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# SECTION **VTL**

## VENTILATION SYSTEM

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# SWITCHES AND THEIR CONTROL FUNCTION

< SYSTEM DESCRIPTION >

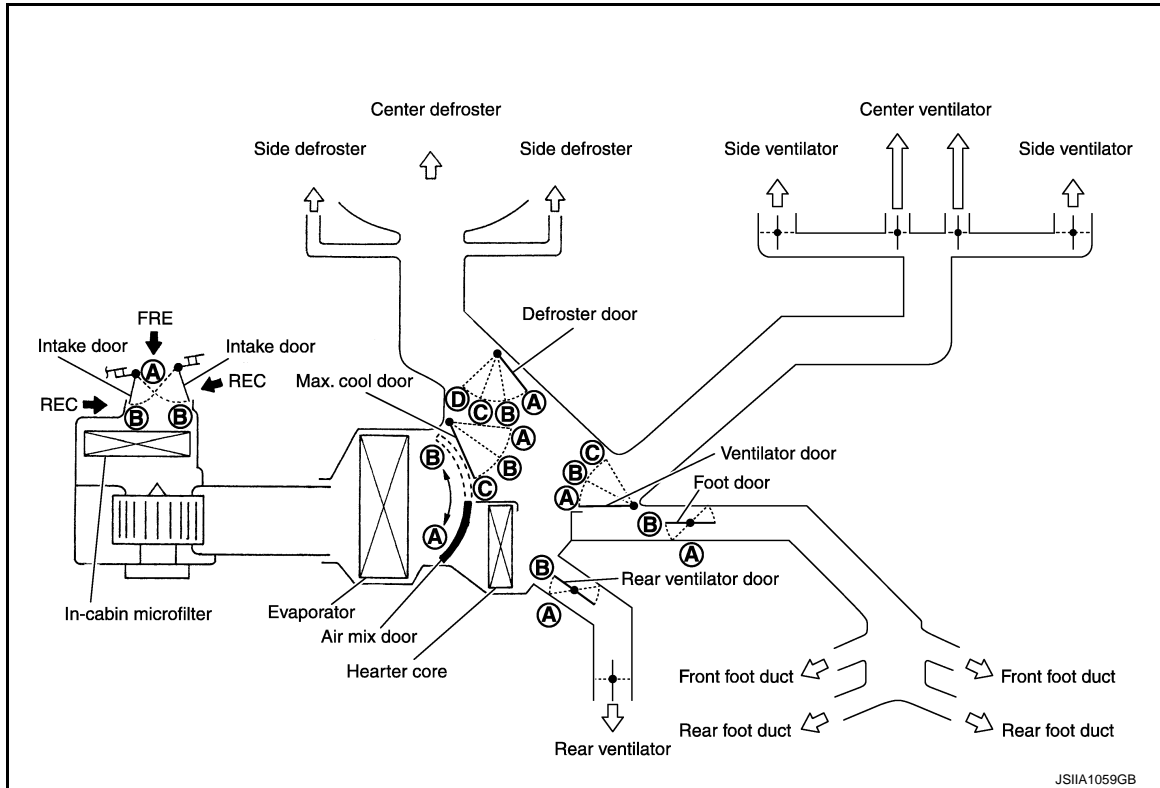
## SYSTEM DESCRIPTION

### 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:000000004346153



JSIIA1059GB

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

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

JSIIA1016GB

WITH LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL SYSTEM

WITH LEFT AND RIGHT VENTILATION TEMPERATURE SEPARATELY CONTROL

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# AIR DISTRIBUTION

< SYSTEM DESCRIPTION >

## AIR DISTRIBUTION

### System Description

INFOID:000000004346155

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%

JSIIA0888GB

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# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000004926061

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 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 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:000000004926062

#### **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.

For vehicle with 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 operation 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 >

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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.

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# PREPARATION

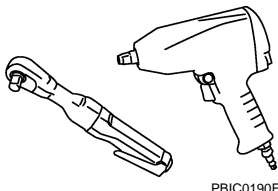
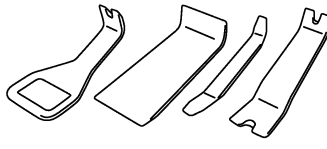
< PREPARATION >

## PREPARATION

### PREPARATION

#### Commercial Service Tool

INFOID:000000004346167

Tool name	Description
<p data-bbox="162 514 276 546">Power tool</p>  <p data-bbox="844 630 917 651">PBIC0190E</p>	<p data-bbox="1079 514 1372 546">For loosening bolts and nuts</p>
<p data-bbox="162 766 300 798">Remover tool</p>  <p data-bbox="844 882 917 903">PIIB7923J</p>	<p data-bbox="1079 766 1412 798">Remove clips, pawls, metal clips</p>



# IN-CABIN MICROFILTER

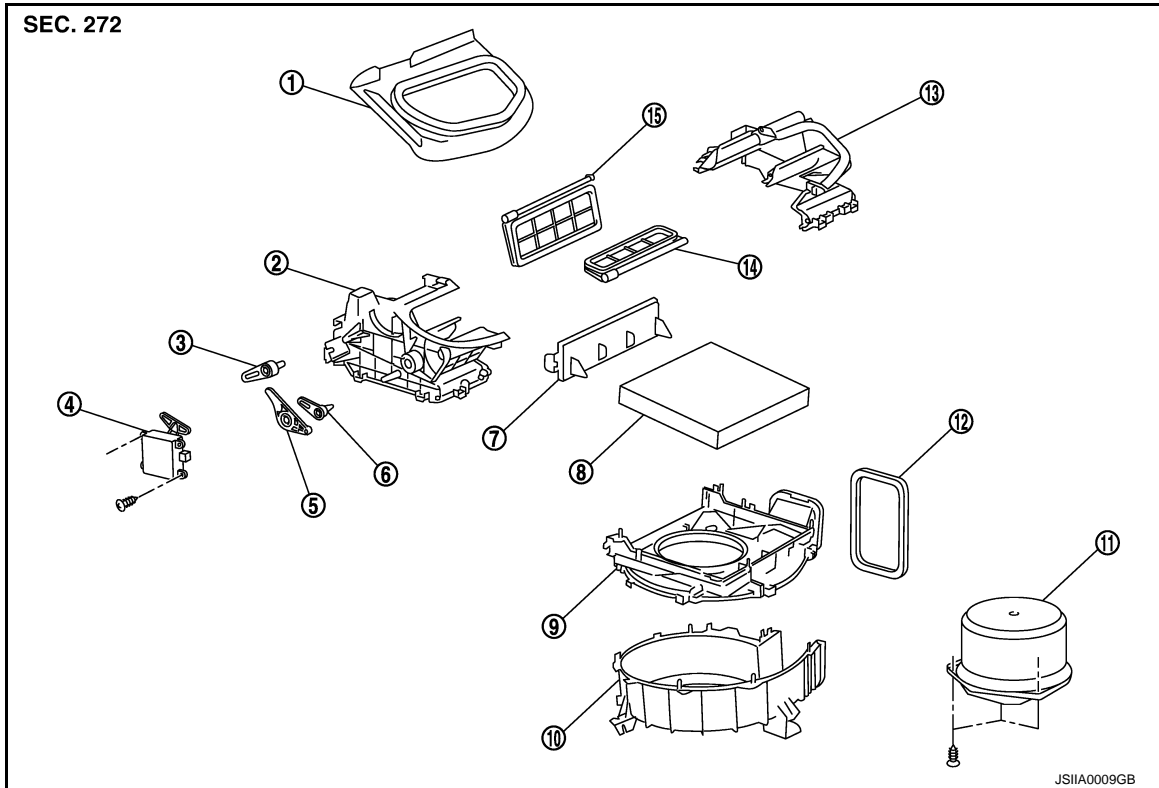
< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

### IN-CABIN MICROFILTER

Exploded View

INFOID:000000004346169



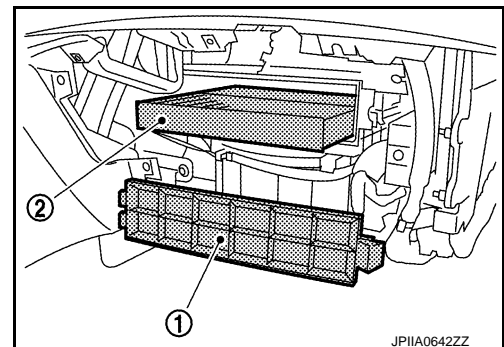
- |                       |                           |                        |
|-----------------------|---------------------------|------------------------|
| 1. Adapter            | 2. Intake box (right)     | 3. Intake door lever 2 |
| 4. Intake door motor  | 5. Intake door link       | 6. Intake 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:000000004346170

#### REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-12. "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 >

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### Replacement

INFOID:000000004346171

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.

# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

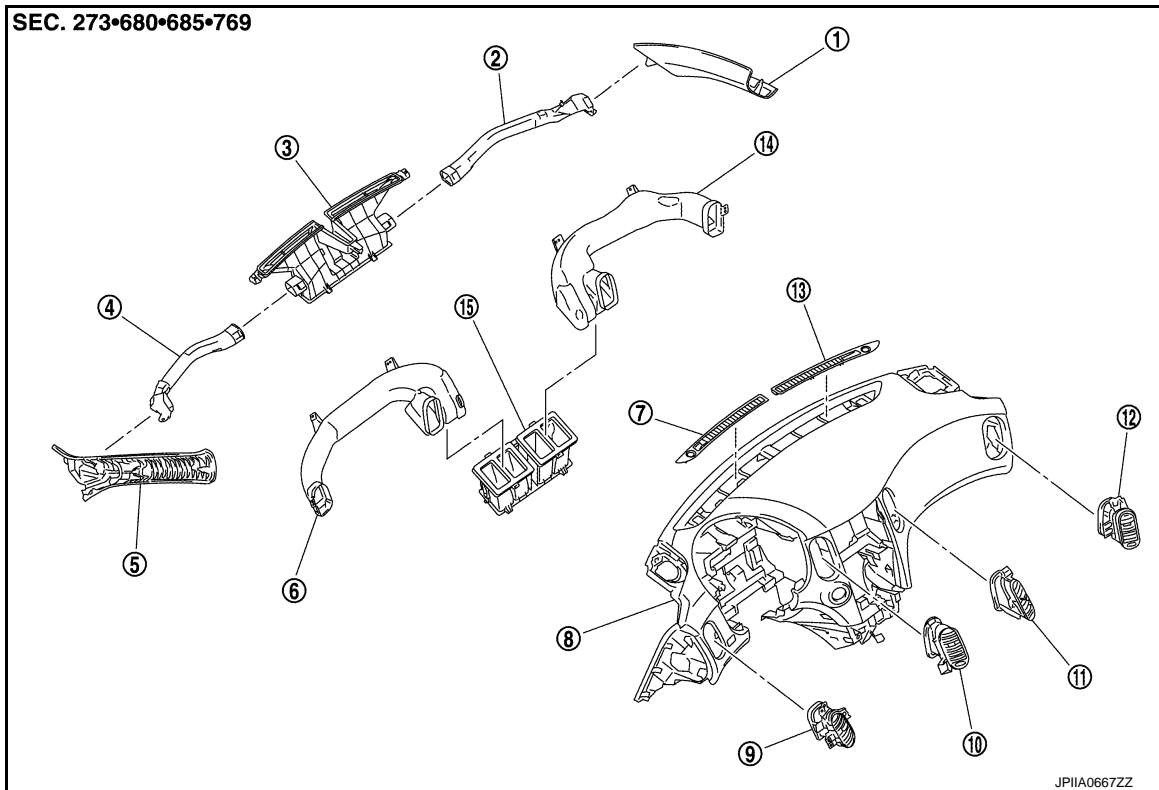
## REMOVAL AND INSTALLATION

### DUCT AND GRILLE

Exploded View

INFOID:000000004346198

FRONT



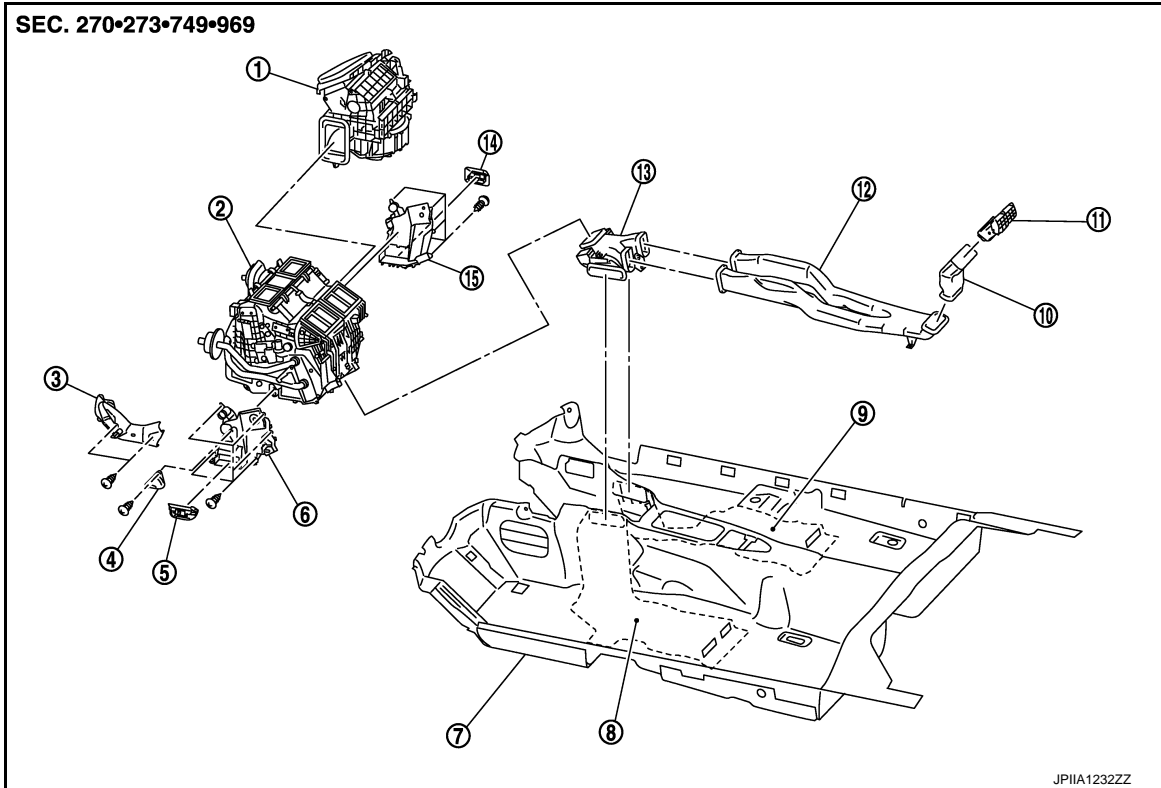
- |   |  |                                    |
|---|--|------------------------------------|
| 1. Side defroster duct (front pillar garnish) (right) | 2. Side defroster nozzle (right)                     | 3. Defroster nozzle                |
| 4. Side defroster nozzle (left)                       | 5. Side defroster duct (front pillar garnish) (left) | 6. Ventilator duct (left)          |
| 7. Front defroster grille (left)                      | 8. Instrument panel assembly                         | 9. Side ventilator grille (left)   |
| 10. Center ventilator grille (left)                   | 11. Center ventilator grille (right)                 | 12. Side ventilator grille (right) |
| 13. Front defroster grille (right)                    | 14. Ventilator duct (right)                          | 15. Adaptor duct                   |

REAR

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# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >



- |                            |                                   |                              |
|----------------------------|-----------------------------------|------------------------------|
| 1. Blower unit             | 2. Heater & cooling unit assembly | 3. Heater pipe cover         |
| 4. Heater duct             | 5. Foot grille (left)             | 6. Foot duct (left)          |
| 7. Floor carpet            | 8. Rear floor duct 2 (left)       | 9. Rear floor duct 2 (right) |
| 10. Rear ventilator duct 2 | 11. Rear ventilator grille        | 12. Rear ventilator duct 1   |
| 13. Rear floor duct 1      | 14. Foot grille (right)           | 15. Foot duct (right)        |

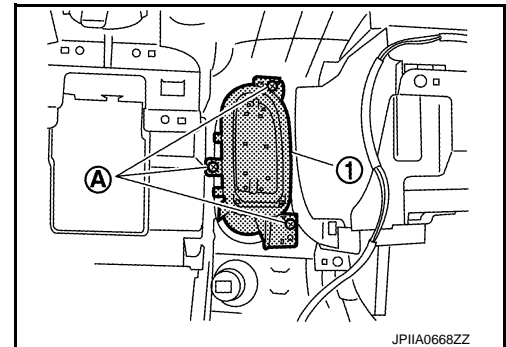
## CENTER VENTILATOR GRILLE

### CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000004346199

#### REMOVAL

1. Remove ventilator ducts (left and right). Refer to [VTL-11, "Exploded View"](#).
2. Remove mounting screws (A), and then remove center ventilator grilles (1) (left and right).



#### INSTALLATION

Installation is basically the reverse order of removal.

## SIDE VENTILATOR GRILLE

### SIDE VENTILATOR GRILLE : Removal and Installation

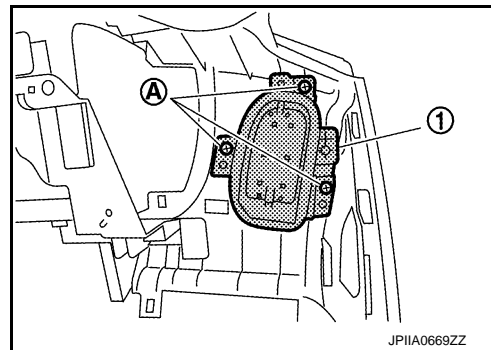
INFOID:000000004346201

#### REMOVAL

# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

1. Remove ventilator ducts (left and right). Refer to [VTL-11. "Exploded View"](#).
2. Remove mounting screws (A), and then remove side ventilator grilles (1) (left and right).



## INSTALLATION

Installation is basically the reverse order of removal.

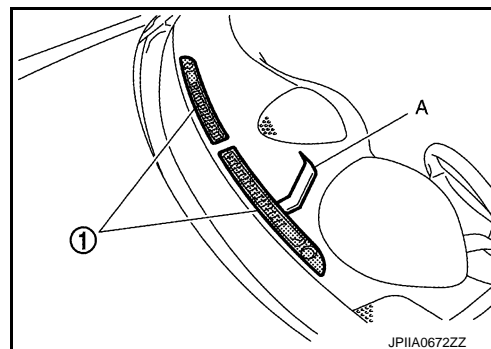
## FRONT DEFROSTER GRILLE

### FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000004346203

## REMOVAL

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



## INSTALLATION

Installation is basically the reverse order of removal.

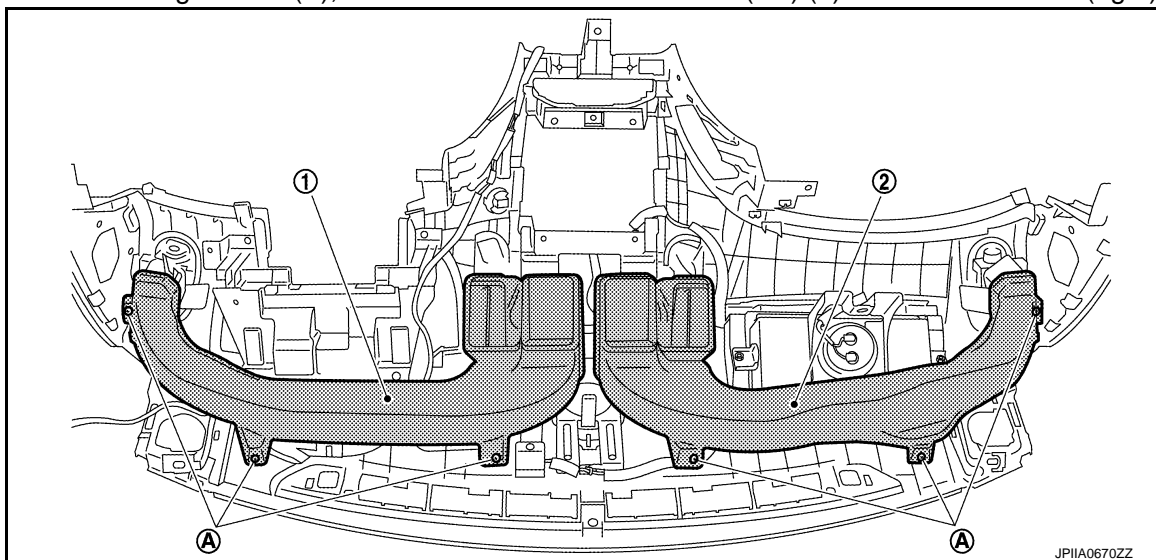
## VENTILATOR DUCT

### VENTILATOR DUCT : Removal and Installation

INFOID:000000004346205

## REMOVAL

1. Remove instrument panel assembly. Refer to [IP-12. "Exploded View"](#).
2. Remove mounting screws (A), and then remove ventilator duct (left) (1) and ventilator duct (right) (2).



## DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

### INSTALLATION

Installation is basically the reverse order of removal.

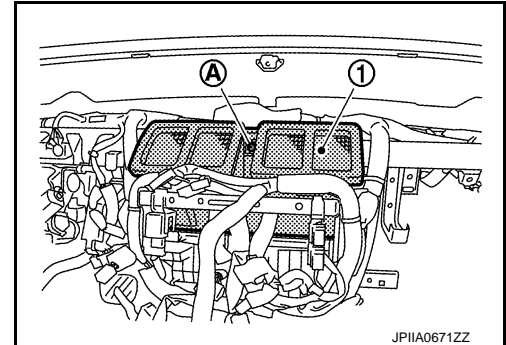
### ADAPTOR DUCT

#### ADAPTOR DUCT : Removal and Installation

INFOID:000000004346207

#### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-12, "Exploded View"](#).
2. Remove mounting screw (A), and then adaptor duct (1).



### INSTALLATION

Installation is basically the reverse order of removal.

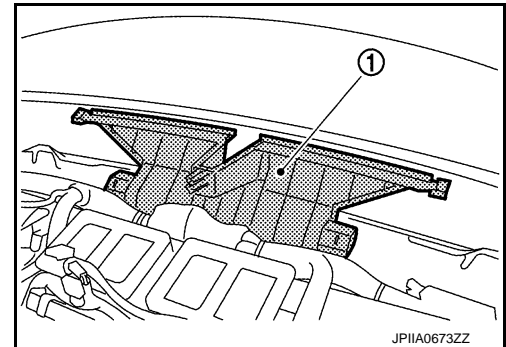
### DEFROSTER NOZZLE

#### DEFROSTER NOZZLE : Removal and Installation

INFOID:000000004346209

#### REMOVAL

1. Remove side defroster nozzles. Refer to [VTL-11, "Exploded View"](#).
2. Remove defroster nozzle (1).



### INSTALLATION

Installation is basically the reverse order of removal.

### SIDE DEFROSTER NOZZLE

#### SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:000000004346211

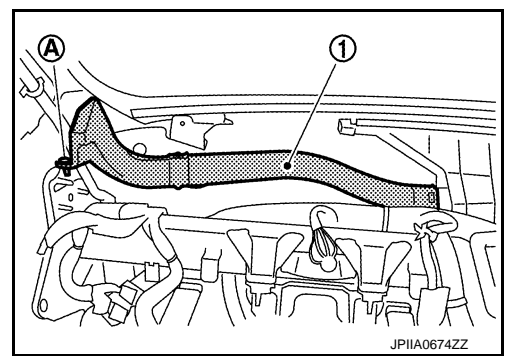
#### REMOVAL

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

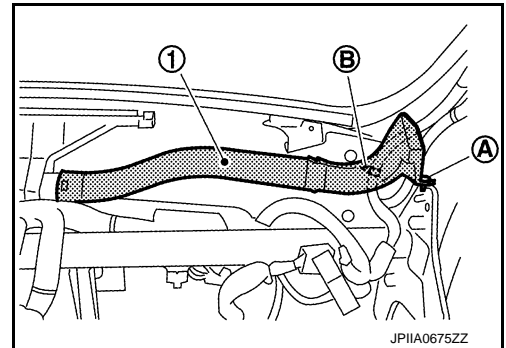
## DUCT AND GRILLE

### < REMOVAL AND INSTALLATION >

2. Remove clip (A), and then remove side defroster nozzle (left) (1).



3. Remove mounting clip (A).
4. Remove harness clip (B), and then remove side defroster nozzle (right) (1).



### INSTALLATION

Installation is basically the reverse order of removal.

### SIDE DEFROSTER DUCT

### SIDE DEFROSTER DUCT : Removal and Installation

INFOID:000000004346213

### REMOVAL

Remove front pillar garnishes Refer to [INT-20, "Exploded View"](#).

### INSTALLATION

Installation is basically the reverse order of removal.

### REAR VENTILATOR GRILLE

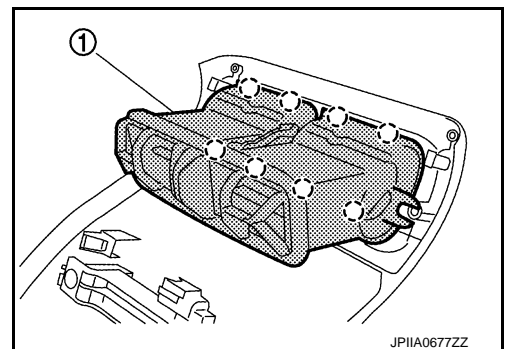
### REAR VENTILATOR GRILLE : Removal and Installation

INFOID:000000004346215

### REMOVAL

1. Remove console rear finisher. Refer to [IP-23, "Exploded View"](#).
2. Remove rear ventilator grille (1).

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### INSTALLATION

Installation is basically the reverse order of removal.

### REAR VENTILATOR DUCT 1

# DUCT AND GRILLE

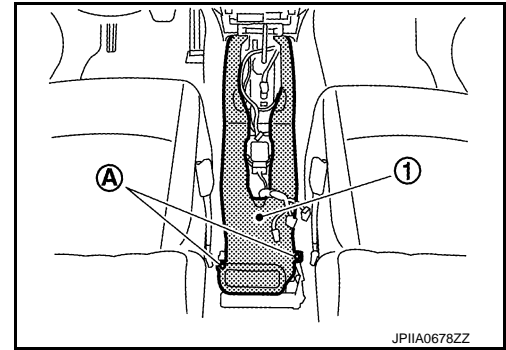
< REMOVAL AND INSTALLATION >

## REAR VENTILATOR DUCT 1 : Removal and Installation

INFOID:000000004346217

### REMOVAL

1. Remove center console assembly. Refer to [IP-23, "Exploded View"](#).
2. Remove mounting screws (A), and then remove rear ventilator duct 1 (1).



### INSTALLATION

Installation is basically the reverse order of removal.

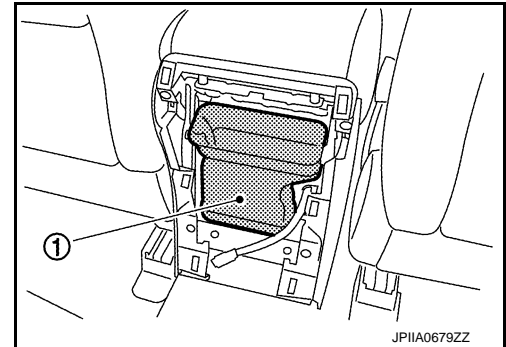
## REAR VENTILATOR DUCT 2

## REAR VENTILATOR DUCT 2 : Removal and Installation

INFOID:000000004346219

### REMOVAL

1. Remove console rear finisher. Refer to [IP-23, "Exploded View"](#).
2. Remove rear ventilator duct 2 (1).



### INSTALLATION

Installation is basically the reverse order of removal.

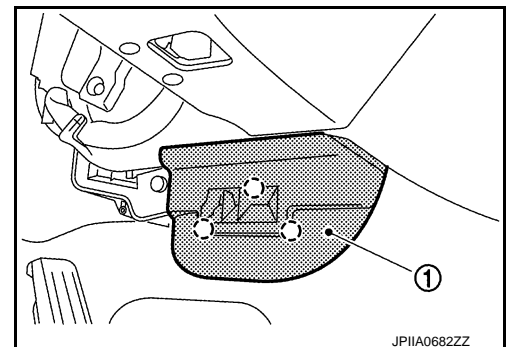
## FOOT GRILLE

## FOOT GRILLE : Removal and Installation

INFOID:000000004346221

### REMOVAL

1. Remove foot grille (left) (1).



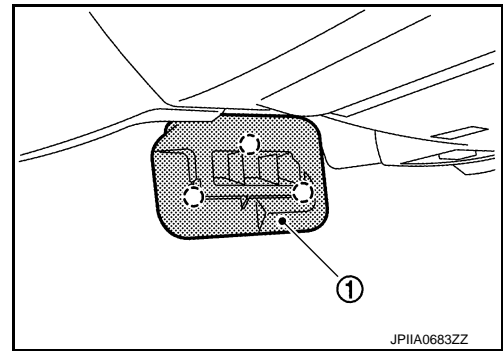
2. Remove foot grille (right) (1).



# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

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### INSTALLATION

Installation is basically the reverse order of removal.

### FOOT DUCT

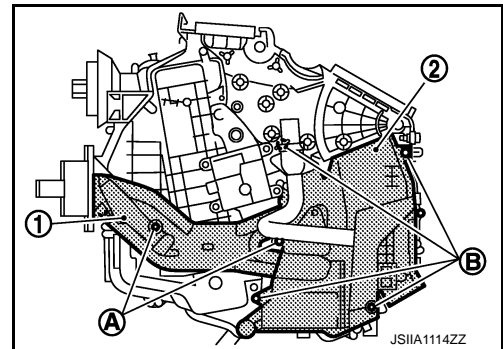
#### FOOT DUCT : Removal and Installation

INFOID:000000004346223

#### REMOVAL

Driver side

1. Remove mounting screws (A), and then remove heater pipe cover (1).
2. Remove mounting screws (B), and then remove foot duct (left) (2).



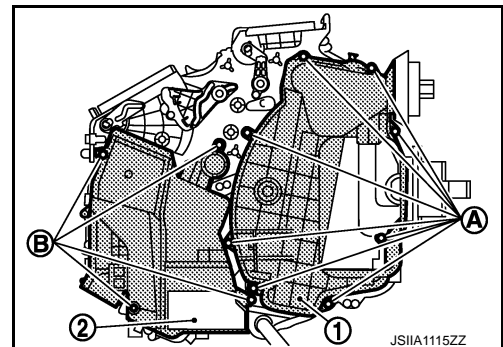
Passenger side

1. Set the temperature at 18°C (64°F).

#### **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-52. "Exploded View"](#).
4. Remove air mix door motor (passenger side). Refer to [HAC-152. "Exploded View"](#).
5. Remove mode door motor and links. Refer to [HAC-152. "Exploded View"](#).
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.

### HEATER DUCT

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# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

## HEATER DUCT : Removal and Installation

INFOID:000000004907555

### REMOVAL

1. Remove instrument lower panel LH. Refer to [IP-12, "Exploded View"](#).
2. Remove mounting screw, and then remove heater duct.

### INSTALLATION

Installation is basically the reverse order of removal.

## REAR FLOOR DUCT 1

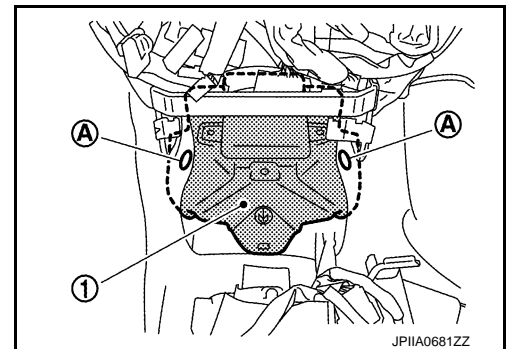
### REAR FLOOR DUCT 1 : Removal and Installation

INFOID:000000004346225

### REMOVAL

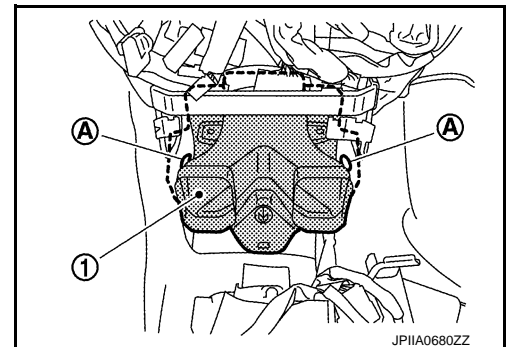
Without Rear Ventilation

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



With Rear Ventilation

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



### INSTALLATION

Installation is basically the reverse order of removal.

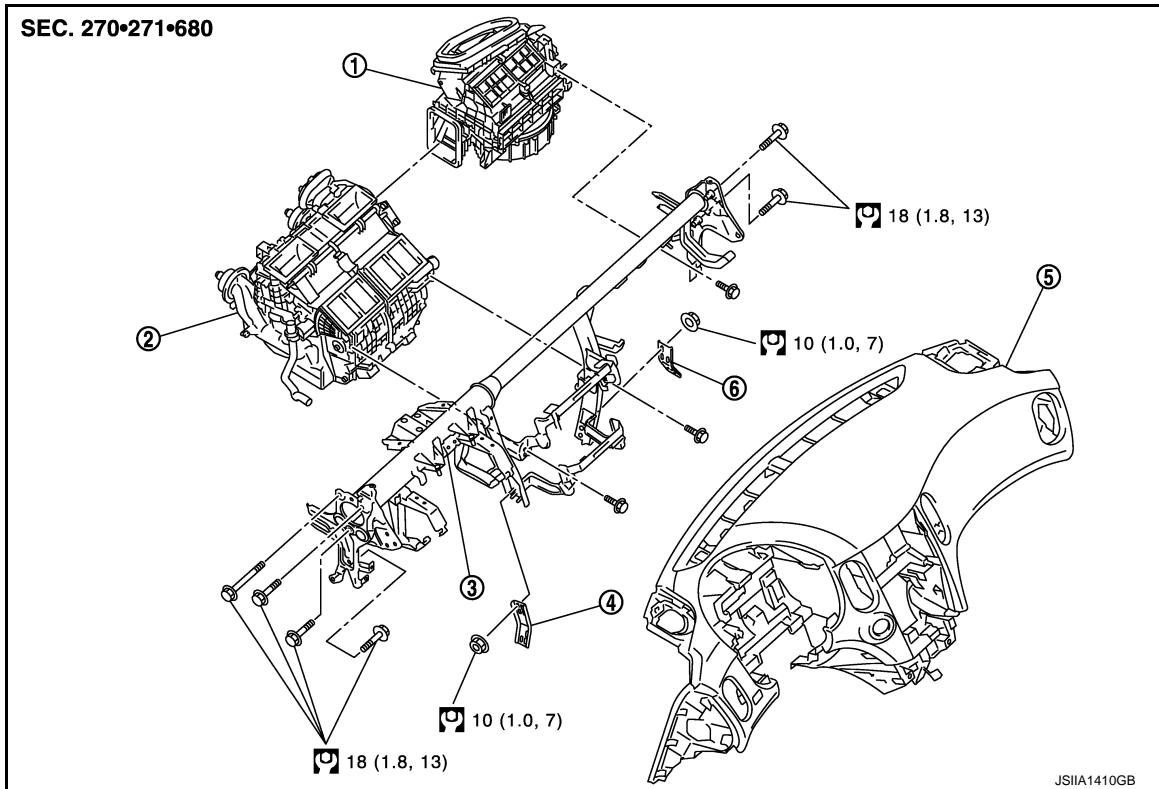
# BLOWER UNIT

< REMOVAL AND INSTALLATION >

## BLOWER UNIT

Exploded View

INFOID:000000004346184



- |                           |                                   |                            |
|---------------------------|-----------------------------------|----------------------------|
| 1. Blower unit            | 2. Heater & cooling unit assembly | 3. Steering member         |
| 4. Instrument stay (left) | 5. Instrument panel assembly      | 6. Instrument stay (right) |

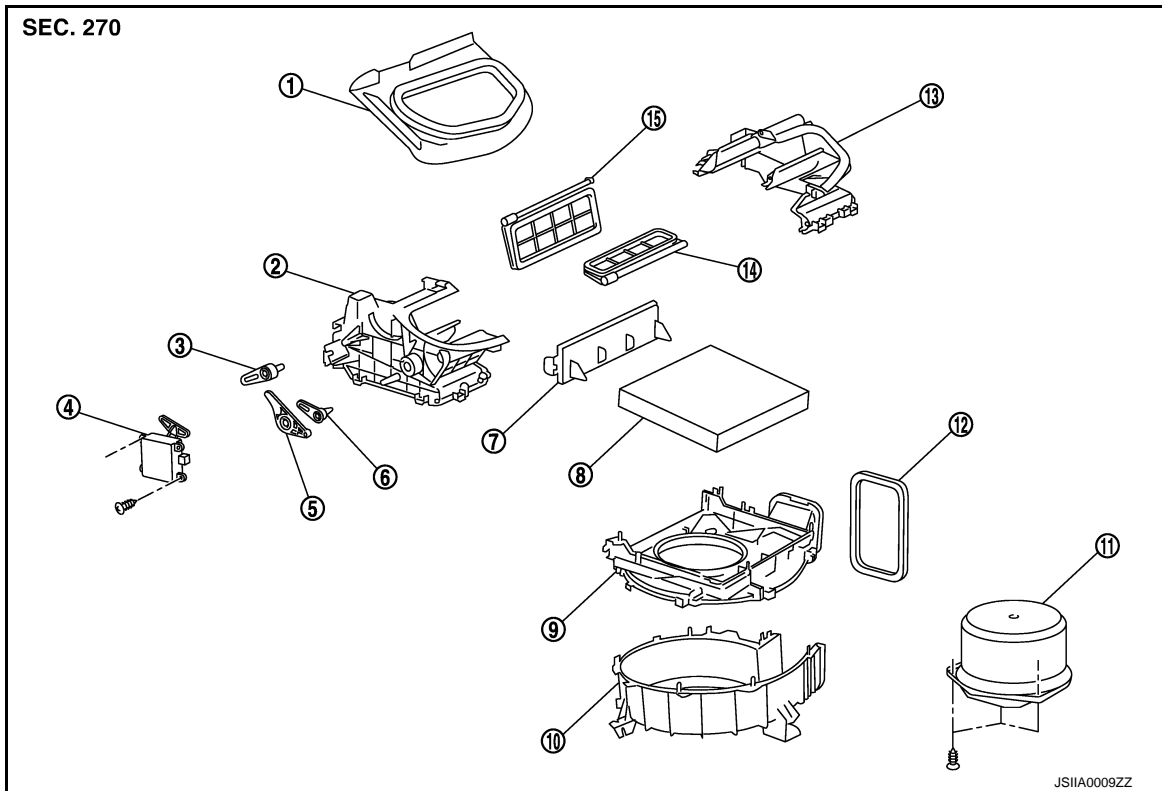
Refer to [GI-4. "Components"](#) for symbols in the figure.

DISASSEMBLY

A  
B  
C  
D  
E  
F  
G  
H  
VTL  
J  
K  
L  
M  
N  
O  
P

# BLOWER UNIT

## < REMOVAL AND INSTALLATION >



- |                       |                           |                        |
|-----------------------|---------------------------|------------------------|
| 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      |

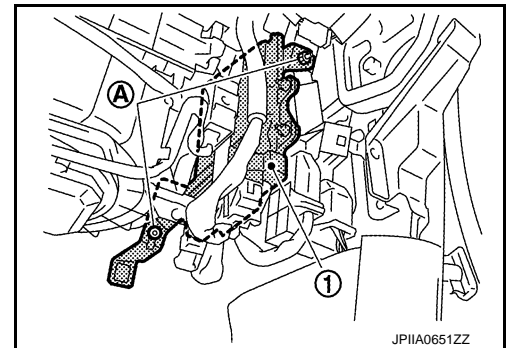
## BLOWER UNIT

### BLOWER UNIT : Removal and Installation

INFOID:000000004346185

#### REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-12, "Exploded View"](#).
2. Disconnect AWD control unit connector (AWD). Refer to [DLN-45, "Exploded View"](#).
3. Disconnect ECM (1) connectors.
4. Remove mounting nuts (A), and then remove ECM with bracket attached.
5. Remove power steering control unit. Refer to [STC-21, "Exploded View"](#).



6. Disconnect intake door motor connector and blower motor connector.

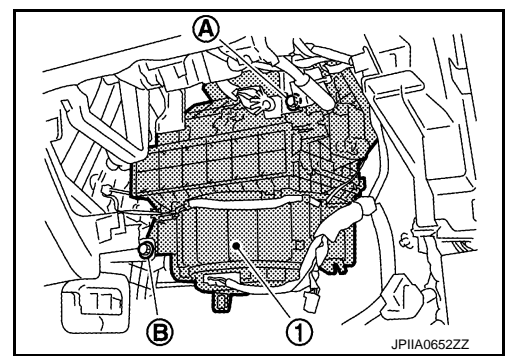
# BLOWER UNIT

## < REMOVAL AND INSTALLATION >

7. Remove mounting bolt (A) and screw (B), from blower unit (1).
8. Remove blower unit.

**CAUTION:**

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



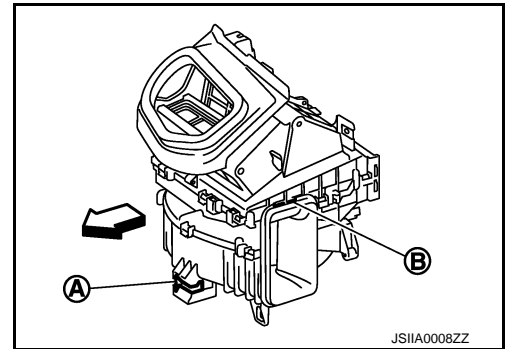
## INSTALLATION

Installation is basically the reverse order of removal.

**CAUTION:**

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

←: Vehicle front



## BLOWER MOTOR

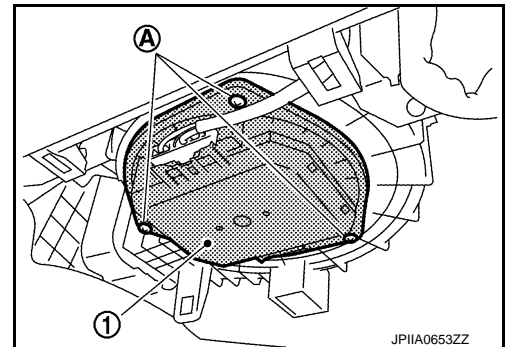
### BLOWER MOTOR : Removal and Installation

INFOID:000000004346187

VTL

## REMOVAL

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



## INSTALLATION

Installation is basically the reverse order of removal.