

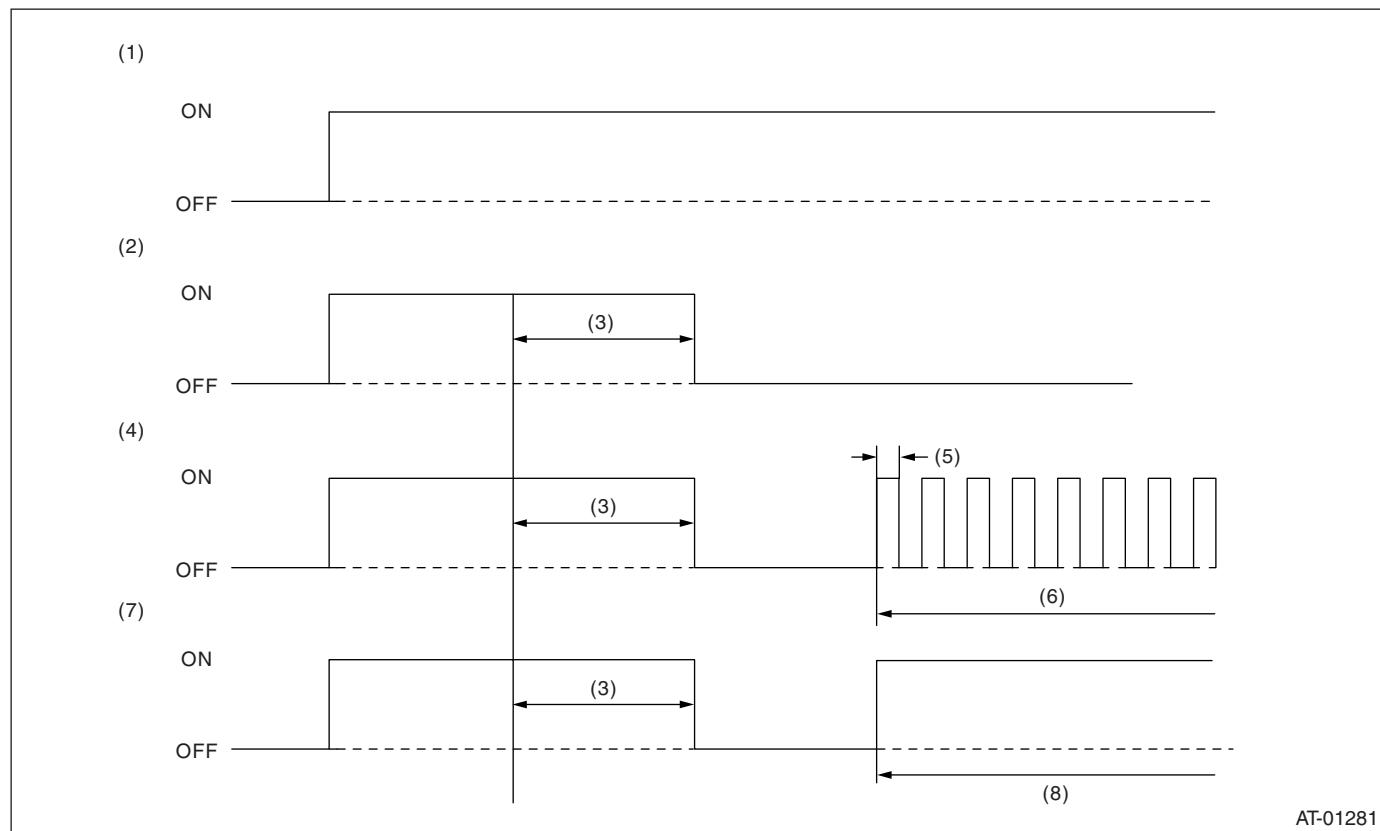
AT OIL TEMP Warning Light Display

AUTOMATIC TRANSMISSION (DIAGNOSTICS)

10. AT OIL TEMP Warning Light Display

A: OPERATION

When any on-board diagnostics item is malfunctioning, AT OIL TEMP warning light blinks from the time malfunction is detected after starting the engine until ignition switch is turned to OFF. The malfunctioning part or unit can be determined by a DTC during the on-board diagnostics operation. Problems which occurred previously can also be identified through the memory function. If the AT OIL TEMP warning light does not show a problem (although a problem is occurring), the problem can be determined by checking the performance characteristics of each sensor using Subaru Select Monitor. Indicator light signal patterns are as shown in the figure.



AT-01281

(1) Ignition switch (Engine OFF)	(4) Abnormal (Trouble occurs)	(7) Normal (ATF temperature is high)
(2) Normal	(5) 0.25 second	(8) ATF temperature is high
(3) 2 seconds	(6) Blink	

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B: INSPECTION

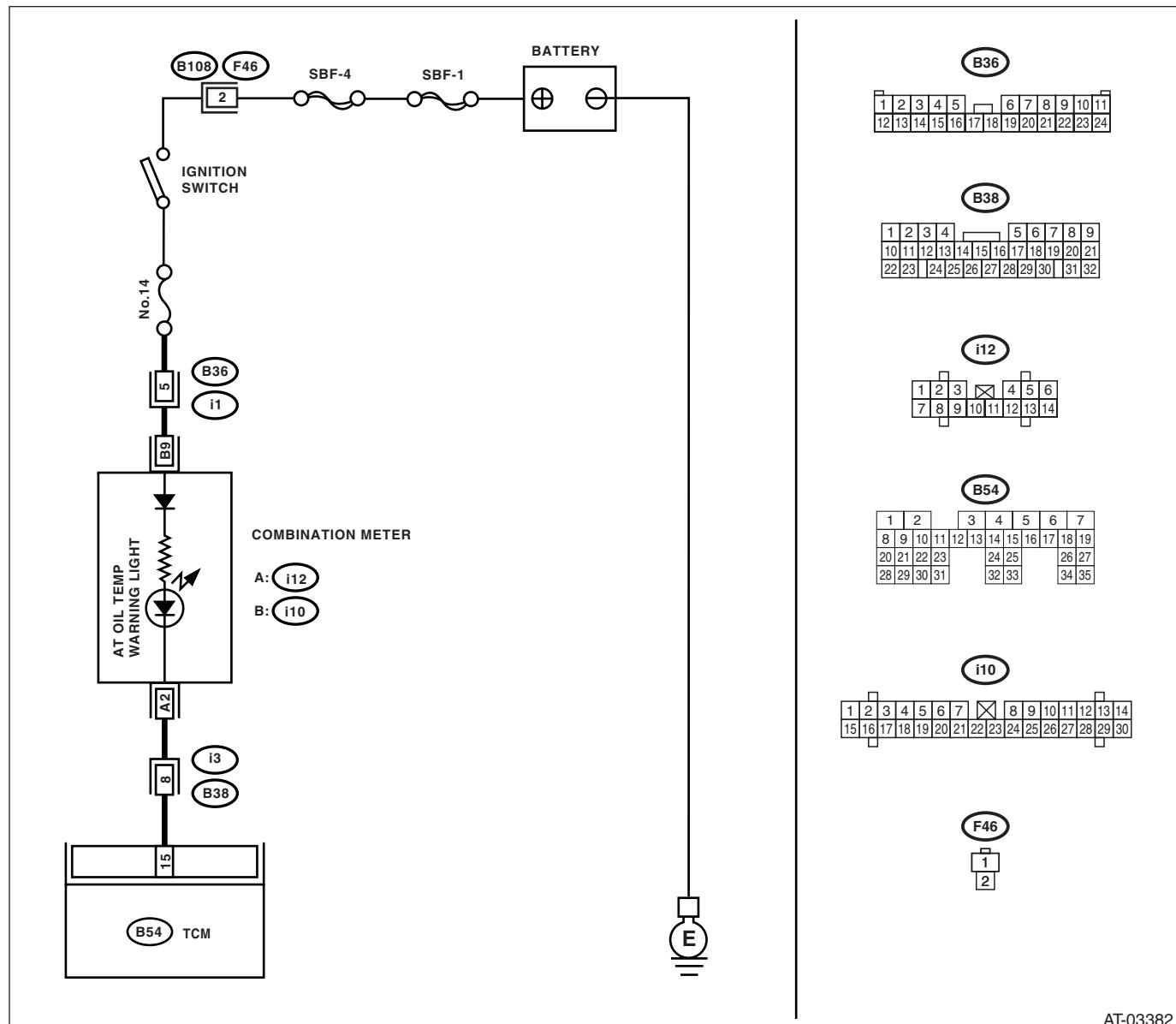
DIAGNOSIS:

The AT OIL TEMP warning light circuit is open or shorted.

TROUBLE SYMPTOM:

- When the ignition switch is turned ON (engine OFF), AT OIL TEMP warning light does not illuminate.
- When the on-board diagnostics is performed, the AT OIL TEMP warning light remains illuminated.

WIRING DIAGRAM:



Step	Check	Yes	No
1 CHECK FUSE (NO. 14). Remove the fuse (No. 14).	Is the fuse (No. 14) blown out?	Replace the fuse (No. 14). If the replaced fuse (No. 14) is blown out easily, repair the short circuit of the harness between fuse (No. 14) and the combination meter.	Go to step 2.

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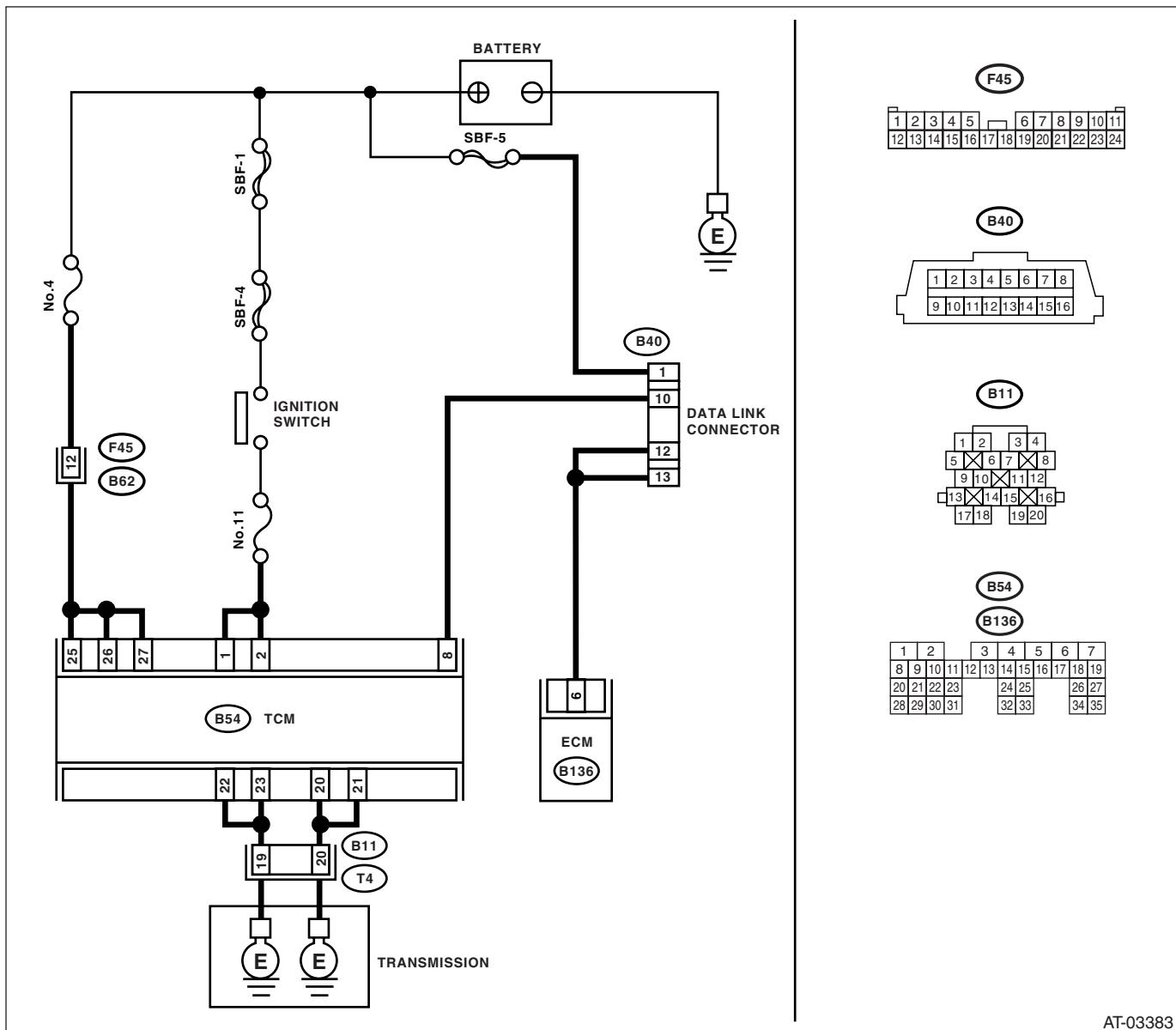
Step	Check	Yes	No
2 CHECK HARNESS CONNECTOR BETWEEN COMBINATION METER AND IGNITION SWITCH. 1) Turn the ignition switch OFF. 2) Remove the combination meter. 3) Turn the ignition switch ON (engine OFF). 4) Measure the voltage between combination meter connector and chassis ground. Connector & terminal (i10) No. 9 (+) — Chassis ground (-):	Is the voltage more than 9 V?	Go to step 3.	Repair open or short circuit of harness between the combination meter and battery.
3 CHECK AT OIL TEMP WARNING LIGHT. 1) Turn the ignition switch OFF. 2) Disconnect the connector (B54) from TCM. 3) Turn the ignition switch ON (engine OFF). 4) Short between the combination meter connector and chassis ground. CAUTION: When shorting, be sure to short through the fuse.	Does the warning light illuminate?	Go to step 4.	Check the combination meter.
4 CHECK OPEN CIRCUIT OF HARNESS. 1) Turn the ignition switch OFF. 2) Disconnect the connector from the combination meter. 3) Measure the resistance between the combination meter connector and TCM connector. Connector & terminal (B54) No. 15 — (i12) No. 2:	Is the resistance less than 1 Ω ?	Go to step 5.	Repair the open circuit of harness between TCM and combination meter, and the poor contact of the connector.
5 CHECK COMBINATION METER. Measure the resistance between the combination meter connector and chassis ground. Connector & terminal (i12) No. 2 — Chassis ground:	Is the resistance more than 1 $M\Omega$?	Go to step 6.	Repair the short circuit of harness between TCM and combination meter connector.
6 CHECK INPUT SIGNAL FOR TCM. 1) Connect all the connectors. 2) Turn the ignition switch ON (engine OFF). 3) Measure the voltage between TCM connector and chassis ground. Connector & terminal (B54) No. 15 (+) — Chassis ground (-):	Is the voltage less than 1 V?	Go to step 7.	Replace the TCM. <Ref. to 4AT-64, Transmission Control Module (TCM).>
7 CHECK FOR POOR CONTACT.	Is there poor contact of the AT OIL TEMP warning light circuit?	Repair the poor contact.	Check the power supply and ground circuit. <Ref. to 4AT(D)(diag)-23, CHECK POWER SUPPLY AND GROUND CIRCUIT, AT OIL TEMP Warning Light Display.>

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C: CHECK POWER SUPPLY AND GROUND CIRCUIT

WIRING DIAGRAM:



Step	Check	Yes	No
1 CHECK BATTERY TERMINAL. Turn the ignition switch OFF.	Is there poor contact at the battery terminal?	Repair or tighten the battery terminal.	Go to step 2.
2 CHECK POWER SUPPLY OF TCM. 1) Disconnect the connector from TCM. 2) Turn the ignition switch ON. 3) Measure the voltage between TCM connector and chassis ground. <i>Connector & terminal</i> (B54) No. 25 (+) — Chassis ground (-): (B54) No. 26 (+) — Chassis ground (-): (B54) No. 27 (+) — Chassis ground (-):	Is the voltage 10 — 13 V?	Go to step 4.	Go to step 3.

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Step	Check	Yes	No
3 CHECK FUSE (NO. 4). 1) Turn the ignition switch OFF. 2) Remove the fuse (No. 4).	Is the fuse (No. 4) blown out?	Replace the fuse (No. 4). If the replaced fuse (No. 4) has blown out easily, repair short circuit of harness between fuse (No. 4) and TCM.	Repair the open circuit of harness between fuse (No. 4) and TCM, or fuse (No. 4) and battery, and poor contact of the connector.
4 CHECK IGNITION POWER SUPPLY CIRCUIT. 1) Turn the ignition switch ON (engine OFF). 2) Measure the ignition power supply voltage between TCM connector and chassis ground. <i>Connector & terminal</i> (B54) No. 1 (+) — Chassis ground (-): (B54) No. 2 (+) — Chassis ground (-):	Is the voltage 10 — 13 V?	Go to step 6.	Go to step 5.
5 CHECK FUSE (NO. 11). Remove the fuse (No. 11).	Is the fuse (No. 11) blown out?	Replace the fuse (No. 11). If the replaced fuse (No. 11) has blown out easily, repair short circuit of harness between fuse (No. 11) and TCM.	Repair the open circuit of harness between fuse (No. 4) and TCM, or fuse (No. 4) and battery, and poor contact of the connector.
6 CHECK HARNESS CONNECTOR BETWEEN TCM AND TRANSMISSION. 1) Turn the ignition switch OFF. 2) Disconnect the connectors from TCM and transmission. 3) Measure the resistance of harness between TCM and transmission connector. <i>Connector & terminal</i> (B54) No. 22 — (B11) No. 19: (B54) No. 23 — (B11) No. 19: (B54) No. 20 — (B11) No. 20: (B54) No. 21 — (B11) No. 20:	Is the resistance less than 1 Ω ?	Go to step 7.	Repair the open circuit of harness between TCM and transmission harness connector, and poor contact of connector.
7 CHECK HARNESS CONNECTOR BETWEEN TRANSMISSION AND TRANSMISSION GROUND. Measure the resistance of the harness between transmission and transmission ground. <i>Connector & terminal</i> (T4) No. 19 — Transmission ground: (T4) No. 20 — Transmission ground:	Is the resistance less than 1 Ω ?	Go to step 8.	Repair the open circuit of the harness between transmission and transmission ground.
8 CHECK POOR CONTACT OF CONNECTORS.	Is there poor contact in TCM power supply, ground and data link connector?	Repair the connector.	Replace the TCM. <Ref. to 4AT-64, Transmission Control Module (TCM).>