

16.Malfunction Indicator Light

A: PROCEDURE

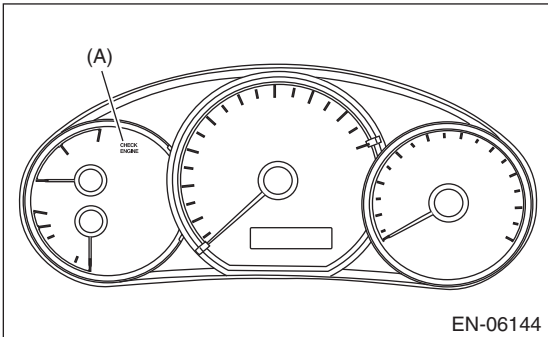
1. Activation of malfunction indicator light. <Ref. to EN(H4DOTC)(diag)-67, ACTIVATION OF MALFUNCTION INDICATOR LIGHT, Malfunction Indicator Light.>
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2. Malfunction indicator light does not come on. <Ref. to EN(H4DOTC)(diag)-69, MALFUNCTION INDICATOR LIGHT DOES NOT COME ON, Malfunction Indicator Light.>
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3. Malfunction indicator light does not go off <Ref. to EN(H4DOTC)(diag)-69, MALFUNCTION INDICATOR LIGHT DOES NOT GO OFF, Malfunction Indicator Light.>
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4. Malfunction indicator light does not blink <Ref. to EN(H4DOTC)(diag)-70, MALFUNCTION INDICATOR LIGHT DOES NOT BLINK, Malfunction Indicator Light.>
↓
5. Malfunction indicator light remains blinking <Ref. to EN(H4DOTC)(diag)-72, MALFUNCTION INDICATOR LIGHT REMAINS BLINKING, Malfunction Indicator Light.>

B: ACTIVATION OF MALFUNCTION INDICATOR LIGHT

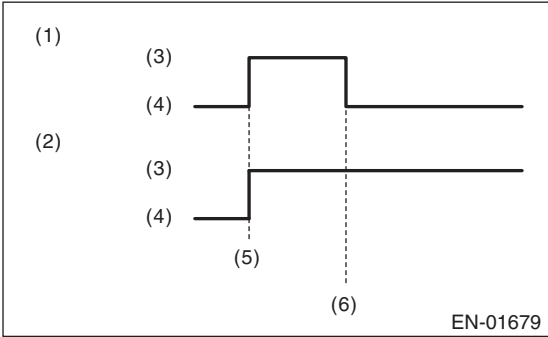
1) When the ignition switch is turned to ON (engine OFF), the malfunction indicator light (A) in the combination meter illuminates.

NOTE:

If the malfunction indicator light does not illuminate, perform diagnostics of the malfunction indicator light circuit or the combination meter circuit. <Ref. to EN(H4DOTC)(diag)-69, MALFUNCTION INDICATOR LIGHT DOES NOT COME ON, Malfunction Indicator Light.>



2) After starting the engine, the malfunction indicator light goes out. If it does not go off, any of the engine and emission control system has malfunction.

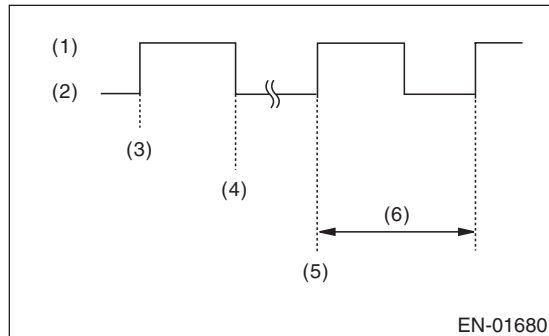


- (1) No DTC
- (2) Trouble occurs
- (3) ON
- (4) OFF
- (5) Ignition switch ON
- (6) Engine start

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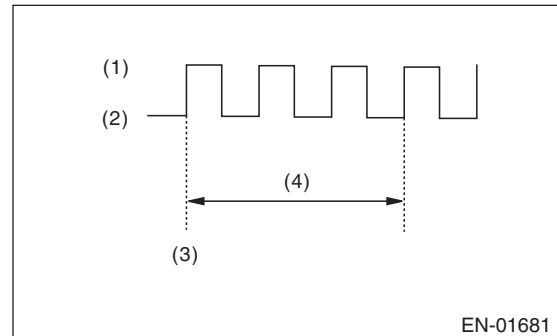
ENGINE (DIAGNOSTICS)

3) If the diagnostic system detects a misfire which could damage the catalyst, the malfunction indicator light will blink at a cycle of 1 Hz.



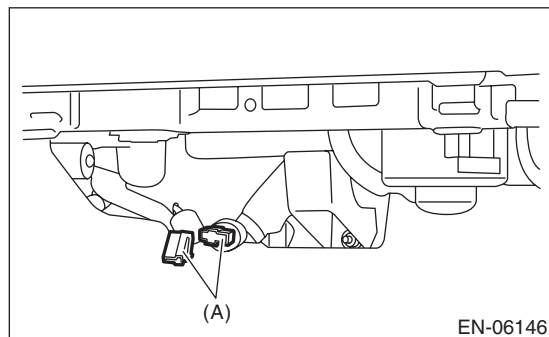
- (1) ON
- (2) OFF
- (3) Ignition switch ON
- (4) Engine start
- (5) Misfire start
- (6) 1 second

(3) Malfunction indicator light blinks at a cycle of 3 Hz after diagnosis if there is no trouble. Malfunction indicator light illuminates if faulty.



- (1) ON
- (2) OFF
- (3) Ignition switch ON
- (4) 1 second

4) Turn the ignition switch to OFF and connect the delivery (test) mode connector (A) located under the glove box.



- (1) When the ignition switch is turned to ON (engine OFF), the malfunction indicator light illuminates.
- (2) After the engine starts, malfunction indicator light blinks in a cycle of 0.5 Hz. (During diagnosis)

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ENGINE (DIAGNOSTICS)

C: MALFUNCTION INDICATOR LIGHT DOES NOT COME ON

TROUBLE SYMPTOM:

When the ignition switch is turned to ON (engine OFF), malfunction indicator light does not illuminate.

Step	Check	Yes	No
1 CHECK DTC.	Is DTC of LAN system displayed? <Ref. to LAN(diag)-28, OPERATION, Read Diagnostic Trouble Code (DTC).>	Check the appropriate DTC using the "List of Diagnostic Trouble Code (DTC)". <Ref. to LAN(diag)-32, List of Diagnostic Trouble Code (DTC).>	Replace the meter case assembly of combination meter. <Ref. to IDI-16, Combination Meter.>

D: MALFUNCTION INDICATOR LIGHT DOES NOT GO OFF

TROUBLE SYMPTOM:

Although malfunction indicator light comes on when the engine runs, DTC is not shown on the Subaru Select Monitor or general scan tool display.

Step	Check	Yes	No
1 CHECK DTC.	Is DTC of engine or LAN system displayed? <Ref. to EN(H4DOTC)(diag)-48, OPERATION, Read Diagnostic Trouble Code (DTC).>	Check the appropriate DTC using the "List of Diagnostic Trouble Code (DTC)". <Ref. to EN(H4DOTC)(diag)-87, List of Diagnostic Trouble Code (DTC).> <Ref. to LAN(diag)-32, List of Diagnostic Trouble Code (DTC).>	Go to step 2.
2 CHECK COMBINATION METER. Perform the self-diagnosis for combination meter system. <Ref. to IDI-5, SELF-DIAGNOSIS, INSPECTION, Combination Meter System.>	Does the malfunction indicator light illuminate and go off normally?	Replace the ECM. <Ref. to FU(STI)-59, Engine Control Module (ECM).> <Ref. to FU(w/o STI)-57, Engine Control Module (ECM).>	Replace the meter case assembly of combination meter. <Ref. to IDI-16, Combination Meter.>

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ENGINE (DIAGNOSTICS)

E: MALFUNCTION INDICATOR LIGHT DOES NOT BLINK

DIAGNOSIS:

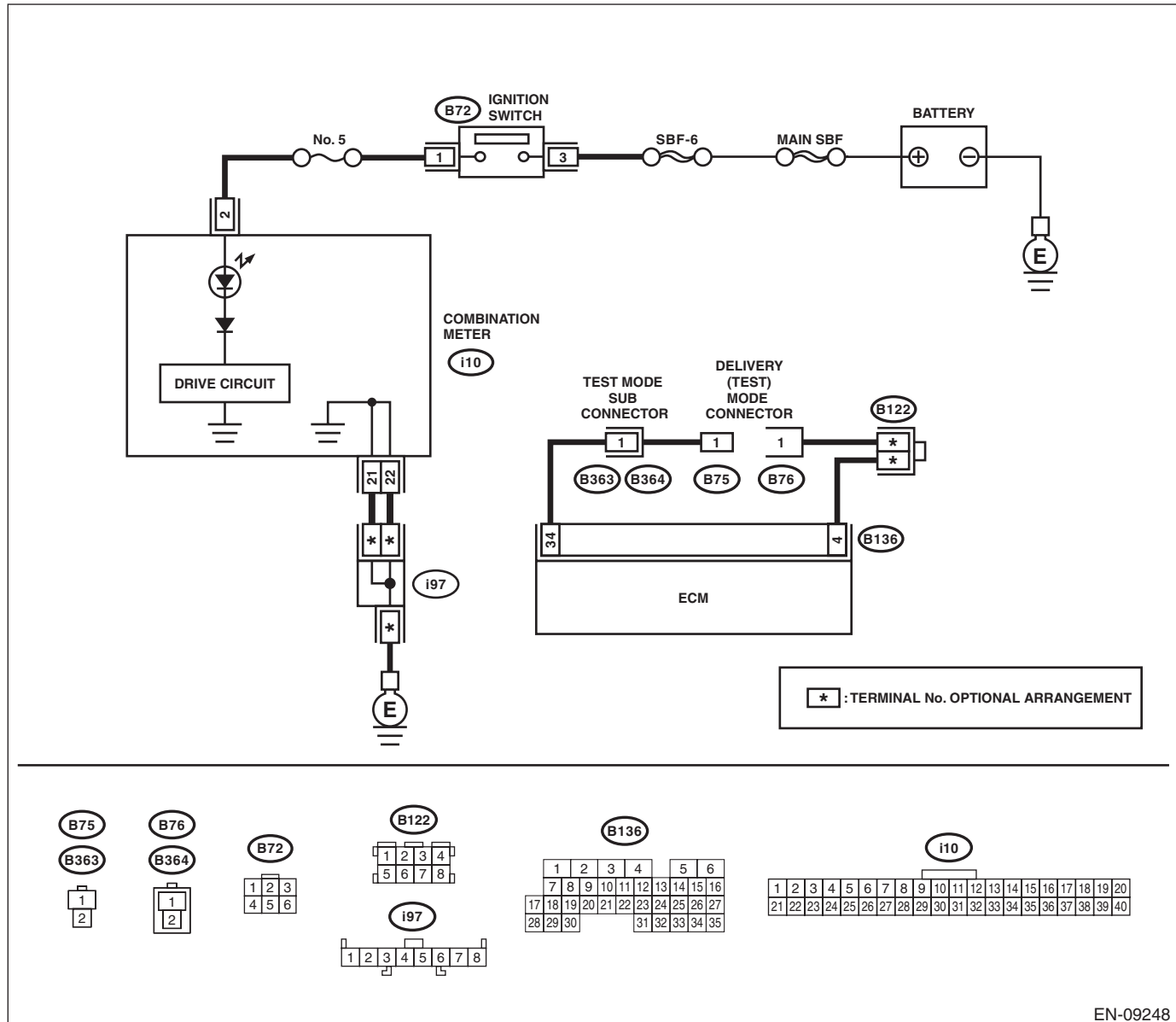
- The malfunction indicator light circuit is open or shorted.
- The delivery (test) mode connector circuit is open.

TROUBLE SYMPTOM:

Malfunction indicator light does not blink during Inspection Mode.

WIRING DIAGRAM:

- Engine electrical system, without SI-DRIVE <Ref. to WI-32, WITHOUT SI-DRIVE, WIRING DIAGRAM, Engine Electrical System.>
- Engine electrical system, with SI-DRIVE <Ref. to WI-48, WITH SI-DRIVE, WIRING DIAGRAM, Engine Electrical System.>



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ENGINE (DIAGNOSTICS)

Step	Check	Yes	No
1 CHECK STATUS OF MALFUNCTION INDICATOR LIGHT. 1) Turn the ignition switch to OFF. 2) Check the delivery (test) mode connector is disconnected. 3) Turn the ignition switch to ON. (engine OFF)	Does the malfunction indicator light illuminate?	Go to step 2.	Repair the malfunction indicator light circuit. <Ref. to EN(H4DOTC)(diag)-69, MALFUNCTION INDICATOR LIGHT DOES NOT COME ON, Malfunction Indicator Light.>
2 CHECK HARNESS BETWEEN ECM AND DELIVERY (TEST) MODE CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from ECM. 3) Connect the delivery (test) mode connector. 4) Measure the resistance of harness between ECM connectors. Connector & terminal (B136) No. 34 — (B136) No. 4:	Is the resistance less than 1 Ω ?	Go to step 3.	Repair the harness and connector. NOTE: In this case, repair the following item: • Open circuit in harness between ECM connector • Poor contact of each connector between ECM connector
3 CHECK FOR POOR CONTACT. Check for poor contact of ECM connector.	Is there poor contact of ECM connector?	Repair the poor contact of ECM connector.	Replace the ECM. <Ref. to FU(STI)-59, Engine Control Module (ECM).> <Ref. to FU(w/o STI)-57, Engine Control Module (ECM).>

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ENGINE (DIAGNOSTICS)

F: MALFUNCTION INDICATOR LIGHT REMAINS BLINKING

DIAGNOSIS:

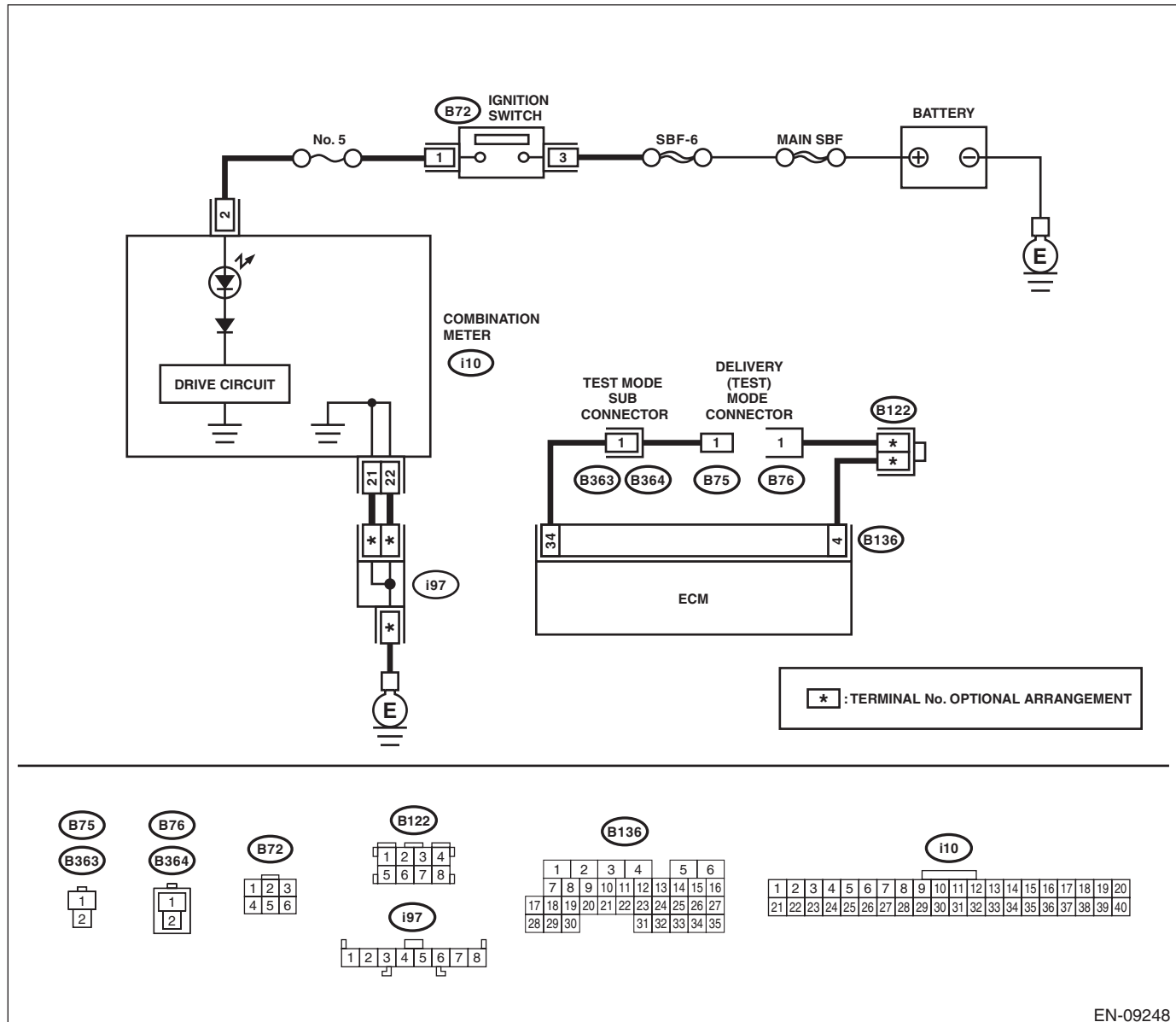
The delivery (test) mode connector circuit is short-circuited to ground.

TROUBLE SYMPTOM:

Malfunction indicator light blinks when delivery (test) mode connector is not connected.

WIRING DIAGRAM:

- Engine electrical system, without SI-DRIVE <Ref. to WI-32, WITHOUT SI-DRIVE, WIRING DIAGRAM, Engine Electrical System.>
- Engine electrical system, with SI-DRIVE <Ref. to WI-48, WITH SI-DRIVE, WIRING DIAGRAM, Engine Electrical System.>



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ENGINE (DIAGNOSTICS)

Step	Check	Yes	No
1 CHECK DELIVERY (TEST) MODE CONNECTOR. 1) Check the delivery (test) mode connector is disconnected. 2) Turn the ignition switch to ON.	Does the malfunction indicator light blink?	Go to step 2.	System is normal. NOTE: Malfunction indicator light blinks at a cycle of 3 Hz when delivery (test) mode connector is connected.
2 CHECK HARNESS BETWEEN ECM AND DELIVERY (TEST) MODE CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from ECM. 3) Measure the resistance between ECM connector and chassis ground. Connector & terminal (B136) No. 34 — Chassis ground:	Is the resistance 1 MΩ or more?	Replace the ECM. <Ref. to FU(STI)-59, Engine Control Module (ECM).> <Ref. to FU(w/o STI)-57, Engine Control Module (ECM).>	Repair the short circuit to ground in harness between ECM connector and delivery (test) mode connector.