

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

A: ABS WARNING LIGHT DOES NOT COME ON.

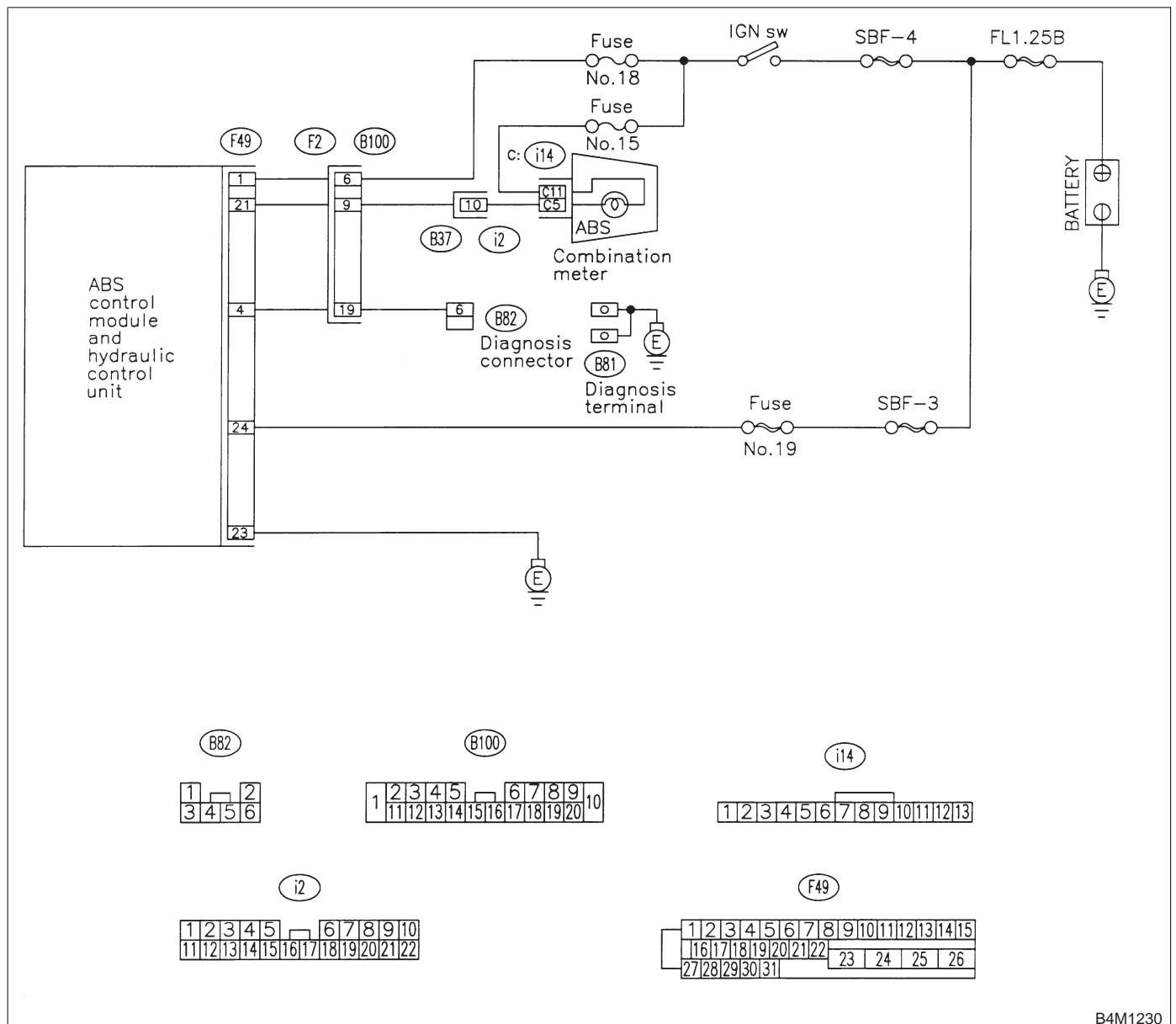
DIAGNOSIS:

- 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:



B4M1230

BRAKES

[T7A5] 4-4

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

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.

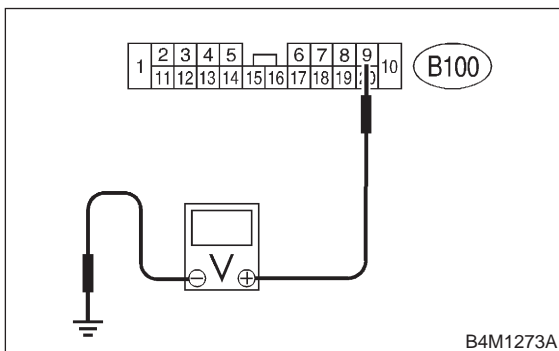
- 1) Turn ignition switch to OFF.
- 2) Remove combination meter.
- 3) Remove ABS warning light bulb from combination meter.

- CHECK** : *Is ABS warning light bulb OK?*
- YES** : Go to step **7A3**.
- NO** : 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 (-):

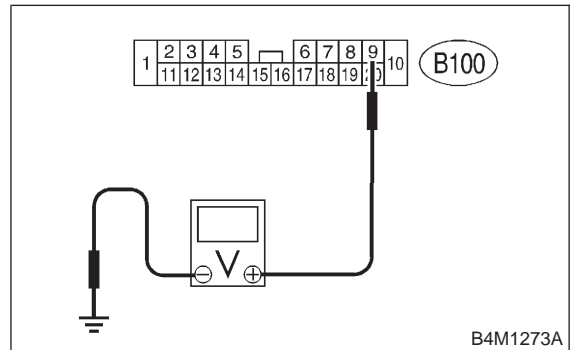


- CHECK** : *Is the voltage less than 3 V?*
- YES** : Go to step **7A4**.
- NO** : Repair warning light harness.

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 (-):

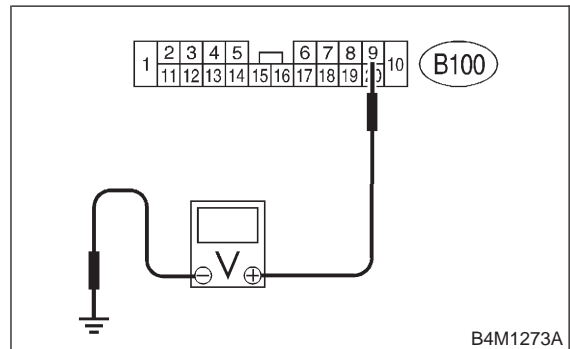


- CHECK** : *Is voltage less than 3 V?*
- YES** : Go to step **7A5**.
- NO** : Repair warning light harness.

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.

4-4 [T7A6]

BRAKES

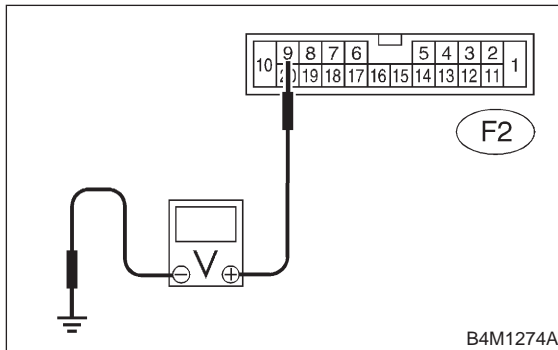
7. Diagnostics Chart for ABS Warning Light Circuit and Diagnosis Circuit Failure

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 (-):



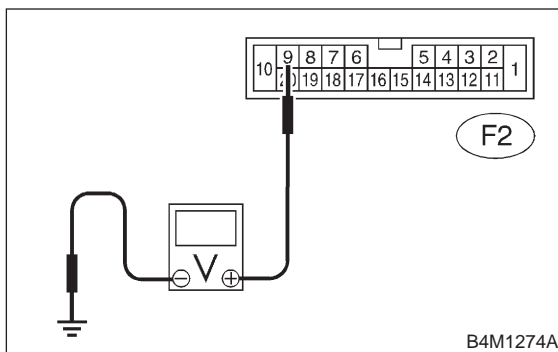
- CHECK** : Is the voltage less than 3 V?
- YES** : Go to step 7A7.
- NO** : Repair wiring harness.

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 (-):



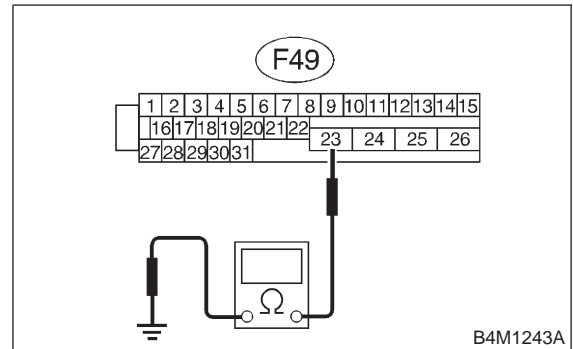
- CHECK** : Is voltage less than 3 V?
- YES** : Go to step 7A8.
- NO** : Repair wiring harness.

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

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

Connector & terminal

(F49) No. 23 — GND:



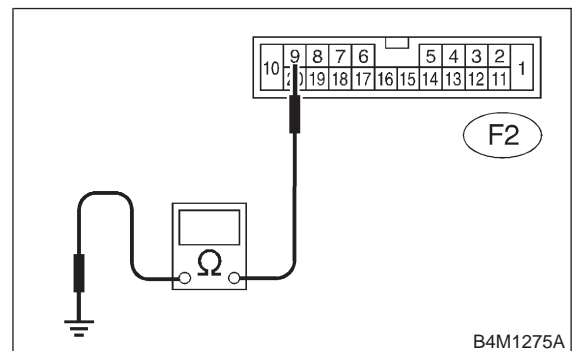
- CHECK** : Is the resistance less than 0.5 Ω?
- YES** : Go to step 7A9.
- NO** : Repair ABSCM&H/U ground harness.

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.
- NO** : Repair harness/connector.

7A10 : CHECK POOR CONTACT IN CONNECTORS.

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.

NO : Replace ABSCM&H/U.

B: ABS WARNING LIGHT DOES NOT GO OFF.

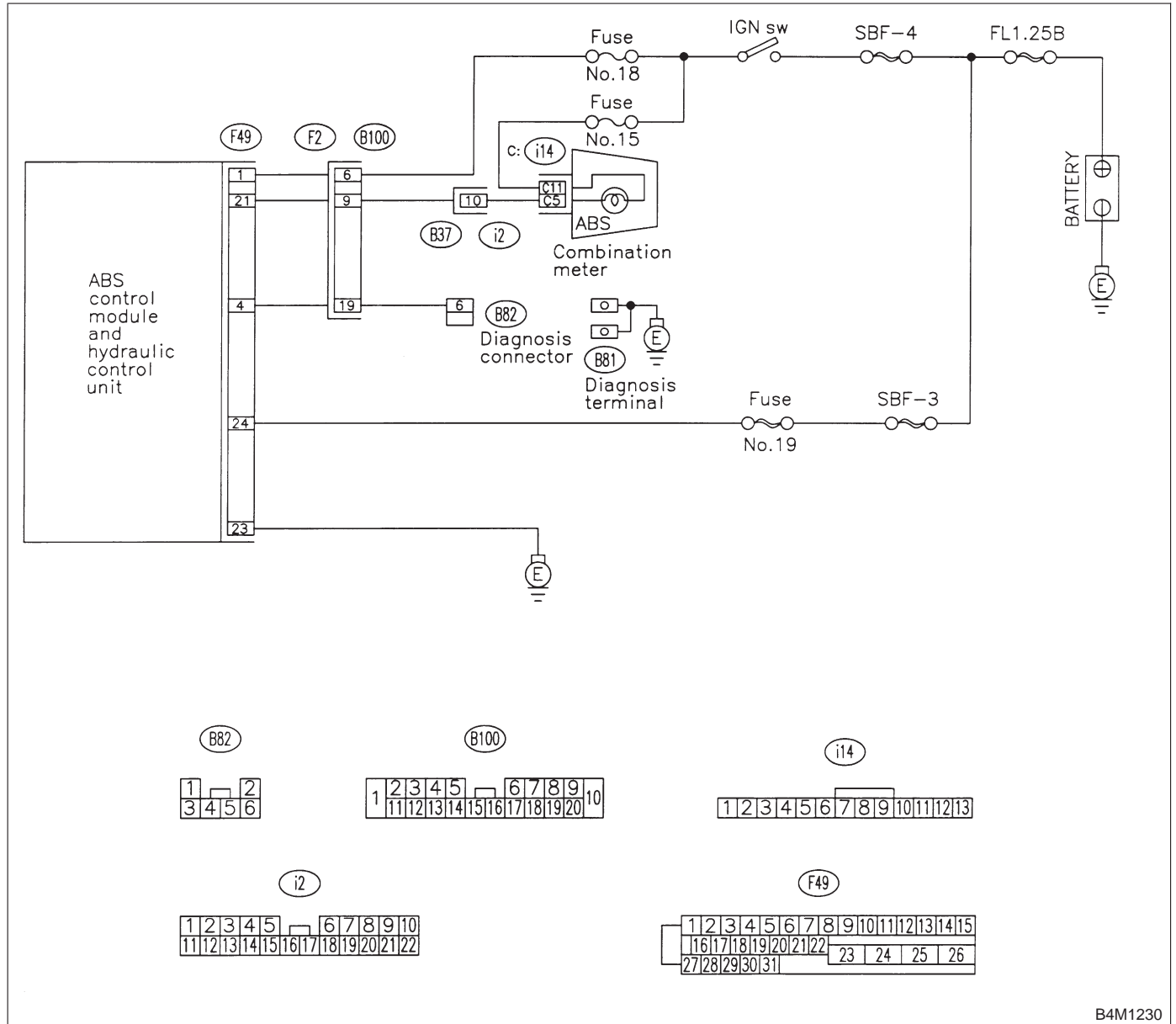
DIAGNOSIS:

- ABS warning light circuit is open or shorted.

TROUBLE SYMPTOM:

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

WIRING DIAGRAM:



B4M1230

BRAKES

[T7B4] 4-4

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

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.
- NO** : Insert ABSCM&H/U connector into ABSCM&H/U until the clamp locks onto it.

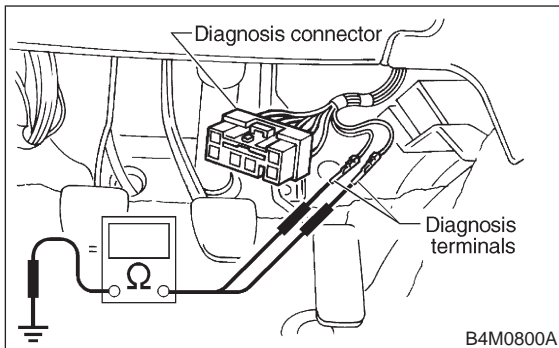
7B2 : CHECK DIAGNOSIS TERMINAL.

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

Terminals

Diagnosis terminal (A) — Chassis ground:

Diagnosis terminal (B) — Chassis ground:



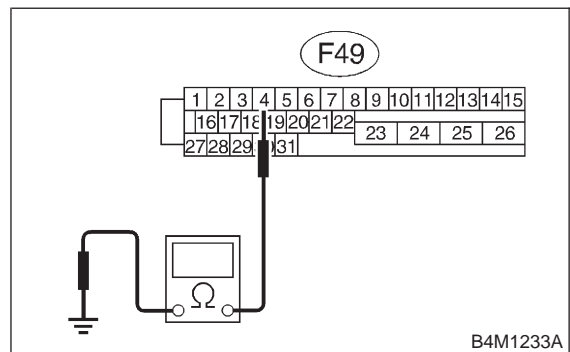
- CHECK** : Is the resistance less than 0.5 Ω?
- YES** : Go to step 7B3.
- NO** : Repair diagnosis terminal harness.

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:



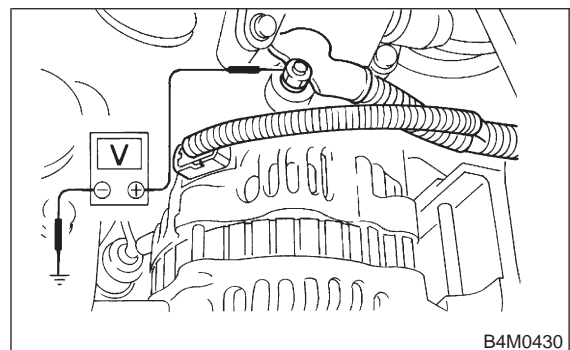
- CHECK** : Is the resistance less than 0.5 Ω?
- YES** : Go to step 7B4.
- NO** : Repair harness connector between ABSCM&H/U and diagnosis connector.

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 (-):



- CHECK** : Is the voltage between 10 and 15 V?
- YES** : Go to step 7B5.
- NO** : 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.

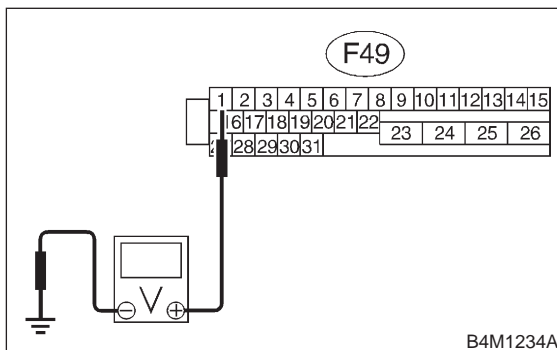
- CHECK** : *Is there poor contact at battery terminal?*
- YES** : Repair battery terminal.
- NO** : Go to step 7B6.

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 circuit.

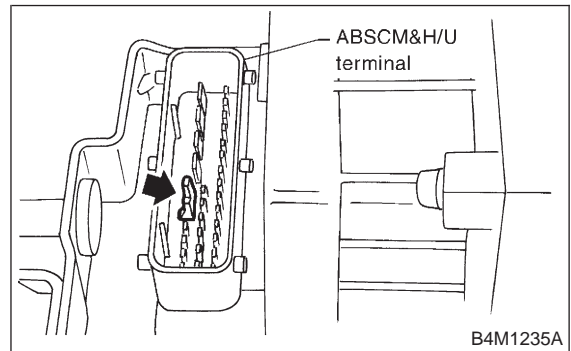
7B7 : CHECK WIRING HARNESS.

- 1) Disconnect connector (F2) from connector (B100).
- 2) Turn ignition switch to ON.

- CHECK** : *Does the ABS warning light remain off?*
- 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.



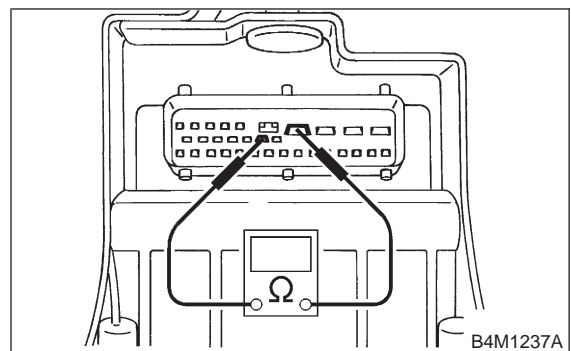
- CHECK** : *Are the projection broken?*
- YES** : Go to step 7B9.
- NO** : Replace ABSCM&H/U.

7B9 : CHECK ABSCM&H/U.

Measure resistance between ABSCM&H/U terminals.

Terminal

No. 21 — No. 23:



- CHECK** : *Is the resistance more than 1 MΩ?*
- YES** : Go to step 7B10.
- NO** : Replace ABSCM&H/U.

BRAKES

[T7B12] 4-4

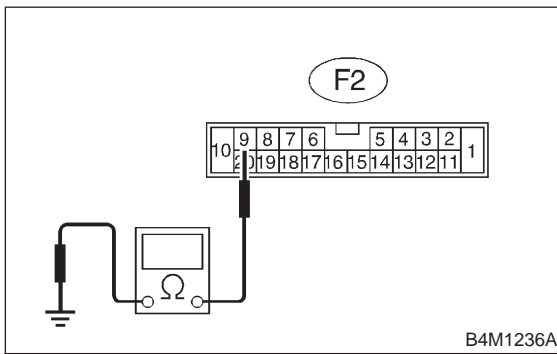
7. Diagnostics Chart for ABS Warning Light Circuit and Diagnosis Circuit Failure

7B10 : CHECK WIRING HARNESS.

Measure resistance between connector (F2) and chassis ground.

Connector & terminal

(F2) No. 9 — Chassis ground:



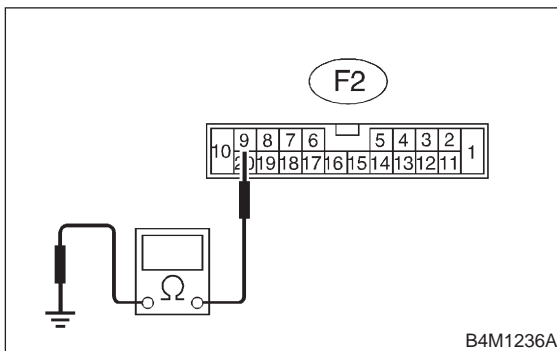
- CHECK** : *Is the resistance less than 0.5 Ω?*
YES : Go to step 7B11.
NO : Repair harness.

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:



- CHECK** : *Is the resistance more than 1 MΩ?*
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].>*
YES : Repair connector.
NO : Replace ABSCM&H/U.

C: TROUBLE CODE DOES NOT APPEAR.

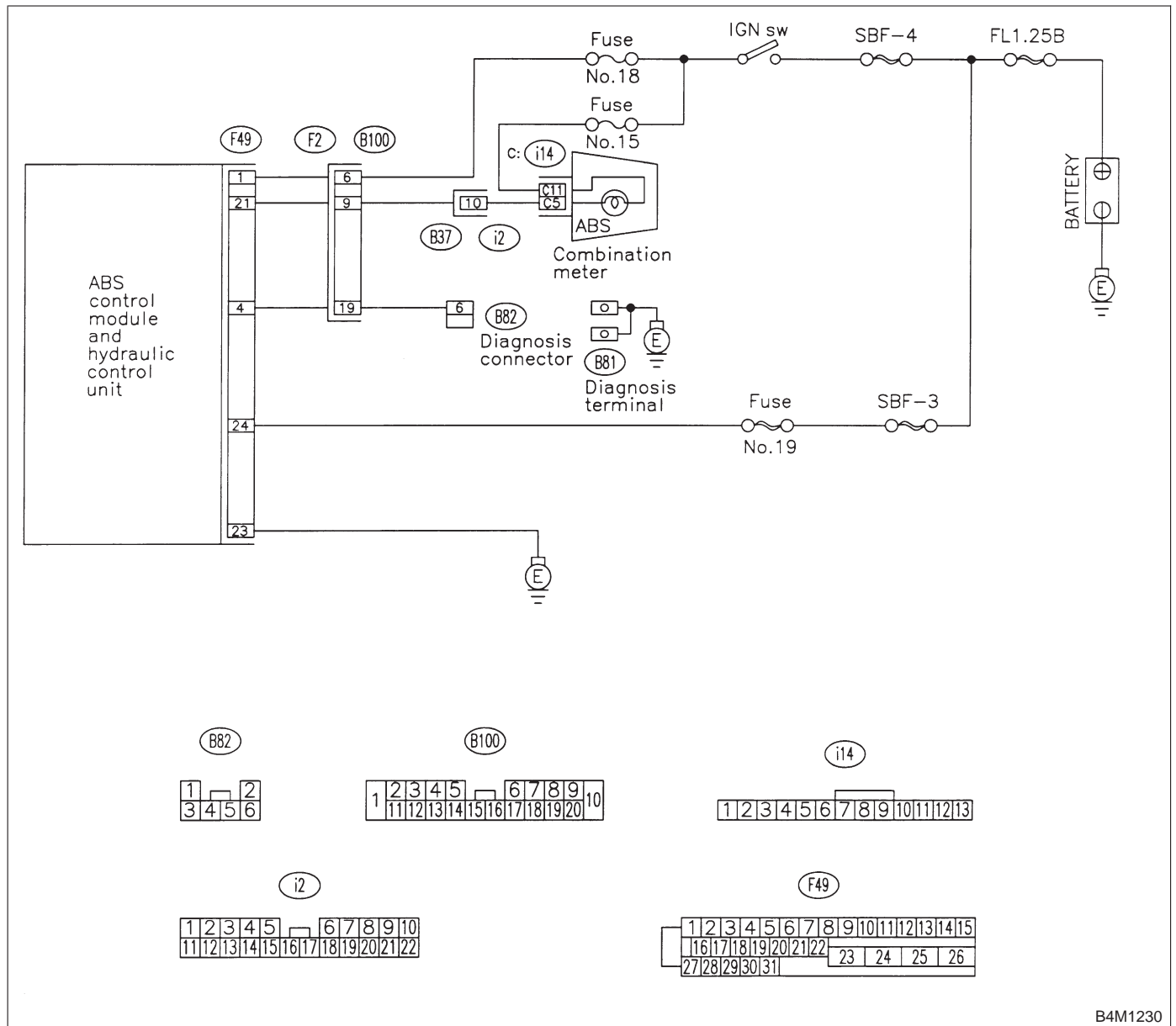
DIAGNOSIS:

- 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:



B4M1230

BRAKES

[T7C3] 4-4

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

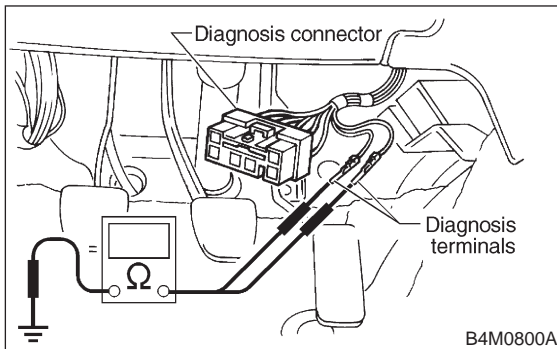
7C1 : CHECK DIAGNOSIS TERMINAL.

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?*

YES : Go to step 7C2.

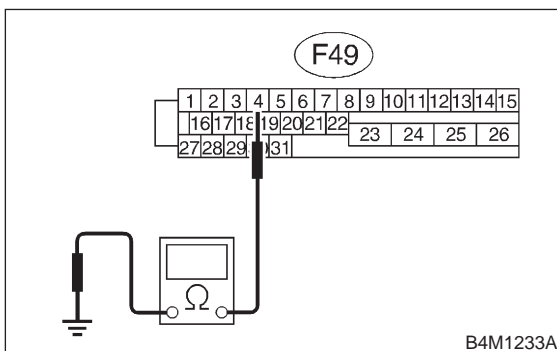
NO : Repair diagnosis terminal harness.

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?*

YES : 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.

NO : Replace ABSCM&H/U.

MEMO: