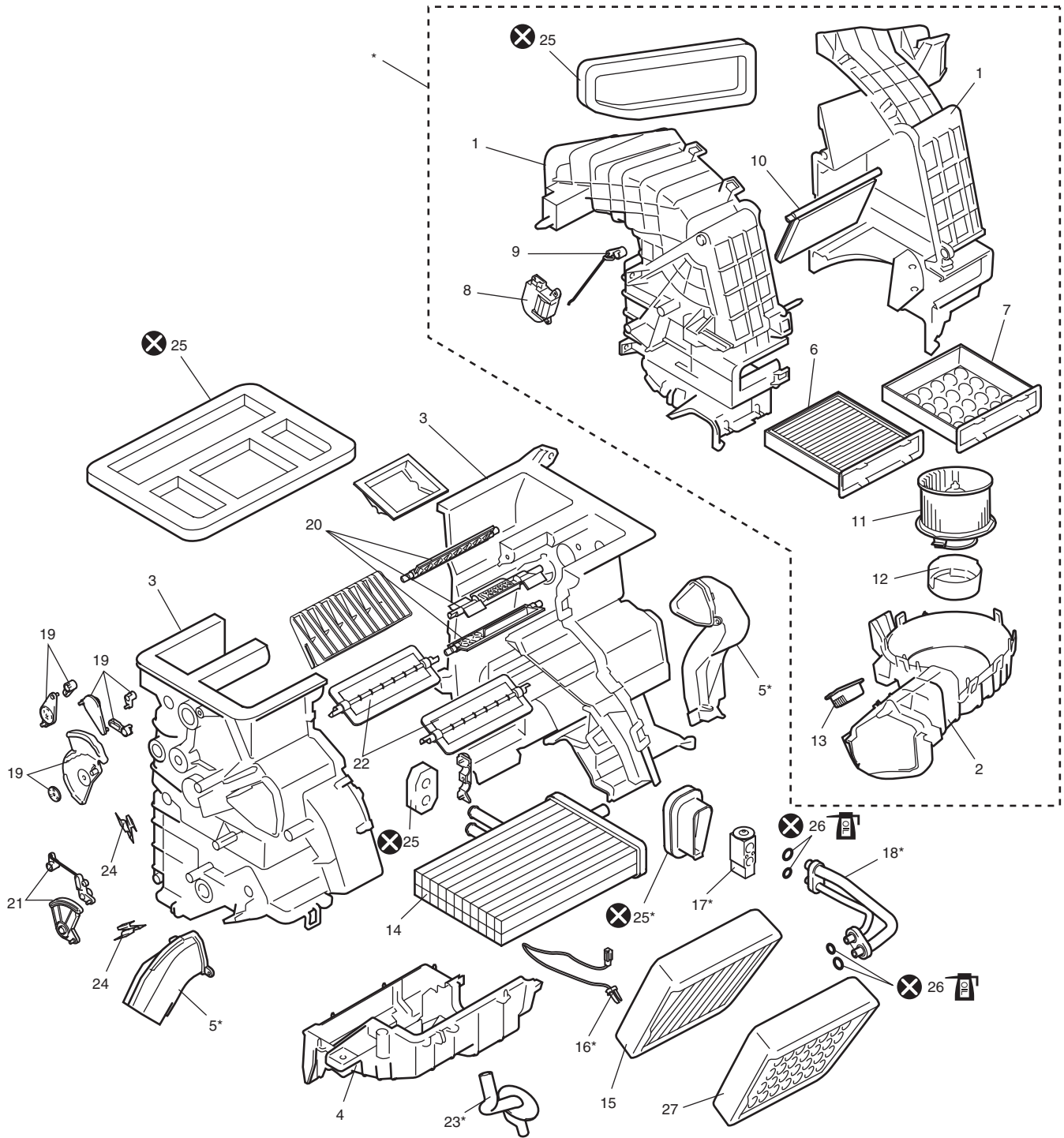


HVAC Unit Components

S6RW0C7216007

NOTE

The figure shows left-hand steering vehicle. For right-hand steering vehicle, parts with (*) are installed at the opposite side.



I6RW0C721006-01

1. Blower upper case	8. Air intake control actuator	15. Evaporator	22. Temperature control door assembly
2. Blower lower case	9. Air intake control link	16. Evaporator temperature sensor	23. Drain hose
3. Heater unit upper case	10. Air intake control door	17. Expansion valve	24. Cable lock clamp
4. Heater unit lower case	11. Blower motor	18. Expansion pipe	25. Packing
5. Foot duct	12. Blower motor cap	19. Air flow control lever	26. O-ring : Apply compressor oil.
6. HVAC air filter (if equipped)	13. Blower motor resistor	20. Air flow control door assembly	27. Resistance board (non-A/C)

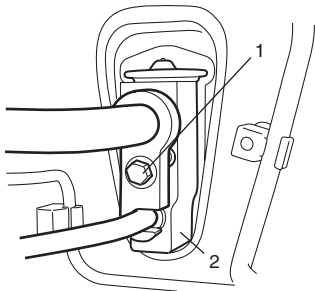
7. Cover (without HVAC air filter)	14. Heater core	21. Temperature control lever	⊗ : Do not reuse.
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HVAC Unit Removal and Installation

S6RW0C7216008

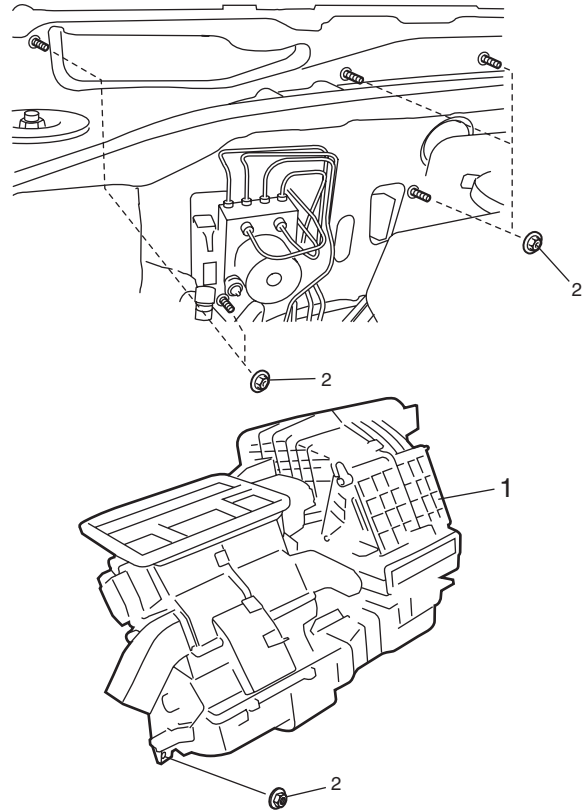
Removal

- 1) Recover refrigerant from A/C system with recovery and recycling equipment referring to "Recovery" in "Operation Procedure for Refrigerant Charge".
- 2) Drain engine coolant referring to "Cooling System Draining in Section 1F", and then disconnect heater hoses from HVAC unit.
- 3) Remove cowl top cover from vehicle body referring to "Cowl Top and Front Lower Crossmember Components in Section 9K"
- 4) Remove instrument panel from vehicle body referring to "Instrument Panel Removal and Installation in Section 9C".
- 5) Loosen a bolt (1) and remove pipes from expansion valve (2).



I7RW01721016-01

- 6) Remove HVAC unit (1) from vehicle body by removing nuts (2).

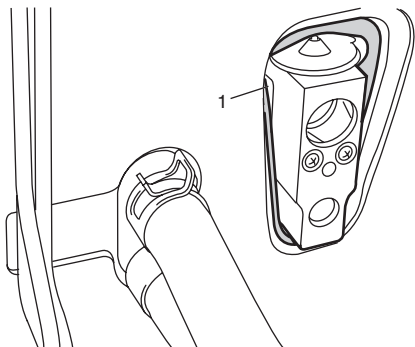


I7RW01710003-01

Installation

Reverse removal procedure noting the following instructions.

- Replenish specified amount of compressor oil to compressor suction side referring to "Replenishing Compressor Oil" in "Operation Procedure for Refrigerant Charge".
- Install the padding (1) to the installation hole uniformly.



15RW0A721025-02

- Evacuate and charge the A/C system referring to "Evacuation" and "Charge" in "Operation Procedure for Refrigerant Charge".
- Refill cooling system with coolant referring to "Cooling System Flush and Refill in Section 1F".
- Adjust control cables referring to "HVAC Control Unit Removal and Installation in Section 7A". (vehicle with manual type A/C)

Evaporator Inspection

S6RW0C7216009

Check the followings.

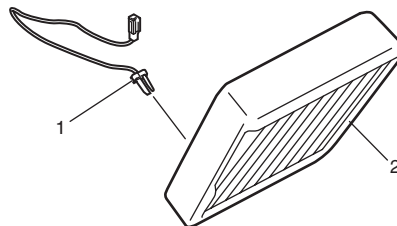
- Clog of A/C evaporator fins.
 If any clogs are found, A/C evaporator fins should be washed with water, and then should be dried with compressed air.
- A/C evaporator fins for leakage and breakage.
 If any defects are found, repair or replace A/C evaporator.
- A/C evaporator fittings for leakage.
 If any defects are found, repair or replace A/C evaporator.

Evaporator Temperature Sensor Removal and Installation

S6RW0C7216010

Removal

- 1) Remove HVAC unit from vehicle body referring to "HVAC Unit Removal and Installation".
- 2) Remove evaporator temperature sensor (1) from evaporator by (2) disassembling HVAC unit.



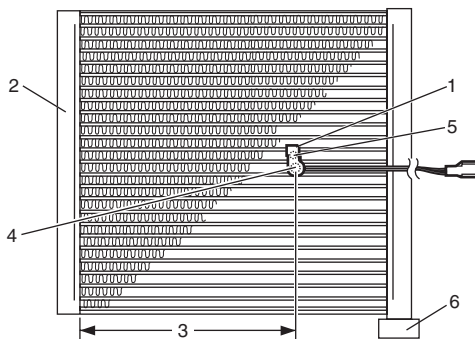
17RW01721018-01

Installation

Reverse the removal procedure noting the following instruction.

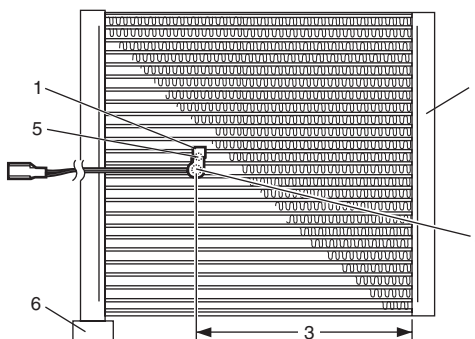
- Install evaporator temperature sensor (1) onto evaporator (2) as shown.

LH steering vehicle



17RW01721026-01

RH steering vehicle



16RW0C721007-01

3.	138 ± 5 mm (3.3 ± 0.2 in.)
4.	Sensor part fixed to 12th fin from pipe fitting side
5.	Holding part fixed to 13th fin from pipe fitting side
6.	Pipe fitting

Evaporator Temperature Sensor Inspection

S6RW0C7216011

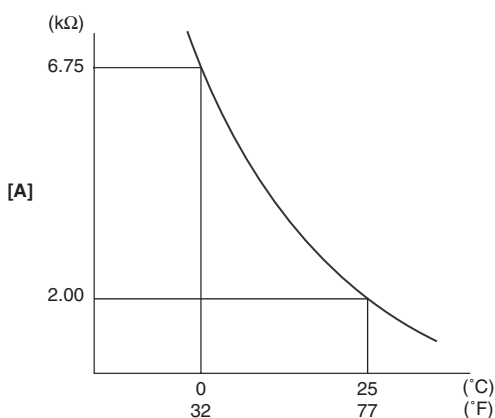
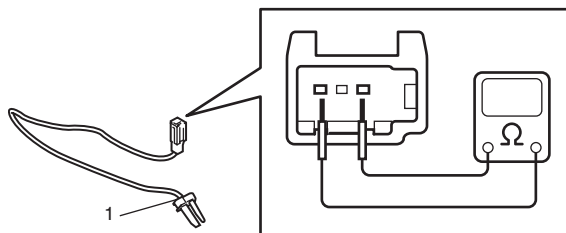
Check resistance between terminals of evaporator temperature sensor (1).

If check results are as not specified, replace evaporator temperature sensor.

Evaporator temperature sensor resistance

0 °C (32 °F): 6.6 – 6.8 kΩ

25 °C (77 °F): 2.0 – 2.1 kΩ



[B]

I7RW01721020-01

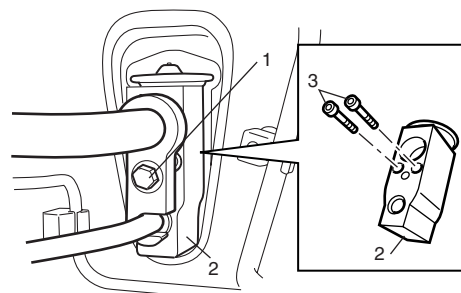
[A]: Resistance
[B]: Temperature

Expansion Valve Removal and Installation

S6RW0C7216012

Removal

- 1) Recover refrigerant from the A/C system with recovery and recycling equipment referring to “Recovery” in “Operation Procedure for Refrigerant Charge”.
- 2) Loosen a bolt (1) and remove pipes from expansion valve (2).
- 3) Loosen bolts (3) and remove expansion valve.



I4RS0A720028-01

Installation

Reverse removal procedure noting the following instructions.

- Apply compressor oil to O-ring of expansion valve and pipes.
- Tighten expansion valve bolts to specified torque.

Tightening torque

Expansion valve bolt: 4.5 N·m (0.45 kgf·m, 3.5 lb·ft)

- Evacuate and charge the A/C system referring to “Evacuation” and “Charge” in “Operation Procedure for Refrigerant Charge”.

Expansion Valve Inspection

S6RW0C7216013

Refer to “A/C System Performance Inspection”.

A/C Refrigerant Pressure Sensor and Its Circuit Inspection

S6RW0C7216014

- 1) Disconnect A/C refrigerant pressure sensor connector.
- 2) Turn ignition switch to ON position.
- 3) Check if voltage between "RED" wire terminal and "ORN" wire terminal of A/C refrigerant pressure sensor connector is 4.75 V to 5.25 V.
If not, check A/C refrigerant pressure sensor circuit.
- 4) Connect A/C refrigerant pressure sensor connector with ignition switch turned OFF.
- 5) Connect manifold gauge set to the charging valves.
- 6) Check A/C refrigerant pressure sensor voltage of ECM connector referring to "A/C System Inspection at ECM".
If voltage is not as specified below, replace A/C refrigerant pressure sensor.

A/C refrigerant pressure sensor voltage specifications (A/C refrigerant pressure measured by manifold gauge)

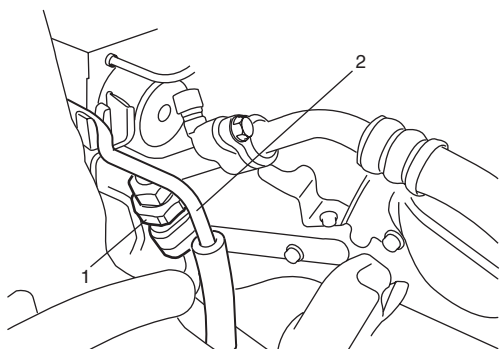
0.8 MPa (8.0 kgf/cm², 116 psi): 1.40 – 1.78 V1.4 MPa (14 kgf/cm², 203 psi): 2.18 – 2.64 V1.6 MPa (16 kgf/cm², 232 psi): 2.44 – 2.92 V1.8 MPa (18 kgf/cm², 261 psi): 2.70 – 3.21 V

A/C Refrigerant Pressure Sensor Removal and Installation

S6RW0C7216015

Removal

- 1) Recover refrigerant from the A/C system with the recovery and recycling equipment referring to "Recovery" in "Operation Procedure for Refrigerant Charge".
- 2) Disconnect negative (–) cable from battery.
- 3) Disconnect A/C refrigerant pressure sensor connector.
- 4) Remove A/C refrigerant pressure sensor (1) from liquid pipe (2).



I5RW0A721029-01

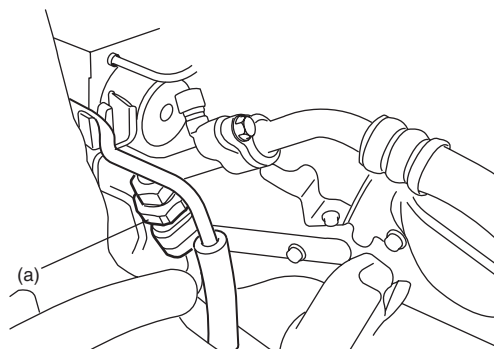
Installation

Reverse removal procedure noting the following instructions.

- Apply compressor oil to O-ring of A/C refrigerant pressure sensor.
- Tighten A/C refrigerant pressure sensor to specified torque.

Tightening torque

A/C refrigerant pressure sensor (a): 11 N·m (1.1 kgf-m, 8.0 lb-ft)



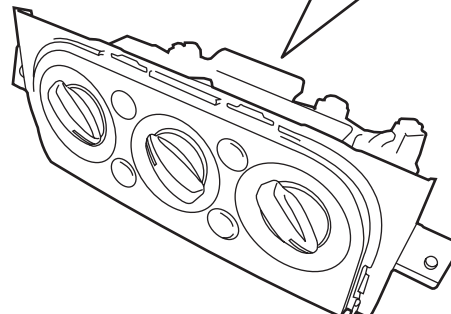
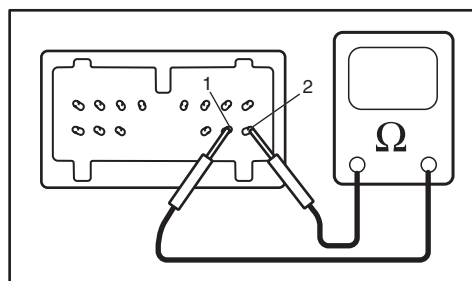
I5RW0A721030-01

- Evacuate and charge the A/C system referring to "Evacuation" and "Charge" in "Operation Procedure for Refrigerant Charge".

A/C Switch Inspection

S6RW0C7216016

- Check that there is continuity between terminal (1) and terminal (2) when A/C switch is at ON position.
 - Check that there is no continuity between terminal (1) and terminal (2) when A/C switch is at OFF position.
- If check result does not meet the above conditions, replace HVAC control unit.



I5RW0A721031-01