

BODY SECTION

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicles.

This manual includes the procedures for maintenance, disassembling, reassembling, inspection and adjustment of components and diagnostics for guidance of experienced mechanics.

Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

FUJI HEAVY INDUSTRIES LTD.

**HVAC SYSTEM
(HEATER, VENTILATOR AND A/C) AC**

AIRBAG SYSTEM AB

SEAT BELT SYSTEM SB

LIGHTING SYSTEM LI

WIPER AND WASHER SYSTEMS WW

ENTERTAINMENT ET

COMMUNICATION SYSTEM COM

GLASS/WINDOWS/MIRRORS GW

BODY STRUCTURE BS

INSTRUMENTATION/DRIVER INFO IDI

SEATS SE

SECURITY AND LOCKS SL

**SUNROOF/T-TOP/CONVERTIBLE TOP
(SUNROOF) SR**

EXTERIOR/INTERIOR TRIM EI

EXTERIOR BODY PANELS EB

CRUISE CONTROL SYSTEM CC

CRUISE CONTROL SYSTEM

CC

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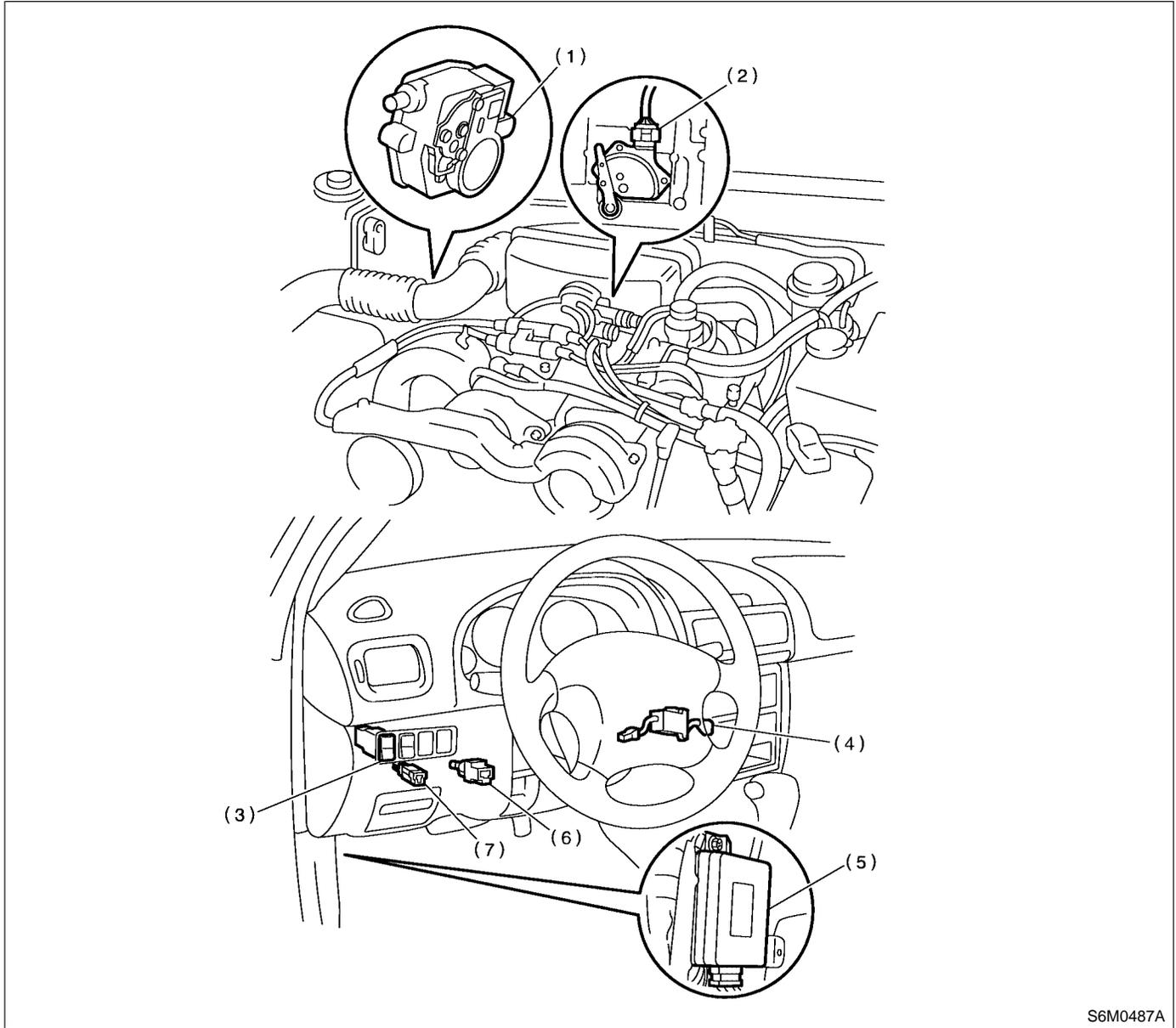
GENERAL DESCRIPTION

Cruise Control System

1. General Description S912001

A: COMPONENT S912001A05

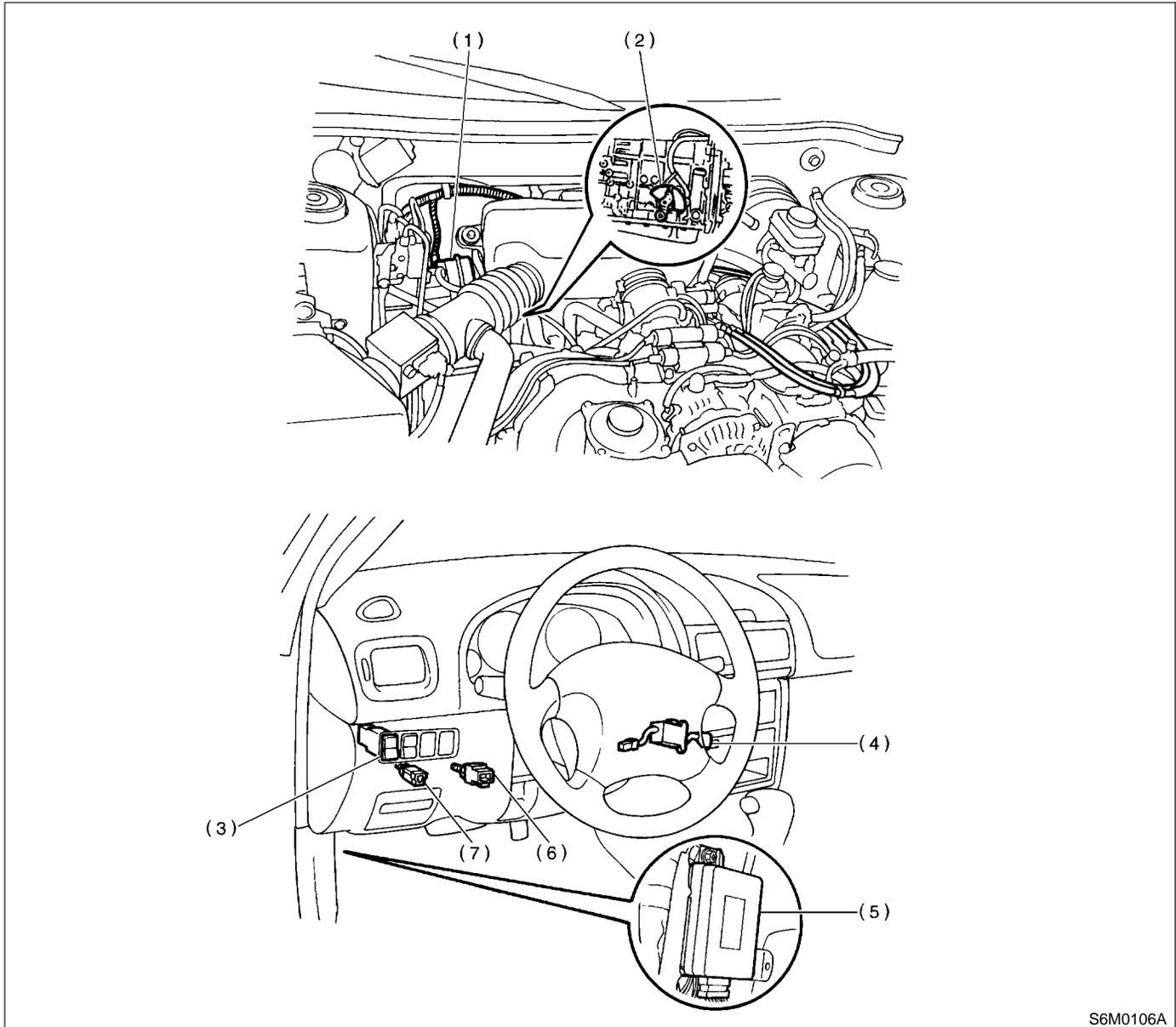
1. TURBO MODEL S912001A0501



S6M0487A

- | | | |
|--------------------------------|-----------------------------------|------------------------|
| (1) Actuator | (4) Cruise control command switch | (7) Clutch switch (MT) |
| (2) Inhibitor switch (AT) | (5) Cruise control module | |
| (3) Cruise control main switch | (6) Stop and brake switch | |

2. NON-TURBO MODEL S912001A0502



S6M0106A

- | | | |
|--------------------------------|-----------------------------------|------------------------|
| (1) Actuator (with valves) | (4) Cruise control command switch | (7) Clutch switch (MT) |
| (2) Inhibitor switch (AT) | (5) Cruise control module | |
| (3) Cruise control main switch | (6) Stop and brake switch | |

NOTE:

Electrical component location are for LHD vehicles. Cruise control actuator and cruise control module location for RHD vehicles are symmetrically opposite.

GENERAL DESCRIPTION

Cruise Control System

B: CAUTION S912001A03

- Before disassembling or reassembling parts, always disconnect the battery ground cable. When repairing the radio, control module and other parts with memory functions, make note of the memory before disconnecting the battery ground cable. All memory will be erased.
- Reassemble parts in the reverse order of disassembly unless otherwise indicated.
- Adjust parts to specifications specified in this manual.
- Connect connectors and hoses securely during reassembly.
- After reassembly, ensure functional parts operate properly.

C: PREPARATION TOOL S912001A17

1. GENERAL TOOLS S912001A1701

TOOL NAME	REMARKS
Circuit Tester	Used for measuring resistance and voltage.

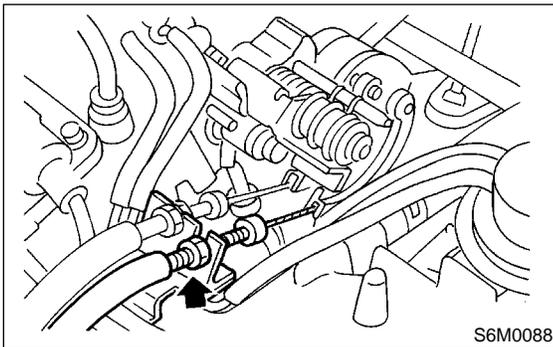
2. Actuator (Turbo Model) S912753

A: REMOVAL S912753A18

CAUTION:

- Be careful not to apply excessive load to the wire cable when adjusting and/or installing; otherwise, the actuator may be deformed or damaged.
- Do not bend cable sharply with a radius less than 100 mm (3.94 in); otherwise, cable may bend permanently, resulting in poor performance.
- When installing cable, be careful not to sharply bend or pinch the inner cable; otherwise, the cable may break.

- 1) Remove clip bands from cruise control cable.
- 2) Loosen nut which secures cruise control cable end to throttle cam and then remove cable from throttle cam.



- 3) Remove actuator attaching bolts.
- 4) Remove actuator while disconnecting connector.

B: INSTALLATION S912753A11

Install in the reverse order of removal.

