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# SECTION **VTL**

## VENTILATION SYSTEM

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# SWITCHES AND THEIR CONTROL FUNCTION

< SYSTEM DESCRIPTION >

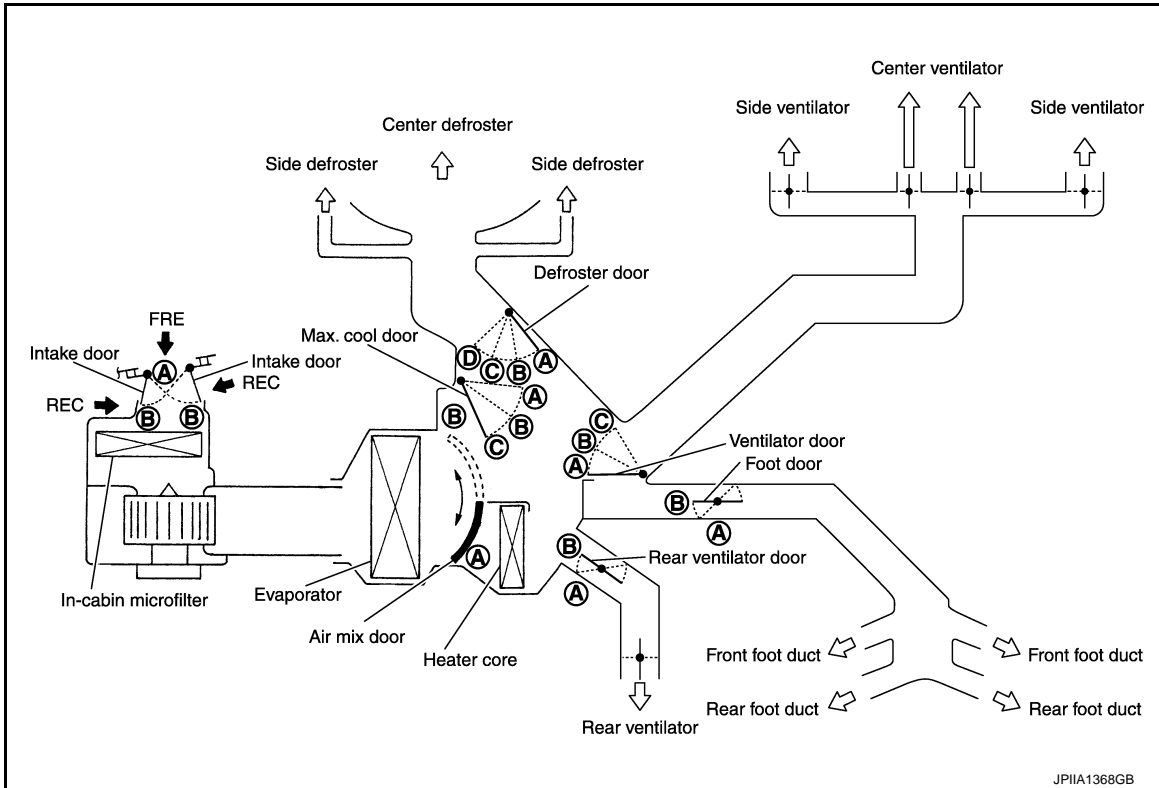
## SYSTEM DESCRIPTION

### 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

INFOID:000000007465673



JPIIA1368GB

Position or switch	MODE switch				DEF switch		AUTO switch	Intake switch		Temperature control dial			OFF switch
	VENT	B/L	FOOT	D/F	ON	OFF		FRE	REC				OFF
										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.

JSIIA0887GB

WITH LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL SYSTEM

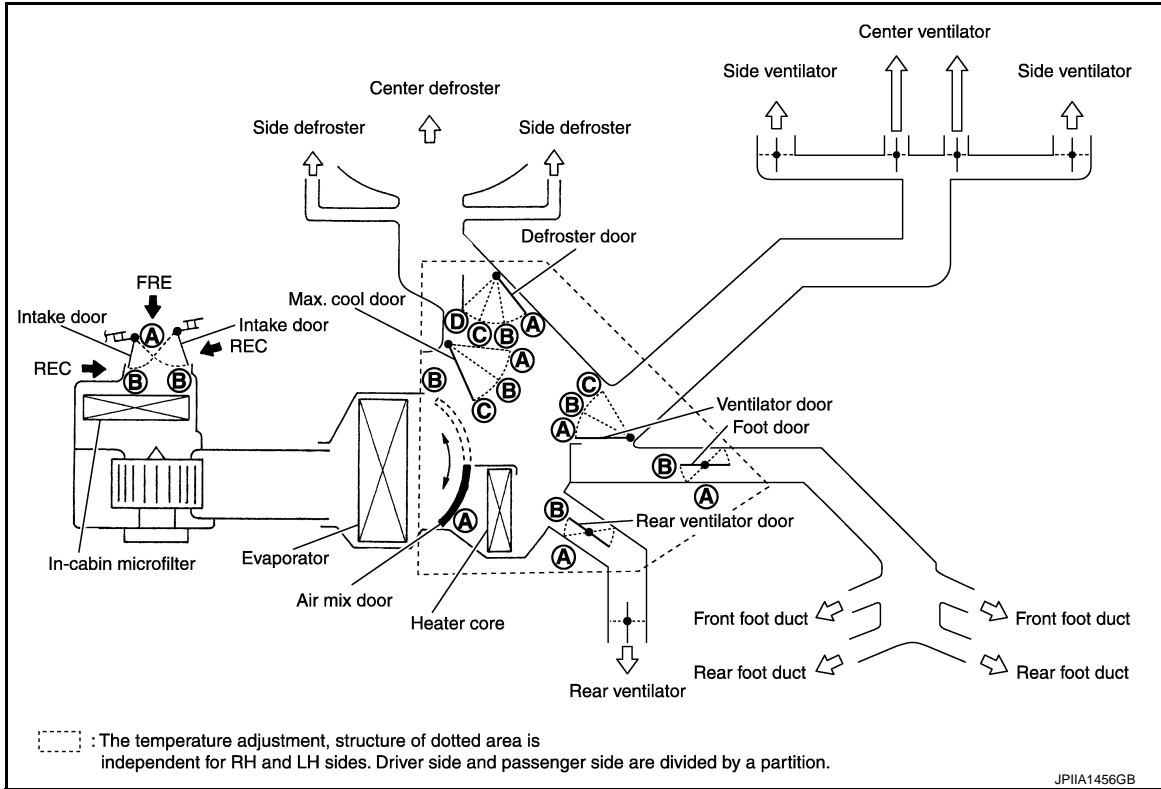
WITH LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL

# SWITCHES AND THEIR CONTROL FUNCTION

< SYSTEM DESCRIPTION >

SYSTEM : System Description

INFOID:000000007465674



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						OFF		
Door												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)	—		—	—	—	—	—	—	—	—		—
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 (Driver side)	—	—				—	—	—	—	—	(A)	AUTO	(B)	—	—	—	—	
Air mix door (Passenger side)	ON	—				—	—	—	—	—	—	(A)	AUTO	(B)	—	—	—	
	OFF	—				—	—	—	—	—	(A)	AUTO	(B)	—	—	—	—	

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

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# AIR DISTRIBUTION

< SYSTEM DESCRIPTION >

## AIR DISTRIBUTION

### System Description

INFOID:000000007465675

### WITHOUT REAR VENTILATOR

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%

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

### WITH REAR VENTILATOR

Discharge air flow						
Mode position indication	Condition	Air outlet/distribution				DEF
		VENT		FOOT		
		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:000000007794079

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.

# PREPARATION

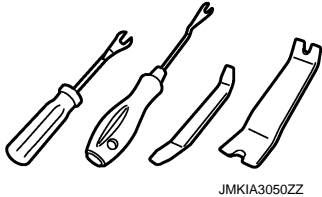
< PREPARATION >

## PREPARATION

### PREPARATION

#### Commercial Service Tool

INFOID:000000007465678

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

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# IN-CABIN MICROFILTER

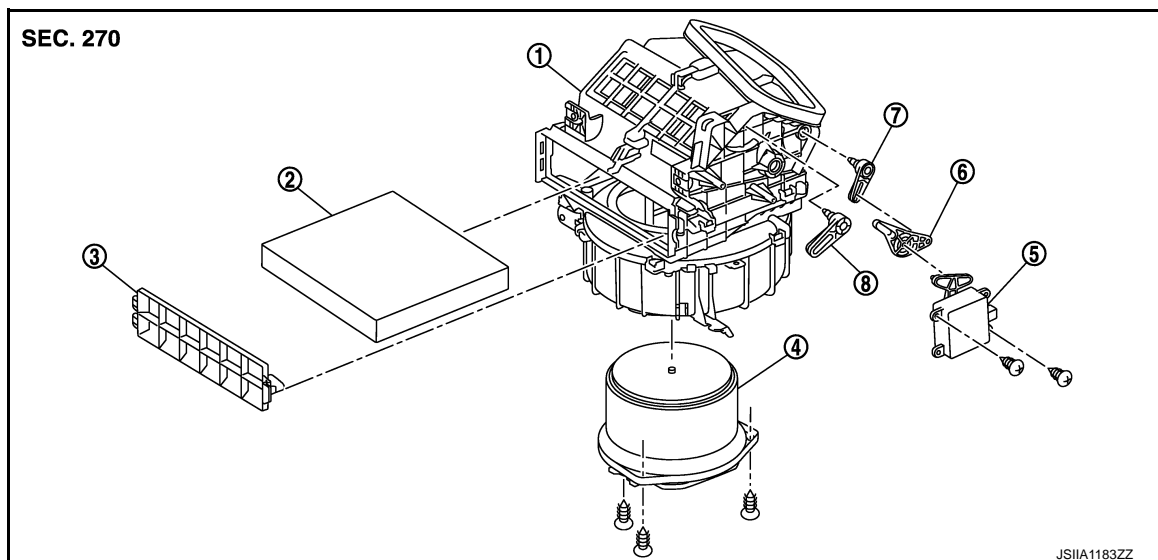
< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

### IN-CABIN MICROFILTER

Exploded View

INFOID:000000007465679



- |                          |                         |                     |
|--------------------------|-------------------------|---------------------|
| 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:000000007465680

### REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-11, "A/T MODELS : 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:000000007465681

Replace in-cabin microfilter.

Refer to [MA-9, "FOR NORTH AMERICA : Schedule 1"](#) and [MA-12, "FOR NORTH AMERICA : Schedule 2"](#).

Affix a caution label inside the glove box when replacing filter.



# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

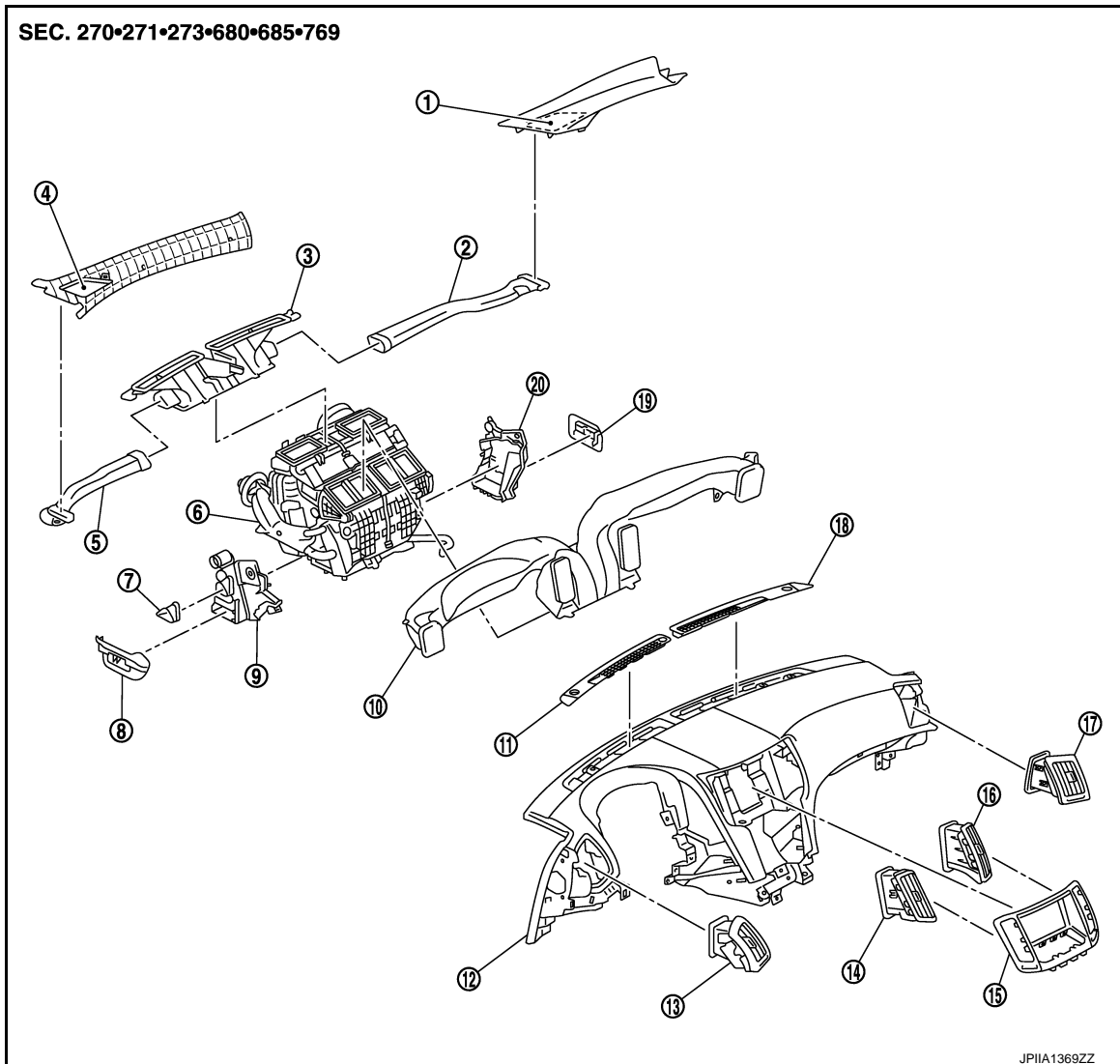
## REMOVAL AND INSTALLATION

### DUCT AND GRILLE

Exploded View

INFOID:000000007465682

FRONT



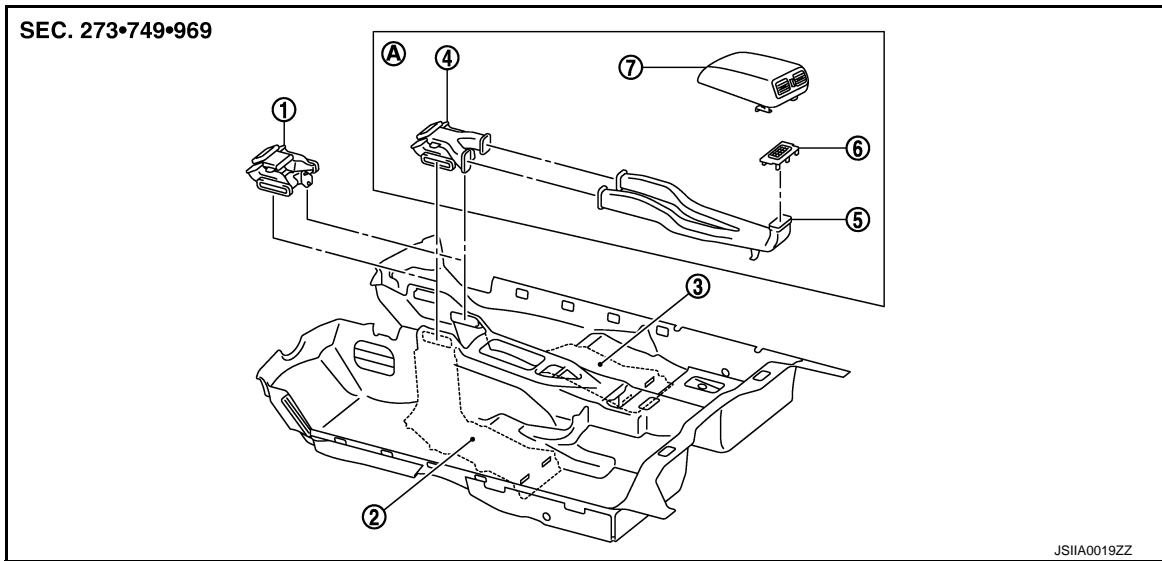
- |  |                                 |                                   |
|--|---------------------------------|-----------------------------------|
| 1. Side defroster duct RH<br>(Front pillar garnish RH) | 2. Side defroster nozzle RH     | 3. Defroster nozzle               |
| 4. Side defroster duct LH<br>(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                |                                   |

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# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >



1. Rear floor duct 1  
(Without rear ventilator)
2. Rear floor duct 2 LH
3. Rear floor duct 2 RH
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

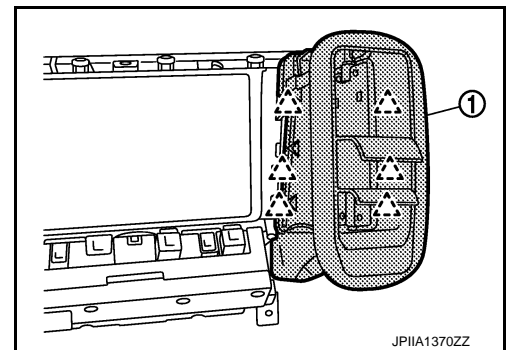
### CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000007465683

#### REMOVAL

1. Remove cluster lid D. Refer to [JP-11, "A/T MODELS : 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:000000007465684


#### REMOVAL

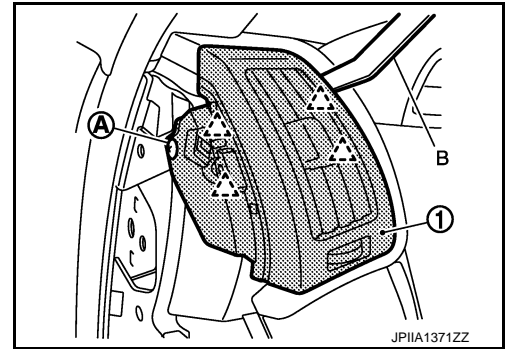
1. Remove instrument side finisher. Refer to [JP-11, "A/T MODELS : Exploded View"](#).

## 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.

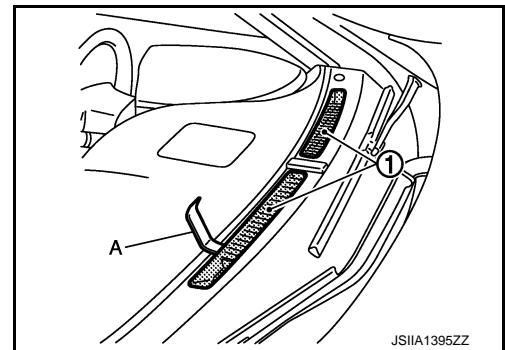
### FRONT DEFROSTER GRILLE

### FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000007465685

### 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:000000007465686

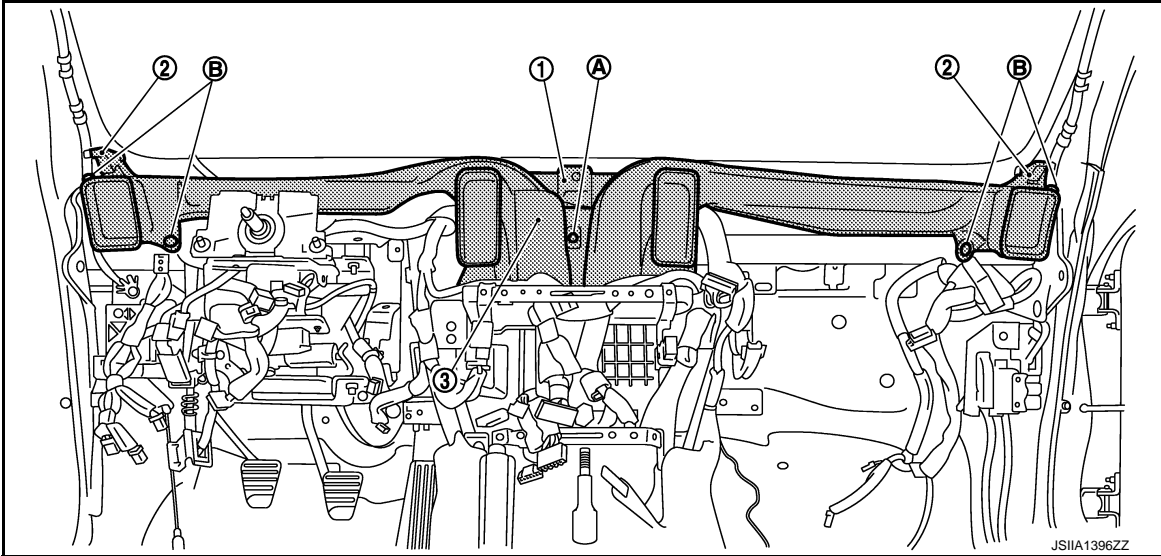
### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-11, "A/T MODELS : 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:000000007465687

### REMOVAL

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

### INSTALLATION

Install in the reverse order of removal.

### REAR VENTILATOR GRILLE

#### REAR VENTILATOR GRILLE : Removal and Installation

INFOID:000000007465688

### REMOVAL

Remove console rear finisher. Refer to [IP-33, "A/T MODELS : Exploded View"](#).

### INSTALLATION

Install in the reverse order of removal.

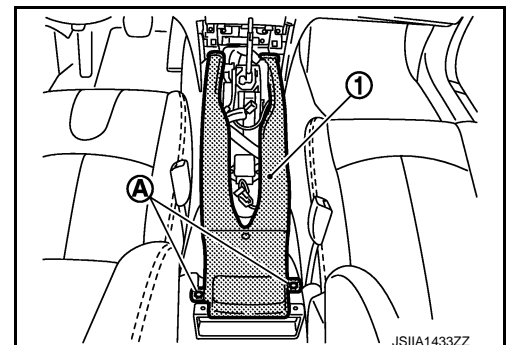
### REAR VENTILATOR DUCT 2

#### REAR VENTILATOR DUCT 2 : Removal and Installation

INFOID:000000007465689

### REMOVAL

1. Remove center console assembly. Refer to [IP-33, "A/T MODELS : 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.

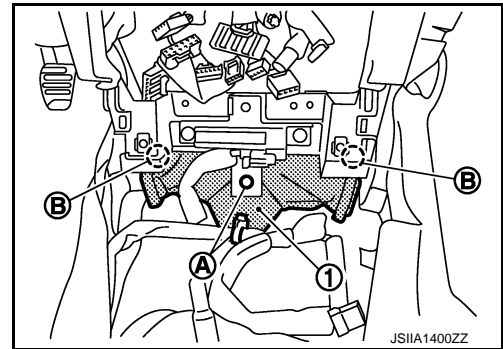
### REAR FLOOR DUCT 1 (WITHOUT REAR VENTILATOR)

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

INFOID:000000007465690

## REMOVAL

1. Remove center console assembly. Refer to [IP-33, "A/T MODELS : Exploded View"](#).
2. Remove instrument side panel RH. Refer to [IP-11, "A/T MODELS : Exploded View"](#).
3. Remove AV control unit. Refer to the following.
  - Refer to [AV-82, "Exploded View"](#). (BASE AUDIO WITHOUT REAR VIEW CAMERA)
  - Refer to [AV-184, "Exploded View"](#). (BASE AUDIO WITH REAR VIEW CAMERA)
  - Refer to [AV-299, "Exploded View"](#). (BOSE AUDIO WITHOUT NAVIGATION)
  - Refer to [AV-437, "Exploded View"](#). (BOSE AUDIO WITH NAVIGATION)
4. Remove fixing clips (A) and (B), and then peel back floor carpet to a point where rear floor duct 1 (1) is visible.
5. Remove rear floor duct 1 to rightward.



## INSTALLATION

Install in the reverse order of removal.

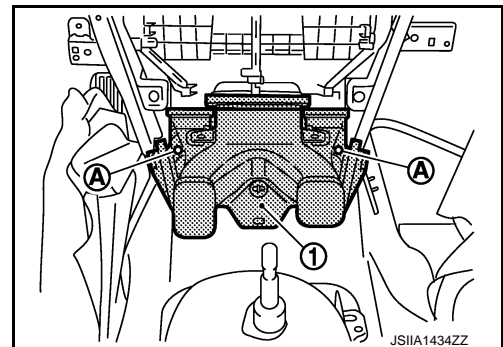
### REAR FLOOR DUCT 1 & REAR VENTILATOR DUCT 1 (WITH REAR VENTILATOR)

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

INFOID:000000007465691

## REMOVAL

1. Remove instrument panel assembly. Refer to [IP-11, "A/T MODELS : 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:000000007465692

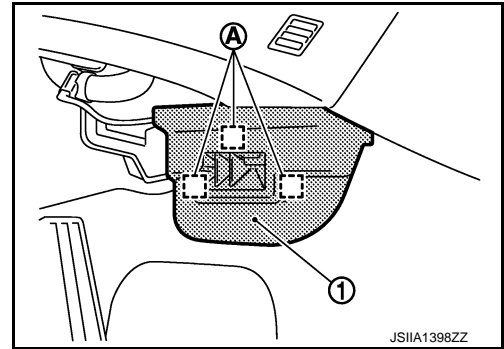
## REMOVAL

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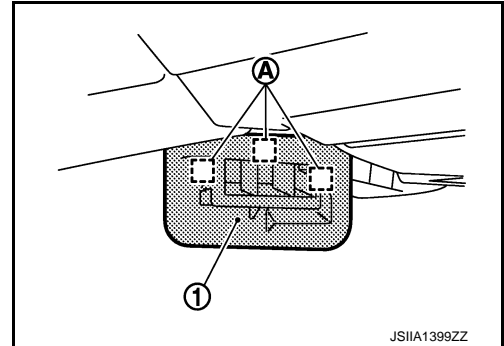
# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

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

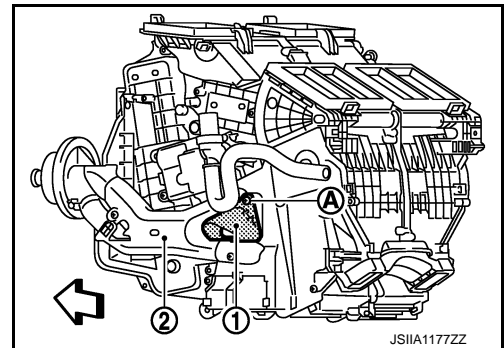
### HEATER DUCT : Removal and Installation

INFOID:000000007465693

## 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:000000007465694

## REMOVAL

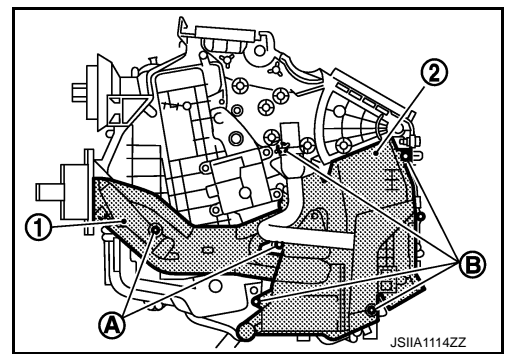
Driver Side

1. Remove heater & cooling unit assembly. Refer to [HA-51, "Exploded View"](#).

## DUCT AND GRILLE

### < REMOVAL AND INSTALLATION >

2. Remove fixing screws (A), and then remove heater pipe cover (1).
3. Remove fixing screws (B), and then remove foot duct LH (2).



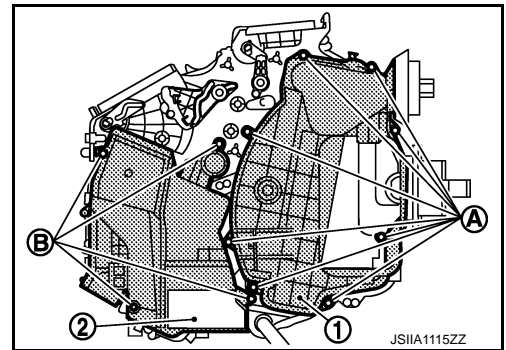
### Passenger Side

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-51, "Exploded View"](#).
4. Remove air mix door motor. Refer to [HAC-187, "Exploded View"](#).
5. Remove mode door motor and links. Refer to [HAC-187, "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).



### INSTALLATION

Install in the reverse order of removal.

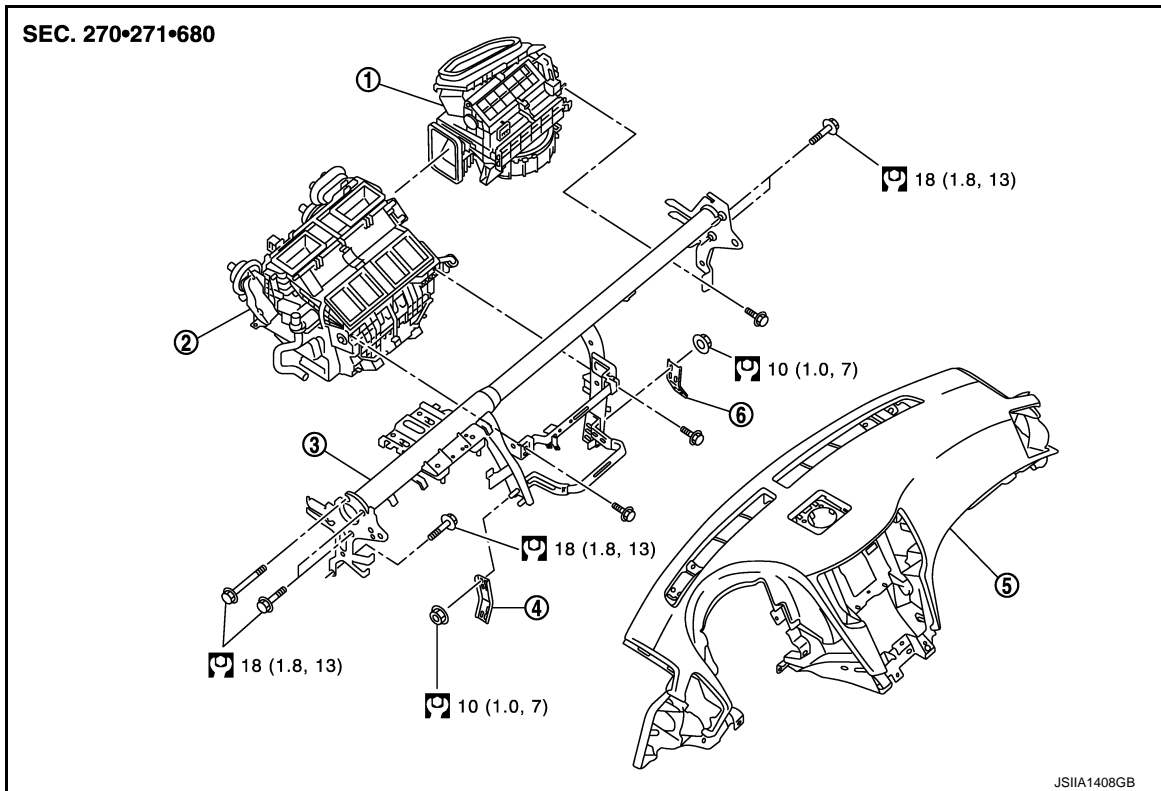
# BLOWER UNIT

< REMOVAL AND INSTALLATION >

## BLOWER UNIT

Exploded View

INFOID:000000007465695



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

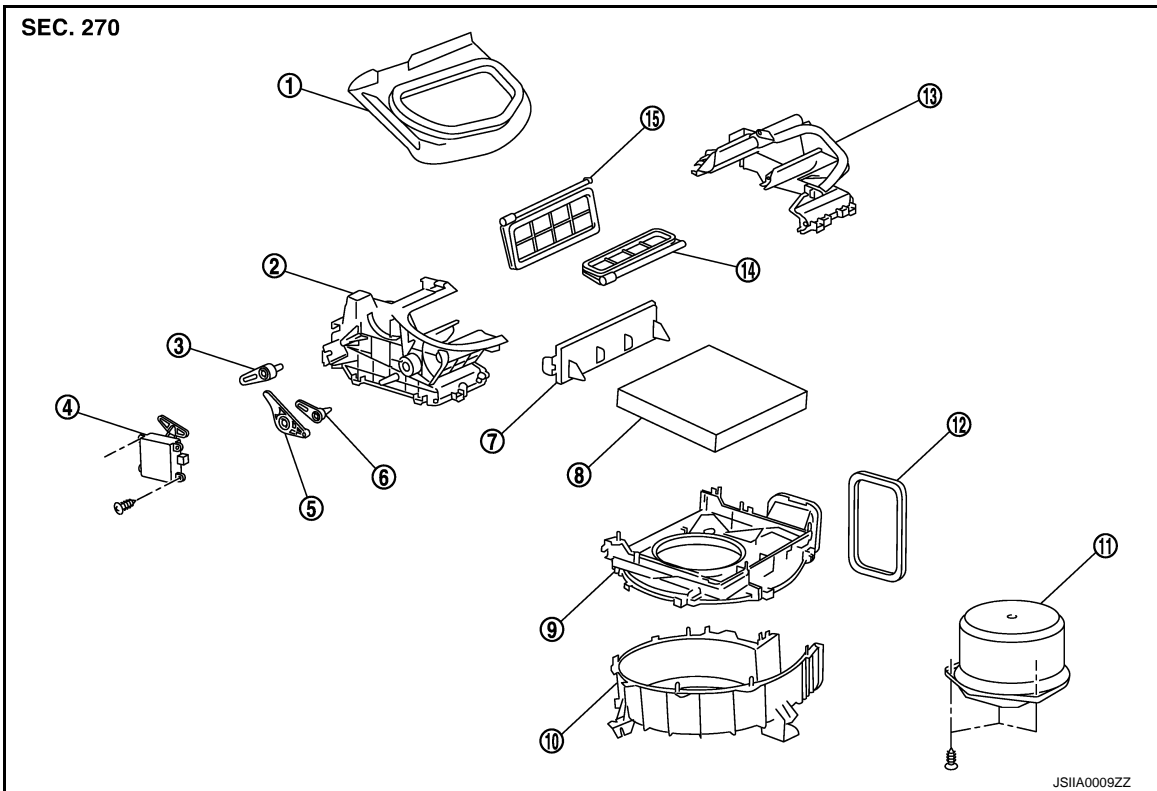
Refer to [GI-4, "Components"](#) for symbols in the figure.

### DISASSEMBLY



# 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      |

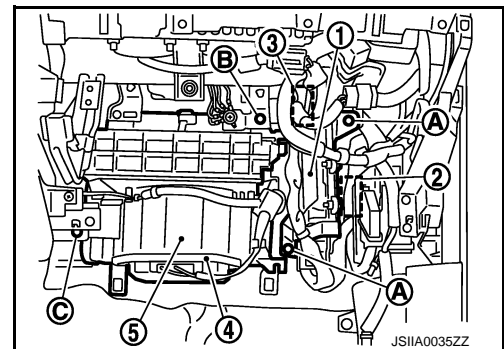
## BLOWER UNIT

### BLOWER UNIT : Removal and Installation

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#### REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-11, "A/T MODELS : 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-18, "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.

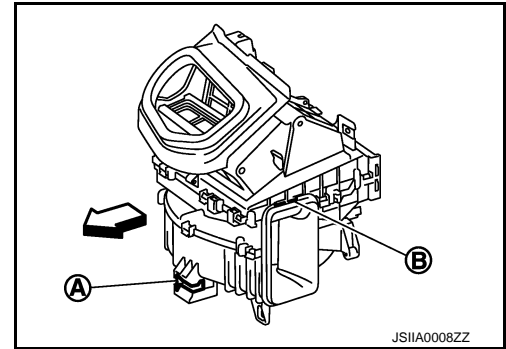
#### **CAUTION:**

# BLOWER UNIT

## < REMOVAL AND INSTALLATION >

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

↔ : Vehicle front



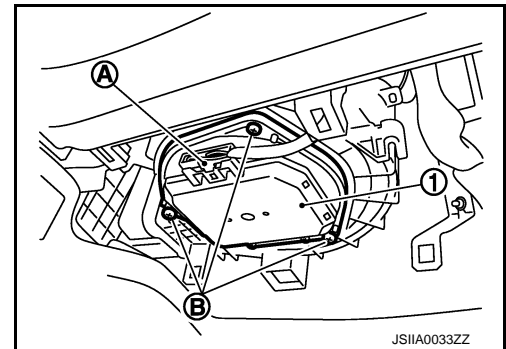
## BLOWER MOTOR

### BLOWER MOTOR : Removal and Installation

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#### REMOVAL

1. Remove instrument lower cover. Refer to [IP-11. "A/T MODELS : 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.