7. Diagnostics Chart for ABS Warning Light Circuit and Diagnosis Circuit Failure

A: ABS WARNING LIGHT DOES NOT COME ON.

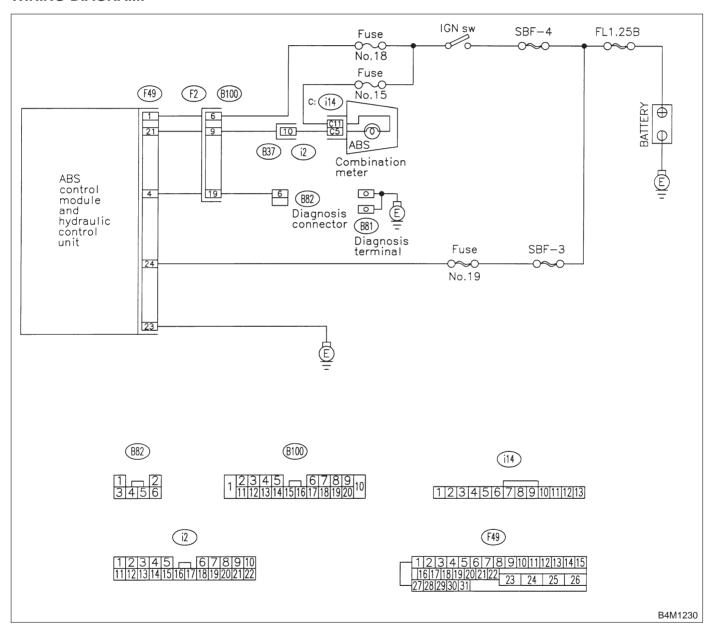
DIAGNOSIS:

• ABS warning light circuit is open or shorted.

TROUBLE SYMPTOM:

• When ignition switch is turned ON (engine OFF), ABS warning light does not come on.

WIRING DIAGRAM:



7A1: CHECK IF OTHER WARNING LIGHTS TURN ON.

Turn ignition switch to ON (engine OFF).

(CHECK): Do other warning lights turn on?

(YES): Go to step 7A2.

(NO) : Repair combination meter.

7A2: CHECK ABS WARNING LIGHT BULB.

1) Turn ignition switch to OFF.

- 2) Remove combination meter.
- 3) Remove ABS warning light bulb from combination meter.

(CHECK) : Is ABS warning light bulb OK?

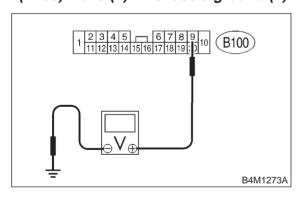
YES : Go to step 7A3.

: Replace ABS warning light bulb.

7A3: CHECK BATTERY SHORT OF ABS WARNING LIGHT HARNESS.

- 1) Disconnect connector (B100) from connector (F2).
- 2) Measure voltage between connector (B100) and chassis ground.

Connector & terminal (B100) No. 9 (+) — Chassis ground (-):



CHECK): Is the voltage less than 3 V?

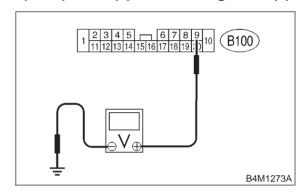
YES: Go to step 7A4.

No : Repair warning light harness.

7A4: CHECK BATTERY SHORT OF ABS WARNING LIGHT HARNESS.

- 1) Turn ignition switch to ON.
- 2) Measure voltage between connector (B100) and chassis ground.

Connector & terminal (B100) No. 9 (+) — Chassis ground (-):



CHECK): Is voltage less than 3 V?

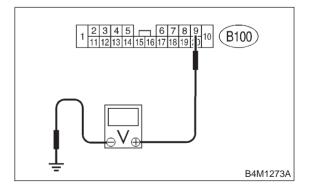
YES: Go to step 7A5.

(NO) : Repair warning light harness.

7A5: CHECK WIRING HARNESS.

- 1) Turn ignition switch to OFF.
- 2) Install ABS warning light bulb from combination meter.
- 3) Install combination meter.
- 4) Turn ignition switch to ON.
- 5) Measure voltage between connector (B100) and chassis ground.

Connector & terminal (B100) No. 9 (+) — Chassis ground (-):



CHECK): Is voltage between 10 V and 15 V?

(YES) : Go to step 7A6.

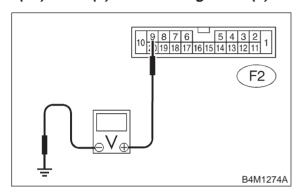
No : Repair wiring harness.

7A6: CHECK BATTERY SHORT OF ABS WARNING LIGHT HARNESS.

- 1) Turn ignition switch to OFF.
- 2) Measure voltage between connector (F2) and chassis ground.

Connector & terminal

(F2) No. 9 (+) — Chassis ground (-):



CHECK): Is the voltage less than 3 V?

YES : Go to step 7A7.

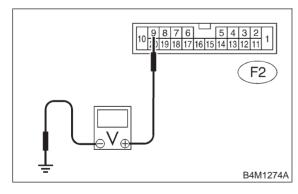
(NO) : Repair wiring harness.

7A7: CHECK BATTERY SHORT OF ABS WARNING LIGHT HARNESS.

- 1) Turn ignition switch to ON.
- 2) Measure voltage between connector (F2) and chassis ground.

Connector & terminal

(F2) No. 9 (+) — Chassis ground (-):



CHECK): Is voltage less than 3 V?

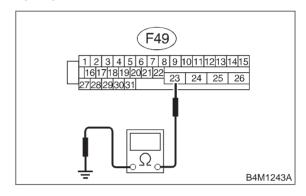
YES : Go to step 7A8.

: Repair wiring harness.

7A8: CHECK GROUND CIRCUIT OF ABSCM&H/U.

Measure resistance between ABSCM&H/U and chassis ground.

Connector & terminal (F49) No. 23 — GND:



(CHECK): Is the resistance less than 0.5 Ω ?

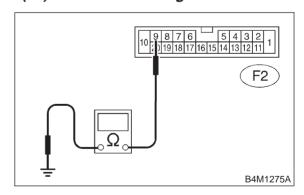
YES : Go to step 7A9.

: Repair ABSCM&H/U ground harness.

7A9: CHECK WIRING HARNESS.

Measure resistance between connector (F2) and chassis ground.

Connector & terminal (F2) No. 9 — Chassis ground:



(CHECK): Is the resistance less than 0.5 Ω ?

(YES) : Go to step 7A10.

: Repair harness/connector.

7A10 : **CHECK POOR CONTACT IN CON-NECTORS.**

Turn ignition switch to OFF.

(CHECK): Is there poor contact in connectors between combination meter and ABSCM&H/U? <Ref. to FOREWORD

[T3C1].>

YES : Repair connector.

: Replace ABSCM&H/U. NO

B: ABS WARNING LIGHT DOES NOT GO OFF.

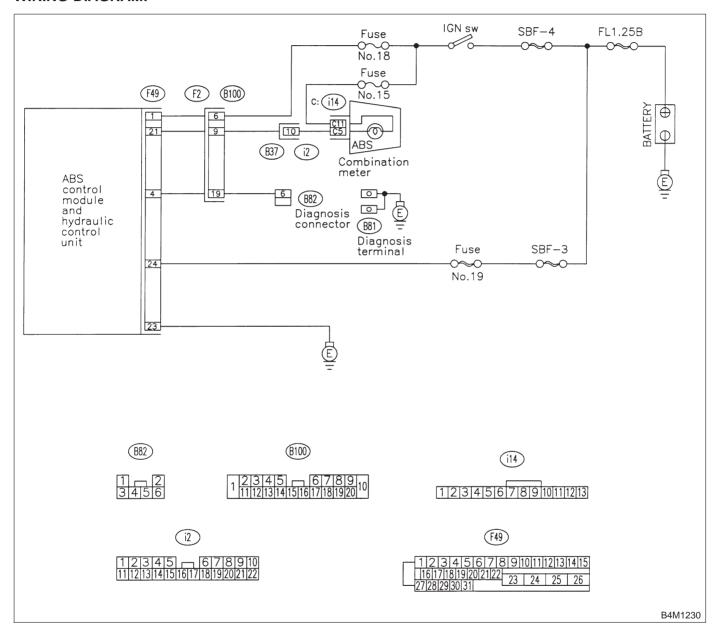
DIAGNOSIS:

• ABS warning light circuit is open or shorted.

TROUBLE SYMPTOM:

• When starting the engine and while ABS warning light is kept ON.

WIRING DIAGRAM:



7B1: CHECK INSTALLATION OF ABSCM&H/U CONNECTOR.

Turn ignition switch to OFF.

CHECK : Is ABSCM&H/U connector inserted into ABSCM until the clamp locks

onto it?

(YES) : Go to step 7B2.

: Insert ABSCM&H/U connector into ABSCM&H/U until the clamp locks onto

it.

