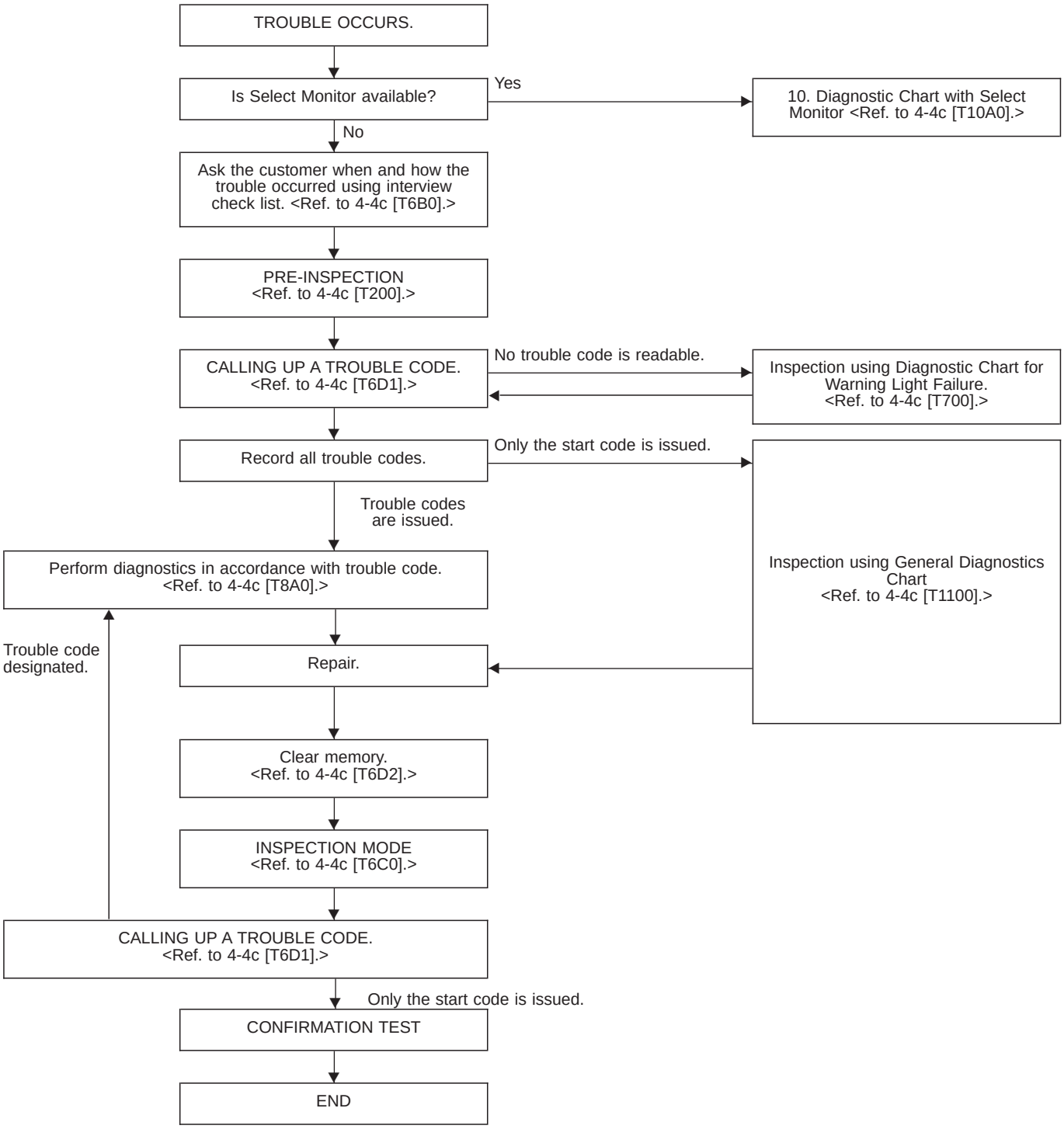
6. Diagnostics Chart for On-board Diagnosis System

A: BASIC DIAGNOSTICS PROCEDURE



NOTE:
- To check harness for broken wires or short circuits, shake it while holding it or the connector.
- When ABS warning light illuminates, read and record trouble code indicated by ABS warning light.

B: CHECK LIST FOR INTERVIEW

Check the following items about the vehicle's state.

1. THE STATE OF THE WARNING LIGHTS

a. ABS warning light	
① Is always on. ② Sometimes comes on. ③ Comes on only once. ④ Does not come on.	
When/how long does it come on?	
Ignition key position	① Lock ② Acc ③ On (before starting engine) ④ Start ⑤ On after starting (Engine: run) ⑥ On after starting (Engine: stop)
Timing	① Immediately after ignition is on. ② Immediately after ignition starts. ③ When advancing (Speed___miles/h →___miles/h) ④ While traveling at a constant speed (Speed___miles/h) ⑤ When decelerating (Speed___miles/h →___miles/h) ⑥ When turning (To right, to left, steering angle___deg., steering time___sec) ⑦ When moving other electrical parts (Part name:_____, Operating condition_____)

2. SYMPTOMS

ABS operating condition	① Performs no work. ② Operates only when abruptly applying brakes. (Conditions: vehicle speed___miles/h, how to step on brake pedal___) ③ Operating time (___sec., etc._____) ④ Operating noise (Produced/Not produced) ⑤ What kind of noise? (Knock, gong gong, bong, buzz, gong gong buzz, etc._____) ⑥ Reaction force of brake pedal (Stick, pressed down once with a clunk, pressed and released, etc._____)
Behavior of vehicle	① Directional stability cannot be obtained or steering arm refuses to work when applying brakes (vehicle turns to right, turns to left, spins, etc._____). ② Directional stability cannot be obtained or steering arm refuses to work when accelerating (vehicle turns to right, turns to left, spins, etc._____). ③ Brakes are out of order (braking distance is long, brakes lock or drag, pedal stroke is long, pedal sticks, etc. _____). ④ Poor acceleration (fails to accelerate, engine stalls, etc._____). ⑤ Vibration, abnormal noise (operating noise is loud, noise is produced during operation from the front of vehicle (right, left) (tones:____), noise is produced during operation from the rear of vehicle (tones:____, others) ⑥ Other phenomena (concrete symptoms_____)

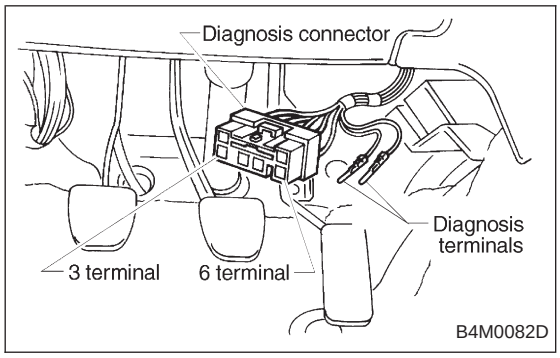
3. CONDITIONS UNDER WHICH TROUBLE OCCURS

Environment	① Weather (fine, cloudy, rain, snow, etc. ____) ② Ambient temperature (_____°C/°F) ③ Road (urban area, suburbs, highway, general road, ascending slope, descending slope, paved road, gravel road, muddy road, sandy place, etc. ____) ④ Road surface (dry, wet, new-fallen snow, compressed snow, frozen slope, etc._____)
Conditions	① Brakes (deceleration___g, continuous/intermittent) ② Accelerator (acceleration___g, continuous/intermittent) ③ Travel speed (___miles, advancing, accelerating, reducing speed, low speed, turning, etc._____) ④ Condition of tire of each wheel (air pressure_____, degree of wear_____, whether or not genuine parts are used, whether or not chain is passed around tires, whether or not T tire is used.) others (_____) ⑤ Condition of suspension alignment (_____) ⑥ Loading state (_____)

4. REPAIRED PARTS ARE USED OR NOT

C: INSPECTION MODE

Reproduce the condition under which the problem has occurred as much as possible.
Drive the vehicle at a speed more than 40 km/h (25 MPH) for at least one minute.



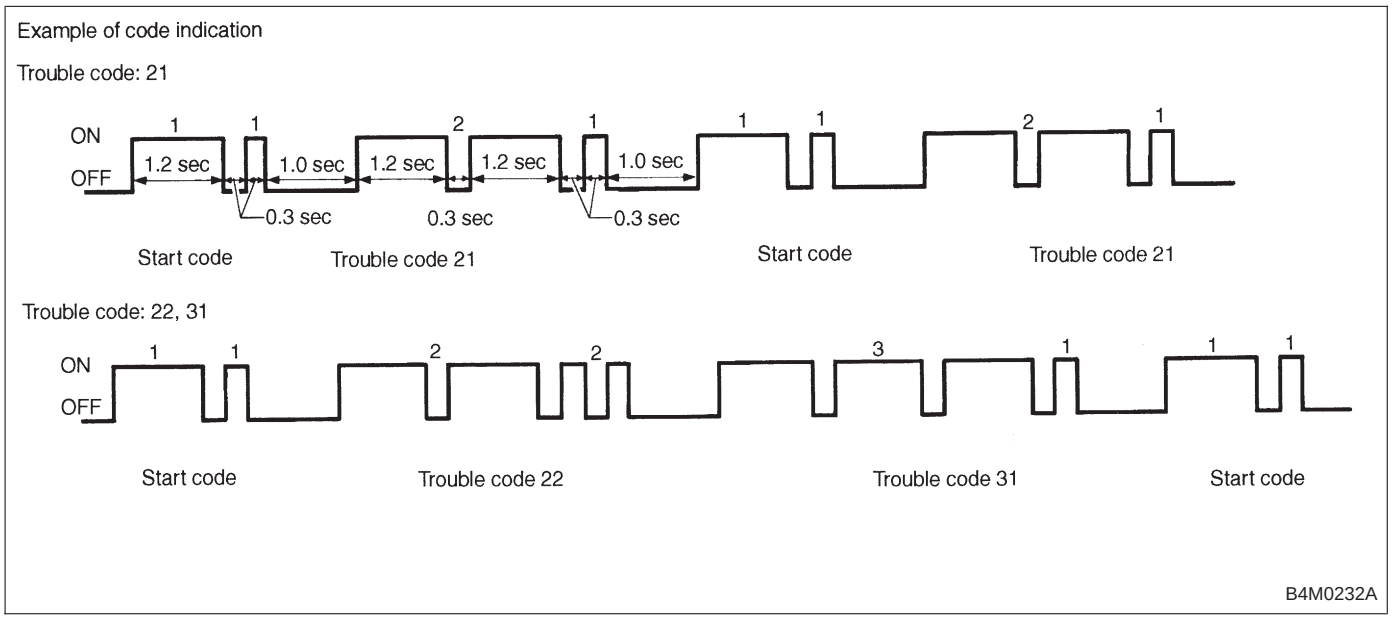
D: TROUBLE CODES

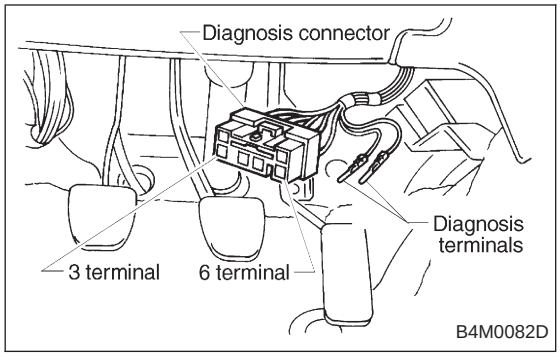
When on-board diagnosis of the ABS control module detects a problem, the information (up to a maximum of three) will be stored in the EEP ROM as a trouble code. When there are more than three, the most recent three will be stored. (Stored codes will stay in memory until they are cleared.)

1. CALLING UP A TROUBLE CODE

1) Take out diagnosis connector from side of driver's seat heater unit.
2) Turn ignition switch OFF.
3) Connect diagnosis connector terminal 6 to diagnosis terminal.
4) Turn ignition switch ON.
5) ABS 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.

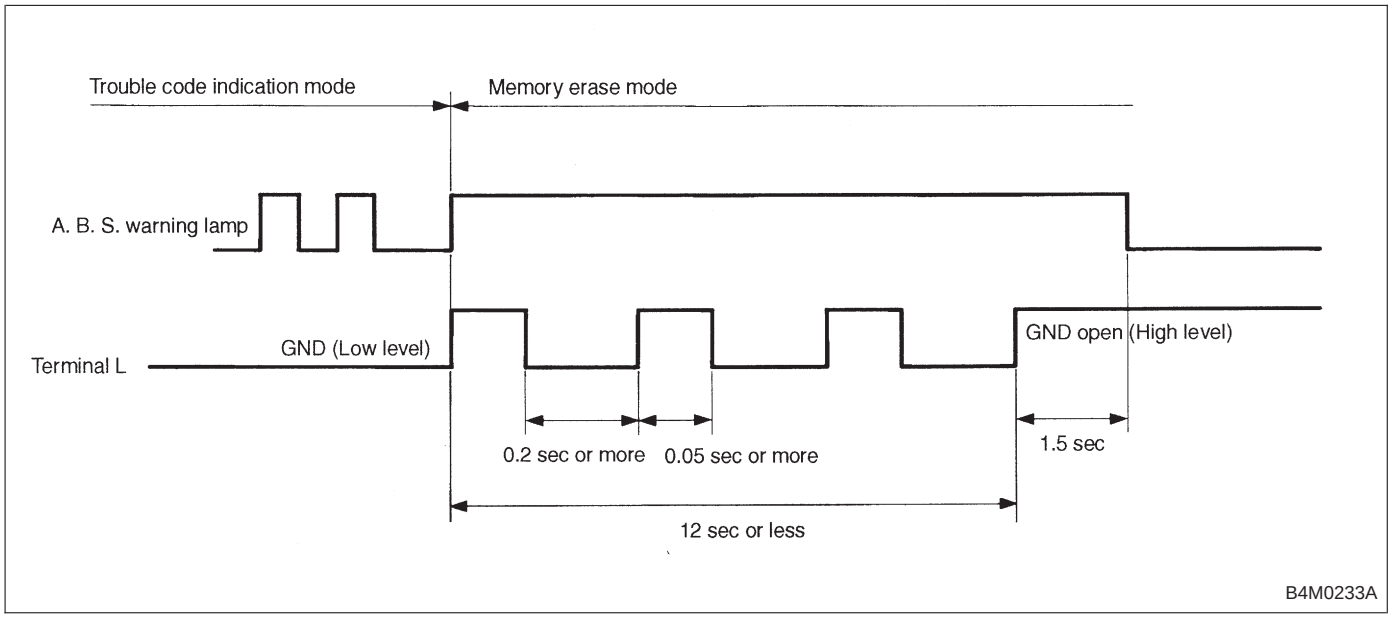
NOTE:
When there are no trouble codes in memory, only the start code (11) is shown.





2. CLEARING MEMORY

1) After calling up a trouble code, disconnect diagnosis connector terminal 6 from diagnosis terminal.
2) Repeat 3 times within approx. 12 seconds; connecting and disconnecting terminal 6 and diagnosis terminal for at least 0.05 seconds each time.



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