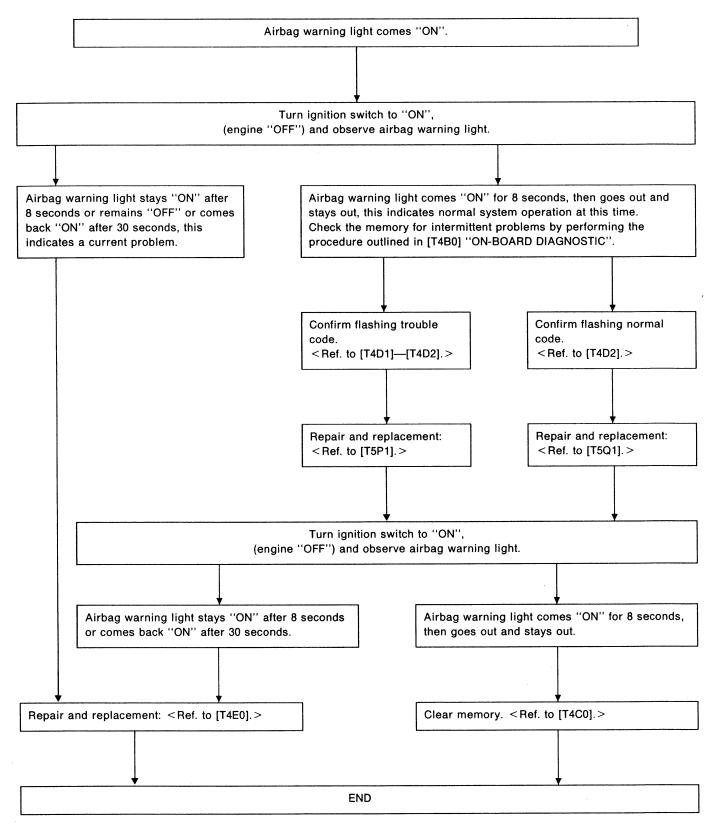
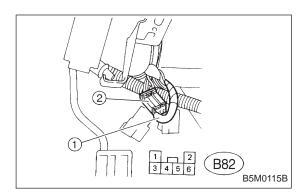
# 4. Diagnostics Chart for On-board Diagnostic System

## A: BASIC DIAGNOSTICS PROCEDURE



4. Diagnostics Chart for On-board Diagnostic System

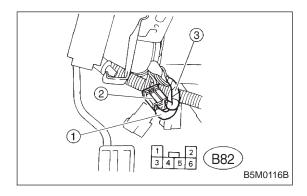


### **B: ON-BOARD DIAGNOSTIC**

When the airbag system is in functioning condition, the airbag warning light will remain on for 8 seconds and go out when the ignition switch is set to ON.

If there is any malfunction, the airbag warning light will either stay on or off continuously. In such cases, perform on-board diagnostic in accordance with the specified procedure to determine trouble codes.

- 1) Turn ignition switch ON (with engine OFF).
- 2) Connect DIAG. terminal ① to No. 1 terminal of diagnosis connector ② located below lower cover.
- 3) Check in accordance with the trouble code indicated by the AIRBAG warning light, and record the trouble codes.
- 4) Turn the ignition switch "OFF" and remove the DIAG. terminal from No.1 terminal of diagnosis connector.



#### C: CLEAR MEMORY

After eliminating problem as per trouble code, clear memory as follows:

Make sure ignition switch is ON (and engine off). Connect one DIAG. terminal ① on diagnosis connector ② terminal No. 1.

While warning light is flashing, connect the other DIAG. terminal ③ on terminal No. 2 for at least three seconds. After memory is cleared, normal warning light flashing rate resumes. (Warning light flashes every 0.6 seconds ON-OFF operation.) Memory cannot be cleared if any problem exists

After clear memory and then DIAG. terminals ① and ③, extract from diagnosis connector ②.

## D: LIST OF TROUBLE CODES

## 1. TROUBLE CODES

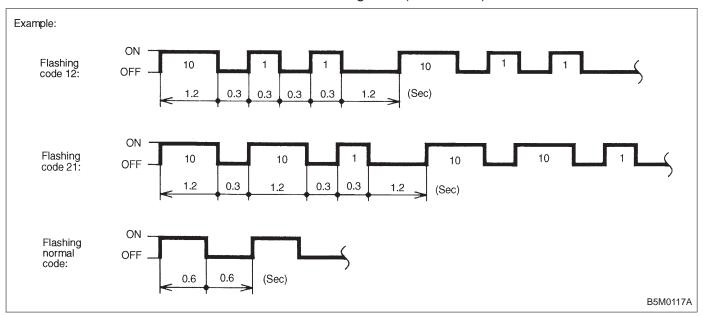
Trouble code/Contents of troubles	Memory function	Contents of diagnosis	Page
02	Provided.	<ol> <li>Front sensor harness is shorted.</li> <li>Airbag main harness is shorted.</li> <li>Airbag module harness (Dr/Ps) is shorted.</li> <li>Roll connector is shorted.</li> <li>Airbag control module is faulty.</li> </ol>	16
03	Provided.	<ol> <li>Front sensor harness circuit is open.</li> <li>Front sensor unit circuit is open.</li> </ol>	18
04	Provided.	<ol> <li>Airbag main harness circuit is shorted.</li> <li>Airbag module harness (Ps) circuit is shorted.</li> <li>Airbag control module is faulty.</li> </ol>	19
11	Provided.	<ol> <li>Airbag control module is faulty.</li> <li>Airbag main harness circuit is open.</li> <li>Fuse No. 8 is blown.</li> <li>Body harness circuit is open.</li> </ol>	20
12	Provided.	<ol> <li>Airbag main harness circuit is open.</li> <li>Airbag module harness (Dr) circuit is open.</li> <li>Roll connector circuit is open.</li> <li>Airbag control module is faulty.</li> </ol>	22
13	Provided.	<ol> <li>Airbag main harness circuit is shorted.</li> <li>Airbag module harness (Dr) is shorted.</li> <li>Roll connector circuit is shorted.</li> <li>Airbag control module is faulty.</li> </ol>	23
14	Not provided.	<ol> <li>(AB9) and (AB10) are not connected properly.</li> <li>(AB2) and (AB7) are not connected properly.</li> <li>(AB3) and (AB8) are not connected properly.</li> <li>(AB4), (AB5) and (AB6) are not connected properly to airbag control module.</li> </ol>	24
21	Provided.	Airbag control module is faulty.	26
22	Provided.	<ol> <li>Airbag main harness circuit is open.</li> <li>Airbag module harness (Ps) circuit is open.</li> <li>Airbag control module is faulty.</li> </ol>	27
23	Provided.	<ol> <li>Airbag main harness is shorted to power supply.</li> <li>Front sensor harness is shorted to power supply.</li> <li>Airbag module harness (Dr/Ps) is damaged.</li> <li>Roll connector is shorted to power supply.</li> <li>Airbag control module is faulty.</li> </ol>	28
24	Provided.	<ol> <li>Airbag main harness circuit is open.</li> <li>Airbag module harness (Dr) circuit is open.</li> <li>Roll connector circuit is open.</li> <li>Airbag control module is faulty.</li> <li>Above diagnosis plus other faulty of airbag modular parts.</li> </ol>	30
31	Not provided.	<ol> <li>Airbag control module is faulty.</li> <li>Airbag main harness circuit is open.</li> <li>Fuse No. 16 is blown.</li> <li>Body harness circuit is open.</li> </ol>	32
32	Provided.	<ol> <li>Airbag main harness circuit is open.</li> <li>Airbag module harness (Ps) circuit is open.</li> <li>Airbag control module is faulty.</li> <li>Above diagnosis plus other faulty of airbag modular parts.</li> </ol>	34
NOTE: Dr: Driver side Ps: Passenger side	e		

Trouble code/Co	ontents of troubles	Memory function	Contents of diagnosis	Page
Airbag warning	light remains on.	Not provided.	<ol> <li>Airbag warning light is faulty.</li> <li>Airbag control module to airbag warning light harness circuit is shorted or open.</li> <li>Grounding circuit is faulty.</li> <li>Airbag control module is faulty.</li> <li>(AB1) and (B31) are not connected properly.</li> </ol>	36
Airbag warning	light remains off.	Not provided.	<ol> <li>Fuse No. 15 is blown.</li> <li>Body harness circuit is open.</li> <li>Airbag warning light is faulty.</li> <li>Airbag main harness is faulty.</li> <li>Airbag control module is faulty.</li> </ol>	40
Warning light indicates trouble code, then normal code.	Flashing trouble code.	Provided.	Airbag system component parts are faulty.	42
	Flashing normal code.	Not provided.	<ol> <li>Airbag connector is faulty.</li> <li>Fuse No. 16 is blown.</li> <li>Airbag main harness is faulty.</li> <li>Airbag control module is faulty.</li> <li>Body harness is faulty.</li> </ol>	45

## 2. HOW TO READ TROUBLE CODES

The AIRBAG warning light flashes a code corresponding to the faulty parts.

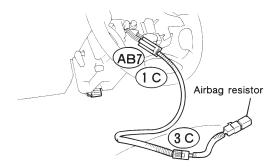
The long segment (1.2 sec on) indicates a "ten", and the short segment (0.3 sec on) indicates a "one".



## **E: DIAGNOSTICS PROCEDURE**

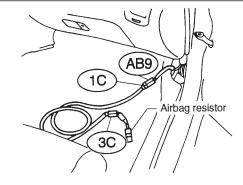
Airbag warning light stays on after 8 seconds.

- 1) Perform on-board diagnostic. <Ref. to 5-5 [T4B0].>
- Are trouble codes 2, 4, 12, 13, 22, 23, 24 or 32 indicated? <Ref. to 5-5 [T4D1]—[T4D2].> Record trouble codes.
- 3) If "NO", proceed with diagnostics and repair according to trouble code indicated then perform step 29).
- 4) If "YES", proceed by turning ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. If codes 12 or 13 are indicated proceed to step 5). If codes 12 or 13 are not indicated proceed to step 6).
- Remove driver side airbag module and connect test harness C connector (1C) to (AB7). <Ref. to 5-5 [W3A1].>
  Connect airbag resistor to test harness C connector (3C). Proceed to step 19).



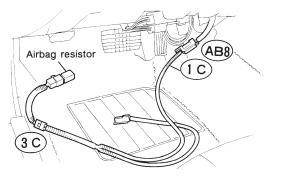
G5M0430

- 6) If codes 4 or 22 are indicated, proceed to step 7). If codes 4 or 22 are not indicated proceed to step 11).
- 7) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Disconnect passenger side airbag module connector (AB9) to (AB10). <Ref. to 5-5 [W3A2].> Connect test harness C connector (1C) to (AB9).
  Connect airbag resistor to test harness C connector (3C).



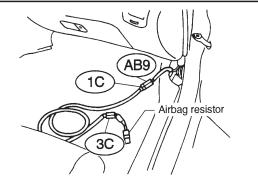
B5M0118A

- 8) Reconnect battery ground cable and turn ignition switch "ON", does airbag warning light go out after 8 seconds and remain "OFF" for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.)
- 9) If "YES", turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Install a new passenger side airbag module <Ref. to 5-5 [W3B0].> then proceed to step 29).
- 10) If "NO" proceed to step 1).
- 11) Remove lower cover panel and connect test harness C connector (1C) to (AB8) <Ref. to 5-4 [W1A0].> with airbag resistor attached to test harness C connector (3C). Turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.) If "YES" proceed to step 5). If "NO" proceed to step 12).



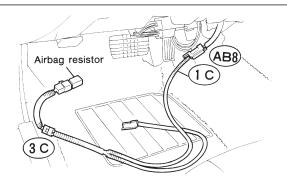
G5M0429

12) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Connect connector (AB3) to (AB8). Disconnect passenger side airbag module connector (AB9) to (AB10). <Ref. to 5-5 [W3A2].> Connect test harness C connector (1C) to (AB9). Connect airbag resistor to test harness C connector (3C).



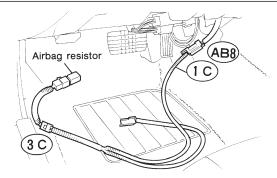
B5M0118A

- 13) Reconnect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.)
- 14) If "YES", proceed to step 9).
- 15) If "NO", turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Disconnect connector (AB3) to (AB8). Connect test harness C connector (1C) to (AB8). Connect airbag resistor to test harness C connector (3C).



G5M0429

- 16) Reconnect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.)
- 17) If "YES", turn ignition switch "OFF", disconnect battery ground cable and wait 20 seconds. Install a new passenger side airbag module <Ref. to 5-5 [W3B0].> then proceed to step 5).
- 18) If "NO", proceed with diagnostics according to trouble code indicated during on-board diagnostic. Proceed to step 29).
- 19) Reconnect battery ground cable and turn ignition switch "ON", does airbag warning light go out after 8 seconds and remain "OFF" for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.)
- 20) If "YES", turn ignition switch "OFF", disconnect battery ground cable and wait 20 seconds. Install driver side airbag module <Ref. to 5-5 [W3B0].> and proceed to step 29).
- 21) If "NO", remove lower cover panel and connect test harness C connector (1C) to (AB8) <Ref. to 5-4 [W1A0].> with airbag resistor attached to test harness C connector (3C). Turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.) If "YES" proceed to step 22). If "NO" proceed to step 23).

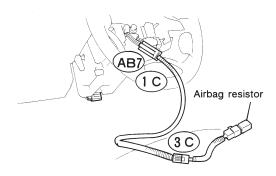


G5M0429

- 22) If "YES", replace combination switch, <Ref. to 5-5 [W7A0].> and proceed to step 26).
- 23) If "NO", proceed with diagnostics and repair according to trouble code indicated, then perform step 24).

4. Diagnostics Chart for On-board Diagnostic System

24) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Remove driver side airbag module and connect test harness C connector (1C) to (AB7) <Ref. to 5-5 [W3A1].> with airbag resistor attached to test harness C connector (3C).



G5M0430

- 25) Reconnect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.) If "YES", proceed to step 26). If "NO", proceed to step 27).
- 26) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Install driver side airbag module <Ref. to 5-5 [W3B0].> and proceed to step 27).
- 27) Replace combination switch, <Ref. to 5-5 [W7A0].> and proceed to step 26).
- 28) Reconnect battery and turn ignition switch "ON". Does airbag warning light go off after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2). (Refer to end of chart.) If "YES", proceed to step 29). If "NO", proceed to step 31).
- 29) Perform clear memory procedure. <Ref. to 5-5 [T4C0].>
- 30) If memory cannot be cleared, another trouble code exists. Return to step 1).
- 31) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Replace driver side airbag module. <Ref. to 5-5 [W3A1].> Proceed to step 28).

#### NOTES:

- 1) Always remember to secure the green double locks before turning the ignition switch "ON".
- 2) In some cases the airbag warning light will go "OFF" after 8 seconds but will turn "ON" again within 30 seconds. In this case continue diagnostics with the basic diagnostics procedures or trouble code procedures.