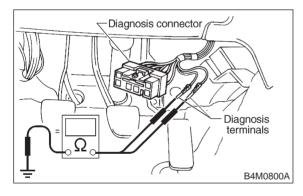
7B2: CHECK DIAGNOSIS TERMINAL.

Measure resistance between diagnosis terminals (B81) and chassis ground.

Terminals

Diagnosis terminal (A) — Chassis ground:

Diagnosis terminal (B) — Chassis ground:



(CHECK): Is the resistance less than 0.5 Ω ?

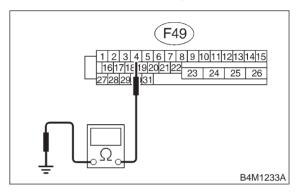
YES : Go to step 7B3.

(NO) : Repair diagnosis terminal harness.

7B3: CHECK DIAGNOSIS LINE.

- 1) Turn ignition switch to OFF.
- 2) Connect diagnosis terminal (B81) to diagnosis connector (B82) No. 6.
- 3) Disconnect connector from ABSCM&H/U.
- 4) Measure resistance between ABSCM&H/U connector and chassis ground.

Connector & terminal (F49) No. 4 — Chassis ground:



(CHECK): Is the resistance less than 0.5 Ω ?

YES: Go to step 7B4.

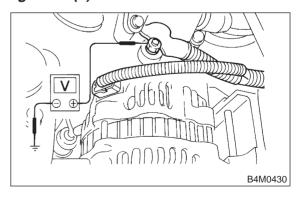
: Repair harness connector between ABSCM&H/U and diagnosis connector.

7B4: CHECK GENERATOR.

- 1) Start the engine.
- 2) Idle the engine.
- 3) Measure voltage between generator and chassis ground.

Terminal

Generator B terminal (+) — Chassis ground (-):



: Is the voltage between 10 and 15 V?

So to step **7B5**.

Repair generator.

4-4 [T7B5]

BRAKES

7. Diagnostics Chart for ABS Warning Light Circuit and Diagnosis Circuit Failure

7B5: CHECK BATTERY TERMINAL.

Turn ignition switch to OFF.

CHECK : Is there poor contact at battery termi-

(YES) : Repair battery terminal.

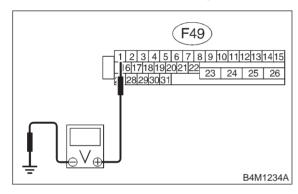
: Go to step **7B6**.

7B6: CHECK POWER SUPPLY OF ABSCM.

- 1) Disconnect connector from ABSCM&H/U.
- 2) Start engine.
- 3) Idle the engine.
- 4) Measure voltage between ABSCM&H/U connector and chassis ground.

Connector & terminal

(F49) No. 1 (+) — Chassis ground (-):



CHECK : Is the voltage between 10 and 15 V?

YES : Go to step 7B7.

NO : Repair ABSCM&H/U power supply cir-

7B7: CHECK WIRING HARNESS.

1) Disconnect connector (F2) from connector (B100).

2) Turn ignition switch to ON.

CHECK : Does the ABS warning light remain

OTT ?

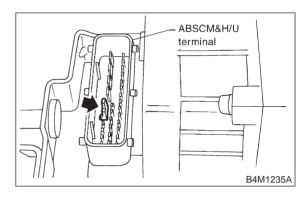
(YES) : Go to step 7B8.

No: Repair front wiring harness.

7B8: CHECK PROJECTION AT ABSCM&H/U.

1) Turn ignition switch to OFF.

2) Check for broken projection at the ABSCM&H/U terminal.



(CHECK): Are the projection broken?

Go to step 7B9.

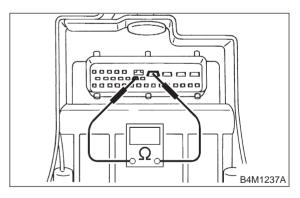
NO : Replace ABSCM&H/U.

7B9: CHECK ABSCM&H/U.

Measure resistance between ABSCM&H/U terminals.

Terminal

No. 21 — No. 23:



(CHECK): Is the resistance more than 1 M Ω ?

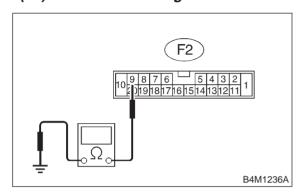
YES: Go to step **7B10**.

: Replace ABSCM&H/U.

7B10: CHECK WIRING HARNESS.

Measure resistance between connector (F2) and chassis ground.

Connector & terminal (F2) No. 9 — Chassis ground:



 $_{
m CHECK}$: Is the resistance less than 0.5 Ω ?

Go to step **7B11**.

