

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

AC

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 31. A/C Filter
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HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > General Description

SPECIFICATION

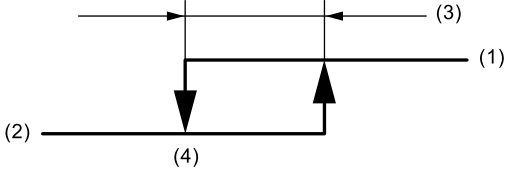
1. HEATER SYSTEM

Item	Specifications		Condition
Heating capacity	5 kW (4,299 kcal/h, 17,059 BTU/h) or more		<ul style="list-style-type: none"> Air flow control dial or switch: FOOT Temperature control dial: HI (MAX HOT) Temperature difference between hot water and inlet air: 65°C (149°F) Hot water flow rate: 360 L (95.1 US gal, 79.2 Imp gal)/h
Air flow rate	290 m ³ (10,243 cu ft)/h		FOOT mode (FRESH), MAX HOT at 12.5 V
Max air flow rate	480 m ³ (16,954 cu ft)/h		<ul style="list-style-type: none"> Temperature control dial: LO (MAX COOL) Fan dial: HI (MAX): 7th position FRESH/RECIRC switch: RECIRC
Heater core	Size (W × H × T)	257.5 × 118.5 × 27 mm (10.1 × 4.67 × 1.06 in)	—
Blower motor	Type	Magnet motor 300 W or less	12 V
	Fan type	Sirocco fan type	—
	Size (diameter × width)	150 × 75 mm (5.91 × 2.95 in)	—

2. A/C SYSTEM

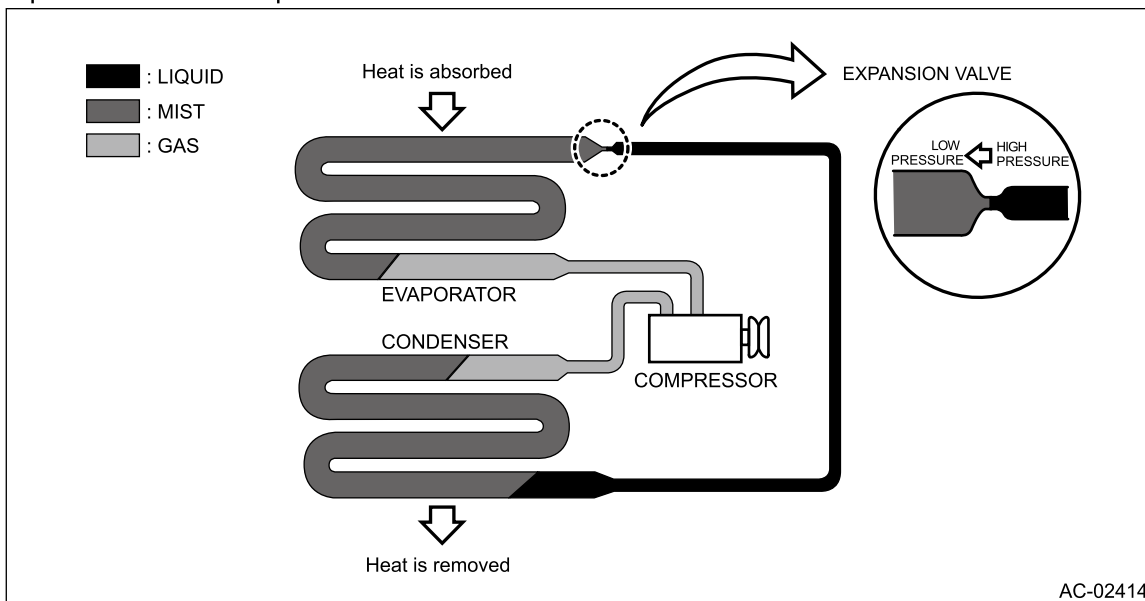
Item	Specifications	
Type of air conditioner	Reheat air-mix type	
Cooling capacity	5 kW (4,299 kcal/h, 17,059 BTU/h)	
Refrigerant	HFO-1234yf (CH ₂) [0.45±0.03 kg (0.99±0.07 lb)]	
Compressor	Type	Rotary fixed capacity
	Type	Except for STI model: DKV-10Z STI model: DKV-10R
	Discharge	105 cc (6.41 cu in)/rev
	Max. permissible speed	7,700 r/min

Item		Specifications	
	Oil	Recommended material: VC200YF Capacity: 80 cm ³ (4.88 cu in)	
Magnet clutch	Type	Dry, single-disc type	
	Power consumption	Except for STI model: 45 W STI model: 38.8 W	
	Type of belt	Except for STI model: V-belt 6 PK STI model: V-belt 4 PK	
	Pulley dia. (effective dia.)	Except for STI model: 110 mm (4.33 in) STI model: 100 mm (3.94 in)	
	Pulley ratio	Except for STI model: 1.3 STI model: 1.32	
Condenser	Type	Sub cool type	
	Core face area	0.188 m ² (2.002 sq ft)	
	Core thickness	16 mm (0.63 in)	
	Radiation area	4.5 m ² (48.44 sq ft)	
Expansion valve	Type	Block	
Evaporator	Type	Dual-tank	
	Size (W × H × T)	290.1 × 172 × 39 mm (11.42 × 6.77 × 1.54 in)	
Blower fan	Fan type	Sirocco fan	
	Outer diameter × Width	150 × 75 mm (5.91 × 2.95 in)	
	Power consumption	280 W	
Condenser fan (sub fan)	Motor type	Magnet	
	Power consumption	Except for STI model: 120 W STI model: 160 W	
	Fan outer diameter	320 mm (12.6 in)	
Radiator fan (main fan)	Motor type	Magnet	
	Power consumption	Except for STI model: 120 W STI model: 160 W	
	Fan outer diameter	320 mm (12.6 in)	
Idle speed	No load	700±100 r/min	
	A/C ON	Except for STI model: 700 — 865±50 r/min STI model: 750±100 r/min	
Triple switch (Pressure switch)	Low-pressure switch operating pressure	ON → OFF	196±25 kPa (2±0.25 kgf/cm ² , 28.4±3.6 psi)
		OFF → ON	225±30 kPa (2.29±0.31 kgf/cm ² , 32.6±4.3 psi)

Item			Specifications
	High-pressure switch operating pressure	ON → OFF	2,940±200 kPa (29.98±2.04 kgf/cm ² , 426.3±29 psi)
		OFF → ON	2,350±200 kPa (24±2.04 kgf/cm ² , 340.7±29 psi)
	Middle-pressure switch operating pressure	ON → OFF	1,470±120 kPa (14.99±1.22 kgf/cm ² , 213.15±17.4 psi)
		OFF → ON	1,770±100 kPa (18.05±1.02 kgf/cm ² , 256.65±14.5 psi)
Thermo-control amplifier working temperature	 <p style="text-align: right;">AC-00601</p> <p>(1) ON (2) OFF (3) 1.5±0.3°C (34.7±0.5°F) (4) 1±0.5°C (33.8±0.9°F)</p>		

3. BASIC OPERATION


The cooling system cools down the compartment by using the pipes connecting parts and cycling the evaporable liquid (refrigerant) within the sealed system in a repeated process of “vaporization — liquefaction — re-vaporization”.



Item	Operation
Compressor	Sucks and pressurizes the low temperature, low pressure refrigerant gas that was vaporized at the evaporator by absorbing heat from the compartment, and sends the high temperature, high pressure refrigerant gas to the condenser.
Condenser	Cools the high temperature, high pressure refrigerant gas sent from the compressor for condense and liquefaction.
Expansion valve	<ul style="list-style-type: none"> • Sprays the high temperature, high pressure liquid refrigerant from the small hole in order to let the refrigerant expand rapidly to turn it into low temperature, low pressure mist. • The refrigerant amount is adjusted according to the refrigerant vaporization condition in the evaporator.
Evaporator	The evaporator turns into a low temperature condition when the mist refrigerant that was turned into a low temperature, low pressure condition at the expansion valve is vaporized in large quantity in the evaporator. Passing air flow through the low temperature evaporator emits cold air.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > General Description

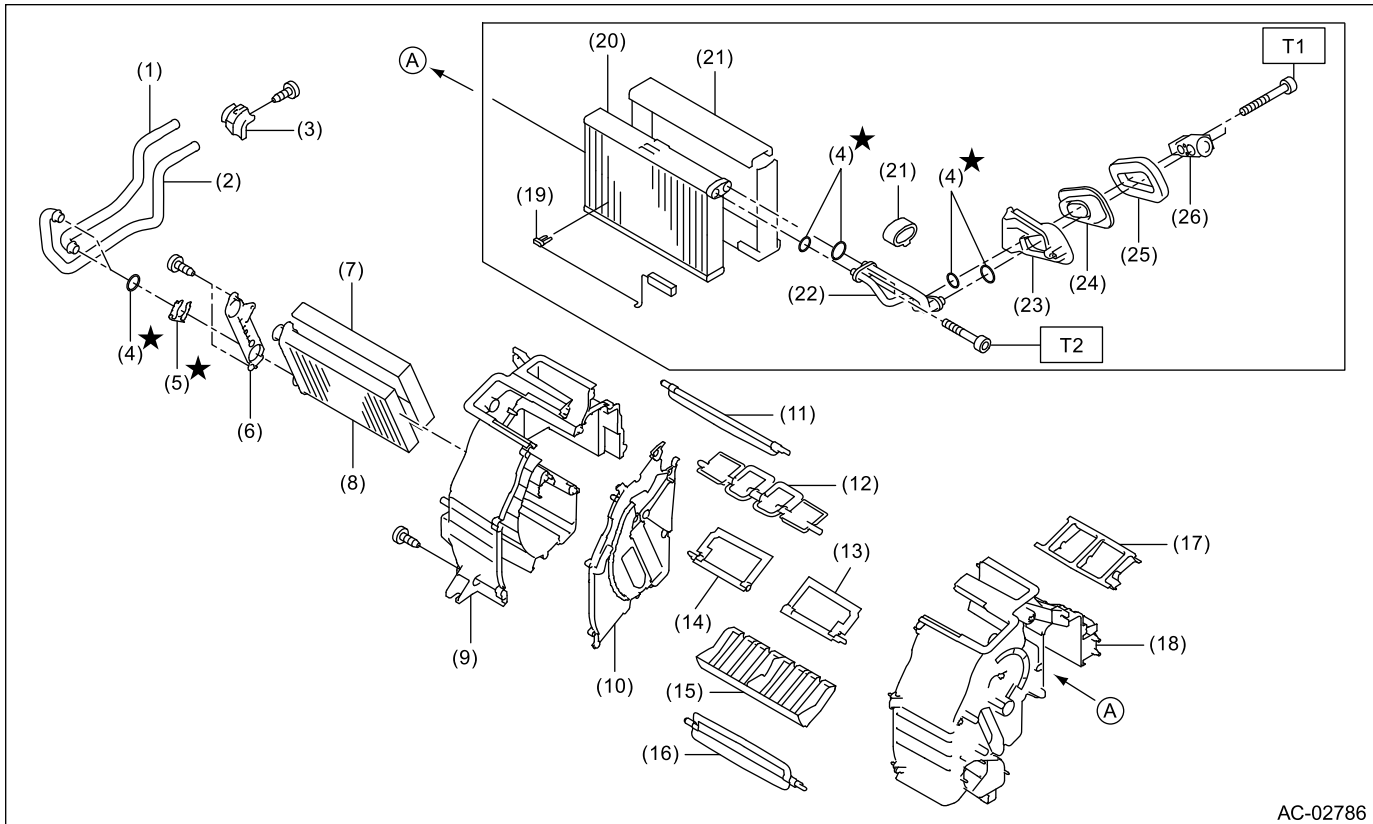
LOCATION

Refer to "Electrical Component Location" for "HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)" section. 
[Ref. to HVAC SYSTEM \(AUTO A/C\) \(DIAGNOSTICS\)>Electrical Component Location.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > General Description

COMPONENT

1. HEATER AND COOLING UNIT



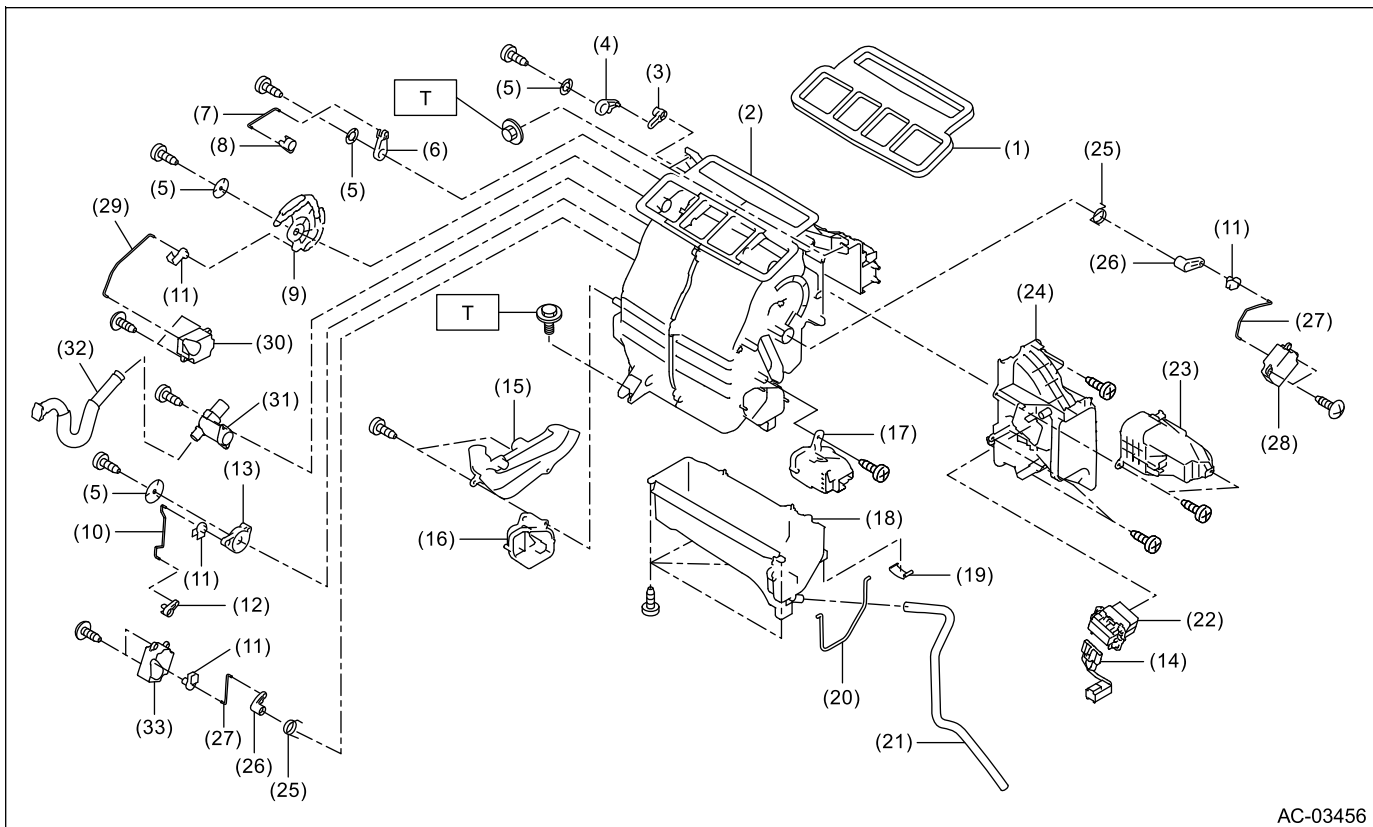
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- | | | |
|-------------------------------|--------------------------------|--------------------------------|
| (1) Pipe - inlet | (11) Shutter - defroster | (21) Packing - evaporator core |
| (2) Pipe - outlet | (12) Shutter - vent | (22) Pipe - evaporator core |
| (3) Clamp - pipe | (13) Shutter - air mix RH | (23) Case - expansion valve |
| (4) Seal O-ring | (14) Shutter - air mix LH | (24) Seal - cooling |
| (5) Clamp | (15) Guide - heater unit | (25) Packing - heater unit |
| (6) Plate - heater core | (16) Shutter - foot | (26) Expansion valve - cooling |
| (7) Packing - heater core | (17) Case - vent duct | |
| (8) Heater core | (18) Case - heater unit UPR RH | |
| (9) Case - heater unit UPR LH | (19) Thermostat - cooling | |
| (10) Plate CTR | (20) Evaporator ASSY - cooling | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 5 (0.5, 3.7)

T2: 6.7 (0.7, 4.9)



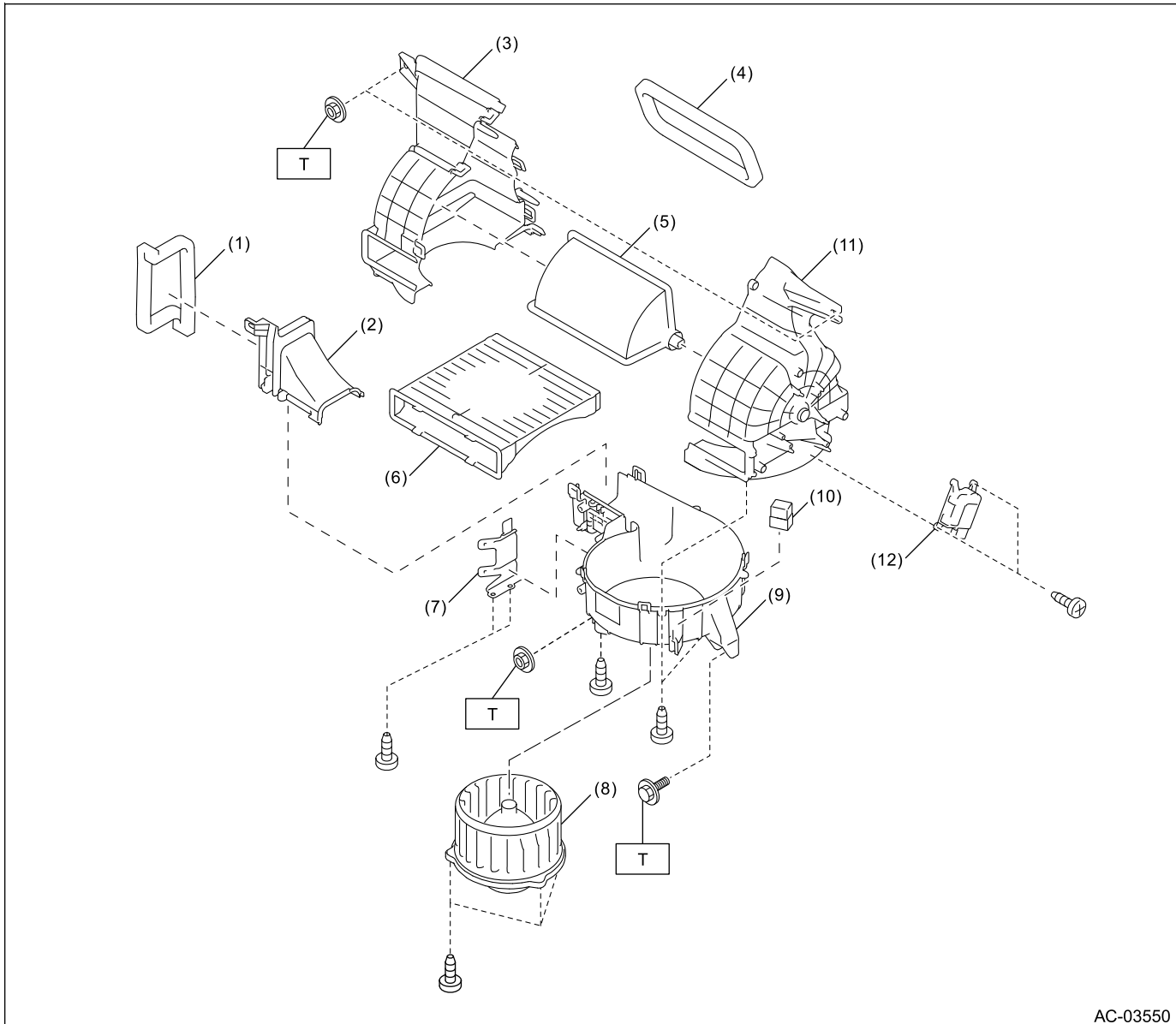
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- | | | |
|-----------------------------|---------------------------------|---|
| (1) Packing - heater unit | (13) Lever - foot sub | (25) Spring - heater unit |
| (2) Case - heater unit | (14) Harness - heater unit | (26) Lever - air mix |
| (3) Lever - defroster | (15) Cover - heater pipe | (27) Rod - air mix |
| (4) Lever - defroster sub | (16) Duct - foot LH | (28) Motor - actuator mix RH |
| (5) Washer - heater | (17) Duct - foot RH | (29) Rod - mode |
| (6) Lever - ventilator sub | (18) Case - heater LWR | (30) Motor - actuator mode |
| (7) Rod - ventilator | (19) Clip - case | (31) Aspirator - heater unit |
| (8) Lever - ventilator door | (20) Packing - evaporator cover | (32) Aspirator hose |
| (9) Lever - mode | (21) Hose - drain | (33) Motor - actuator mix LH (dual A/C model) |
| (10) Rod - foot | (22) Power transistor | |
| (11) Clip | (23) Cover | |
| (12) Lever - foot | (24) Cover - heater unit | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.8, 5.5)

2. BLOWER MOTOR UNIT



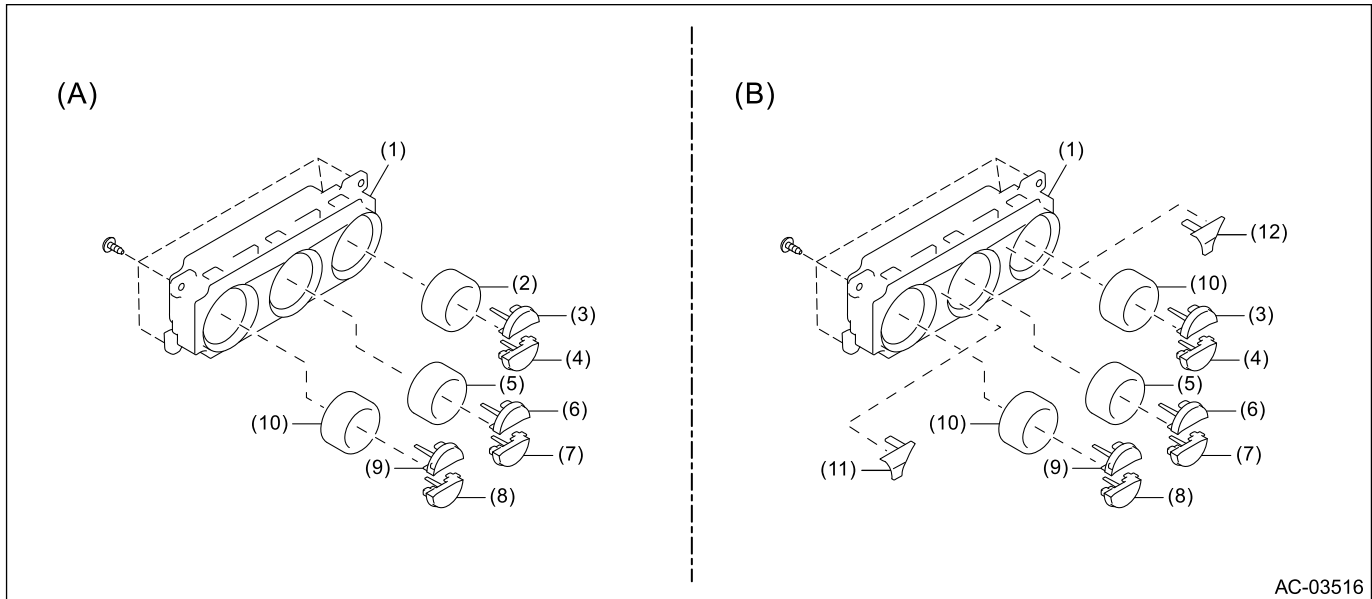
AC-03550

- | | | |
|-----------------------------|-------------------------|------------------------------|
| (1) Packing | (6) Filter kit | (11) Case - blower intake RH |
| (2) Case upper - blower | (7) Bracket | (12) Motor - actuator blower |
| (3) Case - blower intake LH | (8) Blower - motor | |
| (4) Packing - blower | (9) Case lower - blower | |
| (5) Shutter - blower | (10) Blower motor relay | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.8, 5.5)

3. CONTROL PANEL



(A) Single A/C model

(B) Dual A/C model

(1) Control case

(5) Fan dial

(9) AUTO switch

(2) Air flow control dial

(6) A/C switch

(10) Temperature adjustment dial

(3) Defroster switch

(7) FRESH/RECIRC switch

(11) Air flow control switch

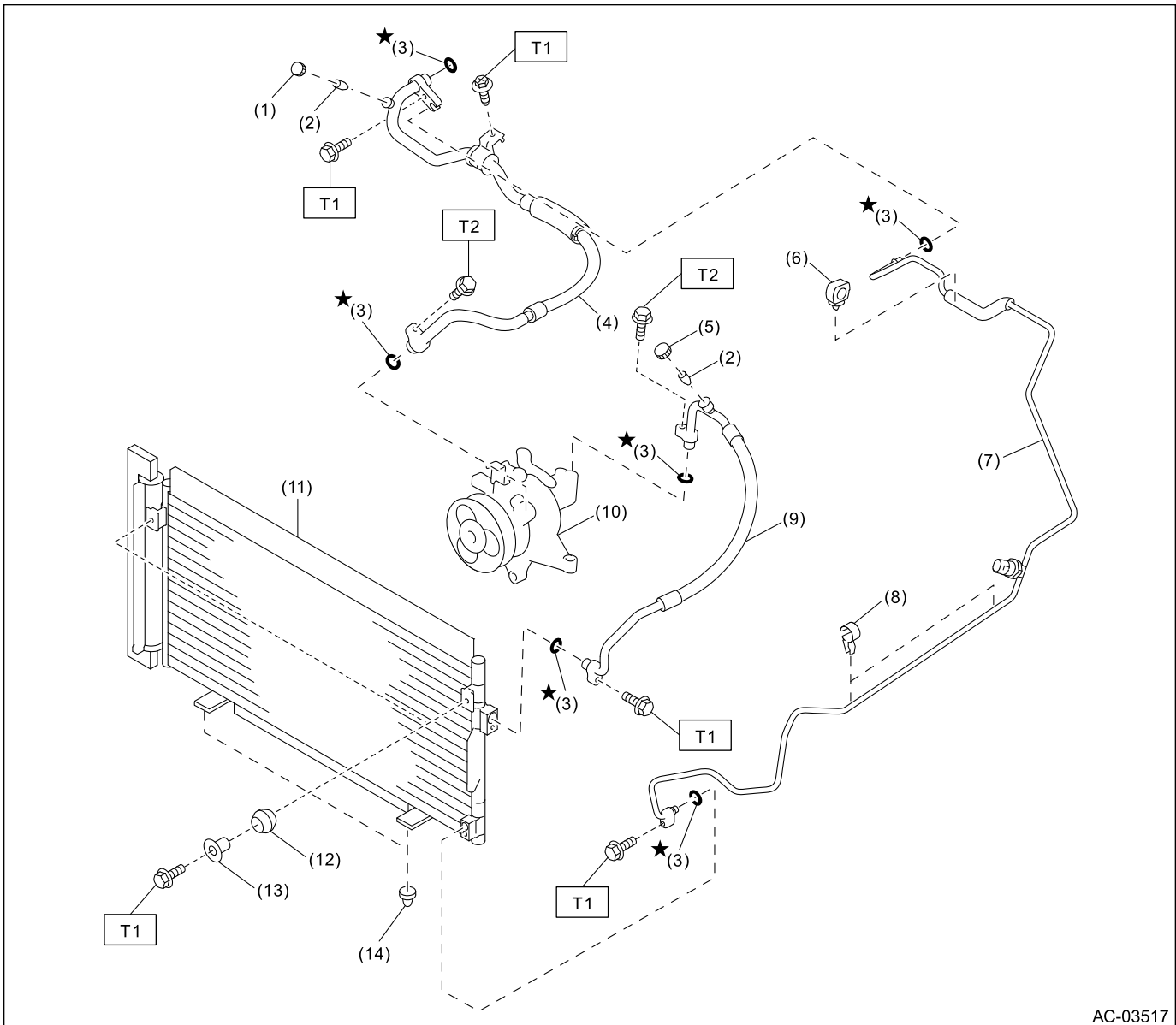
(4) Rear window defogger switch

(8) OFF switch

(12) Dual switch

4. AIR CONDITIONING UNIT

- Except for STI model



AC-03517

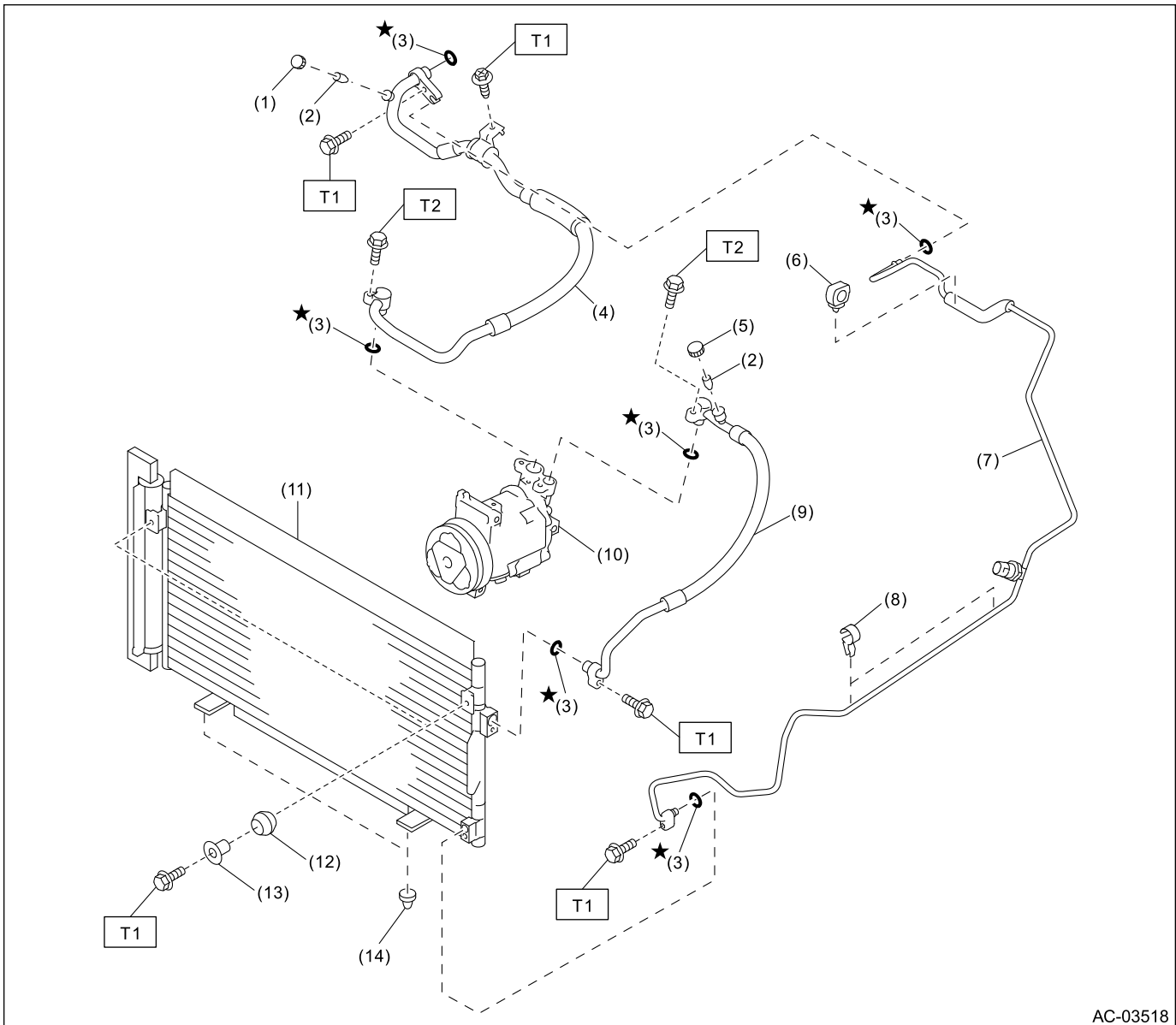
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|-----------------------------------|---------------------------------------|--------------------------|
| (1) Cap - hose pressure suction | (7) Pipe - evaporator cooling | (13) Spacer |
| (2) Valve - hose pressure | (8) Clip - pipe | (14) Bushing - condenser |
| (3) Seal O-ring | (9) Hose - pressure discharge | |
| (4) Hose - pressure suction | (10) Compressor ASSY | |
| (5) Cap - hose pressure discharge | (11) Condenser ASSY - air conditioner | |
| (6) Clip | (12) Grommet | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 7.5 (0.8, 5.5)

T2: 10 (1, 7.4)

- STI model



AC-03518

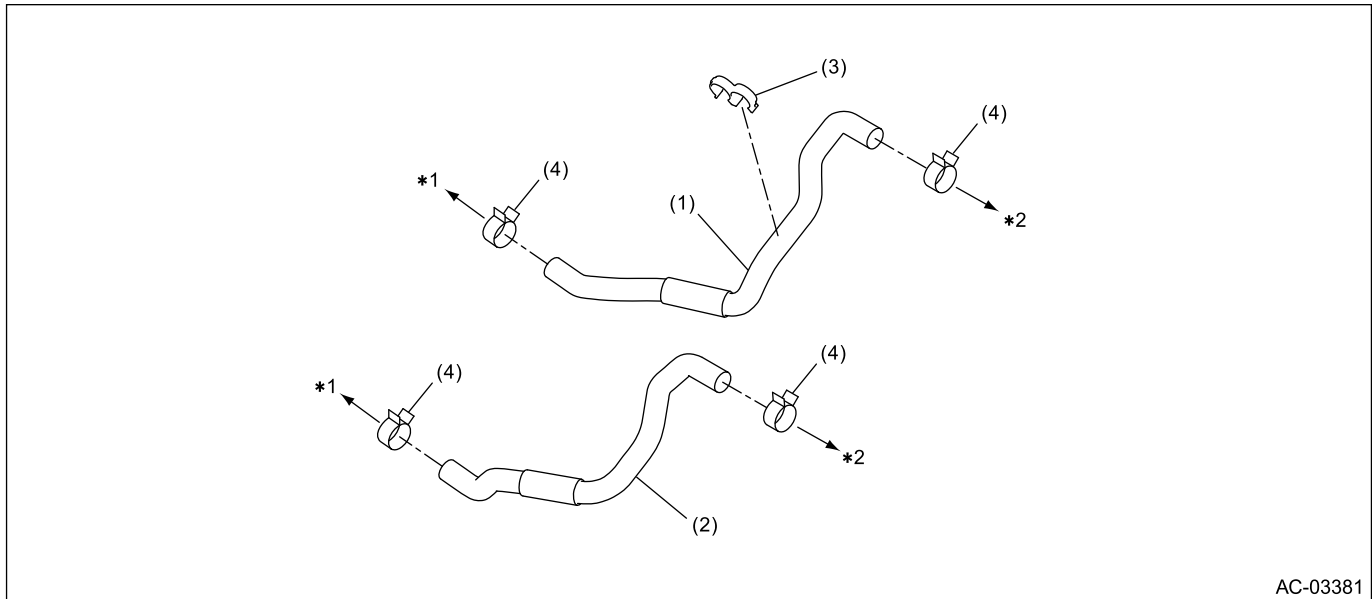
- | | | |
|-----------------------------------|---------------------------------------|--------------------------|
| (1) Cap - hose pressure suction | (7) Pipe - evaporator cooling | (13) Spacer |
| (2) Valve - hose pressure | (8) Clip - pipe | (14) Bushing - condenser |
| (3) Seal O-ring | (9) Hose - pressure discharge | |
| (4) Hose - pressure suction | (10) Compressor ASSY | |
| (5) Cap - hose pressure discharge | (11) Condenser ASSY - air conditioner | |
| (6) Clip | (12) Grommet | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 7.5 (0.8, 5.5)

T2: 10 (1, 7.4)

5. HEATER HOSE



(1) Hose - heater outlet

(3) Clip

(4) Clamp

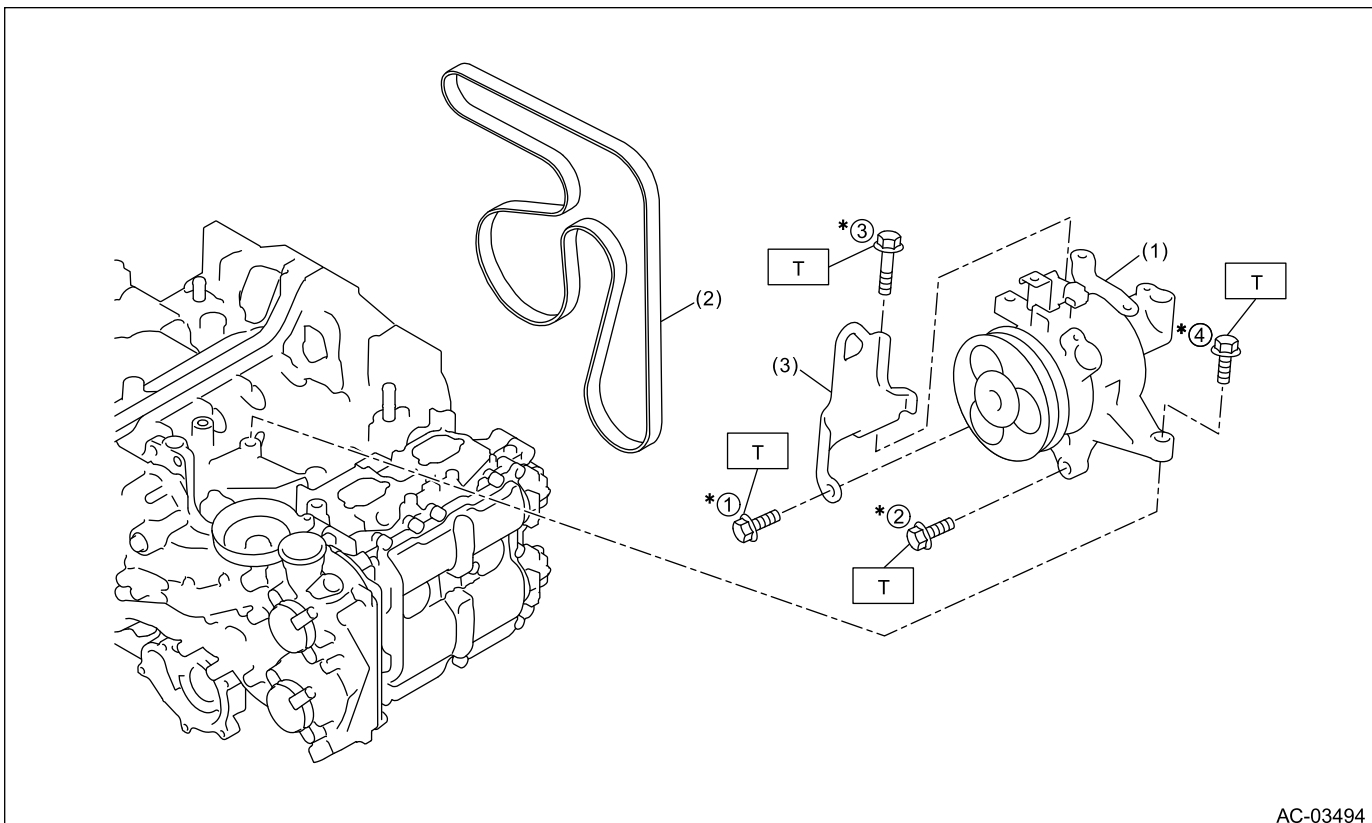
(2) Hose - heater inlet

*1: Engine side

*2: Heater core side

6. COMPRESSOR

- Except for STI model



(1) Compressor ASSY

(3) Hanger - engine front

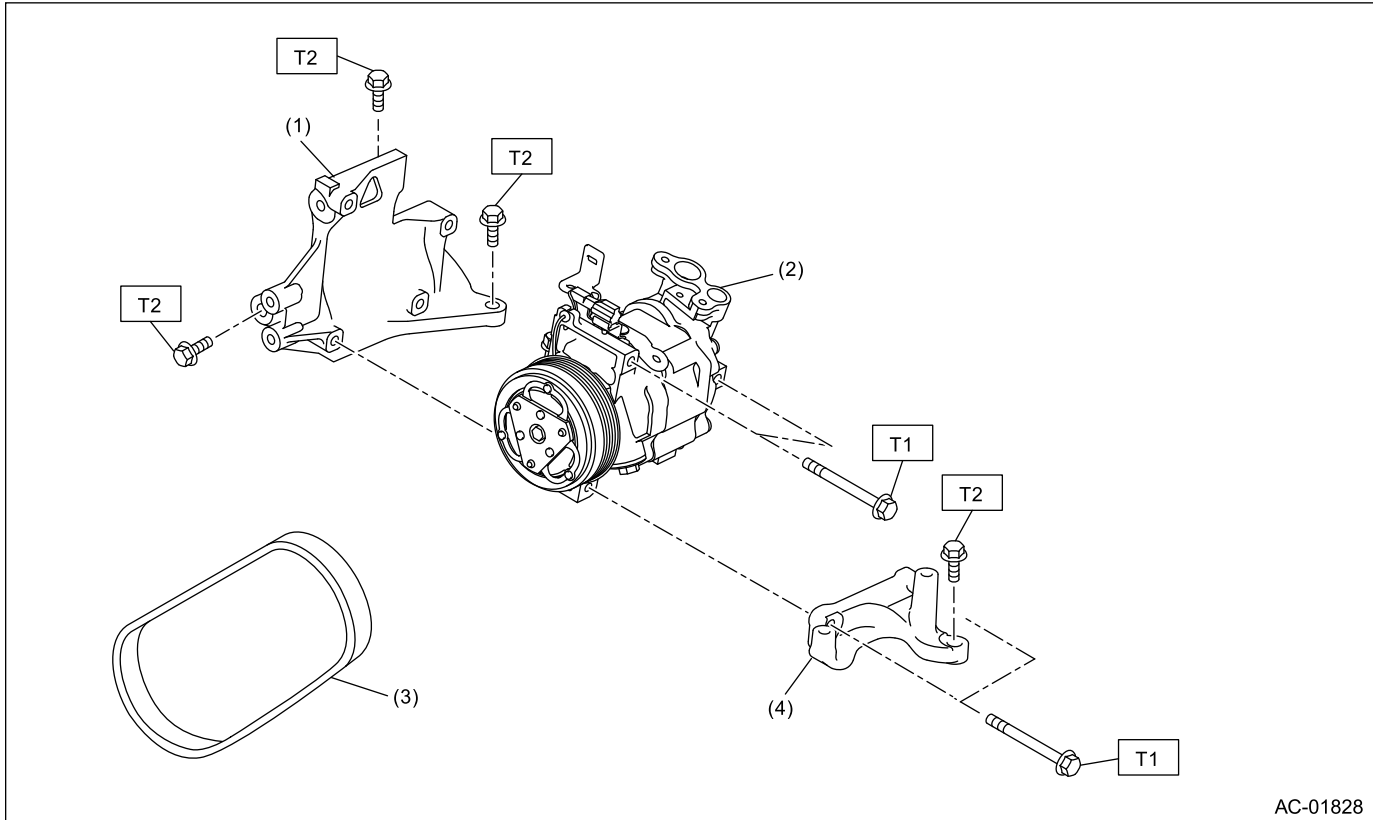
Tightening torque: N·m (kgf-m, ft-lb)

(2) V-belt (6 PK)

T: 36 (3.7, 26.6)

* Tighten the compressor in the numerical order as shown in the figure.

- STI model



AC-01828

(1) Bracket ASSY - compressor

(3) V-belt

Tightening torque: N·m (kgf-m, ft-lb)

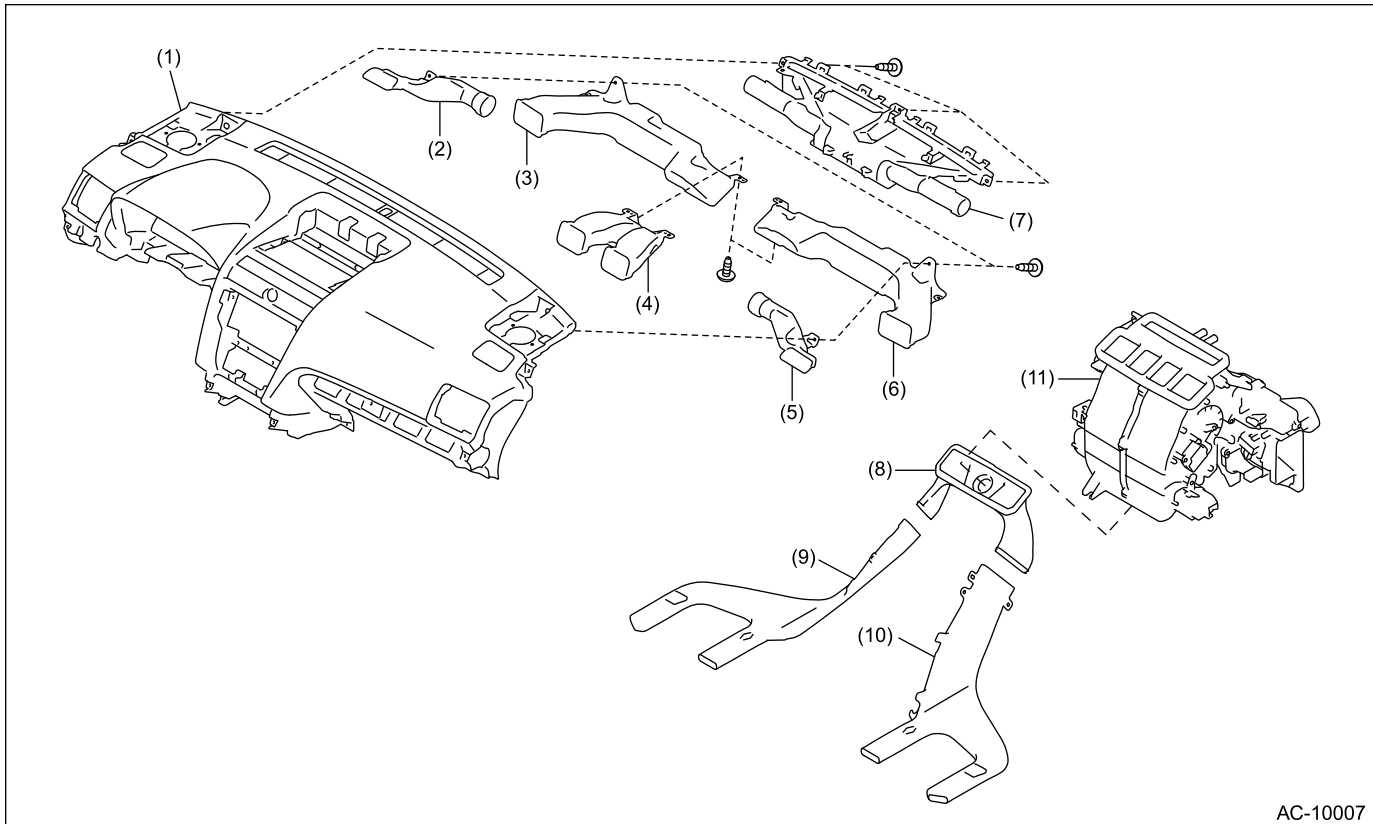
(2) Compressor ASSY

(4) Bracket - air conditioner

T1: 26.5 (2.7, 19.5)

T2: 36 (3.7, 26.6)

7. HEATER DUCT



- | | | |
|--------------------------------|--------------------------------|-----------------------------------|
| (1) Panel COMPL - instrument | (5) Duct - side defroster RH | (9) Duct - rear heater LH |
| (2) Duct - side defroster LH | (6) Duct - side ventilation RH | (10) Duct - rear heater RH |
| (3) Duct - side ventilation LH | (7) Nozzle - front defroster | (11) Heater and cooling unit ASSY |
| (4) Duct - center vent | (8) Duct - rear heater CTR | |

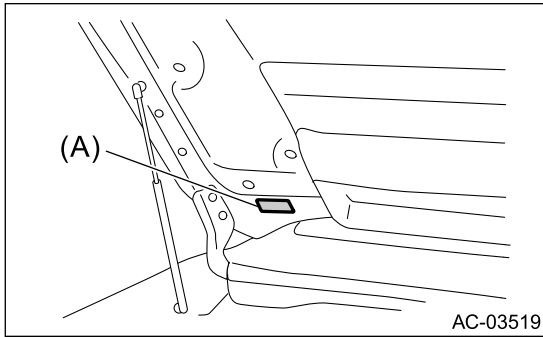
HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > General Description

CAUTION

Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery. When replacing the audio and MFD parts provided with memory functions, record the memory contents before disconnecting the battery ground cable.

1. HFO-1234YF A/C SYSTEM

- The cooling system components for the HFO-1234yf system such as the refrigerant and compressor oil are different from the conventional HFC-134a system components and they are incompatible with each other.
- Vehicles with the HFO-1234yf system can be identified by the label (A) attached to the vehicle. Before maintenance, check A/C system which is installed to the vehicle.



2. COMPRESSOR OIL

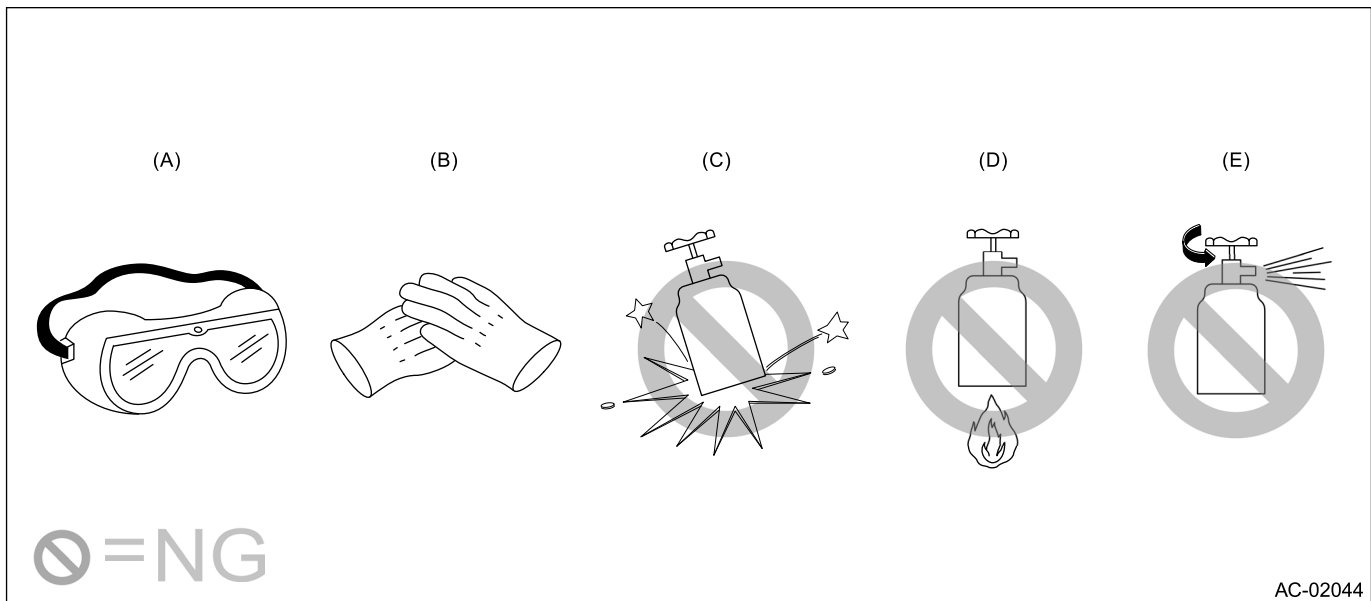
- HFO-1234yf compressor oil has no compatibility with that of HFC-134a system.
- Use only the manufacturer-authorized compressor oil, VC200YF, for the HFO-1234yf system.
- Do not mix multiple compressor oils.
- HFO-1234yf compressor oil is very hygroscopic. When replacing or installing/removing A/C parts, immediately isolate the oil from atmosphere using a plug or tape. In order to avoid moisture, store the oil in a container with its cap tightly closed.

3. REFRIGERANT

- HFC-134a refrigerant cannot be used in a HFO-1234yf A/C system. HFO-1234yf refrigerant also cannot be used in a HFC-134a A/C system.
- If an incorrect or no refrigerant is used, it will result in poor lubrication and the compressor itself may be damaged.

4. HANDLING OF REFRIGERANT

- The refrigerant boils at approx. -30°C (-22°F). When handling it, be sure to wear protective goggles and protective gloves. Direct contact of the refrigerant with skin may cause frostbite. If the refrigerant gets into your eye, avoid rubbing your eyes with your hands. Wash your eyes with plenty of water, and receive medical treatment from an eye doctor.
- Do not heat a service can. If a service can is directly heated, or put into boiling water, the inside pressure will become extremely high. This may cause the can to explode. If a service can must be warmed up, use warm water of 40°C (104°F) or less.
- Do not drop or impact a service can. (Observe the precautions and operation procedure described on the refrigerant container.)
- When the engine is running, do not open the high-pressure valve of manifold gauge. The high-pressure gas will back-flow resulting in an explosion of the can.
- Provide good ventilation and do not work in a closed area.
- In order to prevent global warming, avoid releasing HFO-1234yf into the atmosphere. Using a refrigerant recovery system, discharge and recycle the gas.



(A) Goggles

(B) Gloves

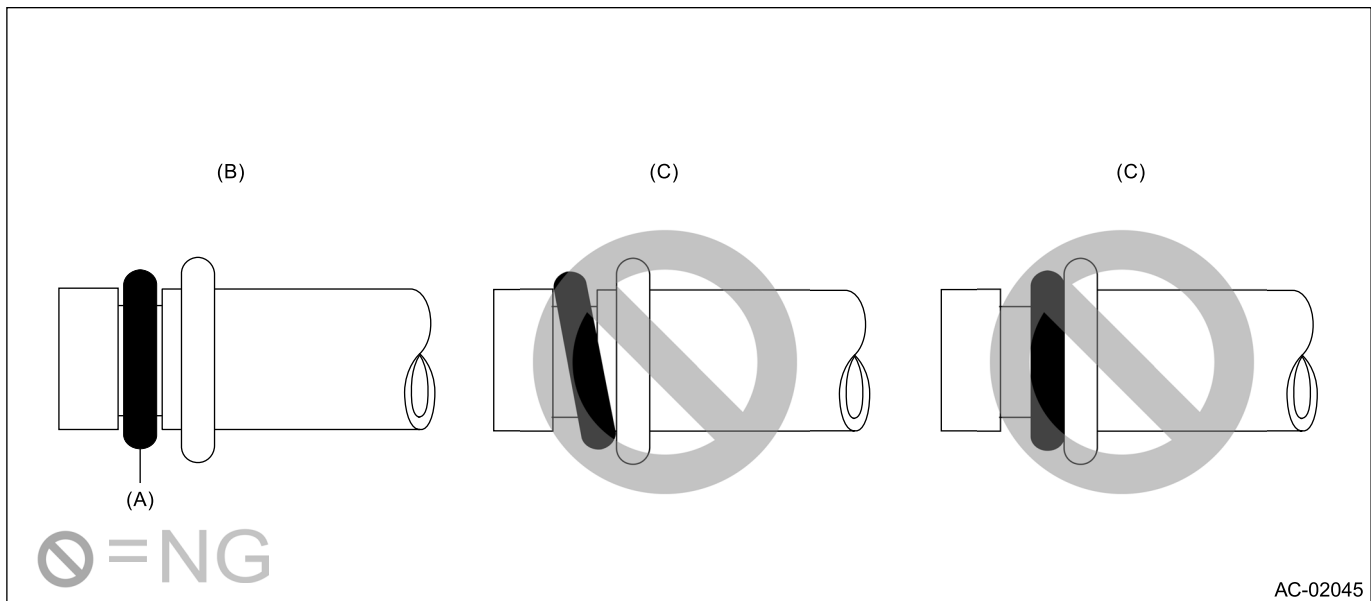
(C) Do not apply impact.

(D) No direct heat on container

(E) Do not discharge

5. O-RING CONNECTIONS

- Always use a new O-ring.
- In order to keep the O-rings free of lint which will cause a refrigerant gas leak, perform work without using gloves or waste cloths.
- Apply compressor oil to O-rings to avoid sticking, before installation.
- Use a torque wrench to tighten the O-ring fittings. Over-tightening will result in damage of the O-ring and deformation of the pipe end.
- If the work is interrupted before completing pipe connections, recap the pipes, components and fittings with a plug or tape to prevent foreign matter from entering.
- Visually check the surfaces and mating surfaces of O-rings, threads and connecting points. If a failure is found, replace the applicable parts.
- Install the O-rings straight against the pipe groove.

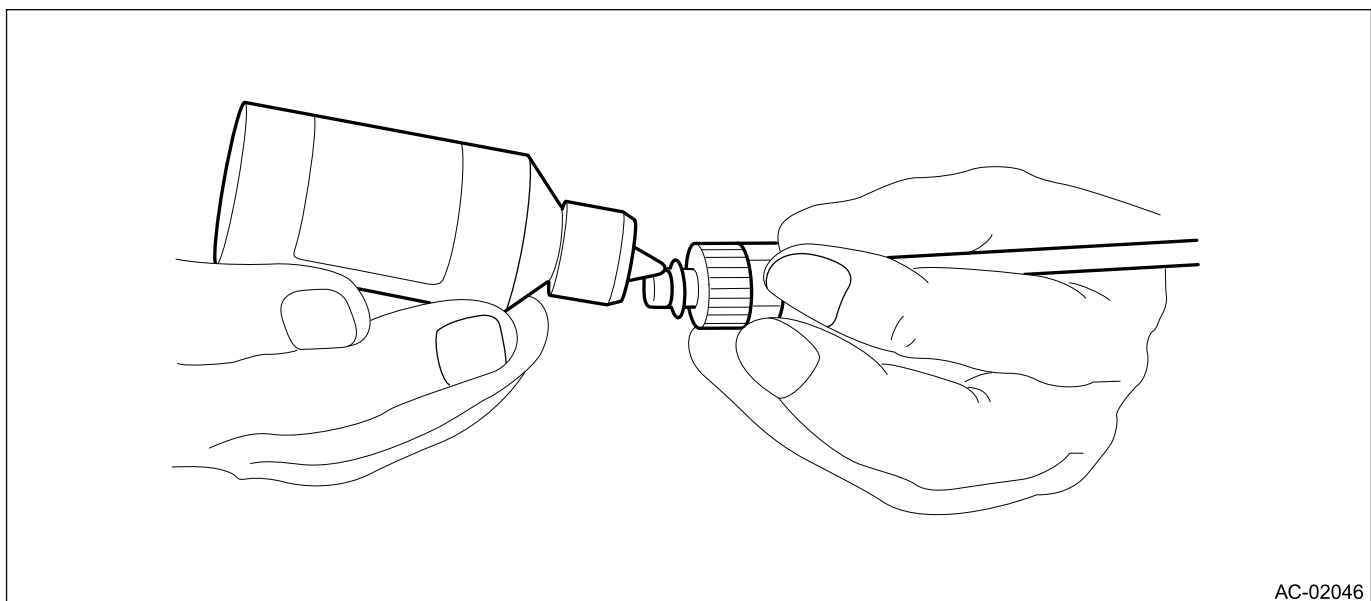


(A) O-ring

(B) OK

(C) NG

- Use compressor oil indicated in the label to lubricate the O-rings. Apply oil to the top and sides of O-rings before installation. Apply compressor oil to the pipe grooves.




- After tightening, use a clean cloth to remove excess compressor oil from the connections and any oil which may have run on the vehicle body or other parts.
- If any leakage is suspected after tightening, do not tighten the connections further, but disconnect the connections, remove the O-rings, and check the O-rings, threads, and connections.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > General Description

PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. Note: For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

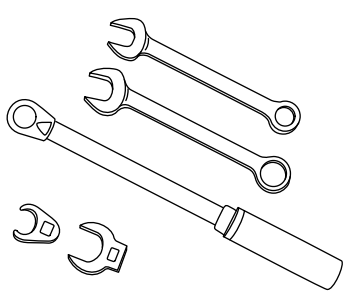
2. GENERAL TOOL

Caution:

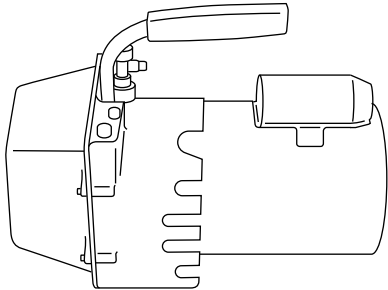
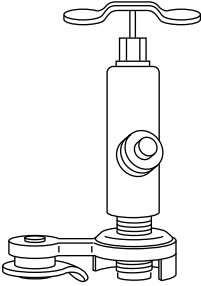
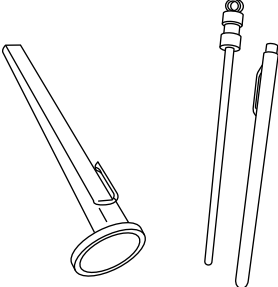
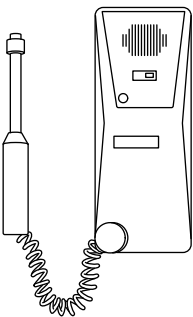
When working on vehicles with a HFO-1234yf system, only use HFO-1234yf specified tools and parts. Do not mix HFC-134a tools and parts. If HFO-1234yf and HFC-134a refrigerant or compressor oil is mixed, it will result in poor lubrication and the compressor itself may be damaged.

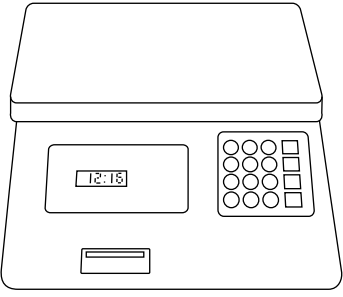
In order to prevent the mixture of HFO-1234yf and HFC-134a parts and liquid, the type of tool and screw, and the replacement valves used are different. The gas leak detectors for the HFO-1234yf system and HFC-134a system must also not be interchanged.

	HFO-1234yf	HFC-134a
Tool and screw type	Millimeter size	Millimeter size
Valve type	Quick joint type	Quick joint type

TOOL NAME/ILLUSTRATION	REMARKS
Circuit tester	Used for measuring resistance and voltage.
DST-i	Used together with Subaru Select Monitor 4.
Wrench	Various WRENCHES will be required to service any A/C system. 7 – 40 N·m (0.7 to 4.1 kgf-m, 5 to 30 ft-lb) torque wrench and various crowfoot wrenches will be needed. Open end or flare nut wrenches will be needed to affix the pipe and hose fittings.
 AC-00213	
Applicator bottle	A small APPLICATOR BOTTLE is recommended to apply compressor oil to the various parts. It can be available at a hardware store.


TOOL NAME/ILLUSTRATION	REMARKS
<div data-bbox="332 279 412 489" data-label="Image"> </div> <div data-bbox="553 512 649 533" data-label="Text"> <p>AC-00012</p> </div>	
<div data-bbox="110 562 367 590" data-label="Text"> <p>Manifold gauge set</p> </div> <div data-bbox="243 630 503 945" data-label="Image"> </div> <div data-bbox="553 926 649 947" data-label="Text"> <p>AC-00013</p> </div>	<p>A MANIFOLD GAUGE SET (with hoses) is available at either a refrigerant supplier or an automotive equipment supplier.</p>
<div data-bbox="110 978 488 1005" data-label="Text"> <p>Refrigerant recovery system</p> </div> <div data-bbox="227 1050 487 1354" data-label="Image"> </div> <div data-bbox="553 1344 649 1365" data-label="Text"> <p>AC-00014</p> </div>	<p>A REFRIGERANT RECOVERY SYSTEM is used for the recovery and recycling of A/C system refrigerant after contaminants and moisture have been removed from the refrigerant.</p>
<div data-bbox="110 1394 215 1421" data-label="Text"> <p>Syringe</p> </div> <div data-bbox="154 1575 625 1669" data-label="Image"> </div> <div data-bbox="553 1757 649 1778" data-label="Text"> <p>AC-00015</p> </div>	<p>A graduated plastic SYRINGE will be needed to add oil into the system again. A syringe can be available at a pharmacy or drug store.</p>
<div data-bbox="110 1810 302 1837" data-label="Text"> <p>Vacuum pump</p> </div>	<p>A VACUUM PUMP is necessary (for a good working condition), and may be available at either a refrigerant supplier or an automotive equipment supplier.</p>

TOOL NAME/ILLUSTRATION	REMARKS
 <p style="text-align: right;">AC-00016</p>	
<p>Can tap</p>  <p style="text-align: right;">AC-00017</p>	<p>A CAN TAP for the 397 g (14 oz) can is available at an automotive equipment supplier.</p>
<p>Thermometer/hygrometer</p>  <p style="text-align: right;">AC-00018</p>	<p>A Pocket THERMOMETER/HYGROMETER is available at either a industrial hardware store or a refrigerant supplier.</p>
<p>Electronic leak detector</p>  <p style="text-align: right;">AC-00019</p>	<p>An ELECTRONIC LEAK DETECTOR can be available at either a specialty tool supplier or an A/C equipment supplier.</p>
<p>Weight scale</p>	<p>A WEIGHT SCALE such as an electronic charging scale or a bathroom scale with digital display will be needed, if a 13.6 kg (30 lb) refrigerant container is used.</p>

TOOL NAME/ILLUSTRATION	REMARKS
 <p data-bbox="552 514 649 546">AC-00020</p>	

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Conditioning System

WIRING DIAGRAM

Refer to "Air Conditioning System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Air Conditioning System>WIRING DIAGRAM.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Conditioning System


ELECTRICAL SPECIFICATION

Refer to "Auto A/C Control Module I/O Signal" of "HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)" section.

 [Ref. to HVAC SYSTEM \(AUTO A/C\) \(DIAGNOSTICS\)>Auto A/C Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Conditioning System

















INSPECTION


Refer to "Basic Diagnostic Procedure" for "HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)" section.  [Ref. to HVAC SYSTEM \(AUTO A/C\) \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Conditioning System

NOTE

For procedure of each component in the air conditioning system, refer to the respective section.

- Blower motor unit assembly:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Blower Motor Unit Assembly.](#)
- Blower motor:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Blower Motor.](#)
- Power transistor (auto A/C model):  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Power Transistor \(Auto A/C Model\).](#)
- Control panel:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Control Panel.](#)
- Compressor:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor.](#)
- Condenser:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Condenser.](#)
- Heater and cooling unit:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Heater and Cooling Unit.](#)
- Evaporator:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Evaporator.](#)
- Expansion valve:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Expansion Valve.](#)
- Hose & pipe:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Hose and Pipe.](#)
- Ambient sensor:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Ambient Sensor.](#)
- Sunload sensor (auto A/C model):  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Sunload Sensor \(Auto A/C Model\).](#)
- In-vehicle sensor (auto A/C model):  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>In-Vehicle Sensor \(Auto A/C Model\).](#)
- Evaporator sensor:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Evaporator Sensor.](#)
- Intake door actuator:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>FRESH/RECIRC Door Actuator.](#)
- Mode door actuator:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Mode Door Actuator.](#)

- Air mix door actuator:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Mix Door Actuator.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Refrigerant Pressure with Manifold Gauge Set

PROCEDURE

1. CHECK REFRIGERANT GAS PRESSURE

1. Prepare the vehicle.

Note:

Check that the ambient temperature is 25 – 40°C (77 – 104°F) and that the humidity is 30% – 80%.

- Place the vehicle in the shade and windless condition, and open the front hood.
- Open the front windows and close all doors.

2. Check the refrigerant pressure.

Preparation tool:

Manifold gauge set

(1) Connect the manifold gauge set, and start the engine.

(2) Set the vehicle to the following conditions.

Item	Condition
Engine	Warmed up (Engine coolant temperature indicator light: OFF)
Air vent grille	Shutter is fully open.
A/C switch	ON
Temperature adjustment dial	LO (MAX COOL)
FRESH/RECIRC switch	RECIRC
Air flow control dial or switch	VENT
Fan dial	5/7 level

(3) In the condition of step (2), idle the engine for 30 minutes.

(4) Read the gauge values on both high pressure side and low pressure side for manifold gauge.

3. Measure the air vent grille outlet opening temperature, ambient temperature and humidity.

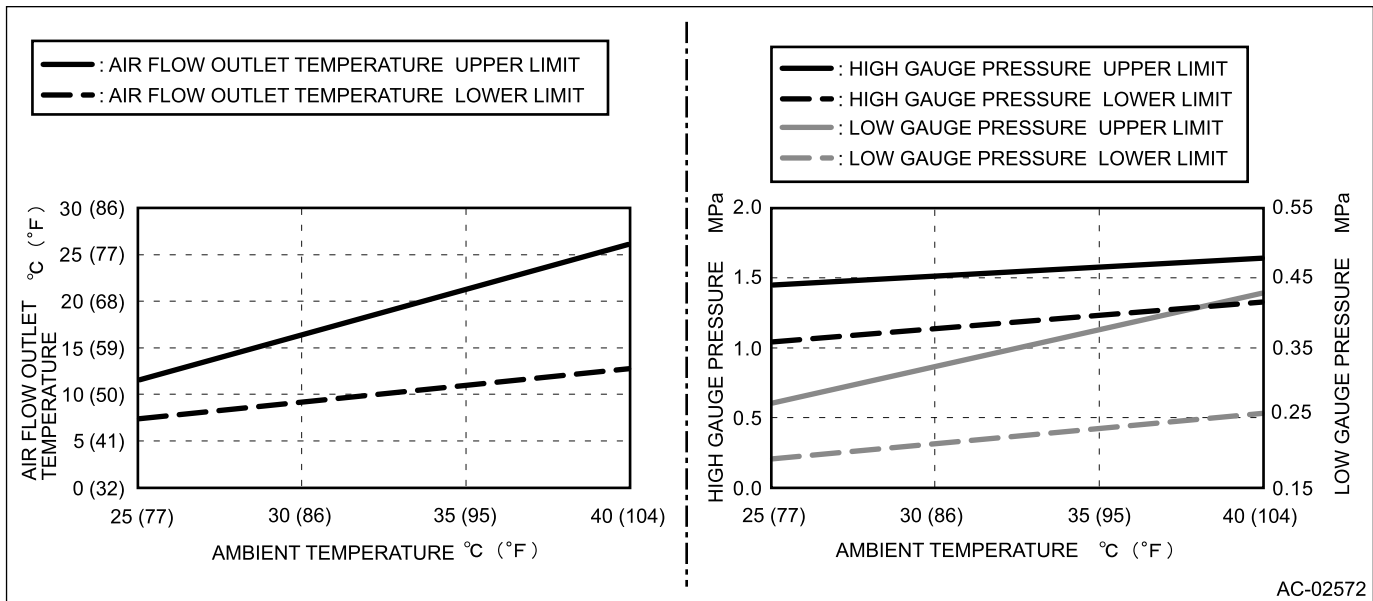
Preparation tool:


Thermometer and hygrometer

Note:

For outlet opening temperature, measure the average temperature of center grille assembly and side grille assembly.

4. Check that the high and low pressures and outlet opening temperature for ambient temperature and humidity is within the standard value described in the chart below.









5. Refer to "DIAGNOSIS WITH SYMPTOM" if the inspection result is not within the standard value.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > INSPECTION WITH PRESSURE SYMPTOM.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Refrigerant Pressure with Manifold Gauge Set

INSPECTION


1. INSPECTION WITH PRESSURE SYMPTOM

Symptoms	Reference
Both high and low pressure sides are low	 Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > BOTH HIGH AND LOW PRESSURE SIDES ARE LOW.
Both high and low pressure sides are high	 Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > BOTH HIGH AND LOW PRESSURE SIDES ARE HIGH.
High and low pressure sides are equal, high-pressure side is low	 Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > HIGH AND LOW PRESSURE SIDES ARE EQUAL, OR HIGH-PRESSURE SIDE IS LOW.
High-pressure side is high	 Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > HIGH-PRESSURE SIDE IS HIGH.

Symptoms	Reference
Low-pressure side is low	 Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > LOW-PRESSURE SIDE IS LOW.
Low-pressure side is high	 Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > LOW-PRESSURE SIDE IS HIGH.

2. BOTH HIGH AND LOW PRESSURE SIDES ARE LOW

1. CHECK REFRIGERANT LEAKS.

Check the refrigerant for leaks.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Leak Check>INSPECTION.](#)

Note:

When high-pressure side is less than 0.69 Mpa: Go to step 2.

Are there refrigerant leaks?

 Yes



Repair the refrigerant leaking points.

 No

 [Go to 2.](#)

2. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
- Fill:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

Is refrigerant pressure within the standard value?

 Yes

Refrigerant pressure is normal.



 No

Perform corresponding "INSPECTION WITH PRESSURE SYMPTOM".

3. BOTH HIGH AND LOW PRESSURE SIDES ARE HIGH

1. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
- Fill:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

Is refrigerant pressure within the standard value?

 Yes


Refrigerant pressure is normal.

 No

Perform corresponding "INSPECTION WITH PRESSURE SYMPTOM".

4. HIGH AND LOW PRESSURE SIDES ARE EQUAL, OR HIGH-PRESSURE SIDE IS LOW

1. CHECK REFRIGERANT LEAKS.

Check the refrigerant for leaks.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Leak Check>INSPECTION.](#)

Note:

When high-pressure side is less than 0.69 Mpa: Go to step 2.

Are there refrigerant leaks?

 Yes



Repair the refrigerant leaking points.

 No

 [Go to 2.](#)

2. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.


- Recovery:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
- Fill:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

Is refrigerant pressure within the standard value?

 Yes

Refrigerant pressure is normal.

 No

Inspect the compressor.  [Ref. to HVAC SYSTEM \(AUTO A/C\) \(DIAGNOSTICS\)>Diagnostics with Phenomenon>DIAGNOSTIC PROCEDURE WITH PHENOMENON > COLD AIR DOES NOT COME OUT EVEN WHEN THE A/C SWITCH IS PRESSED. THE GLASS CANNOT BE DEFOGGED. \(COMPRESSOR DOES NOT OPERATE.\).](#)

5. HIGH-PRESSURE SIDE IS HIGH

1. CHECK CONDENSER.

Check the condenser.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Condenser>INSPECTION.](#)

Is condenser OK?

 Yes



 [Go to 2.](#)

 No

Clean or replace the condenser.

2. CHECK RADIATOR FAN.

Check the radiator fan system.

- Except for STI model:  [Ref. to COOLING\(w/o STI\)>Radiator Fan System.](#)
- STI model:  [Ref. to COOLING\(STI\)>Radiator Fan System.](#)

Is radiator fan system normal?

Yes



 [Go to 3.](#)

No

Repair the radiator fan system or replace the faulty parts.

3. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
- Fill:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

Is refrigerant pressure within the standard value?

Yes

Refrigerant pressure is normal.

No

Check the high-pressure hose and condenser for kinks or clogging, and replace if defective.

6. LOW-PRESSURE SIDE IS LOW

1. CHECK REFRIGERANT LEAKS.

Check the refrigerant for leaks. [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Leak Check>INSPECTION.](#)

Note:

When high-pressure side is less than 0.69 Mpa: Go to step 2.

Are there refrigerant leaks?

Yes

Repair the refrigerant leaking points.

No

[🔗 Go to 2.](#)

2. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
- Fill: [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

Is refrigerant pressure within the standard value?

Yes

Refrigerant pressure is normal.

No

[🔗 Go to 3.](#)

3. REPLACE EXPANSION VALVE.

Replace the expansion valve. [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Expansion Valve>REMOVAL.](#)

Is refrigerant pressure within the standard value?

Yes

Refrigerant pressure is normal.

No

Inspect the compressor. [🔗 Ref. to HVAC SYSTEM \(AUTO A/C\) \(DIAGNOSTICS\)>Diagnostics with Phenomenon>DIAGNOSTIC PROCEDURE WITH PHENOMENON > COLD AIR DOES NOT COME OUT EVEN WHEN THE A/C SWITCH IS PRESSED. THE GLASS CANNOT BE DEFOGGED. \(COMPRESSOR DOES NOT OPERATE.\)](#).

7. LOW-PRESSURE SIDE IS HIGH

1. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
- Fill: [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

Is refrigerant pressure within the standard value?

Yes

Refrigerant pressure is normal.

No

[🔗 Go to 2.](#)

2. REPLACE EXPANSION VALVE.

Replace the expansion valve.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Expansion Valve>REMOVAL.](#)

Is refrigerant pressure within the standard value?

Yes

Refrigerant pressure is normal.

No

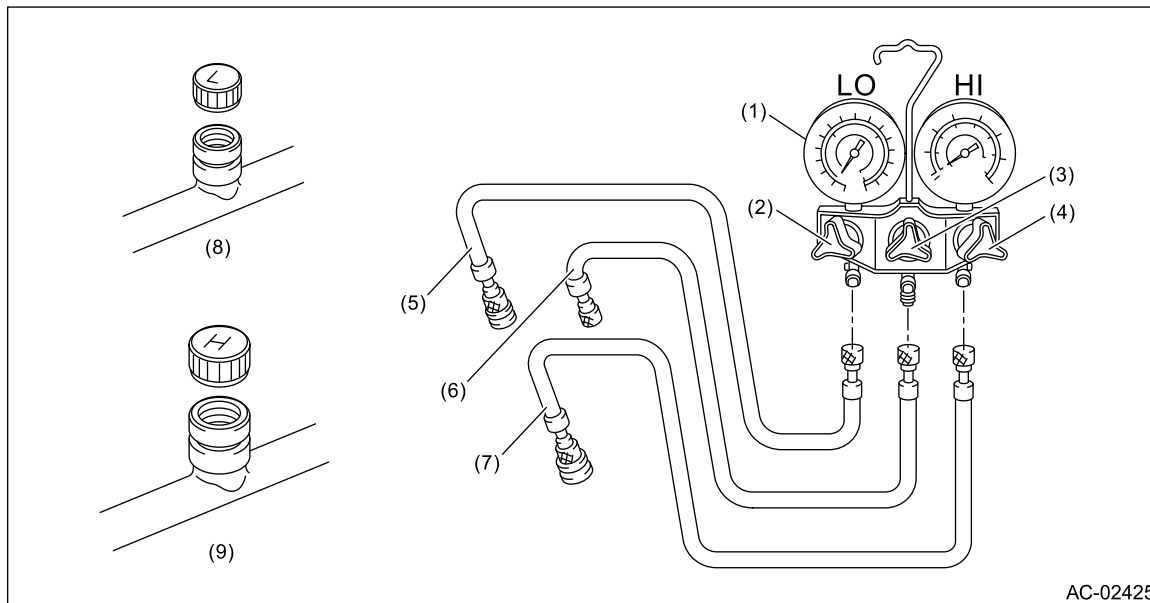
Replace the evaporator.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Evaporator>REMOVAL.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Refrigerant Recovery Procedure



PROCEDURE

Caution:

- During operation, be sure to wear protective goggles and protective gloves.
- Connect the refrigerant recovery system with the manifold gauge set to discharge the refrigerant from the A/C system and recycle the gas.
- When recycling the discharged refrigerant, keep service cans on hand. Because the recovery rate with the recovery system is approx. 90%, service cans are necessary to charge the refrigerant.
- Follow the detailed operation procedure described in the operation manual attached to the refrigerant recovery system.



- | | | |
|------------------------|--|--|
| (1) Manifold gauge | (4) High pressure valve | (7) High-pressure hose |
| (2) Low pressure valve | (5) Low-pressure hose | (8) Low-pressure side service port |
| (3) Center valve | (6) Center manifold hose
(vacuum pump and charge) | (9) High-pressure side service
port |

1. Perform compressor oil return operation.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>PROCEDURE.](#)
2. Turn the ignition switch to OFF.
3. Remove the collector cover. (Except for STI model)  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Collector Cover>REMOVAL.](#)
4. Attach the manifold gauge set.

Preparation tool:

Manifold gauge set

- (1) Check that all valves are fully closed.
- (2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

Caution:

Confirm that the connections are secure.

(3) Connect the center hose to the refrigerant recovery system.

Preparation tool:

Refrigerant recovery system

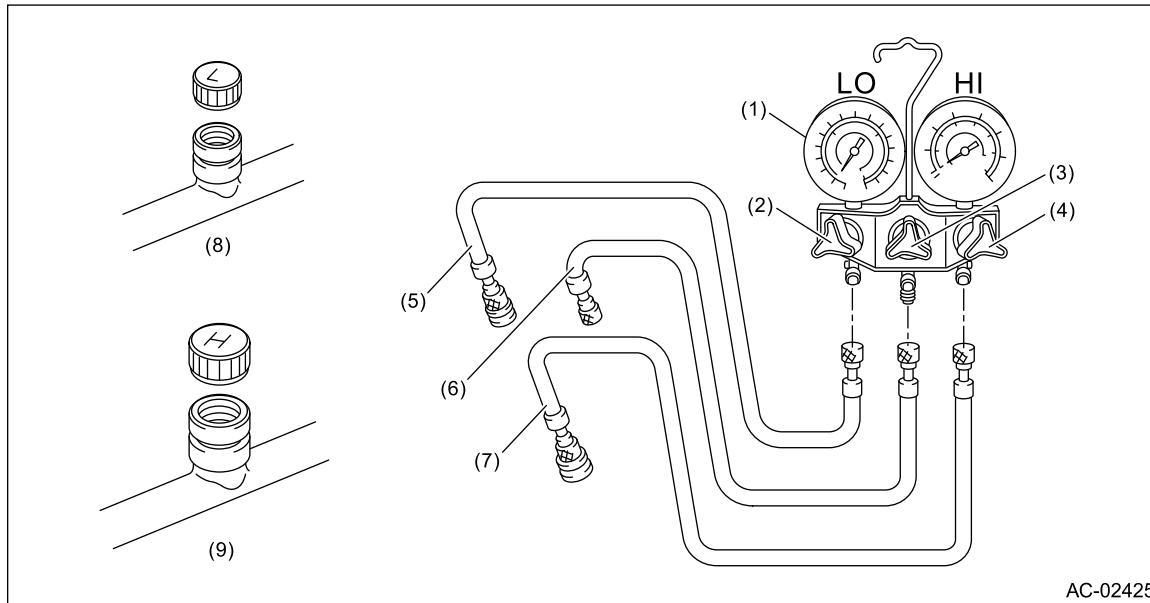
5. Follow the operation manual attached to the refrigerant recovery system to collect the refrigerant.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Refrigerant Charging Procedure

PROCEDURE

Caution:

- **While working, be sure to wear protective goggles and protective gloves.**
- **Air in the cycle can cause insufficient air conditioning, and water in the cycle can cause clogging in the cycle (icing) and rust. To remove this air and water content, use a vacuum pump to perform evacuation before filling with refrigerant. By making the inside of the cycle a vacuum, the water content will evaporate even at normal temperatures, and can be removed.**



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- | | | |
|------------------------|--|--|
| (1) Manifold gauge | (4) High pressure valve | (7) High-pressure hose |
| (2) Low pressure valve | (5) Low-pressure hose | (8) Low-pressure side service port |
| (3) Center valve | (6) Center manifold hose
(vacuum pump and charge) | (9) High-pressure side service
port |

1. Attach the manifold gauge set.

Preparation tool:

Manifold gauge set

- (1) Check that all valves are fully closed.
- (2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

Caution:

Confirm that the connections are secure.

- (3) Connect the center manifold hose of the manifold gauge to the vacuum pump.

Preparation tool:

Vacuum pump

2. Perform evacuation.

Caution:

Make sure to perform evacuation using a vacuum pump.

- (1) Open the low-pressure valve, high-pressure valve and center valve.

- (2) Operate the vacuum pump.
- (3) Perform evacuation for 5 minutes or more, and when the low pressure gauge needle reaches -0.1 MPa (-1 kgf/cm², -14 psi), close the center manifold hose valve, and stop the vacuum pump.
- (4) Leave alone for 5 to 10 minutes after closing the low pressure valve and high pressure valve, and check whether there is any change in the low pressure gauge needle indication.
If the needle position changes, this indicates a leak. Check the pipe and hose connections, and repair the location with the problem.
After repair, retry charging the refrigerant from the step 1).
- (5) If there is no leakage, continue evacuation for additional 20 — 30 minutes, close all valves and then stop the vacuum pump.

3. Charge refrigerant.

- (1) Follow the can tap operation manual to attach it to the refrigerant can.

Preparation tool:

Can tap

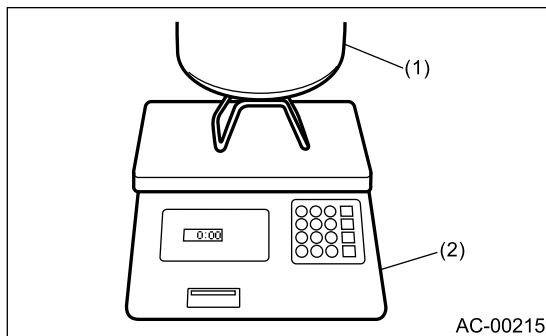
- (2) Disconnect the center manifold hose from the vacuum pump, and connect the hose to the tap valve.

Preparation tool:

Weight scale

Note:

When 13.6 kg (30 lb) refrigerant container (1) is used, measure the amount of refrigerant with a refrigerant charging scale (2), and connect with the center manifold hose.



- (3) Open the tap valve of HFO-1234yf supply container (refrigerant can or refrigerant container).
- (4) Loosen the center manifold hose connection on the manifold gauge for a few seconds (if there is a purge valve on the manifold gauge, push this instead) to allow the air in the center manifold hose to be bled by the refrigerant pressure.
- (5) Open the low pressure valve and high pressure valve of the manifold gauge to fill with refrigerant.

Note:

If the HFO-1234yf supply container is empty, close all manifold gauge valves and the tap valve of HFO-1234yf supply container, and replace the empty supply container with a new one. After replacing with a new HFO-1234yf supply container, perform air purge, and resume the filling operation.

- (6) If the low pressure gauge indicates approximately 0.2 MPa (2 kgf/cm², 29 psi) or refrigerant filling efficiency drops, close the low pressure and high pressure valves.
- (7) Check that the low pressure valve and high pressure valve are closed, turn off the A/C switch and start the engine.


Caution:


When filling operation is performed with the engine running, do not open the high pressure valve. Always fill from the low pressure valve.

(8) To prevent damage to the compressor, push the A/C switch ON-OFF quickly a few times.

(9) Set the vehicle to the following conditions.

Item	Condition
Engine speed	1,500 r/min
A/C switch	ON
Temperature adjustment dial	LO (MAX COOL)
Fan dial	HI (MAX)
FRESH/RECIRC switch	RECIRC
Air flow control dial or switch	VENT
Window	OPEN

(10) Open the low pressure valve, check the refrigerant pressure with a manifold gauge and fill with refrigerant up to the specified amount.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > INSPECTION WITH PRESSURE SYMPTOM.](#)

4. Using an electronic leak detector (leak tester), check for refrigerant leaks in the system.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Leak Check>INSPECTION.](#)
5. After filling with refrigerant, close all valves and remove the manifold gauge set.
6. Attach cap to the service port of the low pressure side and high pressure side.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Refrigerant Leak Check

INSPECTION

1. Attach the manifold gauge set.

Preparation tool:

Manifold gauge set

(1) Check that all valves are fully closed.

(2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

Caution:

Confirm that the connections are secure.

(3) Start the engine, operate the A/C system for approx. 10 minutes, and check that the high-pressure side indicates 0.69 MPa (7 kgf/cm², 100 psi) or more.

2. Turn the ignition switch to OFF to start the leak test.

Preparation tool:

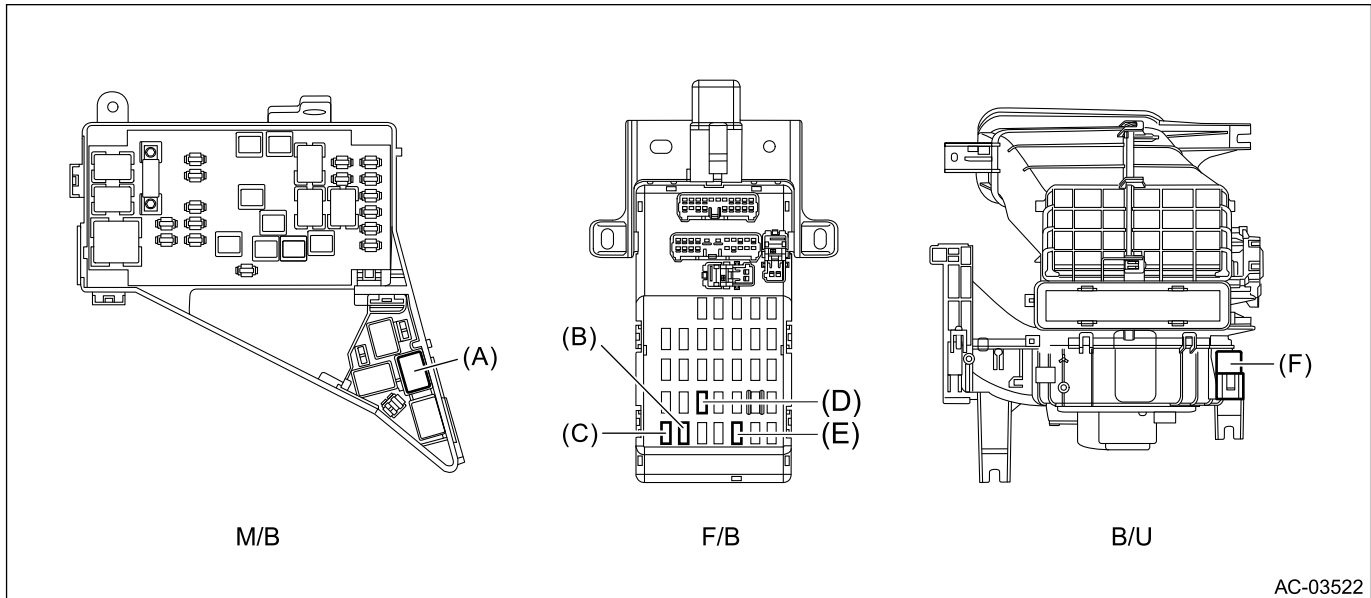
Electronic leak detector (leak tester)

Items	Condition	Corrective action
Pipe	Check the connections of pipe and expansion valve.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the connection between pressure switch or pressure sensor and high-pressure pipe.	Replace the pressure switch or pressure sensor.
	Check the connection between pipe and condenser.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
Condenser	Check the welded part of condenser and core.	Replace the condenser.
Hose (high-pressure)	Check the connection between hose (high-pressure) and compressor.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the connection between hose (high-pressure) and condenser.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the rubber part of the flexible hose and pipe seam. Caution: Carefully check the external surface of flexible hoses and pipes at approx. 25 mm (0.98 in) per second.	Replace the hose (high pressure).
	Check the valve and cap in the service port.	Check the rubber seal of the valve and cap. If necessary,

Items	Condition	Corrective action
		replace valve or cap.
Compressor	Check the compressor pulley and vicinity of shaft seal. Caution: Some shaft seals will show a slight amount of leakage, about 3 g (0.1 oz) per year. This is not a problem.	Replace the compressor.
Hose (low-pressure)	Check the connection between hose (low pressure) and expansion valve.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the connection between hose (low pressure) and compressor.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the rubber part of the flexible hose and pipe seam. Caution: Carefully check the external surface of flexible hoses and pipes at approx. 25 mm (0.98 in) per second.	Replace the hose (low pressure).
	Check the valve and cap in the service port.	Check the rubber seal of the valve and cap. If necessary, replace valve or cap.
Evaporator	Remove the drain hose from the heater case, and check the end part for 10 seconds or more.	Replace the evaporator.
	Check the air vent grille. Note: Turn the ignition switch to ON, and run the blower at high speed for approx. 1 minute. Stop the blower to check the air vent grille on the instrument panel. While moving the tester closer to the grille, run the blower for 1 or 2 seconds, then stop it. Check the grille at that position for at least 10 seconds.	Replace the evaporator.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Relay and Fuse

LOCATION



Main fuse box	A/C relay	(A)
Relay & fuse box	Fuse 15 A (blower motor relay)	(B)
	Fuse 15 A (blower motor relay)	(C)
	Fuse 7.5 A (A/C control panel, A/C relay, sub fan relay, pressure switch and blower motor relay)	(D)
	Fuse 7.5 A (A/C control panel)	(E)
Blower motor unit	Blower motor relay	(F)

Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Relay and Fuse

INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:

If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1. Measure the resistance between relay terminals.
 - A/C relay

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 M Ω or more	
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

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- Blower motor relay

Terminal No.	Inspection conditions	Standard	Circuit
1 – 4	Always	1 M Ω or more	
1 – 4	Apply battery voltage between terminals 2 and 3.	Less than 1 Ω	

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2. Replace the relay if the inspection result is not within the standard value.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Compressor Oil

PROCEDURE

Note:

Before making repairs, perform the oil return operation to return the compressor oil in circulation with the refrigerant to the compressor assembly.

- 1.** Increase the engine speed to 1,500 r/min.
- 2.** Turn the A/C switch to ON.
- 3.** Turn the temperature control dial to LO (MAX COOL).
- 4.** Turn the FRESH/RECIRC switch to RECIRC position.
- 5.** Turn the fan dial to HI (MAX).
- 6.** Leave in this condition for 10 minutes.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Compressor Oil

ADJUSTMENT

- If a component has been replaced, add an appropriate amount of compressor oil (same as the amount of remaining oil in removed component).
- When replacing the compressor assembly, the new compressor assembly will already have the specified amount of oil in it. Adjust the oil amount (so that the amount remains the same as that of the removed compressor assembly) and install the new compressor assembly.


Note:


Since the hygroscopicity of compressor oil is high, perform this series of works quickly.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Blower Motor Unit Assembly

REMOVAL



Caution:

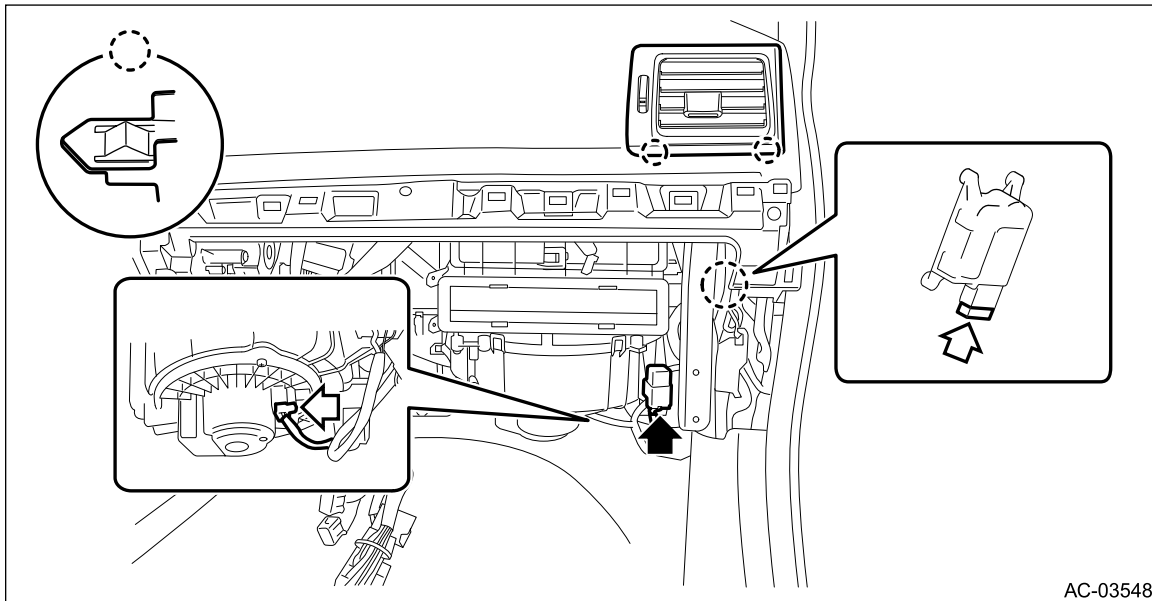
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. 
[Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

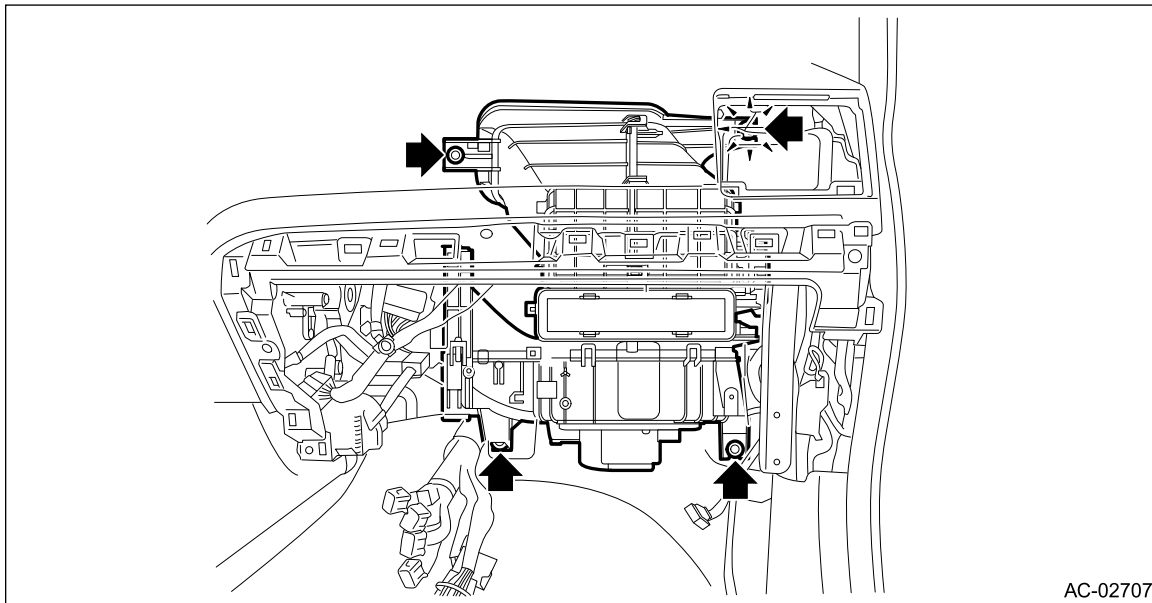
2. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
3. Remove the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>REMOVAL.](#)
4. Remove the blower motor unit assembly.
 - (1) Release the claws, and then remove the grille assembly - ventilation RH.
 - (2) Disconnect the blower motor relay and each connector.



- (3) Remove the bolts and nuts to remove blower motor unit assembly.


Note:

Remove the RH upper nut from the mounting portion of the grille assembly - ventilation RH.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Blower Motor Unit Assembly INSTALLATION



Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- After installing the grille assembly - ventilation RH, check that the air vent grille of the grille assembly - ventilation RH is inserted correctly into the air vent duct.

1. Install the blower motor unit assembly.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the grille assembly - ventilation RH.
3. Install the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>INSTALLATION.](#)
4. Install the glove box.
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Blower Motor

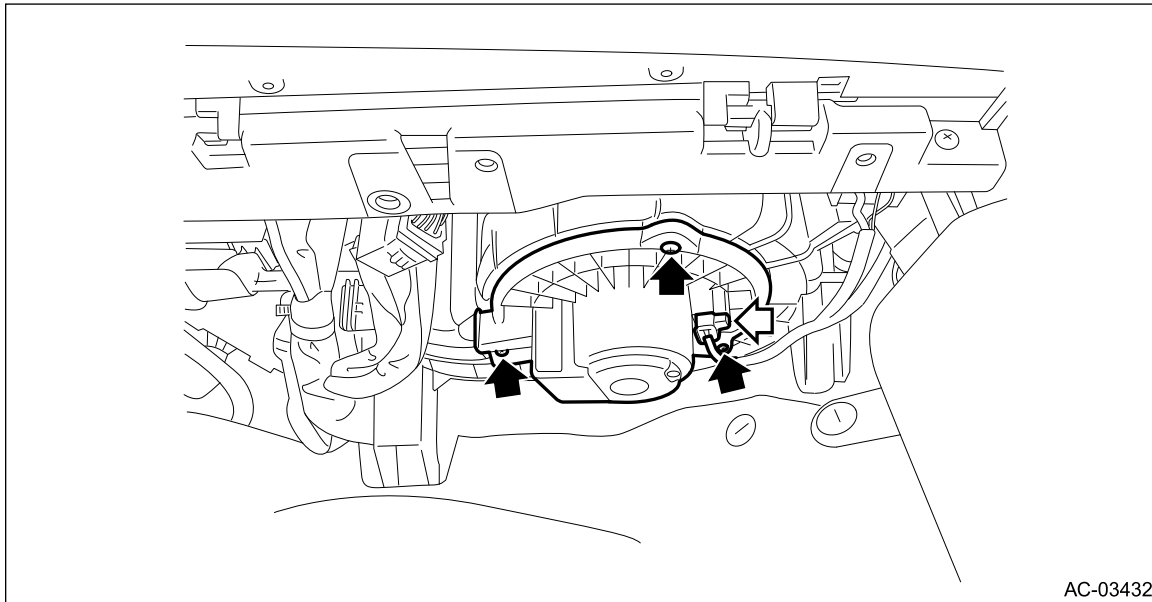
REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:


For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the blower - motor.
 - (1) Disconnect the connector.
 - (2) Remove the screws and detach the blower - motor.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Blower Motor

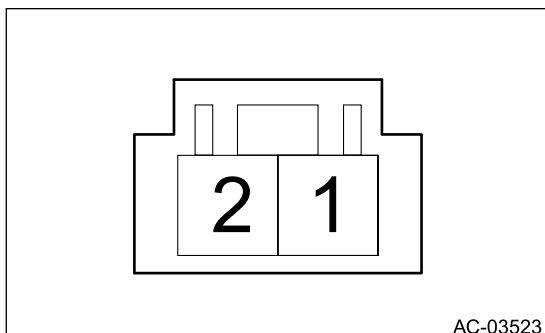
INSTALLATION

1. Install the blower - motor.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Blower Motor

INSPECTION

1. Check the motor operation when battery voltage is applied between the connector terminals.



Terminal No.	Inspection conditions	Specification
2 (+) – 1 (-)	Apply battery voltage.	Rotation

2. If it does not operate normally, replace the blower - motor.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Power Transistor (Auto A/C Model)

REMOVAL

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

Note:

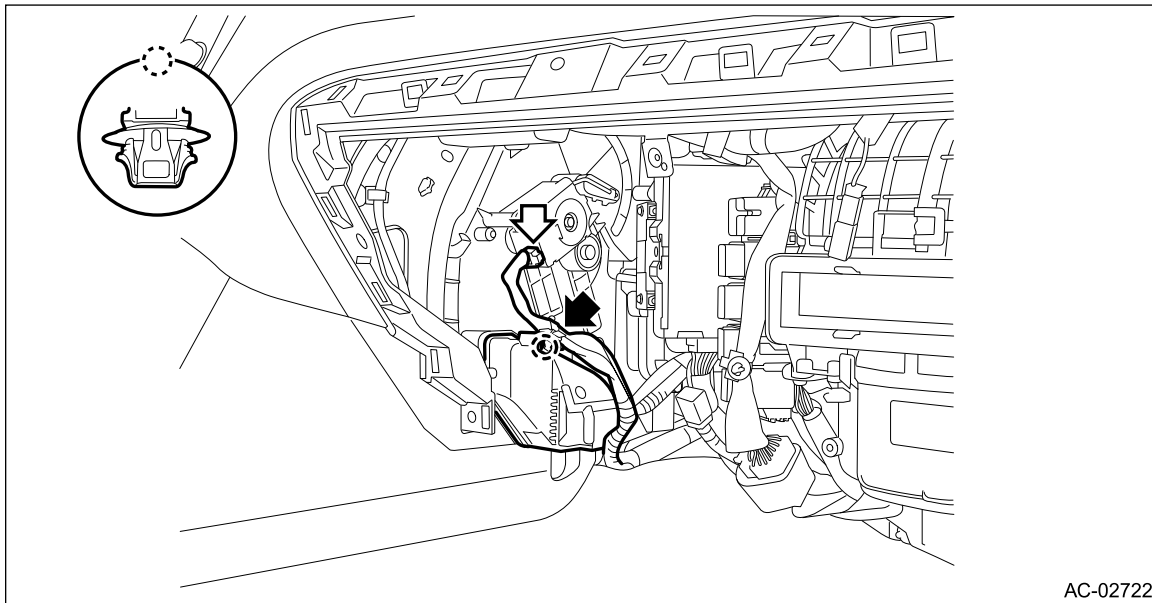
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the glove box.  Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.

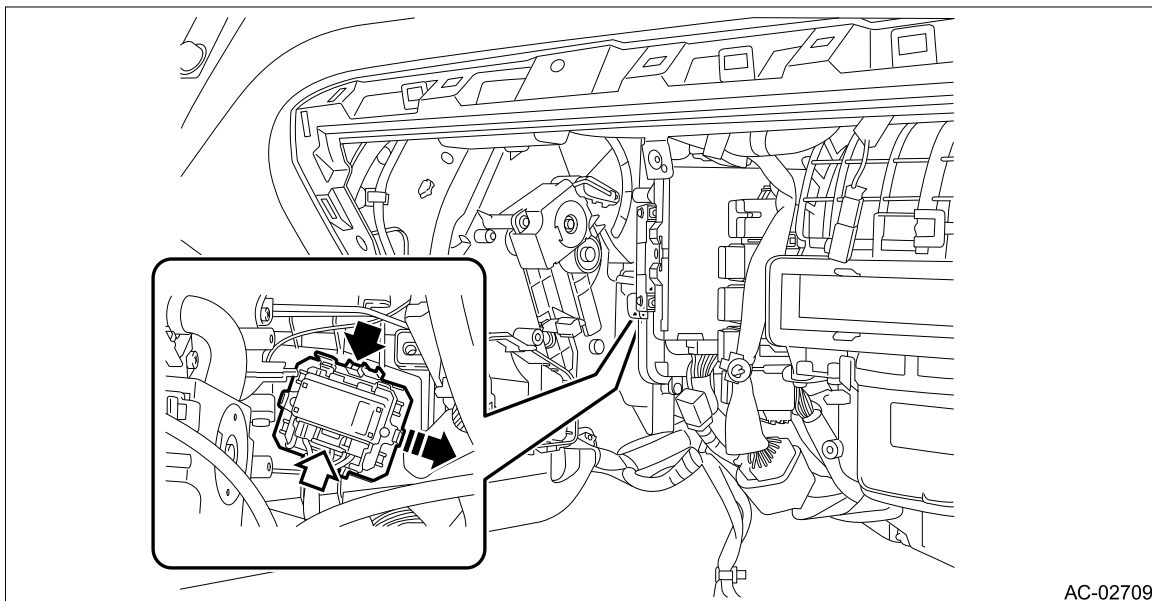
3. Remove the screws and remove the duct - foot RH.

Note:

Remove the connector and harness clip of the motor - actuator mix RH, and move the harness aside.




4. Remove the power transistor.
 - (1) Disconnect the connector.
 - (2) Remove the power transistor while pressing the power transistor claw part and sliding it.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Power Transistor (Auto A/C Model)


INSTALLATION



- 1.** Install the power transistor.
- 2.** Install the duct - foot RH.
- 3.** Install the glove box.
- 4.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater Core

REMOVAL




Caution:

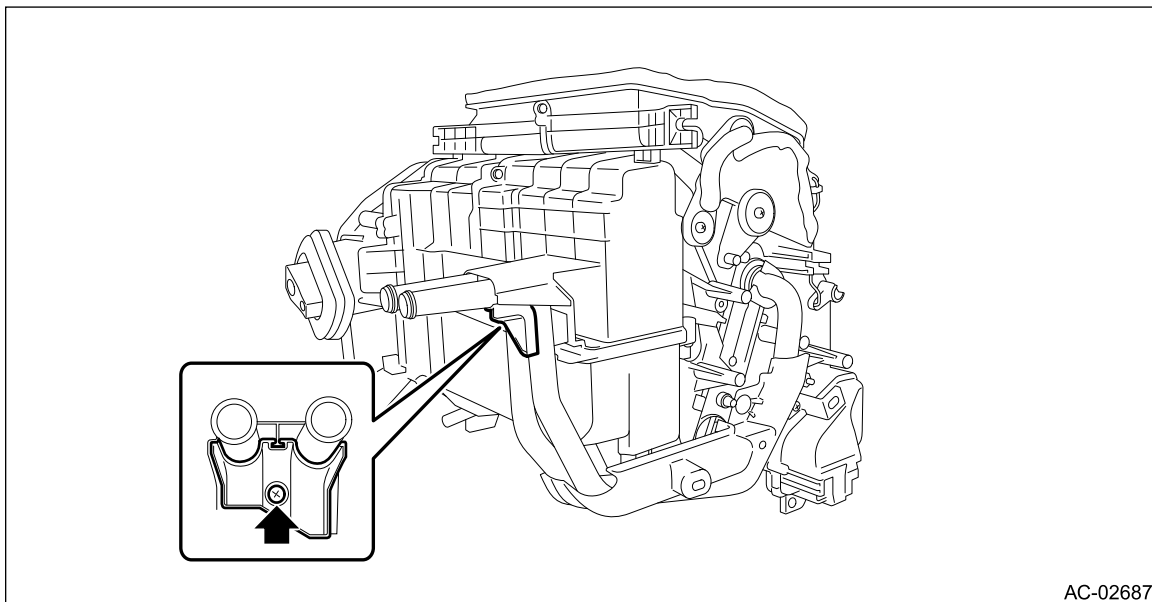
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
2. Disconnect the battery ground cable and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

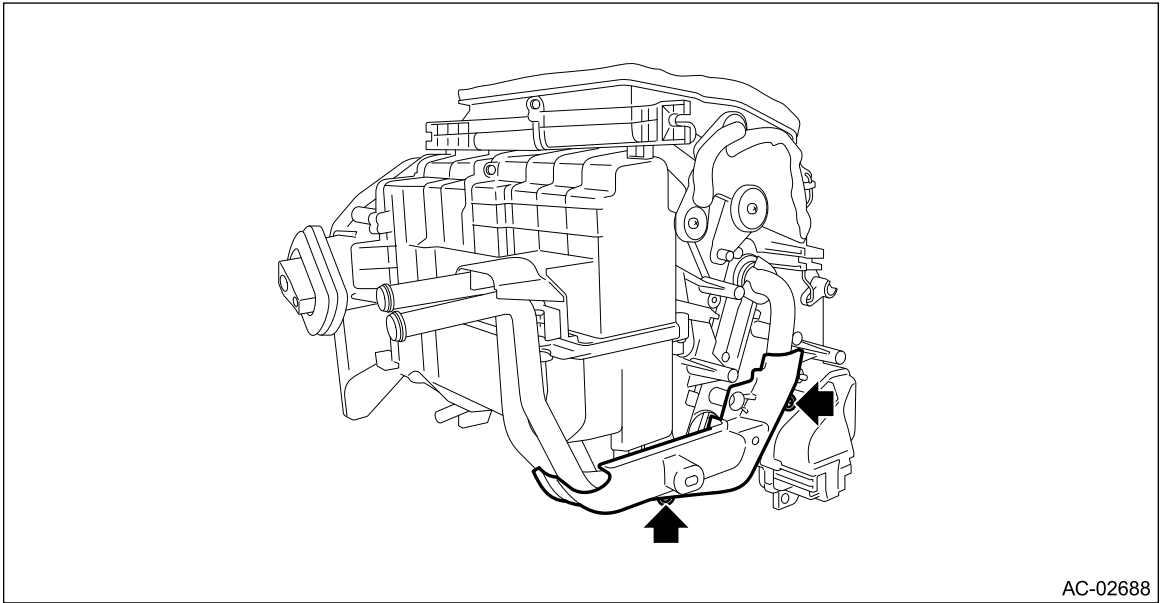
For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Drain engine coolant.
 - Except for STI model:  [Ref. to COOLING\(w/o STI\)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.](#)
 - STI model:  [Ref. to COOLING\(STI\)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.](#)
4. Remove the heater and cooling unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Heater and Cooling Unit>REMOVAL.](#)
5. Remove the heater core.
 - (1) Remove the screw and detach the clamp - pipe.



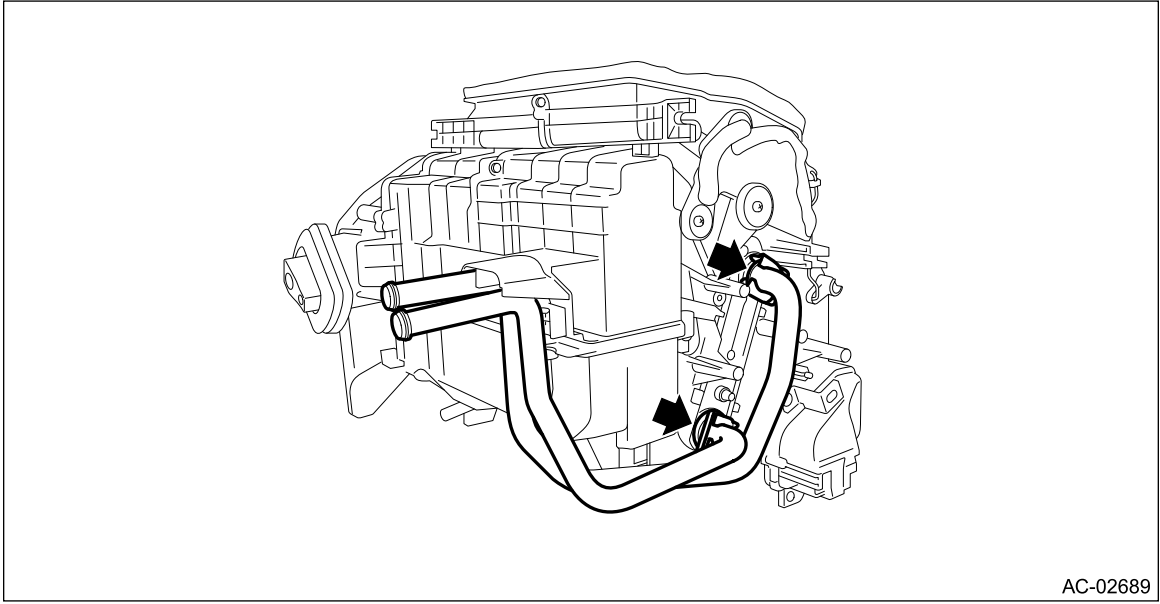
AC-02687

- (2) Remove the screws and detach the cover - heater pipe.



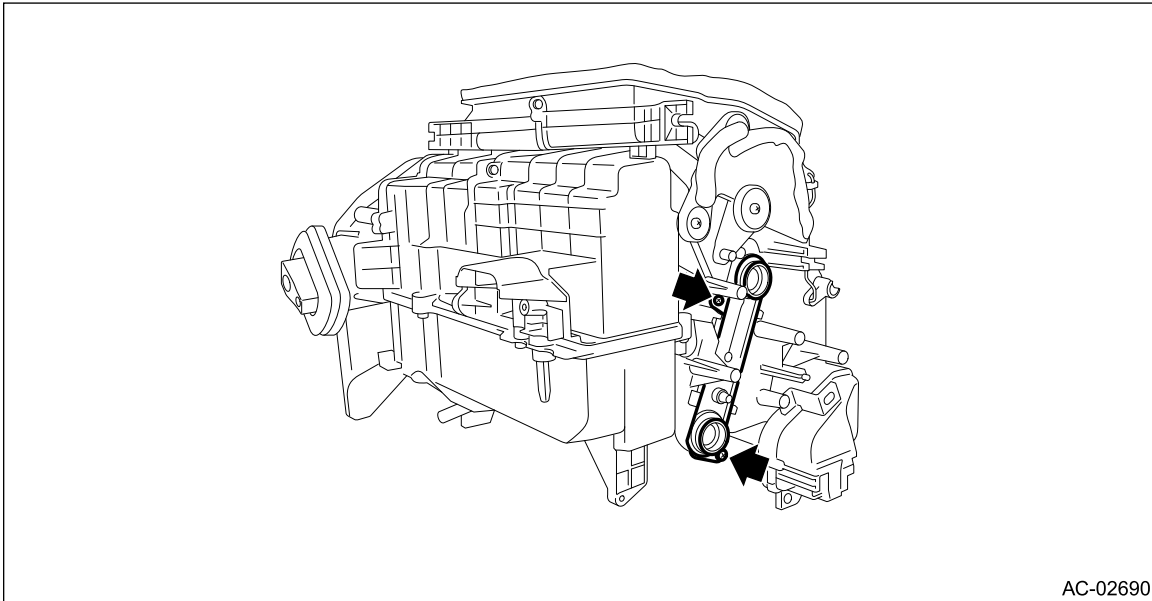
AC-02688

(3) Remove the clamp, and remove the pipe - inlet and outlet.

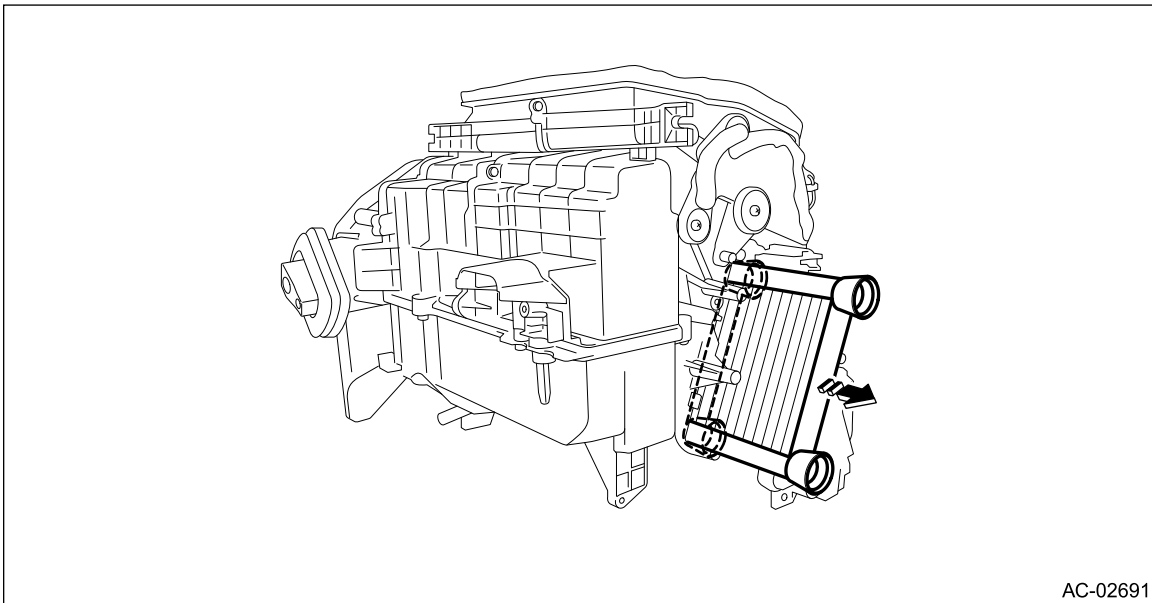


AC-02689

(4) Remove the screws and detach the plate - heater core.






(5) Remove the heater core.






HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater Core INSTALLATION

Caution:

- Replace O-rings and clamps with new parts and install securely.
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)


1. Attach the heater core.
2. Install the heater and cooling unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Heater and Cooling Unit>INSTALLATION.](#)
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
4. Fill engine coolant.


- Except for STI model:  [Ref. to COOLING\(w/o STI\)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.](#)
 - STI model:  [Ref. to COOLING\(STI\)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.](#)
- 5.** Charge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Control Panel

REMOVAL






Caution:

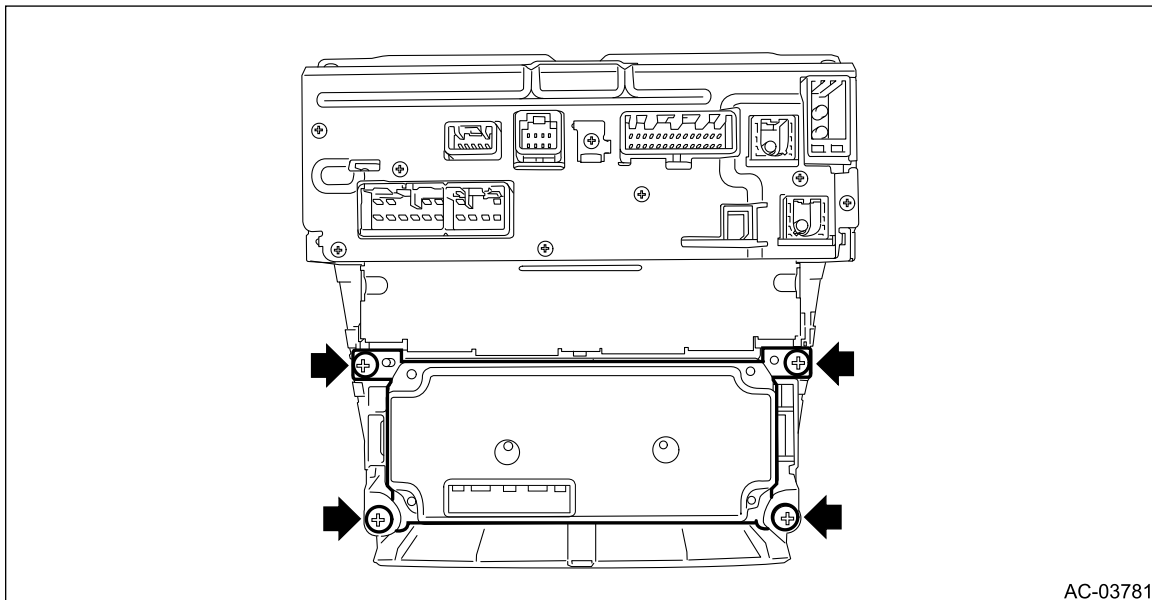
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. 
[Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL.](#)
6. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Audio>REMOVAL.](#)
7. Remove the screws to remove the heater control assembly.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Control Panel

INSTALLATION

Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.

1. Install the heater control assembly.

2. Install the audio assembly or navigation assembly.

Tightening torque:


7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

3. Install the center grille assembly.

4. Install the glove box.

5. Install the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)

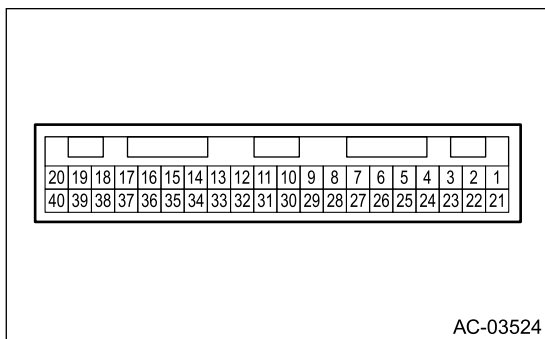
6. Install the cover assembly - instrument panel LWR driver.

7. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Control Panel

INSPECTION

1. Check the illumination operation when battery voltage is applied between the connector terminals.






Terminal No.	Inspection conditions	Specification
37 (+) – 35 (-)	Apply battery voltage.	Light ON

2. If it does not operate normally, replace the heater control assembly.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Compressor


REMOVAL

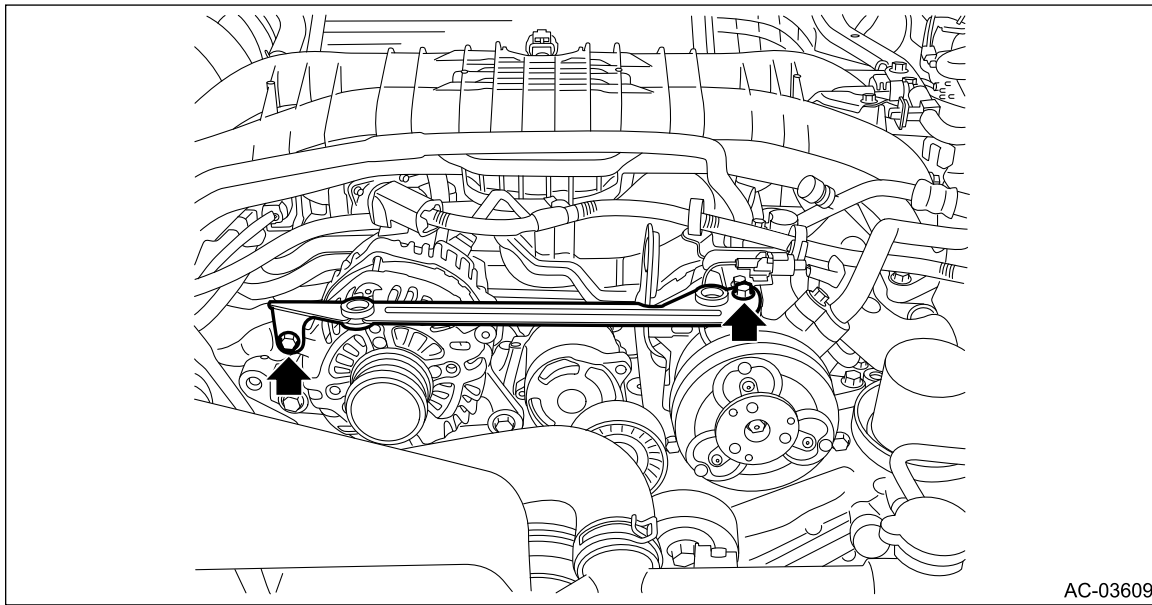
1. EXCEPT FOR STI MODEL

1. Perform compressor oil return operation.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>PROCEDURE.](#)
2. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
3. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

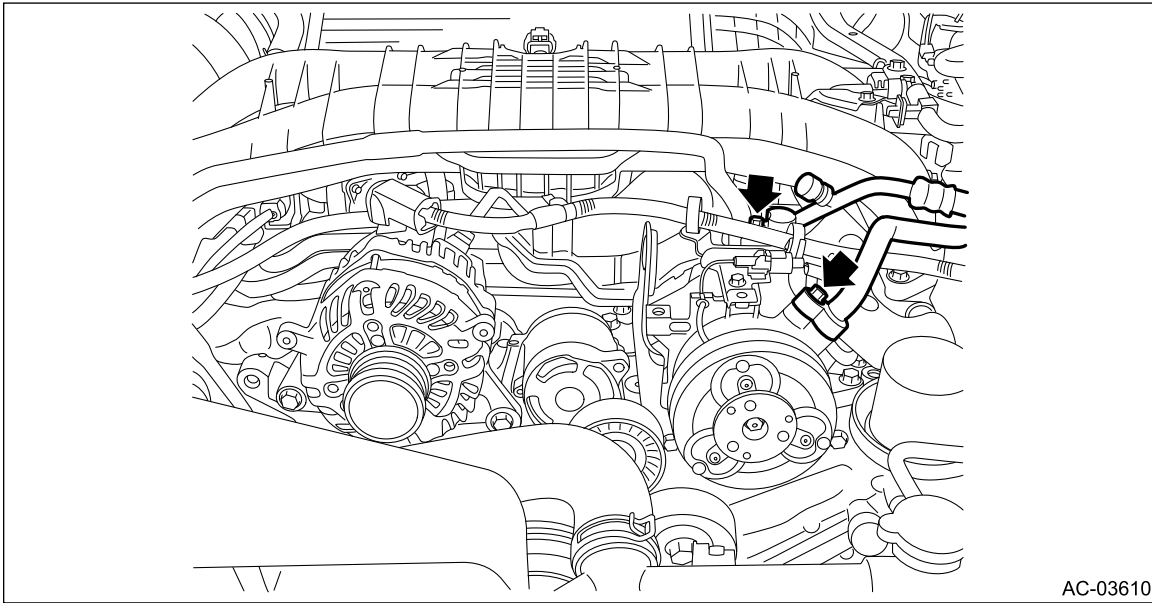
4. Remove the V-belts.  [Ref. to MECHANICAL\(w/o STI\)>V-belt>REMOVAL.](#)
5. Remove the bolts and remove the V-belt cover bracket.



6. Remove the bolt, and detach the hose - pressure suction and the hose - pressure discharge.

Caution:

Seal the disconnected hose and engaging part of compressor with a plug or vinyl tape to prevent foreign matter from entering.

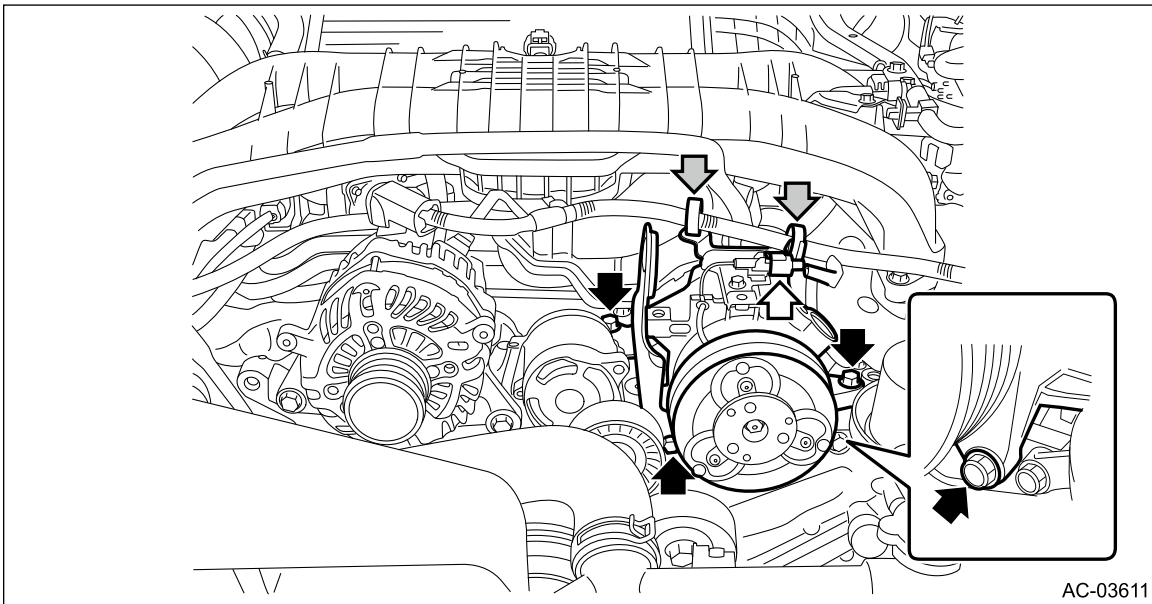


AC-03610

7. Remove the compressor assembly.
 - (1) Remove the harness clamp and connector.
 - (2) Remove the bolts and remove the compressor assembly.



Note:

Tighten the engine hanger together with the compressor assembly.






AC-03611

2. STI MODEL

1. Perform compressor oil return operation.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>PROCEDURE.](#)
2. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
3. Disconnect the ground cable from battery.

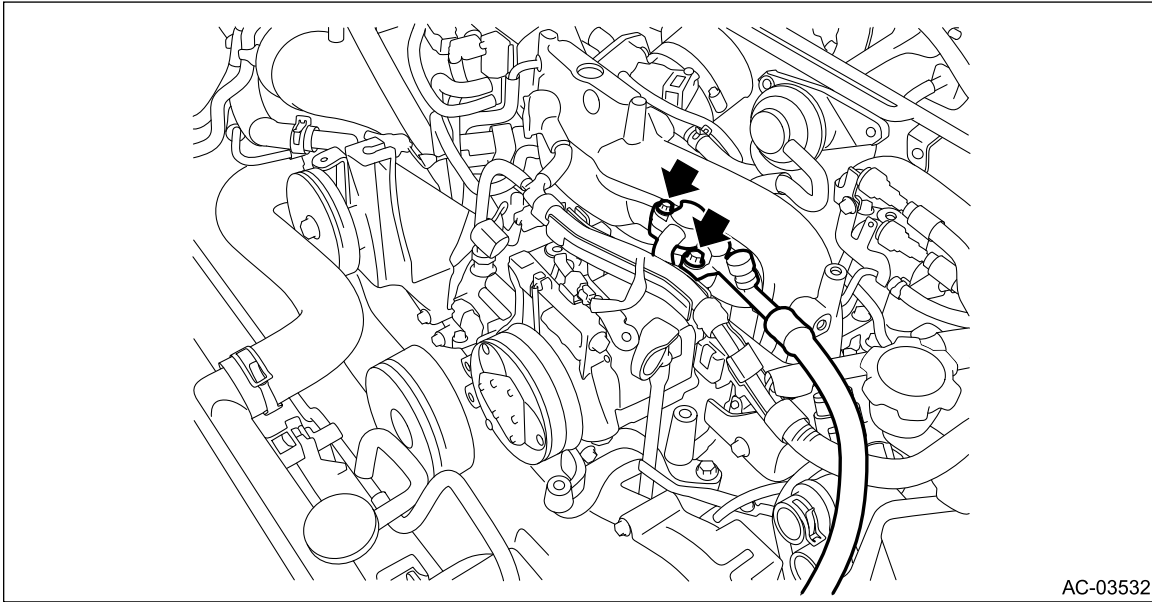
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

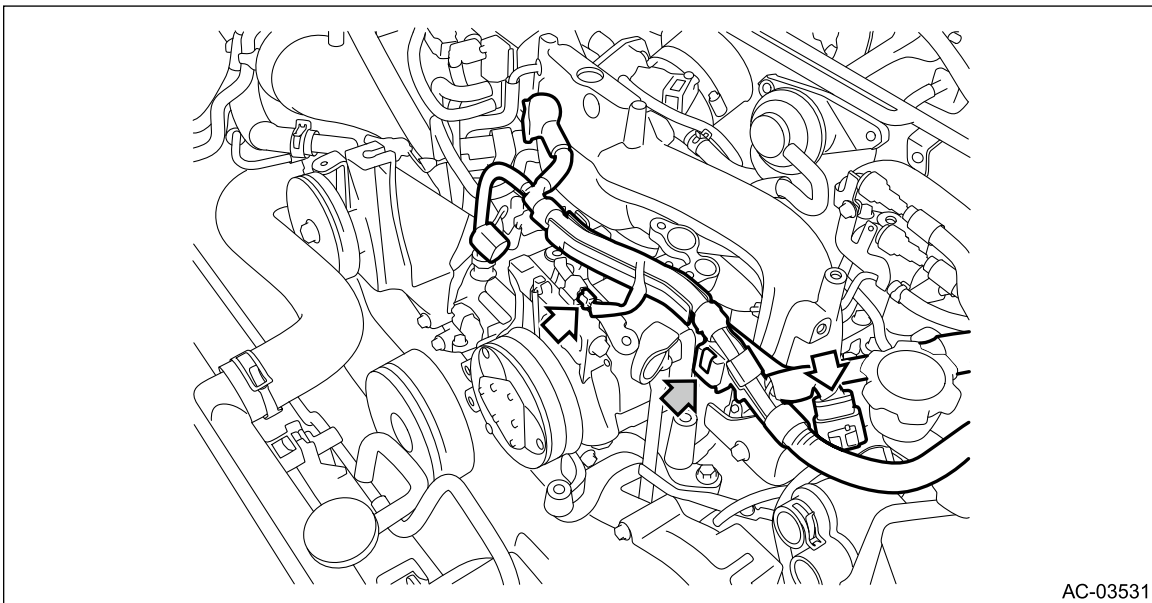
4. Remove the V-belts.  [Ref. to MECHANICAL\(STI\)>V-belt>REMOVAL.](#)
5. Remove the generator.  [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Generator>REMOVAL.](#)
6. Remove the secondary air pump.  [Ref. to EMISSION CONTROL \(AUX. EMISSION CONTROL DEVICES\)\(STI\)>Secondary Air Pump>REMOVAL.](#)
7. Remove the bolt, and detach the hose - pressure suction and the hose - pressure discharge.

Caution:

Seal the disconnected hose and engaging part of compressor with a plug or vinyl tape to prevent foreign matter from entering.



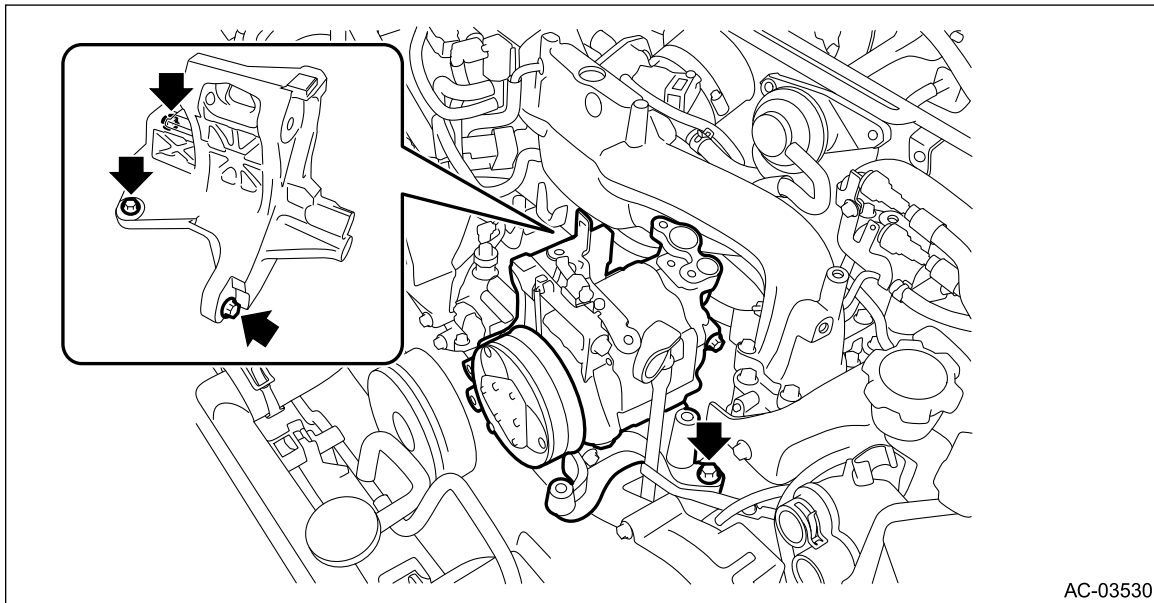
8. Remove the compressor assembly.
 - (1) Detach the harness clamp and each connector.



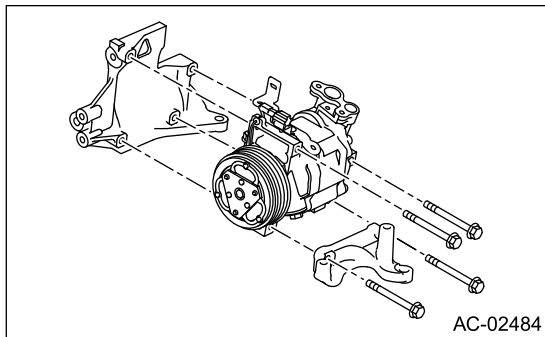
- (2) Remove the bolts and remove the compressor assembly.

Note:

Since the compressor cannot be removed by itself, remove the compressor bracket as a unit.



(3) Remove the bracket assembly - compressor and the bracket - air conditioner.




HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Compressor

INSTALLATION

1. EXCEPT FOR STI MODEL

Caution:

- Replace the O-rings on the hose - pressure suction and discharge with new parts, and then apply compressor oil.
- After replacing the compressor assembly, adjust the amount of the compressor oil.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>ADJUSTMENT.](#)

1. Install the compressor assembly.

Tightening torque:

36 N·m (3.7 kgf-m, 26.6 ft-lb)

2. Install the hose - pressure suction and the hose - pressure discharge.

Tightening torque:

10 N·m (1 kgf-m, 7.4 ft-lb)

3. Install the V-belt cover bracket.

Tightening torque:

6.4 N·m (0.7 kgf-m, 4.7 ft-lb)

4. Install the V-belts. [🔗 Ref. to MECHANICAL\(w/o STI\)>V-belt>INSTALLATION.](#)
5. Connect the battery ground terminal. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)
6. Charge refrigerant. [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

2. STI MODEL

Caution:

- **Replace the O-rings on the hose - pressure suction and discharge with new parts, and then apply compressor oil.**
- **After replacing the compressor assembly, adjust the amount of the compressor oil.** [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>ADJUSTMENT.](#)

1. Install the bracket assembly - compressor and the bracket - air conditioner.

Tightening torque:

26.5 N·m (2.7 kgf-m, 19.5 ft-lb)

2. Install the compressor assembly.

Tightening torque:

36 N·m (3.7 kgf-m, 26.6 ft-lb)

3. Install the hose - pressure suction and the hose - pressure discharge.

Tightening torque:

10 N·m (1 kgf-m, 7.4 ft-lb)

4. Install the secondary air pump. [🔗 Ref. to EMISSION CONTROL \(AUX. EMISSION CONTROL DEVICES\)\(STI\)>Secondary Air Pump>INSTALLATION.](#)

5. Install the generator. [🔗 Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Generator>INSTALLATION.](#)

6. Install the V-belts. [🔗 Ref. to MECHANICAL\(STI\)>V-belt>INSTALLATION.](#)

7. Connect the battery ground terminal.

8. Charge refrigerant. [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Compressor

INSPECTION

1. MAGNET CLUTCH CLEARANCE INSPECTION

1. Check the clearance of entire circumference around the drive plate and pulley.

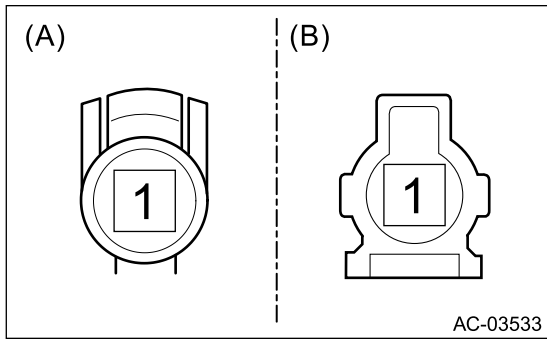
Specification:

0.3 – 0.6 mm (0.0118 – 0.0236 in)

2. Replace the compressor assembly if the inspection result is not within the standard.

2. MAGNET CLUTCH OPERATION INSPECTION

1. Check the magnet clutch operation when battery voltage is applied to the connector terminal.



(A) Except for STI model


(B) STI model

Terminal No.	Inspection conditions	Specification
1 (+) — Chassis ground (-)	Apply battery voltage.	Engaged

2. If it does not operate normally, replace the compressor assembly.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Condenser

REMOVAL



1. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)

2. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)



Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the air intake duct.

- Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Air Intake Duct>REMOVAL.](#)
- STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Air Intake Duct>REMOVAL.](#)

4. Remove the reservoir tank.

- Except for STI model:  [Ref. to COOLING\(w/o STI\)>Reservoir Tank>REMOVAL.](#)
- STI model:  [Ref. to COOLING\(STI\)>Reservoir Tank>REMOVAL.](#)

5. Lift up the vehicle.

6. Remove the under cover - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>REMOVAL.](#)

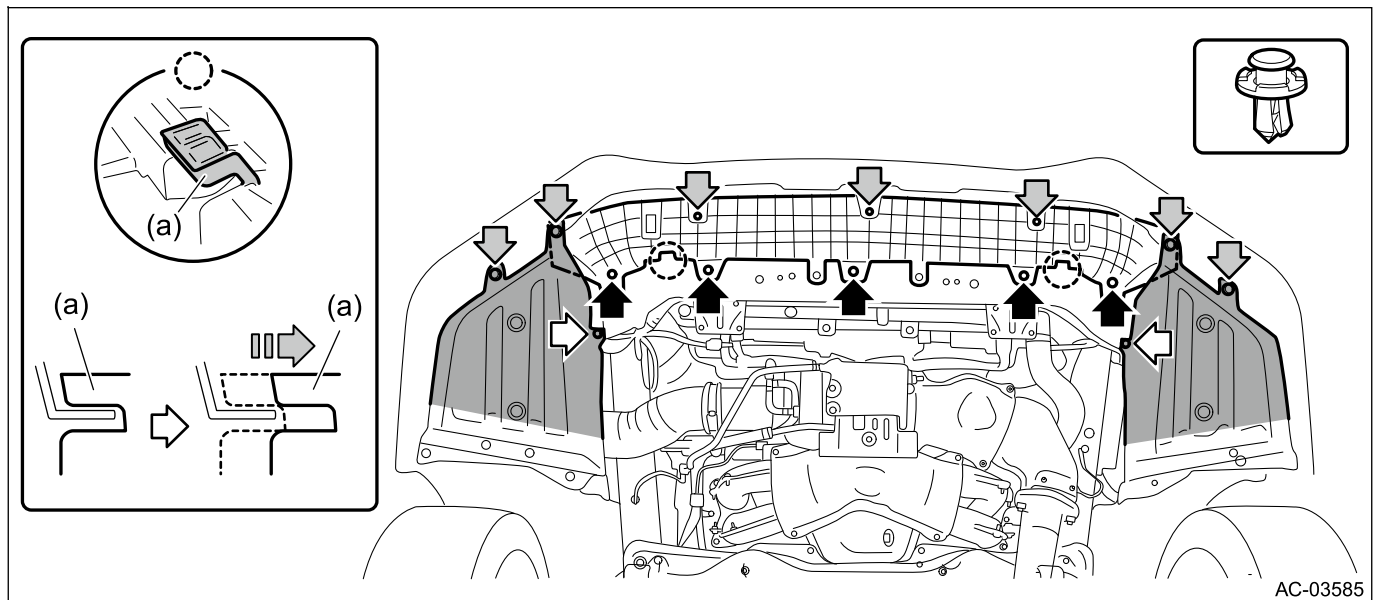
7. Remove the bracket center lower - front.

(1) Remove the screw and clips, and turn over the mud guard - front.

(2) Remove the bolts and clips, and remove the bracket center lower - front.

Note:

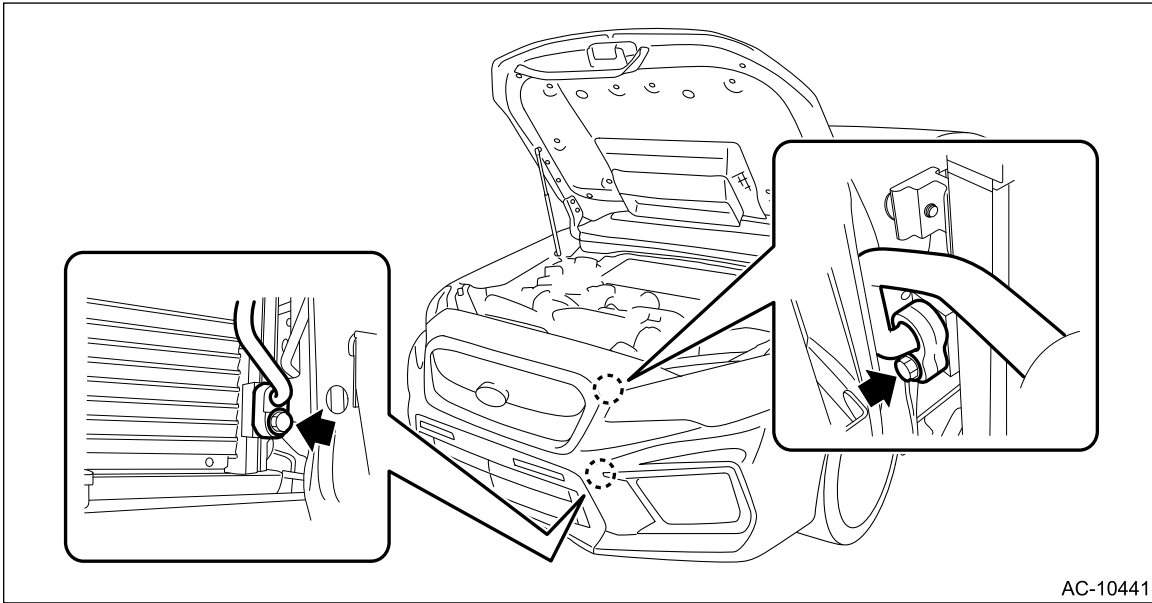
While entirely pushing the bracket center lower - front forward, remove the two hooks (a) on the left and right.



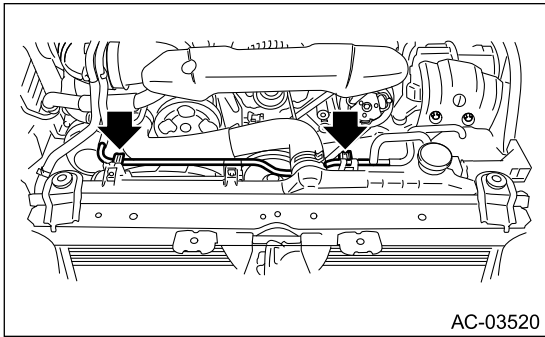
8. Remove the bolt, and detach the hose - pressure discharge and the pipe - evaporator cooling.

Caution:

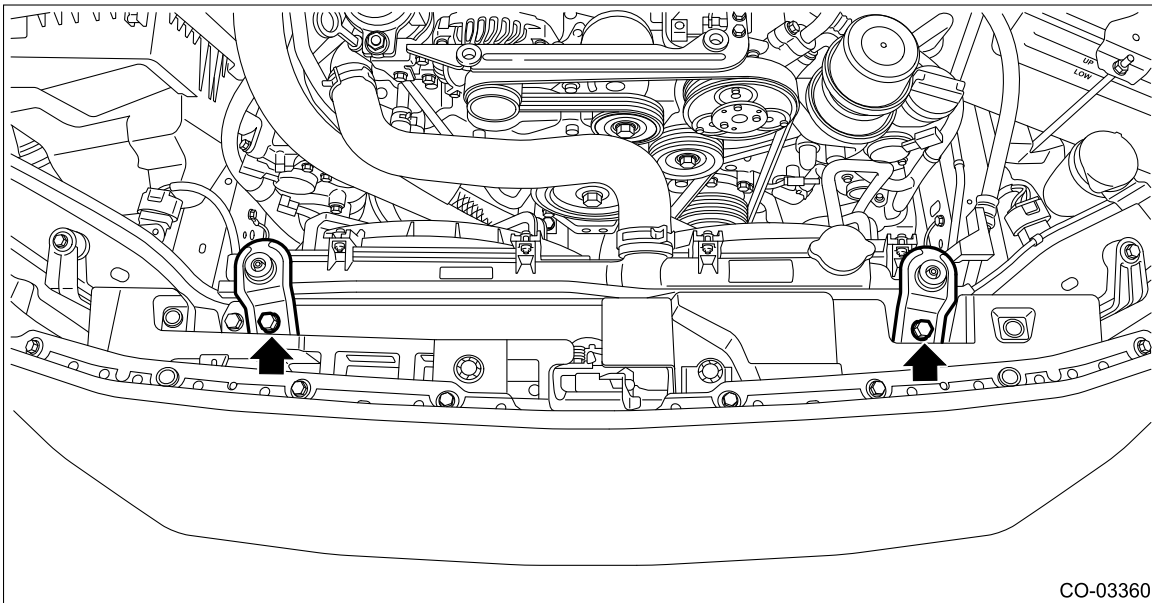
Seal the disconnected hose, pipe and engaging part of condenser assembly with a plug or vinyl tape to prevent foreign matter from entering.



9. Remove the bolts of the over flow pipe. (STI model)



10. Remove the bolts and remove the radiator upper bracket.



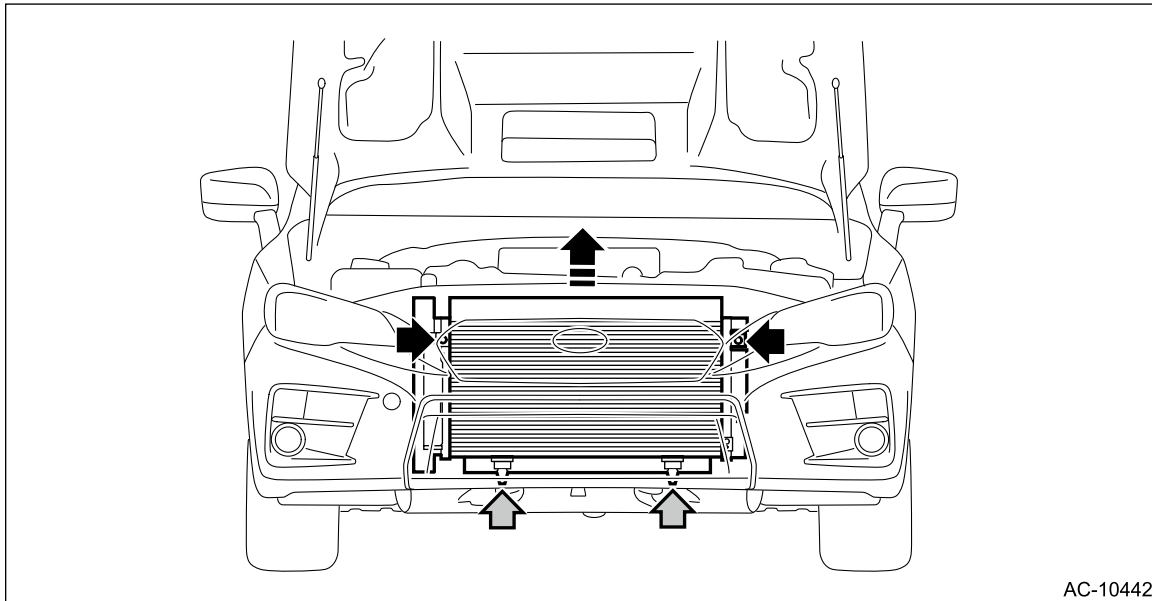
11. Remove the condenser assembly - air conditioner.

(1) Remove the bolt.

(2) Remove the lower guide, and remove the condenser assembly - air conditioner.

Caution:


- Push the radiator to the engine side, and pull it out through the space between the radiator and the radiator panel.
- Be careful not to damage the condenser and radiator fin. If a damaged fin is found, repair it using a thin screwdriver.

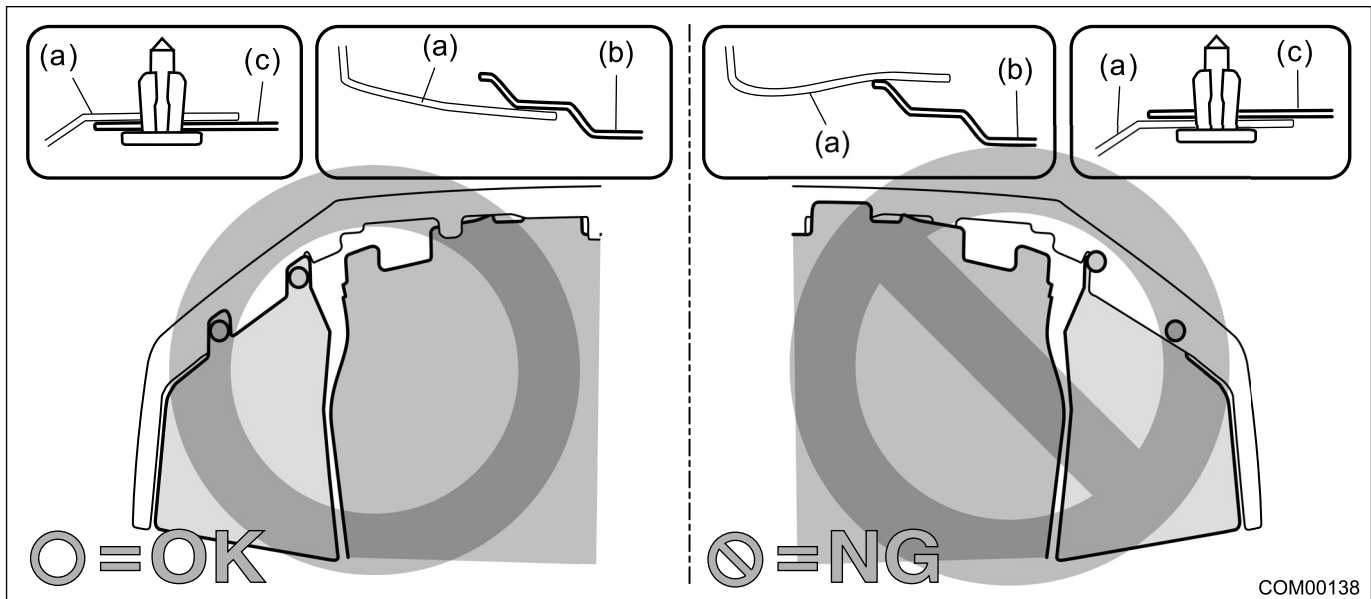


HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Condenser


INSTALLATION

Caution:

- If the condenser assembly - air conditioner has been replaced, add an appropriate amount of compressor oil.  Ref. to HVAC SYSTEM (HEATER, VENTILATOR AND A/C)>Compressor Oil>ADJUSTMENT.
- Replace the O-rings with new parts, and then apply compressor oil.
- Confirm that the lower guide of condenser assembly - air conditioner fits into the holes on radiator panel.
- Install so that the front end of the under cover (b) comes inside the bumper face - front (a), and the front end of the mud guard (c) comes outside the bumper face - front (a).



1. Install the condenser assembly - air conditioner.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the radiator upper brackets.
Tightening torque:
12 N·m (1.2 kgf-m, 8.9 ft-lb)
3. Install the over flow pipe. (STI model)
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the hose - pressure discharge and the pipe - evaporator cooling.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
5. Install the bracket center lower - front.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
6. Install the under cover - front.
Tightening torque:
18 N·m (1.8 kgf-m, 13.3 ft-lb)
7. Lower the vehicle.
8. Install the reservoir tank.
9. Install the air intake duct.

10. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

11. Charge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Condenser


INSPECTION


- 1.** Check to see that the condenser fins are not clogged with debris or insects. Blow with compressed air or flush fins with water as needed.
- 2.** If any oil leak is found, replace the condenser assembly - air conditioner.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater and Cooling Unit

REMOVAL






Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the battery ground cable and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
3. Drain engine coolant.
 - Except for STI model:  [Ref. to COOLING\(w/o STI\)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.](#)
 - STI model:  [Ref. to COOLING\(STI\)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.](#)
4. Remove the intercooler.
 - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>REMOVAL.](#)
 - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>REMOVAL.](#)
5. Detach the clips and bolts, and detach the hose - pressure suction and the pipe - evaporator cooling.

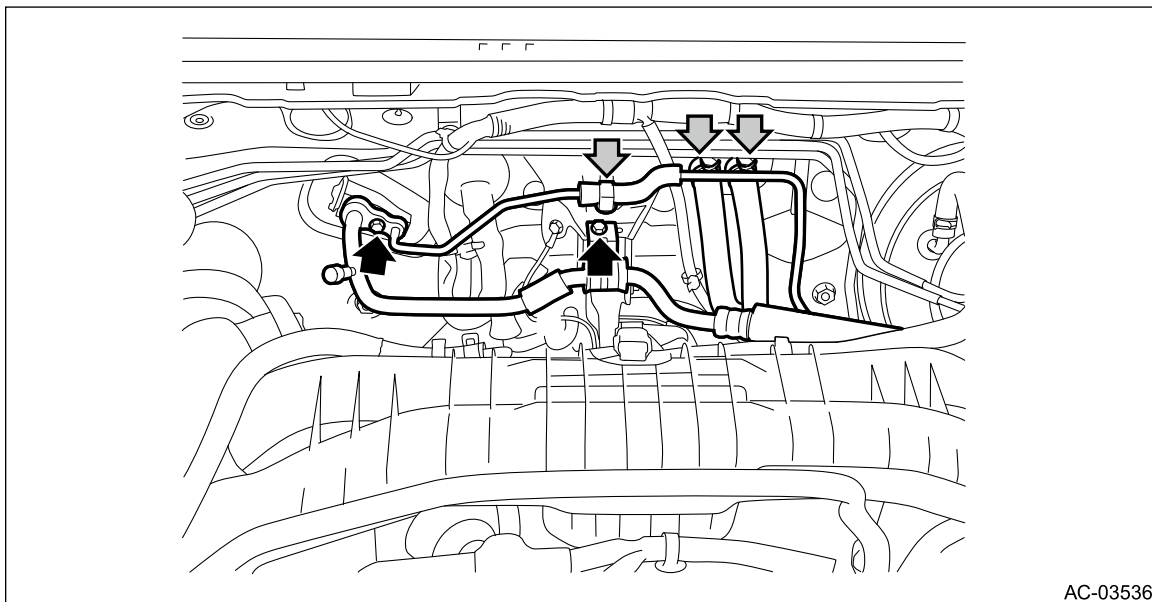
Caution:

Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.



6. Loosen the heater hose clamps and detach the hoses.

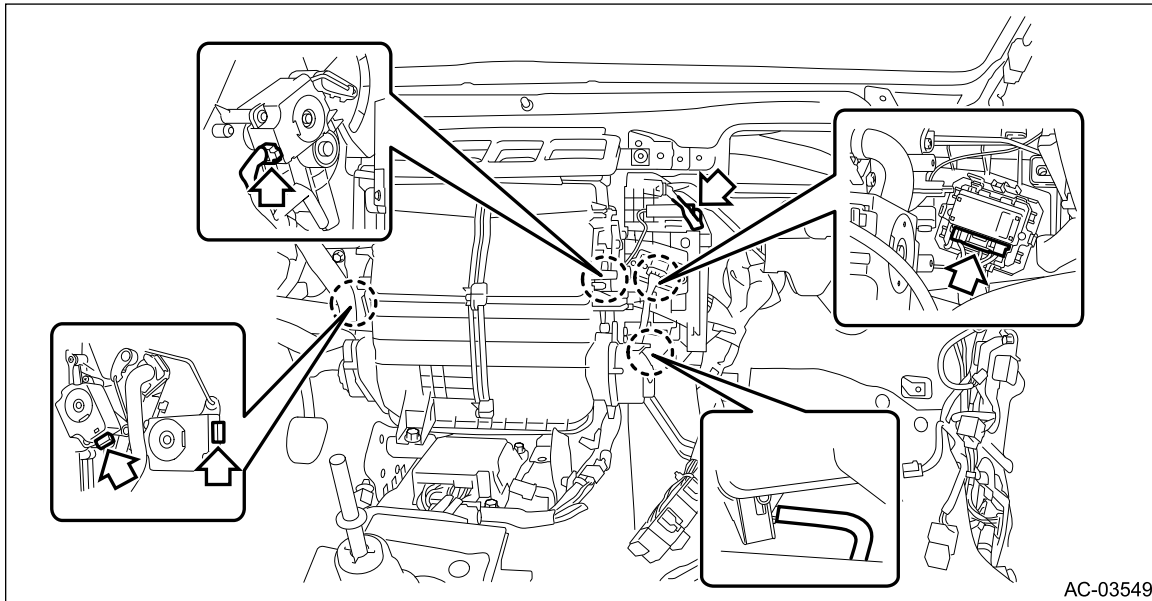
Note:

Put alignment marks to hoses, clamps, etc.

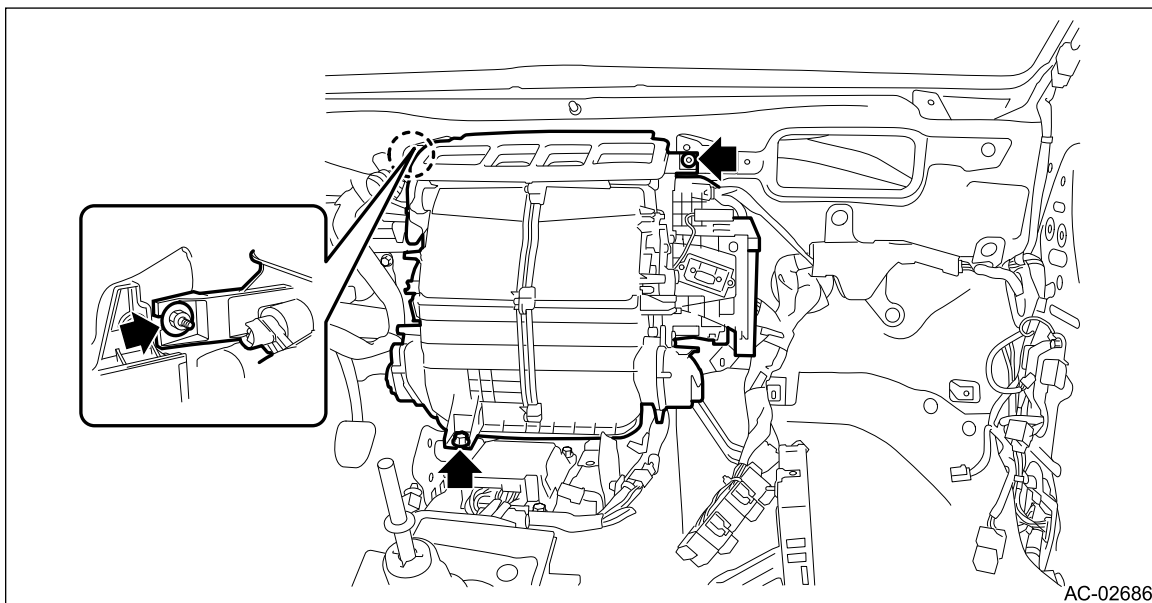


7. Remove the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.](#)

8. Remove the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>REMOVAL.](#)
9. Remove the blower motor unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Blower Motor Unit Assembly>REMOVAL.](#)
10. Remove the heater and cooling unit assembly.
 - (1) Disconnect each connector and the hose - drain.




- (2) Remove the bolt and nuts, and remove the heater & cooling unit assembly.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater and Cooling Unit INSTALLATION

Caution:

- **Replace O-rings with new parts and install securely.**
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the heater and cooling unit assembly.


Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the blower motor unit assembly.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

3. Install the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>INSTALLATION.](#)

4. Install the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.](#)



5. Attach the heater hose.

6. Install the hose - pressure suction and the pipe - evaporator cooling.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

7. Install the intercooler.

- Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>INSTALLATION.](#)
- STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>INSTALLATION.](#)

8. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

9. Fill engine coolant.


- Except for STI model:  [Ref. to COOLING\(w/o STI\)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.](#)
- STI model:  [Ref. to COOLING\(STI\)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.](#)









10. Charge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

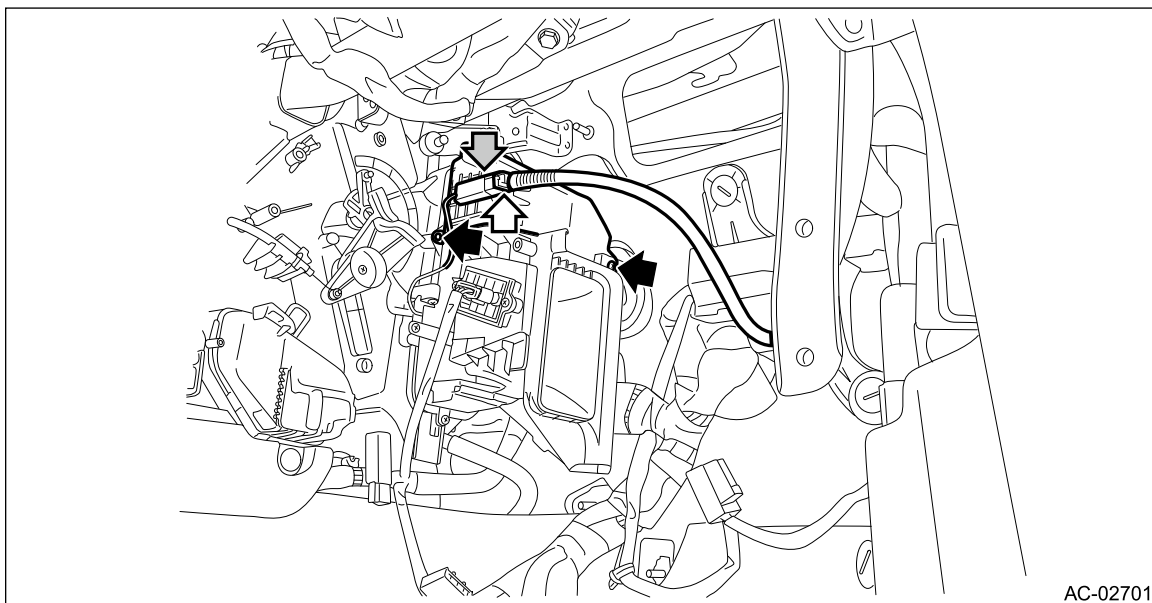
HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Evaporator

REMOVAL

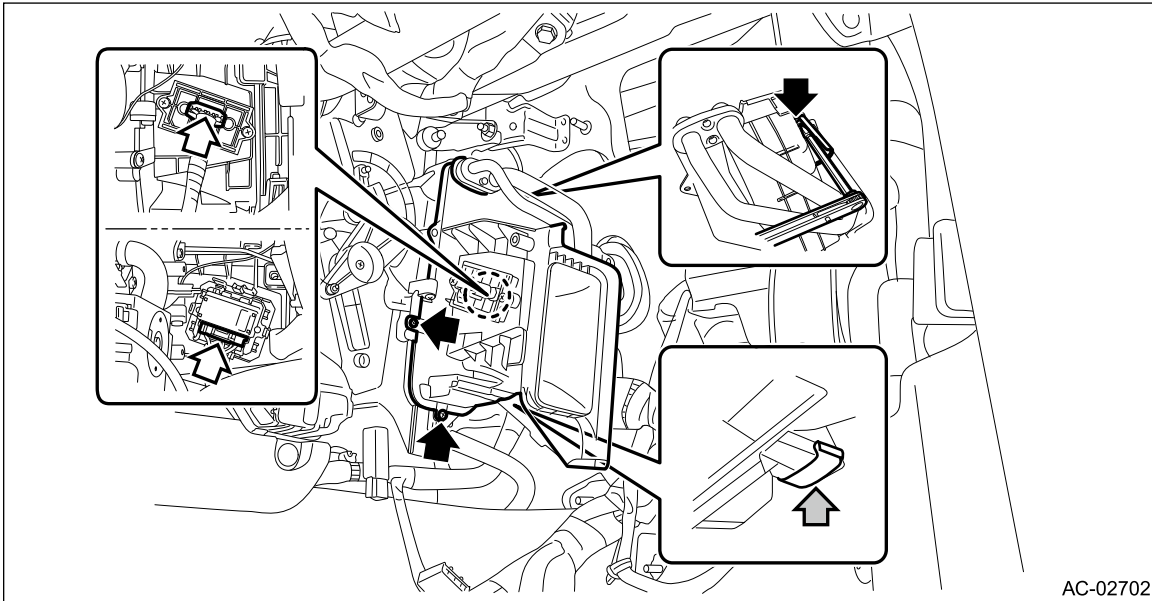
Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. 
[Ref. to NOTE>NOTE > BATTERY.](#)
- Note:**
For model with battery sensor, disconnect the ground terminal from battery sensor.
2. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
 3. Remove the intercooler.
 - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>REMOVAL.](#)
 - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>REMOVAL.](#)
 4. Remove the expansion valve - cooling.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Expansion Valve>REMOVAL.](#)
 5. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
 6. Remove the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>REMOVAL.](#)
 7. Remove the blower motor unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Blower Motor Unit Assembly>REMOVAL.](#)
 8. Remove the evaporator assembly - cooling.
 - (1) Disconnect the connector and lock of the thermostat - cooling.
 - (2) Remove the screws and detach the cover.



- (3) Remove the cover - heater unit.
 1. Disconnect the power transistor connector.
 2. Remove the screws and clips to remove the cover - heater unit.



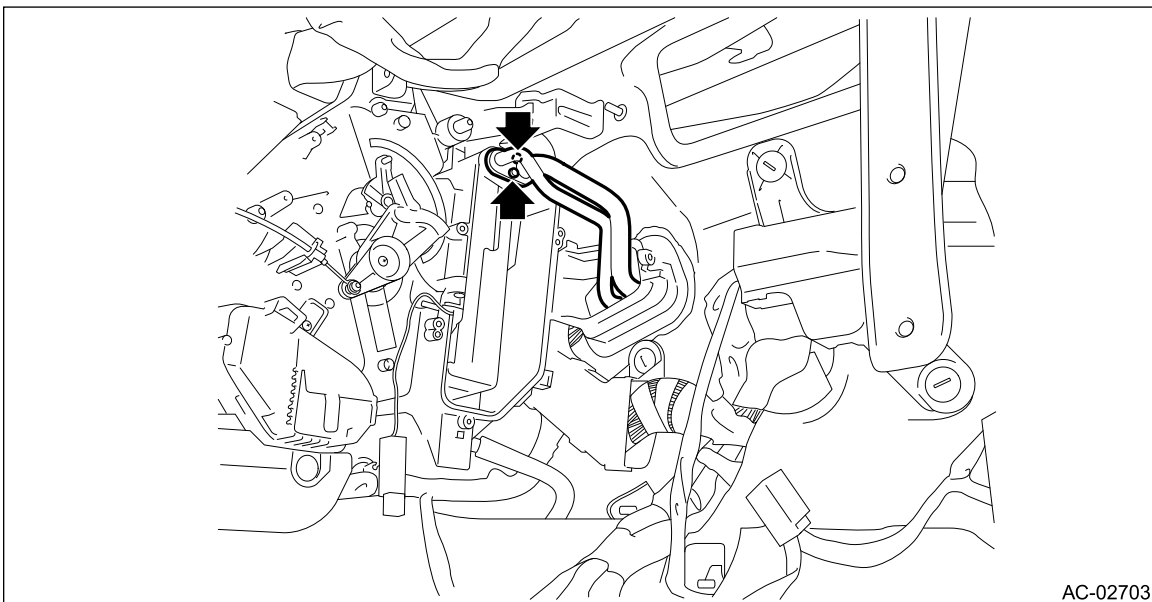
(4) Remove the bolt, and detach the pipe - evaporator core.

Caution:

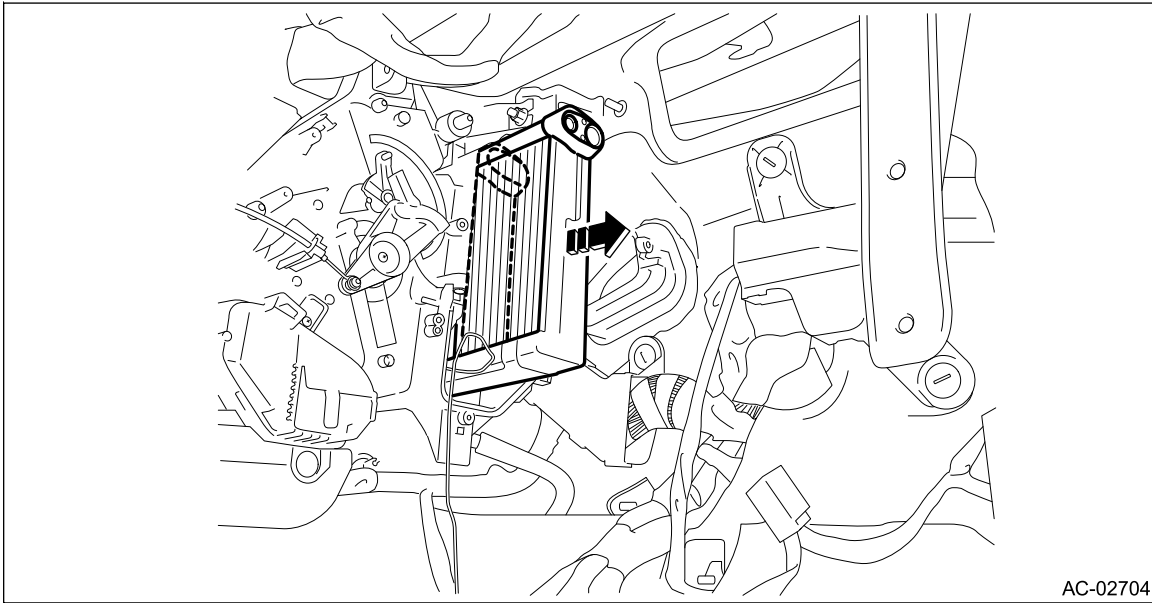
Seal the disconnected pipe and engaging part of evaporator assembly with a plug or vinyl tape to prevent foreign matter from entering.

Preparation tool:

Hexagon wrench: 4 mm (0.16 in)

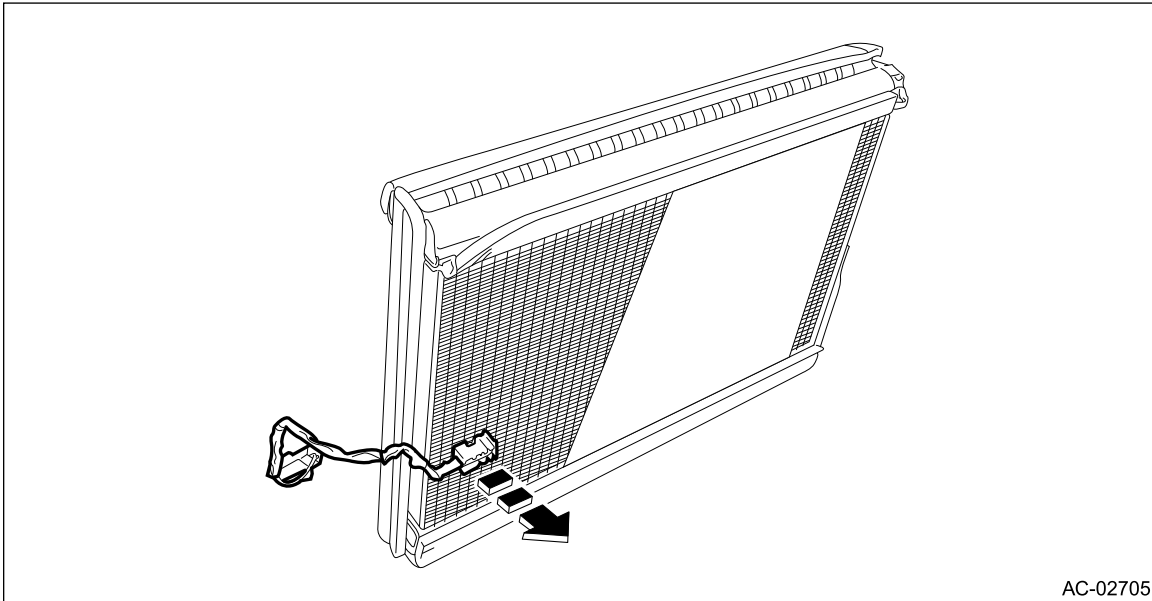


(5) Remove the evaporator assembly - cooling.



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(6) Remove the thermostat - cooling.












AC-02705

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Evaporator

INSTALLATION

Caution:

- If the evaporator assembly - cooling has been replaced, add an appropriate amount of compressor oil.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>ADJUSTMENT.](#)
- When the evaporator assembly - cooling has been replaced, replace the packing of the expansion valve - cooling with a new one, and then apply compressor oil.
- Make sure that the water seal packing on the cover attachment area is securely attached.
- Replace the O-rings with new parts, and then apply compressor oil.
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the thermostat - cooling.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Evaporator Sensor>INSTALLATION.](#)
2. Install the evaporator assembly - cooling.
3. Install the blower motor unit assembly.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>INSTALLATION.](#)
5. Install the glove box.
6. Install the expansion valve.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Expansion Valve>INSTALLATION.](#)
7. Install the intercooler.
 - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>INSTALLATION.](#)
 - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>INSTALLATION.](#)
8. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
9. Charge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Evaporator

INSPECTION

1. Check the evaporator fin for dust. Blow with compressed air or flush fins with water as needed.
2. If any oil leak is found, replace the evaporator assembly - cooling.




HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Expansion Valve

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

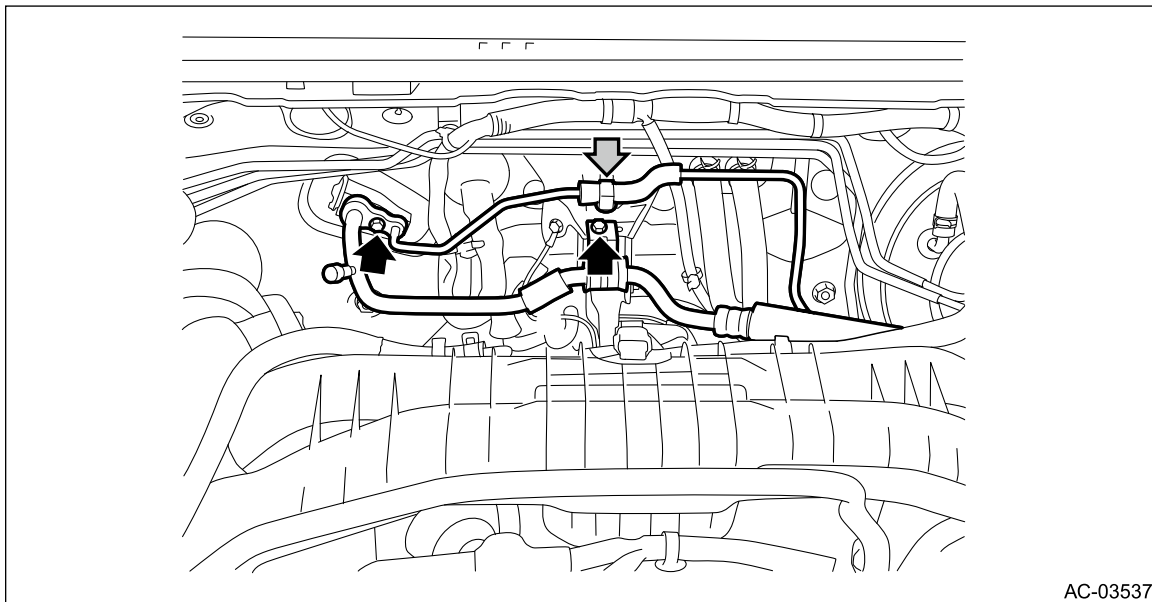
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
3. Remove the intercooler.
 - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>REMOVAL.](#)
 - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>REMOVAL.](#)
4. Detach the clips and bolts, and detach the hose - pressure suction and the pipe - evaporator cooling.

Caution:

Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.



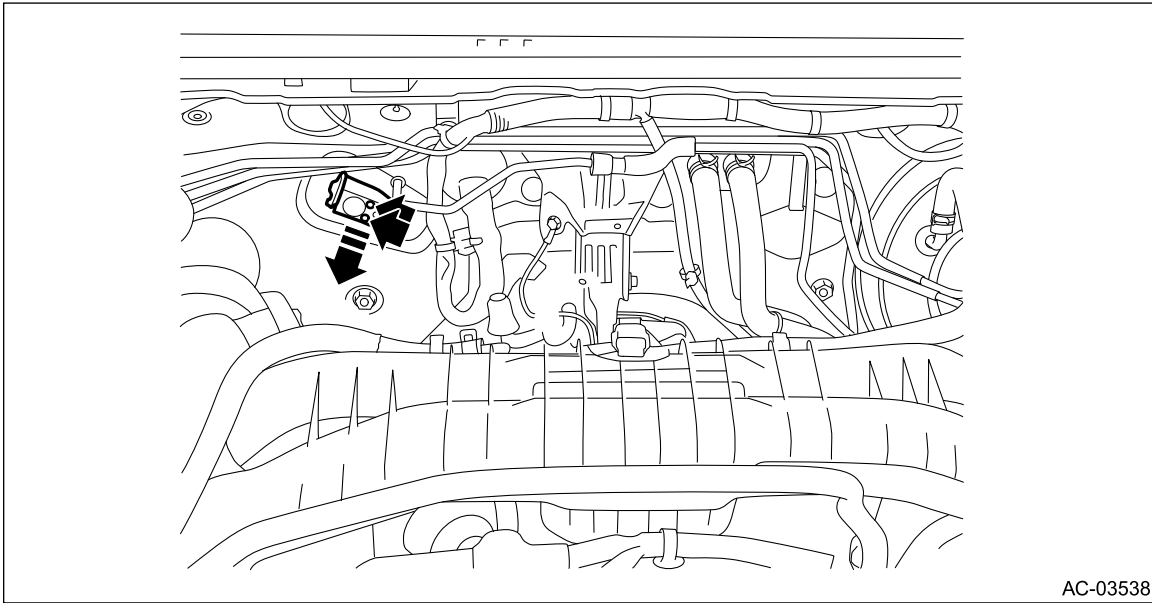
5. Remove the bolt, and remove the expansion valve - cooling.

Caution:

Seal the pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.

Preparation tool:

Hexagon wrench: 4 mm (0.16 in)



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Expansion Valve INSTALLATION

Caution:




Replace the O-rings with new parts, and then apply compressor oil.

1. Install the expansion valve.
Tightening torque:
5 N·m (0.5 kgf-m, 3.7 ft-lb)
2. Install the hose - pressure suction and the pipe - evaporator cooling.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the intercooler.
 - Except for STI model: [🔗 Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>INSTALLATION.](#)
 - STI model: [🔗 Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>INSTALLATION.](#)
4. Connect the battery ground terminal. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)
5. Charge refrigerant. [🔗 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Hose and Pipe

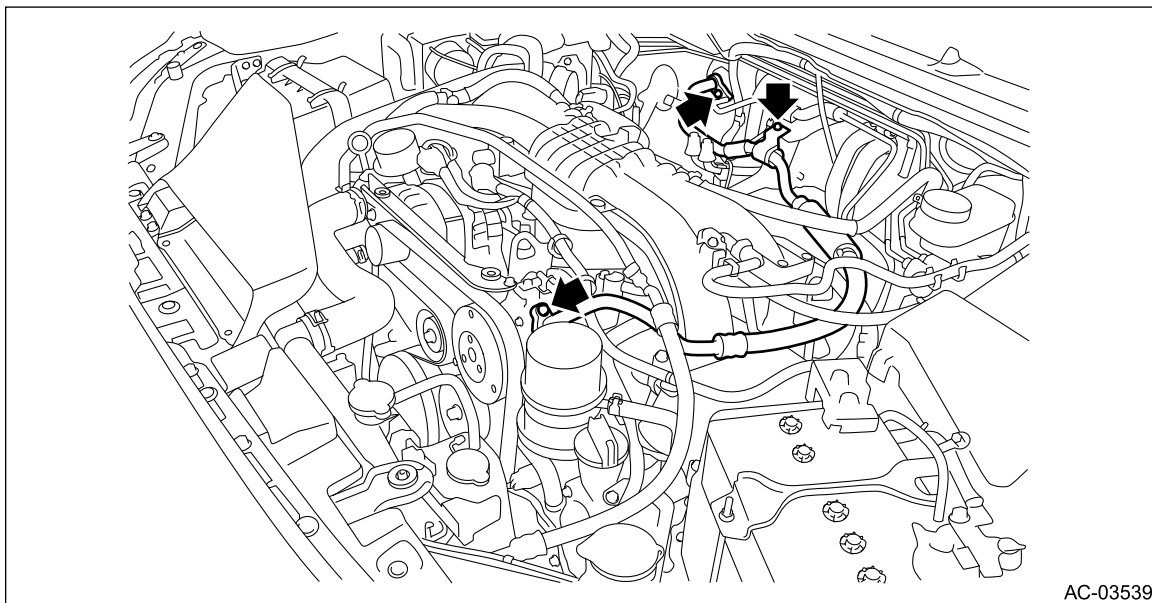
REMOVAL

1. LOW-PRESSURE HOSE





1. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
2. Remove the intercooler.
 - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>REMOVAL.](#)
 - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>REMOVAL.](#)
3. Remove the bolts and detach the hose - pressure discharge on the compressor side. (STI model)
4. Remove the bolts and remove the hose - pressure suction.

Caution:

- Do not apply excessive force to the hose.
- Seal the disconnected hose, compressor and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.
- When disconnecting the hose for the model with oil cooler, be careful not to allow the hose to interfere with the oil cooler.



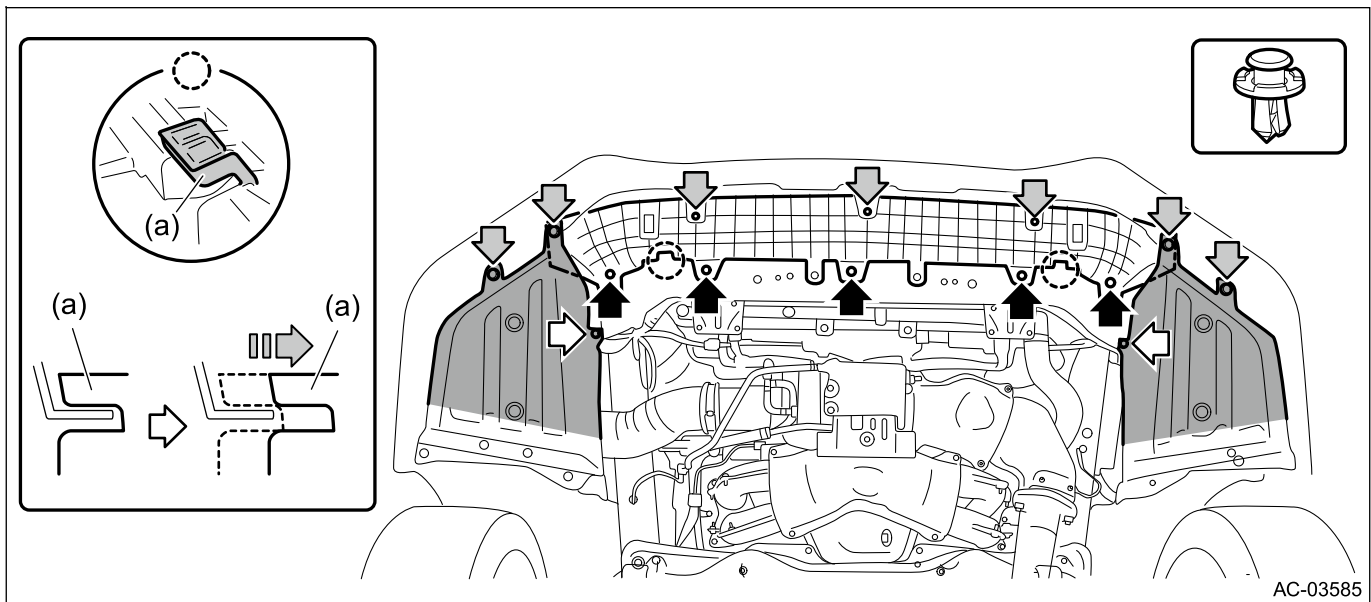
2. HIGH-PRESSURE HOSE

1. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
2. Remove the reservoir tank.
 - Except for STI model:  [Ref. to COOLING\(w/o STI\)>Reservoir Tank>REMOVAL.](#)
 - STI model:  [Ref. to COOLING\(STI\)>Reservoir Tank>REMOVAL.](#)
3. Lift up the vehicle.
4. Remove the under cover - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>REMOVAL.](#)
5. Remove the bracket center lower - front.
 - (1) Remove the screw and clips, and turn over the mud guard - front.

(2) Remove the bolts and clips, and remove the bracket center lower - front.

Note:

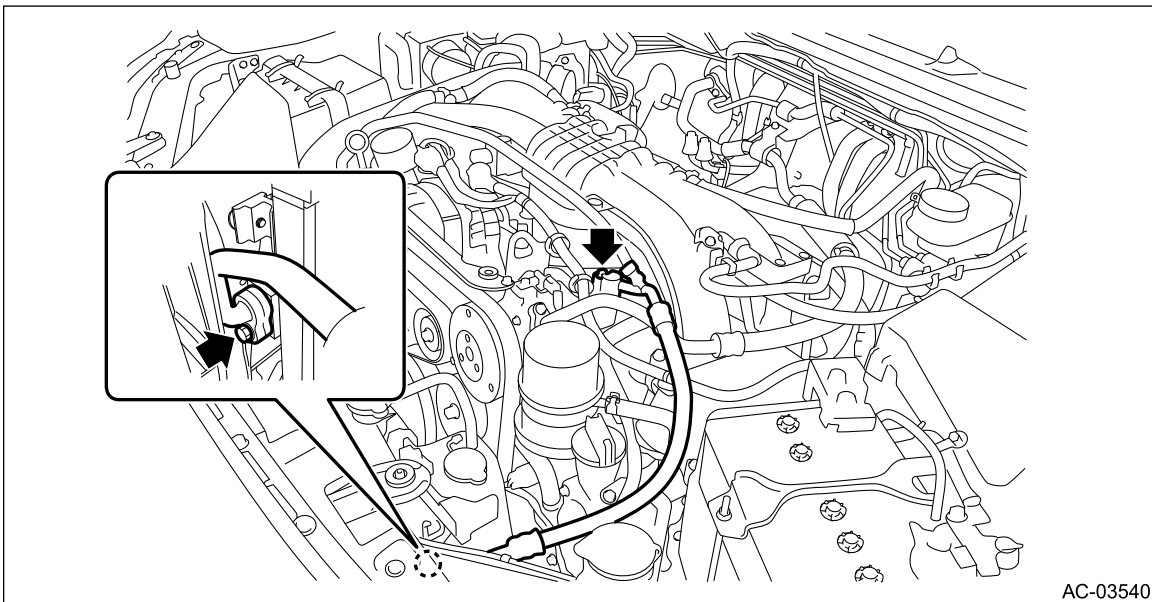
While entirely pushing the bracket center lower - front forward, remove the two hooks (a) on the left and right.




6. Remove the bolts, and remove the hose - pressure discharge.









Caution:

- Do not apply excessive force to the hose.
- Seal the disconnected hose, compressor and engaging part of compressor with a plug or vinyl tape to prevent foreign matter from entering.



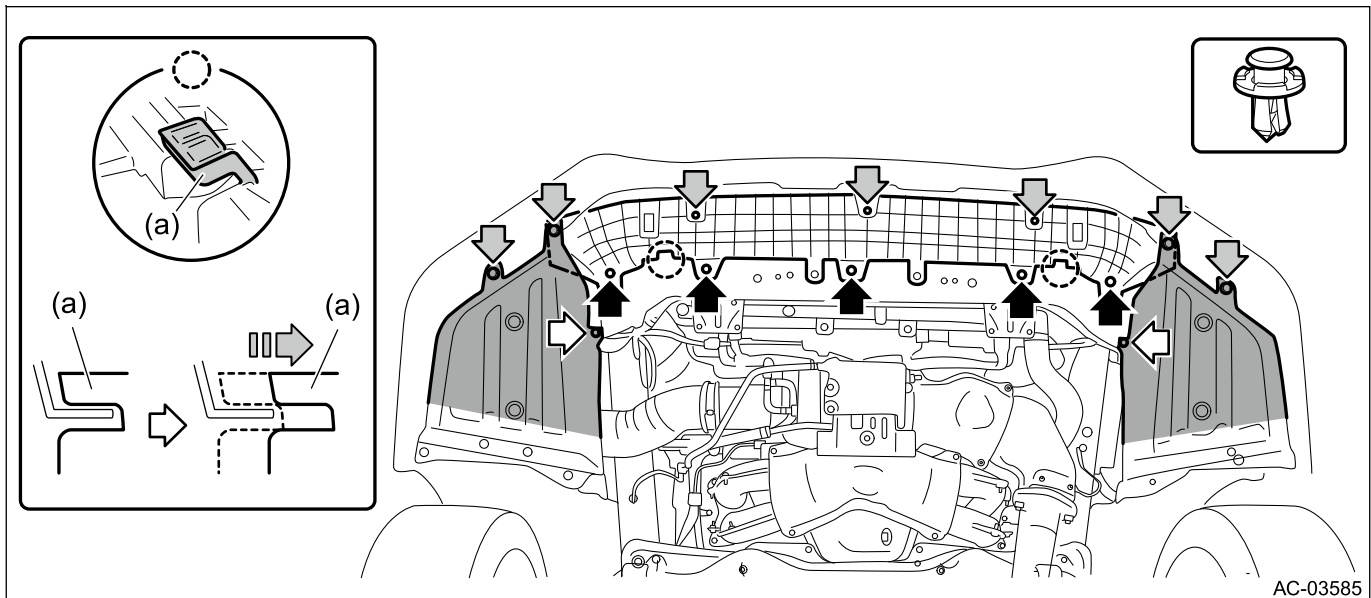
3. A/C PIPE

1. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
2. Remove the battery.

- Except for STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(w/o STI\)>Battery>REMOVAL.](#)
 - STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Battery>REMOVAL.](#)
3. Remove the intercooler.
 - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>REMOVAL.](#)
 - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>REMOVAL.](#)
 4. Remove the secondary air pump. (STI model)  [Ref. to EMISSION CONTROL \(AUX. EMISSION CONTROL DEVICES\)\(STI\)>Secondary Air Pump>REMOVAL.](#)
 5. Remove the reservoir tank.
 - Except for STI model:  [Ref. to COOLING\(w/o STI\)>Reservoir Tank>REMOVAL.](#)
 - STI model:  [Ref. to COOLING\(STI\)>Reservoir Tank>REMOVAL.](#)
 6. Lift up the vehicle.
 7. Remove the under cover - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>REMOVAL.](#)
 8. Remove the bracket center lower - front.
 - (1) Remove the screw and clips, and turn over the mud guard - front.
 - (2) Remove the bolts and clips, and remove the bracket center lower - front.

Note:

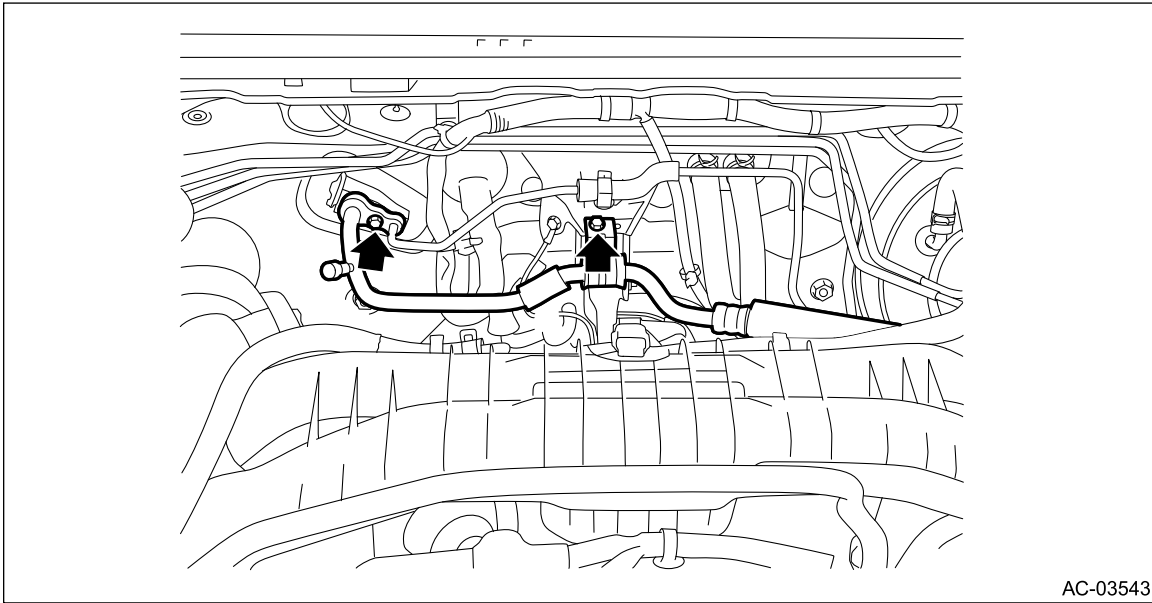
While entirely pushing the bracket center lower - front forward, remove the two hooks (a) on the left and right.



9. Remove the bolts and detach the hose - pressure suction.

Caution:

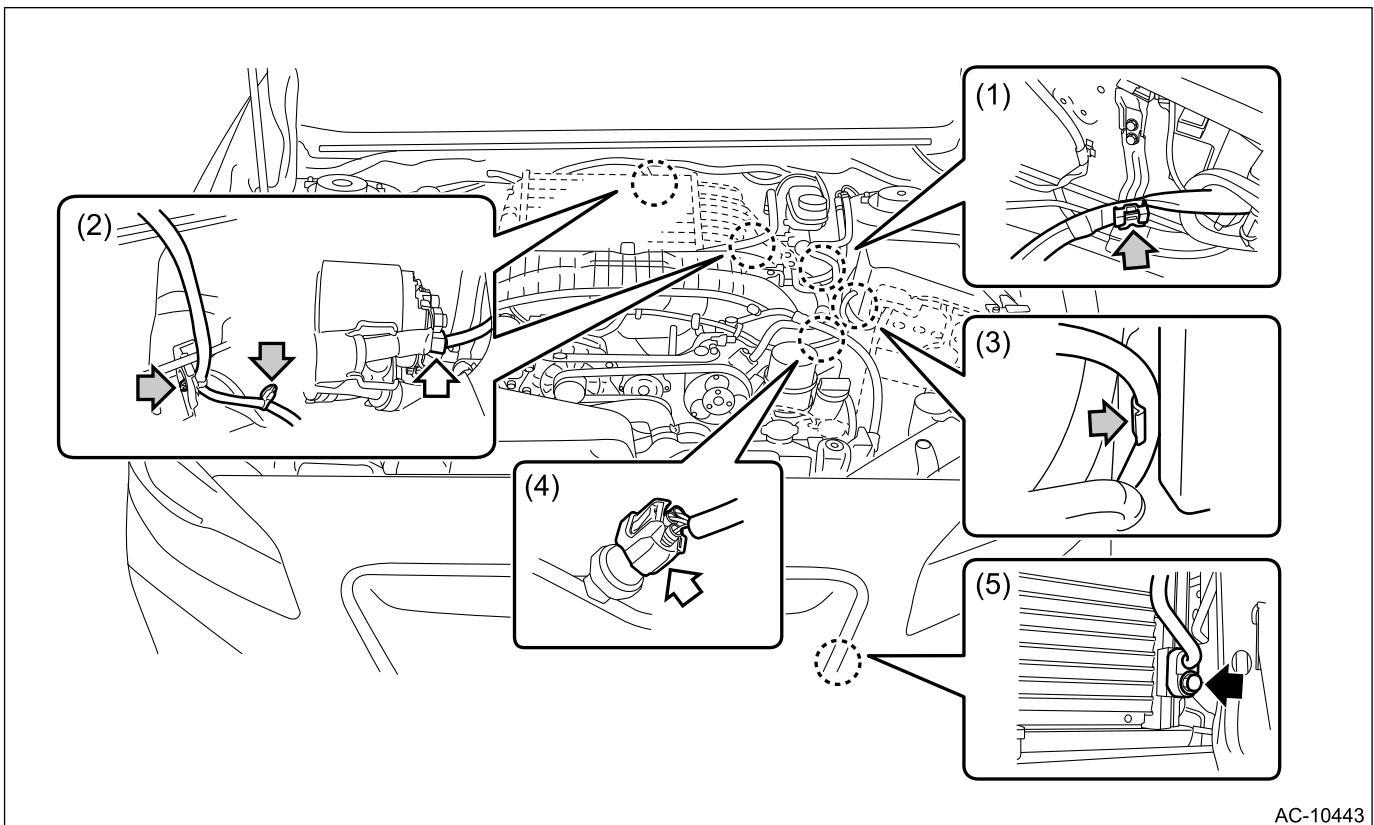
Seal the disconnected hose and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.



AC-03543

10. Remove the pipe - evaporator cooling.

- (1) Release the lock and remove the cable clamp.
- (2) Release the harness clip, and disconnect the starter connector.
- (3) Disconnect the battery sensor harness from the main fuse box. (Except for STI model)
- (4) Disconnect the pressure switch connector.
- (5) Remove the bolt, and detach the pipe - evaporator cooling.

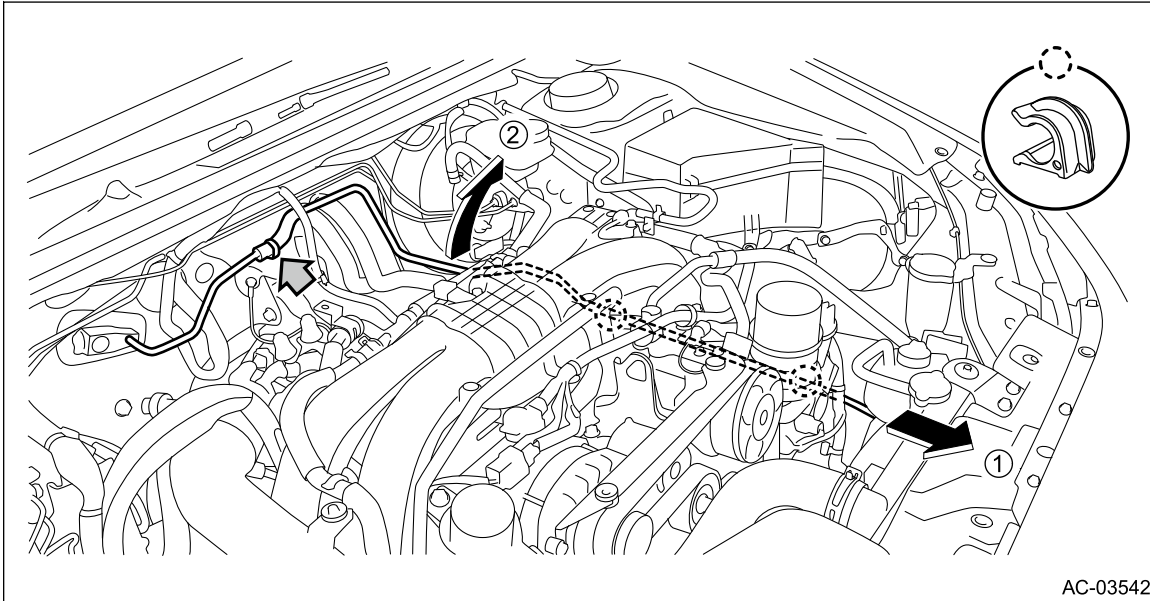


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- (6) Remove the clip - pipe and the clip, and remove the pipe - evaporator cooling in numerical order as shown in the figure.

Caution:


- Do not apply excessive force to the pipe.
- Seal the disconnected pipe, expansion valve and engaging part of condenser with a plug or vinyl tape to prevent foreign matter from entering.
- Do not pull the harness and cable forcibly.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Hose and Pipe INSTALLATION


1. LOW-PRESSURE HOSE

Caution:

- If the hose has been replaced, add an appropriate amount of compressor oil to the compressor.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>ADJUSTMENT.](#)
- Replace the O-rings with new parts, and then apply compressor oil.
- When connecting hoses, do not apply an excessive force to them. After installing, check that no torsion or excessive tension applied to the hoses.

1. Install the hose - pressure suction.

Tightening torque:



Air conditioning unit:  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>General Description>COMPONENT > AIR CONDITIONING UNIT.](#)


2. Install the hose - pressure suction discharge. (STI model)

Tightening torque:

10 N·m (1 kgf·m, 7.4 ft·lb)

3. Install the intercooler.

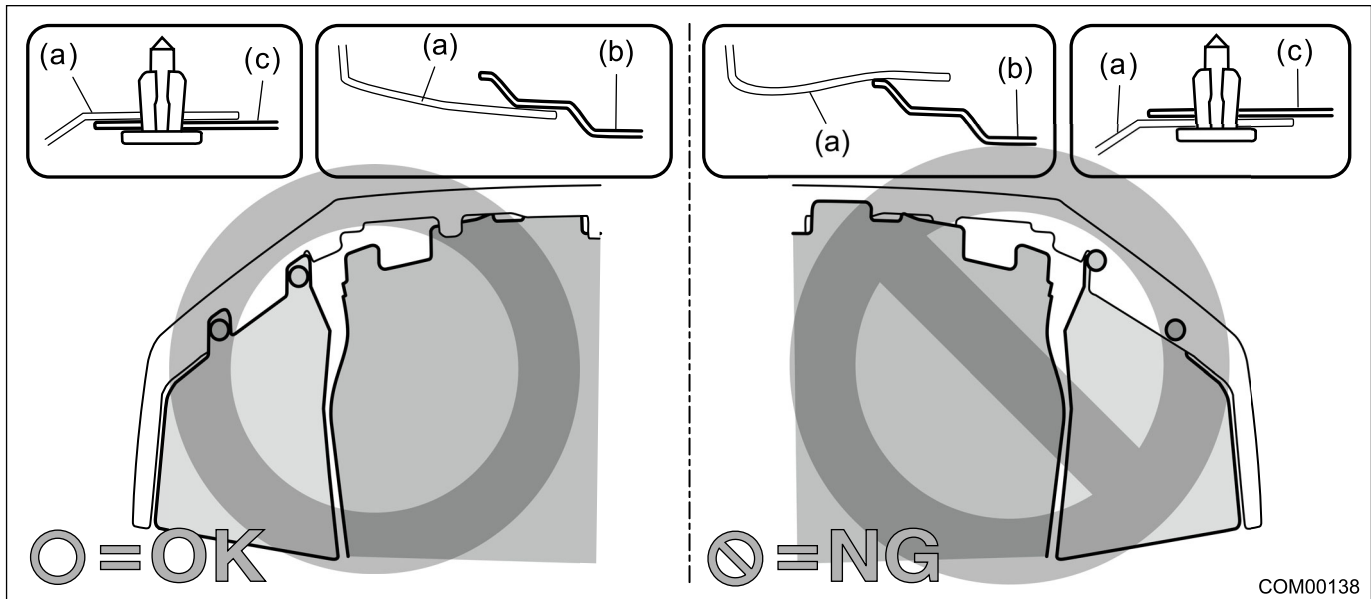
- Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>INSTALLATION.](#)
- STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>INSTALLATION.](#)

4. Charge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

2. HIGH-PRESSURE HOSE

Caution:

- If the hose has been replaced, add an appropriate amount of compressor oil to the compressor. [🔧 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>ADJUSTMENT.](#)
- Replace the O-rings with new parts, and then apply compressor oil.
- When connecting hoses, do not apply an excessive force to them. After installing, check that no torsion or excessive tension applied to the hoses.
- Install so that the front end of the under cover (b) comes inside the bumper face - front (a), and the front end of the mud guard (c) comes outside the bumper face - front (a).



1. Install the hose - pressure suction discharge.

Tightening torque:

Air conditioning unit: [🔧 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>General Description>COMPONENT > AIR CONDITIONING UNIT.](#)

2. Install the bracket center lower - front.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

3. Install the under cover - front.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

4. Lower the vehicle.


5. Install the reservoir tank.

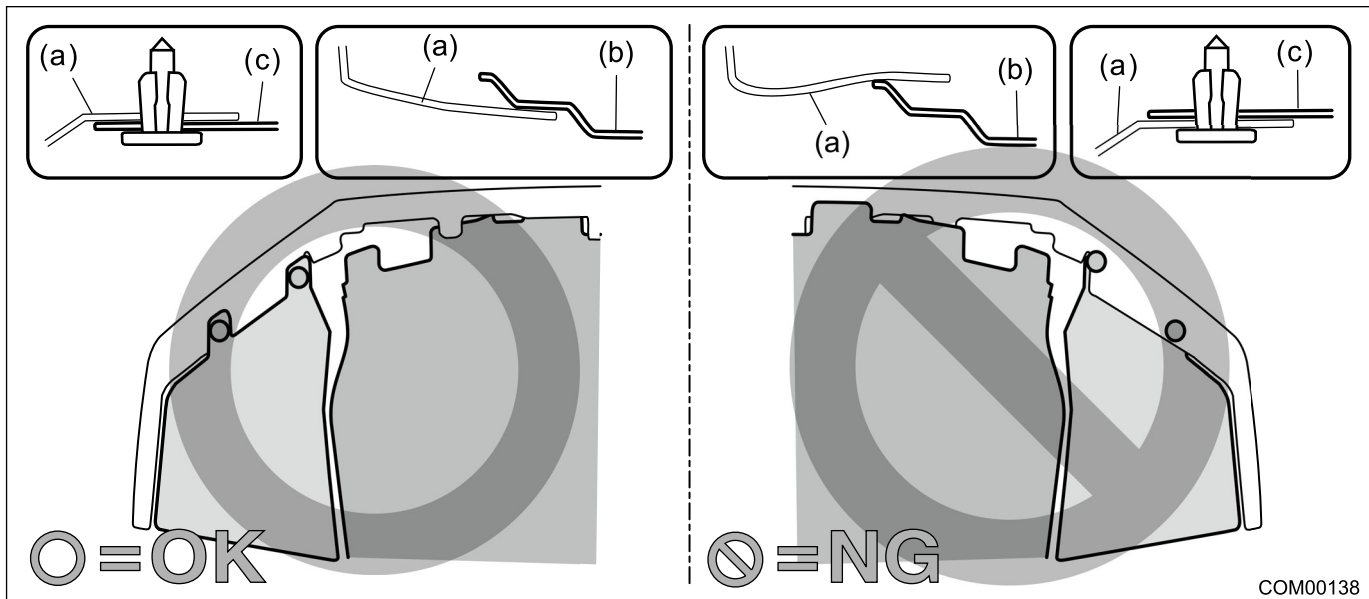
- Except for STI model: [🔧 Ref. to COOLING\(w/o STI\)>Reservoir Tank>INSTALLATION.](#)
- STI model: [🔧 Ref. to COOLING\(STI\)>Reservoir Tank>INSTALLATION.](#)






6. Charge refrigerant. [🔧 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

3. A/C PIPE

Caution:

- If the hose and pipe have been replaced, add an appropriate amount of compressor oil to the compressor.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Compressor Oil>ADJUSTMENT.](#)
- Replace the O-rings with new parts, and then apply compressor oil.
- When connecting hoses and pipes, do not apply excessive force. After installing, check that no torsion or excessive tension applied to the hoses.
- Install so that the front end of the under cover (b) comes inside the bumper face - front (a), and the front end of the mud guard (c) comes outside the bumper face - front (a).



1. Install the pipe - evaporator cooling.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the hose - pressure suction.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the bracket center lower - front.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the under cover - front.
Tightening torque:
18 N·m (1.8 kgf-m, 13.3 ft-lb)
5. Lower the vehicle.
6. Install the reservoir tank.
 - Except for STI model:  [Ref. to COOLING\(w/o STI\)>Reservoir Tank>INSTALLATION.](#)
 - STI model:  [Ref. to COOLING\(STI\)>Reservoir Tank>INSTALLATION.](#)
7. Install the secondary air pump. (STI model)  [Ref. to EMISSION CONTROL \(AUX. EMISSION CONTROL DEVICES\)\(STI\)>Secondary Air Pump>INSTALLATION.](#)
8. Install the intercooler.
 - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Intercooler>INSTALLATION.](#)
 - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Intercooler>INSTALLATION.](#)

9. Install the battery.

- Except for STI model: [Ref. to STARTING/CHARGING SYSTEMS\(w/o STI\)>Battery>INSTALLATION.](#)
- STI model: [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Battery>INSTALLATION.](#)

10. Charge refrigerant. [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Hose and Pipe

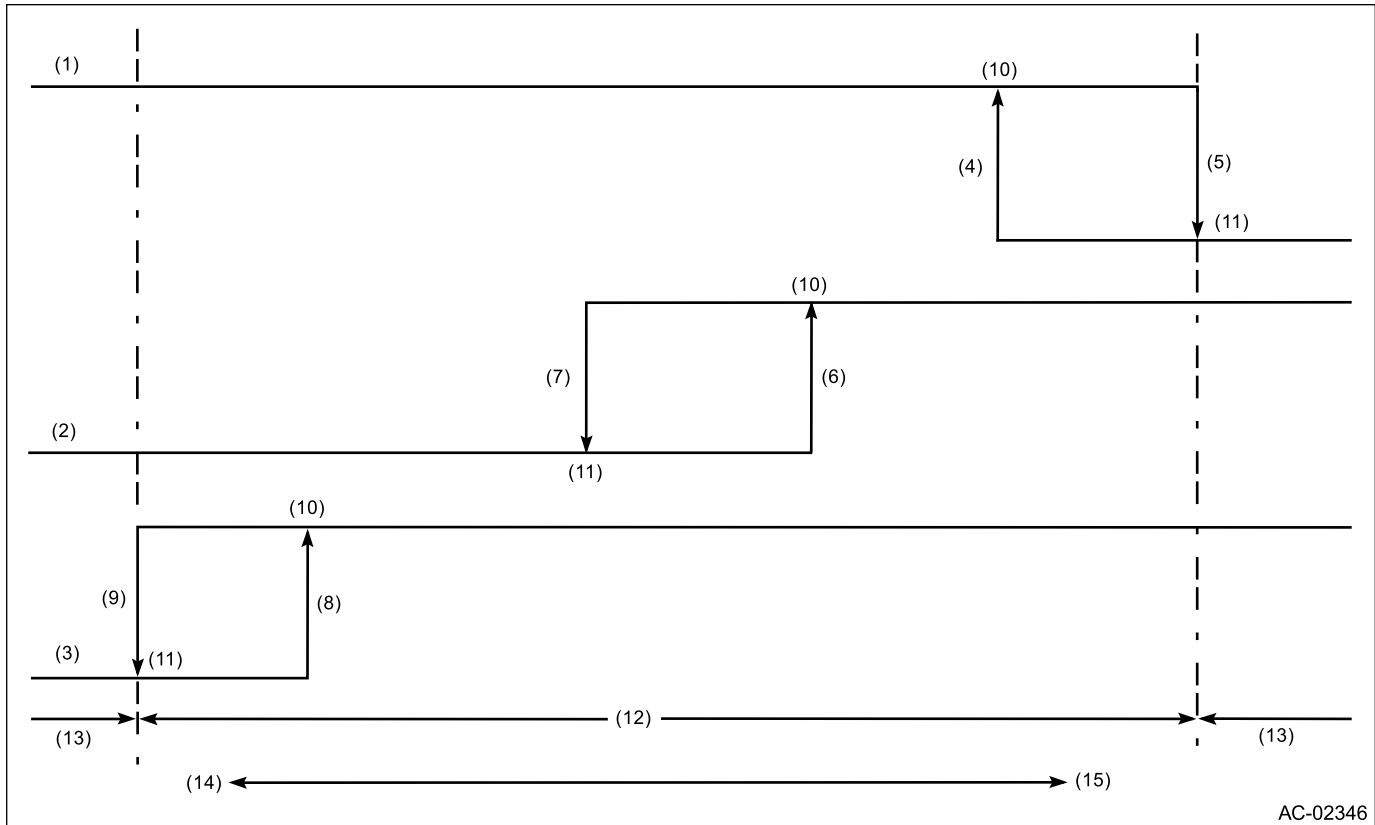
INSPECTION

- 1.** Check the hoses for cracks, damage and expansion. Replace the hose if faulty.
- 2.** Check the pipes for crack or damage. Replace the pipe if faulty.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Pressure Switch (Triple Pressure Switch)

INSPECTION

1. Connect the manifold gauge to the service valve on the high-pressure side.
2. Disconnect the connector.
3. Start the air conditioner, and check the operating pressure of switch by turning the compressor assembly (magnet clutch) to ON/OFF. Operation of each switch is as follows.



AC-02346

(1) High pressure switch	(6) $1,770 \pm 100$ kPa (18.05 ± 1.02 kg/cm ² , 256.65 ± 14.5 psi)	(11) OFF
(2) Middle pressure switch	(7) $1,470 \pm 120$ kPa (14.99 ± 1.22 kg/cm ² , 213.15 ± 17.4 psi)	(12) Operative range of compressor ASSY
(3) Low pressure switch	(8) 225 ± 30 kPa (2.29 ± 0.31 kg/cm ² , 32.6 ± 4.3 psi)	(13) Inoperative range of compressor ASSY
(4) $2,350 \pm 200$ kPa (24 ± 2.04 kg/cm ² , 340.7 ± 29 psi)	(9) 196 ± 25 kPa (2 ± 0.25 kg/cm ² , 28.4 ± 3.6 psi)	(14) Low pressure
(5) 2940 ± 200 kPa (29.98 ± 2.04 kg/cm ² , 426.3 ± 29 psi)	(10) ON	(15) High pressure

Note:

- **High pressure switch turns the compressor assembly (magnet clutch) to OFF when the refrigerant pressure becomes extremely high to prevent the evaporator, air conditioner piping and expansion valve from getting damaged or frozen, etc.**
- **The middle pressure switch is used to effectively control the radiator fan output by judging high load/low load in normal pressure range.**
- **The low pressure switch detects a refrigerant shortage and deactivates the compressor assembly (magnet clutch) if the refrigerant pressure is abnormally low. (Because any further compressor assembly operation in such a state may lead to compressor seizure)**


HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Ambient Sensor

REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

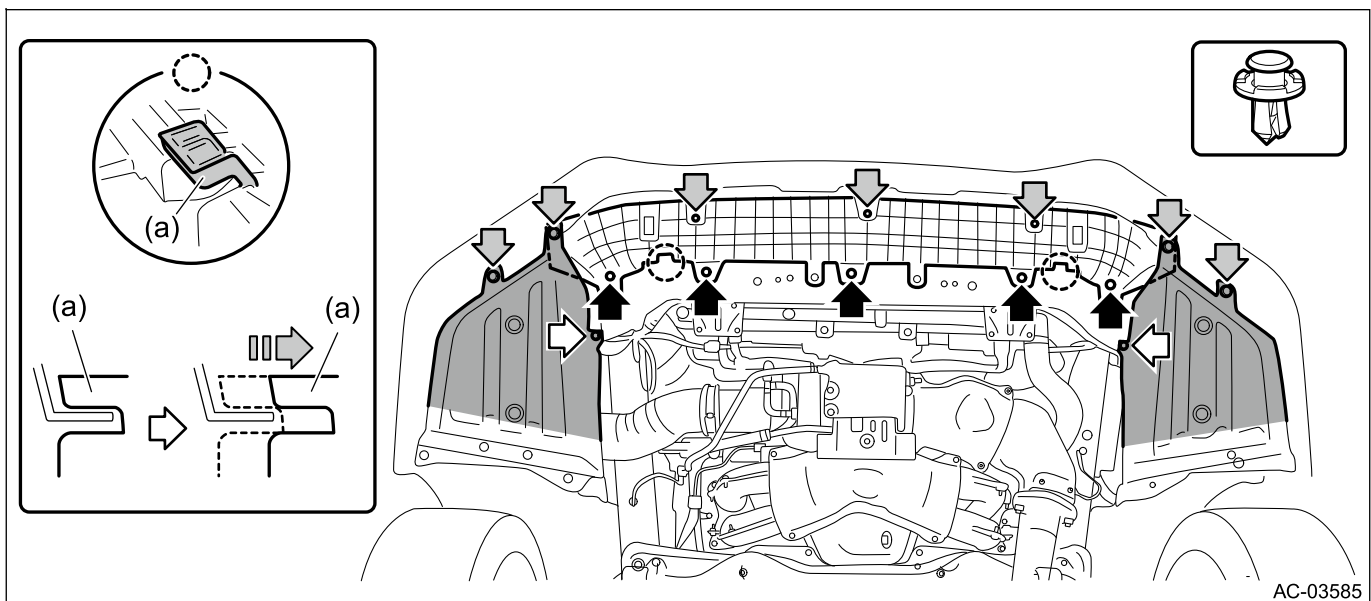
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

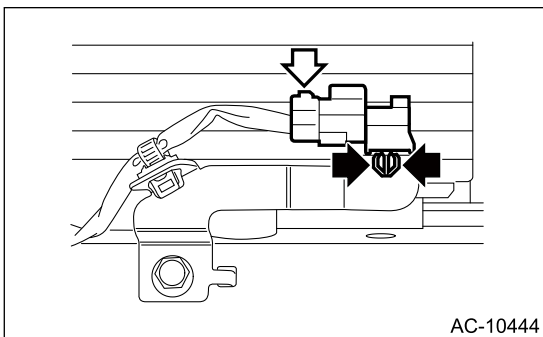
2. Lift up the vehicle.
3. Remove the under cover - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>REMOVAL.](#)
4. Remove the bracket center lower - front.
 - (1) Remove the screw and clips, and turn over the mud guard - front.
 - (2) Remove the bolts and clips, and remove the bracket center lower - front.

Note:

While entirely pushing the bracket center lower - front forward, remove the two hooks (a) on the left and right.



5. Remove the ambient sensor.
 - (1) Disconnect the connector.
 - (2) Release the claws and remove the ambient sensor.

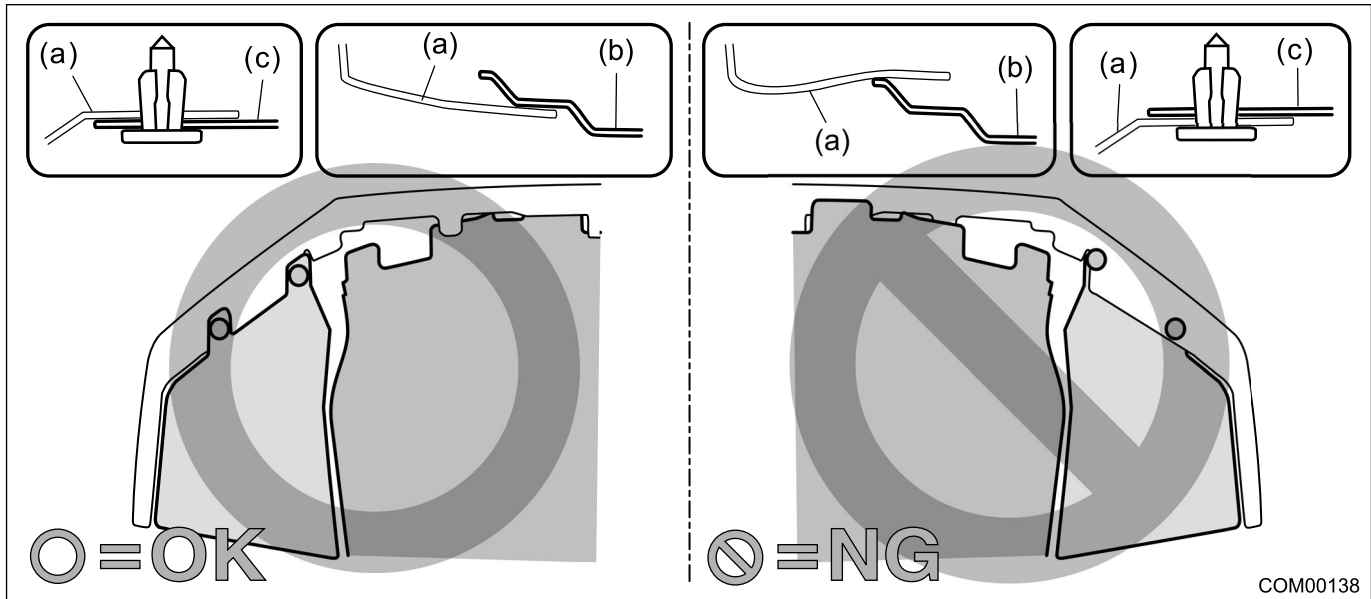



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Ambient Sensor

INSTALLATION

Caution:

Install so that the front end of the under cover (b) comes inside the bumper face - front (a), and the front end of the mud guard (c) comes outside the bumper face - front (a).



1. Install the ambient sensor.
2. Install the bracket center lower - front.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the under cover - front.
Tightening torque:
18 N·m (1.8 kgf-m, 13.3 ft-lb)
4. Lower the vehicle.
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Ambient Sensor

INSPECTION

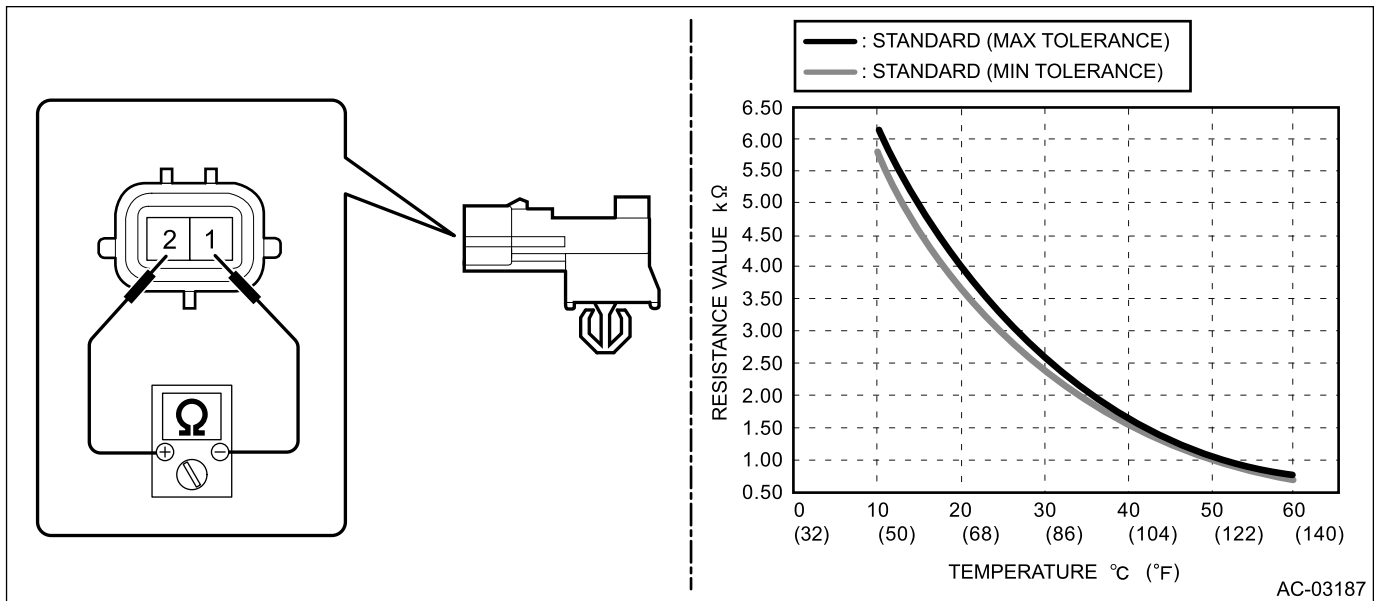
1. Visually check the ambient sensor for dirt or damage, and clean or replace as necessary.
2. Measure the resistance between connector terminals.

Caution:

During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.

Preparation tool:

Circuit tester




Terminal No.	Inspection conditions	Standard
1 – 2	10°C	5.82 – 6.18 kΩ
	15°C	4.58 – 4.87 kΩ
	20°C	3.64 – 3.86 kΩ
	25°C	2.91 – 3.09 kΩ
	30°C	2.35 – 2.49 kΩ
	35°C	1.9 – 2.02 kΩ
	40°C	1.56 – 1.65 kΩ
	45°C	1.28 – 1.36 kΩ
	50°C	1.06 – 1.12 kΩ
	55°C	0.88 – 0.93 kΩ
	60°C	0.74 – 0.78 kΩ

3. Replace the ambient sensor if the inspection result is not within the standard value.


HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Sunload Sensor (Auto A/C Model)

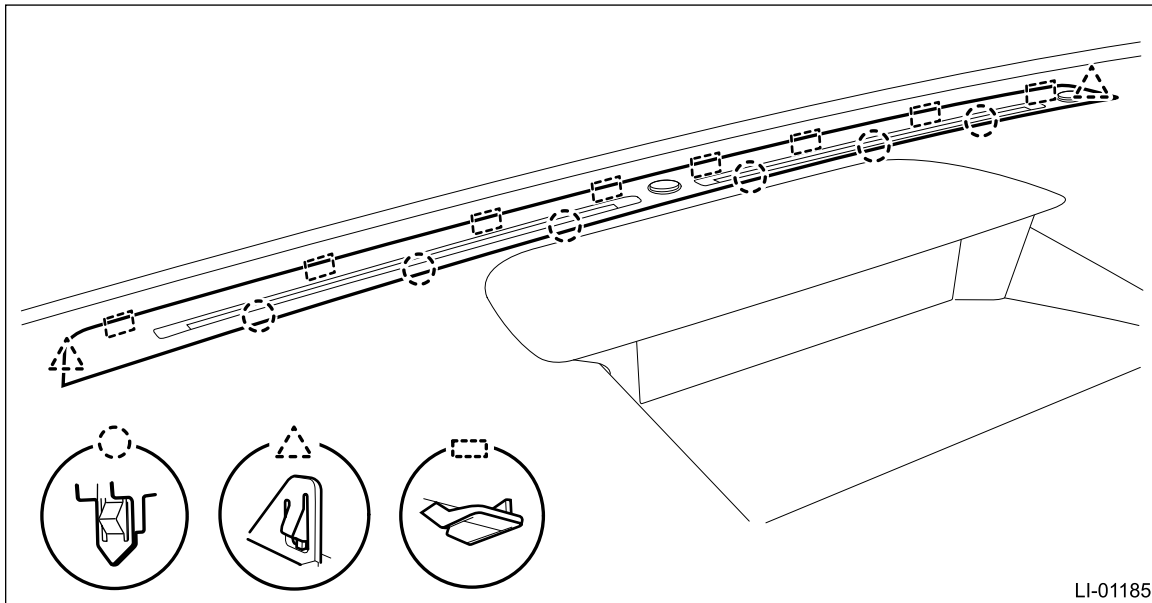
REMOVAL

1. Disconnect the ground terminal from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

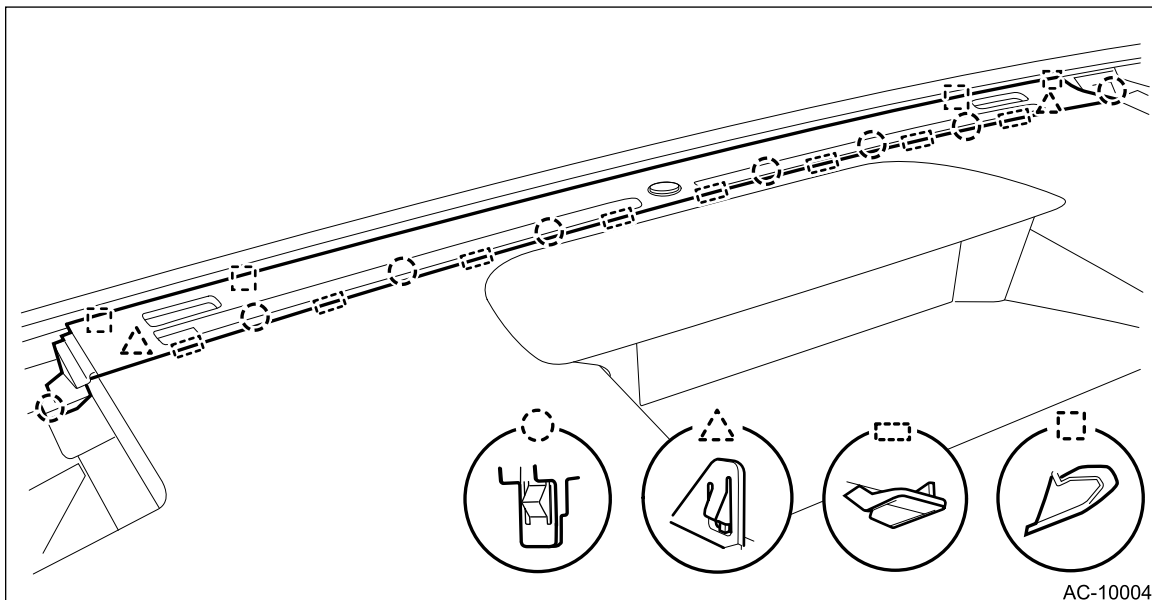
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

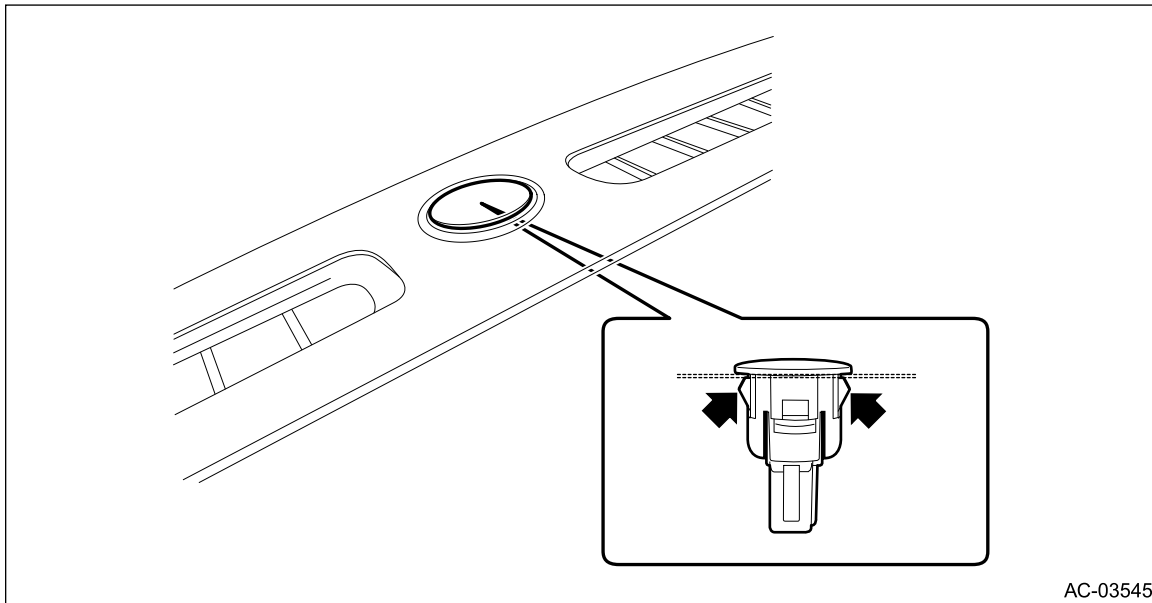
2. Remove the grille speaker side. (Model with EyeSight assist monitor)  [Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > TWEETER.](#)
3. Remove the grille - front defroster.
 - (1) Release the claws.
 - (2) Disconnect the connector and remove the grille - front defroster.
 - Model without EyeSight assist monitor



- Model with EyeSight assist monitor




4. Release the claws and remove the sunload sensor.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Sunload Sensor (Auto A/C Model)

INSTALLATION

1. Install the sunload sensor.
2. Install the grille - front defroster.
3. Install the grille speaker side. (Model with EyeSight assist monitor)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Sunload Sensor (Auto A/C Model)

INSPECTION

1. Check if there is anything that affects sensing, around the sunload sensor.
 - (1) Is the sunload sensor free from any object that disturbs sensing?
 - (2) Is the windshield glass free from any object such as sticker or film that disturbs sensing?
 - **yes** → Go to step 2).
 - **no** → Remove everything that affects sensing.
2. Using the Subaru Select Monitor, check quantity of sunload.

Note:

For detailed operation procedures, refer to "Application help".

- (1) On «Start» display, select «Diagnosis».
- (2) On «Vehicle selection» display, enter vehicle information and select «Confirmed».
- (3) On «Main Menu» display, select «Each System».
- (4) On «Select System» display, select «Air Conditioner» and select «Enter».
- (5) On «Select Function» display, select «Data Monitor».
- (6) From the data monitor item list, select «Quantity of Sunload».
- (7) Cover the sunload sensor with cloth.
- (8) Does the «Quantity of Sunload» indicate 0 W/m² when the direct sunlight is shielded?
 - **yes** → Go to step 3).
 - **No** Replace the sunload sensor.

3. From step 2), expose the sunload sensor to light.

(1) Place intense light such as incandescent light at 300 mm (11.81 in) or less from the sunload sensor.

(2) Does «Quantity of Sunload» indicate 2,000 W/m² or less?


Caution:

The value changes depending on the angle of light.

- **yes** → The sunload sensor is normal.
- **no** → Replace the sunload sensor.


HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > In-Vehicle Sensor (Auto A/C Model)

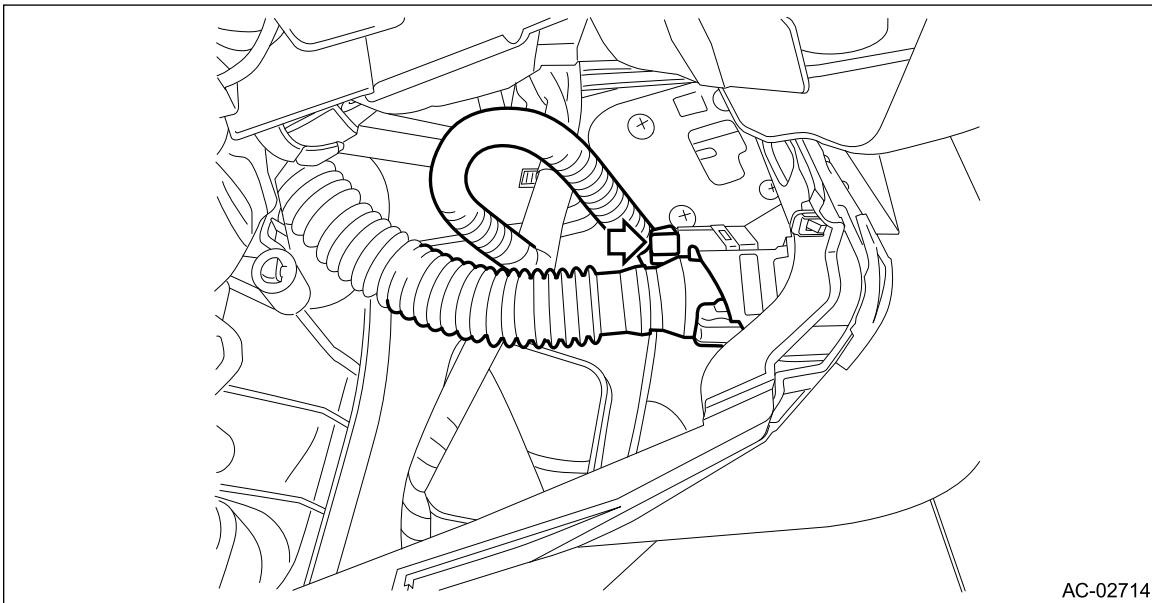
REMOVAL

1. Disconnect the battery ground terminal and wait for at least 60 seconds before starting work. 
[Ref. to NOTE>NOTE > BATTERY.](#)

Note:

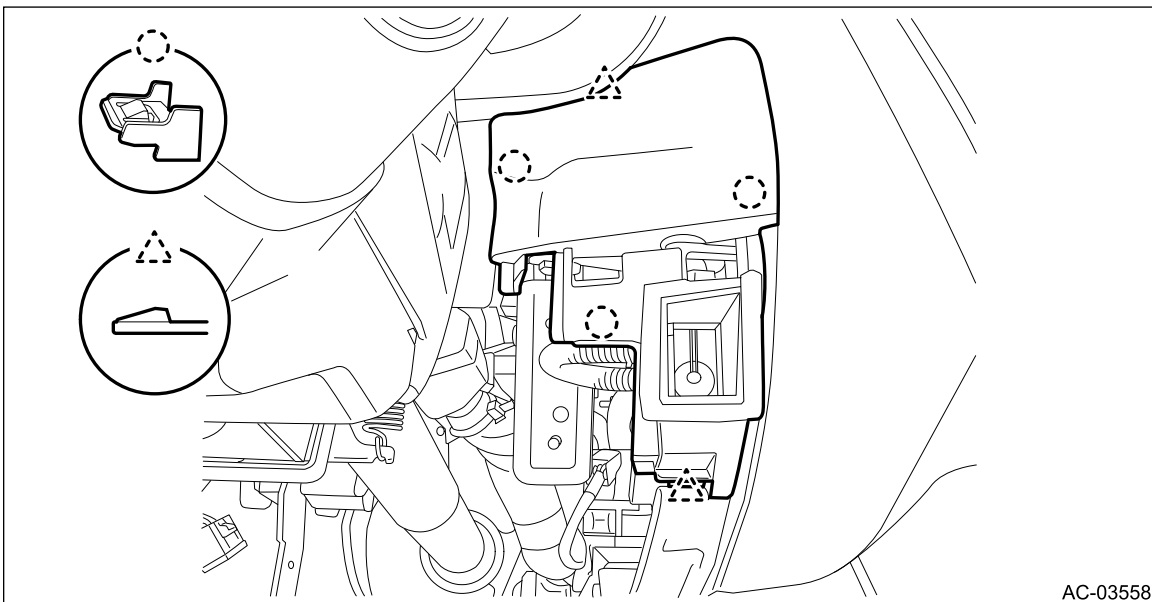
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver INN.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the cover switch - starter. (Models without the keyless access with push button start)
(1) Disconnect the connector, and remove the aspirator hose.



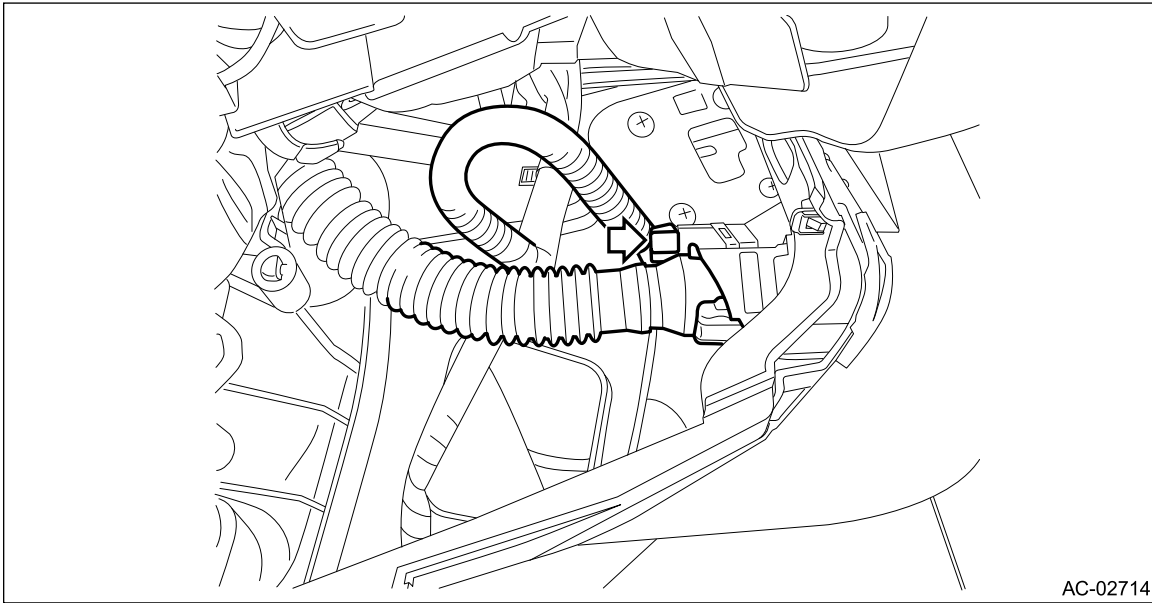
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- (2) Release the claws and remove the cover switch - starter.

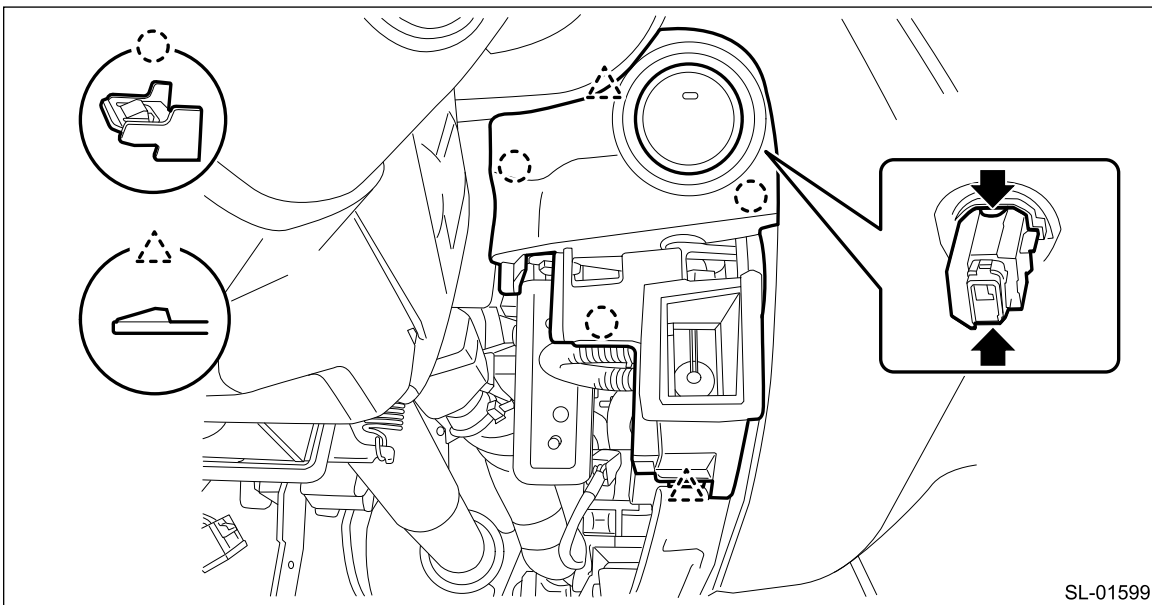


AC-03558

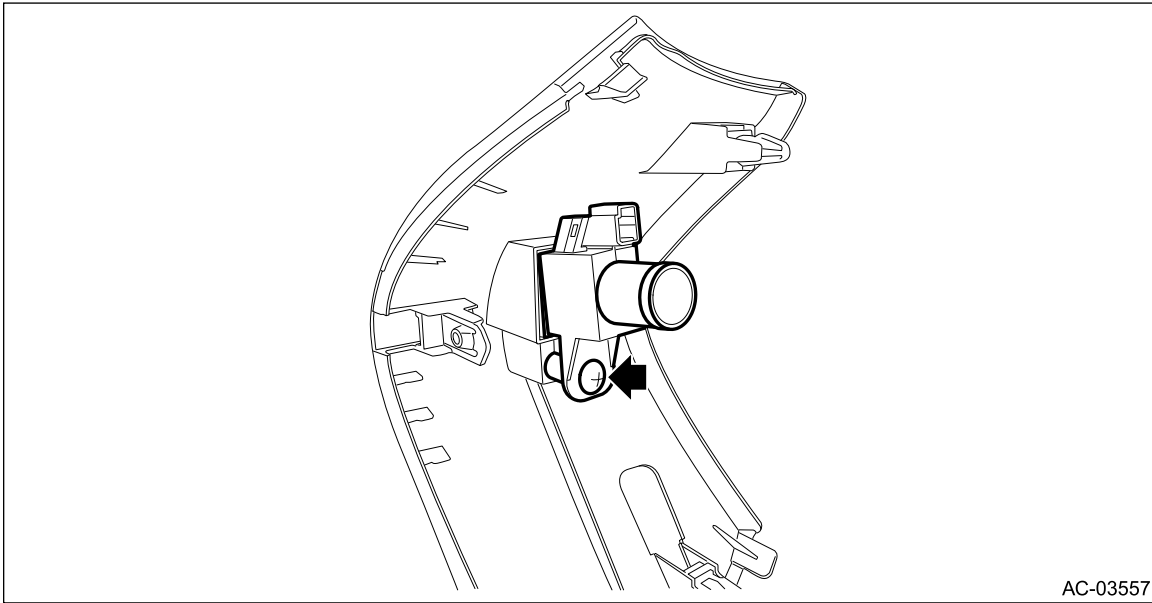
4. Remove the panel - switch. (Model with keyless access with push button start)
(1) Disconnect the connector, and remove the aspirator hose.



- (2) Release the claw of the switch - push button start, and disconnect the connector.
- (3) Release the claws, and then remove the panel - switch.




- 5.** Remove the screws, and then remove the in-vehicle sensor.



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HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > In-Vehicle Sensor (Auto A/C Model)

INSTALLATION

1. Install the in-vehicle sensor.
2. Install the cover switch - starter. (Model with keyless access with push button start)
3. Install the cover assembly - instrument panel LWR driver INN.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

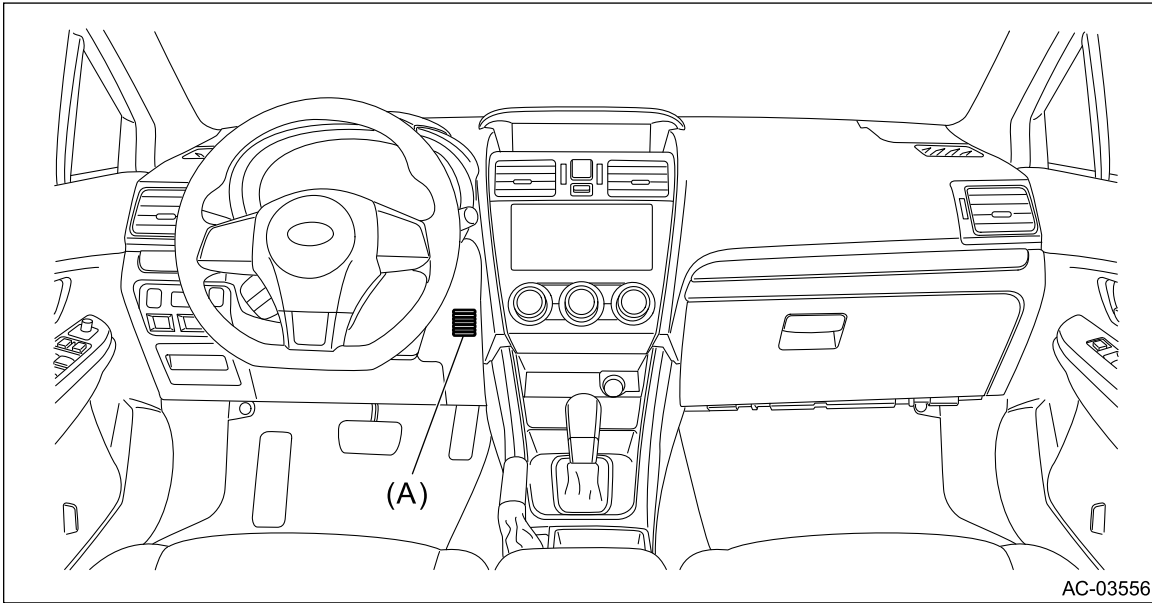
HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > In-Vehicle Sensor (Auto A/C Model)

INSPECTION

1. Set the vehicle to the following conditions.

Item	Condition
Ignition switch	ON
A/C switch	ON
Temperature adjustment dial	HI (MAX HOT)
Air flow control dial or switch	DEF
Fan dial	HI (MAX)

2. Check the suction port (A) for in-vehicle sensor of the cover assembly - instrument panel LWR driver INN.



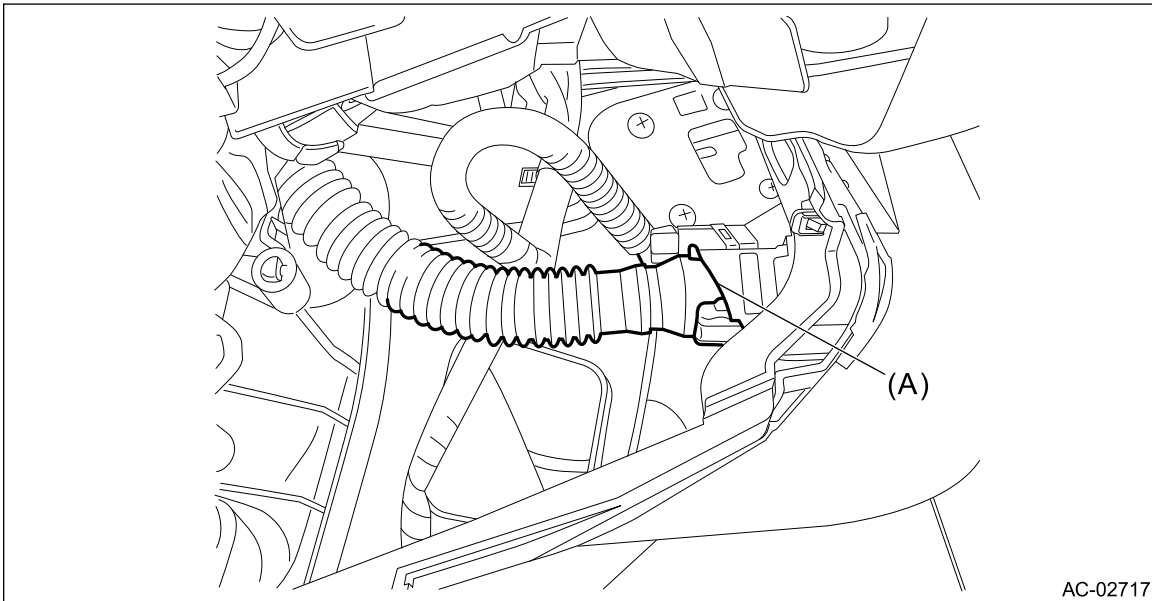
- (1) Put a strip of paper close to the front side of the suction port (A).
- (2) Can you see the paper moving towards the port and the air being sucked into the port?

Caution:

Be careful not to let the paper get sucked into the port.

- **yes** → Go to step 5).
- **no** → Go to step 3).

- 3.** Remove the cover assembly - instrument panel LWR driver INN, and check the aspirator hose (A).



- (1) Are the aspirator hoses on both sides of the case and sensor connected securely?
- (2) Is the aspirator hose free from any kinks or cracks?

- **yes** → Go to step 4).
- **no** → Repair or replace the aspirator hose if necessary.

- 4.** Check if there is anything that affects sensing, around the in-vehicle sensor.

- (1) Is the in-vehicle sensor hole free from clogging?

(2) Is the peripheral area of in-vehicle sensor free from any heat-producing parts (such as audio, navigation system etc.)?

- **yes** → Go to step 5).
- **no** → Remove everything that affects sensing.

5. Check in-vehicle sensor.

(1) Disconnect the connector.

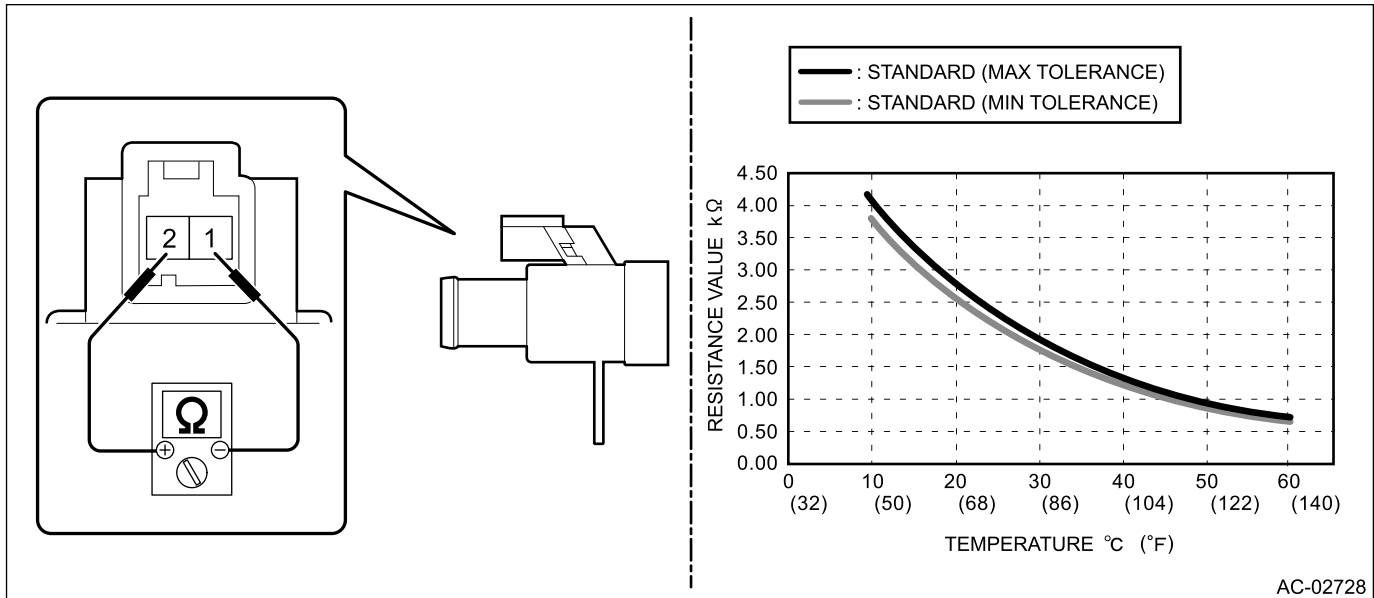
(2) Measure the resistance between connector terminals.

Caution:

During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.

Preparation tool:

Circuit tester




Terminal No.	Inspection conditions	Standard
1 - 2	10°C	3.772 - 4.101 kΩ
	15°C	3.096 - 3.338 kΩ
	20°C	2.556 - 2.734 kΩ
	25°C	2.121 - 2.251 kΩ
	30°C	1.756 - 1.878 kΩ
	35°C	1.462 - 1.574 kΩ
	40°C	1.223 - 1.326 kΩ
	45°C	1.028 - 1.122 kΩ
	50°C	0.868 - 0.9542 kΩ
	55°C	0.7363 - 0.8147 kΩ
	60°C	0.6273 - 0.6984 kΩ



(3) Replace the in-vehicle sensor if the inspection result is not within the standard value.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Evaporator Sensor

REMOVAL

Caution:

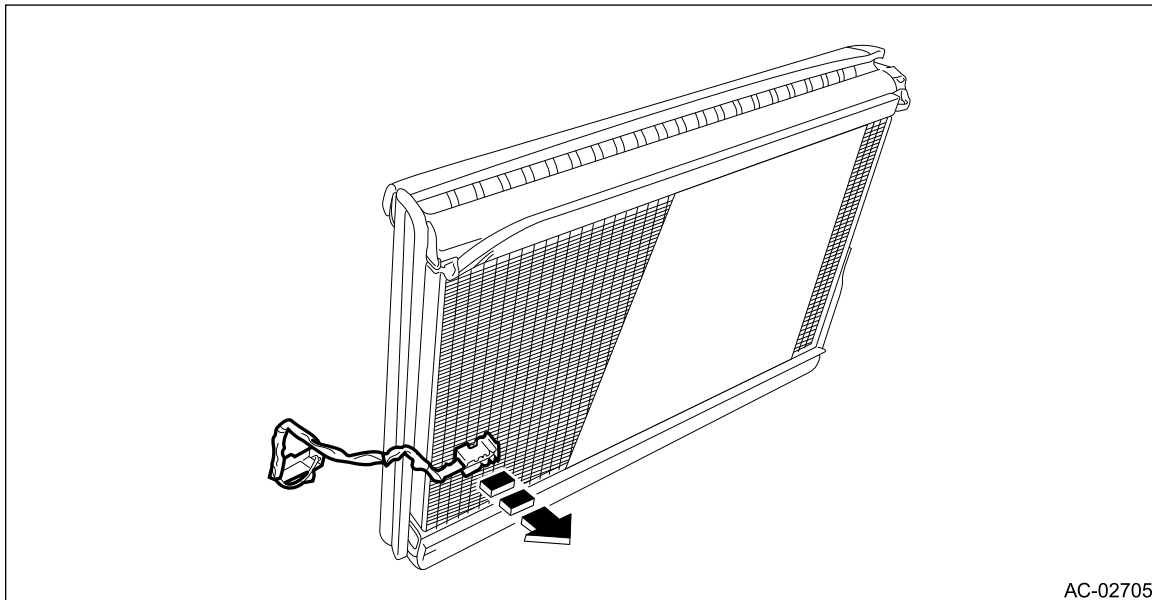
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Using the refrigerant recovery system, discharge refrigerant.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Recovery Procedure>PROCEDURE.](#)
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


3. Remove the evaporator assembly - cooling.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Evaporator>REMOVAL.](#)
4. Remove the thermostat - cooling.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Evaporator Sensor

INSTALLATION

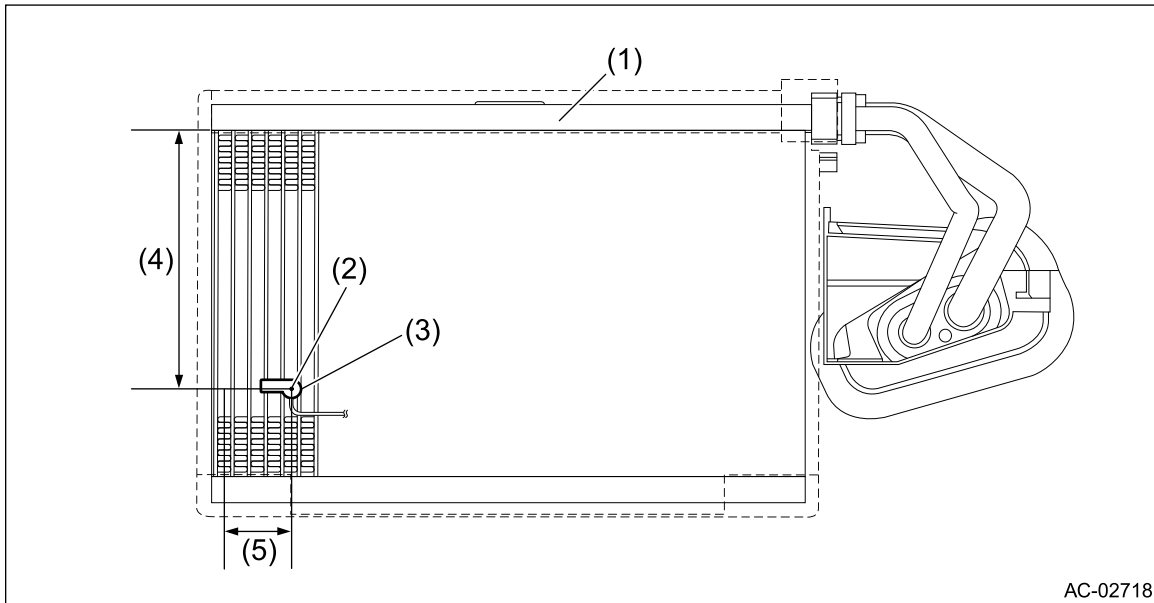
Caution:

- Make sure that the water seal packing on the cover attachment area is securely attached.
- Replace the O-rings with new parts, and then apply compressor oil.
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the thermostat - cooling at the position shown in the figure below.

Caution:

When reusing the evaporator assembly - cooling, do not use the existing insert hole, and instead, insert the sensor to the position 5 mm below the hole center of the same row, when installing the temperature sensor to the evaporator.



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- (1) Evaporator ASSY - cooling (3) Thermostat - cooling (5) Fifth row fin from the left end
 (2) Center (4) 130 mm (5.12 in) from the upper end of the fins
 (When evaporator assembly - cooling was replaced with a new part)

2. Install the evaporator assembly - cooling. [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Evaporator>INSTALLATION.](#)
3. Connect the battery ground terminal. [Ref. to NOTE>NOTE > BATTERY.](#)
4. Charge refrigerant. [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Refrigerant Charging Procedure>PROCEDURE.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Evaporator Sensor

INSPECTION

1. Prepare the vehicle.

Note:

Check that the ambient temperature is 25 – 40°C (77 – 104°F) and that the humidity is 30% – 80%.

- Place the vehicle in the workshop or in the shade and windless condition.
- Open all windows.

2. Set the vehicle to the following conditions.

Item	Condition
Engine	Idling
Air vent grille	Shutter is fully open.
A/C switch	OFF
Temperature adjustment dial	LO (MAX COOL)
FRESH/RECIRC switch	RECIRC

Item	Condition
Air flow control dial or switch	VENT
Fan dial	5/7 level

3. Using the Subaru Select Monitor, check evaporator temperature.

Note:

For detailed operation procedures, refer to "Application help".

- (1) On «Start» display, select «Diagnosis».
- (2) On «Vehicle selection» display, enter vehicle information and select «Confirmed».
- (3) On «Main Menu» display, select «Each System».
- (4) On «Select System» display, select «Air Conditioner» and select «Enter».
- (5) On «Select Function» display, select «Data Monitor».
- (6) From the data monitor item list, select «Evaporator Temperature».
- (7) Idle the engine for 15 minutes, and then compare the air flow outlet temperature with «Evaporator Temperature».

Preparation tool:

Thermometer and hygrometer

Note:

For outlet opening temperature, measure the average temperature of center grille assembly and side grille assembly.

- (8) Do the air flow outlet temperature and «Evaporator Temperature» differ by 3°C (5.4°F) or more?
 - **yes** → Go to step 4).
 - **no** → Evaporator sensor is normal.

4. Check the evaporator sensor.

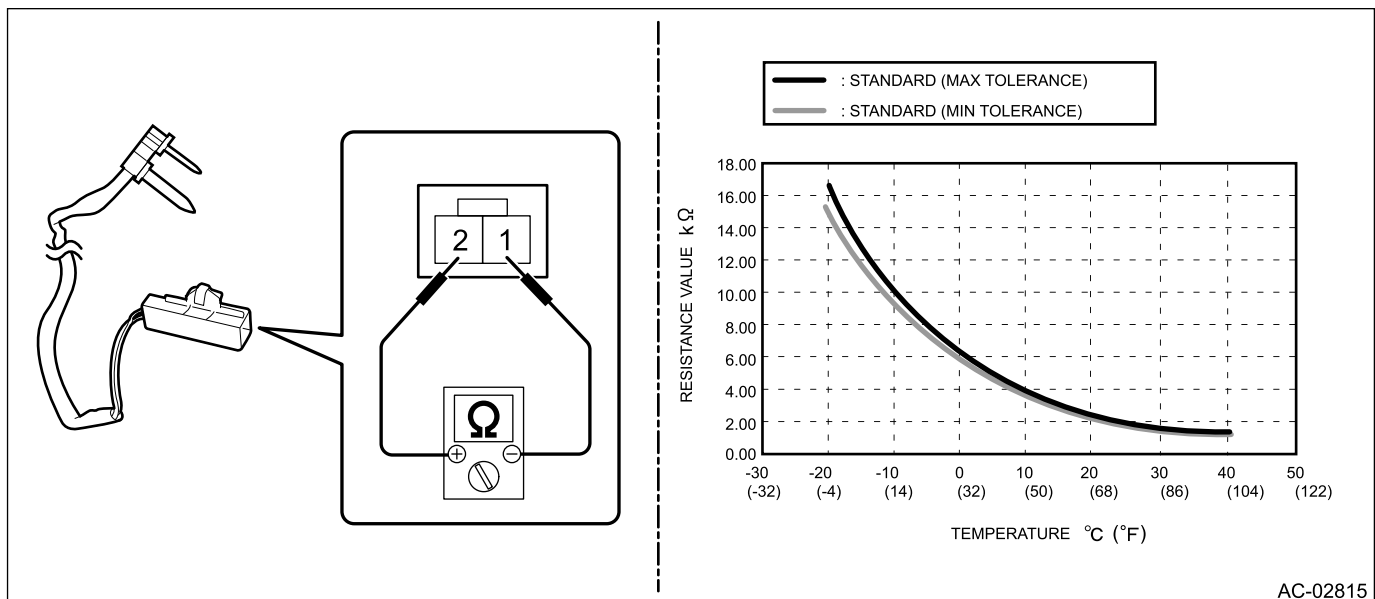
- (1) Disconnect the connector.
- (2) Measure the resistance between connector terminals.

Caution:

During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.

Preparation tool:

Circuit tester




Terminal No.	Inspection conditions	Standard
1 – 2	-20°C	15.37 – 16.62 kΩ
	-15°C	12.09 – 12.87 kΩ
	-10°C	9.576 – 10.05 kΩ
	-5°C	7.636 – 7.899 kΩ
	0°C	6.132 – 6.256 kΩ
	5°C	4.891 – 5.057 kΩ
	10°C	3.928 – 4.113 kΩ
	15°C	3.174 – 3.366 kΩ
	20°C	2.581 – 2.77 kΩ
	25°C	2.111 – 2.292 kΩ
	30°C	1.737 – 1.907 kΩ
	35°C	1.437 – 1.595 kΩ
	40°C	1.195 – 1.34 kΩ


(3) Replace the evaporator sensor if the inspection result is not within the standard value.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > FRESH/RECIRC Door Actuator

REMOVAL




Caution:

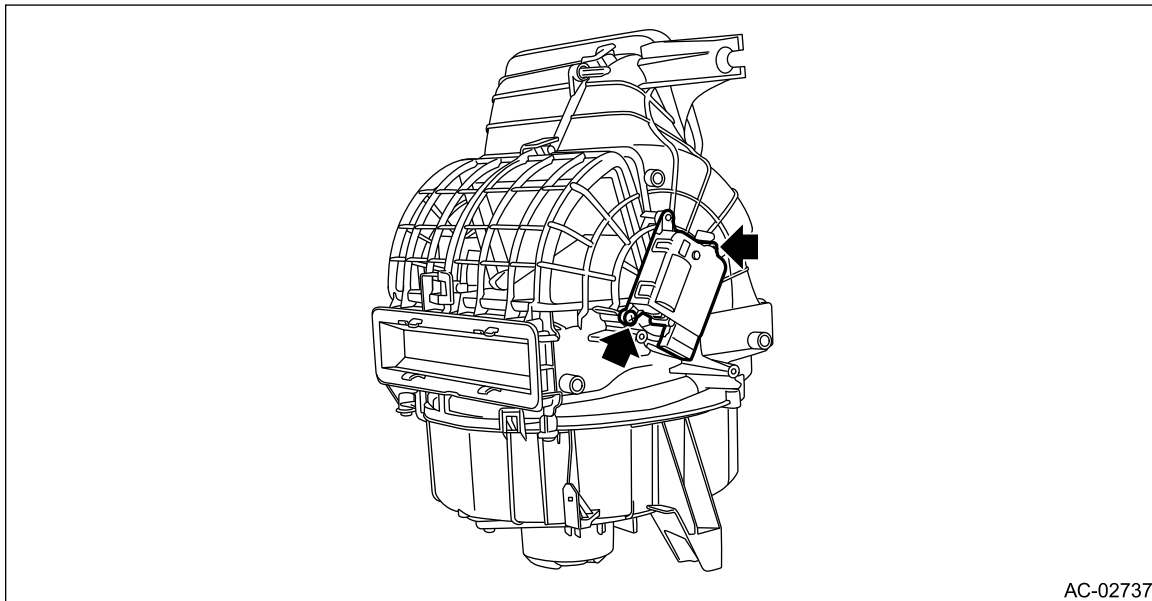
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work. 
[Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
3. Remove the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>REMOVAL.](#)
4. Remove the blower motor unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Blower Motor Unit Assembly>REMOVAL.](#)
5. Remove the screws and detach the motor - actuator blower.




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HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > FRESH/RECIRC Door Actuator

INSTALLATION



Caution:

- After installing the grille assembly - ventilation RH, check that the air vent grille of the grille assembly - ventilation RH is inserted correctly into the air vent duct.
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the motor - actuator blower.
2. Install the blower motor unit assembly.

Tightening torque:

7.5 N·m (0.8 kgf·m, 5.5 ft·lb)

3. Install the engine control module (ECM). (STI model)  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\) \(STI\)>Engine Control Module \(ECM\)>INSTALLATION.](#)
4. Install the glove box.
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > FRESH/RECIRC Door Actuator

INSPECTION

1. CHECK LINK

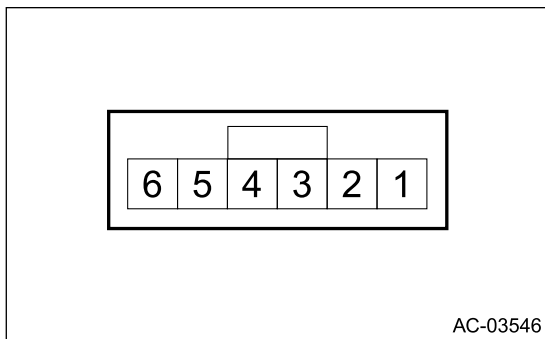
1. Visually check the operating range of the link, and remove the foreign matter if any.
2. Operate the FRESH/RECIRC switch, and check that the link operates normally.
3. If it does not operate normally as the result of inspection, check the motor - actuator blower.

2. CHECK ACTUATOR

1. Check the actuator operation when battery voltage is applied between the connector terminals.

Caution:

Disconnect the battery immediately after the actuator stops operation. Otherwise, the motor may be damaged.




Terminal No.	Inspection conditions	Operating position
1 (+) – 2 (-)	Apply battery voltage.	RECIRC
2 (+) – 1 (-)		FRESH


2. If it does not operate normally as the result of inspection, replace the motor - actuator blower.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Mode Door Actuator

REMOVAL



Caution:

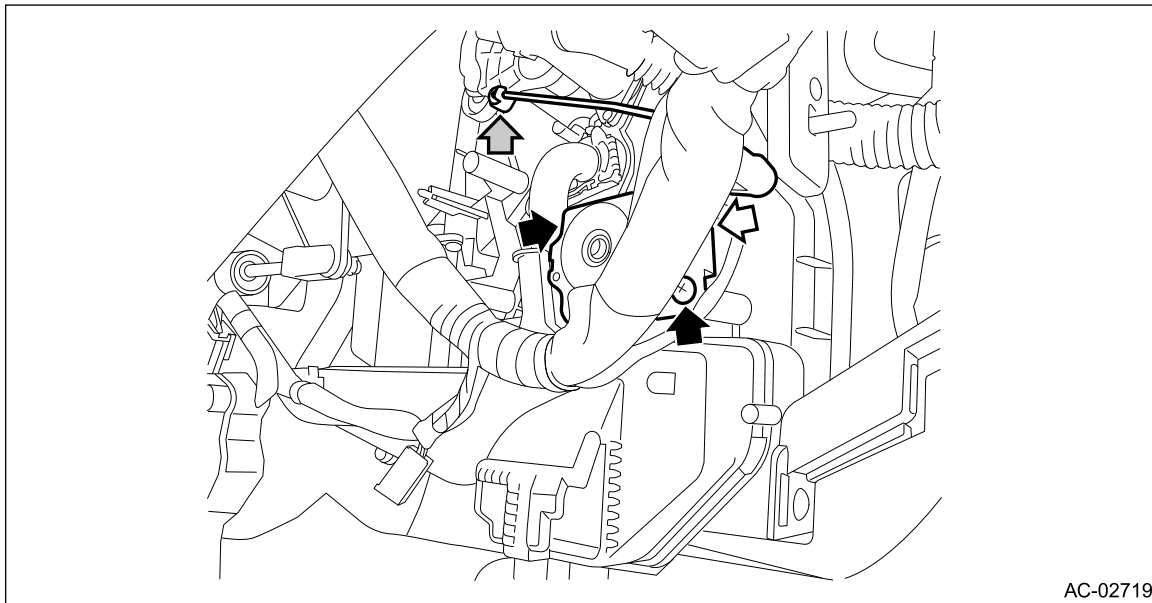
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the battery ground cable and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the motor - actuator mode.
 - (1) Disconnect the connector, and remove the rod from the rod clamp.
 - (2) Remove the screws and detach the motor - actuator mode.



HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Mode Door Actuator

INSTALLATION


Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the motor - actuator mode.
2. Install the knee airbag module.

Tightening torque:

7.5 N·m (0.8 kgf·m, 5.5 ft·lb)

3. Install the cover assembly - instrument panel LWR driver.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Mode Door Actuator

INSPECTION

1. CHECK LINK

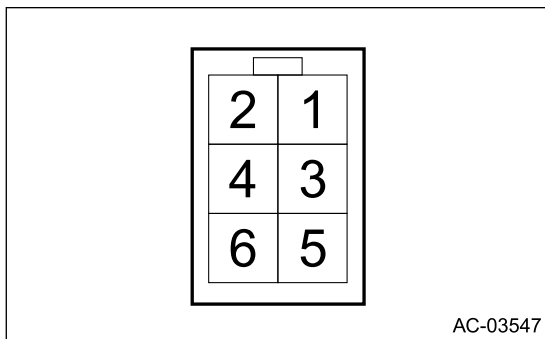
1. Visually check the operating range of the link, and remove the foreign matter if any.
2. Operate the air flow control dial or switch to check that the link operates normally.
3. If it does not operate normally as the result of inspection, check the motor - actuator mode.

2. CHECK ACTUATOR

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
3 - 1	Always	80 - 100 Ω
3 - 2		
3 - 5		
3 - 6		


2. Replace the motor - actuator mode if the inspection result is not within the standard value.


HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Mix Door Actuator

REMOVAL

1. DRIVER'S SIDE



Caution:

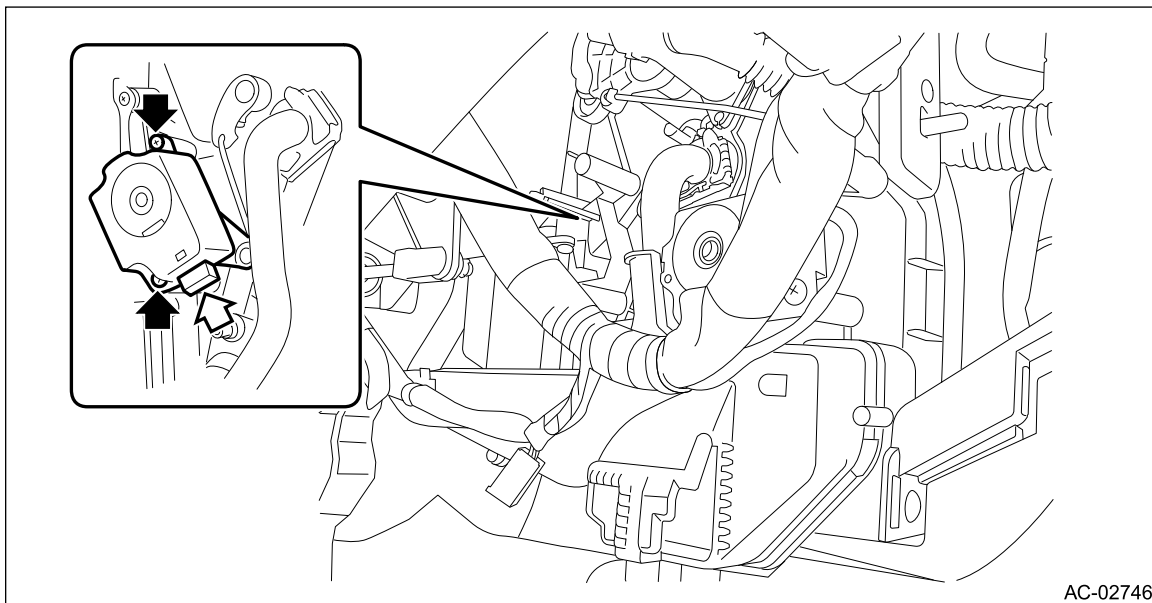
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  Ref. to [AIRBAG SYSTEM>General Description>CAUTION](#).

1. Disconnect the battery ground cable and wait for at least 60 seconds before starting work.  Ref. to [NOTE>NOTE > BATTERY](#).

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver.  Ref. to [EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL](#).
3. Remove the knee airbag module.  Ref. to [AIRBAG SYSTEM>Knee Airbag Module>REMOVAL](#).
4. Remove the motor - actuator mix.
 - (1) Disconnect the connector, and remove the rod from the rod clamp.
 - (2) Remove the screws and detach the motor - actuator mix.




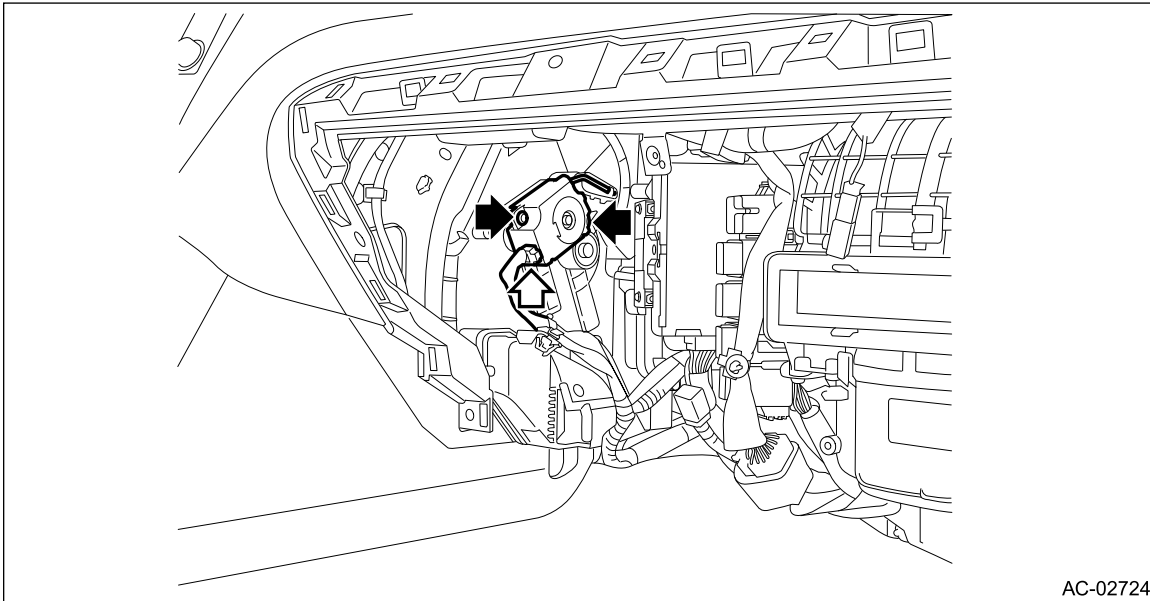
2. PASSENGER'S SIDE

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the glove box.  Ref. to [EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL](#).
3. Remove the motor - actuator mix.
 - (1) Disconnect the connector, and remove the rod from the rod clamp.
 - (2) Remove the screws and detach the motor - actuator mix.




HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Mix Door Actuator INSTALLATION


1. DRIVER'S SIDE

Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the motor - actuator mix.
2. Install the knee airbag module.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the cover assembly - instrument panel LWR driver.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. PASSENGER'S SIDE

1. Install the motor - actuator mix.
2. Install the glove box.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Mix Door Actuator INSPECTION

1. CHECK LINK

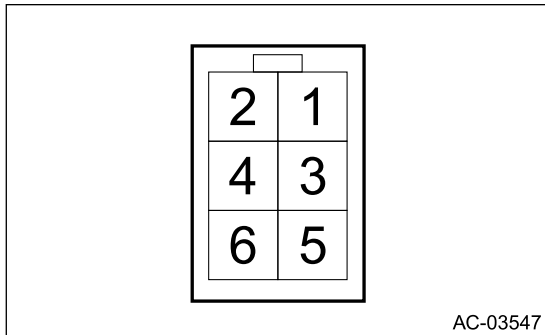
1. Visually check the operating range of the link, and remove the foreign matter if any.
2. Operate the temperature control dial to check that the link operates normally.
3. If it does not operate normally as the result of inspection, check the motor - actuator mix.

2. CHECK ACTUATOR

1. Measure the resistance between connector terminals.

Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
3 – 1	Always	80 – 100 Ω
3 – 2		
3 – 5		
3 – 6		

2. Replace the motor - actuator mix if the inspection result is not within the standard value.

REMOVAL

1. CENTER GRILLE ASSEMBLY

Caution:

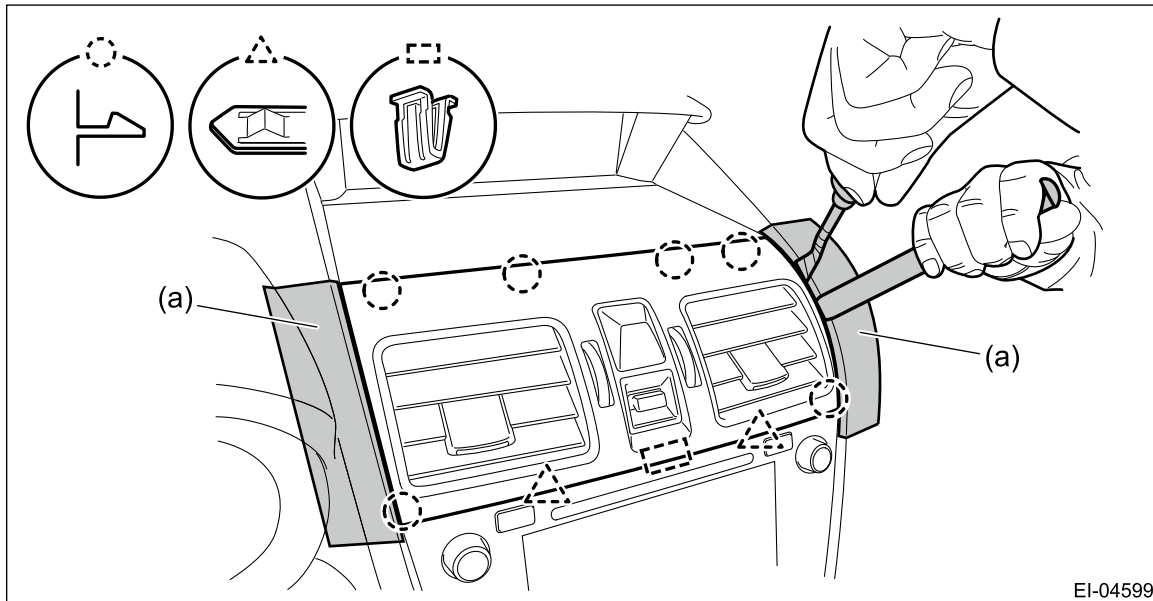
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Always pull the center grille assembly toward you slowly. If attempting to remove by turning it upward, the claws and connectors may be damaged.**

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

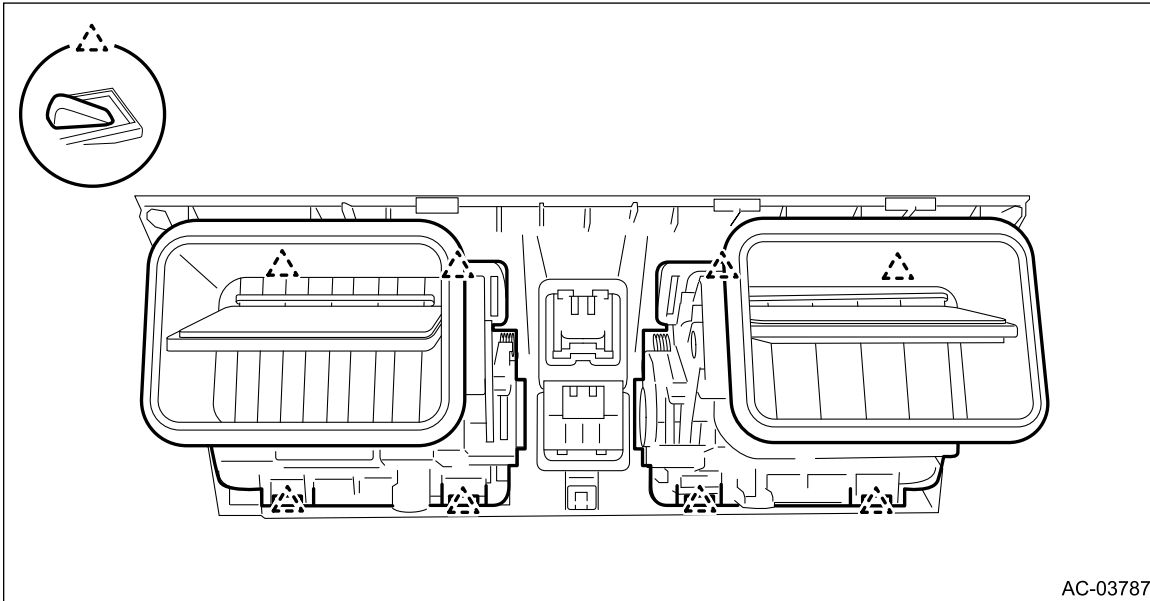
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the center grille assembly.
 - (1) Attach the protective tape (a) to the instrument panel assembly.
 - (2) Release the claw by using a clip remover wrapped with protective tape.
 - (3) Disconnect the connector and remove the center grille assembly.



3. Release the claws, and then remove the grille assembly - CTR ventilation from the center grille assembly.




2. SIDE GRILLE ASSEMBLY

Driver's side

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

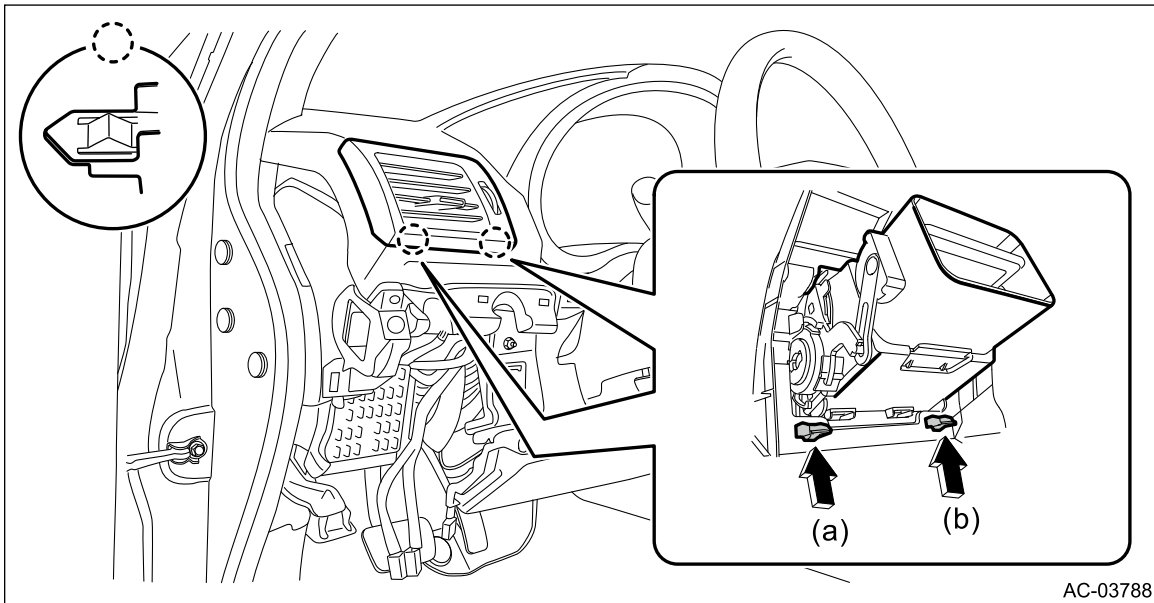
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the cover assembly - instrument panel LWR driver OUT.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the grille assembly - ventilation LH.

Caution:

- **When using a flat tip screwdriver, apply protective tape or cloth and be careful not to cause damage.**
- **Do not pull the grille assembly - ventilation forcibly. Doing so may cause deformation or damage.**

- (1) Push the claw (a) on the outlet dial side upward from the back of the instrument panel assembly.
- (2) While pushing, pull the grille assembly - ventilation toward you to release the claw.
- (3) Release the other claw (b) in the same manner, then remove the grille assembly - ventilation LH.




Passenger's side

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

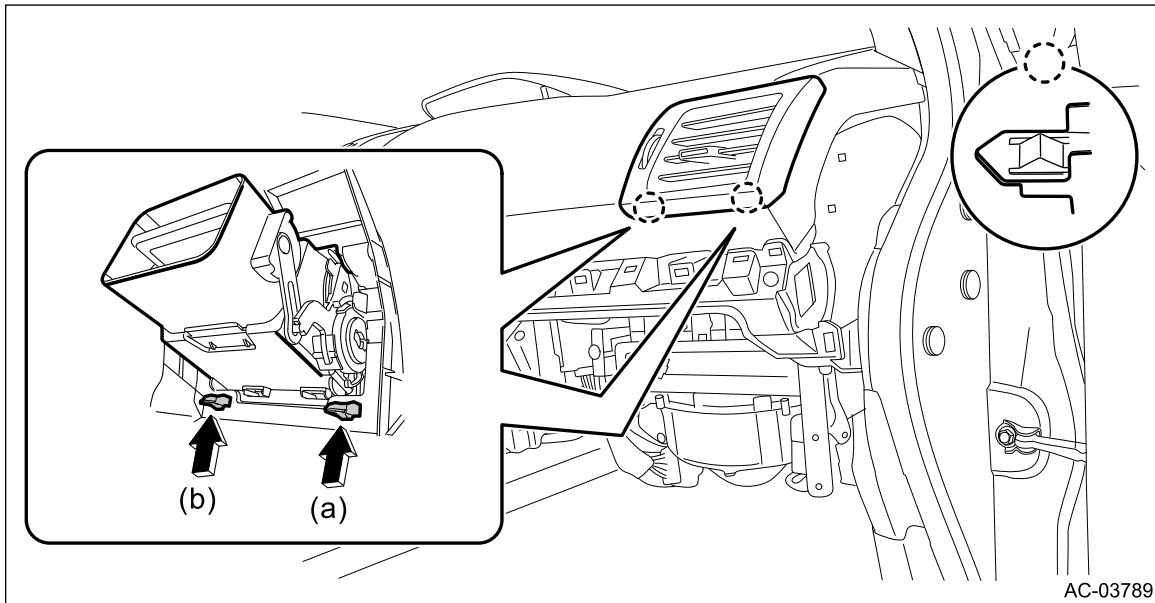
For model with battery sensor, disconnect the ground terminal from battery sensor.

2. Remove the pocket assembly and the back panel - pocket.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
3. Remove the grille assembly - ventilation RH.

Caution:

- **When using a flat tip screwdriver, apply protective tape or cloth and be careful not to cause damage.**
- **Do not pull the grille assembly - ventilation forcibly. Doing so may cause deformation or damage.**

- (1) Push the claw (a) on the outlet dial side upward from the back of the instrument panel assembly.
- (2) While pushing, pull the grille assembly - ventilation toward you to release the claw.
- (3) Release the other claw (b) in the same manner, then remove the grille assembly - ventilation RH.




HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Vent Grille

INSTALLATION

1. CENTER GRILLE ASSEMBLY

Caution:


After installing the center grille assembly, check that the air vent grille is inserted correctly into the air vent duct.

1. Install the grille assembly - CTR ventilation.
2. Install the center grille assembly.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

2. SIDE GRILLE ASSEMBLY

Caution:

After installing the grille assembly - ventilation, check that the air vent grille is inserted correctly into the air vent duct.

1. Install the grille assembly - ventilation.
2. Install the cover assembly - instrument panel LWR driver OUT. (Driver's side)
3. Install the pocket assembly and the back panel - pocket. (Passenger's side)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Air Vent Grille


INSPECTION


1. Check that the direction and amount of air can be adjusted smoothly. Replace the grille assembly - ventilation if faulty.
2. Check that the adjustment can be maintained in each position. Replace the grille assembly - ventilation if faulty.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater Duct

REMOVAL



Caution:

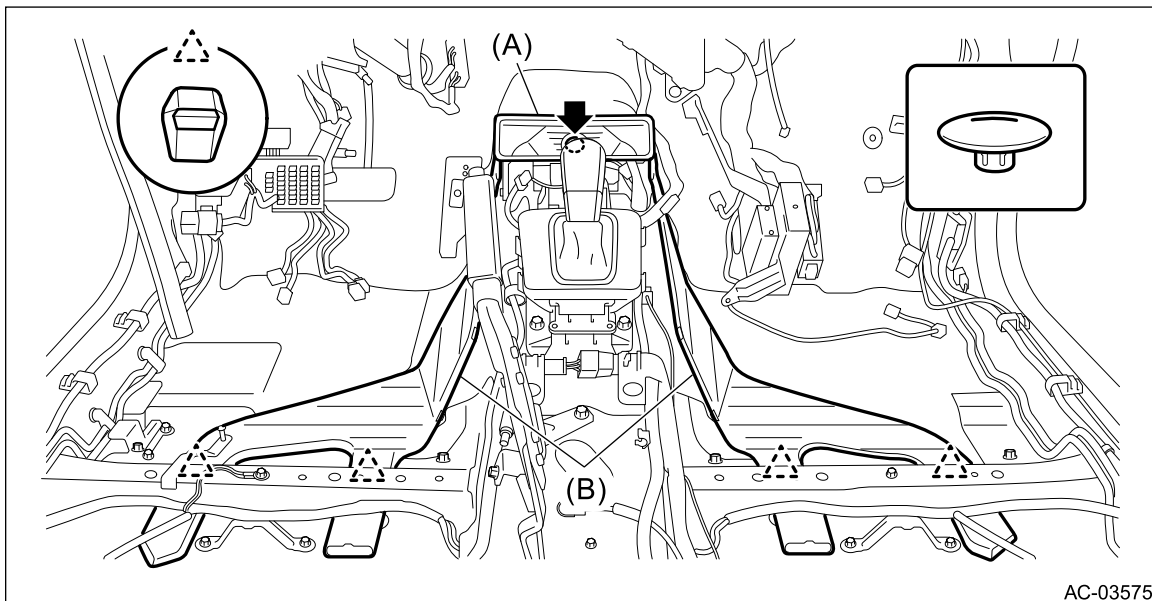
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the battery ground cable and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the front seats.  [Ref. to SEATS>Front Seat>REMOVAL.](#)
3. Remove the heater and cooling unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Heater and Cooling Unit>REMOVAL.](#)
4. Remove the duct - rear heater.
 - (1) Lift the floor carpet.
 - (2) Remove the clips, and remove the duct - rear heater CTR (A).
 - (3) Release the claws, and remove the duct - rear heater (B) on LH and RH sides.






HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater Duct

INSTALLATION

Caution:


Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)


1. Install the duct - rear heater.
2. Install the heater and cooling unit assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Heater and Cooling Unit>INSTALLATION.](#)
3. Install the front seat.  [Ref. to SEATS>Front Seat>INSTALLATION.](#)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater Vent Duct

REMOVAL


Caution:

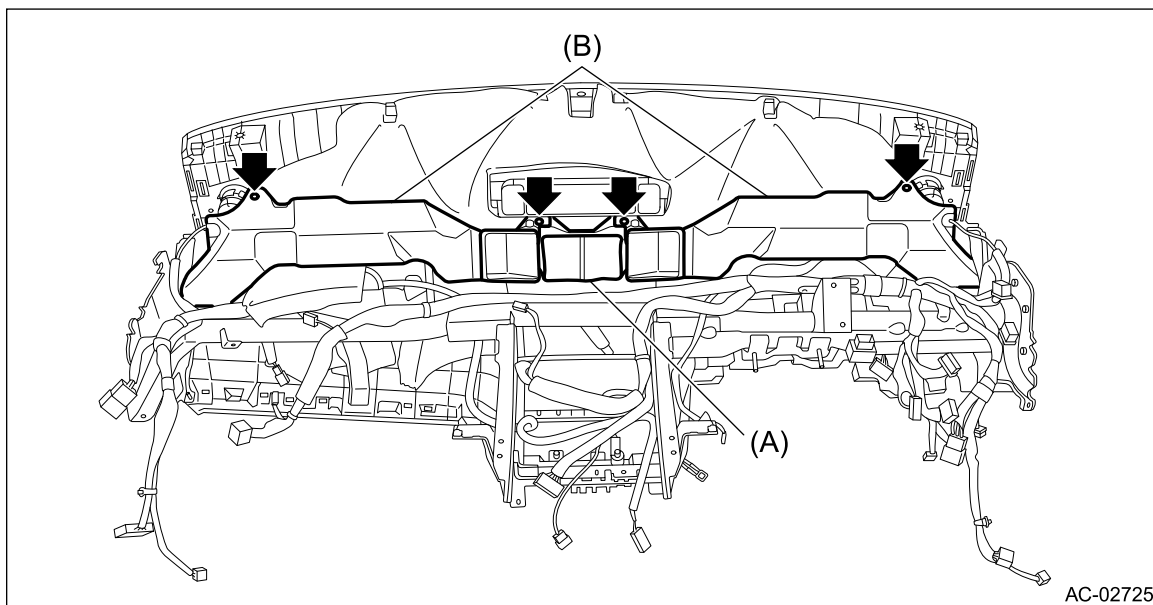
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the battery ground cable and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.


2. Remove the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.](#)
3. Remove the screws and remove the duct - center vent (A) and the duct - side ventilation (B) on LH and RH sides.





HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Heater Vent Duct

INSTALLATION


Caution:

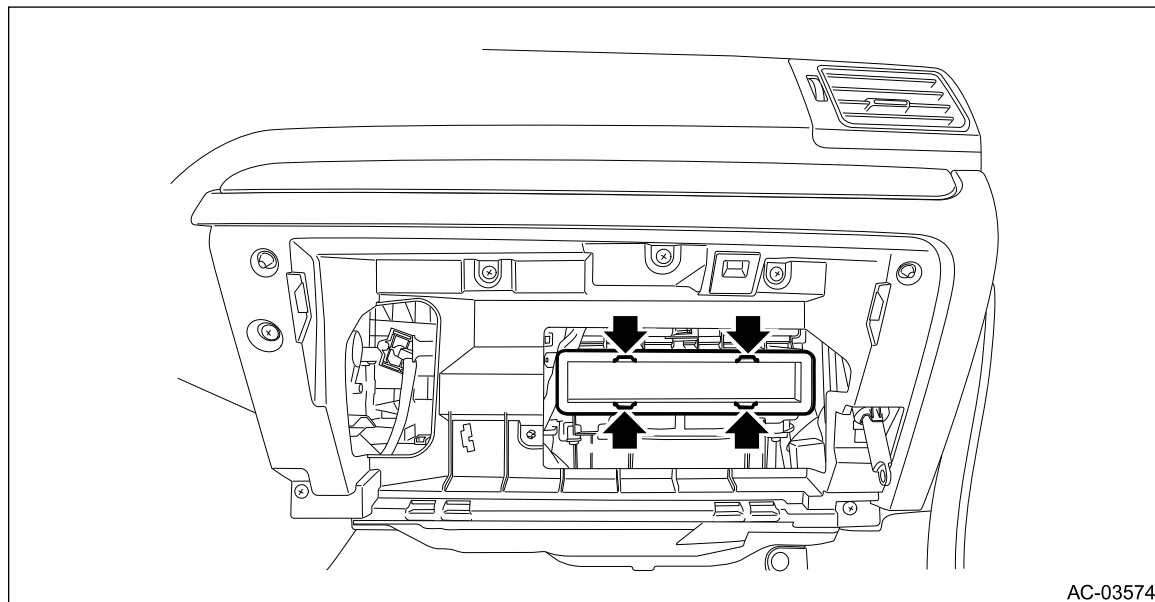
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the heater vent duct.
2. Install the instrument panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.](#)
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > A/C Filter

REPLACEMENT

1. Remove the pocket assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
2. Pinch the tabs to release the lock, and remove the filter kit.



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Note:

Pull out the filter while pulling it down toward you to prevent dirt or dust from falling inside the case.

3. Install a new filter kit.
4. Install the pocket assembly.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C) > Diagnostics with Phenomenon

INSPECTION

Refer to "Diagnostics with Phenomenon" for "HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)" section. 

[Ref. to HVAC SYSTEM \(AUTO A/C\) \(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)