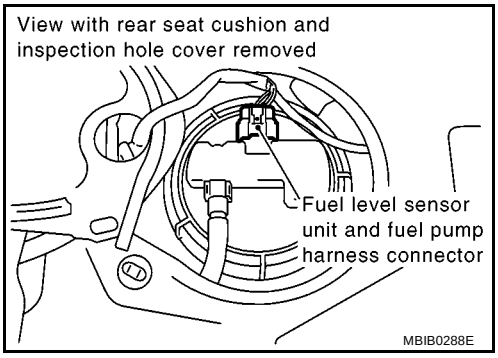
- IPDM E/R connector E17
- Harness for open or short between IPDM E/R and ECM

>> Repair harness or connectors.

5. CHECK FUEL PUMP POWER SUPPLY AND GROUND CIRCUIT FOR OPEN AND SHORT

1. Turn ignition switch OFF.
2. Disconnect “fuel level sensor unit and fuel pump” harness connector.
3. Disconnect IPDM E/R harness connector E13.
4. Check harness continuity between IPDM E/R connector E13 terminal 20 and “fuel level sensor unit and fuel pump” terminal 1, “fuel level sensor unit and fuel pump” terminal 3 and body ground.
   Refer to Wiring Diagram.

Continuity should exist.



5. Also check harness for short to ground and short to power.

OK or NG

OK >> GO TO 7.
NG >> GO TO 6.

6. DETECT MALFUNCTIONING PART

Check the following.

- Harness connectors B59, E112
- Harness for open or short between “fuel level sensor unit and fuel pump” and IPDM E/R
- Harness for open or short between “fuel level sensor unit and fuel pump” and body ground

>> Repair open circuit or short to ground or short to power in harness or connectors.

7. CHECK FUEL PUMP

Refer to EC-449 “Component Inspection” on ESM.

OK or NG

OK >> GO TO 8.
NG >> Replace fuel pump.

8. CHECK INTERMITTENT INCIDENT

Refer to EC-124 “TROUBLE DIAGNOSIS FOR INTERMITTENT INCIDENT” on ESM.

OK or NG

OK >> Replace IPDM E/R
NG >> Repair or replace harness or connector
>> **INSPECTION END**