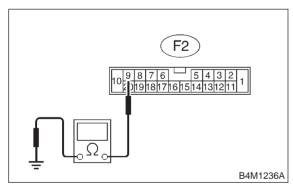
RO
: Repair harness.

7B11: CHECK WIRING HARNESS.

1) Connect connector to ABSCM&H/U.

2) Measure resistance between connector (F2) and chassis ground.

Connector & terminal (F2) No. 9 — Chassis ground:



 $\widehat{\mathsf{CHECK}}$: Is the resistance more than 1 M Ω ?

YES : Go to step **7B12**.

NO : Repair harness.

7B12: CHECK POOR CONTACT IN ABSCM&H/U CONNECTOR.

CHECK : Is there poor contact in ABSCM&H/U connector? <Ref. to FOREWORD

[T3C1].>

: Repair connector.

NO : Replace ABSCM&H/U.

7. Diagnostics Chart for ABS Warning Light Circuit and Diagnosis Circuit Failure

C: TROUBLE CODE DOES NOT APPEAR.

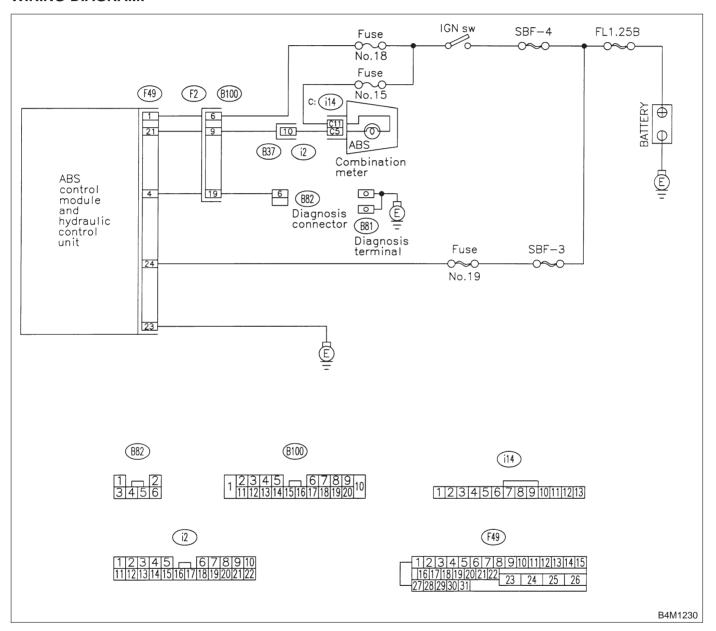
DIAGNOSIS:

• Diagnosis circuit is open.

TROUBLE SYMPTOM:

• The ABS warning light turns on or off normally but the start code cannot be read out in the diagnostic mode.

WIRING DIAGRAM:



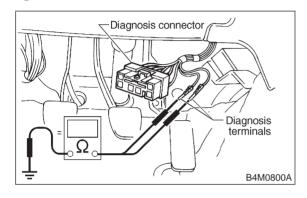
7C1: CHECK DIAGNOSIS TERMINAL.

Measure resistance between diagnosis terminals (B81) and chassis ground.

Terminals

Diagnosis terminal (A) — Chassis ground:

Diagnosis terminal (B) — Chassis ground:



CHECK : Is the resistance less than 0.5 Ω ?

: Go to step **7C2**.

(NO): Repair diagnosis terminal harness.

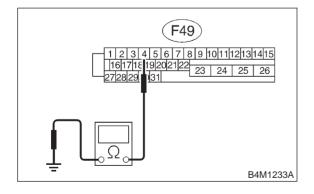
7C2: CHECK DIAGNOSIS LINE.

1) Turn ignition switch to OFF.

- 2) Connect diagnosis terminal (B81) to diagnosis connector (B82) No. 6.
- 3) Disconnect connector from ABSCM&H/U.
- 4) Measure resistance between ABSCM&H/U connector and chassis ground.

Connector & terminal

(F49) No. 4 — Chassis ground:



(CHECK): Is the resistance less than 0.5 Ω ?

Go to step 7C3.

NO

Repair harness connector between ABSCM&H/U and diagnosis connector.

7C3: CHECK POOR CONTACT IN ABSCM&H/U CONNECTOR.

CHECK : Is there poor contact in ABSCM&H/U connector? <Ref. to FOREWORD

[T3C1].>

YES: Repair connector.

: Replace ABSCM&H/U.

4-4 [T7C3] BRAKES 7. Diagnostics Chart for ABS Warning Light Circuit and Diagnosis Circuit Failure

MEMO: