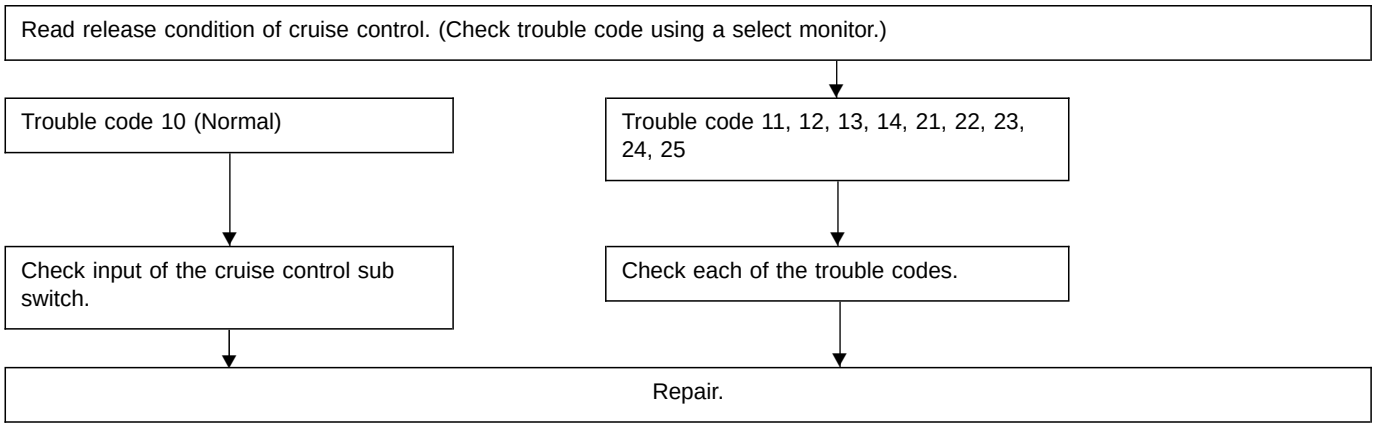
7. Diagnostics Chart with Select Monitor — When cruise control cannot be set —



Trouble code	Item	Contents of diagnosis	Page
10	OK	Normal	—
11	Brake/switch, Stop light switch	Input signals from brake switch “OFF”, stop light switch “ON” (Brake pedal is depressed.)	20
12	Clutch switch, N position	Input signals from clutch switch “OFF”, inhibitor switch “N” (Clutch pedal is depressed, or select lever is set to “N”.)	22
13	Speed limiter	Low-speed control limiter	24
14	Set switch and resume switch	Input signal from cancel switch “ON”	26
21	Vacuum valve	Faulty vacuum valve or valve drive system	27
22	Vent 2 valve	Faulty vent 2 valve or valve drive system	27
23	Vent 1 valve	Faulty vent 1 valve or valve drive system	27
24	Speed sensor	Faulty vehicle speed sensor	24
25	Control module	Faulty control module	28

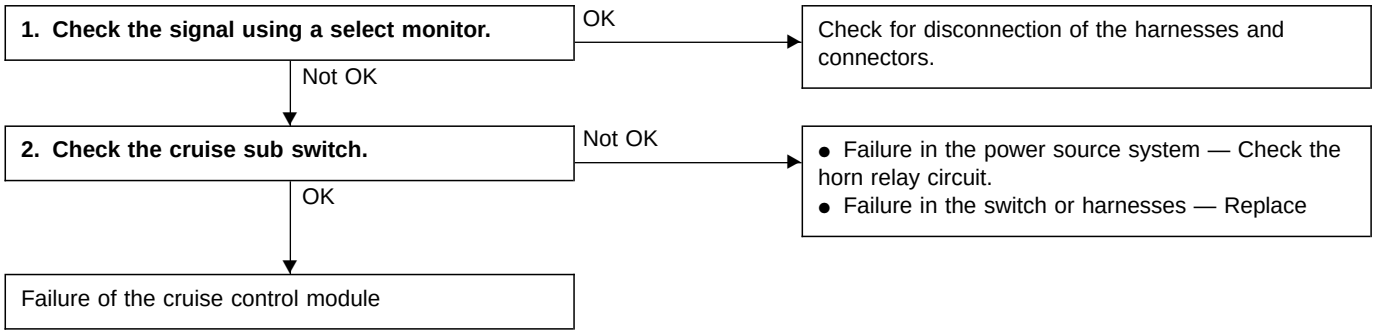
A: CHECKING INPUT OF CRUISE CONTROL SUB SWITCH

DIAGNOSIS:

- SET/COAST SW or disconnection of the wiring or short circuit.
- RESUME/ACCEL SW or disconnection of the wiring or short circuit.

TROUBLE SYMPTOM:

- Cruise control cannot be set, or it is cancelled immediately.
- RESUME/ACCEL cannot be operated.



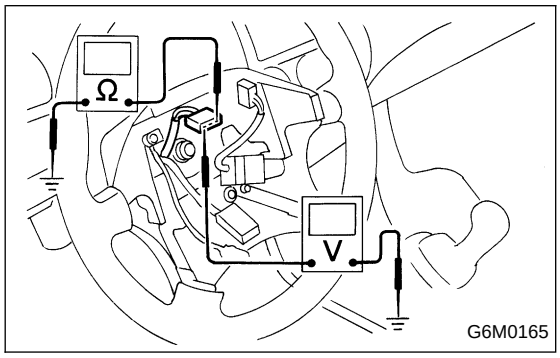
LED No.	Signal name	Display
1	—	—
2	—	—
3	SET/COAST switch	SE
4	RESUME/ACCEL switch	RE
5	—	—
6	—	—
7	—	—
8	—	—
9	—	—
10	—	—

ST	BR	SE	RE	IH
—	—	—	—	—

1	2	3	4	5
6	7	8	9	10

1. CHECK THE SIGNAL USING A SELECT MONITOR

- Measuring condition: Turn ON the ignition switch and cruise main switch.
- Operation of the function keys: FA0 ENT
  When pushing the SET SW: LED No. 3 goes out — lights
  When pushing the RESUME SW: LED No. 4 goes out — lights



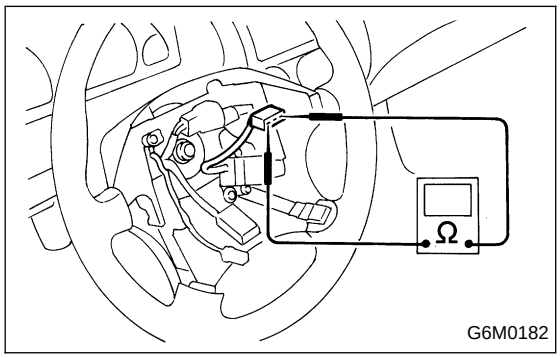
2. CHECK THE CRUISE SUB SWITCH

1) Separate connector from sub switch. (Use together with horn power supply.)
2) Check voltage between sub switch connector and body.

Terminals/Specified voltage:
No. 1 — Body/10 — 13 V

3) Check for harness short circuit between sub switch and cruise control module.

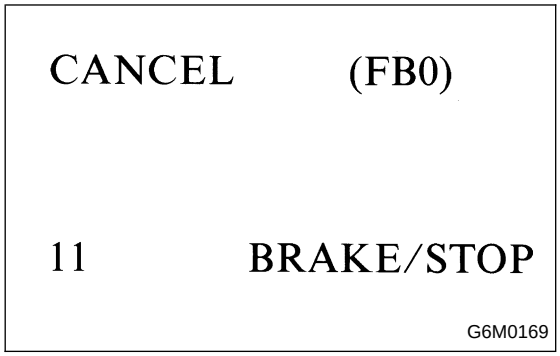
Terminals/Specified resistance:
No. 2 — Body/1 MΩ, min.
No. 3 — Body/1 MΩ, min.



4) Check inner switch of the cruise control sub switch and check continuity at switch side connector.

Terminals:
No. 1 — 2 (SET/COAST SWITCH)
No. 1 — 3 (RESUME/ACCEL SWITCH)

Specified resistance:
10 Ω, max. (Switch ON)
1 MΩ, min. (Switch OFF)



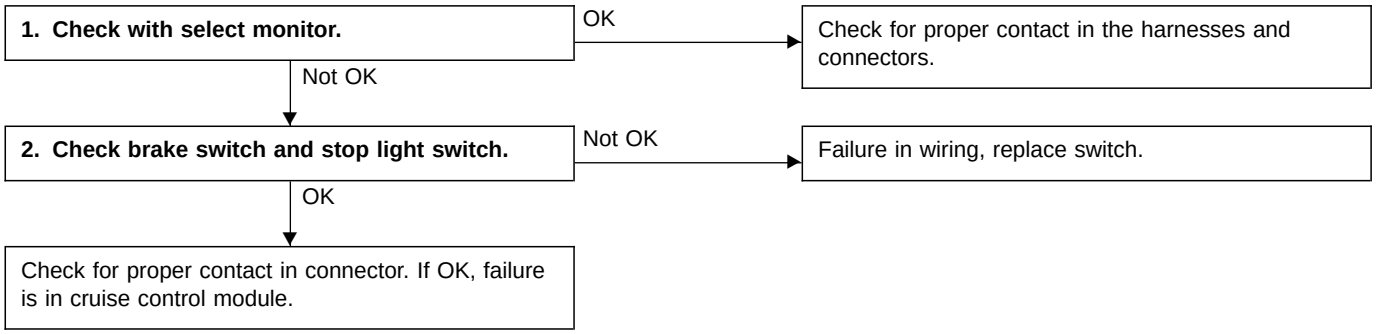
B: TROUBLE CODE 11 — BRAKE SW, STOP LIGHT SW —

DIAGNOSIS:

- Failure or disconnection of the stop light switch and brake switch.

TROUBLE SYMPTOM:

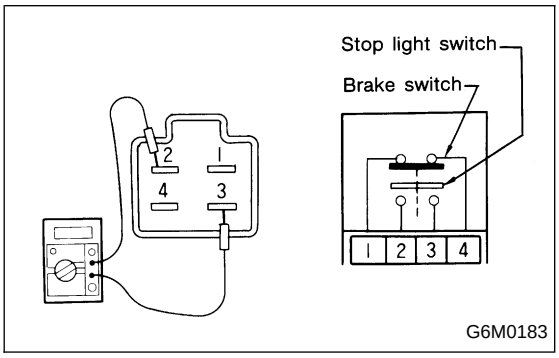
- Cruise control cannot be set.



LED No.	Signal name	Display
1	Stop light switch	ST
2	Brake switch	BR
3	—	—
4	—	—
5	—	—
6	—	—
7	—	—
8	—	—
9	—	—
10	—	—

ST	BR	SE	RE	IH
—	—	—	—	—

1	2	3	4	5
6	7	8	9	10



1. CHECK WITH SELECT MONITOR

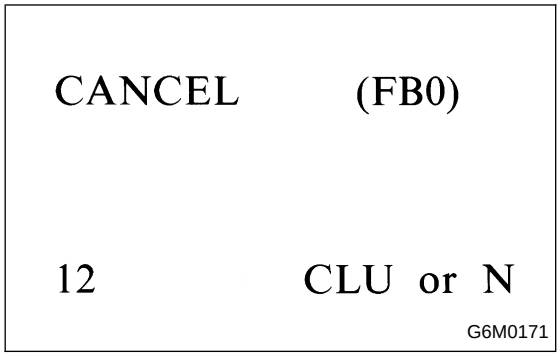
- Measurement condition: Turn ignition switch ON. Turn cruise main switch ON.
- Operation of the function keys: FA0 ENT

1) When depressing brake pedal (Set in the D range for AT, without depressing clutch pedal for MT)
Stop light switch: LED No. 1 goes out — lights.
Brake switch : LED No. 2 goes out — lights.

2. CHECK BRAKE SWITCH AND STOP LIGHT SWITCH

1) Remove connector of stop and brake switch.
2) Check circuit between each terminal.

Pedal operation	Brake switch between No. 1 — 4	Stop light switch between No. 2 — 3
Depressing the brake pedal.	Circuit failure	Circuit normal
Without depressing the brake pedal.	Circuit normal	Circuit failure



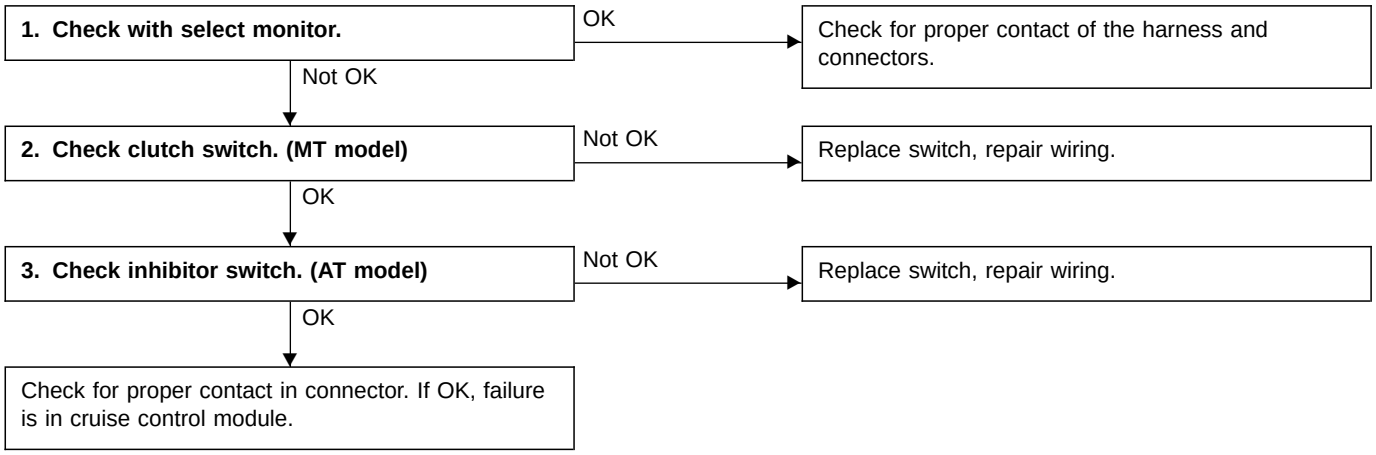
C: TROUBLE CODE 12 — CLUTCH SWITCH, N POSITION —

DIAGNOSIS:

- Failure or disconnection of inhibitor switch
- Failure or disconnection of clutch switch

TROUBLE SYMPTOM:

- Cruise control cannot be set.



LED No.	Signal name	Display
1	—	—
2	—	—
3	—	—
4	—	—
5	Clutch switch/inhibitor switch	IH
6	—	—
7	—	—
8	—	—
9	—	—
10	—	—

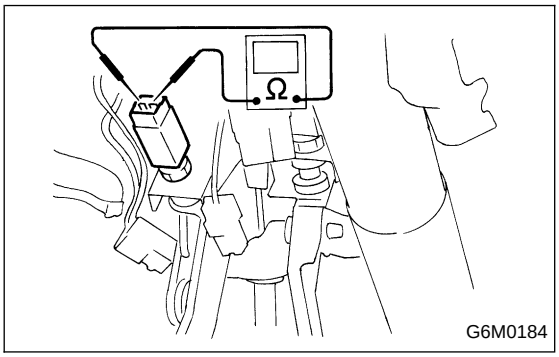
ST	BR	SE	RE	IH
—	—	—	—	—

1	2	3	4	5
6	7	8	9	10

1. CHECK WITH SELECT MONITOR

- Measurement condition: Turn ignition switch ON.
  Turn cruise main switch ON.
- Operation of function keys: FA0 ENT

1) When depressing clutch pedal;
LED No. 5 goes out — lights.
2) When setting shift lever in N position;
LED No. 5 goes out — lights.



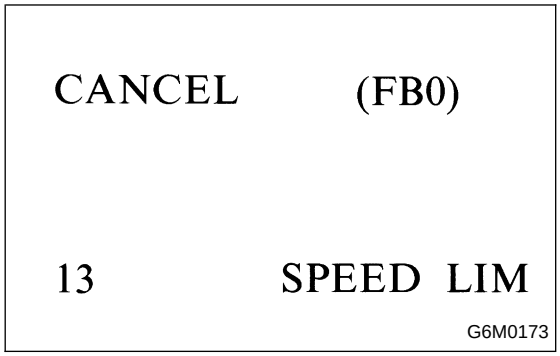
2. CHECK CLUTCH SWITCH (MT MODEL)

1) Check items for the clutch switch. (Circuit test between terminals)

Terminals/Specified resistance:
No. 1 — No. 2/10 Ω, max. (Without pedal depressing).
/1 MΩ, min. (Pedal depressing).

3. CHECK INHIBITOR SWITCH (AT MODEL)

1) When engine starts in the N position (the starter rotates), N position contact point of the inhibitor is normal.
2) Check the wiring harness.



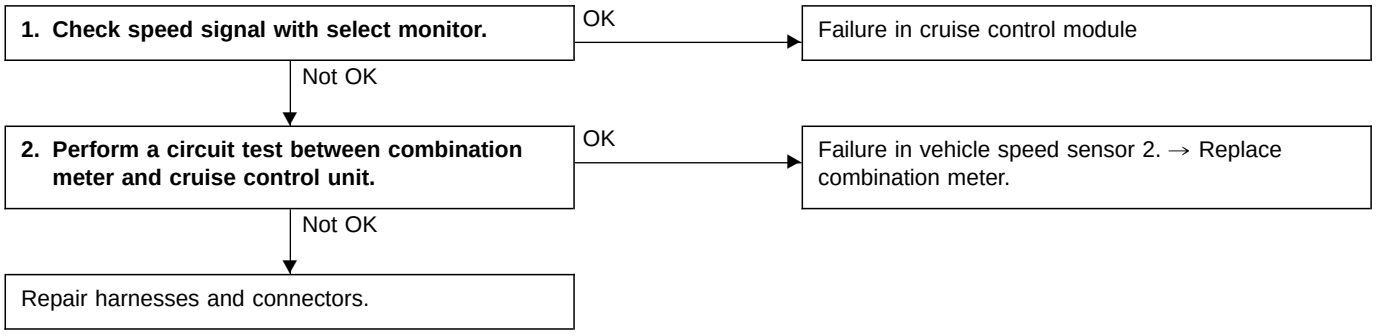
D: TROUBLE CODE 13 AND 24 — SPEED LIMITER, SPEED SENSOR —

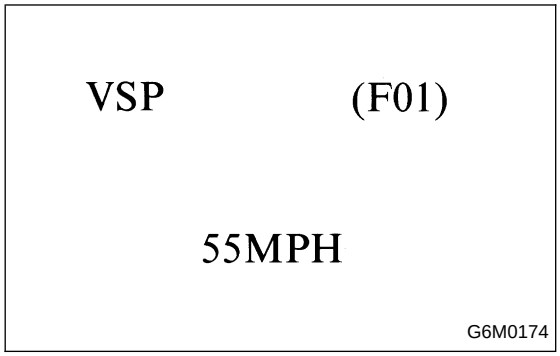
DIAGNOSIS:

- Disconnection or short circuit of speed sensor.

TROUBLE SYMPTOM:

- Cruise control cannot be set. (Cancelled immediately.)



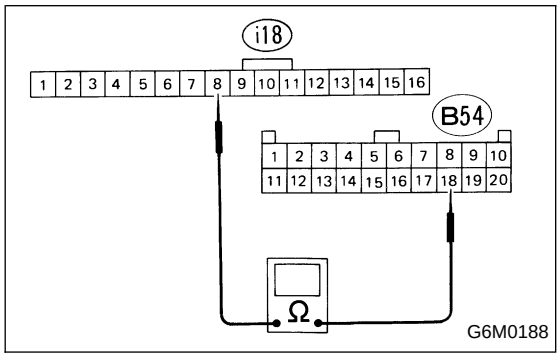


1. CHECK SPEED SIGNAL WITH SELECT MONITOR

- Driving condition: Running at speed greater than 40 km/h (25 MPH)
- Operation of the function keys: F02 ENT

NOTE:

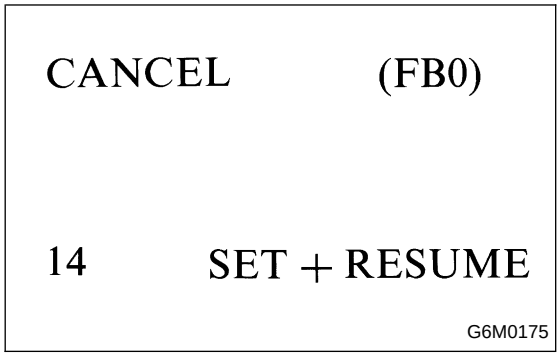
- When there is a failure in the meter cable or the vehicle speed sensor 2, the indicated value of the meter will be incorrect.
- When there is a disconnection or short circuit in the harness between the meter and the cruise control module, the indicated value will be 0 — 1 km/h.



2. PERFORM A CIRCUIT TEST BETWEEN COMBINATION METER AND CRUISE CONTROL UNIT

1) Separate connectors from combination meter and cruise control module.
2) Perform a circuit test in the harnesses.

Connector & terminal/Specified resistance:
(i18) No. 8 — (B54) No. 18/10 Ω, max.



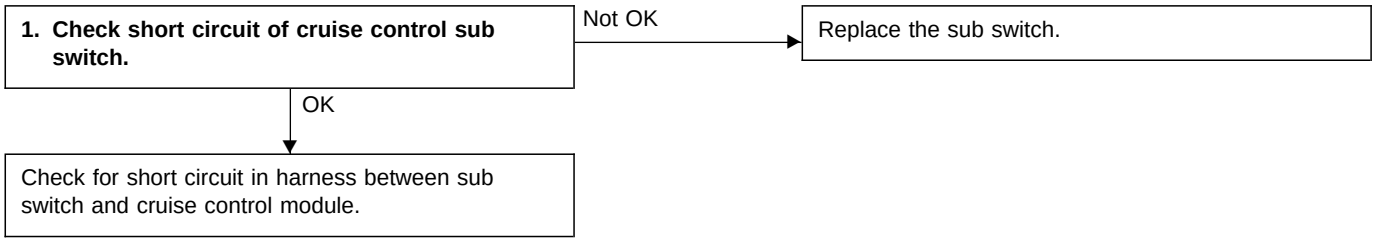
E: TROUBLE CODE 14 — SET SWITCH AND RESUME SWITCH (CANCEL SW-ON) —

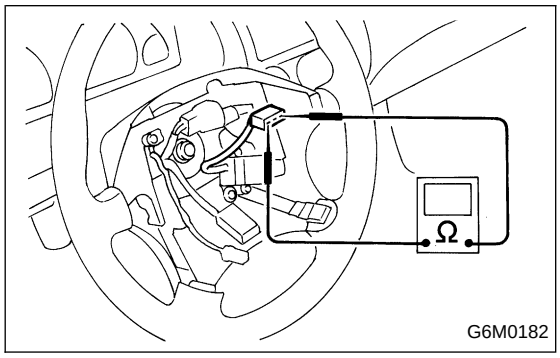
DIAGNOSIS:

- Short circuit inside the SET SW and RESUME SW.

TROUBLE SYMPTOM:

- Cruise control cannot be set. (Cancelled immediately.)



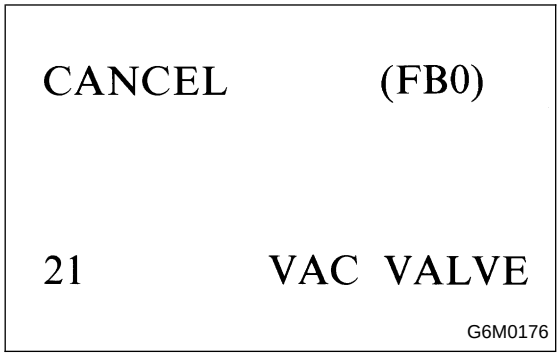


1. CHECK SHORT CIRCUIT OF CRUISE CONTROL SUB SWITCH

1) Separate connector of cruise control sub switch.
2) Measure resistance between each terminal of cruise control sub switch.

Terminal/Specified resistance:

SET switch ON No. 1 — No. 2/10 Ω, max.
RESUME switch ON No. 1 — No. 3/10 Ω, max.
CANCEL switch ON No. 1 — No. 2/10 Ω, max.
No. 1 — No. 3/10 Ω, max.



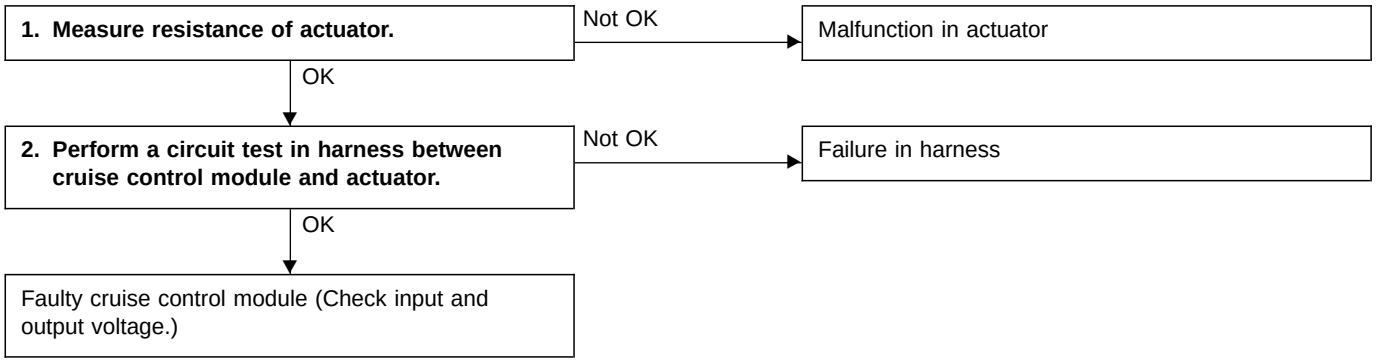
F: TROUBLE CODE 21, 22 AND 23 — VACUUM VALVE, VENT 1 VALVE, VENT 2 VALVE —

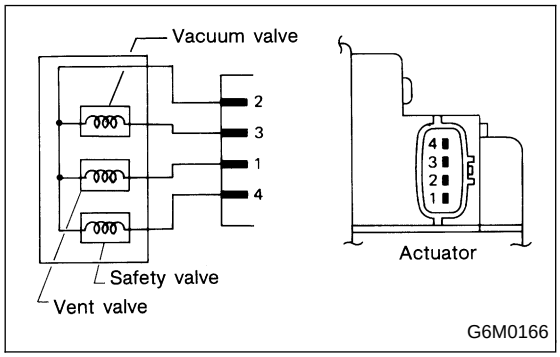
DIAGNOSIS:

- Open or poor contact of vacuum valve, vent 1 valve and vent 2 valve.

TROUBLE SYMPTOM:

- Cruise control cannot be set, or cancelled immediately.



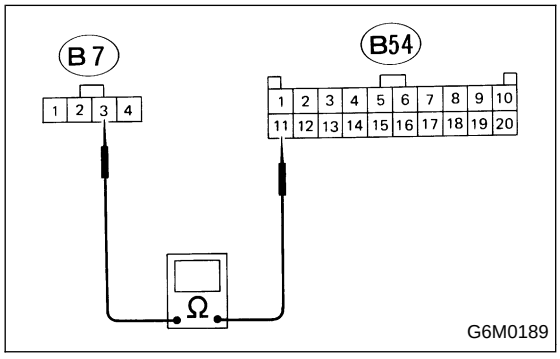


1. MEASURE RESISTANCE OF ACTUATOR

1) Separate the connector.
2) Measure the resistance value of the actuator.

Terminals/Specified resistance:

No. 2 — No. 1/55 Ω
No. 2 — No. 3/22 Ω
No. 2 — No. 4/55 Ω

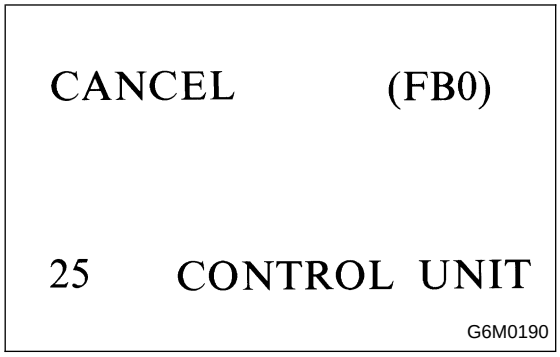


2. PERFORM A CIRCUIT TEST IN HARNESS BETWEEN CRUISE CONTROL MODULE AND ACTUATOR

1) Separate both sides of connectors.
2) Perform a circuit test between each of the harnesses.

Connector & terminal/Specified resistance:

(B7) No. 1 — (B54) No. 1/10 Ω, max.
(B7) No. 2 — (B54) No. 8/10 Ω, max.
(B7) No. 3 — (B54) No. 11/10 Ω, max.
(B7) No. 4 — (B54) No. 2/10 Ω, max.



Replace cruise control module.

G: TROUBLE CODE 25 — CONTROL MODULE —

DIAGNOSIS:

- Faulty cruise control module.

TROUBLE SYMPTOM:

- Cruise control cannot be set.