# 1. Diagnostics Chart for On-board Diagnosis System

#### SUPPLEMENTAL RESTRAINT SYSTEM "AIRBAG"

Airbag system wiring harness is routed near the bulkhead harness.

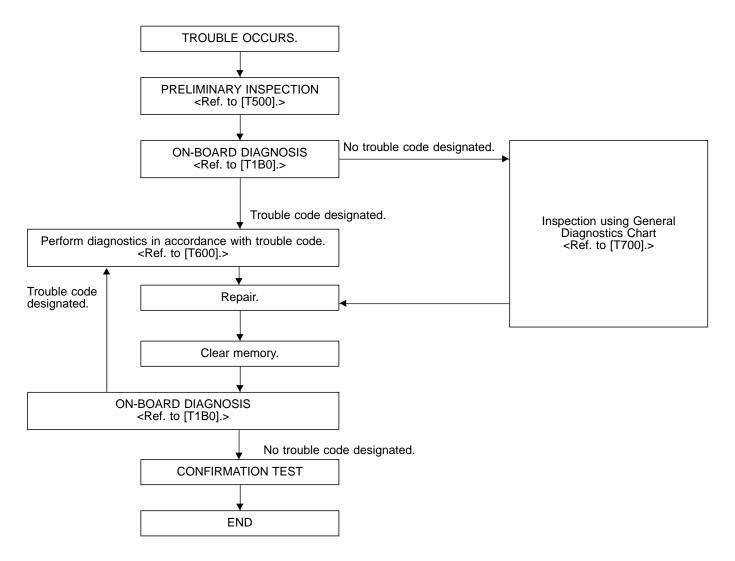
#### CAUTION:

BRAKES

• All Airbag system wiring harness and connectors are colored yellow. Do not use electrical test equipment on these circuit.

• Be careful not to damage Airbag system wiring harness when servicing the bulkhead harness.

A: BASIC DIAGNOSTICS PROCEDURE



NOTE:

• To check harness for broken wires or short circuits, shake it while holding it or the connector.

• When A.B.S. warning light illuminates, read and record trouble code indicated by A.B.S. warning light.

# **B: ON-BOARD DIAGNOSIS**

BRAKES

The on-board diagnosis system is designed to detect problems after the vehicle has been driven at 10 km/h (6 MPH) or more for at least 20 seconds. If a problem is found, the A.B.S. warning light will illuminate to inform the driver of the occurrence of a problem. When the warning light is on, the A.B.S. system will be inactive and the normal braking function will work. It is possible for a maximum of three trouble codes to be stored in memory until cleared.

# C: TROUBLE CODES

When on-board diagnosis of the A.B.S. control module detects a problem, the information (up to a maximum of three) will be stored in the EEP ROM as a trouble code. When there are more than three, the most recent three will be stored. (Stored codes will stay in memory until they are cleared.)

### 1. CALLING UP A TROUBLE CODE

1) Take out A.B.S. check connector from under side of steering column.

- Turn ignition switch OFF.
- Ground A.B.S. check connector terminal L.
- 4) Turn ignition switch ON.

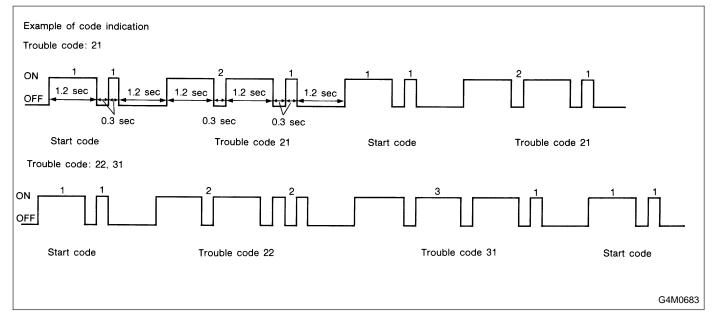
5) A.B.S. warning light is set in the diagnostic mode and blinks to identify trouble code.

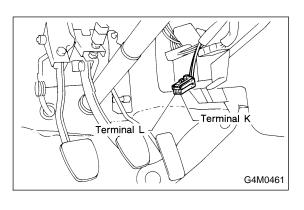
6) After the start code (11) is shown, the trouble codes will be shown in order of the last information first.

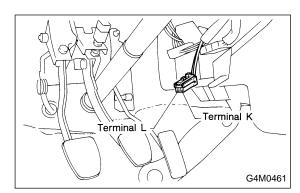
These repeat for a maximum of 5 minutes.

### NOTE:

When there are no trouble codes in memory, only the start code (11) is shown.



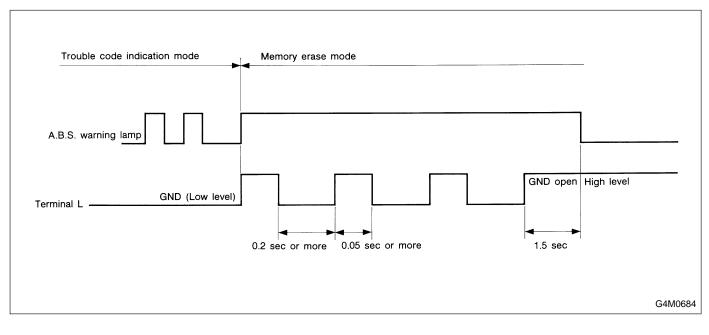




#### 2. CLEARING MEMORY

1) After calling up a trouble code, disconnect A.B.S. check connector terminal L from body ground.

2) Repeat 3 times within approx. 12 seconds; connecting and disconnecting terminal L and body ground for at least 0.05 seconds each time.



#### 3. LIST OF TROUBLE CODES

Trouble code	Contents of diagnosis	
NONE: A [Warning light OFF]	Trouble in warning light drive circuit (Warning light is not on for 1.5 seconds after ignition switch is on.)	
NONE: B [Warning light ON] or [Abnormal trouble code output]	Trouble in warning light drive circuit	
11	Start code: • Trouble code is shown after start code. • Only start code is shown in normal condition.	
21	Faulty A.B.S. sensor (Open circuit or input voltage excessive)	Front right wheel sensor
23		Front left wheel sensor
25		Rear right wheel sensor
27		Rear left wheel sensor
22	Faulty A.B.S. sensor (When there is no open circuit or speed signal input.)	Front right wheel sensor
24		Front left wheel sensor
26		Rear right wheel sensor
28		Rear left wheel sensor
29	Faulty tone wheel, etc.	
31	Faulty solenoid valve circuit(s) in hydraulic unit	Front right wheel control
33		Front left wheel control
39		Rear wheels control
41	Faulty A.B.S. control module	
42	Source voltage is low.	
51	Faulty valve relay	
52	Faulty hydraulic motor and/or motor relay	
54	Faulty stop light circuit	
56	Use of improper A.B.S. control module specification, or faulty G sensor	

After diagnostics is completed, make sure to clear memory. Make sure only start code (11) is shown after memory is cleared.