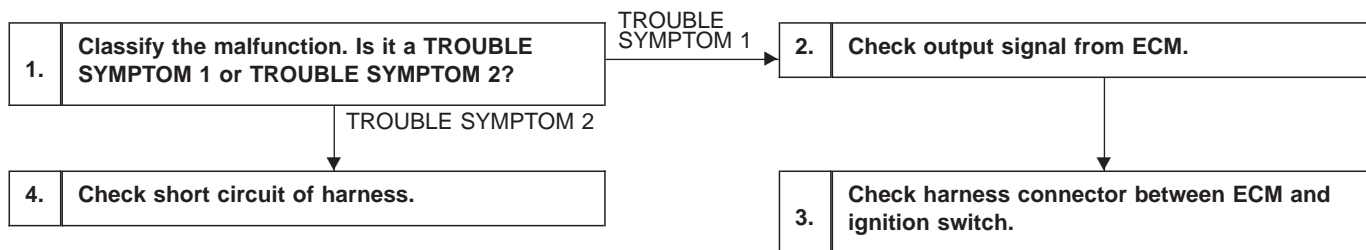# 7. Diagnostics for CHECK ENGINE Malfunction Indicator Lamp (MIL)
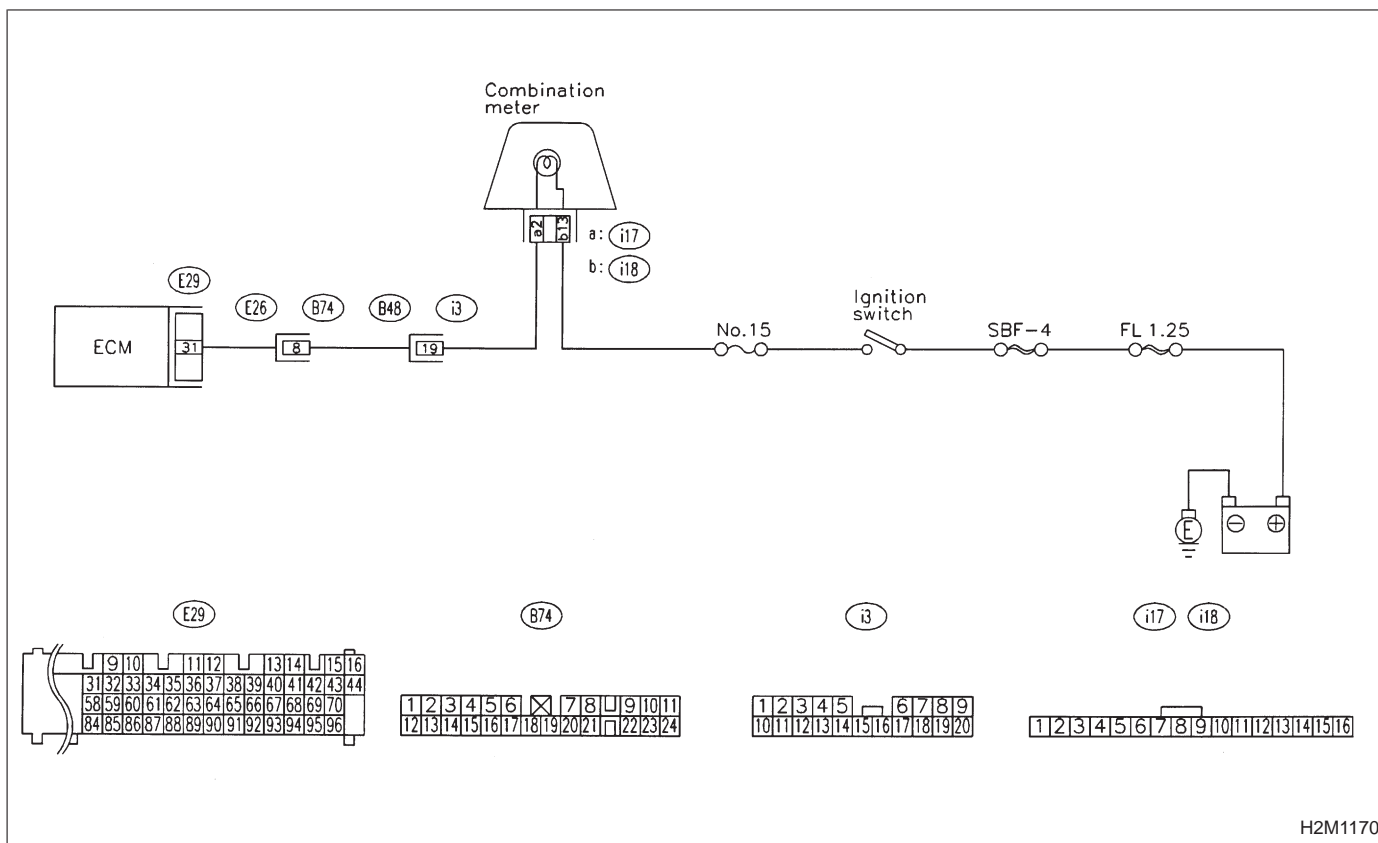
DIAGNOSIS:

● The CHECK ENGINE malfunction indicator lamp (MIL) circuit is in short or open.

TROUBLE SYMPTOM:

● When ignition switch is turned to ON (engine OFF), MIL does not illuminate.....TROUBLE SYMPTOM 1

● Although MIL illuminates, trouble code is not shown on Subaru select monitor or the OBD-II general scan tool display.....TROUBLE SYMPTOM 2

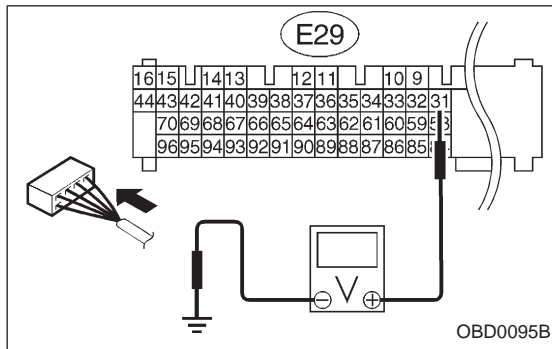|	
1.	**Classify the malfunction. Is it a TROUBLE SYMPTOM 1 or TROUBLE SYMPTOM 2?**

TROUBLE SYMPTOM 1 →

2.	**Check output signal from ECM.**

TROUBLE SYMPTOM 2

4.	**Check short circuit of harness.**

3.	**Check harness connector between ECM and ignition switch.**

WIRING DIAGRAM:

H2M1170

1	CLASSIFY THE MALFUNCTION. IS IT A TROUBLE SYMPTOM 1 OR TROUBLE SYMPTOM 2?

If the malfunction shows TROUBLE SYMPTOM 1, go to step 2.

If the malfunction shows TROUBLE SYMPTOM 2, go to step 4.

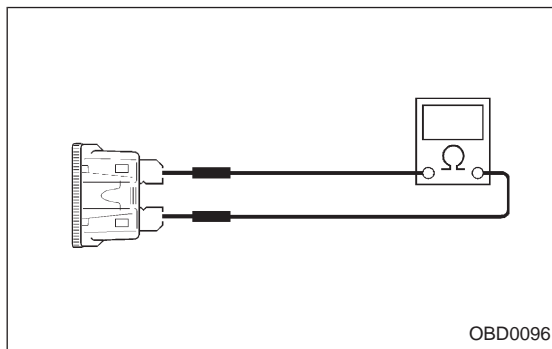OBD0095B

2	CHECK OUTPUT SIGNAL FROM ECM.

1) Turn ignition switch to ON.
2) Measure voltage between ECM and body.

(CHECK) : **Connector & terminal**
(E29) No. 31 — Body/1 V, or less

(YES) : Go to step 3.

(NO) : ● If MIL comes on when shaking or pulling ECM connector and harness, repair ECM connector.
● Check that ECM connector is correctly connected. If the MIL does not come on even when ECM connector is correctly connected, replace the ECM.

OBD0096

3	CHECK HARNESS CONNECTOR BETWEEN ECM AND IGNITION SWITCH.

Check the following and repair if necessary.

① Check that fuse (No. 15) is not blown out.

NOTE:

If replaced fuse (No. 15) blows out easily, check the harness for short circuit between fuse (No. 15) and combination meter.

② Check that harness from fuse to combination meter is not open.

③ Check that the MIL wiring is not open.

④ Check that harness from combination meter to the ECM is not open.

⑤ Check that the connectors (B48) and (B74) are correctly connected as the wiring diagram shows.

4	CHECK SHORT CIRCUIT OF HARNESS.

1) Turn ignition switch to OFF.
2) Disconnect connector from ECM.

(CHECK) **: Does the MIL comes on?**

(YES) : Repair short circuit of harness between ECM and combination meter.

(NO) : Replace ECM.