Tightening torque:

7.4 N·m (0.75 kgf-m, 5.4 ft-lb)

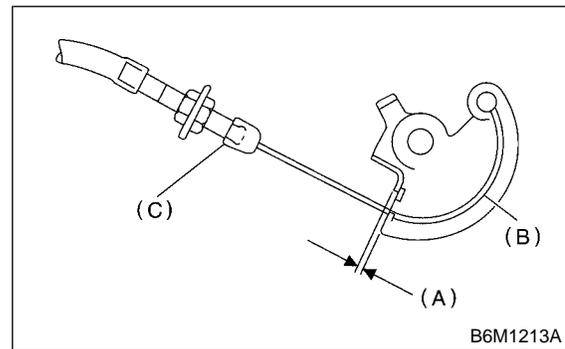
NOTE:

(A): Must be adjusted when cable end outer is fixed in place, so that gap between throttle cam and lever is 0 — 1 mm (0 — 0.04 in).

(Must be attached while throttle cam is being pulled by wire cable.)

(B): Must be coated evenly on cam end inner connection.

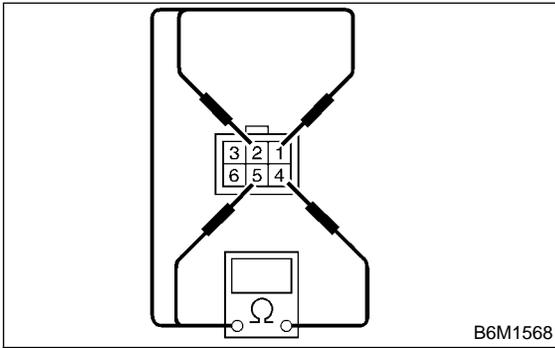
(C): Cover must be inserted securely, until tip of cable touches cover stopper.



ACTUATOR (TURBO MODEL)

Cruise Control System

C: INSPECTION S912753A10



Measure resistance between cruise control actuator terminals.

Tester connection	Resistance (Ω)
4 — 1	Approx. 5
4 — 2	Approx. 5
4 — 5	Approx. 5
3 — 6	Approx. 39

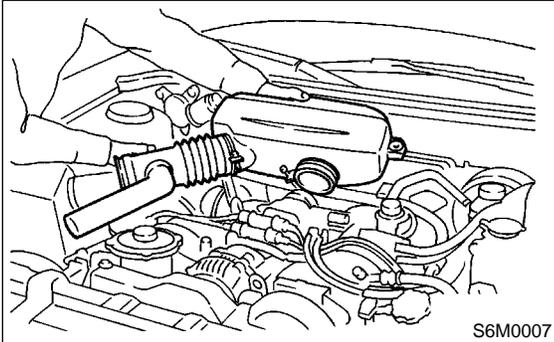
If NG, replace cruise control actuator.

3. Actuator (Non-turbo Model)

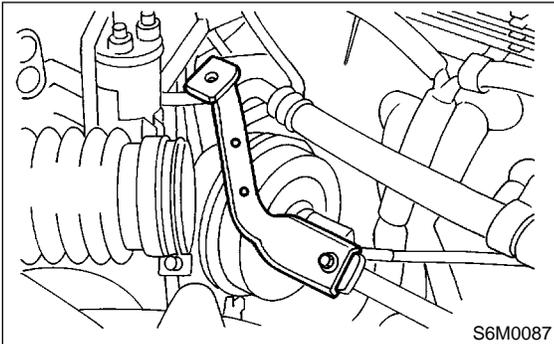
S912754

A: REMOVAL S912754A18

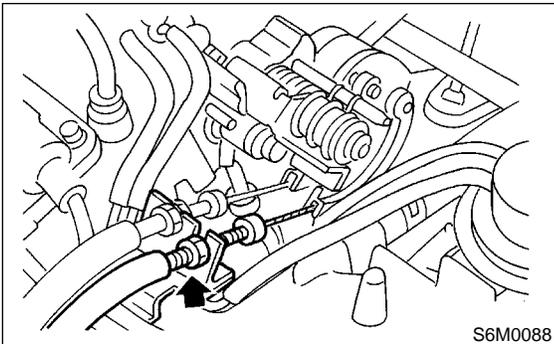
- 1) Remove air intake chamber.



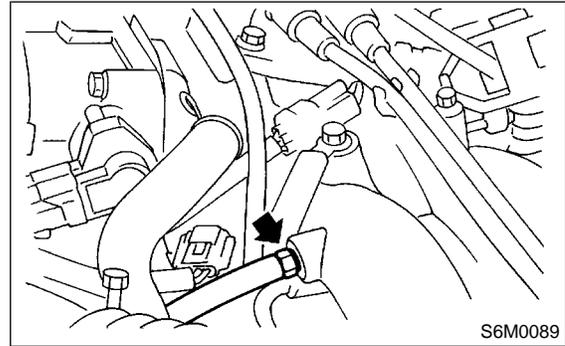
- 2) Remove air intake chamber stay.
- 3) Remove clip bands from cruise control cable.



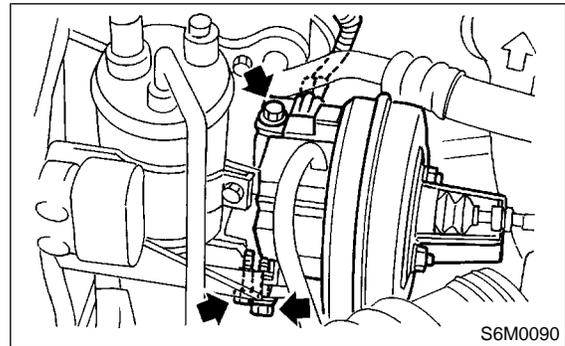
- 4) Remove cruise control cable end from throttle cam.



- 5) Disconnect cruise control vacuum hose from intake manifold.



- 6) Remove actuator attaching bolts.
- 7) Disconnect connector from actuator, then remove the actuator.



B: INSTALLATION S912754A11

Install in the reverse order of removal.

Tightening torque:

7.4 N·m (0.75 kgf·m, 5.4 ft·lb)

CAUTION:

When inserting vacuum hose to intake manifold, apply sealant to the fitting hose.

Fluid packing:

THREE BOND 1105 or equivalent

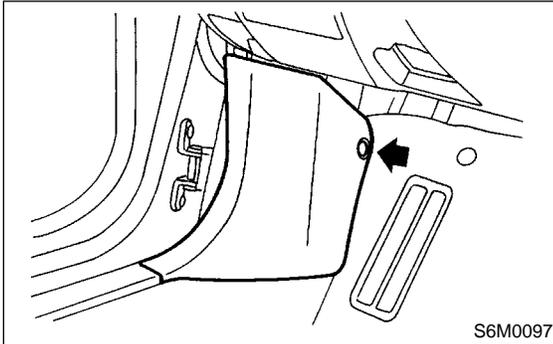
CAUTION:

- Be careful not to apply excessive load to the wire cable when adjusting and/or installing; otherwise, the actuator may be deformed or damaged.
- Do not bend cable sharply with a radius less than 100 mm (3.94 in); otherwise, cable may bend permanently, resulting in poor performance.
- When installing cable, be careful not to sharply bend or pinch the inner cable; otherwise, the cable may break.

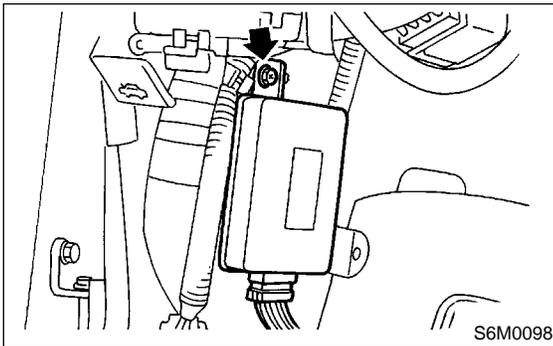
4. Cruise Control Module S912500

A: REMOVAL S912500A18

- 1) Remove front pillar lower trim.



- 2) Disconnect connector from cruise control module.
- 3) Remove bolt, then remove cruise control module.



B: INSTALLATION S912500A11

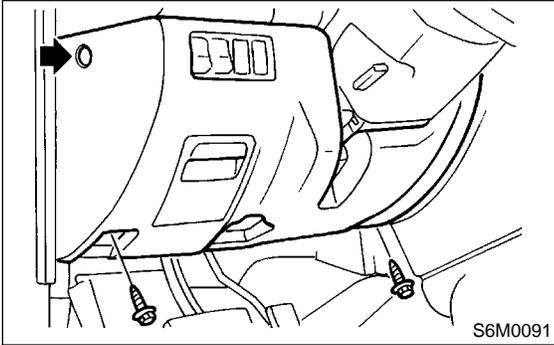
Install in the reverse order of removal.

5. Cruise Control Main Switch

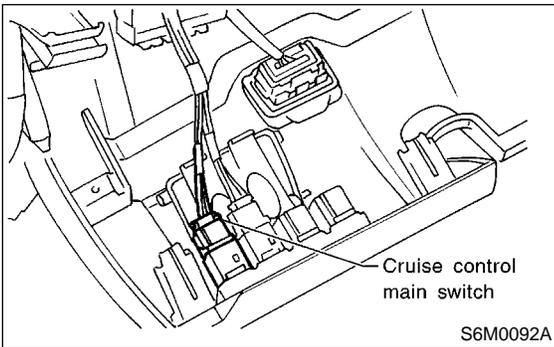
S912498

A: REMOVAL S912498A18

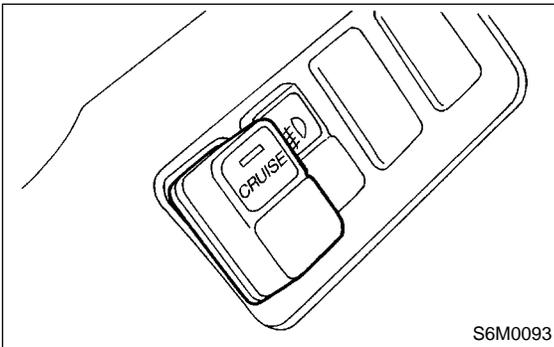
- 1) Remove screws and clip from instrument panel lower cover.
- 2) Remove panel lower cover.



- 3) Disconnect connector from cruise control main switch.



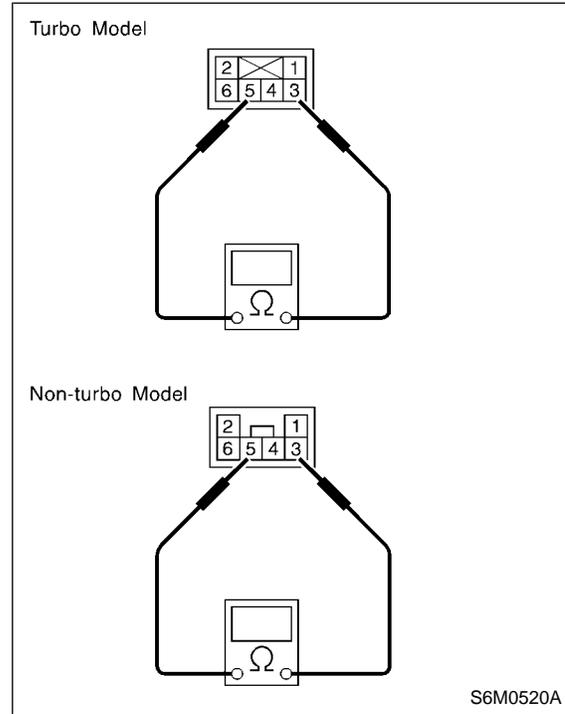
- 4) Remove main switch by pushing it outward.



B: INSTALLATION S912498A11

Install in the reverse order of removal.

C: INSPECTION S912498A10



Check continuity between cruise control main switch terminals.

Switch position	Tester connection	Specified condition
OFF	3 — 5	No continuity
ON	3 — 5	Continuity

If NG, replace cruise control main switch.

CRUISE CONTROL COMMAND SWITCH

Cruise Control System

6. Cruise Control Command Switch

S912497

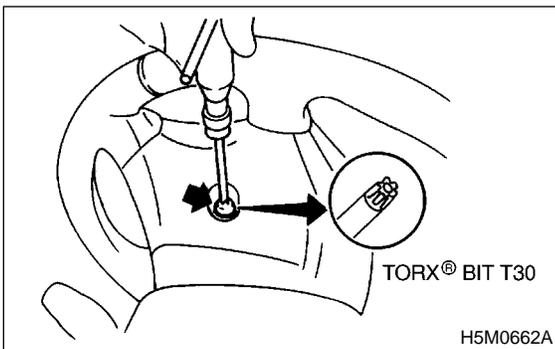
A: REMOVAL

S912497A18

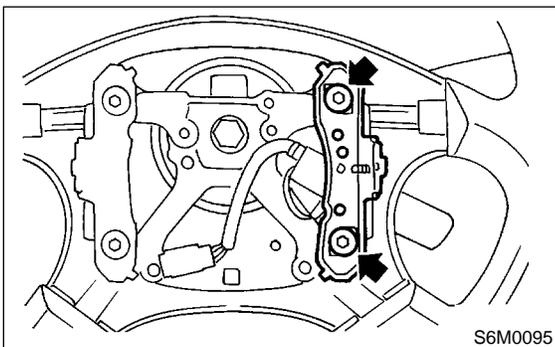
WARNING:

Before servicing, be sure to read the notes in the AB section for proper handling of the driver's airbag module. <Ref. to AB-3 CAUTION, General Description.>

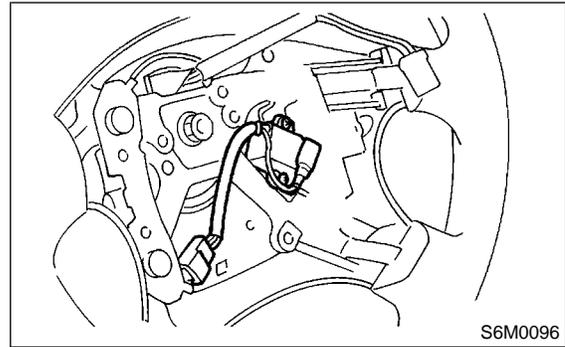
- 1) Set front wheels in straight ahead position.
- 2) Turn ignition switch OFF.
- 3) Disconnect battery ground cable from battery and wait for at least 20 seconds before starting work.
- 4) Using TORX® BIT T30 (Tamper resistant type), loosen two TORX® bolts which secure driver's airbag module.



- 5) Disconnect airbag module connector on back of airbag module.
- 6) Remove horn switch from steering wheel as shown.



- 7) Disconnect horn and cruise control command switch connector, then remove cruise control command switch.



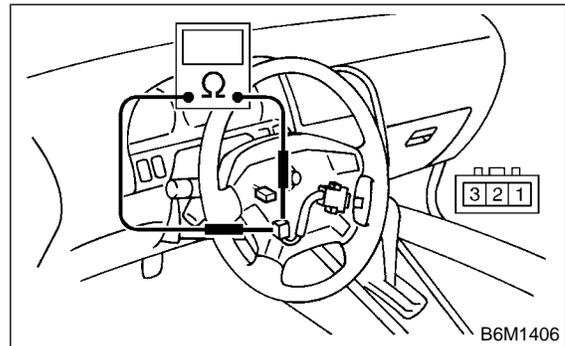
B: INSTALLATION

S912497A11

Install is in the reverse order of removal.

C: INSPECTION

S912497A10



Check continuity between cruise control command switch terminals.

Switch	Position	Tester connection	Specified condition
CANCEL	ON	1 (+) — 2 (-)	Continuity
	ON	1 (+) — 3 (-)	Continuity
SET/COAST	OFF	1 — 3	No continuity
	ON	1 — 3	Continuity
RESUME/ACCEL	OFF	1 — 2	No continuity
	ON	1 — 2	Continuity

If NG, replace cruise control command switch.

7. Stop and Brake Switch S912496

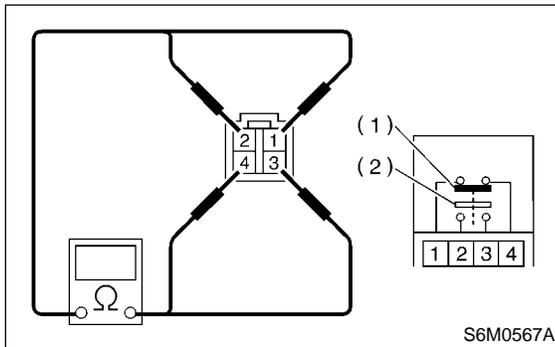
A: REMOVAL S912496A18

Disconnect connector from switch, and then remove the switch. <Ref. to BR-60 REMOVAL, Stop Light Switch.>

B: INSTALLATION S912496A11

Install in the reverse order of removal.

C: INSPECTION S912496A10



Check continuity brake switch (1) and stop light switch (2) between terminals.

Switch	Pedal	Tester connection	Specified condition
Brake	Released	1 — 4	Continuity
	Depressed	1 — 4	No continuity
Stop light	Released	2 — 3	No continuity
	Depressed	2 — 3	Continuity

If NG, replace stop and brake switch.

8. Clutch Switch S912258

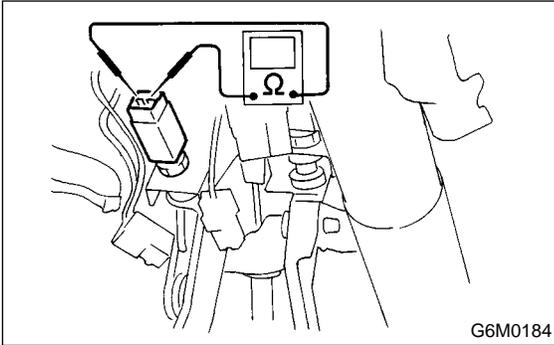
A: REMOVAL S912258A18

Disconnect the connector from the switch, and then remove the switch. <Ref. to CL-38 DISASSEMBLY, Clutch Pedal.>

B: INSTALLATION S912258A11

Install in the reverse order of removal.

C: INSPECTION S912258A10



Check continuity between clutch switch terminals.

Switch	Pedal	Tester connection	Specified condition
Clutch	Released	1 — 2	Continuity
	Depressed	1 — 2	No continuity

If NG, replace the clutch switch.

9. Inhibitor Switch S912243

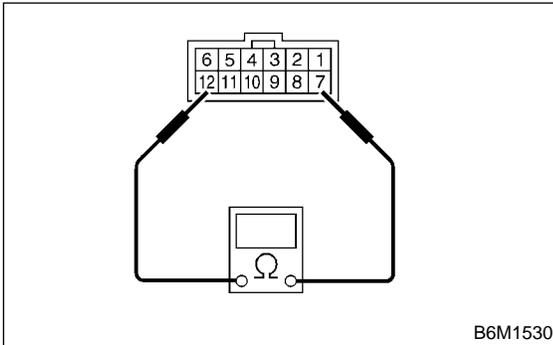
A: REMOVAL S912243A18

Disconnect connector from switch, and then remove the switch. <Ref. to AT-29 REMOVAL, Inhibitor Switch.>

B: INSTALLATION S912243A11

Installation is in the reverse order of removal.

C: INSPECTION S912243A10



Check continuity between inhibitor switch terminals.

Selector lever position	Tester connection	Specified condition
P	7 — 12	Continuity
N		Continuity
Except P and N		No continuity

If NG, replace inhibitor switch.

INHIBITOR SWITCH

Cruise Control System

MEMO: