

SECTION **VTL**
VENTILATION SYSTEM

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SWITCHES AND THEIR CONTROL FUNCTION

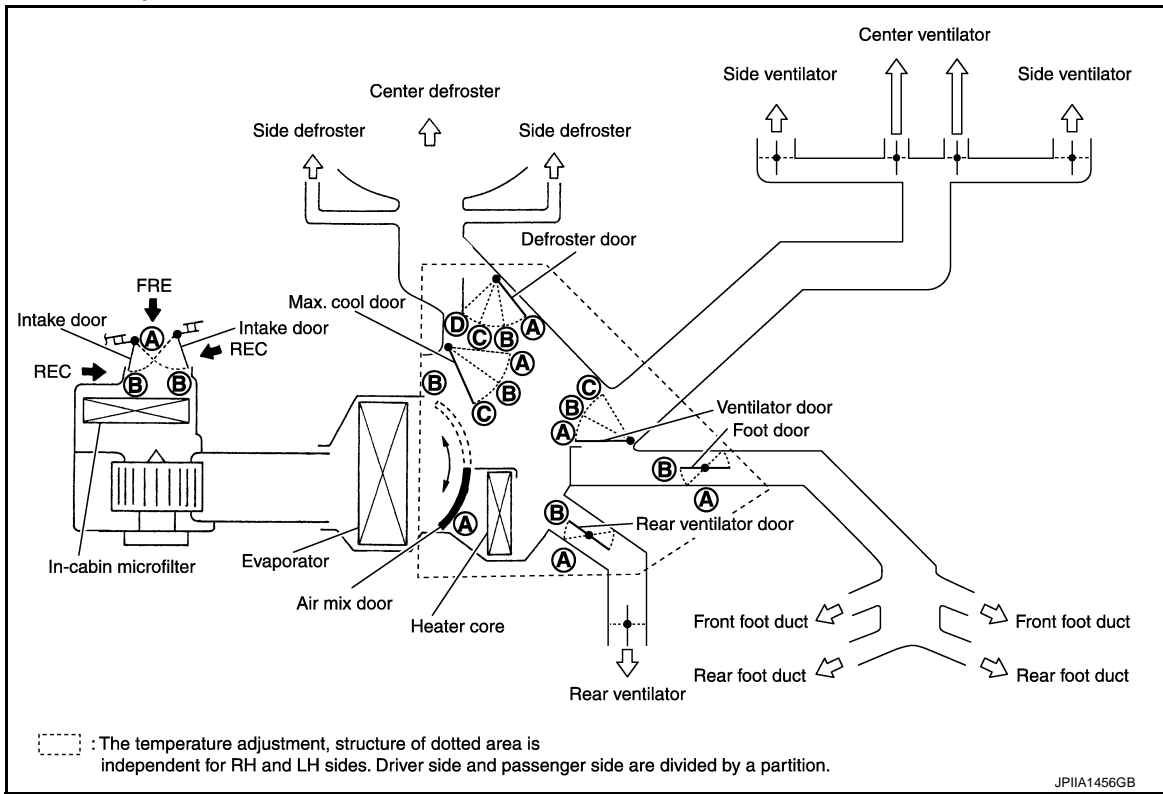
< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

SWITCHES AND THEIR CONTROL FUNCTION

System Description

INFOID:000000011405400



Position or switch	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					
Door											18°C (60°F) ↔ 32°C (90°F)	18°C (60°F) ↔ 32°C (90°F)	18°C (60°F) ↔ 32°C (90°F)		
Ventilator door	—	(A)	(B)	(C)	(C)	(C)	—	AUTO	—	—	—	—	—	AUTO	
Max.cool door	—	(A)	(B)	(C)	(C)	(C)	—	AUTO	—	—	—	—	—	AUTO	
Defroster door	—	(D)	(D)	(C)	(B)	(A)	—	AUTO	—	—	—	—	—	AUTO	
Foot door	—	(B)	(B)	(B)	(B)	(A)	—	AUTO	—	—	—	—	—	AUTO	
Rear ventilator door	—	(B)	(B)	(B)	(B)	(A)	—	AUTO	—	—	—	—	—	AUTO	
Intake door	—	—		(B)	(B)	—	—	AUTO	(B)*	(A)*	—	—	—	—	
Air mix door (Driver side)	—	—		—	—	—	—	AUTO	—	—	(A) AUTO	(B)	—	—	
Air mix door (Passenger side)	ON	—		—	—	—	—	AUTO	—	—	(A) AUTO	(B)	—	—	
	OFF	—		—	—	—	—	AUTO	—	—	(A) AUTO	(B)	—	—	

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

JSIIA0886GB






AIR DISTRIBUTION

< SYSTEM DESCRIPTION >

AIR DISTRIBUTION

System Description

INFOID:000000010988773

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%

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

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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:000000011405487

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:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:

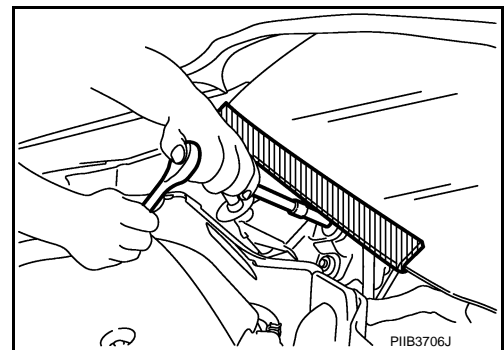
Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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 for Procedure without Cowl Top Cover

INFOID:000000011405536

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



PRECAUTIONS

< PRECAUTION >

Precautions for Removing Battery Terminal

INFOID:000000011405550

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

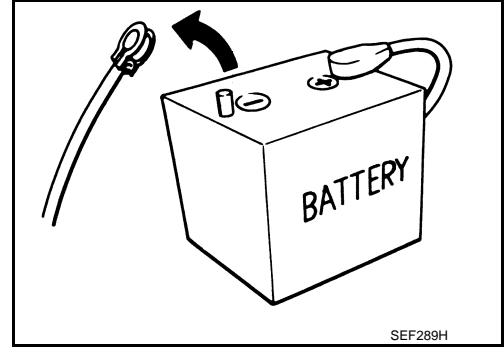
NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

NOTE:

The removal of 12V battery may cause a DTC detection error.



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PREPARATION

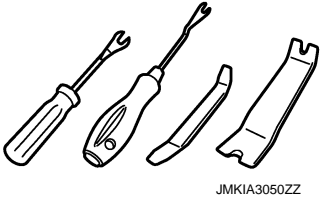
< PREPARATION >

PREPARATION

PREPARATION

Commercial Service Tool

INFOID:0000000010988775

Tool name	Description
Remover tool  JMKIA3050ZZ	Remove clips, pawls and metal clips

IN-CABIN MICROFILTER

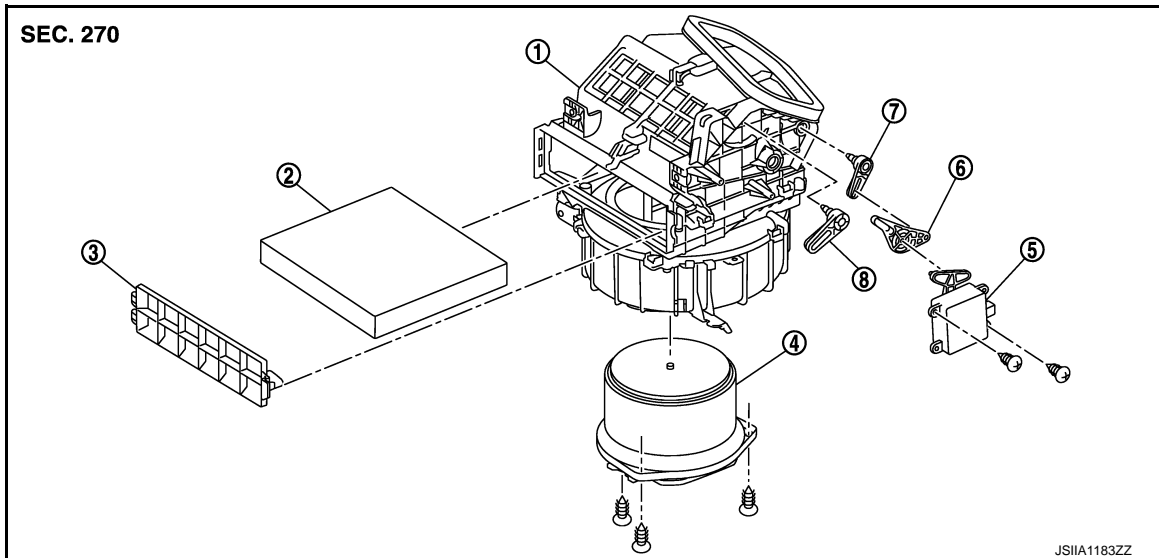
< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

IN-CABIN MICROFILTER

Exploded View

INFOID:000000010988776



- | | | |
|--------------------------|-------------------------|---------------------|
| 1. Blower unit | 2. In-cabin microfilter | 3. Filter cover |
| 4. Blower motor assembly | 5. Intake door motor | 6. Intake door link |
| 7. Intake door lever 1 | 8. Intake door lever 2 | |

Removal and Installation

INFOID:000000010988777

REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-12. "Exploded View"](#).
2. Remove filter cover, and then remove in-cabin microfilter.

INSTALLATION

Note the following items, and then install in the reverse order of removal.

CAUTION:

- If the filter is deformed/damaged when removing, replace it with a new one. Deformed/damaged filter may deteriorate the duct collecting performance.
- When installing, handle the filter with extreme care to avoid deforming/damaging.

Replacement

INFOID:000000010988778

Replace in-cabin microfilter.
Refer to [MA-6. "Introduction of Periodic Maintenance"](#).
Affix a caution label inside the glove box when replacing filter.

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DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

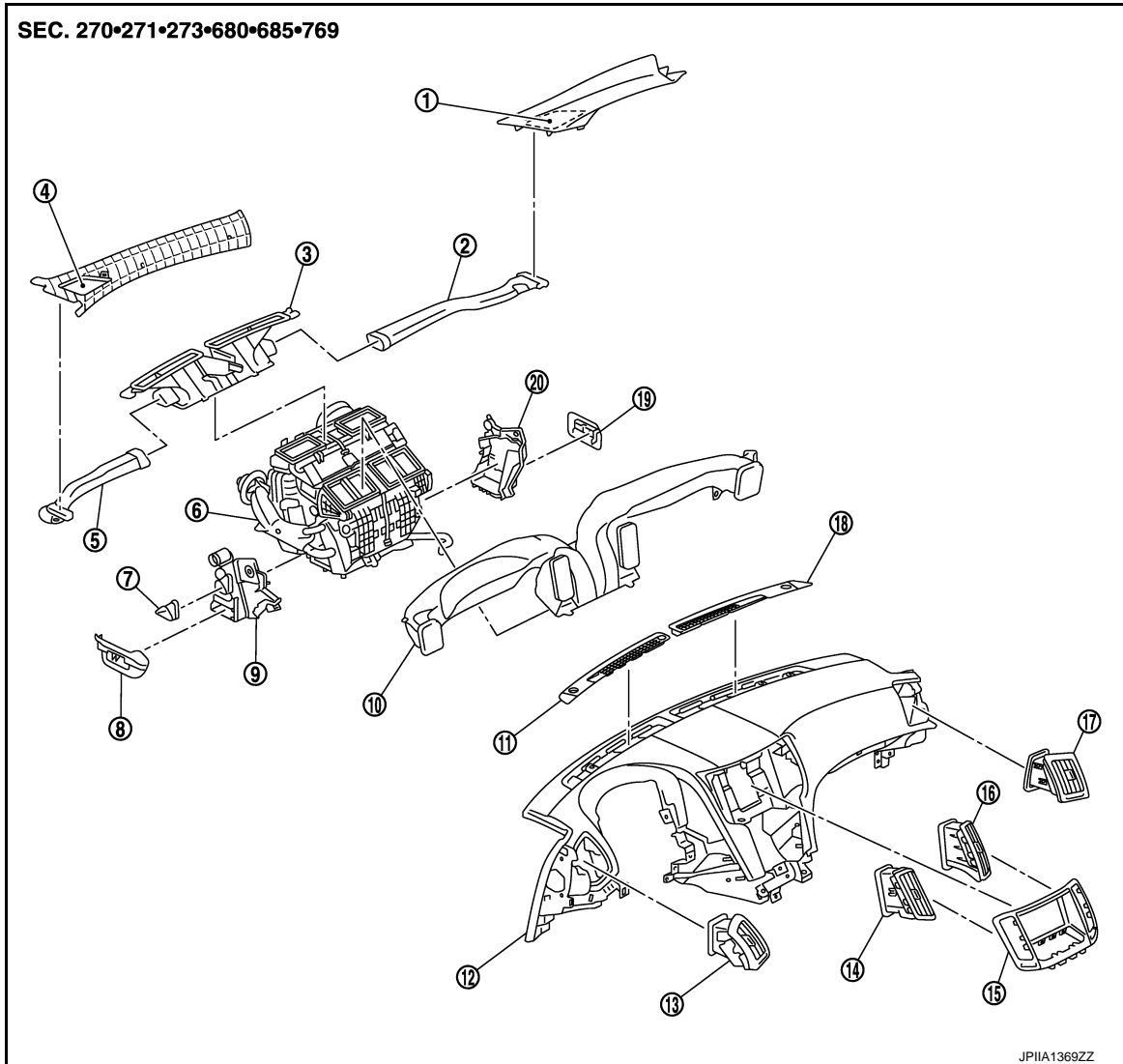
REMOVAL AND INSTALLATION

DUCT AND GRILLE

Exploded View

INFOID:000000010988779

FRONT

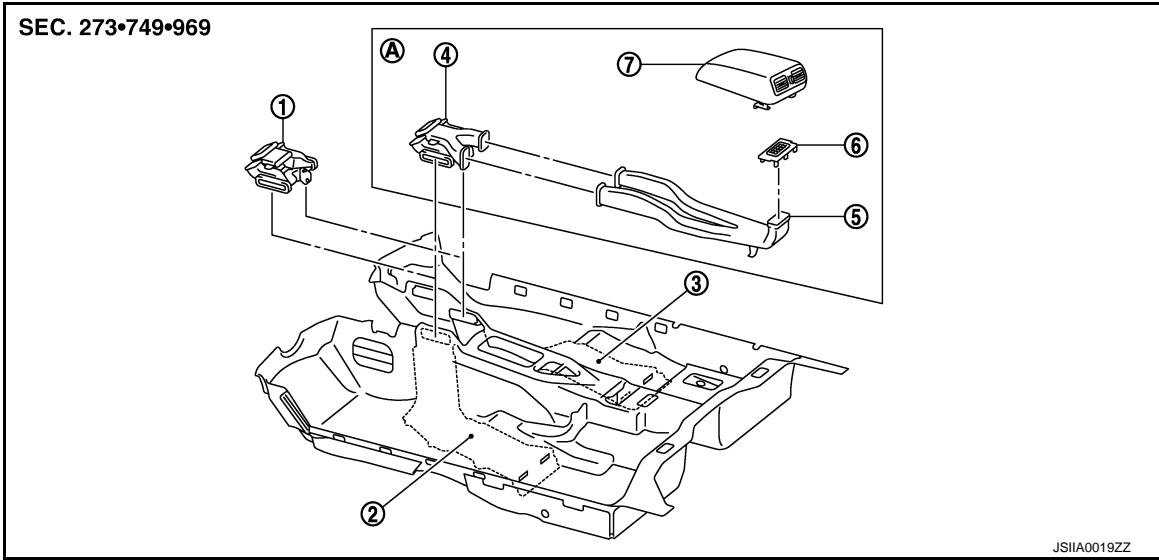


- | | | |
|--|---------------------------------|-----------------------------------|
| 1. Side defroster duct RH
(Front pillar garnish RH) | 2. Side defroster nozzle RH | 3. Defroster nozzle |
| 4. Side defroster duct LH
(Front pillar garnish LH) | 5. Side defroster nozzle LH | 6. Heater & cooling unit assembly |
| 7. Heater duct | 8. Foot grille LH | 9. Foot duct LH |
| 10. Ventilator duct | 11. Front defroster grille LH | 12. Instrument panel assembly |
| 13. Side ventilator grille LH | 14. Center ventilator grille LH | 15. Cluster lid D |
| 16. Center ventilator grille RH | 17. Side ventilator grille RH | 18. Front defroster grille RH |
| 19. Foot grille RH | 20. Foot duct RH | |

REAR

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >



- | | | |
|---|---------------------------------------|---------------------------------------|
| 1. Rear floor duct 1
(Without rear ventilator) | 2. Rear floor duct 2 LH (If equipped) | 3. Rear floor duct 2 RH (If equipped) |
| 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 | | |


CENTER VENTILATOR GRILLE

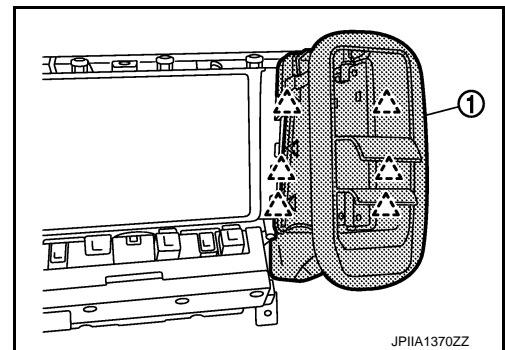
CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000010988780

REMOVAL

1. Remove cluster lid D. Refer to [IP-12, "Exploded View"](#).
2. Disengage fixing pawls, and then remove center ventilator grille (1).

 : Pawl



INSTALLATION

Install in the reverse order of removal.

SIDE VENTILATOR GRILLE

SIDE VENTILATOR GRILLE : Removal and Installation

INFOID:000000010988781


REMOVAL

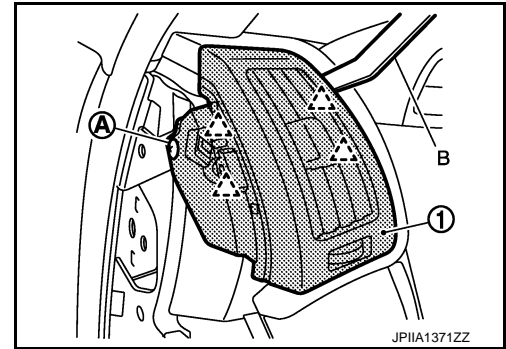
1. Remove instrument side finisher. Refer to [IP-12, "Exploded View"](#).

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

2. Remove fixing screw (A).
3. Disengage fixing pawls using a remover tool (B), and then remove side ventilator grille (1).

 : Pawl



INSTALLATION

Install in the reverse order of removal.

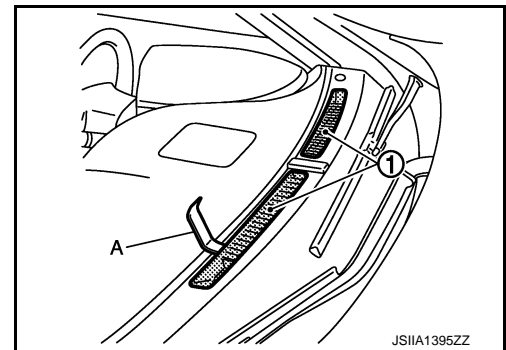
FRONT DEFROSTER GRILLE

FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000010988782

REMOVAL

Remove front defroster grilles (1), using a remover tool (A).



INSTALLATION

Install in the reverse order of removal.

FRONT DEFROSTER NOZZLE, SIDE DEFROSTER NOZZLE AND VENTILATOR DUCT

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

INFOID:000000010988783

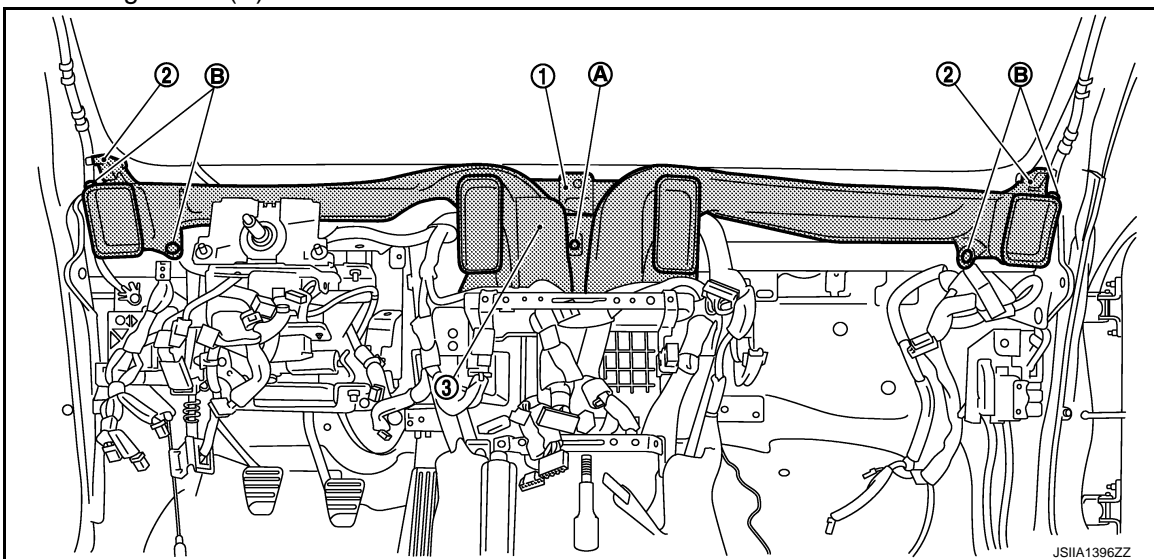
REMOVAL

1. Remove instrument panel assembly. Refer to [IP-12. "Exploded View"](#).

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

2. Remove fixing screw (A).



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

INSTALLATION

Install in the reverse order of removal.

SIDE DEFROSTER DUCT

SIDE DEFROSTER DUCT : Removal and Installation

INFOID:000000010988784

REMOVAL

Remove front pillar garnish. Refer to [INT-15, "Exploded View"](#).

INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR GRILLE

REAR VENTILATOR GRILLE : Removal and Installation

INFOID:000000010988785

REMOVAL

Remove console rear finisher. Refer to [IP-22, "Exploded View"](#).

INSTALLATION

Install in the reverse order of removal.

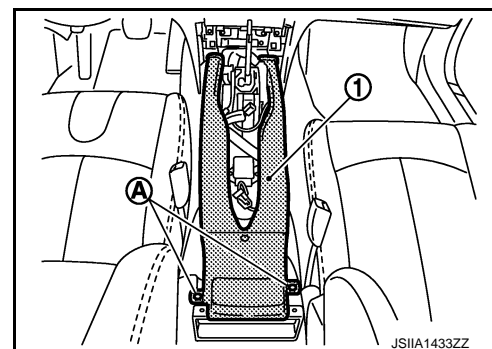
REAR VENTILATOR DUCT 2

REAR VENTILATOR DUCT 2 : Removal and Installation

INFOID:000000010988786

REMOVAL

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



DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

INSTALLATION

Install in the reverse order of removal.

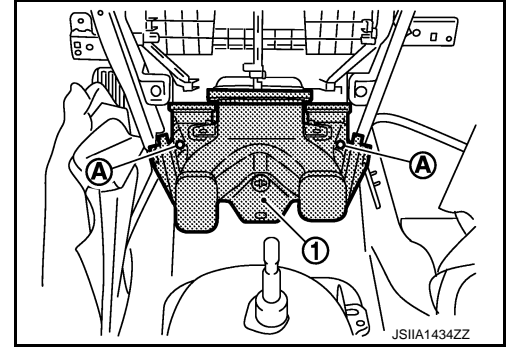
REAR FLOOR DUCT 1 & REAR VENTILATOR DUCT 1

REAR FLOOR DUCT 1 & REAR VENTILATOR DUCT 1 : Removal and Installation

INFOID:000000010988788

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-12, "Exploded View"](#).
2. Remove fixing clips (A), and then remove rear floor duct 1 (1).



INSTALLATION

Install in the reverse order of removal.

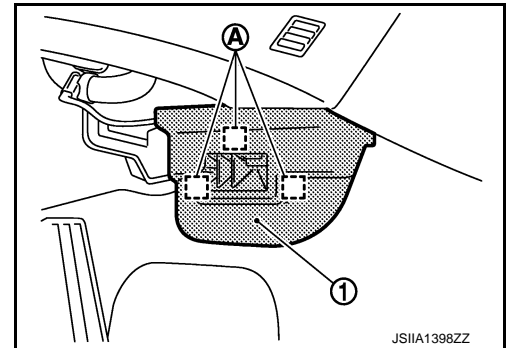
FOOT GRILLE

FOOT GRILLE : Removal and Installation

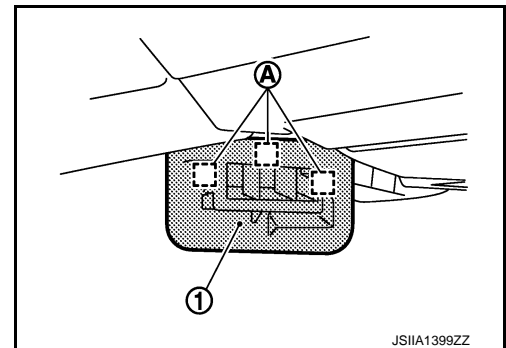
INFOID:000000010988789

REMOVAL

1. Remove fixing metal clips (A), and then remove foot grille LH (1).



2. Remove fixing metal clips (A), and then remove foot grille RH (1).



INSTALLATION

Install in the reverse order of removal.

HEATER DUCT

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

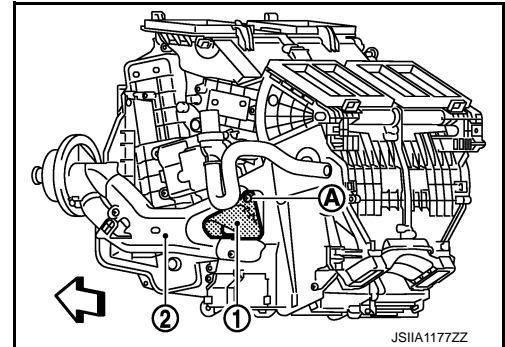
HEATER DUCT : Removal and Installation

INFOID:000000010988790

REMOVAL

Remove fixing screw (A), and then remove heater duct (1) from heater & cooling unit assembly (2).

← : Vehicle front



INSTALLATION

Install in the reverse order of removal.

FOOT DUCT

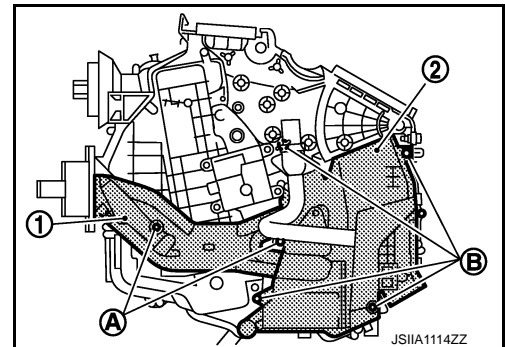
FOOT DUCT : Removal and Installation

INFOID:000000010988791

REMOVAL

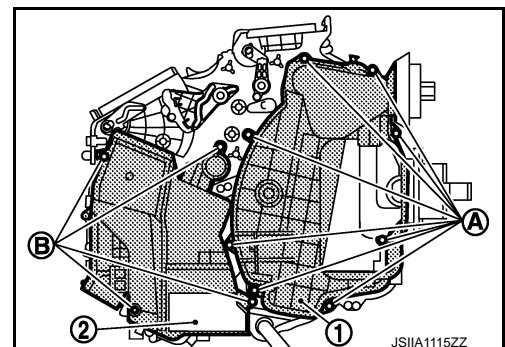
Driver Side

1. Remove heater & cooling unit assembly. Refer to [HA-50, "Exploded View"](#).
2. Remove fixing screws (A), and then remove heater pipe cover (1).
3. Remove fixing screws (B), and then remove foot duct LH (2).



Passenger Side

1. Set the temperature at full cold.
CAUTION:
The angle may be out, when installing the air mix door motor to the air mix door, unless the above procedure is performed.
2. Disconnect the battery cable from the negative terminal.
3. Remove heater & cooling unit assembly. Refer to [HA-50, "Exploded View"](#).
4. Remove air mix door motor. Refer to [HAC-115, "Exploded View"](#).
5. Remove mode door motor and links. Refer to [HAC-115, "Exploded View"](#).
6. Remove fixing screws (A), and then remove evaporator cover (1).
7. Remove fixing screws (B), and then remove foot duct RH (2).



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DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

INSTALLATION

Install in the reverse order of removal.

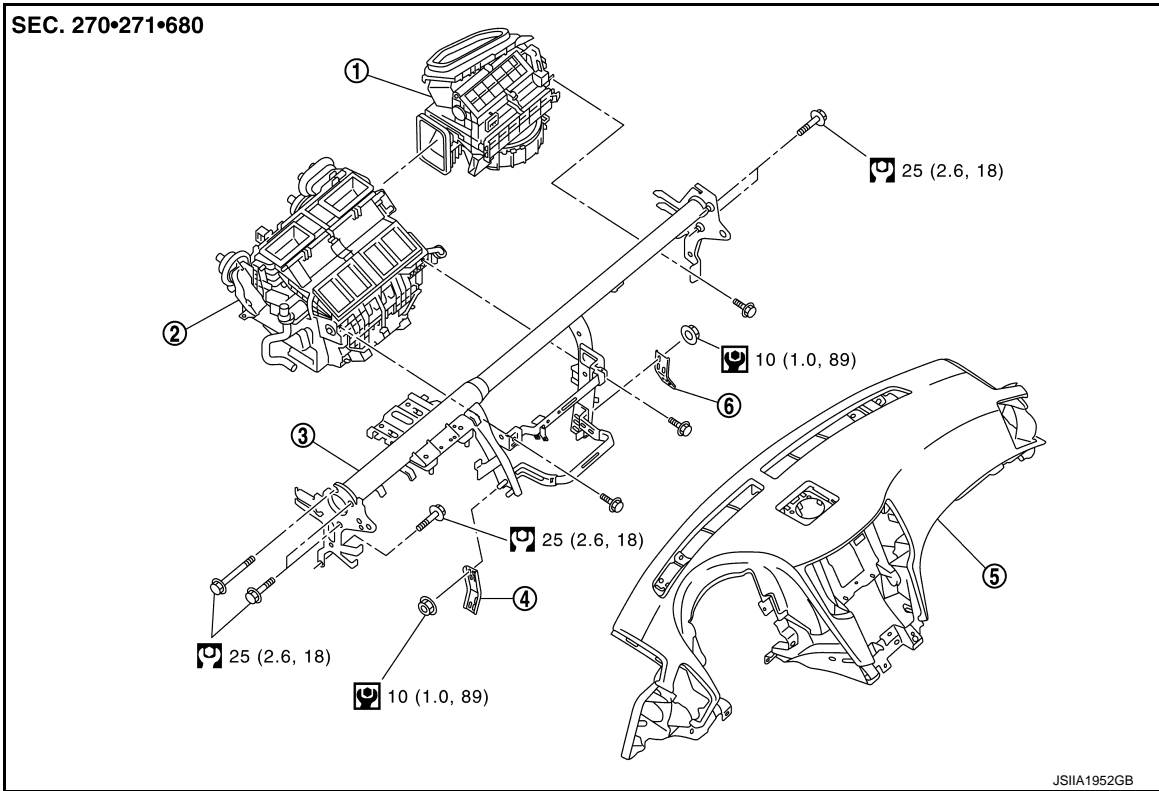
BLOWER UNIT

< REMOVAL AND INSTALLATION >

BLOWER UNIT

Exploded View

INFOID:000000010988792



- | | | |
|-----------------------|-----------------------------------|-----------------------|
| 1. Blower unit | 2. Heater & cooling unit assembly | 3. Steering member |
| 4. Instrument stay LH | 5. Instrument panel assembly | 6. Instrument stay RH |

25 (2.6, 18) N·m (kg-m, ft-lb)

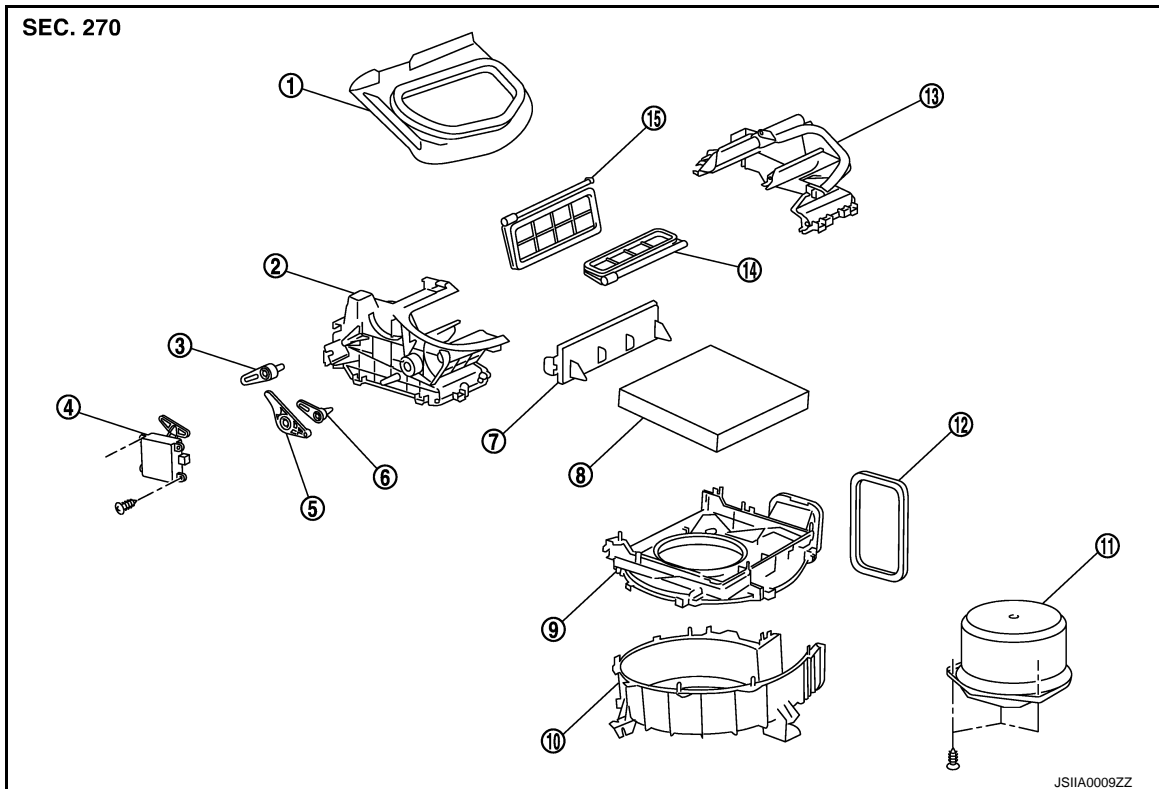
10 (1.0, 89) N·m (kg-m, in-lb)

DISASSEMBLY

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BLOWER UNIT

< REMOVAL AND INSTALLATION >



- | | | |
|-----------------------|---------------------------|------------------------|
| 1. Adapter | 2. Intake box RH | 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 LH | 14. Intake door 1 | 15. Intake door 2 |

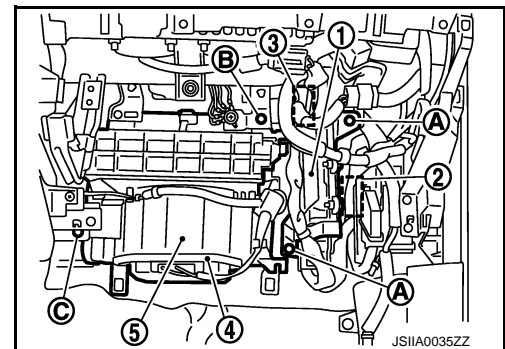
BLOWER UNIT

BLOWER UNIT : Removal and Installation

INFOID:000000010988793

REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-12. "Exploded View"](#).
2. Disconnect ECM (1) connectors.
3. Disconnect AWD control unit (2) connector (AWD models).
4. Remove mounting nuts (A), and then remove ECM with bracket attached.
5. Remove power steering control unit (WITHOUT 4WAS). Refer to [STC-21. "Exploded View"](#).
6. Disconnect intake door motor (3) connector and blower motor (4) connector.
7. Remove mounting bolt (B) and fixing screw (C), and then remove blower unit (5).



CAUTION:

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

INSTALLATION

Note the following items, and then install in the reverse order of removal.

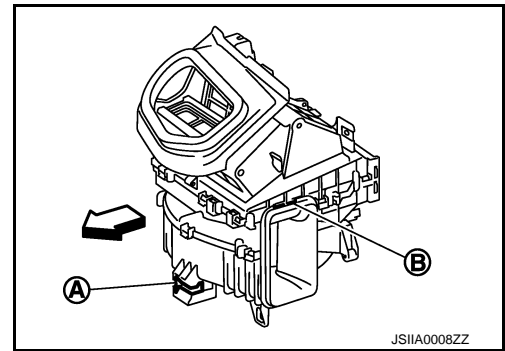
CAUTION:

BLOWER UNIT

< REMOVAL AND INSTALLATION >

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

↶ : Vehicle front



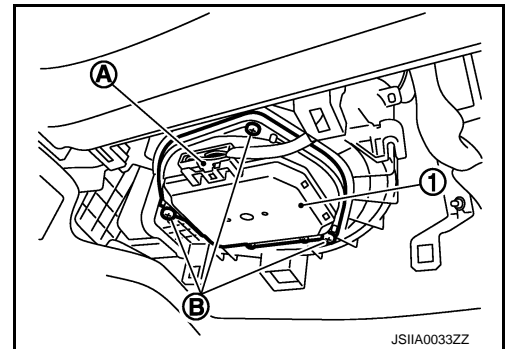
BLOWER MOTOR

BLOWER MOTOR : Removal and Installation

INFOID:000000010988794

REMOVAL

1. Remove instrument lower cover. Refer to [IP-12. "Exploded View"](#).
2. Disconnect blower motor connector (A).
3. Remove fixing screws (B), and then remove blower motor assembly (1).



INSTALLATION

Install in the reverse order of removal.

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