

SECTION **VTL** VENTILATION SYSTEM

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SWITCHES AND THEIR CONTROL FUNCTION

< SYSTEM DESCRIPTION >

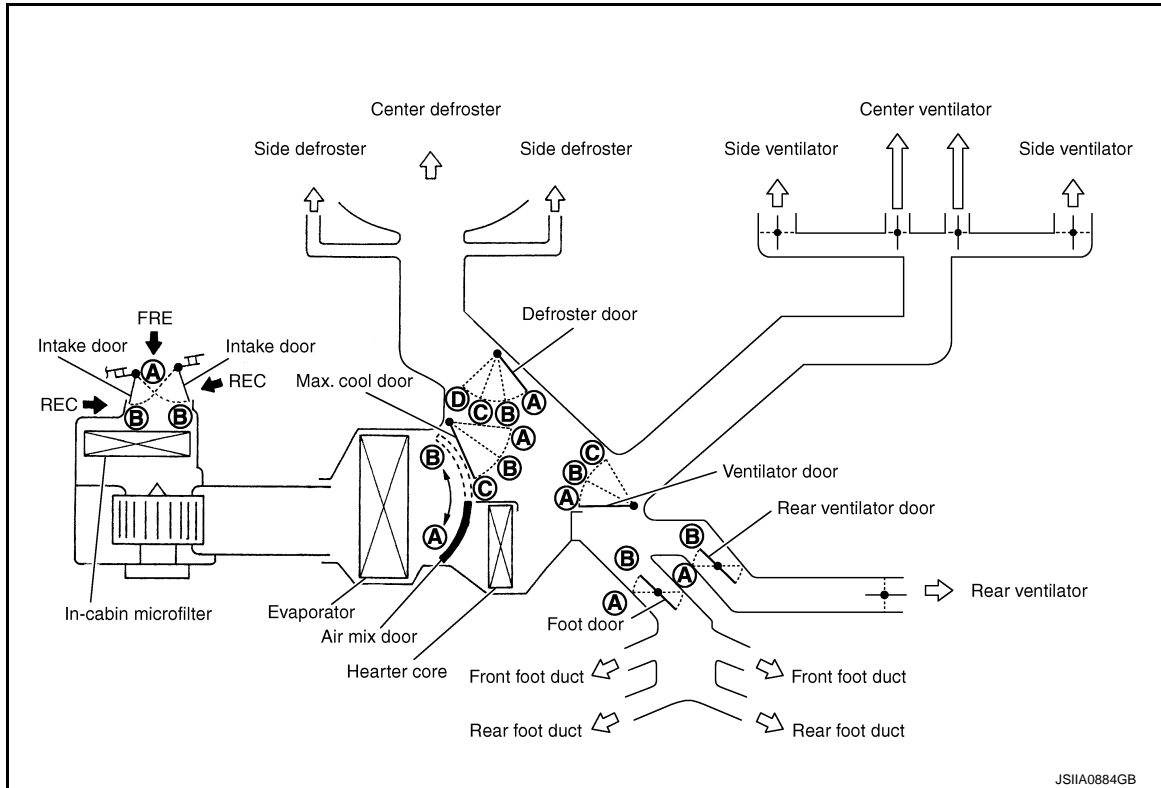
SYSTEM DESCRIPTION

SWITCHES AND THEIR CONTROL FUNCTION



















WITHOUT LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL SYSTEM

WITHOUT LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL SYSTEM : System Description

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<div><div></div><div>Position or switch</div><div>Door</div></div>	MODE switch				DEF switch		AUTO switch	Intake switch		Temperature control dial			OFF switch
	VENT	B/L	FOOT	D/F	ON	OFF		FRE	REC				
													
										18°C (60°F)		32°C (90°F)	OFF
Ventilator door	(A)	(B)	(C)	(C)	(C)	—	AUTO	—		—			AUTO
Max.cool door	(A)	(B)	(C)	(C)	(C)			—		—			
Defroster door	(D)	(D)	(C)	(B)	(A)			—		—			
Foot door	(B)	(B)	(B)	(B)	(A)			—		—			
Rear ventilator door	(B)	(B)	(B)	(B)	(A)			—		—			
Intake door	—			(B)	(B)			(B)*	(A)*	—			
Air mix door	—				—	—		(A)	AUTO	(B)	—		

*:Inlet status is displayed by LED when activating automatic control.

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WITH LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL SYSTEM

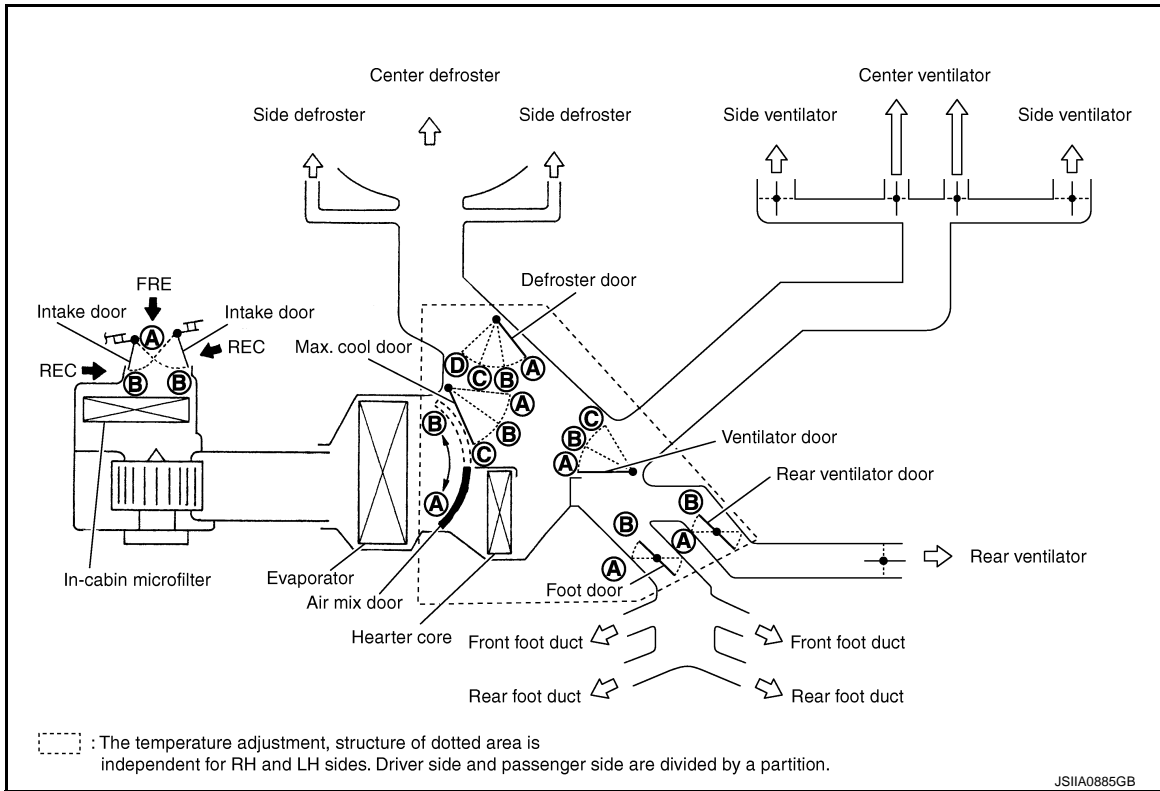
WITH LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL

SWITCHES AND THEIR CONTROL FUNCTION


















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SYSTEM : System Description

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<div><div></div><div>Position or switch</div></div> <div>Door</div>	DUAL switch	MODE switch				DEF switch		AUTO switch	Intake switch		Temperature control dial(Driver side)		Temperature control dial(Passenger side)		OFF switch
		VENT	B/L	FOOT	D/F	ON	OFF		FRE	REC					OFF
		MODE													
											18℃ (60°F)	⇄ 32℃ (90°F)	18℃ (60°F)	⇄ 32℃ (90°F)	
Ventilator door	—	Ⓐ	Ⓑ	Ⓒ	Ⓒ	Ⓒ	—	AUTO	—	—	—		—		AUTO
Max.cool door	—	Ⓐ	Ⓑ	Ⓒ	Ⓒ	Ⓒ			—	—	—		—		
Defroster door	—	Ⓓ	Ⓓ	Ⓒ	Ⓑ	Ⓐ			—	—	—		—		
Foot door	—	Ⓑ	Ⓑ	Ⓑ	Ⓑ	Ⓐ			—	—	—		—		
Rear ventilator door	—	Ⓑ	Ⓑ	Ⓑ	Ⓑ	Ⓐ			—	—	—		—		
Intake door	—	—			Ⓑ	Ⓑ			Ⓑ [*]	Ⓐ [*]	—		—		
Air mix door (Driver side)	—	—				—	—	—		Ⓐ	AUTO	Ⓑ	—		—
Air mix door (Passenger side)	ON	—				—		—		—		Ⓐ	AUTO	Ⓑ	
	OFF	—				—		—		Ⓐ	AUTO	Ⓑ	—		

*: Inlet status is displayed by LED when activating automatic control.

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AIR DISTRIBUTION






< SYSTEM DESCRIPTION >

AIR DISTRIBUTION

System Description






INFOID:000000002989285

Without rear ventilation

Discharge air flow					
Mode position indication	Condition	Air outlet/distribution			
		VENT	FOOT		DEF
			Front	Rear	
	DUAL switch: OFF	100%	—	—	—
		53%	29%	18%	—
		11%	39%	24%	26%
		9%	33%	21%	37%
		16%	—	—	84%

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With rear ventilation

Discharge air flow						
Mode position indication	Condition	Air outlet/distribution				
		VENT		FOOT		DEF
		Front	Rear	Front	Rear	
	DUAL switch: OFF Rear ventilator : OPEN	88%	12%	—	—	—
		49%	10%	25%	16%	—
		10%	12%	33%	22%	23%
		9%	11%	29%	18%	33%
		15%	—	—	—	85%

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000002989286

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:000000002989287

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

2. Turn the push-button ignition switch to ACC position.
(At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.

PRECAUTIONS

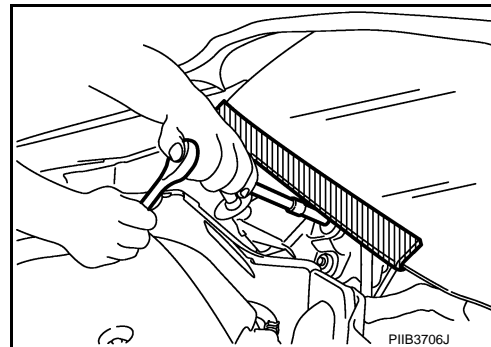
< PRECAUTION >

5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT-III.

Precaution for Procedure without Cowl Top Cover

INFOID:000000002989288

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



Precautions For Xenon Headlamp Service

INFOID:000000002989289

WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

Working with HFC-134a (R-134a)

INFOID:000000002989290

CAUTION:

- CFC-12 (R-12) refrigerant and HFC-134a (R-134a) refrigerant are not compatible. Compressor malfunction is likely to occur if the refrigerants are mixed, refer to "CONTAMINATED REFRIGERANT" below. To determine the purity of HFC-134a (R-134a) in the vehicle and recovery tank, use Refrigerant Recovery/Recycling Recharging equipment and Refrigerant Identifier.
- Use only specified lubricant for the HFC-134a (R-134a) A/C system and HFC-134a (R-134a) components. Compressor malfunction is likely to occur if lubricant other than that specified is used.
- The specified HFC-134a (R-134a) lubricant rapidly absorbs moisture from the atmosphere. The following handling precautions must be observed:
 - Cap (seal) immediately the component to minimize the entry of moisture from the atmosphere when removing refrigerant components from a vehicle.
 - Never remove the caps (unseal) until just before connecting the components when installing refrigerant components to a vehicle. Connect all refrigerant loop components as quickly as possible to minimize the entry of moisture into system.
 - Use only the specified lubricant from a sealed container. Reseal immediately containers of lubricant. Lubricant becomes moisture saturated and should not be used without proper sealing.
 - Never allow lubricant (Nissan A/C System Oil Type S) to come in contact with styrene foam parts. Damage may result.

CONTAMINATED REFRIGERANT

PRECAUTIONS

< PRECAUTION >

Take appropriate steps shown below if a refrigerant other than pure HFC-134a (R-134a) is identified in a vehicle:

- Explain to the customer that environmental regulations prohibit the release of contaminated refrigerant into the atmosphere.
- Explain that recovery of the contaminated refrigerant could damage service equipment and refrigerant supply.
- Suggest the customer return the vehicle to the location of previous service where the contamination may have occurred.
- In case of repairing, recover the refrigerant using only **dedicated equipment and containers. Never recover contaminated refrigerant into the existing service equipment.** Contact a local refrigerant product retailer for available service if the facility does not have dedicated recovery equipment. This refrigerant must be disposed of in accordance with all federal and local regulations. In addition, replacement of all refrigerant system components on the vehicle is recommended.
- The air conditioner warranty is void if the vehicle is within the warranty period. Please contact Nissan Customer Affairs for further assistance.

General Refrigerant Precaution

INFOID:000000002989291

WARNING:

- **Never breath A/C refrigerant and lubricant vapor or mist. Exposure may irritate eyes, nose and throat. Remove HFC-134a (R-134a) from the A/C system, using certified service equipment meeting requirements of SAE J-2210 [HFC-134a (R-134a) recycling equipment], or J-2209 [HFC-134a (R-134a) recovery equipment]. Ventilate work area before resuming service if accidental system discharge occurs. Additional health and safety information may be obtained from refrigerant and lubricant manufacturers.**
- **Never release refrigerant into the air. Use approved recovery/recycling equipment to capture the refrigerant each time an air conditioning system is discharged.**
- **Wear always eye and hand protection (goggles and gloves) when working with any refrigerant or air conditioning system.**
- **Never store or heat refrigerant containers above 52°C (126°F).**
- **Never heat a refrigerant container with an open flame; Place the bottom of the container in a warm pail of water if container warming is required.**
- **Never intentionally drop, puncture, or incinerate refrigerant containers.**
- **Keep refrigerant away from open flames: poisonous gas is produced if refrigerant burns.**
- **Refrigerant displaces oxygen, therefore be certain to work in well ventilated areas to prevent suffocation.**
- **Never pressure test or leakage test HFC-134a (R-134a) service equipment and/or vehicle air conditioning systems with compressed air during repair. Some mixtures of air and HFC-134a (R-134a) have been shown to be combustible at elevated pressures. These mixtures, if ignited, may cause injury or property damage. Additional health and safety information may be obtained from refrigerant manufacturers.**

Refrigerant Connection

INFOID:000000002989292

A new type refrigerant connection has been introduced to all refrigerant lines except the following location.

- Expansion valve to evaporator
- Refrigerant pressure sensor to liquid tank

ABOUT ONE-TOUCH JOINT

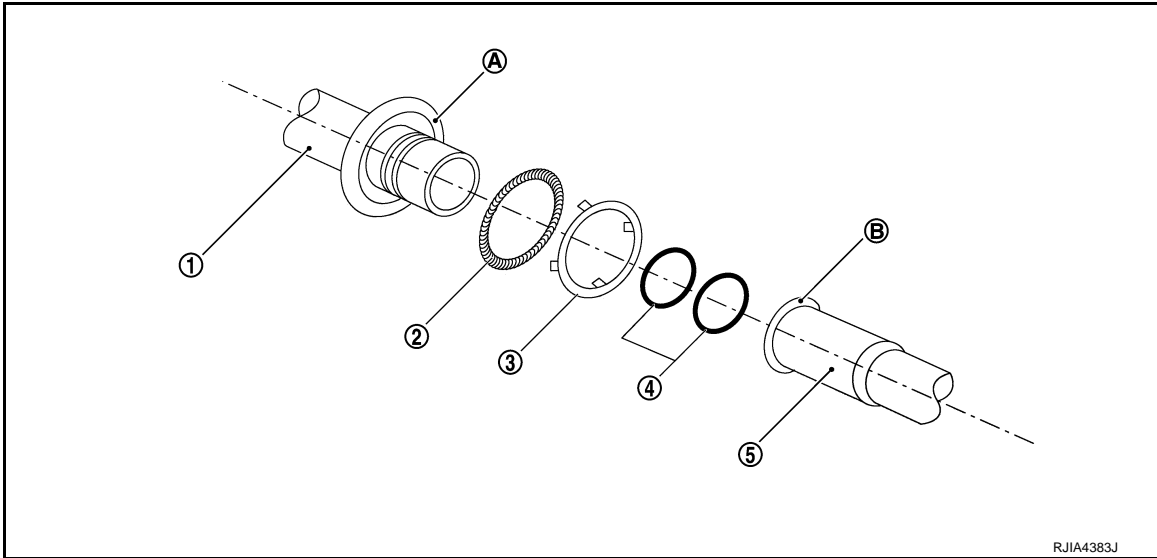
Description

- One-touch joints are pipe joints which do not require tools during piping connection.
- Unlike conventional connection methods using union nuts and flanges, controlling tightening torque at connection point is not necessary.
- Use a disconnecter when removing a pipe joint.

PRECAUTIONS

< PRECAUTION >

COMPONENT PARTS



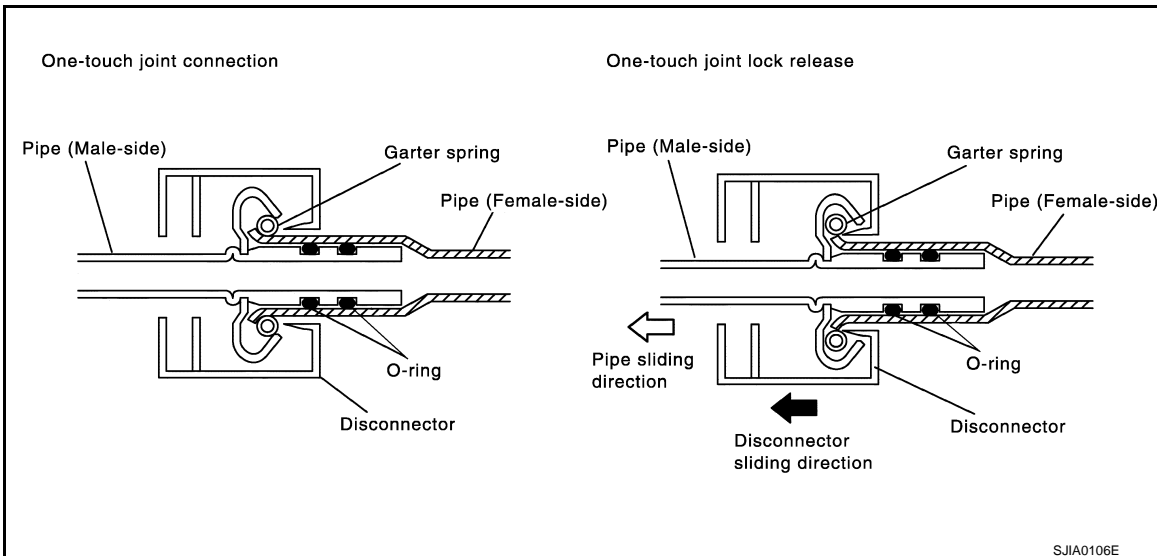
FUNCTIONS OF COMPONENT PARTS

1	Pipe (Male-side)	<ul style="list-style-type: none"> Retains O-rings. Retains garter spring in cage (A).
2	Garter spring	Anchors female-side piping.
3	Indicator ring	When connection is made properly, this is ejected from male-side piping. (This part is no longer necessary after connection.)
4	O-ring	Seals connection point. (Not reusable)
5	Pipe (Female-side)	<ul style="list-style-type: none"> Seals connection by compressing O-rings. Anchors piping connection using flare (B) and garter spring.

NOTE:

- Garter spring cannot be removed from cage of male-side piping.
- Indicator ring remains near piping connection point, however, this is not a malfunction. (This is to check piping connection during factory assembly.)

REMOVAL

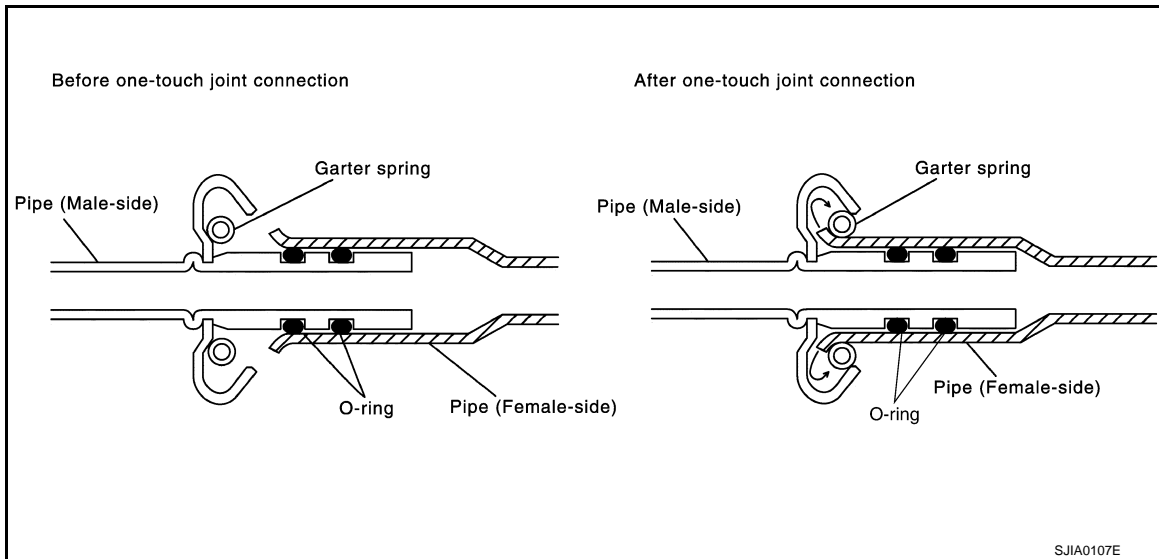


- Clean piping connection point, and set a disconnector.
- Slide disconnector in axial direction of piping, and stretch garter spring with tapered point of disconnector.
- Slide disconnector farther so that inside diameter of garter spring becomes larger than outside diameter of female-side piping flare. Then male-side piping can be disconnected.

PRECAUTIONS

< PRECAUTION >

INSTALLATION



1. Clean piping connection points, and insert male-side piping into female-side piping.
2. Push inserted male-side piping harder so that female-side piping flare stretches garter spring.
3. Garter spring seats on flare if inside diameter of garter spring becomes larger than outside diameter of female-side piping flare. Then, it fits in between male-side piping cage and female-side piping flare to anchor piping connection point.

NOTE:

When garter spring seats on flare, and fits in between male-side piping cage and female-side piping flare, it clicks.

CAUTION:

- Female-side piping connection point is thin and easy to deform. Slowly insert the male-side piping straight in axial direction.
- Insert piping securely until a click is heard.
- After piping connection is completed, pull male-side piping by hand to make sure that connection does not come loose.

NOTE:

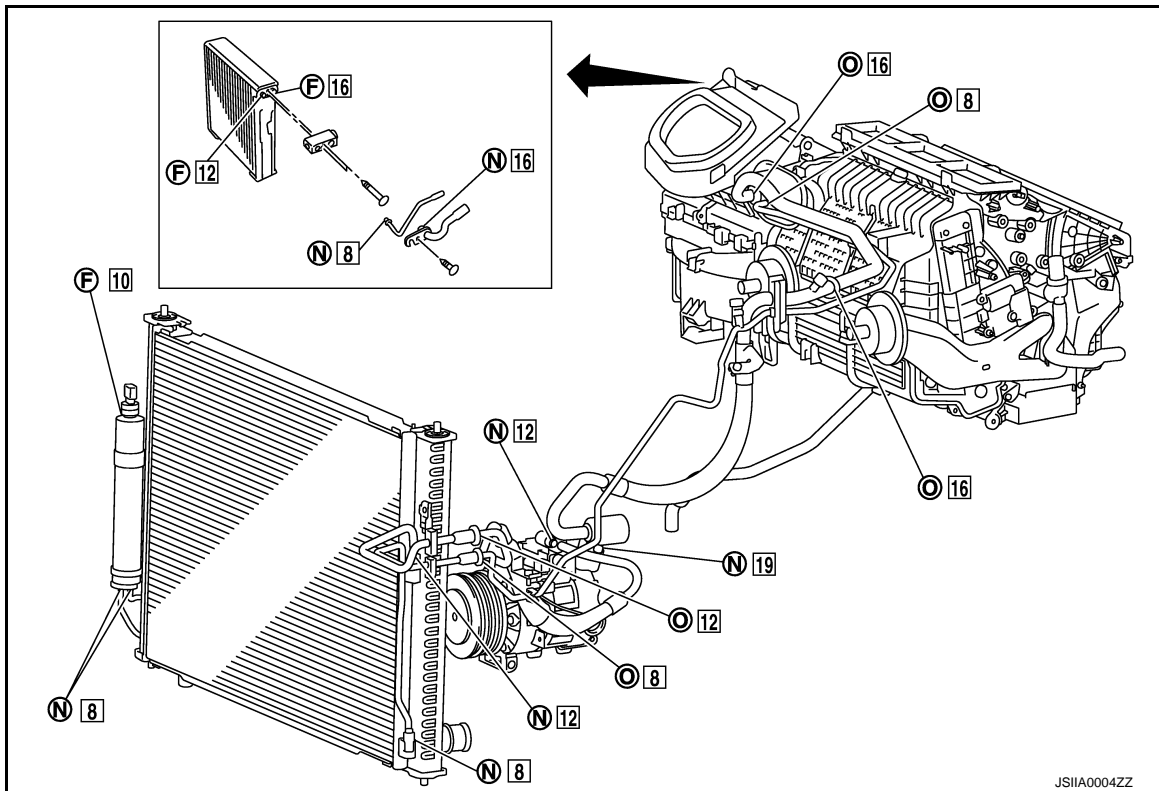
One-touch joint connection is used in points below.

- Low-pressure flexible hose to low-pressure pipe 2 (O-ring size: 16)
- Low-pressure pipe 1 to low-pressure pipe 2 (O-ring size: 16)
- High-pressure flexible hose to condenser pipe assembly (O-ring size: 12)
- High-pressure pipe 1 to high-pressure pipe 2 (O-ring size: 8)
- High-pressure pipe 1 to condenser pipe assembly (O-ring size: 8)

O-RING AND REFRIGERANT CONNECTION

PRECAUTIONS

< PRECAUTION >



F. Former type refrigerant connection N. New type refrigerant connection O. One-touch joint
 □: O-ring size

CAUTION:

The new and former refrigerant connections use different O-ring configurations. Never confuse O-rings since they are not interchangeable. Refrigerant may leak at the connection if a wrong O-ring is installed.

O-Ring Part Numbers and Specifications

Connection type	Piping connection point		Part number	QTY	O-ring size
New	Low-pressure flexible hose to low-pressure pipe 2 (One-touch joint)		92473 N8221	2	16
	High-pressure pipe 1 to high-pressure pipe 2 (One-touch joint)		92471 N8221	2	8
	Condenser pipe assembly to high-pressure flexible hose (One-touch joint)		92472 N8221	2	12
	Condenser pipe assembly to high-pressure pipe 1 (One-touch joint)		92471 N8221	2	8
	Radiator & condenser assembly to condenser pipe assembly	Inlet	92472 N8210	1	12
		Outlet	92471 N8210	1	8
	Low-pressure pipe 1 to low-pressure pipe 2		92473 N8210	1	16
	Low-pressure pipe 1 to expansion valve		92473 N8210	1	16
	High-pressure pipe 2 to expansion valve		92471 N8210	1	8
	Compressor to low-pressure flexible hose		92474 N8210	1	19
	Compressor to high-pressure flexible hose		92472 N8210	1	12
	Liquid tank to radiator & condenser assembly	Inlet	92471 N8210	1	8
		Outlet		1	

PRECAUTIONS

< PRECAUTION >

Connection type	Piping connection point		Part number	QTY	O-ring size
Former	Refrigerant pressure sensor to liquid tank		J2476 89956	1	10
	Expansion valve to evaporator	Inlet	92475 71L00	1	12
		Outlet	92475 72L00	1	16

WARNING:

Check that all refrigerant is discharged into the recycling equipment and the pressure in the system is less than atmospheric pressure. Then gradually loosen the discharge side hose fitting and remove it.

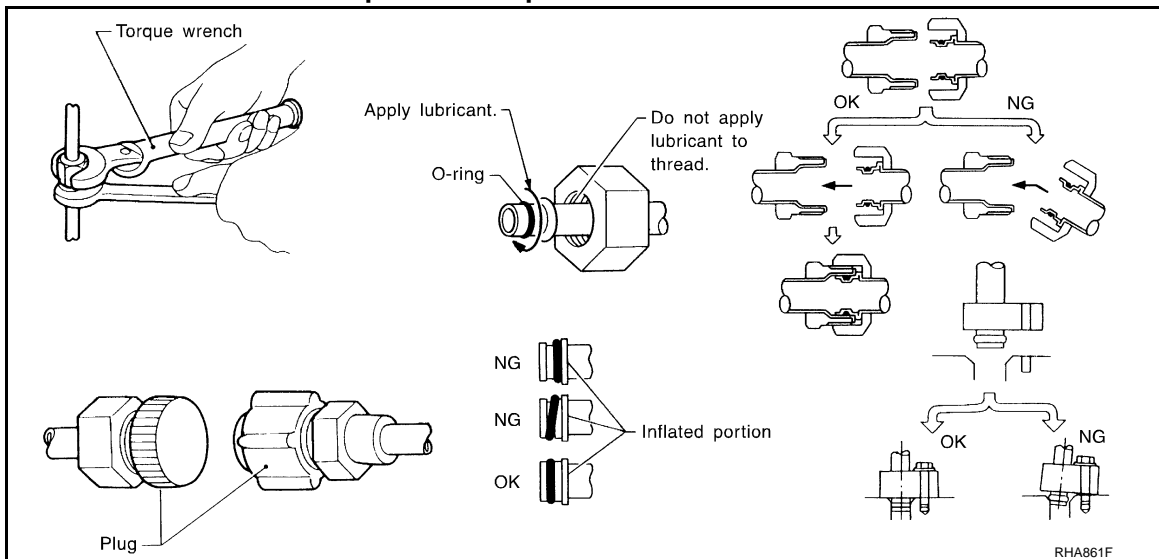
CAUTION:

Observe the following when replacing or cleaning refrigerant cycle components.

- Store it in the same way at it is when mounted on the car when the compressor is removed. Failure to do so will cause lubricant to enter the low-pressure chamber.
- Use always a torque wrench and a back-up wrench when connecting tubes.
- Plug immediately all openings to prevent entry of dust and moisture after disconnecting tubes.
- Connect the pipes at the final stage of the operation when installing an air conditioner in the vehicle. Never remove the seal caps of pipes and other components until just before required for connection.
- Allow components stored in cool areas to warm to working area temperature before removing seal caps. This prevents condensation from forming inside A/C components.
- Remove thoroughly moisture from the refrigeration system before charging the refrigerant.
- Replace always used O-rings.
- Apply lubricant to circle of the O-rings shown in illustration when connecting tube. Be careful not to apply lubricant to threaded portion.

Name : Nissan A/C System Oil Type S

- O-ring must be closely attached to the groove portion of tube.
- Be careful not to damage O-ring and tube when replacing the O-ring.
- Connect tube until a click can be heard. Then tighten the nut or bolt by hand. Check that the O-ring is installed to tube correctly.
- Perform leakage test and make sure that there is no leakage from connections after connecting line. Disconnect that line and replace the O-ring when the refrigerant leaking point is found. Then tighten connections of seal seat to the specified torque.



Service Equipment

INFOID:000000002989293

RECOVERY/RECYCLING EQUIPMENT

Be certain to follow the manufacturer's instructions for machine operation and machine maintenance. Never introduce any refrigerant other than that specified into the machine.

ELECTRICAL LEAK DETECTOR

Be certain to follow the manufacturer's instructions for tester operation and tester maintenance.

VACUUM PUMP

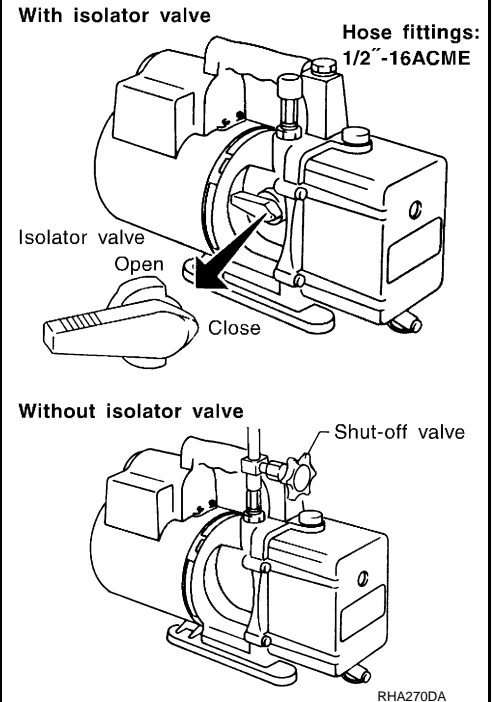
PRECAUTIONS

< PRECAUTION >

The lubricant contained inside the vacuum pump is not compatible with the specified lubricant for HFC-134a (R-134a) A/C systems. The vent side of the vacuum pump is exposed to atmospheric pressure. So the vacuum pump lubricant may migrate out of the pump into the service hose. This is possible when the pump is switched OFF after evacuation (vacuuming) and hose is connected to it. To prevent this migration, use a manual valve placed near the hose-to-pump connection, as per the following.

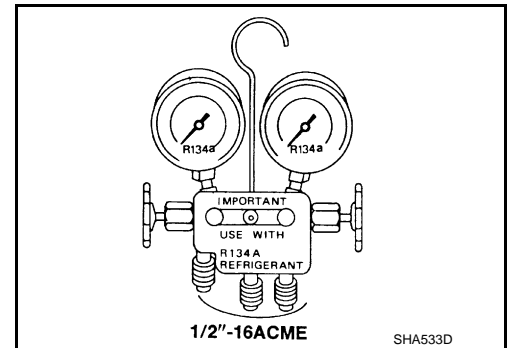
- Vacuum pumps usually have a manual isolator valve as part of the pump. Close this valve to isolate the service hose from the pump.
- Use a hose equipped with a manual shut-off valve near the pump end for pumps without an isolator. Close the valve to isolate the hose from the pump.
- Disconnect the hose from the pump if the hose has an automatic shut-off valve. As long as the hose is connected, the valve is open and lubricating oil may migrate.

Some one-way valves open when vacuum is applied and close under no vacuum condition. Such valves may restrict the pump's ability to pull a deep vacuum and are not recommended.



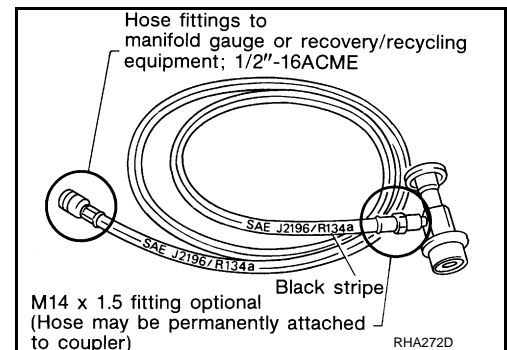
MANIFOLD GAUGE SET

Be certain that the gauge face indicates HFC-134a or R-134a. Be sure the gauge set has 1/2"-16 ACME threaded connections for service hoses. Confirm the set has been used only with refrigerant HFC-134a (R-134a) and specified lubricants.



SERVICE HOSES

Be certain that the service hoses display the markings described (colored hose with black stripe). All hoses must equip positive shut-off devices (either manual or automatic) near the end of the hoses opposite to the manifold gauge.



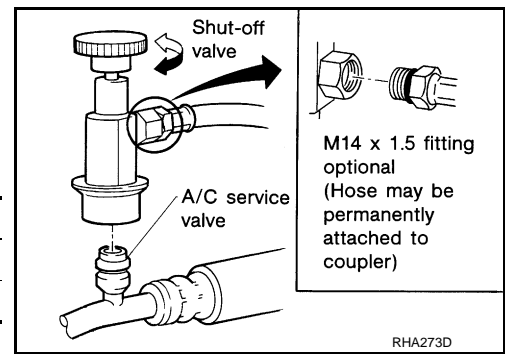
SERVICE COUPLERS

PRECAUTIONS

< PRECAUTION >

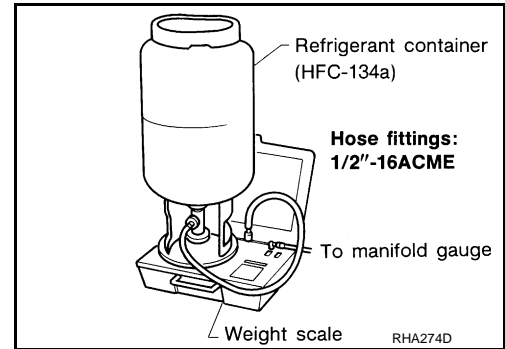
Never attempt to connect HFC-134a (R-134a) service couplers to a CFC-12 (R-12) A/C system. The HFC-134a (R-134a) couplers do not properly connect to the CFC-12 (R-12) system. However, if an improper connection is attempted, discharging and contamination may occur.

Shut-off valve rotation	A/C service valve
Clockwise	Open
Counterclockwise	Close



REFRIGERANT WEIGHT SCALE

Verify that no refrigerant other than HFC-134a (R-134a) and specified lubricants have been used with the scale. The hose fitting must be 1/2"-16 ACME if the scale controls refrigerant flow electronically.



CHARGING CYLINDER

Using a charging cylinder is not recommended. Refrigerant may be vented into air from cylinder's top valve when filling the cylinder with refrigerant. Also, the accuracy of the cylinder is generally less than that of an electronic scale or of quality recycle/recharge equipment.

COMPRESSOR

< PRECAUTION >

COMPRESSOR

General Precautions

INFOID:000000002989294

CAUTION:

- Plug all openings to prevent moisture and foreign matter from entering.
- Store it in the same way as it is when mounted on the car when the compressor is removed.
- Follow "Maintenance of Lubricant Quantity in Compressor" exactly when replacing or repairing compressor. Refer to [HA-26, "Maintenance of Lubricant Quantity"](#).
- Keep friction surfaces between clutch and pulley clean. Wipe it off by using a clean waste cloth moistened with thinner if the surface is contaminated with lubricant.
- Turn the compressor shaft by hand more than five turns in both directions after compressor service operation. This distributes equally lubricant inside the compressor. Let the engine idle and operate the compressor for one hour after the compressor is installed.
- Apply voltage to the new one and check for normal operation after replacing the compressor magnet clutch.

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FLUORESCENT LEAK DETECTOR

< PRECAUTION >

FLUORESCENT LEAK DETECTOR

General Precautions

INFOID:000000002989295

CAUTION:

- The A/C system contains a fluorescent leak detection dye used for locating refrigerant leakages. An ultraviolet (UV) lamp is required to illuminate the dye when inspecting for leakages.
- Wear always fluorescence enhancing UV safety goggles to protect eyes and enhance the visibility of the fluorescent dye.
- The fluorescent dye leak detector is not a replacement for an electrical leak detector (SST: J-41995). The fluorescent dye leak detector should be used in conjunction with an electrical leak detector (SST: J-41995) to pin-point refrigerant leakages.
- Read and follow all manufacture's operating instructions and precautions prior to performing the work for the purpose of safety and customer's satisfaction.
- A compressor shaft seal should not necessarily be repaired because of dye seepage. The compressor shaft seal should only be repaired after confirming the leakage with an electrical leak detector (SST: J-41995).
- Remove always any remaining dye from the leakage area after repairs are completed to avoid a misdiagnosis during a future service.
- Never allow dye to come into contact with painted body panels or interior components. Clean immediately with the approved dye cleaner if dye is spilled. Fluorescent dye left on a surface for an extended period of time cannot be removed.
- Never spray the fluorescent dye cleaning agent on hot surfaces (engine exhaust manifold, etc.).
- Never use more than one refrigerant dye bottle (1/4 ounce /7.4 cc) per A/C system.
- Leak detection dyes for HFC-134a (R-134a) and CFC-12 (R-12) A/C systems are different. Never use HFC-134a (R-134a) leak detection dye in CFC-12 (R-12) A/C system, or CFC-12 (R-12) leak detection dye in HFC-134a (R-134a) A/C system, or A/C system damage may result.
- The fluorescent properties of the dye remains for three years or a little over unless a compressor malfunction occurs.

IDENTIFICATION

NOTE:

Vehicles with factory installed fluorescent dye have a green label.

Vehicles without factory installed fluorescent dye have a blue label.

IDENTIFICATION LABEL FOR VEHICLE

Vehicles with factory installed fluorescent dye have the identification label on the front side of hood.

PREPARATION

< PREPARATION >

PREPARATION

PREPARATION

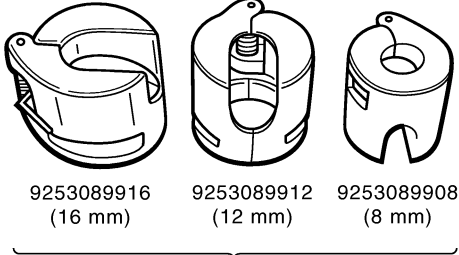

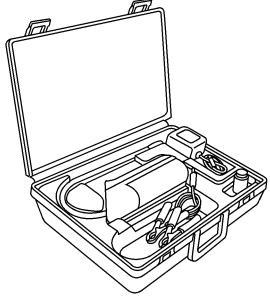
Special Service Tool

INFOID:000000002989296

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

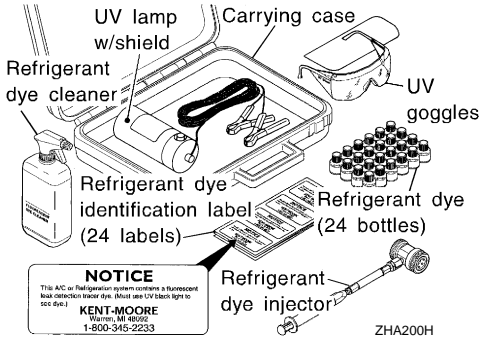
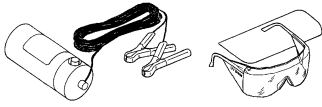

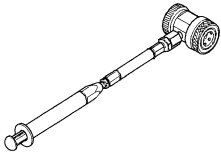

HFC-134a (R-134a) Service Tool and Equipment

- Never mix HFC-134a (R-134a) refrigerant and/or its specified lubricant with CFC-12 (R-12) refrigerant and/or its lubricant.
- Separate and non-interchangeable service equipment must be used for handling each type of refrigerant/lubricant.
- Refrigerant container fittings, service hose fittings and service equipment fittings (equipment which handles refrigerant and/or lubricant) are different between CFC-12 (R-12) and HFC-134a (R-134a). This is to avoid mixed use of the refrigerants/lubricant.
- Never use adapters that convert one size fitting to another: refrigerant/lubricant contamination occurs and compressor malfunction may result.

Tool number (Kent-Moore No.) Tool name		Description
9253089908 (for high-pressure pipe 1) (-) 9253089912 (for high-pressure flexible hose) (-) 9253089916 (for low-pressure pipe 2 and low-pressure flexible hose) (-) Disconnecter tool set (J-45815)	 <p>9253089916 (16 mm) 9253089912 (12 mm) 9253089908 (8 mm)</p> <p>Disconnecter tool set : J-45815</p> <p>SJIA1274E</p>	Disconnect one-touch joint connection
(ACR2005-NI) ACR5 A/C Service Center	 <p>WJIA0293E</p>	Function: Refrigerant recovery, recycling and recharging
(J-41995) Electrical leak detector	 <p>AHA281A</p>	Power supply: DC 12 V (Battery terminal)

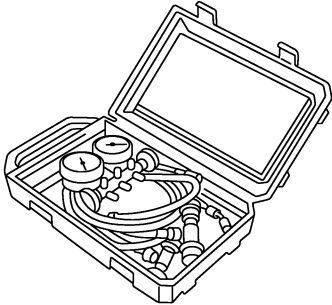
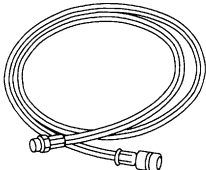
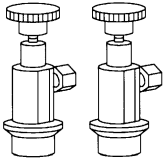
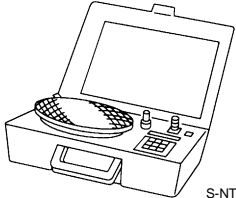
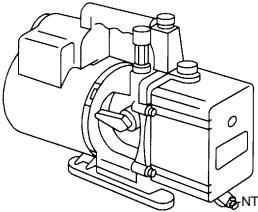
PREPARATION

< PREPARATION >

Tool number (Kent-Moore No.) Tool name		Description
(J-43926) Refrigerant dye leak detection kit Kit includes: (J-42220) UV lamp and UV safety goggles (J-41459) HFC-134a (R-134a) dye injector Use with J-41447, 1/4 ounce bottle (J-41447) HFC-134a (R-134a) fluorescent leak detection dye (Box of 24, 1/4 ounce bottles) (J-43872) Refrigerant dye cleaner	 <p>UV lamp w/shield</p> <p>Carrying case</p> <p>Refrigerant dye cleaner</p> <p>Refrigerant dye identification label (24 labels)</p> <p>Refrigerant dye (24 bottles)</p> <p>Refrigerant dye injector ZHA200H</p> <p>UV goggles</p> <p>NOTICE This A/C or Refrigeration system contains a fluorescent leak detection dye. Read and UV/Black light to see dye. KENT-MOORE Warren, MI 48092 1-800-545-2233</p>	Power supply: DC 12 V (Battery terminal)
(J-42220) UV lamp and UV safety goggles	 <p>SHA438F</p>	Power supply: DC 12 V (Battery terminal) For checking refrigerant leakage when fluorescent dye is equipped in A/C system Includes: UV lamp and UV safety goggles
(J-41447) HFC-134a (R-134a) fluorescent leak detection dye (Box of 24, 1/4 ounce bottles)	 <p>Refrigerant dye (24 bottles)</p> <p>SHA439F</p>	Application: For HFC-134a (R-134a) PAG oil Container: 1/4 ounce (7.4 cc) bottle (Includes self-adhesive dye identification labels for affixing to vehicle after charging system with dye.)
(J-41459) HFC-134a (R-134a) dye injector Use with J-41447, 1/4 ounce bottle	 <p>SHA440F</p>	For injecting 1/4 ounce of fluorescent leak detection dye into A/C system
(J-43872) Refrigerant dye cleaner	 <p>SHA441F</p>	For cleaning dye spills

PREPARATION

< PREPARATION >

Tool number (Kent-Moore No.) Tool name	Description	A
(J-39183) Manifold gauge set (with hoses and couplers)	 Identification: • The gauge face indicates HFC-134a (R-134a). Fitting size: Thread size • 1/2"-16 ACME	B C D
Service hoses • High-pressure side hose (J-39501-72) • Low-pressure side hose (J-39502-72) • Utility hose (J-39476-72)	 Hose color: • Low-pressure side hose: Blue with black stripe • High-pressure side hose: Red with black stripe • Utility hose: Yellow with black stripe or green with black stripe Hose fitting to gauge: • 1/2"-16 ACME	E F G
Service couplers • High-pressure side coupler (J-39500-20) • Low-pressure side coupler (J-39500-24)	 Hose fitting to service hose: M14 x 1.5 fitting is optional or permanently attached.	H VTL
(J-39650) Refrigerant weight scale	 For measuring of refrigerant Fitting size: Thread size 1/2"-16 ACME	J K L
(J-39649) Vacuum pump (Including the isolator valve)	 Capacity: • Air displacement: 4 CFM • Micron rating: 20 microns • Oil capacity: 482 g (17 oz.) Fitting size: Thread size • 1/2"-16 ACME	M N

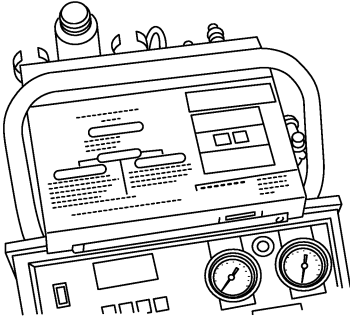
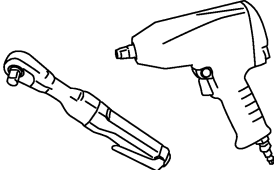
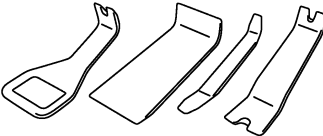
P

PREPARATION

< PREPARATION >

Commercial Service Tool

INFOID:000000002989297

Tool name	Description
<p>Refrigerant identifier equipment</p>  <p>RJIA0197E</p>	<p>Checking for refrigerant purity and system contamination</p>
<p>Power tool</p>  <p>PBIC0190E</p>	<p>For loosening bolts and nuts</p>
<p>Remover tool</p>  <p>PIIB7923J</p>	<p>Remove clips, pawls, metal clips</p>

Sealant or/and Lubricant

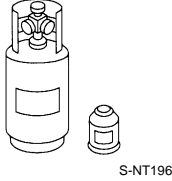

INFOID:000000002989298

HFC-134a (R-134a) Service Tool and Equipment

- Never mix HFC-134a (R-134a) refrigerant and/or its specified lubricant with CFC-12 (R-12) refrigerant and/or its lubricant.
- Separate and non-interchangeable service equipment must be used for handling each type of refrigerant/lubricant.
- Refrigerant container fittings, service hose fittings and service equipment fittings (equipment which handles refrigerant and/or lubricant) are different between CFC-12 (R-12) and HFC-134a (R-134a). This is to avoid mixed use of the refrigerants/lubricant.
- Never use adapters that convert one size fitting to another: refrigerant/lubricant contamination occurs and compressor malfunction may result.

PREPARATION

< PREPARATION >

Tool name	Description
<p>HFC-134a (R-134a) refrigerant</p>  <p>S-NT196</p>	<p>Container color: Light blue Container marking: HFC-134a (R-134a) Fitting size: Thread size • Large container 1/2"-16 ACME</p>
<p>Nissan A/C System Oil Type S (DH-PS)</p>  <p>S-NT197</p>	<p>Type: Polyalkylene glycol oil (PAG), type S (DH-PS) Application: HFC-134a (R-134a) swash plate compressors (Nissan only) Capacity: 40 m ℓ (1.4 US fl oz., 1.4 Imp fl oz.)</p>

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VTL

IN-CABIN MICROFILTER

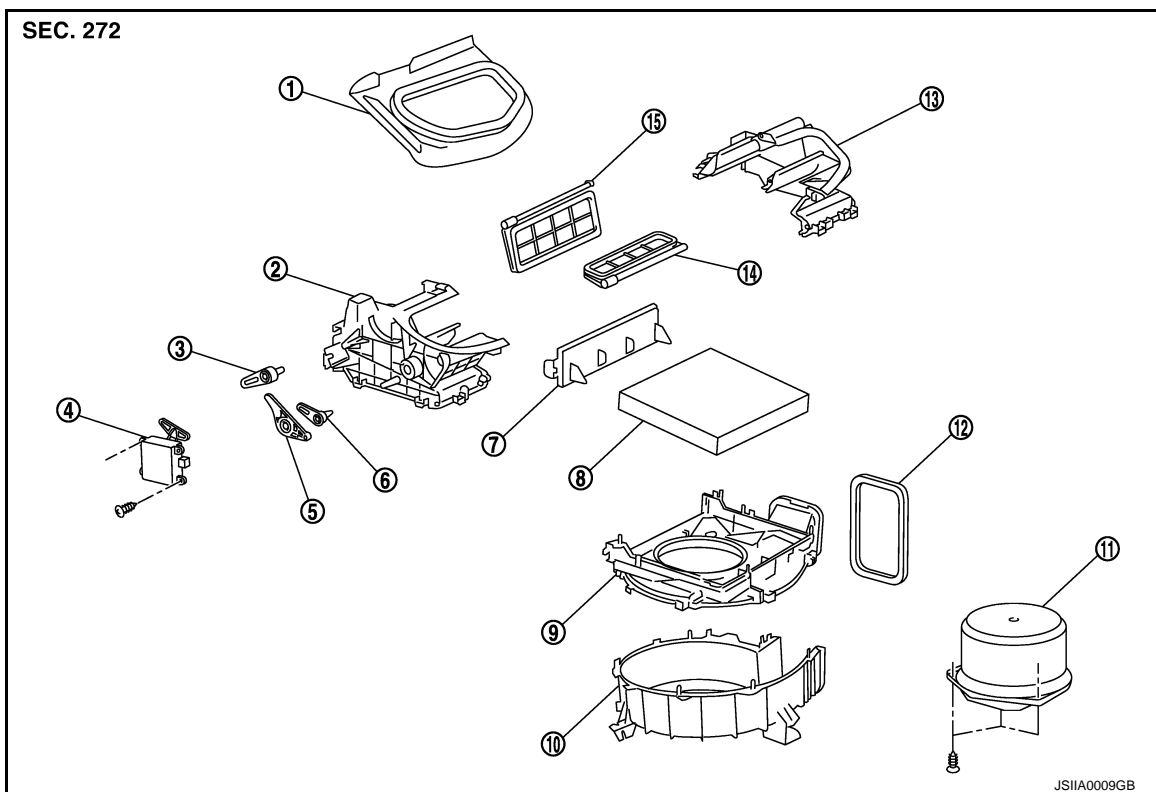
< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

IN-CABIN MICROFILTER

Exploded View

INFOID:000000002989299



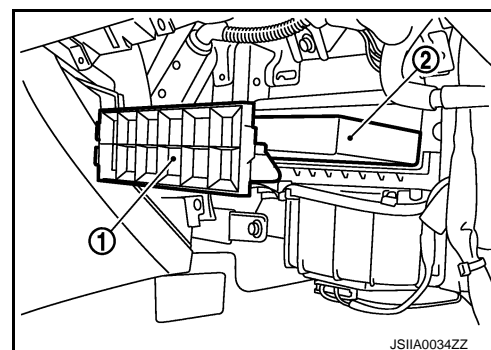
- | | | |
|-----------------------|---------------------------|------------------------|
| 1. Adapter | 2. Intake box (right) | 3. Intake door lever 2 |
| 4. Intake door motor | 5. Intake door link | 6. Intake door lever 1 |
| 7. Filter cover | 8. In-cabin microfilter | 9. Intake upper case |
| 10. Intake lower case | 11. Blower motor assembly | 12. Seal |
| 13. Intake box (left) | 14. Intake door 1 | 15. Intake door 2 |

Removal and Installation

INFOID:000000002989300

REMOVAL

1. Remove instrument assist lower panel. Refer to [IP-11, "Exploded View"](#).
2. Remove filter cover (1), and then remove in-cabin microfilter (2).



INSTALLATION

Installation is basically the reverse order of removal.

IN-CABIN MICROFILTER

< PERIODIC MAINTENANCE >

Replacement

INFOID:000000002989301

Replace in-cabin microfilter.
Refer to [MA-6. "Schedule 1"](#) and [MA-8. "Schedule 2"](#).
Affix a caution label inside the glove box when replacing filter.

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PRESET SWITCH

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

PRESET SWITCH

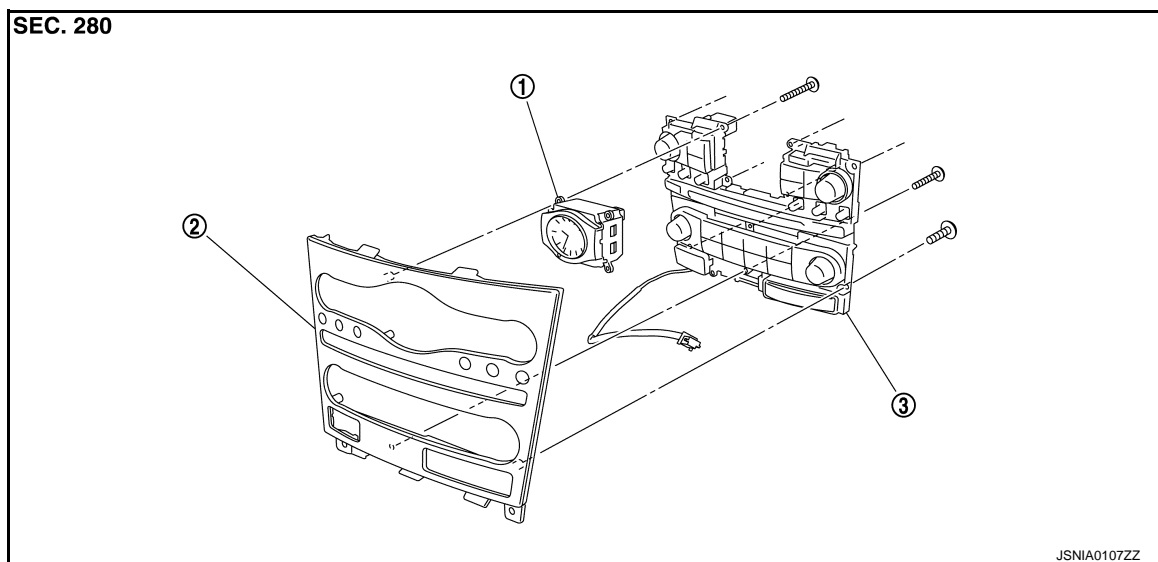
Exploded View

INFOID:000000002989302

REMOVAL

Refer to [IP-11. "Exploded View"](#).

DISASSEMBLY



1. Clock

2. Cluster lid C

3. Preset switch

Removal and Installation

INFOID:000000002989303

REMOVAL

Refer to [AV-122. "Removal and Installation"](#) (BASE AUDIO WITHOUT NAVIGATION), [AV-335. "Removal and Installation"](#) (BOSE AUDIO WITHOUT NAVIGATION), [AV-615. "Removal and Installation"](#) (BOSE AUDIO WITH NAVIGATION).

INSTALLATION

Installation is basically the reverse order of removal.

AUTO AMP.

< REMOVAL AND INSTALLATION >

AUTO AMP.

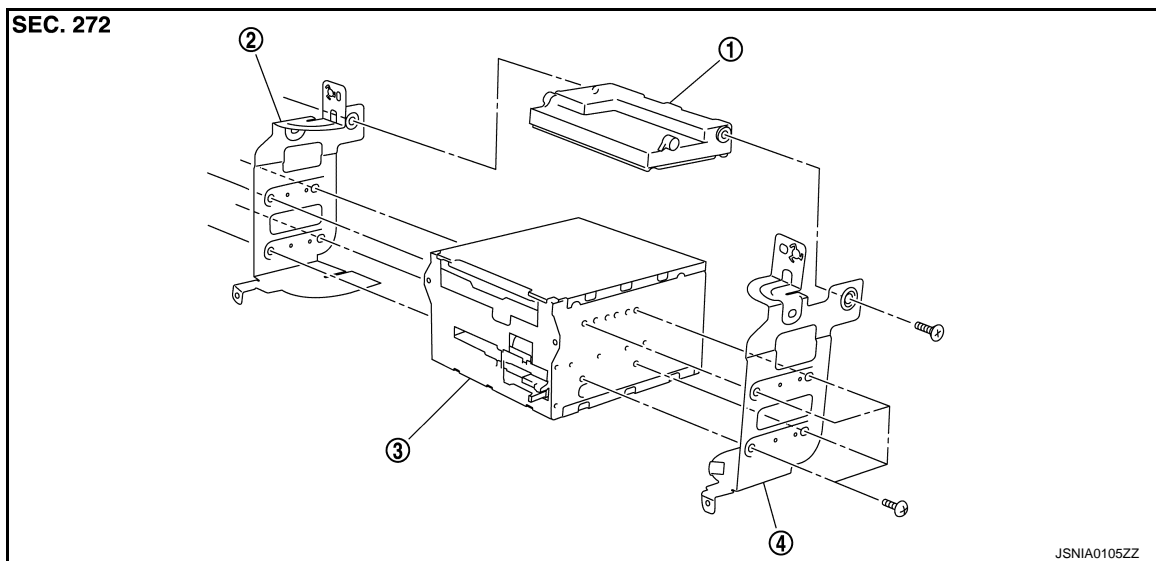
Exploded View

INFOID:000000003037145

REMOVAL

Refer to [JP-11, "Exploded View"](#).

DISASSEMBLY



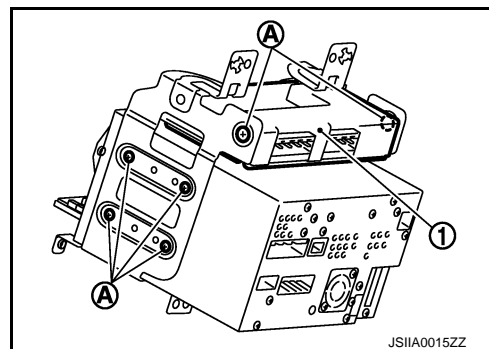
1. Unified meter and A/C amp.
2. Bracket (LH)
3. AV control unit
4. Bracket (RH)

Removal and Installation

INFOID:000000002989305

REMOVAL

1. Remove AV control unit. Refer to [AV-122, "Removal and Installation"](#) (BASE AUDIO WITHOUT NAVIGATION), [AV-335, "Removal and Installation"](#) (BOSE AUDIO WITHOUT NAVIGATION) or [AV-615, "Removal and Installation"](#) (BOSE AUDIO WITH NAVIGATION).
2. Remove mounting screws (A), and then remove unified meter and A/C amp. (1).



INSTALLATION

Installation is basically the reverse order of removal.

CAUTION:

Since unified meter and A/C amp. connector and AV control unit connector have the same form, be careful not to insert them wrongly.

AMBIENT SENSOR

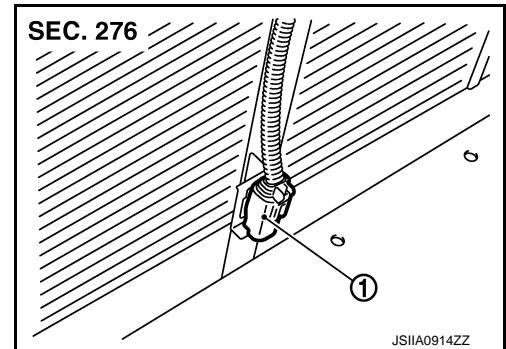
< REMOVAL AND INSTALLATION >

AMBIENT SENSOR

Exploded View

INFOID:000000002989306

1. Ambient sensor

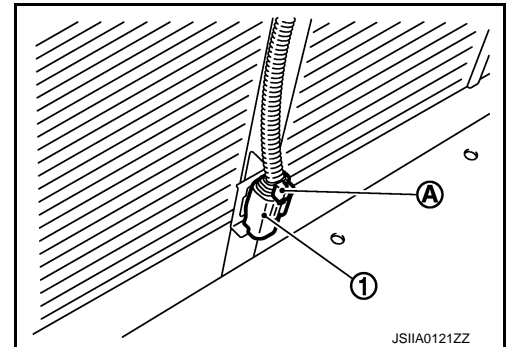


Removal and Installation

INFOID:000000002989307

REMOVAL

1. Remove front grille. Refer to [EXT-18, "Exploded View"](#).
2. Disconnect ambient sensor connector (A), and then remove ambient sensor (1).



INSTALLATION

Installation is basically the reverse order of removal.

IN-VEHICLE SENSOR

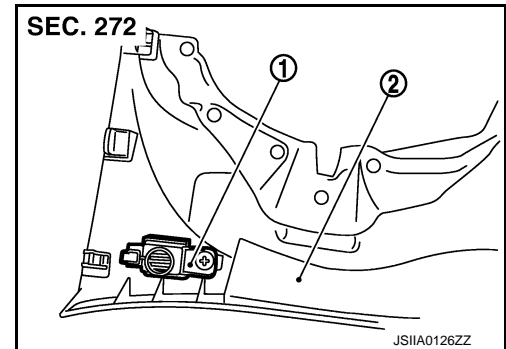
< REMOVAL AND INSTALLATION >

IN-VEHICLE SENSOR

Exploded View

INFOID:000000002989308

1. In-vehicle sensor
2. instrument driver lower panel

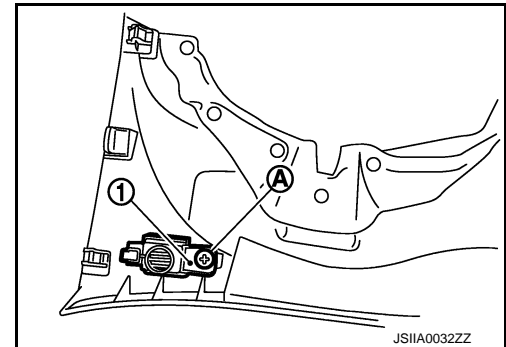


Removal and Installation

INFOID:000000002989309

REMOVAL

1. Remove instrument driver lower panel. Refer to [IP-11, "Exploded View"](#).
2. Remove mounting screw (A), and then remove in-vehicle sensor (1).



INSTALLATION

Installation is basically the reverse order of removal.

SUNLOAD SENSOR

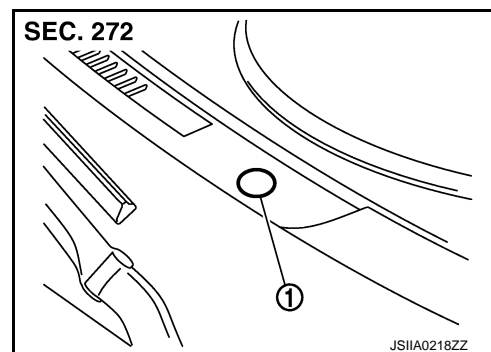
< REMOVAL AND INSTALLATION >

SUNLOAD SENSOR

Exploded View

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1. Sunload sensor

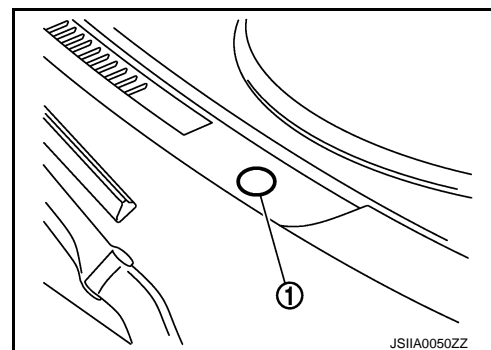


Removal and Installation

INFOID:000000002989311

REMOVAL

1. Remove front defroster grille (left). Refer to [VTL-47, "FRONT DEFROSTER GRILLE : Exploded View"](#).
2. Disconnect sunload sensor connector, and then remove sunload sensor (1).



INSTALLATION

Installation is basically the reverse order of removal.

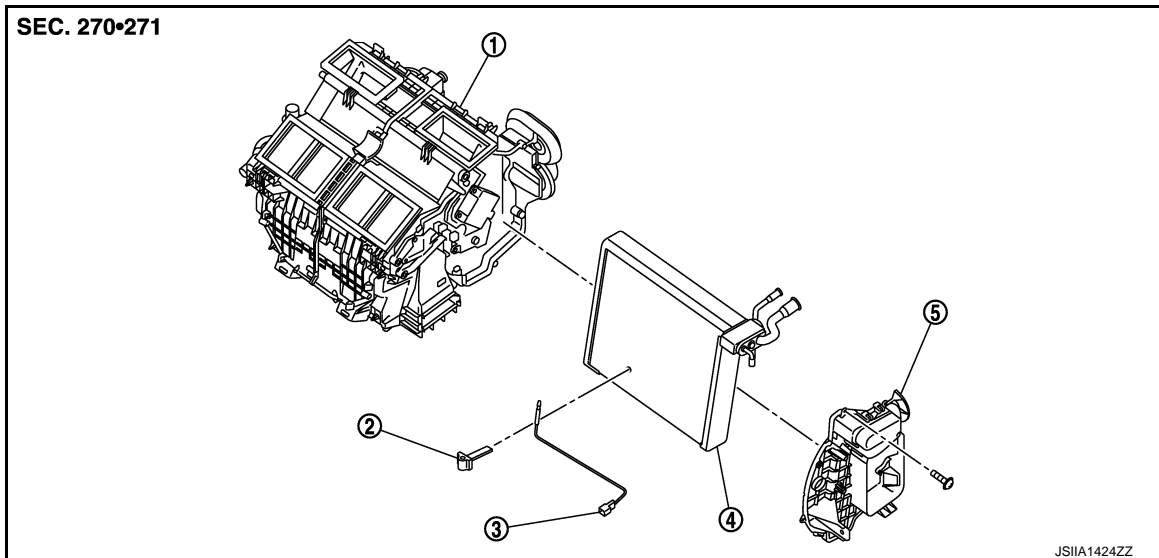
INTAKE SENSOR

< REMOVAL AND INSTALLATION >

INTAKE SENSOR

Exploded View

INFOID:000000004715374



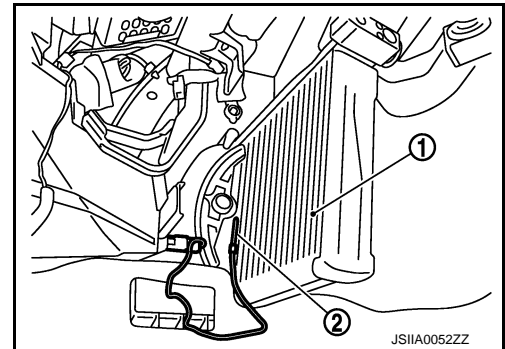
- | | | |
|-----------------------------------|--------------------------|------------------|
| 1. Heater & cooling unit assembly | 2. Intake sensor bracket | 3. Intake sensor |
| 4. Evaporator assembly | 5. Evaporator cover | |

Removal and Installation

INFOID:000000002989313

REMOVAL

1. Remove low-pressure pipe 1 and high-pressure pipe 2. Refer to [HA-46, "Exploded View"](#).
CAUTION:
Cap or wrap the joint of the A/C piping with suitable material such as vinyl tape to avoid the entry of air.
2. Slide evaporator (1) to passenger side, and then remove intake sensor (2).



INSTALLATION

Installation is basically the reverse order of removal.

CAUTION:

- Replace O-rings with new ones. Then apply compressor oil to them when installing.
- Mark the mounting position of intake sensor bracket prior to removal so that the reinstalled sensor can be located in the same position.
- Female-side piping connection is thin and easy to deform. Slowly insert the male-side piping straight in axial direction.
- Insert piping securely until a click is heard.
- After piping connection is completed, pull male-side piping by hand to make sure that connection does not come loose.
- Check for leakages when recharging refrigerant.

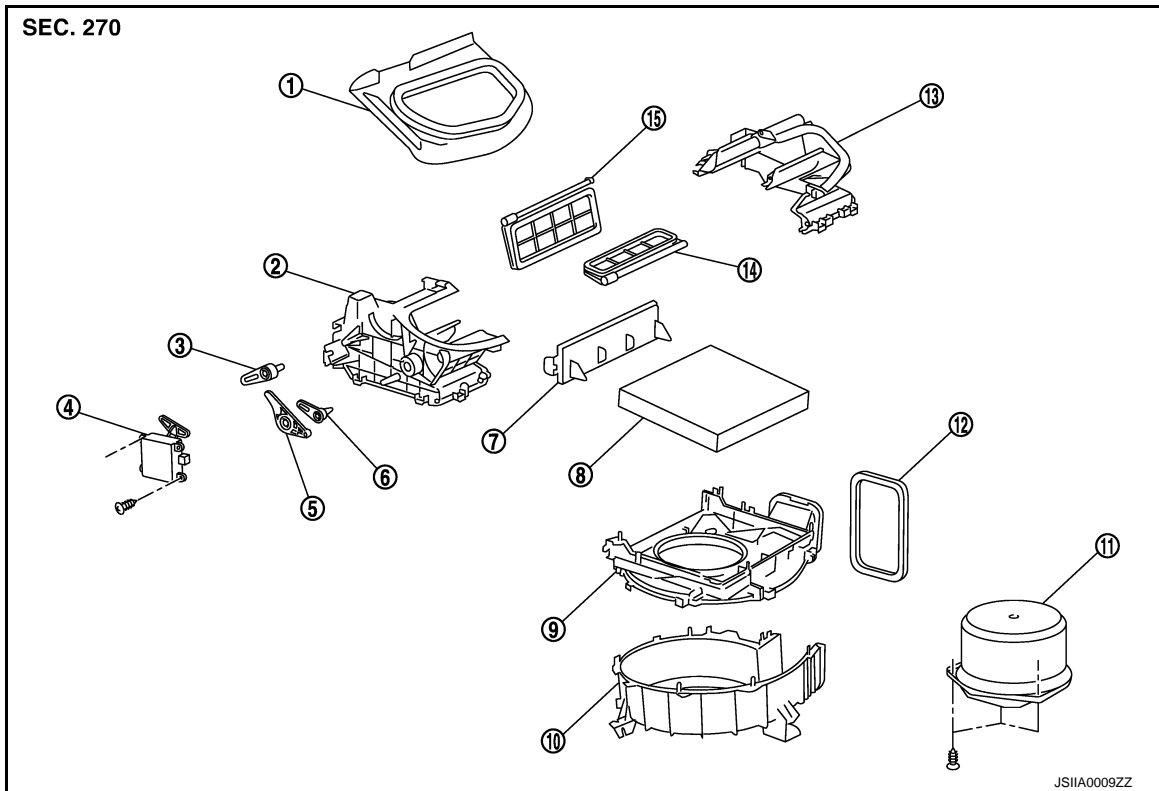
BLOWER UNIT

< REMOVAL AND INSTALLATION >

BLOWER UNIT

Exploded View

INFOID:000000002989314



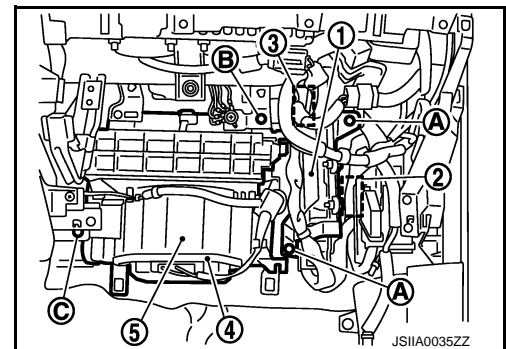
- | | | |
|-----------------------|---------------------------|------------------------|
| 1. Adapter | 2. Intake box (right) | 3. Intake door lever 2 |
| 4. Intake door motor | 5. Intake door link | 6. Intake door lever 1 |
| 7. Filter cover | 8. In-cabin microfilter | 9. Intake upper case |
| 10. Intake lower case | 11. Blower motor assembly | 12. Seal |
| 13. Intake box (left) | 14. Intake door 1 | 15. Intake door 2 |

Removal and Installation

INFOID:000000002989315

REMOVAL

1. Remove instrument lower panel. Refer to [IP-11. "Exploded View"](#).
2. Disconnect ECM (1) connectors.
3. Disconnect AWD control unit (2) connector (AWD).
4. Remove mounting nuts (A), and then remove ECM with bracket attached.
5. Remove power steering control unit. Refer to [STC-25. "Exploded View"](#) (WITHOUT 4WAS).
6. Disconnect intake door motor (3) connector and blower motor (4) connector.
7. Remove mounting bolt (B) and screw (C), from blower unit (5).
8. Remove blower unit.



CAUTION:

Move blower unit rightward, and remove locating pin (1 part) and joint. Then remove blower unit downward.

INSTALLATION

Installation is basically the reverse order of removal.

BLOWER UNIT

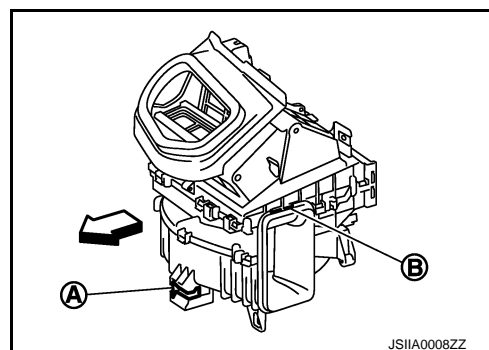
< REMOVAL AND INSTALLATION >



Vehicle front

CAUTION:

Make sure locating pin (A) and joint (B) are securely inserted.



A

B

C

D

E

F

G

H

VTL

J

K

L

M

N

O

P

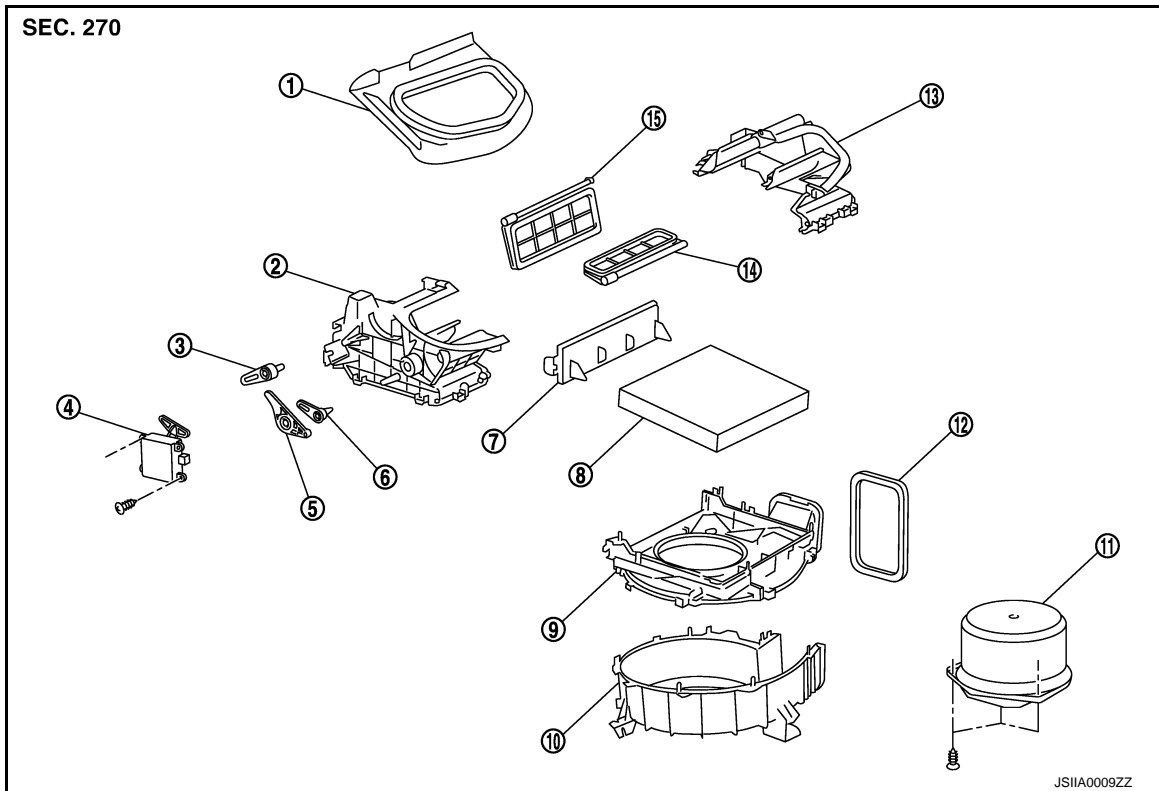
BLOWER MOTOR

< REMOVAL AND INSTALLATION >

BLOWER MOTOR

Exploded View

INFOID:000000002989316



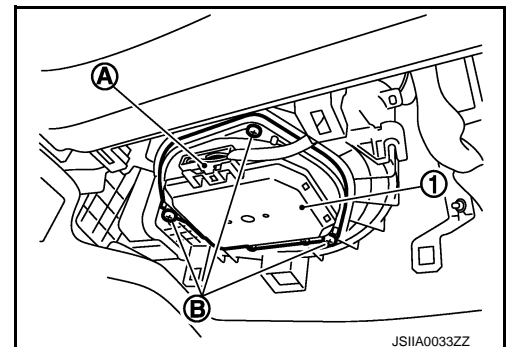
- | | | |
|-----------------------|---------------------------|------------------------|
| 1. Adapter | 2. Intake box (right) | 3. Intake door lever 2 |
| 4. Intake door motor | 5. Intake door link | 6. Intake door lever 1 |
| 7. Filter cover | 8. In-cabin microfilter | 9. Intake upper case |
| 10. Intake lower case | 11. Blower motor assembly | 12. Seal |
| 13. Intake box (left) | 14. Intake door 1 | 15. Intake door 2 |

Removal and Installation

INFOID:000000002989317

REMOVAL

1. Remove instrument lower cover. Refer to [IP-11, "Exploded View"](#).
2. Disconnect blower motor connector (A).
3. Remove mounting screws (B), and then remove blower motor assembly (1).



INSTALLATION

Installation is basically the reverse order of removal.

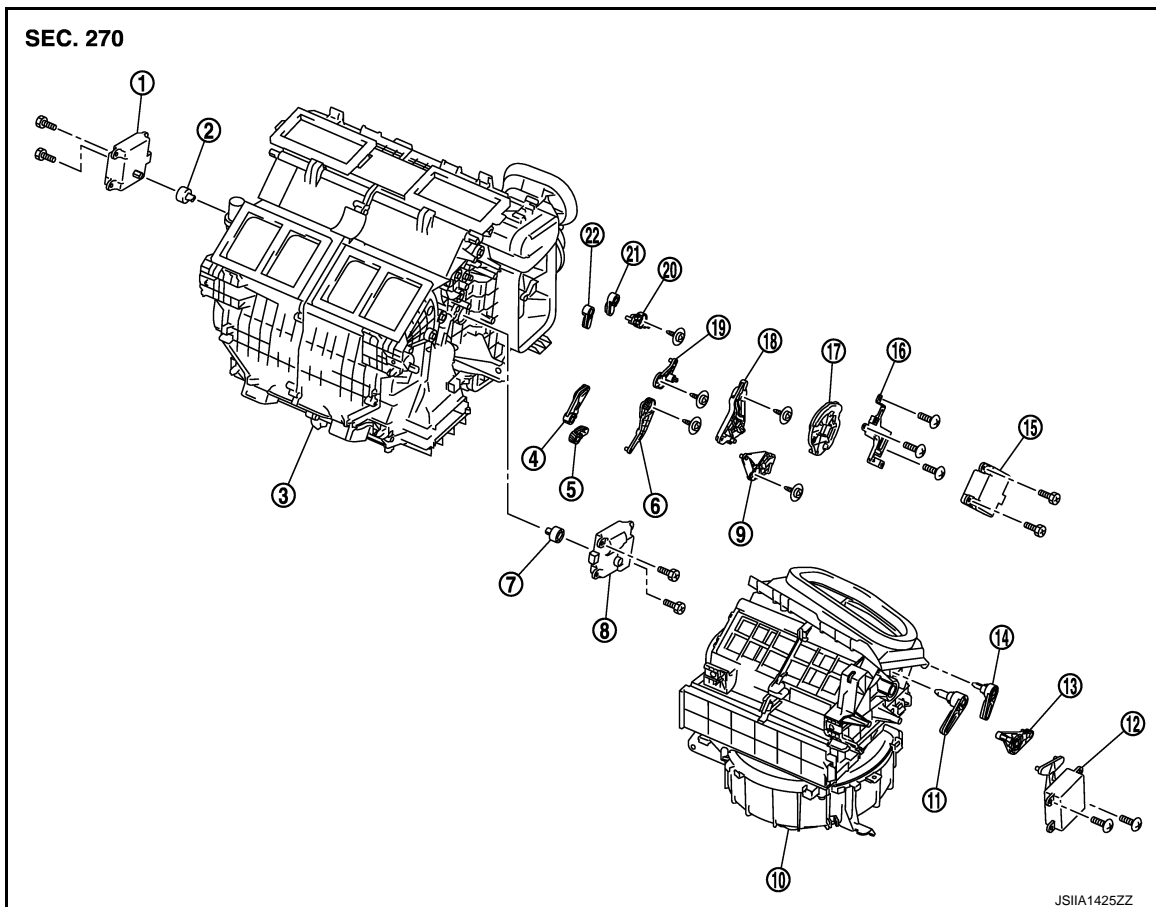
INTAKE DOOR MOTOR

< REMOVAL AND INSTALLATION >

INTAKE DOOR MOTOR

Exploded View

INFOID:000000004715385



- | | | |
|--------------------------------------|--|-----------------------------------|
| 1. Air mix door motor (driver side)* | 2. Air mix door motor adapter | 3. Heater & cooling unit assembly |
| 4. Ventilator door lever | 5. Foot door lever | 6. Foot door link |
| 7. Air mix door motor adapter | 8. Air mix door motor (passenger side) | 9. Ventilator door link |
| 10. Blower unit | 11. Intake door lever 2 | 12. Intake door motor |
| 13. Intake door link | 14. Intake door lever 1 | 15. Mode door motor |
| 16. Mode door motor bracket | 17. Main link | 18. Main link sub |
| 19. Max.cool door link | 20. Defroster door link | 21. Max.cool door lever |
| 22. Defroster door lever | | |

*: With left and right ventilation temperature separately control system.

Removal and Installation

INFOID:000000002989319

REMOVAL

1. Remove ECM and power steering control unit with bracket attached. Refer to [VTL-30, "Removal and Installation"](#).

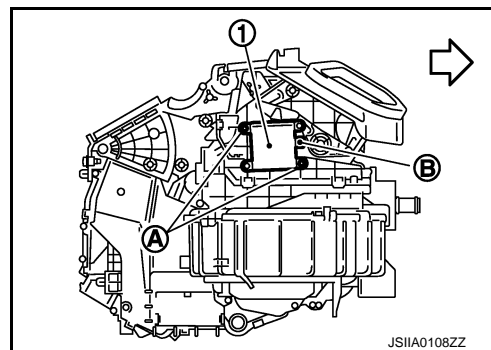
INTAKE DOOR MOTOR

< REMOVAL AND INSTALLATION >

2. Remove mounting screws (A), and then remove intake door motor (1) from blower unit.

← Vehicle front

3. Disconnect intake door motor connector (B).



JSIIA0108ZZ

INSTALLATION

Installation is basically the reverse order of removal.

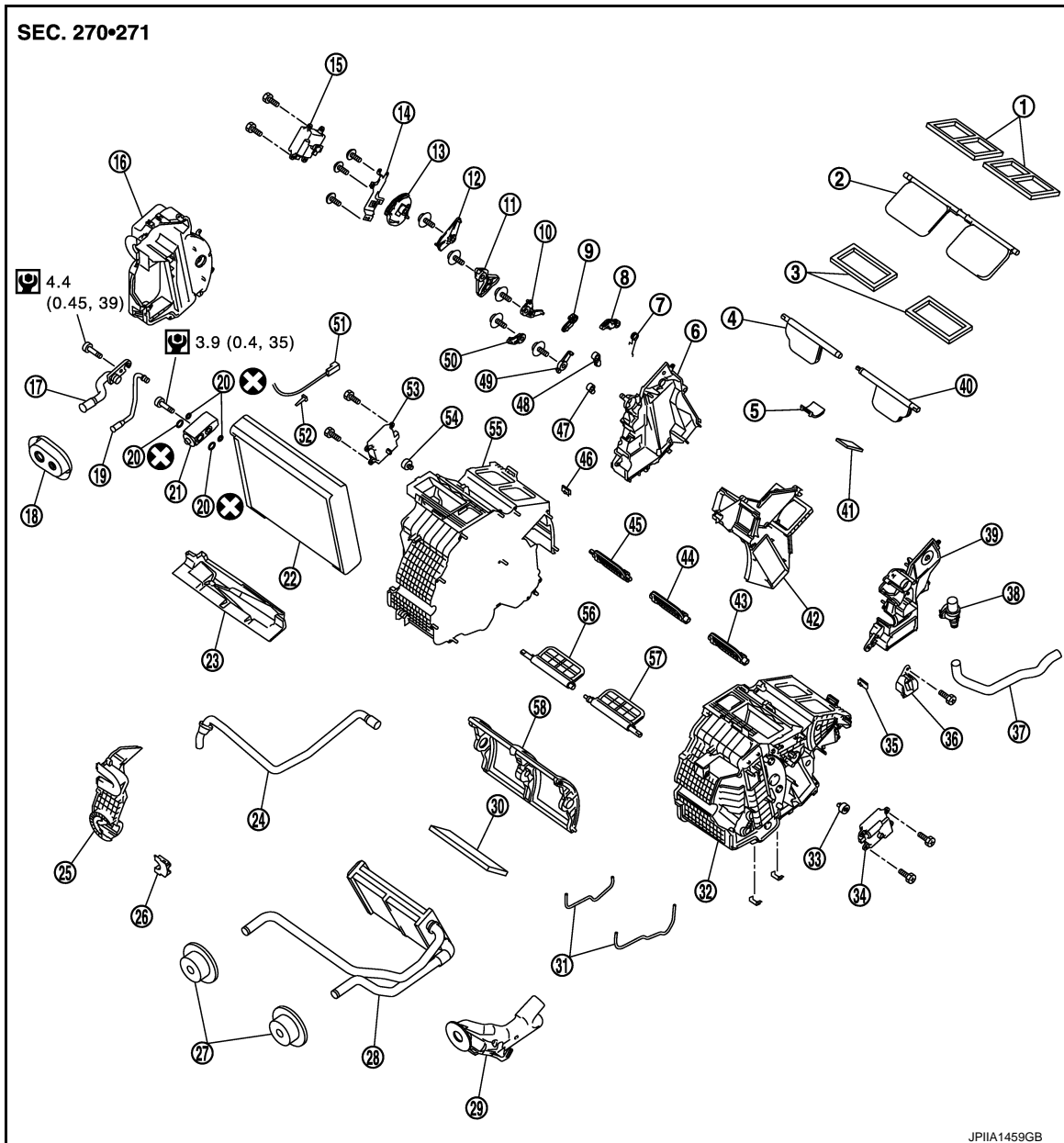
HEATER & COOLING UNIT ASSEMBLY

< REMOVAL AND INSTALLATION >

HEATER & COOLING UNIT ASSEMBLY

Exploded View

INFOID:000000002989320



- | | | |
|---|---------------------------------------|--------------------------|
| 1. Ventilator seal | 2. Ventilator door | 3. Defroster seal |
| 4. Defroster door (right) | 5. Packing | 6. Foot duct (right) |
| 7. Ventilator door spring | 8. Ventilator door lever | 9. Foot door lever |
| 10. Foot door link | 11. Main link sub | 12. Ventilator door link |
| 13. Main link | 14. Mode door motor bracket | 15. Mode door motor |
| 16. Evaporator cover | 17. Low-pressure pipe 1 | 18. Cooler pipe grommet |
| 19. High-pressure pipe 2 | 20. O-ring | 21. Expansion valve |
| 22. Evaporator | 23. Insulator | 24. Drain hose |
| 25. Evaporator cover adapter | 26. Heater pipe bracket | 27. Heater pipe grommet |
| 28. Heater core | 29. Heater pipe cover | 30. Packing |
| 31. Case packing | 32. Heater & cooling unit case (left) | 33. Air mix door adapter |
| 34. Air mix door motor (driver side) *1 | 35. J-nut | 36. Heater duct |

HEATER & COOLING UNIT ASSEMBLY

< REMOVAL AND INSTALLATION >

- | | | |
|--|---|---------------------------|
| 37. Aspirator hose | 38. Aspirator | 39. Foot duct (left) |
| 40. Defroster door (left) | 41. Packing | 42. Center case |
| 43. Foot door (left) | 44. Rear ventilator door *2 | 45. Foot door (right) |
| 46. J-nut | 47. Max. cool door lever | 48. Defroster door lever |
| 49. Defroster door link | 50. Max. cool door link | 51. Intake sensor |
| 52. Intake sensor bracket | 53. Air mix door motor (passenger side) | 54. Air mix door adapter |
| 55. Heater & cooling unit case (right) | 56. Max. cool door (right) | 57. Max. cool door (left) |
| 58. Air mix door (Slide door) | | |

Refer to [GI-4, "Components"](#) for symbols in the figure.

- *1: With left and right ventilation temperature separately control system.
- *2: With rear ventilator

Removal and Installation

INFOID:000000002989321

REMOVAL

- Use a refrigerant collecting equipment (for HFC-134a) to discharge the refrigerant.
- Drain engine coolant from cooling system. Refer to [CO-8, "Draining"](#).
- Remove cowl top cover. Refer to [EXT-20, "Exploded View"](#).
- Disconnect one-touch joint between low-pressure pipe 1 (1) and low-pressure pipe 2 (2) with disconnecter (SST: 9253089916) (A).

CAUTION:

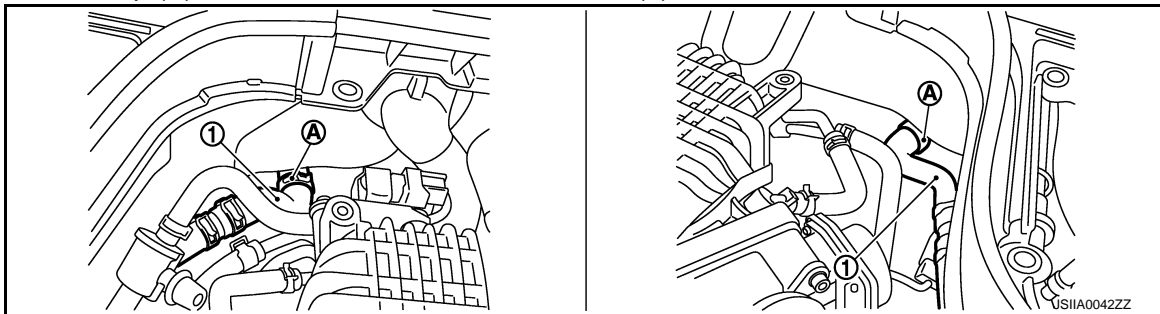
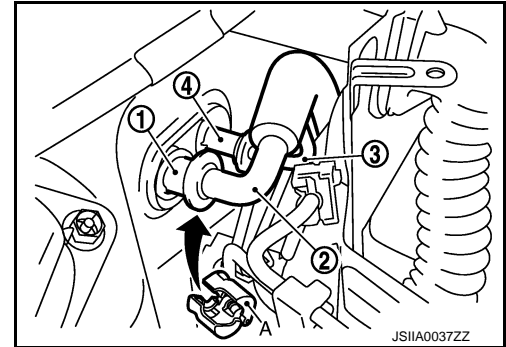
Cap or wrap the joint of the A/C piping with suitable material such as vinyl tape to avoid the entry of air.

- Disconnect one-touch joint between high-pressure pipe 1 (3) and high-pressure pipe 2 (4) with disconnecter (SST: 9253089908).

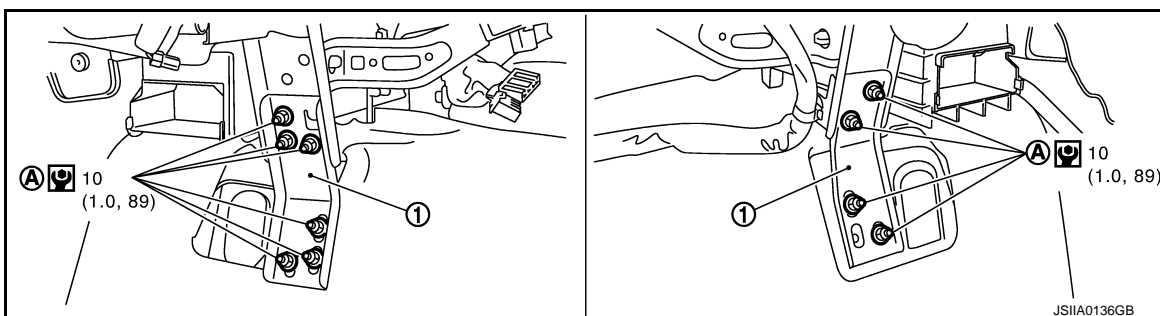
CAUTION:

Cap or wrap the joint of the A/C piping with suitable material such as vinyl tape to avoid the entry of air.

- Remove clamp (A), and then disconnect heater hoses (1).



- Remove instrument panel & pad. Refer to [IP-11, "Exploded View"](#).
- Remove blower unit. Refer to [VTL-30, "Exploded View"](#).
- Remove clips of vehicle harness from steering member.
- Remove mounting nuts (A), and then remove instrument stays (1).

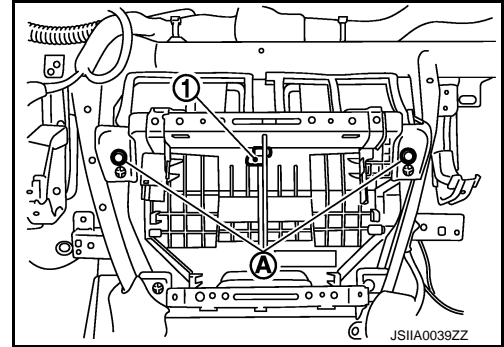


HEATER & COOLING UNIT ASSEMBLY

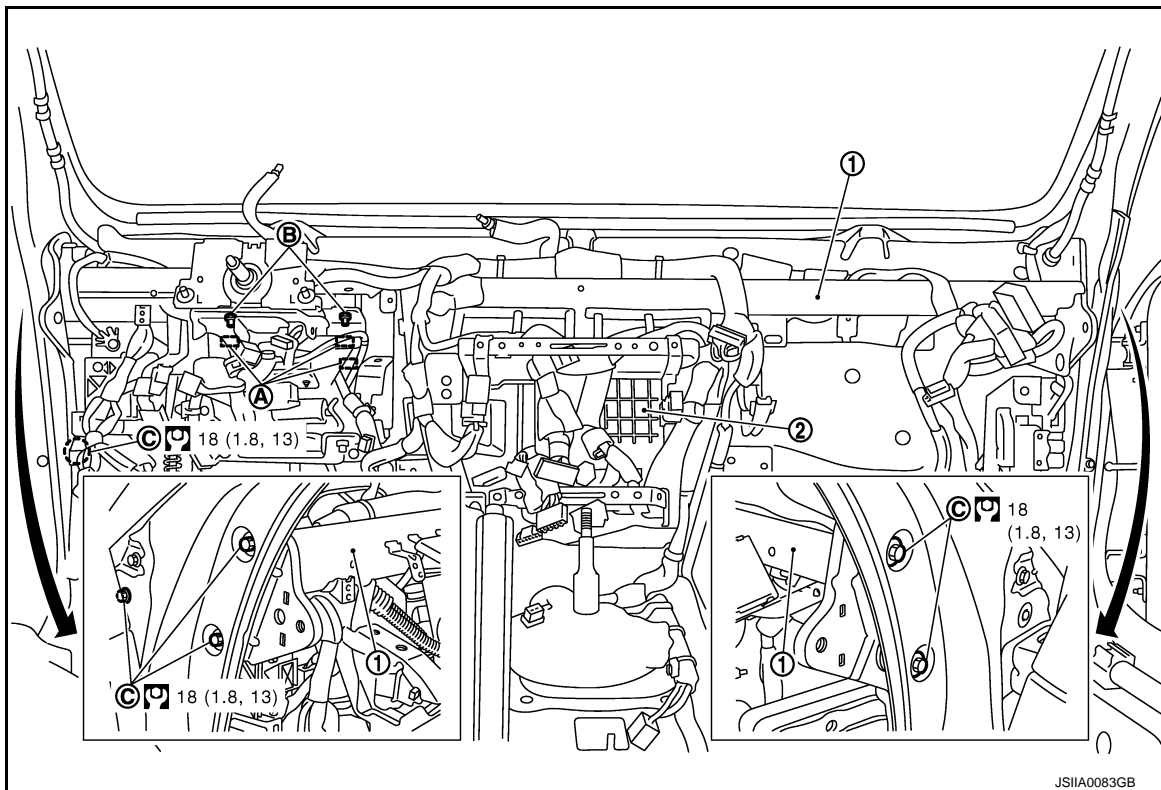
< REMOVAL AND INSTALLATION >

Refer to [GI-4, "Components"](#) for symbols in the figure.

11. Disconnect drain hose from heater & cooling unit assembly.
12. Remove mounting bolts (A) from heater & cooling unit assembly (1).



13. Remove front defroster nozzle, side defroster nozzles and ventilator duct. Refer to [VTL-48, "FRONT DEFROSTER NOZZLE, SIDE DEFROSTER NOZZLE AND VENTILATOR DUCT : Exploded View"](#).
14. Remove steering column mounting bolts (A) and nuts (B). Refer to [ST-18, "WITHOUT ELECTRIC MOTOR : Exploded View"](#) (WITHOUT ELECTRIC MOTOR) or [ST-19, "WITH ELECTRIC MOTOR : Exploded View"](#) (WITH ELECTRIC MOTOR).



Refer to [GI-4, "Components"](#) for symbols in the figure.

15. Remove steering member mounting bolts (C).
16. Remove steering member (1), and then remove heater & cooling unit (2).

INSTALLATION

Installation is basically the reverse order of removal.

CAUTION:

- Replace O-rings with new ones. Then apply compressor oil to them when installing.
- Female-side piping connection is thin and easy to deform. Slowly insert the male-side piping straight in axial direction.
- Insert piping securely until a clicks is heard.

HEATER & COOLING UNIT ASSEMBLY

< REMOVAL AND INSTALLATION >

- After piping connection is completed, pull male-side piping by hand to make sure that connection does not come loose.
- Check for leakages when recharging refrigerant.

NOTE:

- Perform 4WAS front actuator adjustment (WITH 4WAS). Refer to [STC-28, "4WAS FRONT ACTUATOR NEUTRAL POSITION ADJUSTMENT : Description"](#).
- Refer to [CO-9, "Refilling"](#) when filling radiator with engine coolant.
- Recharge the refrigerant.

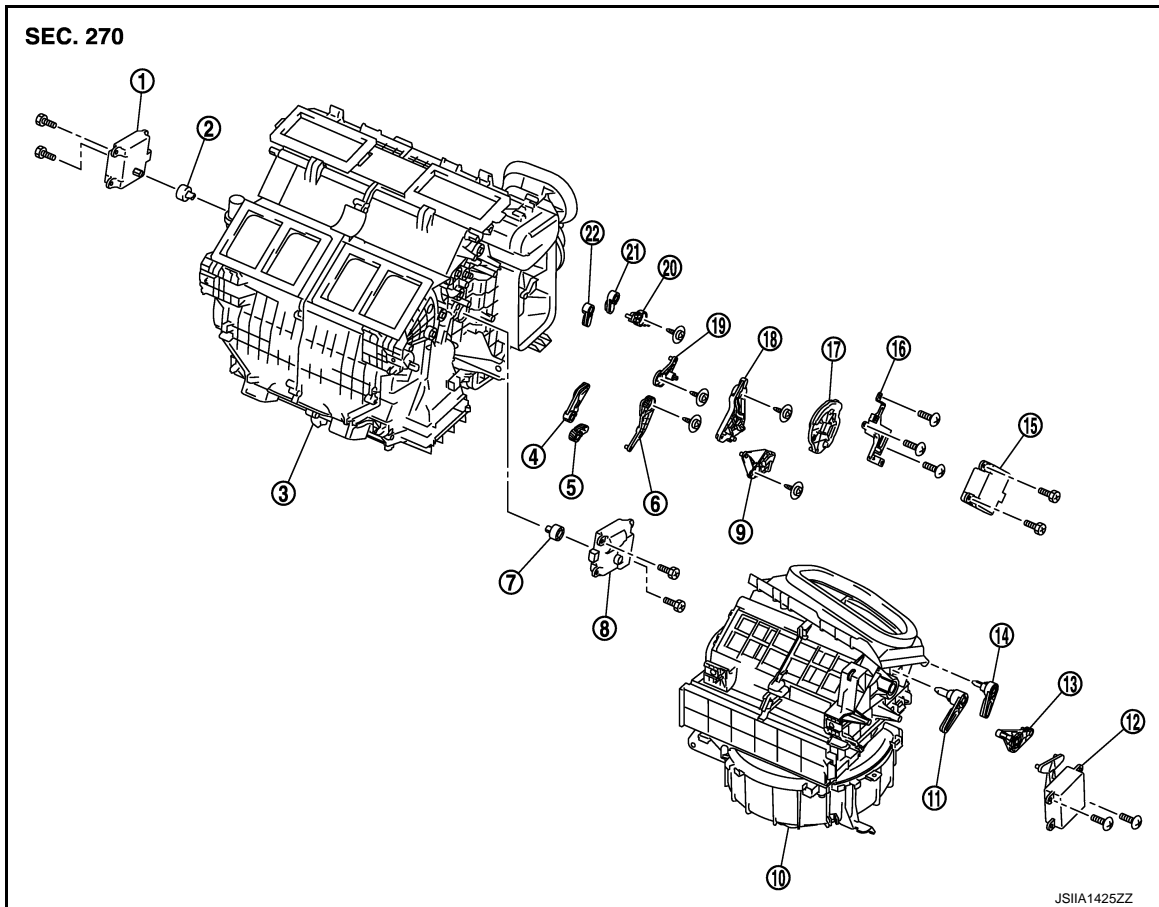
MODE DOOR MOTOR

< REMOVAL AND INSTALLATION >

MODE DOOR MOTOR

Exploded View

INFOID:000000004715386



- | | | |
|--------------------------------------|--|-----------------------------------|
| 1. Air mix door motor (driver side)* | 2. Air mix door motor adapter | 3. Heater & cooling unit assembly |
| 4. Ventilator door lever | 5. Foot door lever | 6. Foot door link |
| 7. Air mix door motor adapter | 8. Air mix door motor (passenger side) | 9. Ventilator door link |
| 10. Blower unit | 11. Intake door lever 2 | 12. Intake door motor |
| 13. Intake door link | 14. Intake door lever 1 | 15. Mode door motor |
| 16. Mode door motor bracket | 17. Main link | 18. Main link sub |
| 19. Max.cool door link | 20. Defroster door link | 21. Max.cool door lever |
| 22. Defroster door lever | | |

*: With left and right ventilation temperature separately control system.

Removal and Installation

INFOID:000000002989323

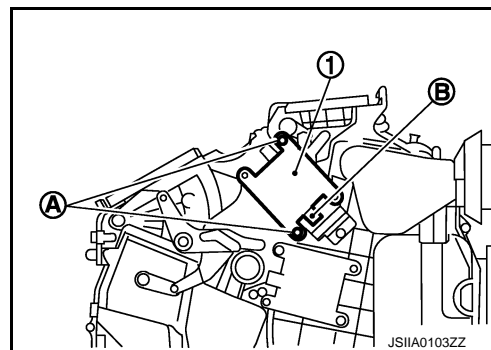
REMOVAL

1. Remove blower unit. Refer to [VTL-30, "Exploded View"](#).

MODE DOOR MOTOR

< REMOVAL AND INSTALLATION >

2. Remove mounting screws (A), and then remove mode door motor (1).
3. Disconnect mode door motor connector (B).



INSTALLATION

installation is basically the reverse order of removal.

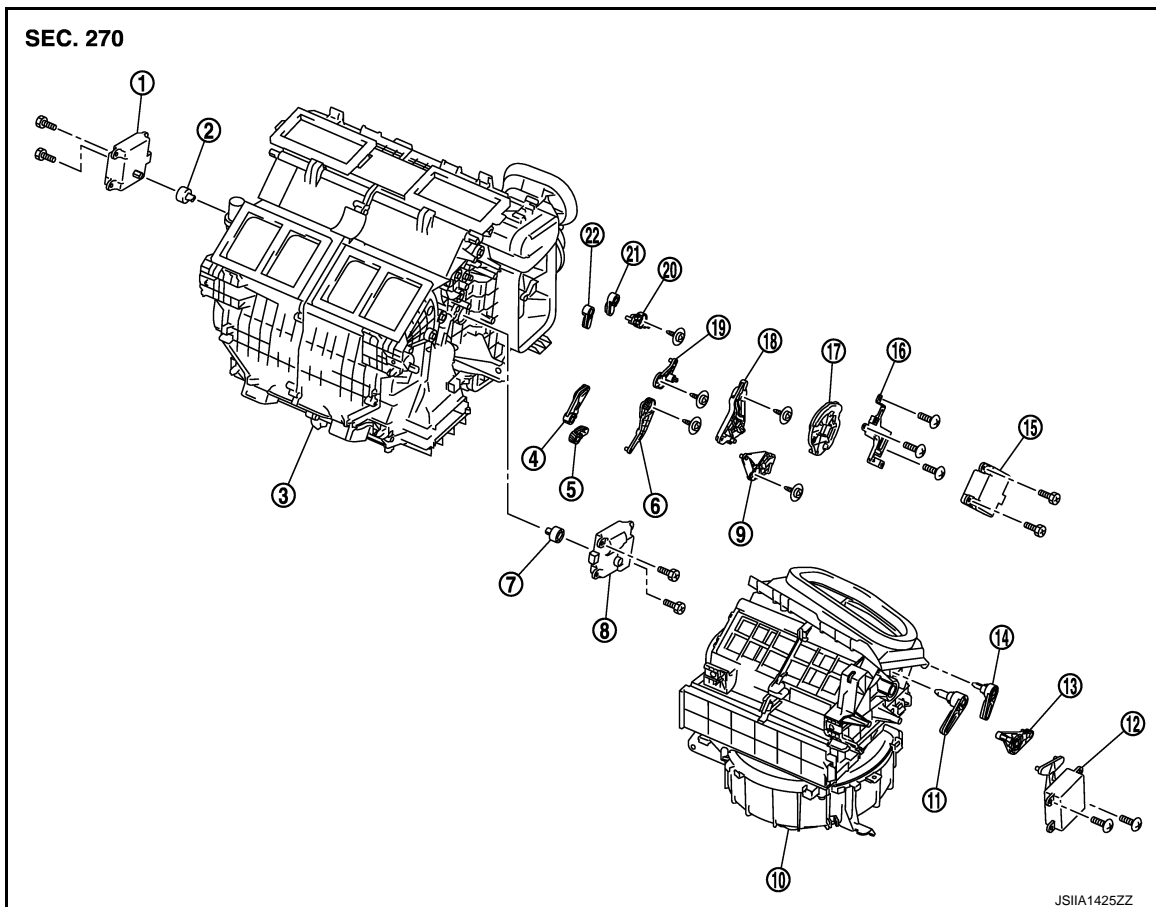
AIR MIX DOOR MOTOR

< REMOVAL AND INSTALLATION >

AIR MIX DOOR MOTOR

Exploded View

INFOID:000000004715387



- | | | |
|--------------------------------------|--|-----------------------------------|
| 1. Air mix door motor (driver side)* | 2. Air mix door motor adapter | 3. Heater & cooling unit assembly |
| 4. Ventilator door lever | 5. Foot door lever | 6. Foot door link |
| 7. Air mix door motor adapter | 8. Air mix door motor (passenger side) | 9. Ventilator door link |
| 10. Blower unit | 11. Intake door lever 2 | 12. Intake door motor |
| 13. Intake door link | 14. Intake door lever 1 | 15. Mode door motor |
| 16. Mode door motor bracket | 17. Main link | 18. Main link sub |
| 19. Max.cool door link | 20. Defroster door link | 21. Max.cool door lever |
| 22. Defroster door lever | | |

*: With left and right ventilation temperature separately control system.

Removal and Installation

INFOID:0000000002989325

REMOVAL

Driver Side (With left and right ventilation temperature separately system)

1. Set the temperature (driver side) at 18°C (60°F). Then disconnect the battery cable from the negative terminal.
2. Remove instrument driver lower panel. Refer to [IP-11, "Exploded View"](#).
3. Remove accelerator pedal bracket and lever assembly. Refer to [ACC-3, "Exploded View"](#).
4. Remove automatic drive positioner control unit. Refer to [SE-65, "Removal and Installation"](#).

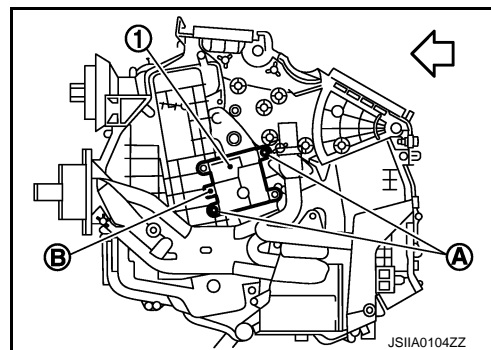
AIR MIX DOOR MOTOR

< REMOVAL AND INSTALLATION >

5. Remove mounting screws (A), and then remove air mix door motor (1).

← Vehicle front

6. Disconnect air mix door motor connector (B).

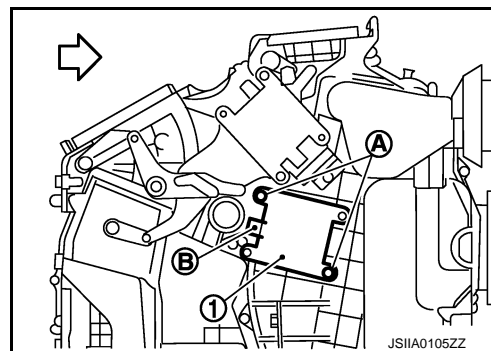


Passenger Side

1. Set the temperature (passenger side) at 18°C (60°F). Then disconnect the battery cable from the negative terminal.
2. Remove blower unit. Refer to [VTL-30. "Exploded View"](#).
3. Remove mounting screws (A), and then remove air mix door motor (1).

← Vehicle front

4. Disconnect air mix door motor connector (B).



INSTALLATION

Installation is basically the reverse order of removal.

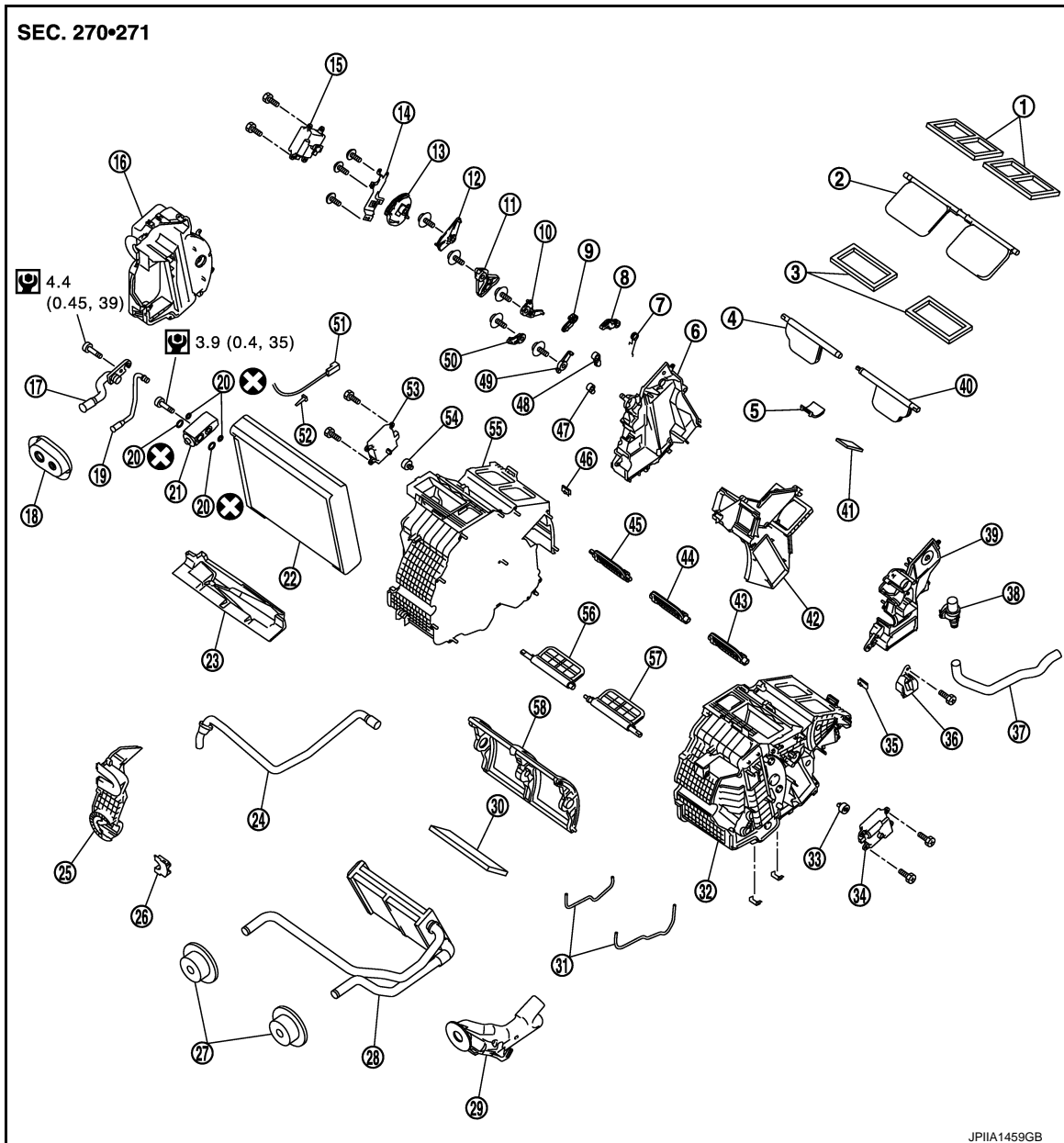
HEATER CORE

< REMOVAL AND INSTALLATION >

HEATER CORE

Exploded View

INFOID:000000002989326



- | | | |
|---|---------------------------------------|--------------------------|
| 1. Ventilator seal | 2. Ventilator door | 3. Defroster seal |
| 4. Defroster door (right) | 5. Packing | 6. Foot duct (right) |
| 7. Ventilator door spring | 8. Ventilator door lever | 9. Foot door lever |
| 10. Foot door link | 11. Main link sub | 12. Ventilator door link |
| 13. Main link | 14. Mode door motor bracket | 15. Mode door motor |
| 16. Evaporator cover | 17. Low-pressure pipe 1 | 18. Cooler pipe grommet |
| 19. High-pressure pipe 2 | 20. O-ring | 21. Expansion valve |
| 22. Evaporator | 23. Insulator | 24. Drain hose |
| 25. Evaporator cover adapter | 26. Heater pipe bracket | 27. Heater pipe grommet |
| 28. Heater core | 29. Heater pipe cover | 30. Packing |
| 31. Case packing | 32. Heater & cooling unit case (left) | 33. Air mix door adapter |
| 34. Air mix door motor (driver side) *1 | 35. J-nut | 36. Heater duct |

HEATER CORE

< REMOVAL AND INSTALLATION >

- | | | |
|--|---|---------------------------|
| 37. Aspirator hose | 38. Aspirator | 39. Foot duct (left) |
| 40. Defroster door (left) | 41. Packing | 42. Center case |
| 43. Foot door (left) | 44. Rear ventilator door *2 | 45. Foot door (right) |
| 46. J-nut | 47. Max. cool door lever | 48. Defroster door lever |
| 49. Defroster door link | 50. Max. cool door link | 51. Intake sensor |
| 52. Intake sensor bracket | 53. Air mix door motor (passenger side) | 54. Air mix door adapter |
| 55. Heater & cooling unit case (right) | 56. Max. cool door (right) | 57. Max. cool door (left) |
| 58. Air mix door (Slide door) | | |

Refer to [GI-4, "Components"](#) for symbols in the figure.

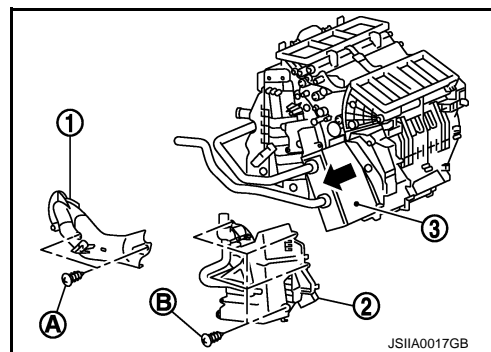
- *1: With left and right ventilation temperature separately control system.
- *2: With rear ventilator

Removal and Installation

INFOID:000000002989327

REMOVAL

1. Remove heater & cooling unit assembly. Refer to [VTL-36, "Removal and Installation"](#).
2. Remove mounting screws (A), and then remove heater pipe cover (1).
3. Remove mounting screws (B), and then remove foot duct (left) (2).
4. Slide heater core (3) to leftward (as shown in the figure).



INSTALLATION

Installation is basically the reverse order of removal.

NOTE:

Refer to [CO-9, "Refilling"](#) when filling radiator with engine coolant.

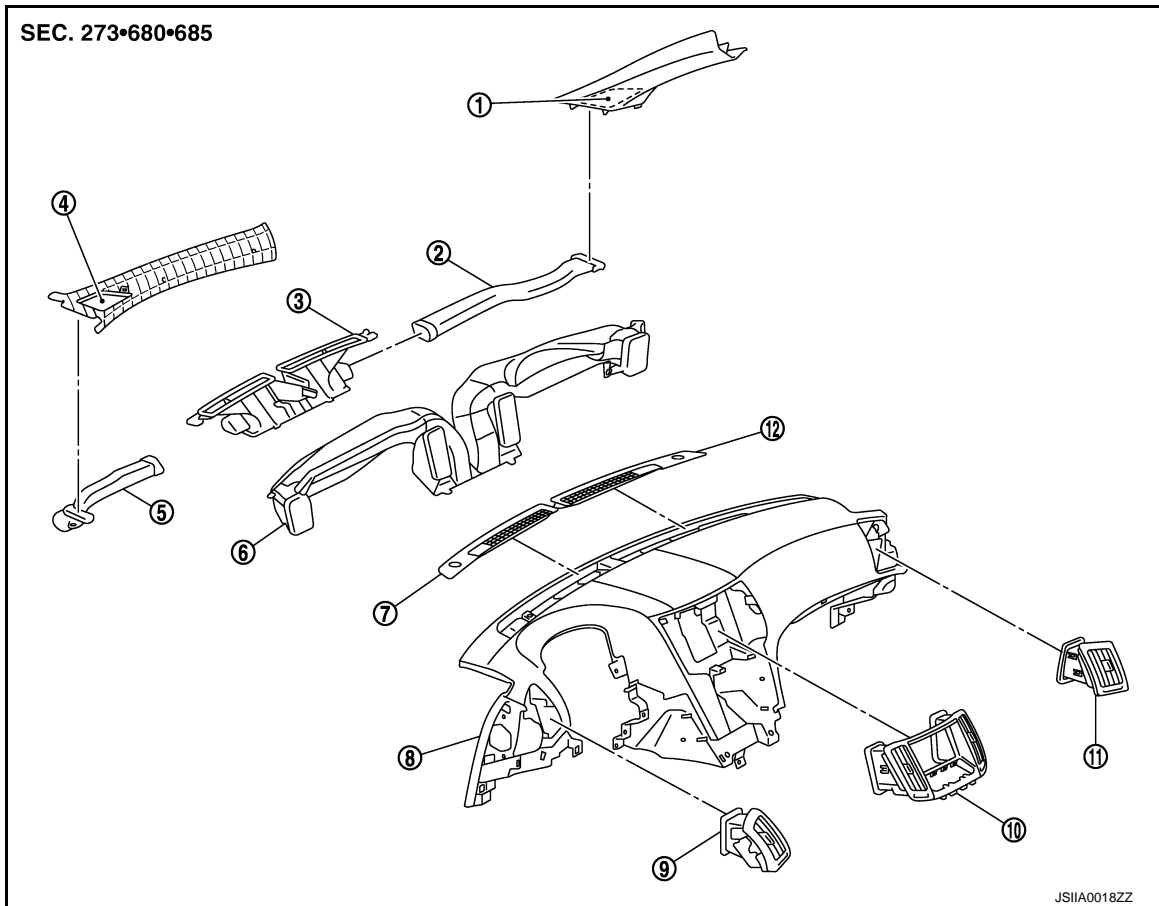
DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

DUCT AND GRILLE CENTER VENTILATOR GRILLE

CENTER VENTILATOR GRILLE : Exploded View

INFOID:000000002989328



- | | | |
|---|------------------------------------|------------------------------------|
| 1. Side defroster duct (front pillar garnish) (right) | 2. Side defroster nozzle (right) | 3. Defroster nozzle |
| 4. Side defroster duct (front pillar garnish) (left) | 5. Side defroster nozzle (left) | 6. Ventilator duct |
| 7. Front defroster grille (left) | 8. Instrument panel & pad | 9. Side ventilator grille (left) |
| 10. Center ventilator grille (cluster lid D) | 11. Side ventilator grille (right) | 12. Front defroster grille (right) |

CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000002989329

REMOVAL

Remove cluster lid D. Refer to [IP-11, "Exploded View"](#).

INSTALLATION

Installation is basically the reverse order of removal.

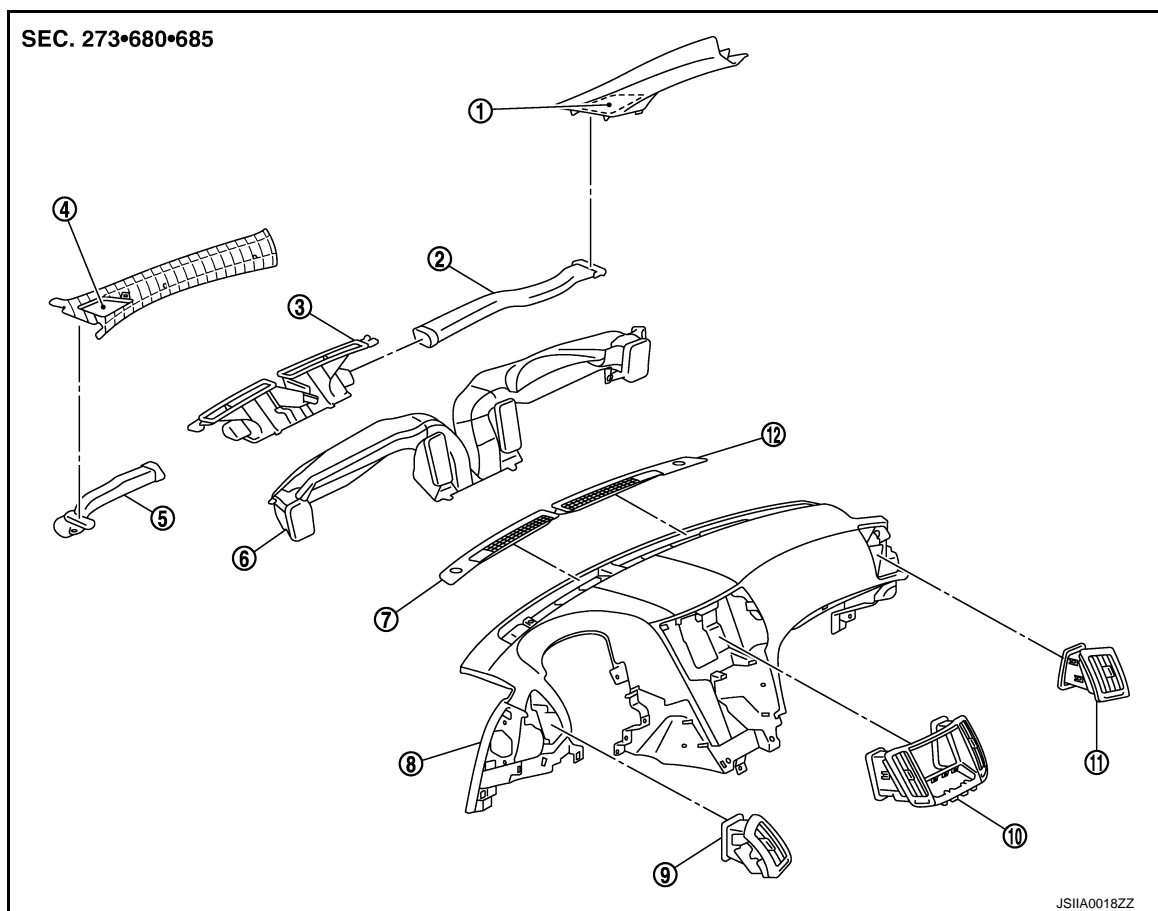
SIDE VENTILATOR GRILLE

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

SIDE VENTILATOR GRILLE : Exploded View

INFOID:000000002989330



- | | | |
|---|------------------------------------|------------------------------------|
| 1. Side defroster duct (front pillar garnish) (right) | 2. Side defroster nozzle (right) | 3. Defroster nozzle |
| 4. Side defroster duct (front pillar garnish) (left) | 5. Side defroster nozzle (left) | 6. Ventilator duct |
| 7. Front defroster grille (left) | 8. Instrument panel & pad | 9. Side ventilator grille (left) |
| 10. Center ventilator grille (cluster lid D) | 11. Side ventilator grille (right) | 12. Front defroster grille (right) |

SIDE VENTILATOR GRILLE : Removal and Installation

INFOID:000000002989331

REMOVAL

Remove side ventilator assembly. Refer to [IP-11, "Exploded View"](#).

INSTALLATION

Installation is basically the reverse order of removal.

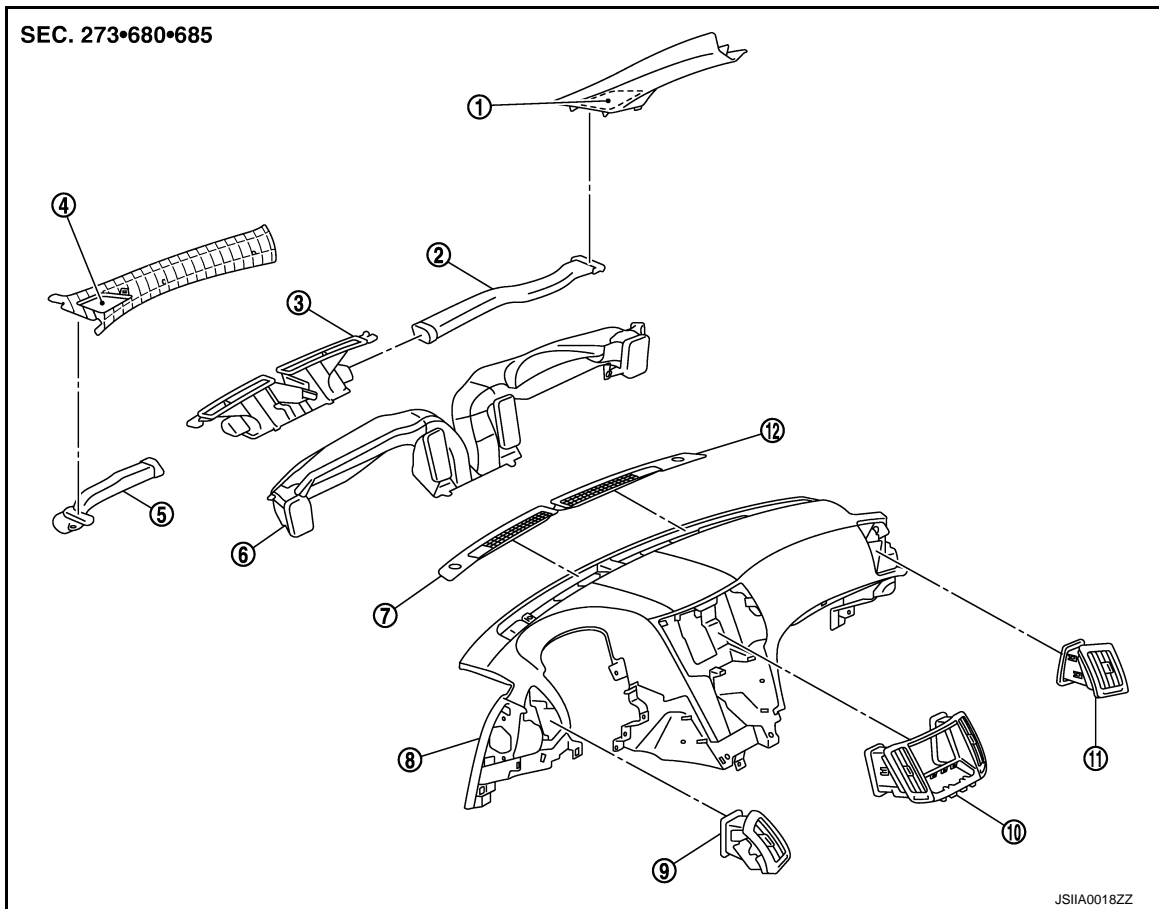
FRONT DEFROSTER GRILLE

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

FRONT DEFROSTER GRILLE : Exploded View

INFOID:000000002989772



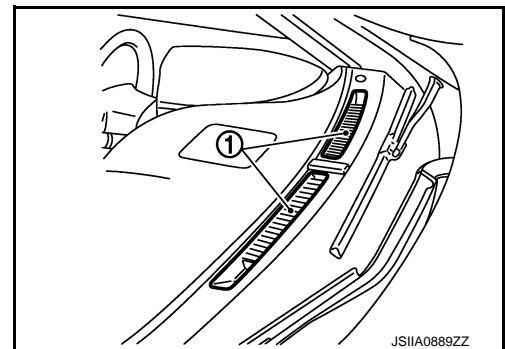
- | | | |
|---|------------------------------------|------------------------------------|
| 1. Side defroster duct (front pillar garnish) (right) | 2. Side defroster nozzle (right) | 3. Defroster nozzle |
| 4. Side defroster duct (front pillar garnish) (left) | 5. Side defroster nozzle (left) | 6. Ventilator duct |
| 7. Front defroster grille (left) | 8. Instrument panel & pad | 9. Side ventilator grille (left) |
| 10. Center ventilator grille (cluster lid D) | 11. Side ventilator grille (right) | 12. Front defroster grille (right) |

FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000002989769

REMOVAL

Remove front defroster grilles (1), using remover tools.



INSTALLATION

Installation is basically the reverse order of removal.

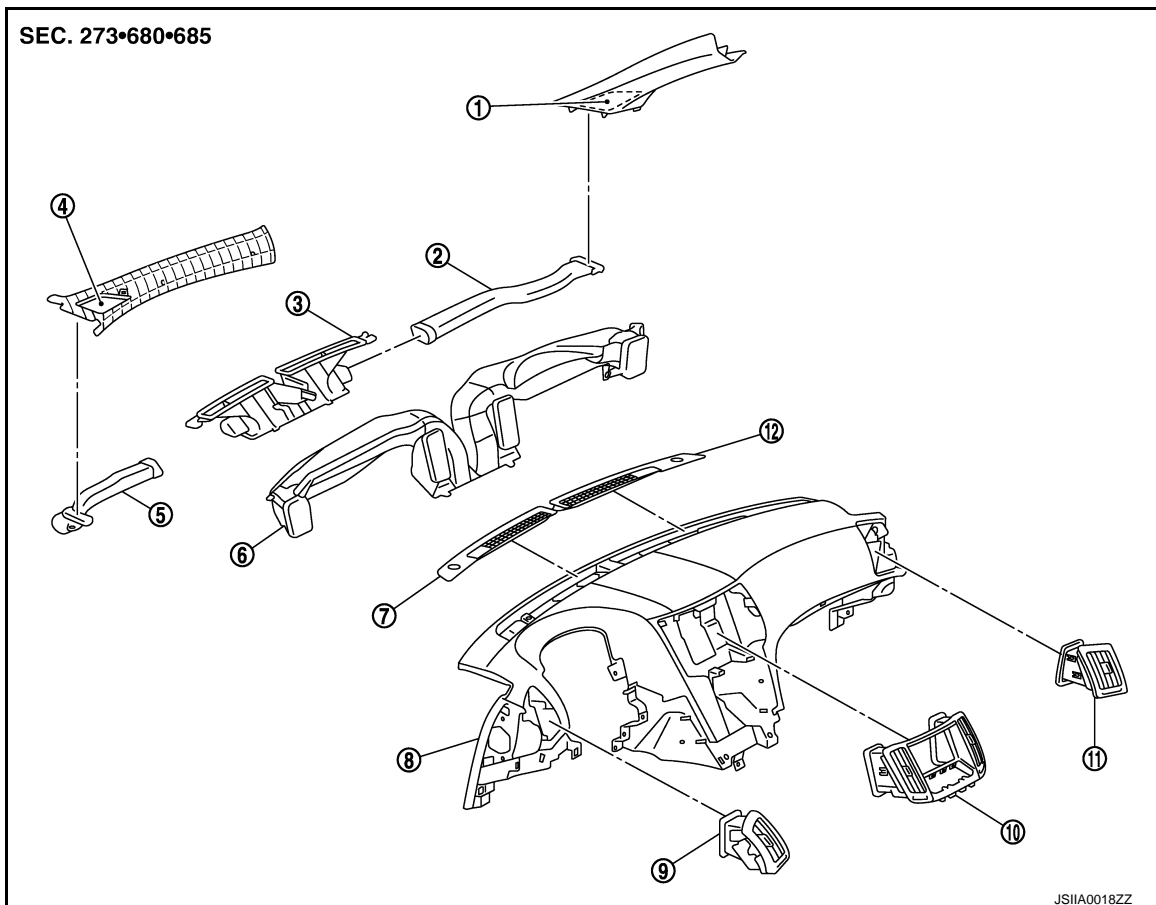
FRONT DEFROSTER NOZZLE, SIDE DEFROSTER NOZZLE AND VENTILATOR DUCT

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

FRONT DEFROSTER NOZZLE, SIDE DEFROSTER NOZZLE AND VENTILATOR DUCT : Exploded View

INFOID:000000002989332



- | | | |
|---|------------------------------------|------------------------------------|
| 1. Side defroster duct (front pillar garnish) (right) | 2. Side defroster nozzle (right) | 3. Defroster nozzle |
| 4. Side defroster duct (front pillar garnish) (left) | 5. Side defroster nozzle (left) | 6. Ventilator duct |
| 7. Front defroster grille (left) | 8. Instrument panel & pad | 9. Side ventilator grille (left) |
| 10. Center ventilator grille (cluster lid D) | 11. Side ventilator grille (right) | 12. Front defroster grille (right) |

FRONT DEFROSTER NOZZLE, SIDE DEFROSTER NOZZLE AND VENTILATOR DUCT : Removal and Installation

INFOID:000000002989333

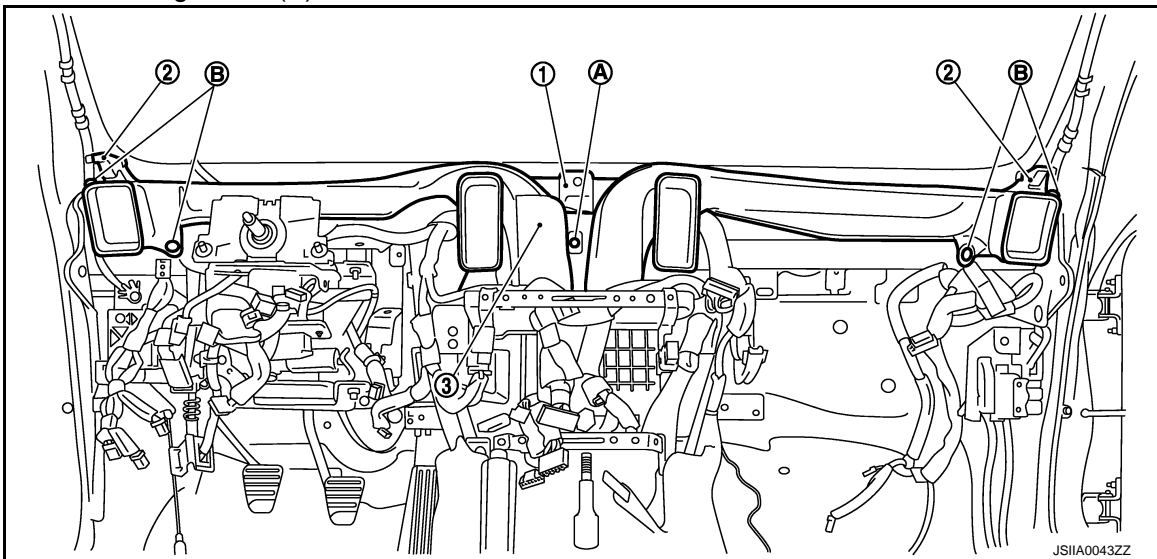
REMOVAL

1. Remove instrument panel & pad. Refer to [IP-11, "Exploded View"](#).

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

2. Remove mounting screw (A).



3. Remove clips (B), and then remove defroster nozzle (1), side defroster nozzle (2) and ventilator duct (3).

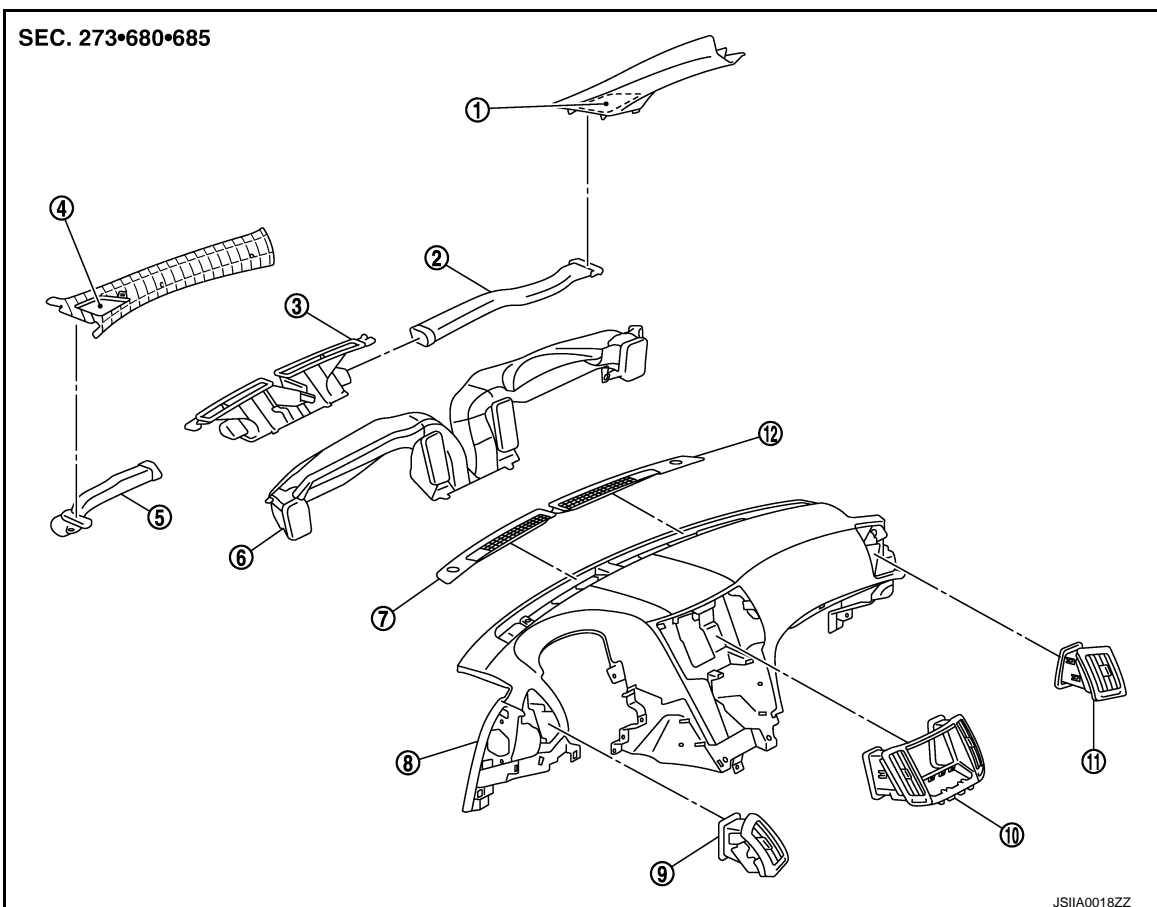
INSTALLATION

Installation is basically the reverse order of removal.

SIDE DEFROSTER DUCT

SIDE DEFROSTER DUCT : Exploded View

INFOID:000000002989334



DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

- | | | |
|---|------------------------------------|------------------------------------|
| 1. Side defroster duct (front pillar garnish) (right) | 2. Side defroster nozzle (right) | 3. Defroster nozzle |
| 4. Side defroster duct (front pillar garnish) (left) | 5. Side defroster nozzle (left) | 6. Ventilator duct |
| 7. Front defroster grille (left) | 8. Instrument panel & pad | 9. Side ventilator grille (left) |
| 10. Center ventilator grille (cluster lid D) | 11. Side ventilator grille (right) | 12. Front defroster grille (right) |

SIDE DEFROSTER DUCT : Removal and Installation

INFOID:000000002989335

REMOVAL

Remove front pillar garnishes Refer to [INT-14, "Exploded View"](#).

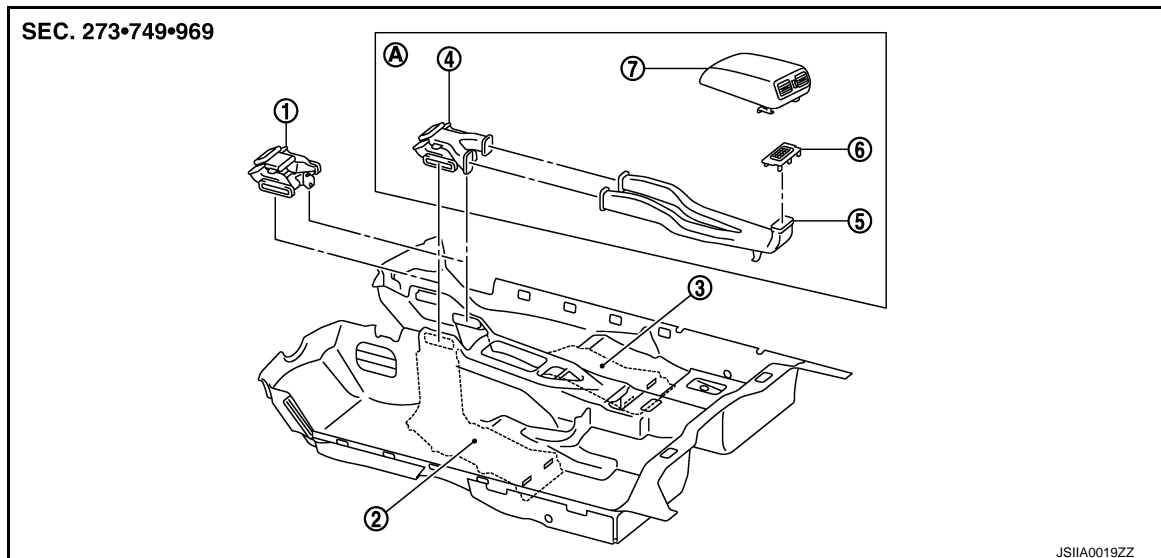
INSTALLATION

Installation is basically the reverse order of removal.

REAR VENTILATOR GRILLE

REAR VENTILATOR GRILLE : Exploded View

INFOID:000000002989336



- | | | |
|--|-----------------------------|------------------------------|
| 1. Rear floor duct 1 (without rear ventilator) | 2. Rear floor duct 2 (left) | 3. Rear floor duct 2 (right) |
| 4. Rear floor duct 1 & rear ventilator duct 1 | 5. Rear ventilator duct 2 | 6. Console mask |
| 7. Rear ventilator grille (Console lid assembly) | | |
| A. With rear ventilator | | |

REAR VENTILATOR GRILLE : Removal and Installation

INFOID:000000002989337

REMOVAL

Remove console lid assembly. Refer to [JP-22, "Exploded View"](#).

INSTALLATION

Installation is basically the reverse order of removal.

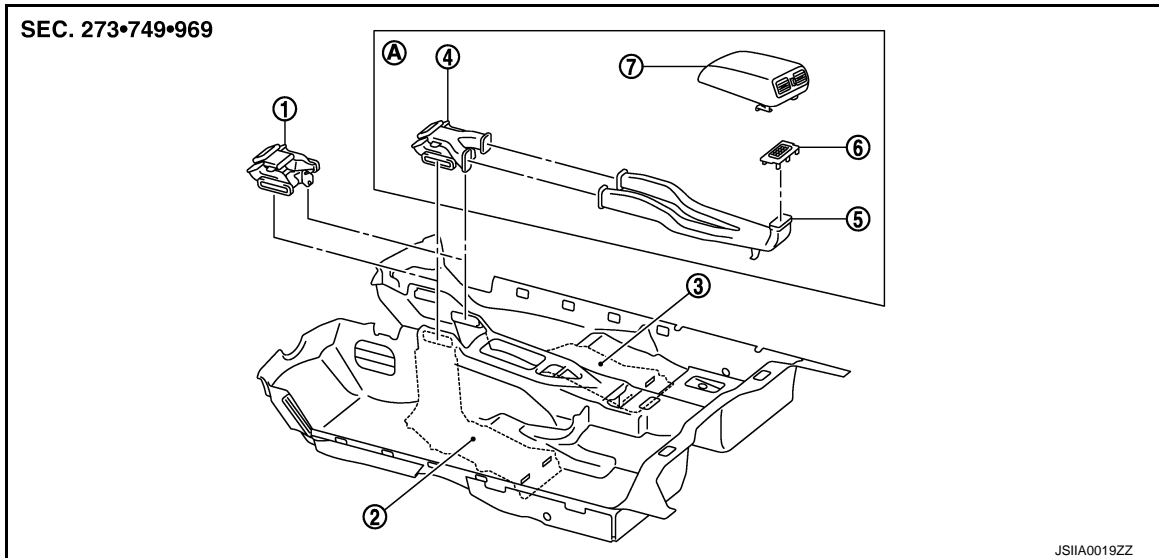
REAR VENTILATOR DUCT 2

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

REAR VENTILATOR DUCT 2 : Exploded View

INFOID:000000002989338



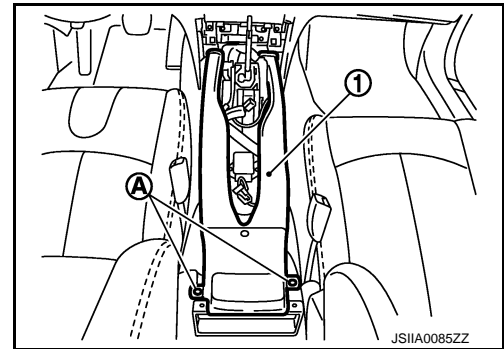
- | | | |
|--|-----------------------------|------------------------------|
| 1. Rear floor duct 1 (without rear ventilator) | 2. Rear floor duct 2 (left) | 3. Rear floor duct 2 (right) |
| 4. Rear floor duct 1 & rear ventilator duct 1 | 5. Rear ventilator duct 2 | 6. Console mask |
| 7. Rear ventilator grille (Console lid assembly) | | |
| A. With rear ventilator | | |

REAR VENTILATOR DUCT 2 : Removal and Installation

INFOID:000000002989339

REMOVAL

1. Remove center console. Refer to [IP-22, "Exploded View"](#).
2. Remove mounting screws (A), and then remove rear ventilator duct 2 (1).



INSTALLATION

Installation is basically the reverse order of removal.

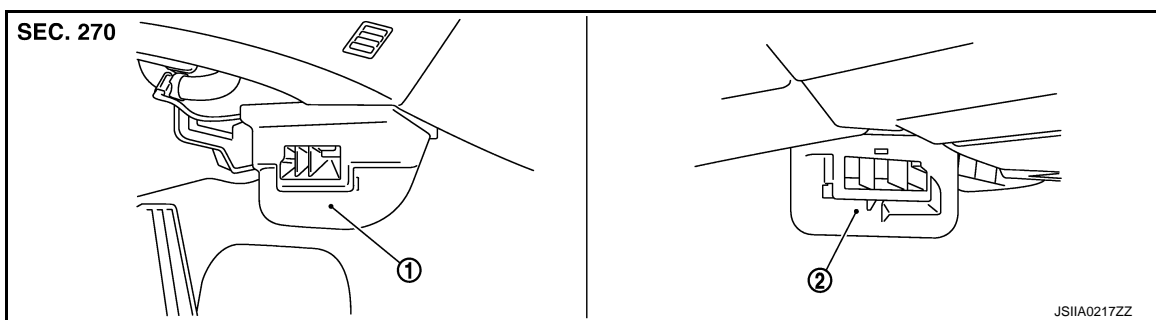
FOOT GRILLE

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

FOOT GRILLE : Exploded View

INFOID:000000002989340

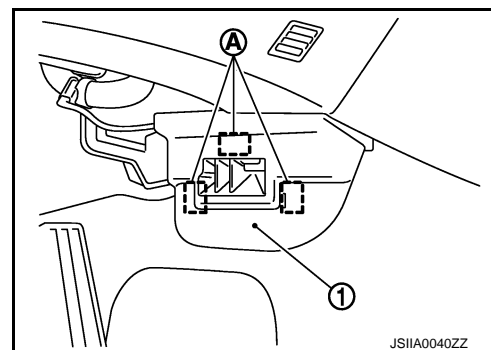


FOOT GRILLE : Removal and Installation

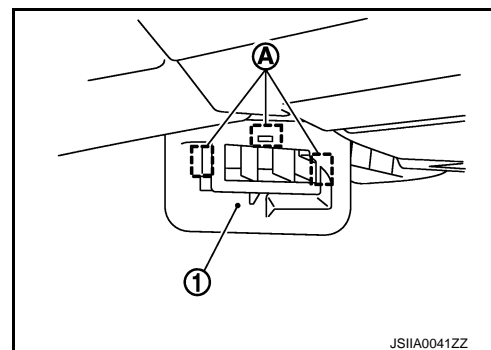
INFOID:000000002989341

REMOVAL

1. Remove mounting clips (A), and then remove foot grille (left) (1).



2. Remove mounting clips (A), and then remove foot grille (right) (1).



INSTALLATION

Installation is basically the reverse order of removal.

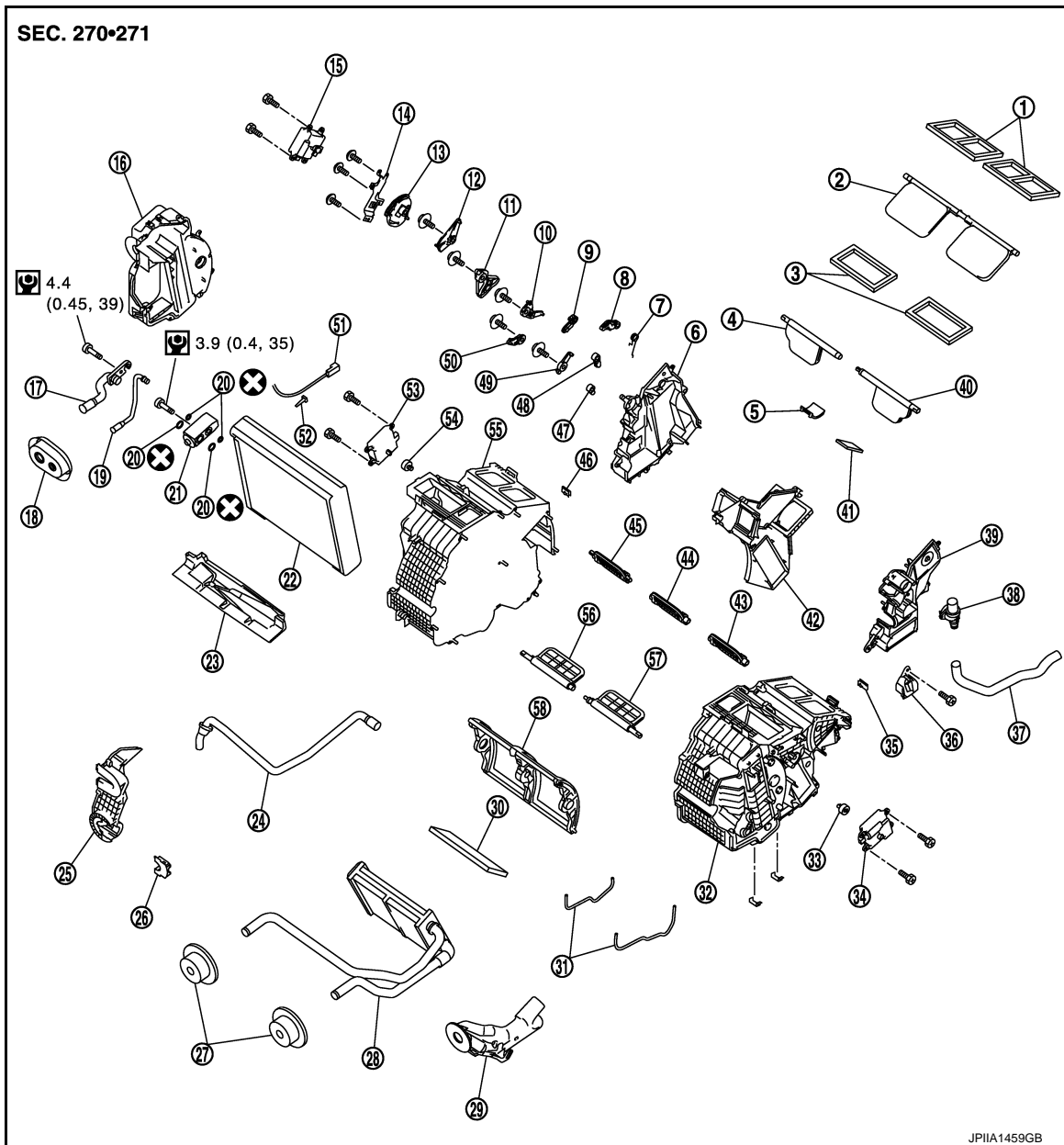
FOOT DUCT

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

FOOT DUCT : Exploded View

INFOID:000000002989342



- | | | |
|---|---------------------------------------|--------------------------|
| 1. Ventilator seal | 2. Ventilator door | 3. Defroster seal |
| 4. Defroster door (right) | 5. Packing | 6. Foot duct (right) |
| 7. Ventilator door spring | 8. Ventilator door lever | 9. Foot door lever |
| 10. Foot door link | 11. Main link sub | 12. Ventilator door link |
| 13. Main link | 14. Mode door motor bracket | 15. Mode door motor |
| 16. Evaporator cover | 17. Low-pressure pipe 1 | 18. Cooler pipe grommet |
| 19. High-pressure pipe 2 | 20. O-ring | 21. Expansion valve |
| 22. Evaporator | 23. Insulator | 24. Drain hose |
| 25. Evaporator cover adapter | 26. Heater pipe bracket | 27. Heater pipe grommet |
| 28. Heater core | 29. Heater pipe cover | 30. Packing |
| 31. Case packing | 32. Heater & cooling unit case (left) | 33. Air mix door adapter |
| 34. Air mix door motor (driver side) *1 | 35. J-nut | 36. Heater duct |
| 37. Aspirator hose | 38. Aspirator | 39. Foot duct (left) |
| 40. Defroster door (left) | 41. Packing | 42. Center case |

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

- | | | |
|--|---|---------------------------|
| 43. Foot door (left) | 44. Rear ventilator door *2 | 45. Foot door (right) |
| 46. J-nut | 47. Max. cool door lever | 48. Defroster door lever |
| 49. Defroster door link | 50. Max. cool door link | 51. Intake sensor |
| 52. Intake sensor bracket | 53. Air mix door motor (passenger side) | 54. Air mix door adapter |
| 55. Heater & cooling unit case (right) | 56. Max. cool door (right) | 57. Max. cool door (left) |
| 58. Air mix door (Slide door) | | |

Refer to [GI-4, "Components"](#) for symbols in the figure.

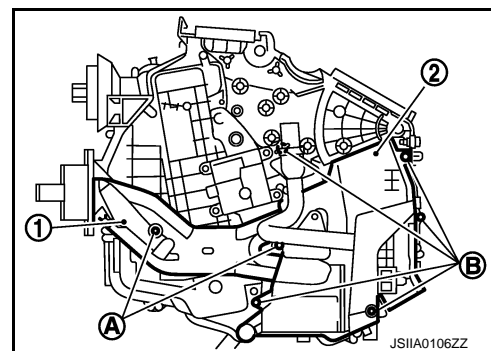
- *1: With left and right ventilation temperature separately control system.
- *2: With rear ventilator

FOOT DUCT : Removal and Installation

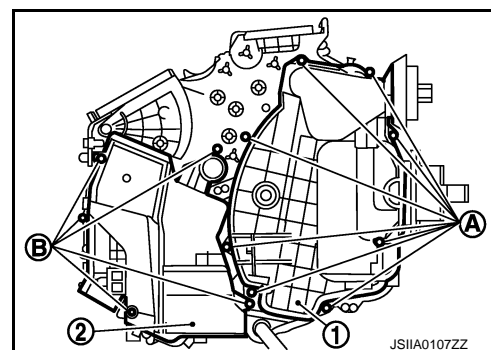
INFOID:000000002989343

REMOVAL

1. Remove heater & cooling unit assembly. Refer to [VTL-36, "Removal and Installation"](#).
2. Remove mounting screws (A), and then remove heater pipe cover (1).
3. Remove mounting screws (B), and then remove foot duct (left) (2).



4. Remove air mix door motor (passenger side). Refer to [VTL-41, "Removal and Installation"](#).
5. Remove mode door motor. Refer to [VTL-39, "Removal and Installation"](#).
6. Remove mounting screws (A), and then remove evaporator cover (1).
7. Remove mounting screws (B), and then remove foot duct (right) (2).



INSTALLATION

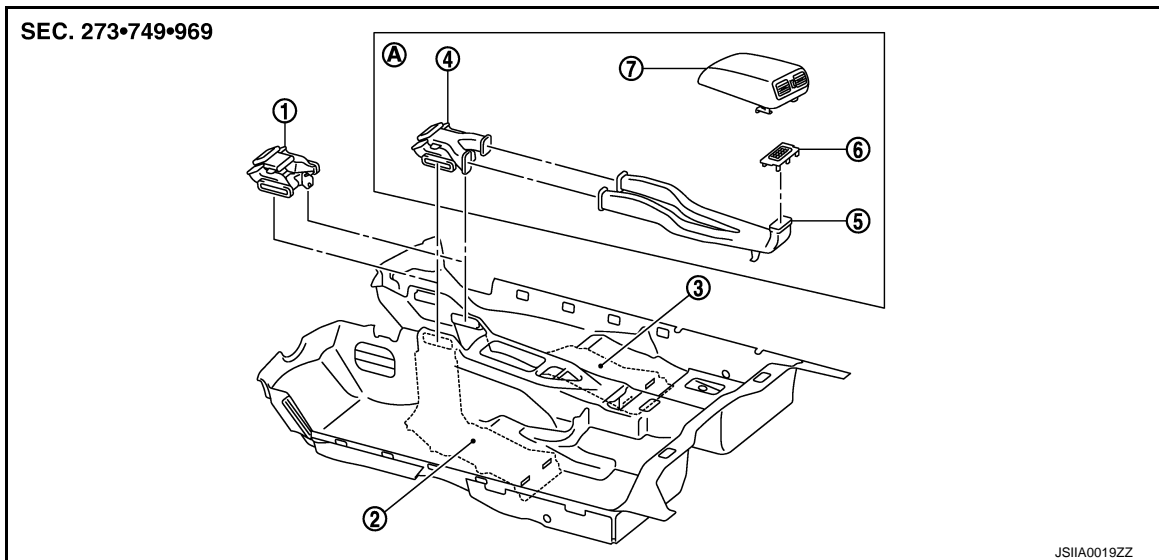
Installation is basically the reverse order of removal.

REAR FLOOR DUCT 1 (WITHOUT REAR VENTILATOR)

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

REAR FLOOR DUCT 1 (WITHOUT REAR VENTILATOR) : Exploded View INFOID:000000002989344

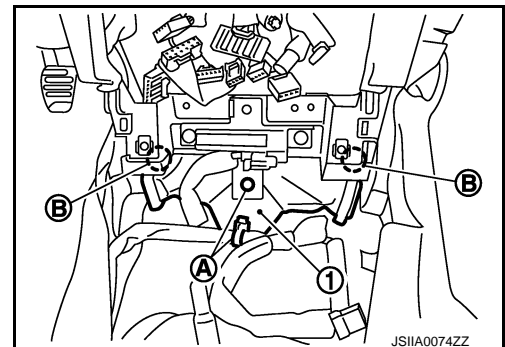


- | | | |
|--|-----------------------------|------------------------------|
| 1. Rear floor duct 1 (without rear ventilator) | 2. Rear floor duct 2 (left) | 3. Rear floor duct 2 (right) |
| 4. Rear floor duct 1 & rear ventilator duct 1 | 5. Rear ventilator duct 2 | 6. Console mask |
| 7. Rear ventilator grille (Console lid assembly) | | |
| A. With rear ventilator | | |

REAR FLOOR DUCT 1 (WITHOUT REAR VENTILATOR) : Removal and Installation INFOID:000000002989345

REMOVAL

1. Remove center console. Refer to [IP-22. "Exploded View"](#).
2. Remove Instrument side panel (RH). Refer to [IP-11. "Exploded View"](#).
3. Remove AV control unit. Refer to [AV-113. "Exploded View"](#) (BASE AUDIO WITHOUT NAVIGATION), [AV-322. "Exploded View"](#) (BOSE AUDIO WITHOUT NAVIGATION), [AV-603. "Exploded View"](#) (BOSE AUDIO WITH NAVIGATION).
4. Remove mounting clip (A).
5. Remove mounting clips (B), and then peel back floor carpet to a point where rear floor duct 1 (1) is visible.
6. Remove rear floor duct 1 to rightward.



INSTALLATION

Installation is basically the reverse order of removal.

REAR FLOOR DUCT 1 & REAR VENTILATOR DUCT 1(WITH REAR VENTILATOR)

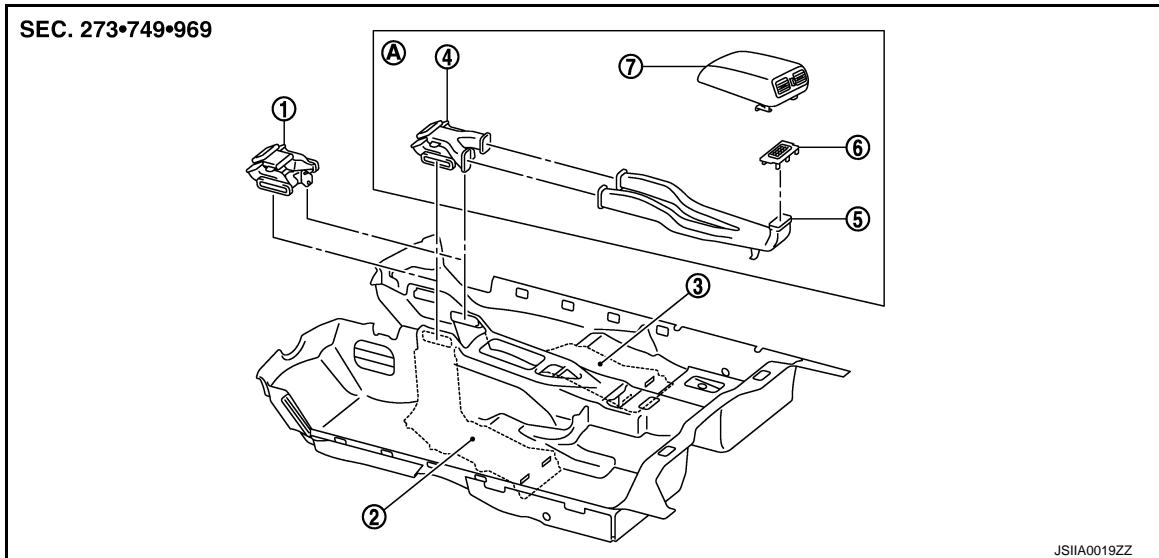
REAR FLOOR DUCT 1 & REAR VENTILATOR DUCT 1(WITH REAR VENTILATOR)

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

: Exploded View

INFOID:000000002989346



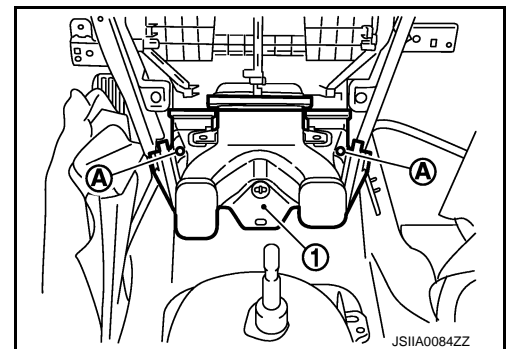
1. Rear floor duct 1 (without rear ventilator)
2. Rear floor duct 2 (left)
3. Rear floor duct 2 (right)
4. Rear floor duct 1 & rear ventilator duct 1
5. Rear ventilator duct 2
6. Console mask
7. Rear ventilator grille (Console lid assembly)
- A. With rear ventilator

REAR FLOOR DUCT 1 & REAR VENTILATOR DUCT 1(WITH REAR VENTILATOR) : Removal and Installation

INFOID:000000002989347

REMOVAL

1. Remove instrument panel & pad. Refer to [IP-11, "Exploded View"](#).
2. Remove mounting clip (A), and then remove rear floor duct 1 (1).



INSTALLATION

Installation is basically the reverse order of removal.