Repair Instructions

HVAC Unit Components

S7RW0C7106001

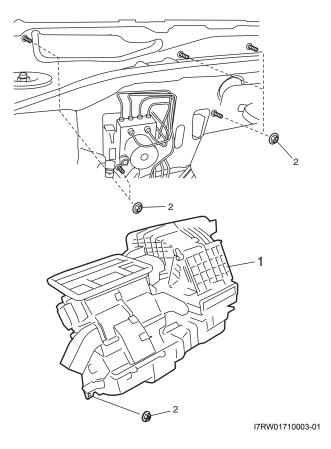
For non-A/C and manual A/C, refer to "HVAC Unit Components: Manual Type in Section 7B". For auto A/C, refer to "HVAC Unit Components: Automatic Type in Section 7B".

HVAC Unit Removal and Installation (Non-A/C) S7RW0C7106002

For manual A/C and auto A/C, refer to "HVAC Unit Removal and Installation: Manual Type in Section 7B".

Removal

- 1) Drain engine coolant referring to "Cooling System" Draining in Section 1F", and then disconnect heater hoses from HVAC unit.
- 2) Remove cowl top cover from vehicle body referring to "Radiator Grille Removal and Installation in Section 9K".
- 3) Remove instrument panel from vehicle body referring to "Instrument Panel Removal and Installation in Section 9C".
- 4) Remove HVAC unit (1) from vehicle body by removing nuts (2).



Installation

Reverse removal procedure noting the following instructions.

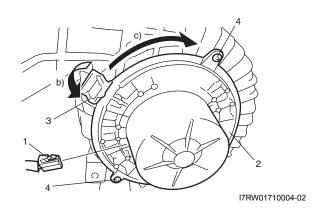
- · Be careful not to catch any cable and wiring harness in inappropriate position.
- Adjust control cables of HVAC control unit referring to "HVAC Control Unit Removal and Installation".
- Refill cooling system with coolant referring to "Cooling System Flush and Refill in Section 1F".

Blower Motor Removal and Installation

S7RW0C7106003

Removal

- 1) Disconnect negative (–) cable from battery.
- 2) Disconnect connector (1) from blower motor (2).
- 3) Remove blower motor (2) from HVAC unit as follows.
 - a) Remove screws (4).
 - b) Release tub (3) to arrow direction.
 - c) Hold Step b) and turn blower motor (2) to arrow direction.



Installation

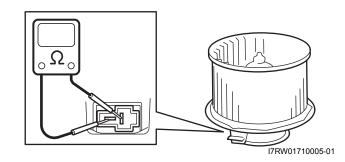
Reverse removal procedure.

Blower Motor Inspection

S7RW0C7106004

Check blower motor for resistance between two terminals as shown.

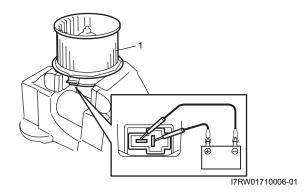
If there is no continuity, replace blower motor.



7A-6 Heater and Ventilation:

- · Check for operation and current.
 - a. Put blower motor (1) in a soft-jawed vise.
 - b. Connect battery to blower motor as shown.
 - c. Check if blower motor operates smoothly without noise.
 - d. Check if ammeter indicates the specified current. If measured current is out of specification, replace blower motor.

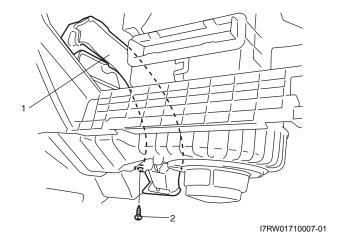
Blower motor specified current at 12 V 18.5 A maximum at 20 – 25 °C (68 – 77 °F)



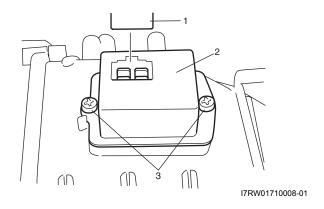
Blower Motor Resistor Removal and Installation S7RW0C7106005

Removal

- 1) Disconnect negative (-) cable from battery.
- 2) Remove glove box from instrument panel.
- 3) Remove passenger side foot duct (1) from HVAC unit by removing screw (2).



4) Disconnect connector (1) from blower motor resistor (2), and then remove blower motor resistor from HVAC unit by removing screws (3).



Installation

Reverse removal procedure.

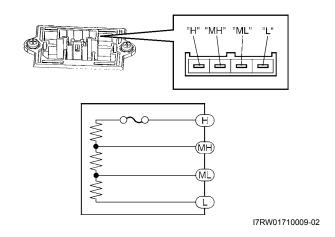
Blower Motor Resistor Inspection

S7RW0C7106006

Measure each terminal-to-terminal resistance. If measured resistance is out of specification, replace blower motor resistor.

Blower motor resistor resistance

"H" – "MH": Approx. 0.43 Ω at 20 – 25 °C (68 – 77 °F) "MH" – "ML": Approx. 0.6 Ω at 20 – 25 °C (68 – 77 °F) "ML" – "L": Approx. 2.0 Ω at 20 – 25 °C (68 – 77 °F)

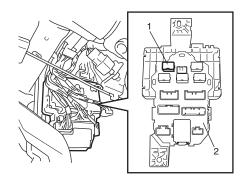


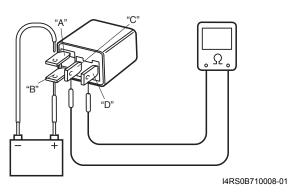
Blower Motor Relay Inspection

S7RW0C7106007

- 1) Disconnect negative (–) cable at battery.
- 2) Disable air bag system referring to "Disabling Air Bag System in Section 8B".
- 3) Remove junction block assembly (2).
- 4) Disconnect blower motor relay (1) from junction block assembly (2).
- 5) Check that there is no continuity between terminal "C" and "D". If there is continuity, replace relay.
- 6) Connect battery positive (+) terminal to terminal "B" of relay. Connect battery negative (–) terminal "A" of relay.

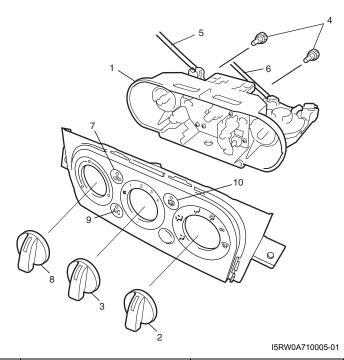
Check continuity between terminal "C" and "D". If there is no continuity when relay is connected to the battery, replace relay.





HVAC Control Unit Components

S7RW0C7106008



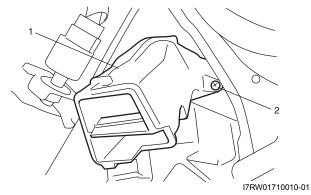
Heater control body assembly	4. Bulb	7. Air intake selector	Rear defogger switch	
2. Air flow selector	Temperature control cable	Temperature selector		
Blower speed selector	Air flow control cable	9. A/C switch (if equipped)		

HVAC Control Unit Removal and Installation

S7RW0C7106009

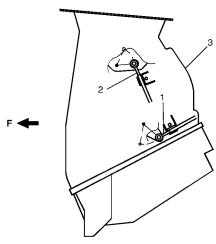
Removal

- 1) Disconnect negative (-) cable at battery.
- 2) Remove steering column hole cover from instrument panel.
- 3) Remove audio unit from instrument panel referring to "Audio Unit Removal and Installation (If Equipped) in Section 9C".
- 4) Remove driver side foot duct (1) from HVAC unit by removing screw (2).



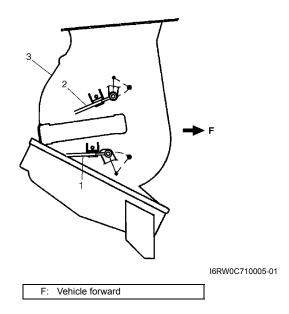
5) Disconnect temperature control cable (1) and air flow control cable (2) from HVAC unit (3).

LH steering vehicle



I7RW01710012-02

RH steering vehicle

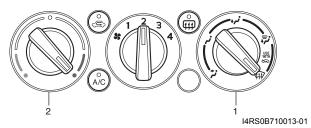


- 6) Remove center garnish from instrument panel.
- 7) Remove HVAC control unit from instrument panel.
- 8) Disconnect connectors from HVAC control unit.

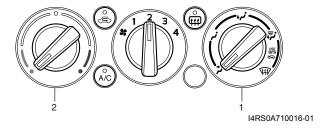
Installation

Reverse removal procedure noting the following instructions.

- Connect temperature control cable and air flow control cable of HVAC control unit to links of HVAC unit.
 - a. For LH steering vehicle, set airflow selector (1) to "DEF" position and temperature selector (2) to "MAX HOT" position.

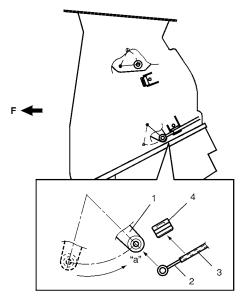


For RH steering vehicle, set airflow selector (1) to "VENT" position and temperature selector (2) to "MAX COOL" position.



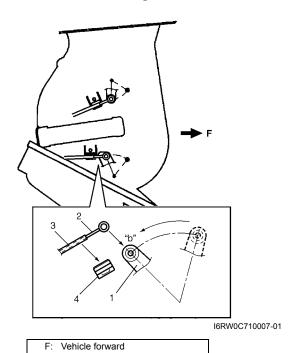
b. Move temperature control lever (1) to "MAX HOT" position "a" (LH steering vehicle) or "MAX COOL" position "b" (RH steering vehicle), then fix temperature control inner cable (2) to pin of temperature control lever and fix outer cable (3) to cable lock clamp (4).

LH steering vehicle



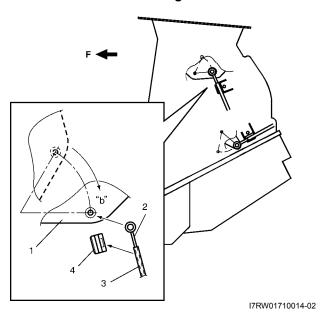
I7RW01710013-02

RH steering vehicle

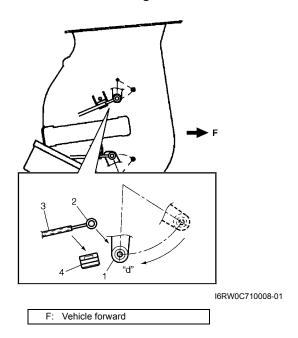


c. Move air flow control plate (1) to "DEF" position "c" (LH steering vehicle) or "VENT" position "d" (RH steering vehicle), then fix air flow control inner cable (2) to pin of air flow control plate and fix outer cable (3) to cable lock clamp (4).

LH steering vehicle



RH steering vehicle



NOTE

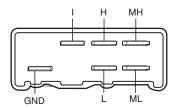
After installing control cables, make sure that control lever and plate move smoothly and stop at proper position.

 Make sure that air flow outlet changes correctly as air flow selector is changed.

Blower Speed Selector Inspection

S7RW0C7106010

Check blower speed selector for each terminal to terminal continuity. If check result does not meet the following conditions, replace HVAC control unit.



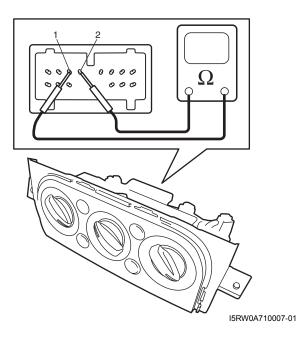
Terminal Position	GND	_	L	ML	МН	Н	
OFF	0						
1	Q	ϕ	-				
2	9	ϕ		$\overline{\bigcirc}$			
3	9	þ			9		
4	\Diamond	ϕ				\vdash	
I4RS0A710019-01							

Air Intake Selector Inspection

S7RW0C7106011

- Check that there is continuity between terminal (1) and terminal (2) when air intake selector is at "FRE" position.
- Check that there is no continuity between terminal (1) and terminal (2) when air intake selector is at "REC" position.

If check result does not meet the above conditions, replace HVAC control unit.

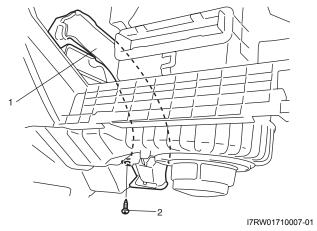


Air Intake Control Actuator Removal and Installation

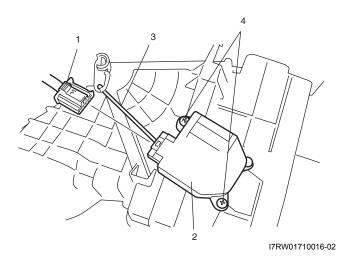
S7RW0C7106012

Removal

- 1) Disconnect negative cable from battery.
- 2) Remove glove box from instrument panel.
- 3) Remove passenger side foot duct (1) from HVAC unit by removing screw (2). (LH steering vehicle only.)



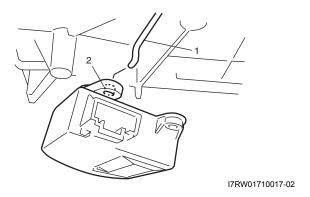
- 4) Disconnect connector (1) from air intake control actuator (2).
- 5) Detach linkage rod (3) and remove air intake control actuator (2) by removing screws (4).



Installation

Reverse removal procedure noting the following instruction.

• Be sure to insert the linkage rod (1) into the hole (2) of air intake control actuator.



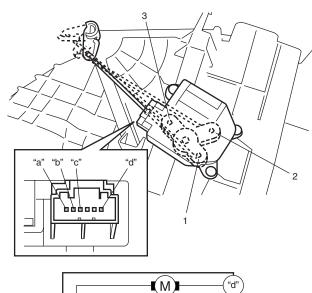
Air Intake Control Actuator Inspection

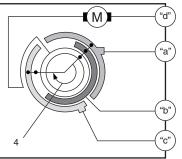
S7RW0C7106013

Check air intake control actuator as follows:

- 1) Using service wire, connect battery positive terminal to "d" terminal and battery negative terminal to terminal "a". And, check if air intake selector link operates smoothly and it stops at "FRE" position (1).
- 2) Using service wire, connect battery positive terminal to "d" terminal and battery negative terminal to terminal "c". And, check if air intake selector link operates smoothly and it stops at "REC" position (2).
- 3) For auto A/C model, using service wire, connect battery positive terminal to "d" terminal and battery negative terminal to "b" terminal. And, check air intake selector link operates smoothly and it stops at MIX position (3).

If malfunction is found, replace air intake control actuator.





I7RW01710018-05

4. Motor rotation direction

Center Ventilation Louver Removal and Installation

Removal

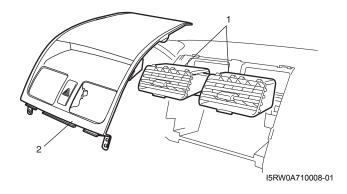
S7RW0C7106014

- 1) Disconnect negative (-) cable from battery.
- 2) Remove audio unit from instrument panel referring to "Audio Unit Removal and Installation (If Equipped) in Section 9C".
- 3) Remove center ventilation louver (1) with garnish (2) from instrument panel, and then disconnect connector from hazard switch.

NOTE

Garnish is fitted to instrument panel with six clips. When removing garnish from instrument panel, be careful not to break them.

4) Separate center ventilation louver and garnish.



Installation

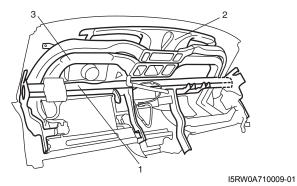
Reverse removal procedure.

Side Ventilation Louver Removal and Installation

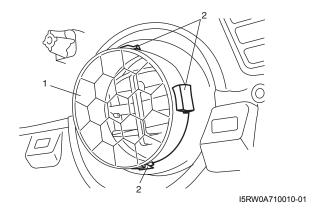
Removal

S7RW0C7106015

- Remove instrument panel from vehicle body referring to "Instrument Panel Removal and Installation in Section 9C"
- 2) Remove steering support member (1), defroster nozzle (2) and ventilator duct (3) from instrument panel.



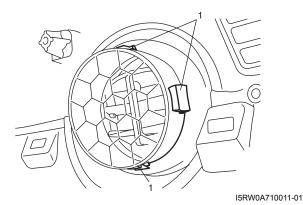
3) Remove side ventilation louver (1) from instrument panel while pressing clips (2).



Installation

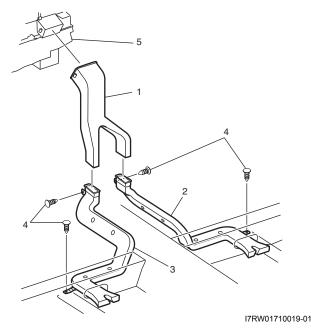
Reverse removal procedure noting the following instruction.

 Side ventilation louver is fitted to instrument panel with four clips (1). When installing side ventilation louver to instrument panel, position the smallest clip to the top.



Rear Duct Removal and Installation (If Equipped)

S7RW0C7106016



Center rear duct	4. Clip
Right rear duct	5. HVAC unit
Left rear duct	

Removal

- 1) Disconnect negative (–) cable at battery.
- 2) Remove front seats referring to "Front Seat Removal and Installation in Section 9G".
- 3) Remove console box referring to "Console Box Components in Section 9H".
- 4) Take off carpet till rear ducts is totally exposed.
- 5) Remove right and left rear ducts.
- 6) Remove center rear duct as follows, if necessary.
 - a) Remove HVAC control unit referring to "HVAC Control Unit Removal and Installation" (non-A/C or manual A/C) or "HVAC Control Module Removal and Installation: Automatic Type in Section 7B" (auto A/C).
 - b) Remove center rear duct from HVAC unit.

Installation

Reverse removal procedure noting the following instructions.

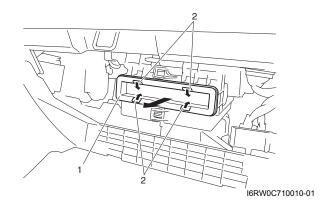
- Install HVAC control unit referring to "HVAC Control Unit Removal and Installation" (non-A/C or manual A/ C) or "HVAC Control Module Removal and Installation: Automatic Type in Section 7B" (auto A/C), if removed.
- Install console box referring to "Console Box Components in Section 9H".
- Install front seats referring to "Front Seat Removal and Installation in Section 9G".

HVAC Air Filter Removal and Installation (If Equipped)

S7RW0C7106017

Removal

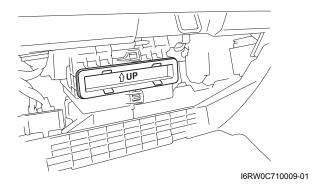
- 1) Remove glove box from instrument panel.
- 2) Remove air filter (1) from HVAC unit while releasing claws (2).



Installation

Reverse removal procedure noting the following instructions.

· Position air filter by directing its arrow mark to the upward.



HVAC Air Filter Inspection (If Equipped)

Reference: "HVAC Air Filter Removal and Installation (If Equipped)"

Check that filter is not excessively dirty, damage or oily, clean filter with compressed air from air outlet side of filter. If abnormality is found, replace filter with new one.

