12. Diagnostic Procedure for “AT OIL TEMP” Warning Light

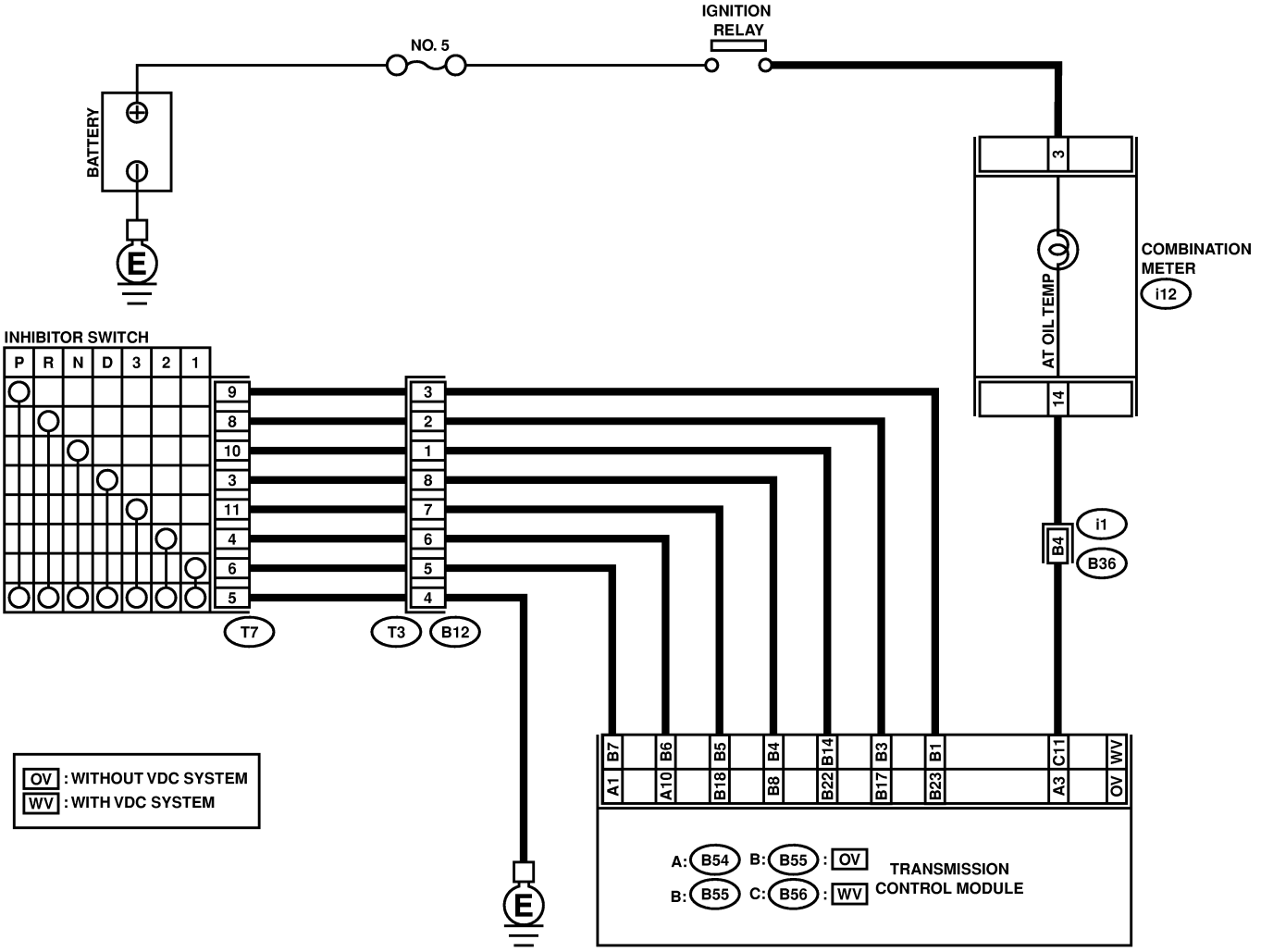
S004617

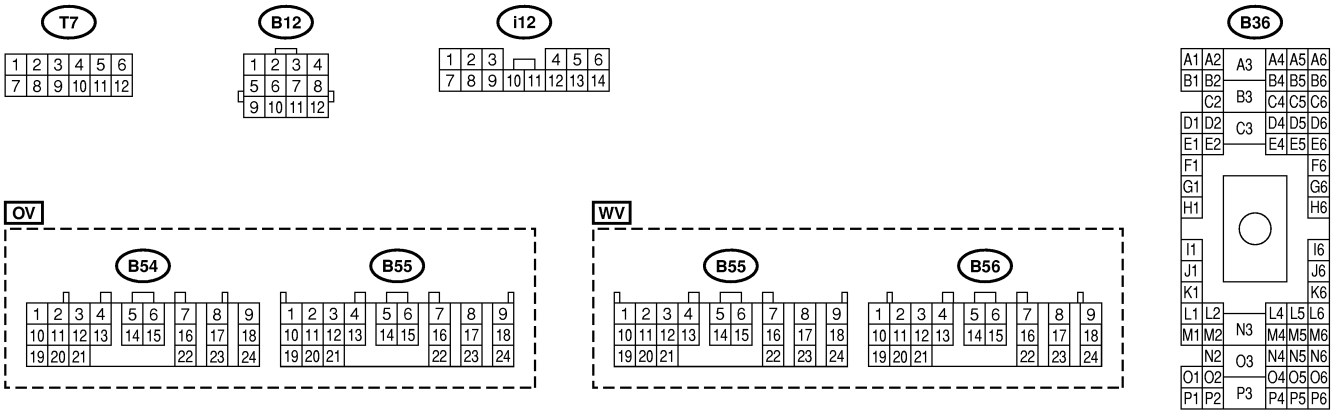
A: “AT OIL TEMP” WARNING LIGHT DOES NOT COME ON OR GO OFF

S004617F14

DIAGNOSIS:
The “AT OIL TEMP” warning light circuit is open or shorted.
TROUBLE SYMPTOM:
- When the ignition switch is turned to ON (engine OFF), “AT OIL TEMP” warning light does not illuminate.
- When the on-board diagnostics is performed, “AT OIL TEMP” warning light remains illuminated.

WIRING DIAGRAM:





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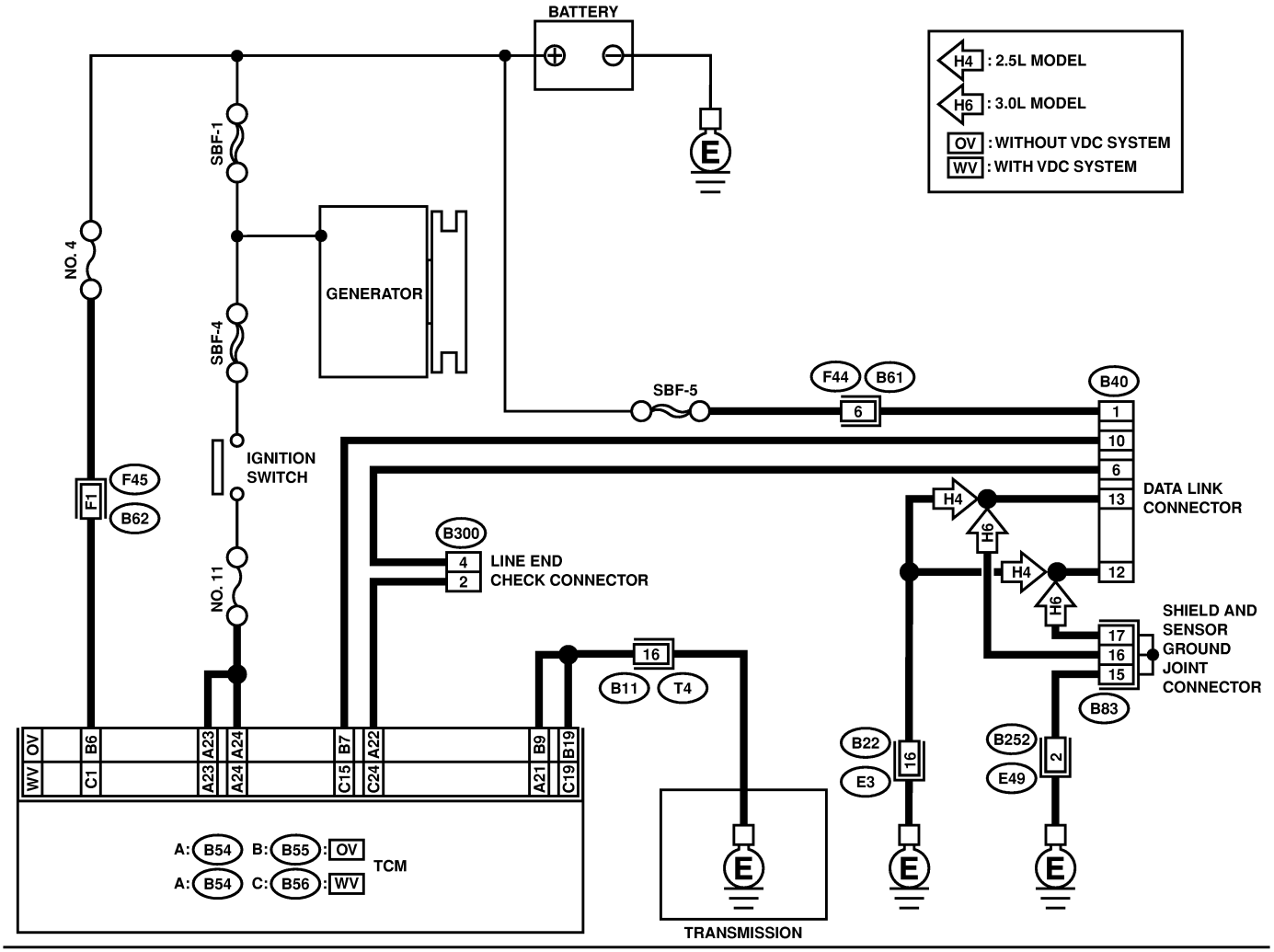
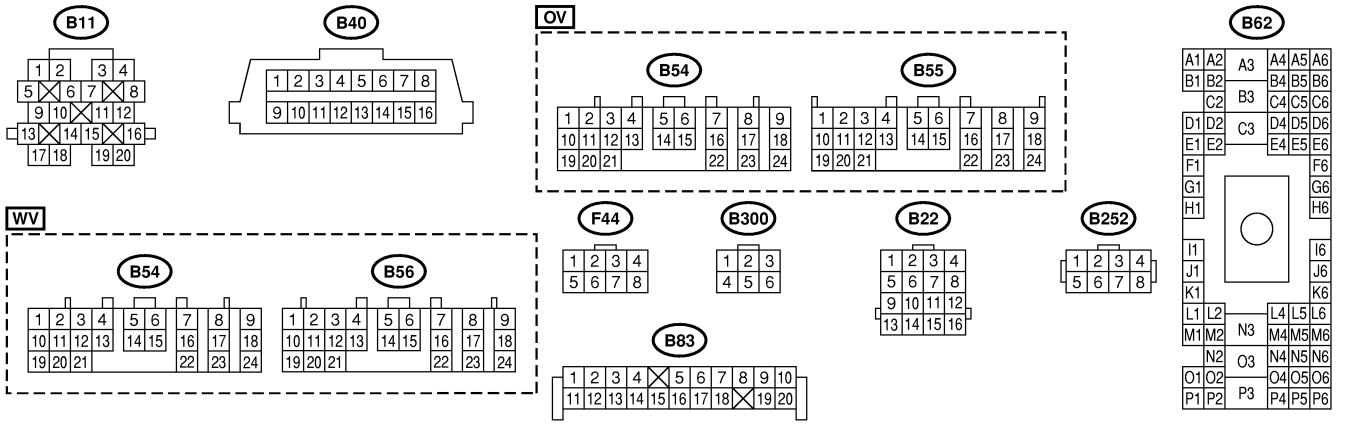
No.	Step	Check	Yes	No
1	**CHECK “AT OIL TEMP” WARNING LIGHT.** Turn the ignition switch to ON (engine OFF).	Does the “AT OIL TEMP” warning light illuminate?	Go to step **3**.	Go to step **2**.
2	**CHECK “AT OIL TEMP” WARNING LIGHT.** 1) Turn the ignition switch to OFF. 2) Remove the combination meter. 3) Remove the ATF temp warning light bulb from combination meter.	Is the “AT OIL TEMP” warning light bulb OK?	Go to step **4**.	Replace the “AT OIL TEMP” warning light bulb.
3	**CHECK “AT OIL TEMP” WARNING LIGHT.** Perform “Read Diagnostic Trouble Code”. <Ref. to AT-25, WITHOUT SUBARU SELECT MONITOR, OPERATION, Read Diagnostic Trouble Code (DTC).>	Does the “AT OIL TEMP” warning light blink?	A temporary poor contact of the connector or harness may be the cause. Repair the harness or connector in TCM, inhibitor switch and combination meter.	Go to step **10**.
4	**CHECK FUSE (No. 5).** Remove the fuse (No. 5).	Is the fuse (No. 5) blown out?	Replace the fuse (No. 5). If the replaced fuse (No. 5) is blown out easily, repair short circuit in harness between fuse (No. 5) and combination meter.	Go to step **5**.
5	**CHECK HARNESS CONNECTOR BETWEEN COMBINATION METER AND IGNITION SWITCH.** 1) Turn the ignition switch to ON (engine OFF). 2) Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i12) No. 3 (+) — Chassis ground (–):***	Is the voltage more than 9 V?	Go to step **6**.	Repair open or short circuit in harness between combination meter and battery.
6	**CHECK COMBINATION METER.** Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i12) No. 14 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Repair the combination meter. <Ref. to IDI-11, Combination Meter Assembly.>	Go to step **7**.
7	**CHECK OPEN CIRCUIT OF HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from combination meter connector. 3) Measure the resistance of harness between combination meter. ***Connector & terminal*** ***Without VDC system*** ***(B54) No. 3 — (i12) No. 14:*** ***With VDC system*** ***(B56) No. 11 — (i12) No. 14:***	Is the resistance less than 1 Ω?	Go to step **8**.	Repair open circuit in harness between TCM and combination meter, and poor contact in coupling connector.

No.	Step	Check	Yes	No
8	**CHECK INPUT SIGNAL FOR TCM.** 1) Connect the connector to TCM and combination meter. 2) Turn the ignition switch to ON (engine OFF). 3) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***Without VDC system*** ***(B54) No. 3 (+) — Chassis ground (–):*** ***With VDC system*** ***(B56) No. 11 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Even if the AT OIL TEMP warning lights up, the circuit has returned to a normal condition at this time. A temporary poor contact of the connector or harness may be the cause. Repair the harness or connector in TCM.	Replace the TCM. <Ref. to AT-49, Transmission Control Module (TCM).>
9	**CHECK SUBARU SELECT MONITOR.**	Do you have a SUBARU SELECT MONITOR?	Go to step **10**.	Go to step **11**.
10	**CHECK INHIBITOR SWITCH.** 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Subaru Select Monitor to ON. 4) Read the data of range switch using Subaru Select Monitor. ● Range switch is indicated in ON ⇔ OFF.	When each range is selected, does the LED of Subaru Select Monitor light up?	Go to step **11**.	Check the inhibitor switch circuit. <Ref. to AT-122, CHECK INHIBITOR SWITCH., Diagnostic Procedure for No-diagnostic Trouble Code (DTC).>
11	**CHECK SHORT CIRCUIT OF HARNESS.** 1) Disconnect the connector from TCM. 2) Remove the combination meter. 3) Disconnect the connector from combination meter. 4) Measure the resistance of harness connector between TCM and chassis ground. ***Connector & terminal/specified resistance*** ***Without VDC system*** ***(B54) No. 3 (+) — Chassis ground (–):*** ***With VDC system*** ***(B56) No. 11 (+) — Chassis ground (–):***	Is the resistance less than 1 MΩ?	Replace the TCM. <Ref. to AT-49, Transmission Control Module (TCM).>	Repair short circuit in harness between combination meter connector and TCM connector.

B: CHECK POWER SUPPLY AND GROUND LINE S004617G86

WIRING DIAGRAM:





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No.	Step	Check	Yes	No
1	**CHECK IGNITION SWITCH.**	Is the ignition switch ON?	Go to step **2**.	Turn the ignition switch ON.
2	**CHECK GENERATOR.** 1) Start the engine. 2) Idle the engine. 3) Measure the voltage between generator and chassis ground. ***Terminal*** ***Generator B terminal (+) — Chassis ground (–):***	Is the voltage between 10 and 15 V?	Go to step **3**.	Repair the generator. <Ref. to SC-15, Generator.>
3	**CHECK BATTERY TERMINAL.** Turn the ignition switch to OFF.	Is there poor contact at battery terminal?	Repair the battery terminal.	Go to step **4**.
4	**CHECK POWER SUPPLY OF TCM.** 1) Disconnect the connector from TCM. 2) Turn the ignition switch to ON. 3) Measure the voltage between TCM connector and chassis ground. ***Connector & terminal*** ***Without VDC system*** ***(B54) No. 6 (+) — Chassis ground (–):*** ***With VDC system*** ***(B56) No. 1 (+) — Chassis ground (–):***	Is the voltage between 10 and 15 V?	Go to step **6**.	Go to step **5**.
5	**CHECK FUSE (NO. 4).** Remove 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 in harness between fuse (No. 4) and TCM.	Repair open circuit in harness between fuse (No. 4) and TCM, or fuse (No. 4) and battery, and poor contact in coupling connector.
6	**CHECK IGNITION POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to ON (engine OFF). 2) Measure the ignition power supply voltage between TCM connector and chassis ground. ***Connector & terminal*** ***(B54) No. 23 (+) — Chassis ground (–):*** ***(B54) No. 24 (+) — Chassis ground (–):***	Is the voltage more than 10 V?	Go to step **8**.	Go to step **7**.
7	**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 in harness between fuse (No. 11) and TCM.	Repair open circuit in harness between fuse (No. 4) and TCM, or fuse (No. 4) and battery, and poor contact in coupling connector.

No.	Step	Check	Yes	No
8	**CHECK HARNESS CONNECTOR BETWEEN TCM AND TRANSMISSION.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from TCM and transmission. 3) Measure the resistance of harness between TCM and transmission connector. ***Connector & terminal*** ***Without VDC system*** ***(B55) No. 9 — (B11) No. 16*** ***(B55) No. 19 — (B11) No. 16*** ***With VDC system*** ***(B56) No. 19 — (B11) No. 16*** ***(B54) No. 21 — (B11) No. 16***	Is the resistance less than 1 Ω?	Go to step **9**.	Repair open circuit in harness between TCM, transmission harness connector, and poor contact in coupling connector.
9	**CHECK HARNESS CONNECTOR BETWEEN TRANSMISSION AND TRANSMISSION GROUND.** Measure the resistance of harness between transmission and transmission ground. ***Connector & terminal*** ***(T4) No. 16 — Transmission ground:***	Is the resistance less than 1 Ω?	Go to step **10**.	Repair open circuit in harness between transmission and transmission ground.
10	**CHECK POOR CONTACT IN CONNECTORS.**	Is there poor contact in control module power supply, ground line and data link connector?	Repair the connector.	Replace the TCM. <Ref. to AT-49, Transmission Control Module (TCM).>

MEMO: