

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

A: ABS WARNING LIGHT DOES NOT COME ON.

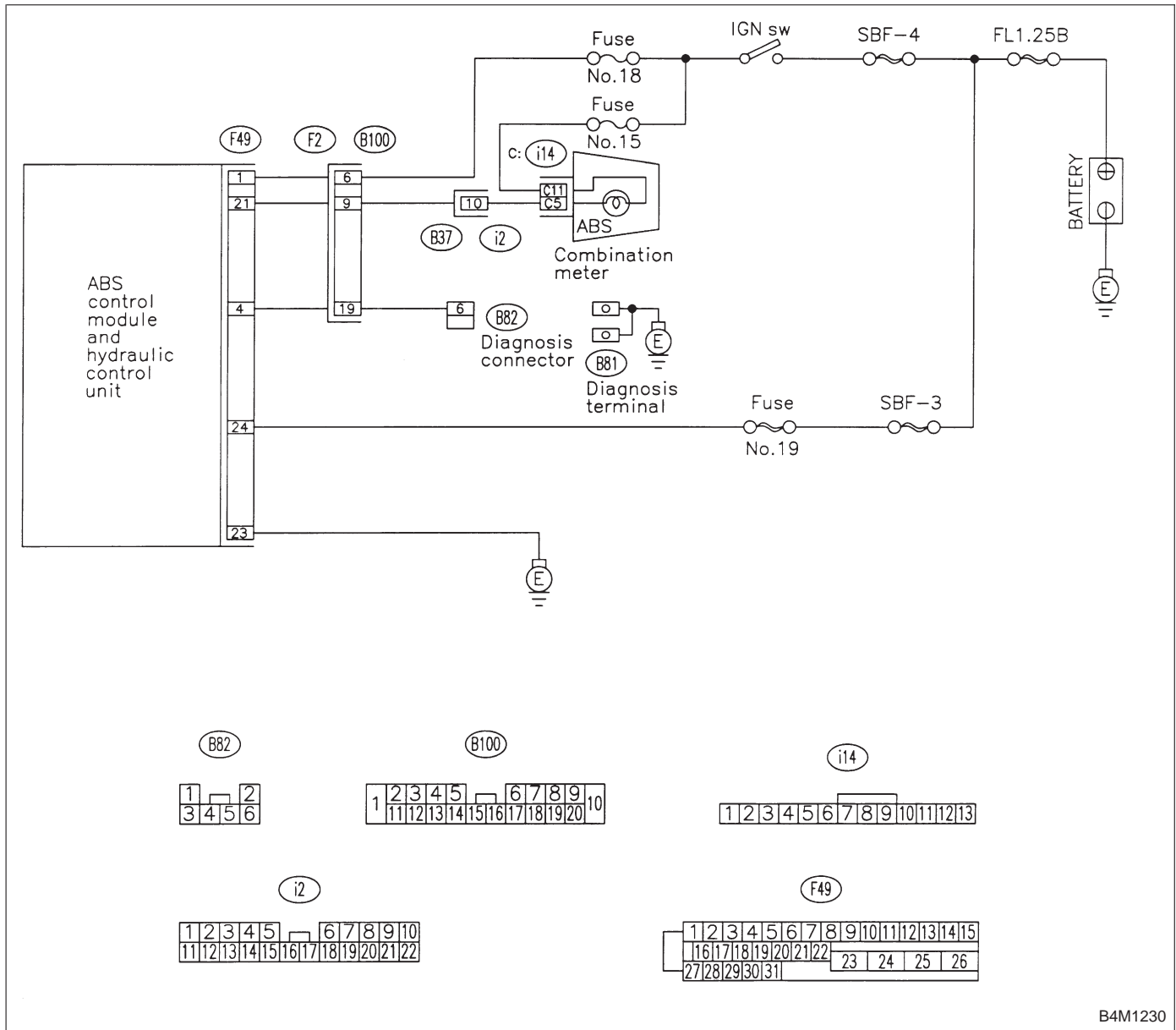
DIAGNOSIS:

- 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

7A1**CHECK IF OTHER WARNING LIGHTS TURN ON.**

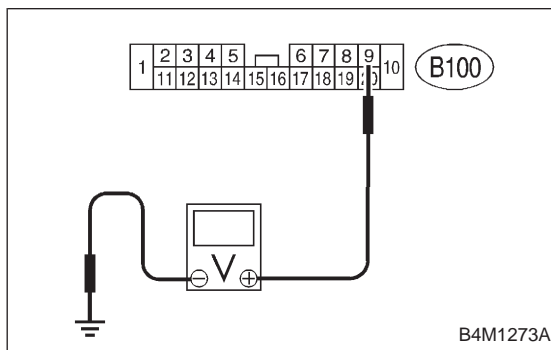
Turn ignition switch to ON (engine OFF).

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.

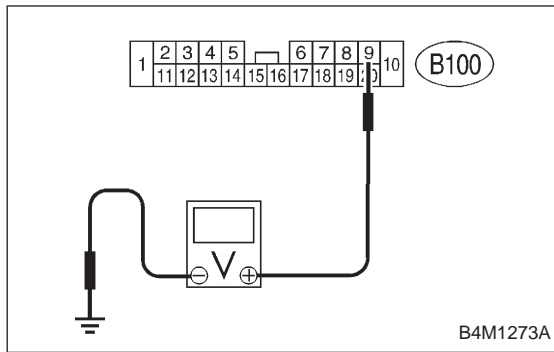
3) Remove ABS warning light bulb from combination meter.

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.**

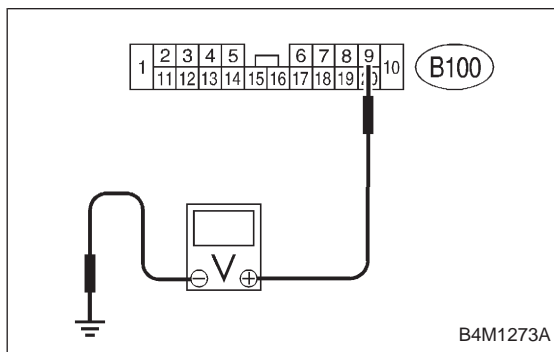
1) Disconnect connector (B100) from connector (F2).

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.

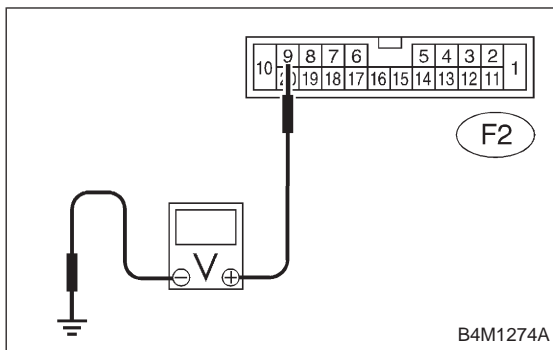
**7A4****CHECK BATTERY SHORT OF ABS WARNING LIGHT HARNESS.**

- 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.

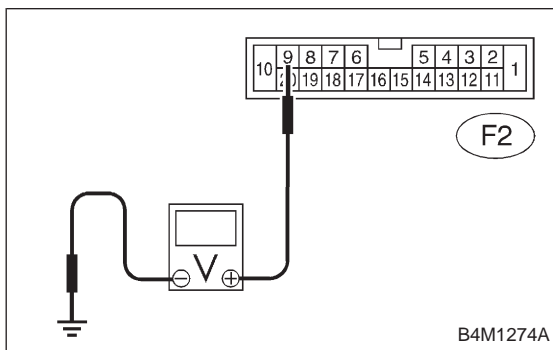


7A6 CHECK BATTERY SHORT OF ABS WARNING LIGHT HARNESS.

- 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.

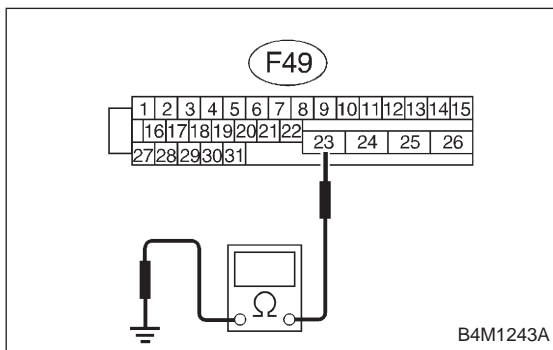


7A7 CHECK BATTERY SHORT OF ABS WARNING LIGHT HARNESS.

- 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.

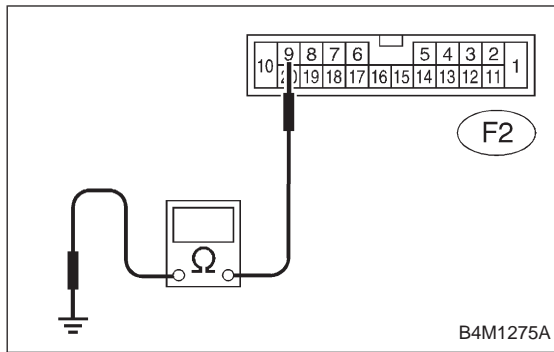


7A8 CHECK GROUND CIRCUIT OF ABSCM&H/U.

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.

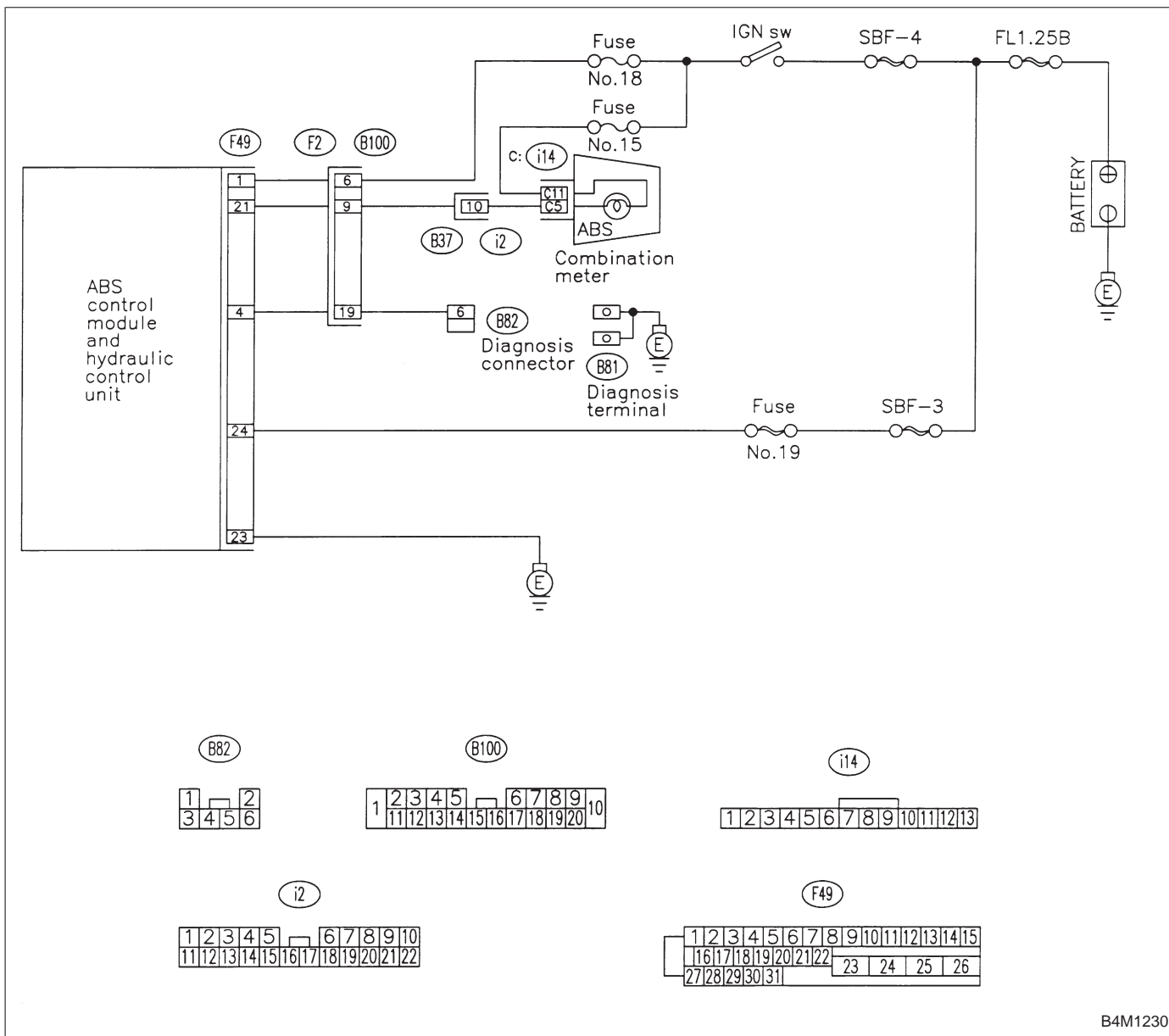
DIAGNOSIS:

- 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

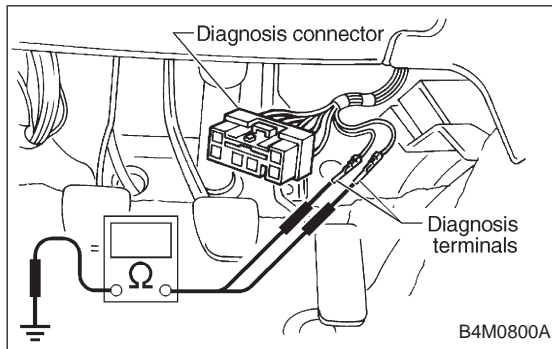
7B1**CHECK INSTALLATION OF ABSCM&H/U CONNECTOR.**

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.

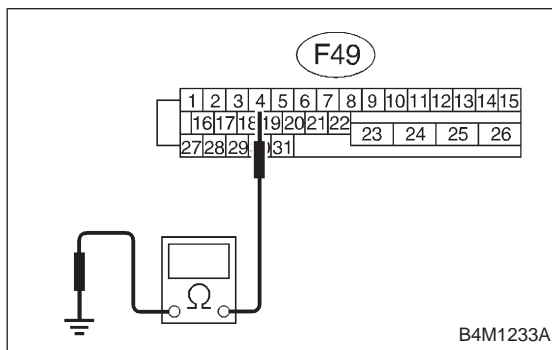
**7B2****CHECK DIAGNOSIS TERMINAL.**

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

CHECK : **Terminals**
Diagnosis terminal (A) — Chassis ground:
Diagnosis terminal (B) — Chassis ground:
Is the resistance less than 0.5 Ω?

YES : Go to step **7B3**.

NO : Repair diagnosis terminal harness.

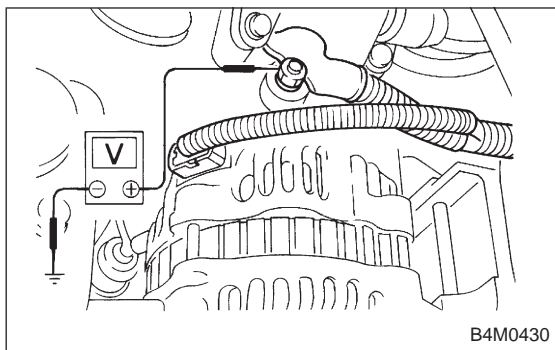
**7B3****CHECK DIAGNOSIS LINE.**

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

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

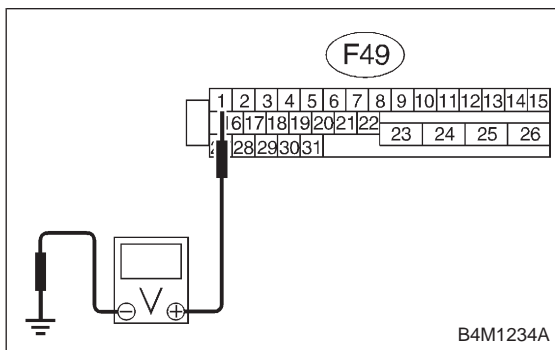
7B5 CHECK BATTERY TERMINAL.

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.

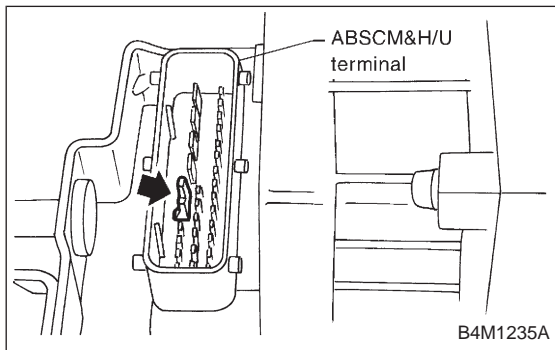
7B7 CHECK WIRING HARNESS.

- 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.



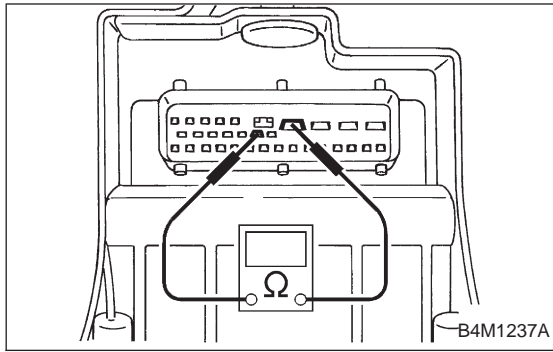
7B8 CHECK PROJECTION AT ABSCM&H/U.

- 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.



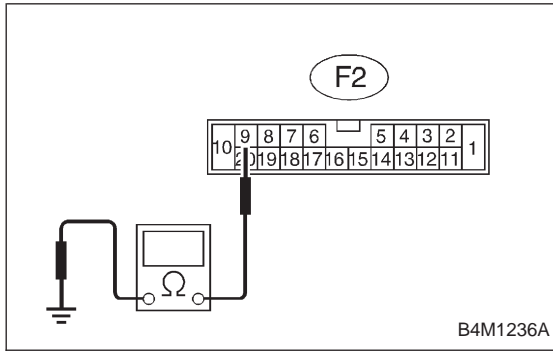
7B9 CHECK ABSCM&H/U.

Measure resistance between ABSCM&H/U terminals.

Terminals

No. 21 — No. 23:

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



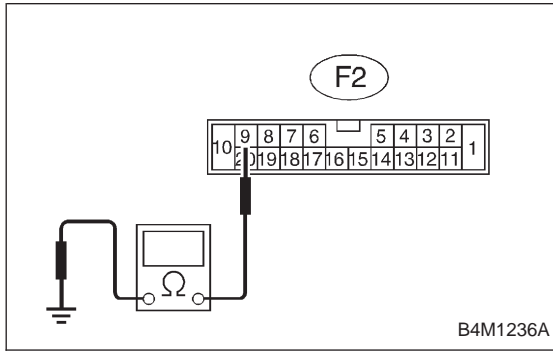
7B10 CHECK WIRING HARNESS.

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.

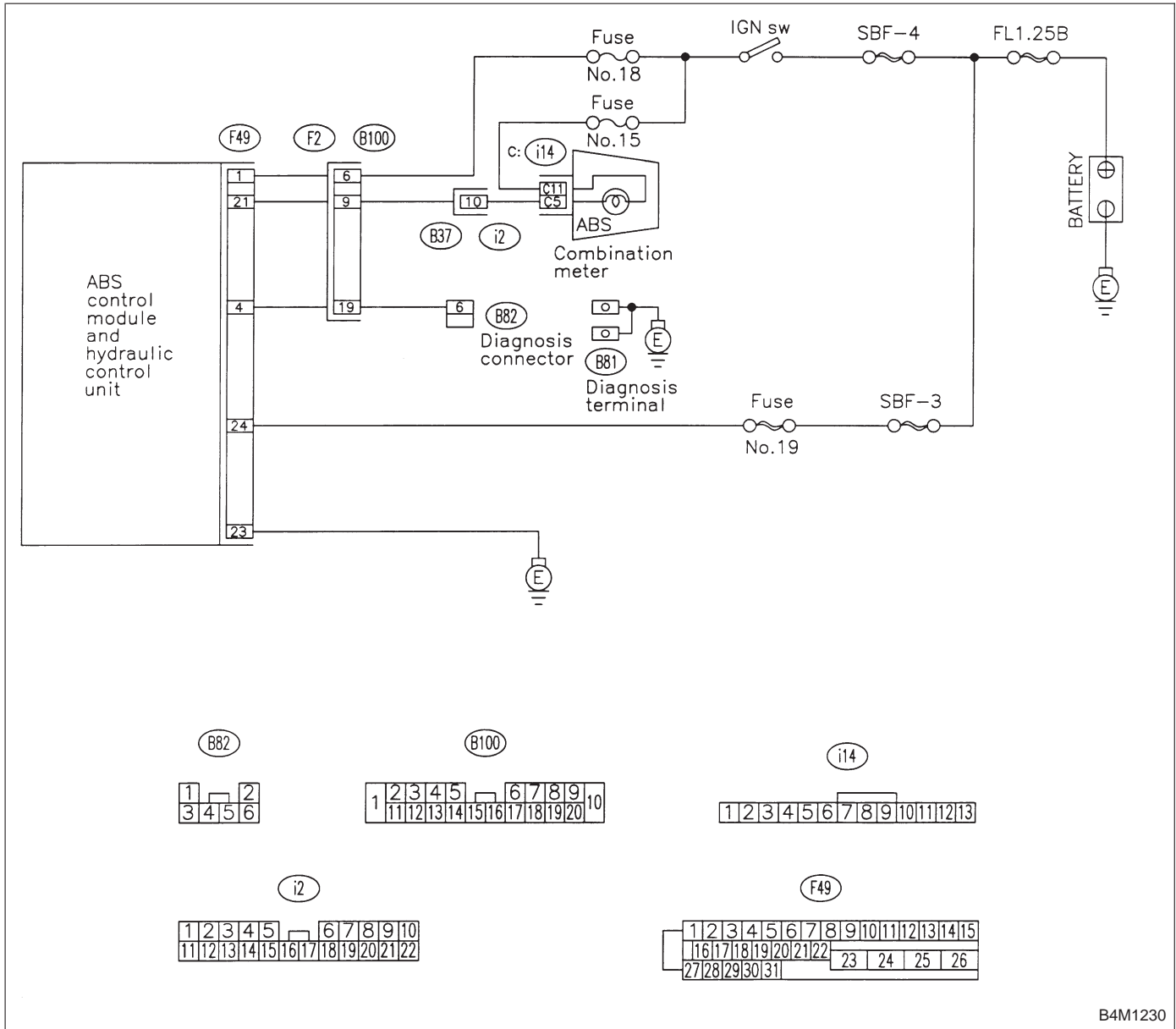
DIAGNOSIS:

- Diagnosis circuit is open.

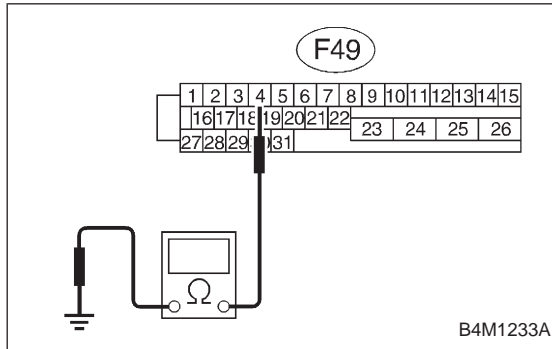
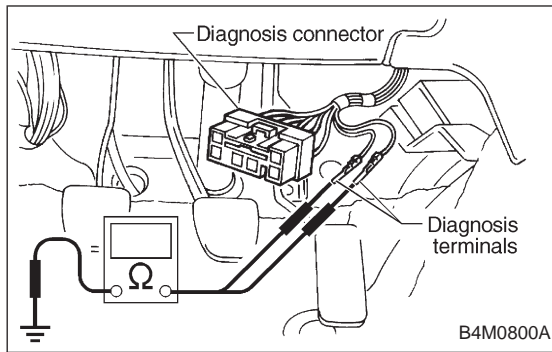
TROUBLE SYMPTOM:

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

WIRING DIAGRAM:



B4M1230

**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 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.