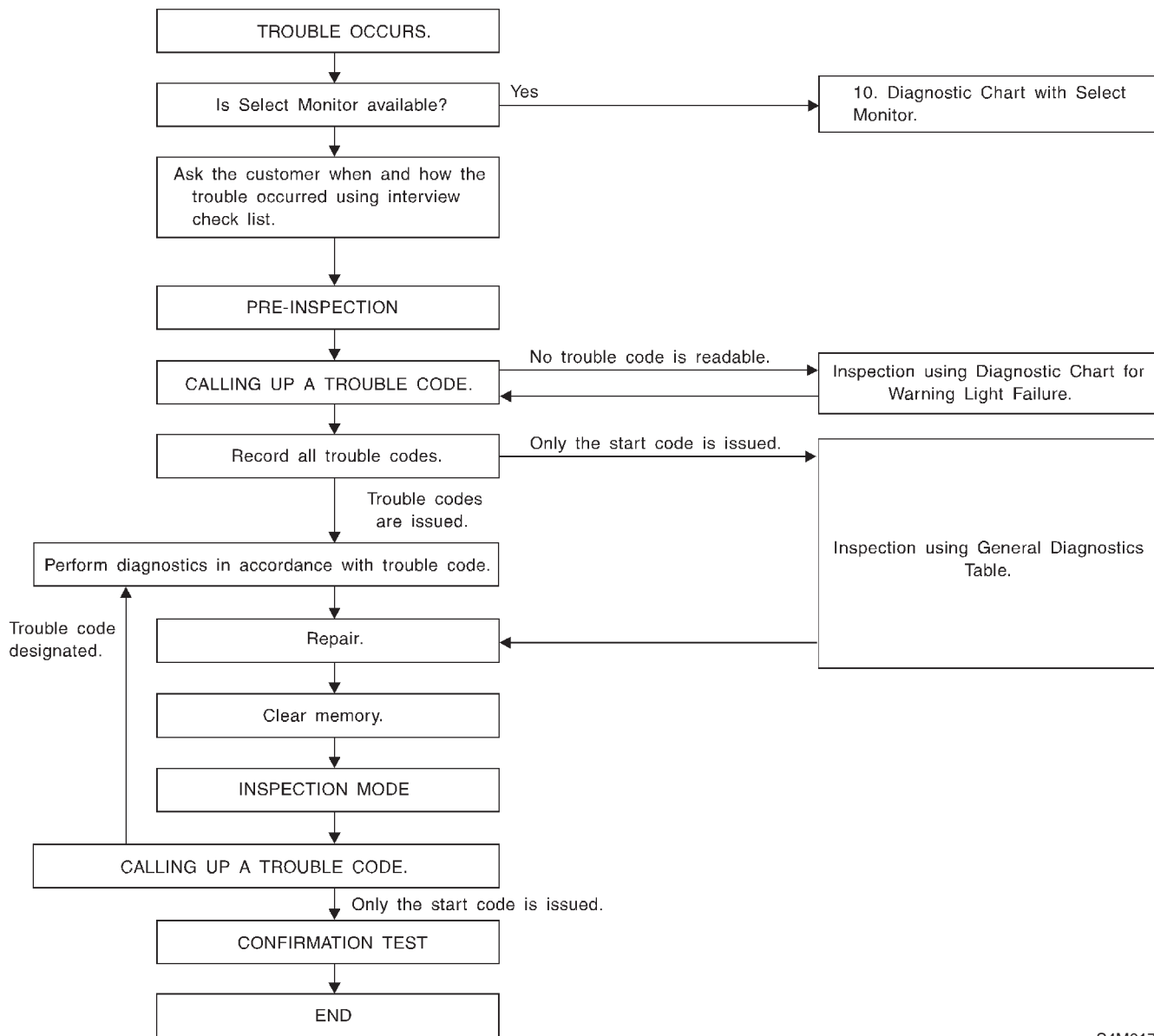


6. Diagnostics Chart for On-board Diagnosis System

A: BASIC DIAGNOSTICS PROCEDURE



S4M0179A

CAUTION:

Remove foreign matter (dust, water, etc.) from the ABSCM&H/U connector during removal and installation.

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 ABS WARNING LIGHT

ABS warning light comes on.	<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Only once <input type="checkbox"/> Does not come on ● When / how long does it come on? :		
Ignition key position	<input type="checkbox"/> LOCK <input type="checkbox"/> ACC <input type="checkbox"/> ON (before starting engine) <input type="checkbox"/> START <input type="checkbox"/> On after starting (Engine is running) <input type="checkbox"/> On after starting (Engine is stop)		
Timing	<input type="checkbox"/> Immediately after ignition is ON. <input type="checkbox"/> Immediately after ignition starts.		
	<input type="checkbox"/> When advancing	km/h to	km/h
		MPH to	MPH
	<input type="checkbox"/> While traveling at a constant speed	km/h	MPH
	<input type="checkbox"/> When decelerating	km/h to	km/h
		MPH to	MPH
	<input type="checkbox"/> When turning to right	Steering angle :	deg
		Steering time :	sec
	<input type="checkbox"/> When turning to left	Steering angle :	deg
		Steering time :	sec
<input type="checkbox"/> When moving other electrical parts	● Parts name : ● Operating condition :		

2. SYMPTOMS

ABS operating condition	<input type="checkbox"/> Performs no work.		
	<input type="checkbox"/> Operates only when abruptly applying brakes.	Vehicle speed :	km/h
			MPH
	● How to step on brake pedal :		
	a) Operating time :		sec
	b) Operating noise : <input type="checkbox"/> Produce / <input type="checkbox"/> Does not produce		
	● What kind of noise?	<input type="checkbox"/> Knock <input type="checkbox"/> Gong gong <input type="checkbox"/> Bong <input type="checkbox"/> Buzz <input type="checkbox"/> Gong gong buzz <input type="checkbox"/> Others :	
	c) Reaction force of brake pedal		
	<input type="checkbox"/> Stick <input type="checkbox"/> Press down once with a clunk <input type="checkbox"/> Press and released <input type="checkbox"/> Others :		

Behavior of vehicle	a) Directional stability cannot be obtained or steering arm refuses to work when applying brakes : <input type="checkbox"/> Yes / <input type="checkbox"/> No	
	● When :	<input type="checkbox"/> Vehicle turns to right <input type="checkbox"/> Vehicle turns to left <input type="checkbox"/> Spins <input type="checkbox"/> Others :
	b) Directional stability cannot be obtained or steering arm refuses to work when accelerating : <input type="checkbox"/> Yes / <input type="checkbox"/> No	
	● When :	<input type="checkbox"/> Vehicle turns to right <input type="checkbox"/> Vehicle turns to left <input type="checkbox"/> Spins <input type="checkbox"/> Others :
	c) Brakes are out of order : <input type="checkbox"/> Yes / <input type="checkbox"/> No	
	● What :	<input type="checkbox"/> Braking distance is long <input type="checkbox"/> Brakes lock or drag <input type="checkbox"/> Pedal stroke is long <input type="checkbox"/> Pedal sticks <input type="checkbox"/> Others :
	d) Poor acceleration : <input type="checkbox"/> Yes / <input type="checkbox"/> No	
	● What :	<input type="checkbox"/> Fails to accelerate <input type="checkbox"/> Engine stalls <input type="checkbox"/> Others :
	e) Occurrence of vibration : <input type="checkbox"/> Yes / <input type="checkbox"/> No	
	● Where ● What kind :	
f) Occurrence of abnormal noise : <input type="checkbox"/> Yes / <input type="checkbox"/> No		
● Where ● What kind :		
g) Occurrence of other phenomena : <input type="checkbox"/> Yes / <input type="checkbox"/> No		
● What kind :		

3. CONDITIONS UNDER WHICH TROUBLE OCCURS

Environment	a) Weather	<input type="checkbox"/> Fine <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Snowy <input type="checkbox"/> Various/Others :
	b) Ambient temperature	°F (°C)
	c) Road	<input type="checkbox"/> Urban area <input type="checkbox"/> Suburbs <input type="checkbox"/> Highway <input type="checkbox"/> General road <input type="checkbox"/> Ascending slope <input type="checkbox"/> Descending slope <input type="checkbox"/> Paved road <input type="checkbox"/> Gravel road <input type="checkbox"/> Muddy road <input type="checkbox"/> Sandy place <input type="checkbox"/> Others :
	d) Road surface	<input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> New-fallen snow <input type="checkbox"/> Compressed snow <input type="checkbox"/> Frozen slope <input type="checkbox"/> Others :

6. Diagnostics Chart for On-board Diagnosis System

Condition	a) Brakes	Deceleration : g
		<input type="checkbox"/> Continuous / <input type="checkbox"/> Intermittent
	b) Accelerator	Acceleration : g
		<input type="checkbox"/> Continuous / <input type="checkbox"/> Intermittent
c) Vehicle speed		km/h MPH
		<input type="checkbox"/> Advancing
		<input type="checkbox"/> Accelerating
		<input type="checkbox"/> Reducing speed
		<input type="checkbox"/> Low speed
d) Tire inflation pressure		<input type="checkbox"/> Turning
		<input type="checkbox"/> Others :
		Front RH tire : kPa
		Front LH tire : kPa
e) Degree of wear		Rear RH tire : kPa
		Rear LH tire : kPa
		Front RH tire :
		Front LH tire :
	Rear RH tire :	
	Rear LH tire :	
f) Genuine parts are used. : <input type="checkbox"/> Yes / <input type="checkbox"/> No		
g) Chain is passed around tires. : <input type="checkbox"/> Yes / <input type="checkbox"/> No		
h) T tire is used. : <input type="checkbox"/> Yes / <input type="checkbox"/> No		
i) Condition of suspension alignment :		
j) Loading state :		
k) Repair parts are used. : <input type="checkbox"/> Yes / <input type="checkbox"/> No		
● What :		
l) Others :		

C: INSPECTION MODE

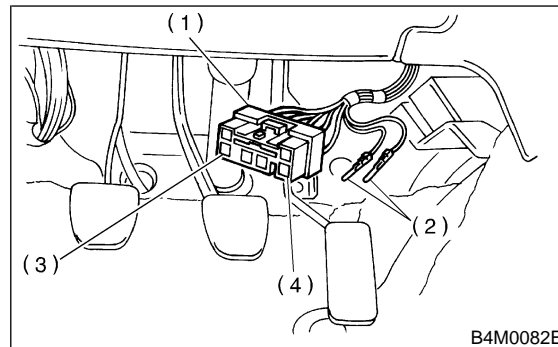
Reproduce the condition under which the problem has occurred as much as possible.
Drive the vehicle at a speed more than 40 km/h (25 MPH) for at least one minute.

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 EEPROM 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.



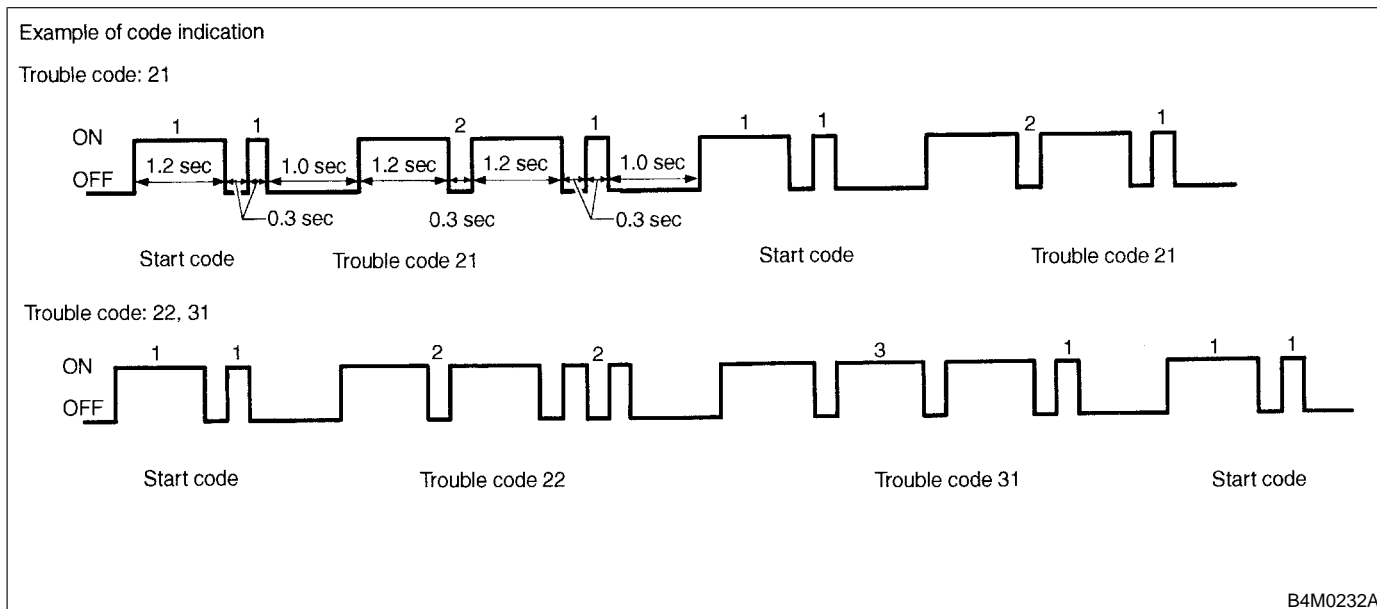
- (1) Diagnosis connector
- (2) Diagnosis terminals
- (3) 3 terminal
- (4) 6 terminal

- 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 3 minutes.

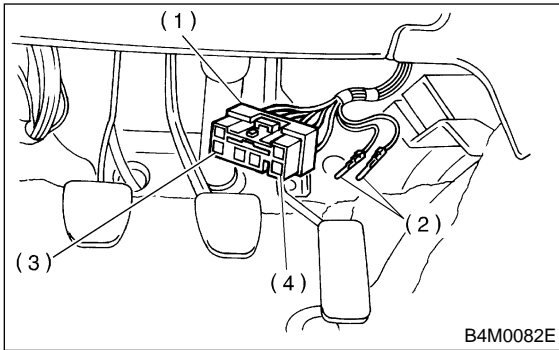
NOTE:

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



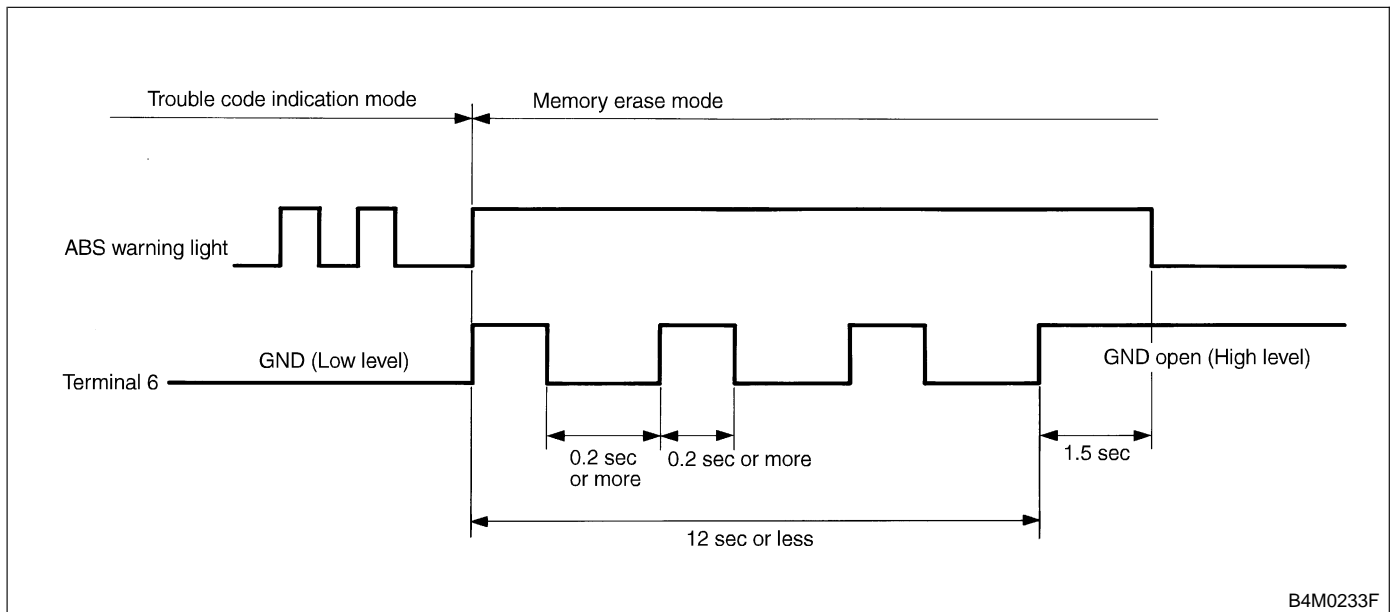
2. CLEARING MEMORY

1) After calling up a trouble code, disconnect diagnosis connector terminal 6 from diagnosis terminal.



- (1) Diagnosis connector
- (2) Diagnosis terminals
- (3) 3 terminal
- (4) 6 terminal

2) Repeat 3 times within approx. 12 seconds; connecting and disconnecting terminal 6 and diagnosis terminal for at least 0.2 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.

MEMO: