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# SECTION VTL

## VENTILATION SYSTEM

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<b>SERVICE DATA AND SPECIFICATIONS (SDS) .....</b>	<b>20</b>
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# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000010095977

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:000000010169049

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 of Battery Terminal

INFOID:000000010169050

- 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.

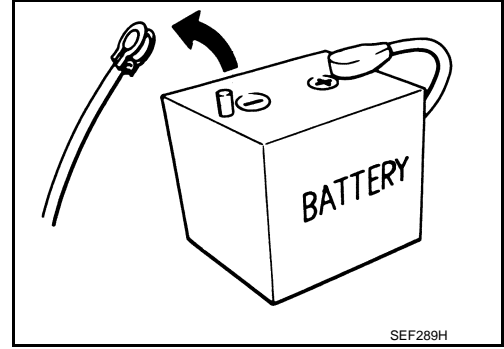
**NOTE:**

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.



# PREPARATION

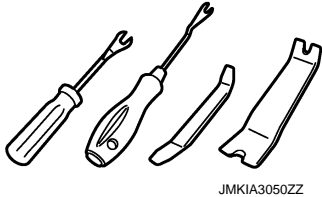
< PREPARATION >

## PREPARATION

### PREPARATION

#### Commercial Service Tool

INFOID:0000000010095978

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

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# VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### VENTILATION SYSTEM

#### System Description

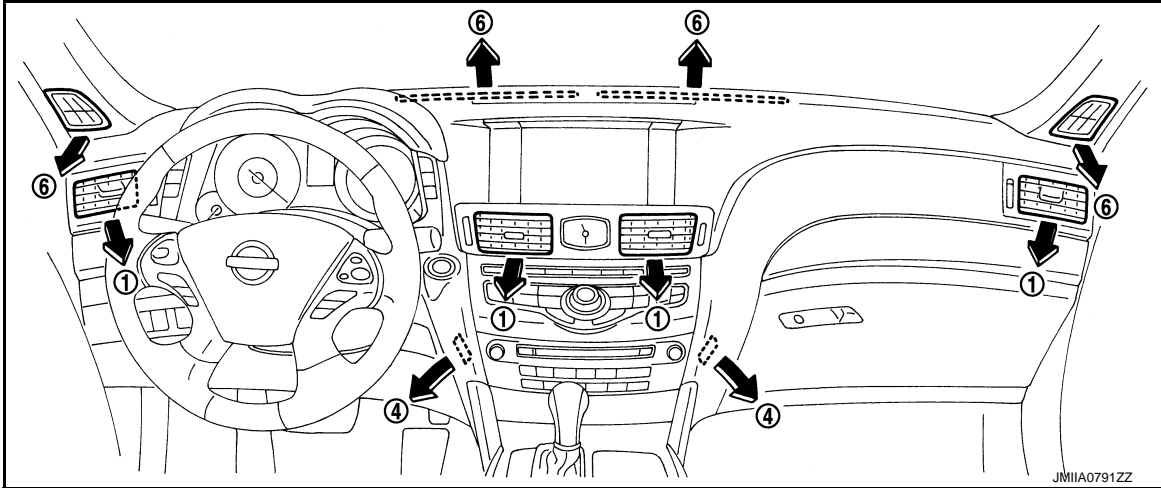
INFOID:0000000010095979

#### OUTLINE

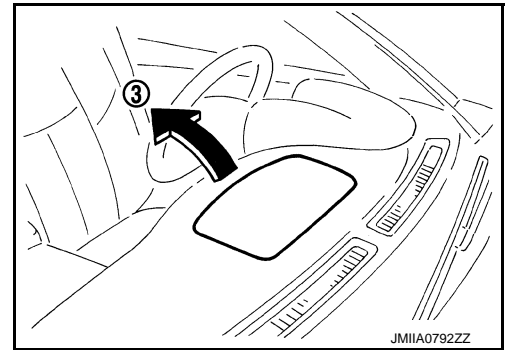
Ventilation system is controlled by A/C auto amp. For details of automatic air conditioner system, refer to [HAC-15. "AUTOMATIC AIR CONDITIONING SYSTEM : System Description"](#).

#### AIR FLOW

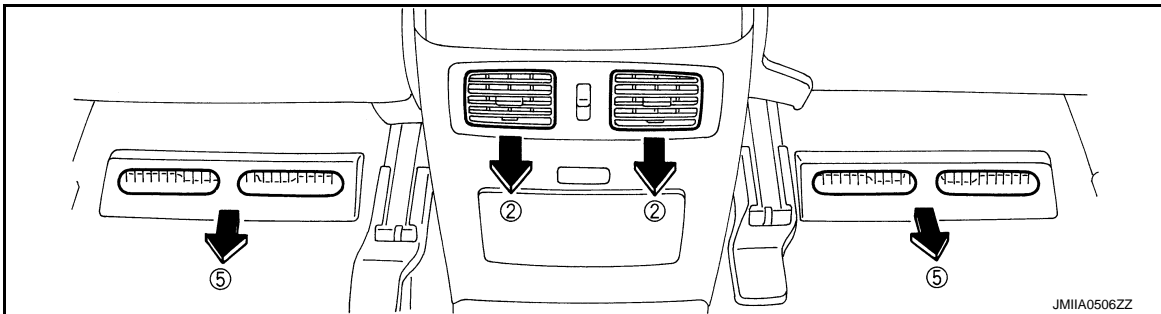
Front



Upper



Rear



# VENTILATION SYSTEM

## < SYSTEM DESCRIPTION >

Discharge air flow											
Mode position	Condition				Air outlet / distribution						
					VENT				FOOT		DEF (6)
					Front		Upper (3)	Rear (2)	Front (4)	Rear (5)	
					Center (1)	Side (1)					
	Temperature control switch (Driver side)	18°C (60°F)	×	×	×	×	×	—	—		
		Other than 18°C (60°F)*1	×	×	×	×	—	—	—		
	• DUAL: OFF • Rear ventilator: Close	—	×	×	×	×	×	×	—		
		—	—	×	×	×	×	×	×		
		—	—	×	×	×	×	×	×		
		—	—	×	—	—	—	—	×		
		—	—	—	×	—	×	—	×		
		—	—	—	×	—	×	—	×		

- \*1: Air blow is also supplied to front foot until passenger room temperature stabilizes when temperature setting is other than 18°C (60°F). At that time, air blowing is the same as 18°C (60°F) setting.
- \*2: During automatic defogging control. (Forest air system)

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# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

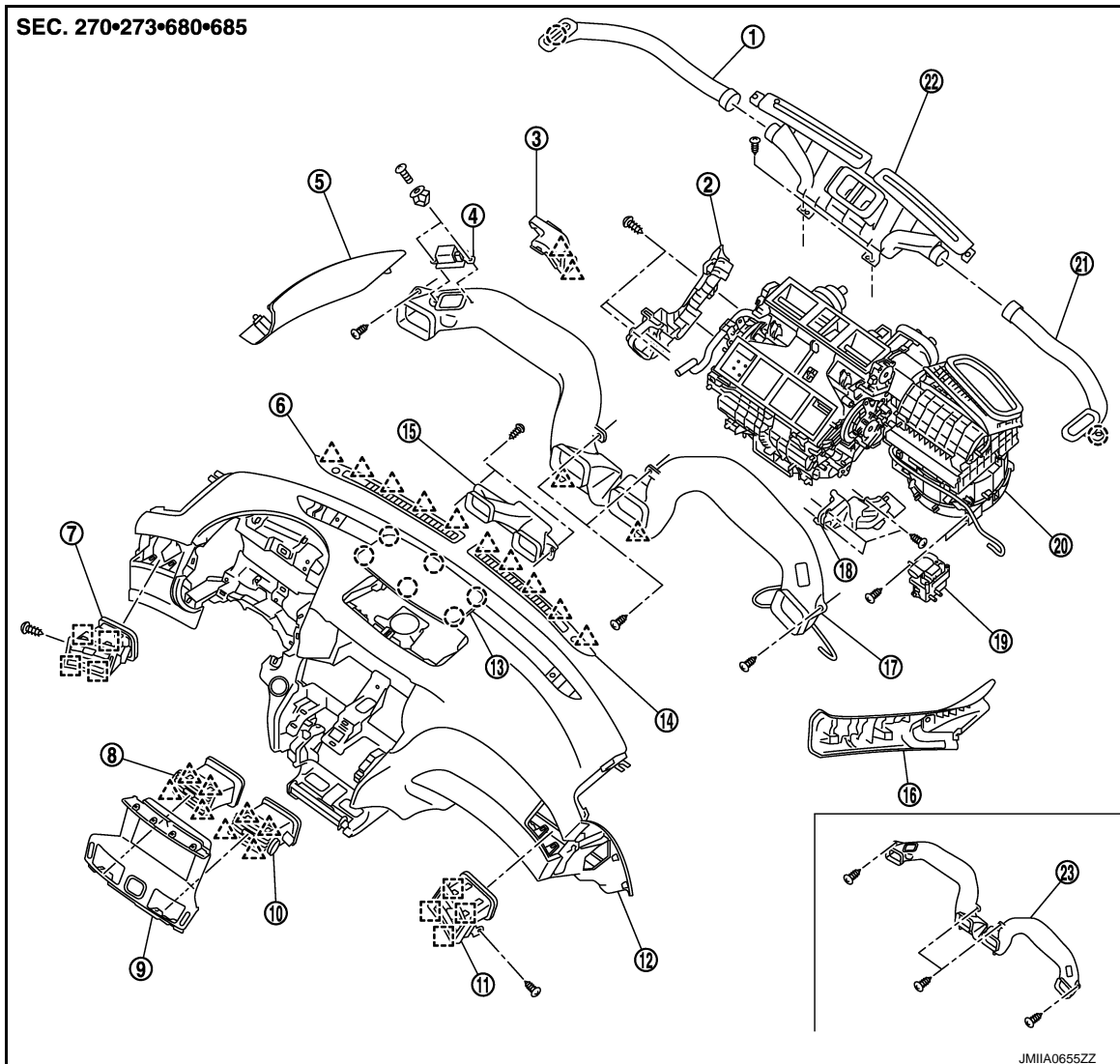
## REMOVAL AND INSTALLATION

### DUCT AND GRILLE

Exploded View

INFOID:000000010095980

FRONT



- |   |  |                               |
|---|--|-------------------------------|
| 1. Side defroster nozzle LH                             | 2. Foot duct LH  | 3. Foot grille LH             |
| 4. Ionizer  | 5. Side defroster duct LH<br>(Front pillar garnish LH) | 6. Front defroster grille LH  |
| 7. Side defroster grille LH                             | 8. Center ventilator grille LH                         | 9. Center ventilator assembly |
| 10. Center ventilator grille RH                         | 11. Side ventilator grille RH                          | 12. Instrument panel assembly |
| 13. Upper ventilator grille                             | 14. Front ventilator grille RH                         | 15. Upper ventilator duct     |
| 16. Side defroster duct RH<br>(Front pillar garnish RH) | 17. Ventilator duct                                    | 18. Foot duct RH              |
| 19. Aroma unit  | 20. A/C unit assembly                                  | 21. Side defroster nozzle RH  |
| 22. Front defroster nozzle                              | 23. Ventilator duct                                    |                               |

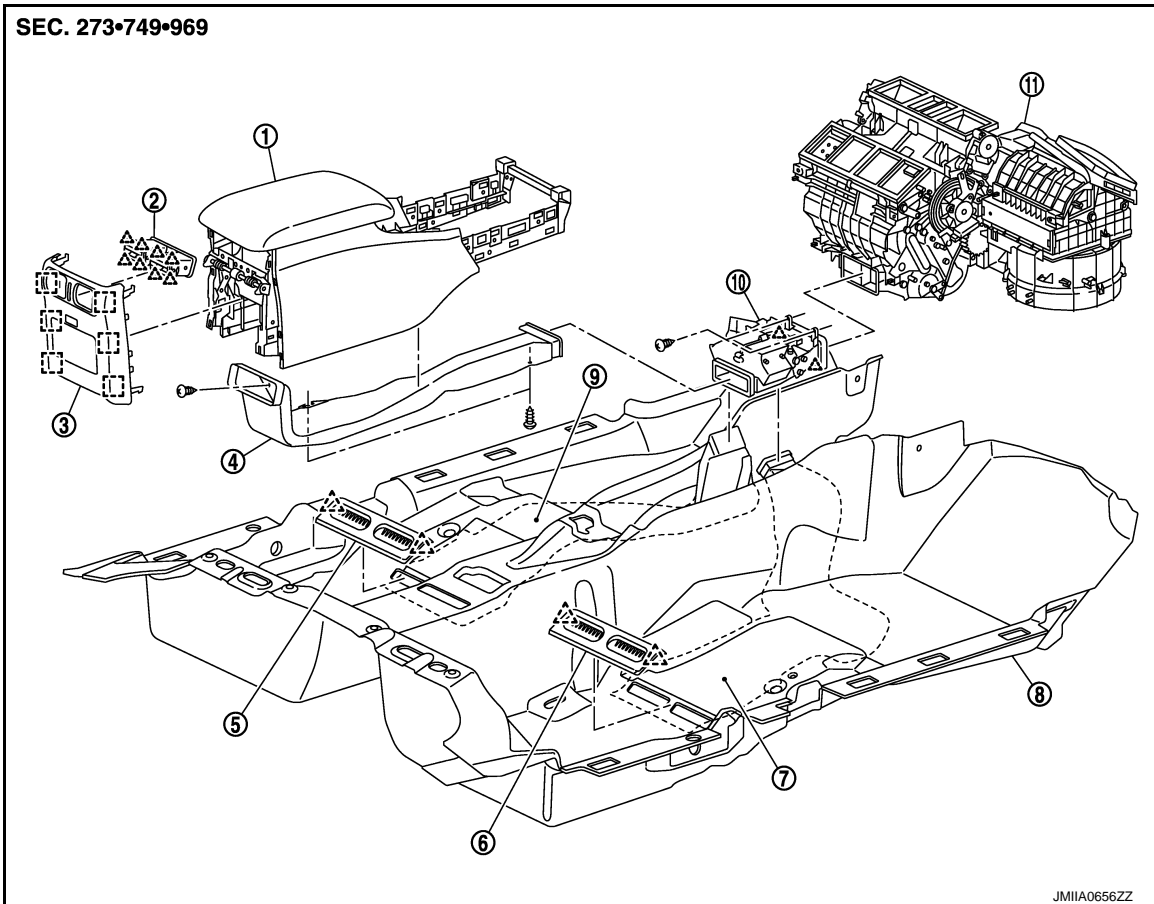
- : Clip
- △ : Pawl
- : Metal clip




# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

REAR



- |                            |                           |                          |
|----------------------------|---------------------------|--------------------------|
| 1. Center console assembly | 2. Rear ventilator grille | 3. Console rear finisher |
| 4. Rear ventilator duct    | 5. Floor duct grille LH   | 6. Floor duct grille RH  |
| 7. Floor duct RH           | 8. Floor trim             | 9. Floor duct LH         |
| 10. Rear mode door case    | 11. A/C unit assembly     |                          |

 : Pawl

 : Metal clip


## CENTER VENTILATOR GRILLE

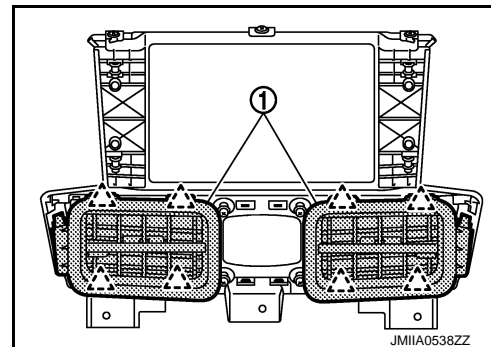
### CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000010095981

#### REMOVAL

1. Remove center ventilator assembly. Refer to [IP-13. "Removal and Installation"](#).
2. Disengage fixing pawls, and then remove center ventilator grille (1).

 : Pawl



#### INSTALLATION

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# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

Install in the reverse order of removal.


### SIDE VENTILATOR GRILLE

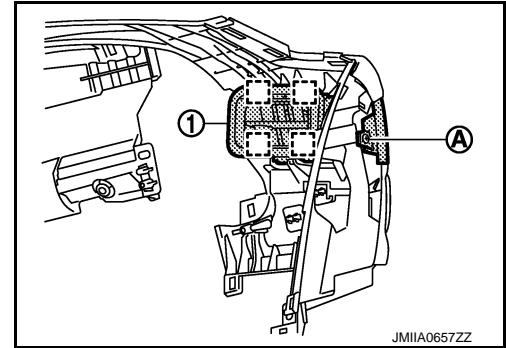
#### SIDE VENTILATOR GRILLE : Removal and Installation

INFOID:000000010095982

##### REMOVAL

1. Remove instrument side finisher and instrument lower panel. Refer to [IP-13. "Removal and Installation"](#).
2. Remove fixing screw (A), and then disengage fixing metal clips.
3. Remove side ventilator grille (1).

 : Metal clip



##### INSTALLATION

Install in the reverse order of removal.

### UPPER VENTILATOR GRILLE

#### UPPER VENTILATOR GRILLE : Removal and Installation

INFOID:000000010095983

##### REMOVAL

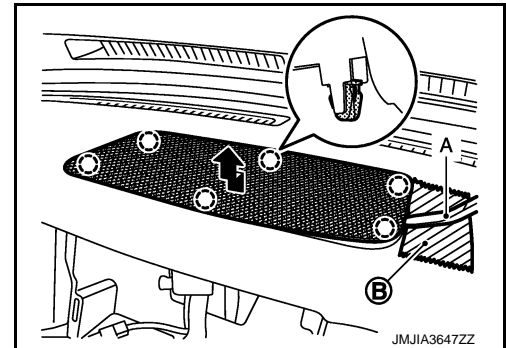
1. Insert a remover tool (A) between upper ventilator grille and instrument panel, and disengage clips.

##### **CAUTION:**

**Apply protective tape (B) on the part to protect from damage.**

2. Lift up upper ventilator grille toward vehicle upper, pull toward vehicle rear, and lift up again toward vehicle upper.

 : Clip



##### INSTALLATION

Install in the reverse order of removal.

### FRONT DEFROSTER GRILLE

#### FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000010095984


##### REMOVAL

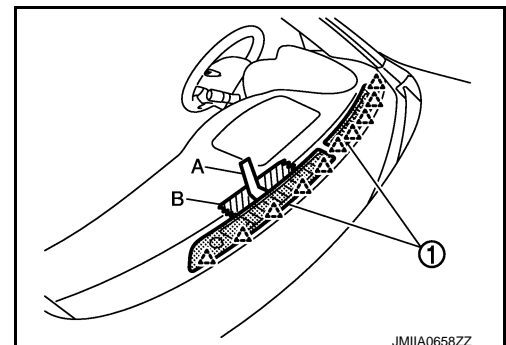
1. Remove front defroster grilles (1), using remover tool (A).

##### **CAUTION:**

**Apply protective tape (B) on the part to protect from damage.**

2. Remove sensors from front defroster grilles.

 : Pawl



# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

## INSTALLATION

Install in the reverse order of removal.

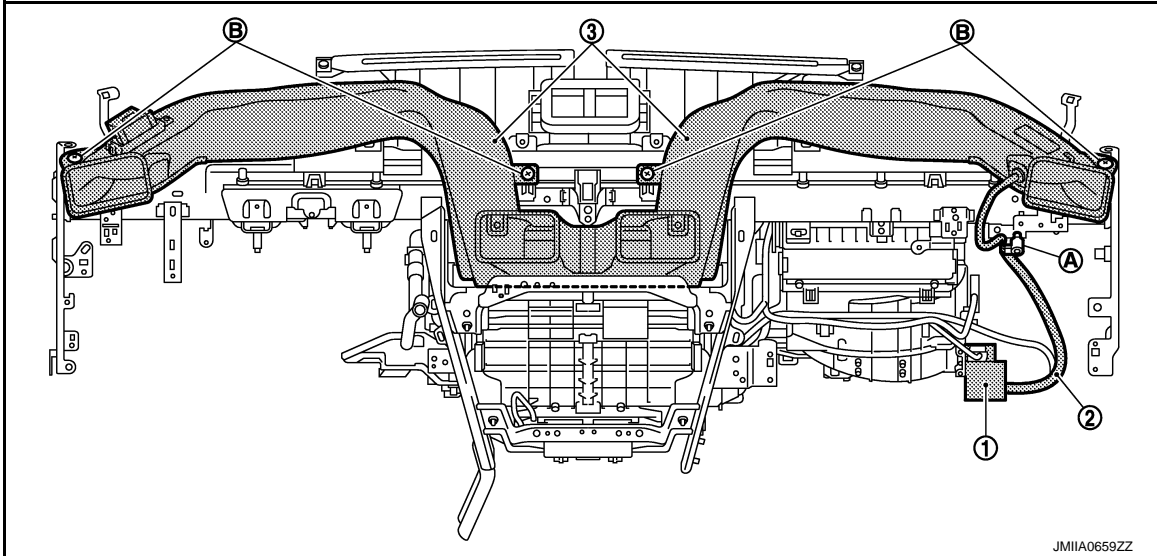
### VENTILATOR DUCT

#### VENTILATOR DUCT : Removal and Installation

INFOID:000000010095985

#### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13, "Removal and Installation"](#).
2. Remove tube (2) that is connected to aroma unit (1) and remove clips. (models with forest air conditioning system).
3. Remove fixing screws (B), and then remove ventilator duct (3).



#### INSTALLATION

Install in the reverse order of removal.

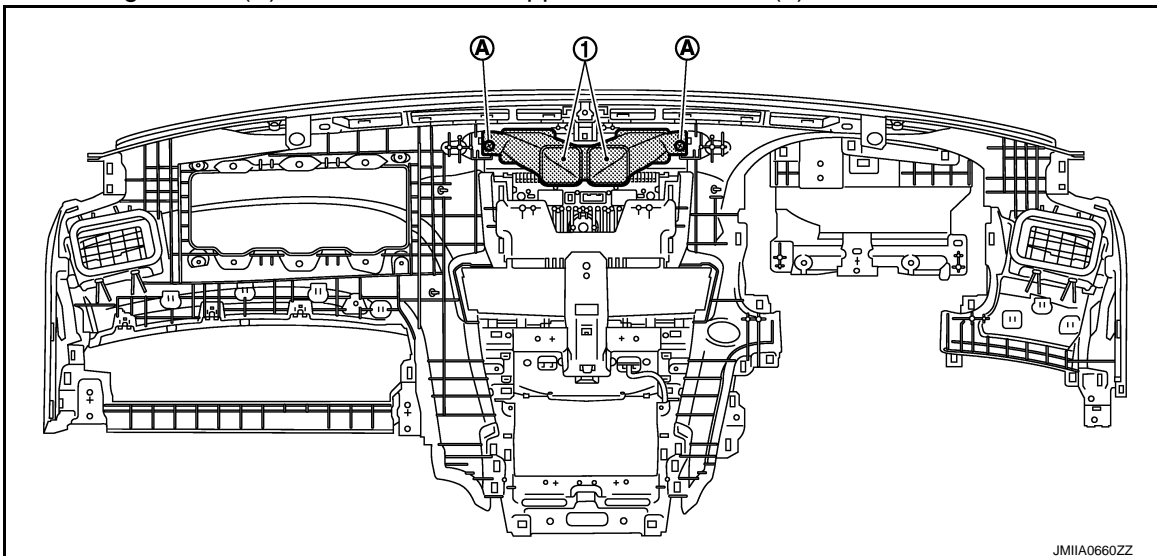
### UPPER VENTILATOR DUCT

#### UPPER VENTILATOR DUCT : Removal and Installation

INFOID:000000010095986

#### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13, "Removal and Installation"](#).
2. Remove fixing screws (A), and then remove upper ventilator duct (1).



#### INSTALLATION

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# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

Install in the reverse order of removal.

### SIDE DEFROSTER DUCT

#### SIDE DEFROSTER DUCT : Removal and Installation

INFOID:0000000110095987

##### REMOVAL

Remove front pillar garnish. Refer to [INT-36. "FRONT PILLAR GARNISH : Removal and Installation"](#).

##### INSTALLATION

Install in the reverse order of removal.

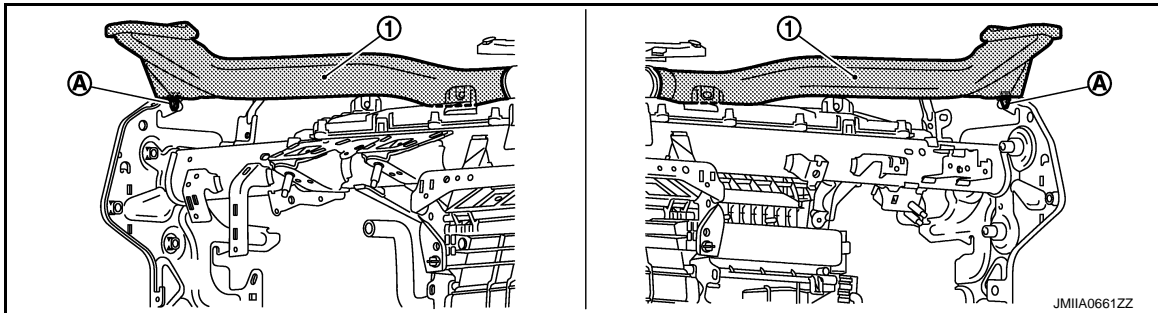
### SIDE DEFROSTER NOZZLE

#### SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:0000000110095988

##### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13. "Removal and Installation"](#).
2. Remove fixing pawls (A), and then remove side defroster nozzles (1).



Driver side

Passenger side

##### INSTALLATION

Install in the reverse order of removal.

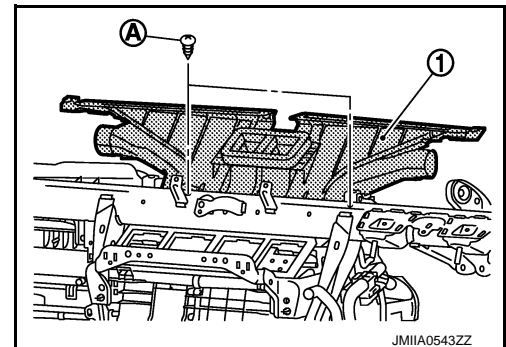
### FRONT DEFROSTER NOZZLE

#### FRONT DEFROSTER NOZZLE : Removal and Installation

INFOID:0000000110095989

##### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13. "Removal and Installation"](#).
2. Remove side defroster nozzle. Refer to [VTL-12. "SIDE DEFROSTER NOZZLE : Removal and Installation"](#).
3. Remove PCB harness of steering member upper part. Refer to [HA-43. "Exploded View"](#).
4. Remove fixing screws (A), and then remove front defroster nozzle (1).



##### INSTALLATION

Install in the reverse order of removal.

### HEATER DUCT

# DUCT AND GRILLE


< REMOVAL AND INSTALLATION >

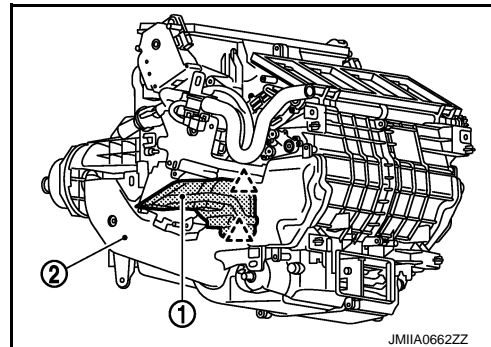
## HEATER DUCT : Removal and Installation

INFOID:0000000110095990

### REMOVAL

Remove fixing pawls, and then remove heater duct (1) from the A/C unit (2).

 : Pawl



### INSTALLATION

Install in the reverse order of removal.

## FOOT DUCT

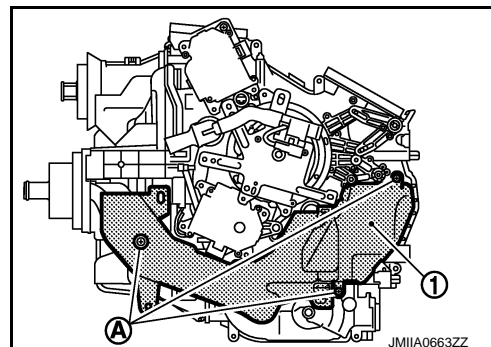
### FOOT DUCT : Removal and Installation

INFOID:0000000110095991

### REMOVAL

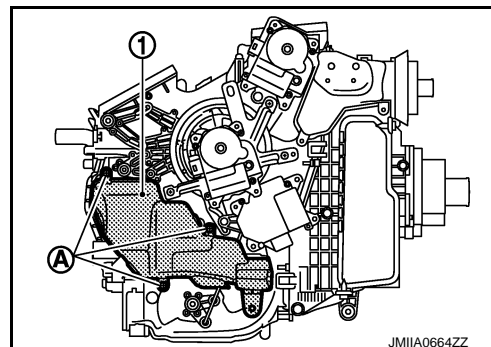
Driver Side

1. Remove A/C unit assembly. Refer to [HA-45. "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove harness fixing clip and fixing screws (A), and then remove foot duct LH (1).



Passenger Side

1. Remove A/C unit assembly. Refer to [HA-45. "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove fixing screws (A), and then remove foot duct RH (1).



### INSTALLATION

Install in the reverse order of removal.

## REAR MODE DOOR CASE

# DUCT AND GRILLE


< REMOVAL AND INSTALLATION >

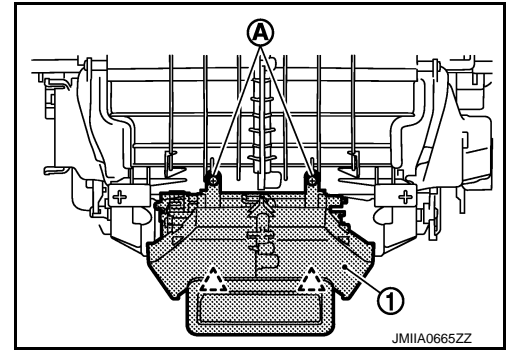
## REAR MODE DOOR CASE : Removal and Installation

INFOID:0000000110095992

### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13. "Removal and Installation"](#).
2. Remove rear mode door case fixing screws (A).
3. Disengage fixing pawls, and then remove rear mode door case (1).

 : Pawl



### INSTALLATION

Install in the reverse order of removal.


## REAR VENTILATOR GRILLE

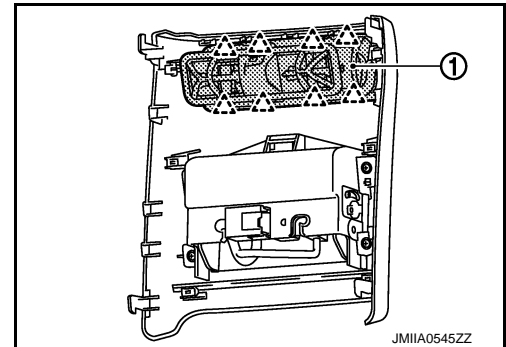
## REAR VENTILATOR GRILLE : Removal and Installation

INFOID:0000000110095994

### REMOVAL

1. Remove rear console finisher. Refer to [IP-24. "Removal and Installation"](#).
2. Disengage fixing pawls, and then remove rear ventilator grille (1).

 : Pawl



### INSTALLATION

Install in the reverse order of removal.

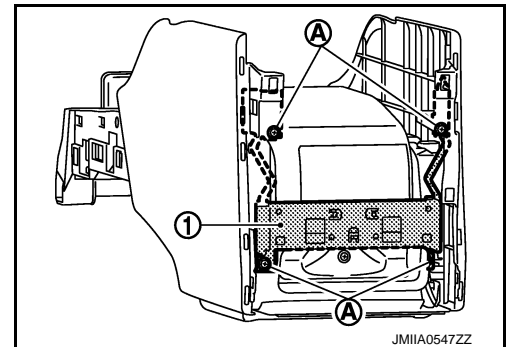
## REAR VENTILATOR DUCT

## REAR VENTILATOR DUCT : Removal and Installation

INFOID:0000000110095994

### REMOVAL

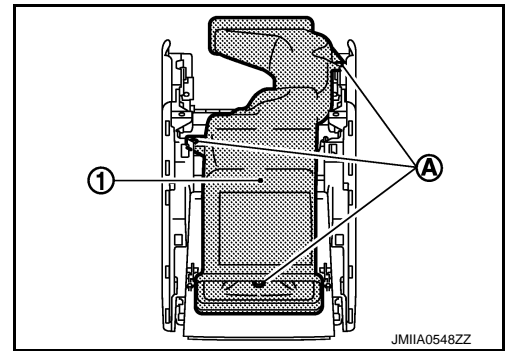
1. Remove center console lid assembly. Refer to [IP-27. "Disassembly and Assembly"](#).
2. Remove fixing screws (A), and then remove console rear reinforcement (1).



# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

3. Remove fixing screws (A), and then remove rear ventilator duct (1).



## INSTALLATION

Install in the reverse order of removal.

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# BLOWER UNIT

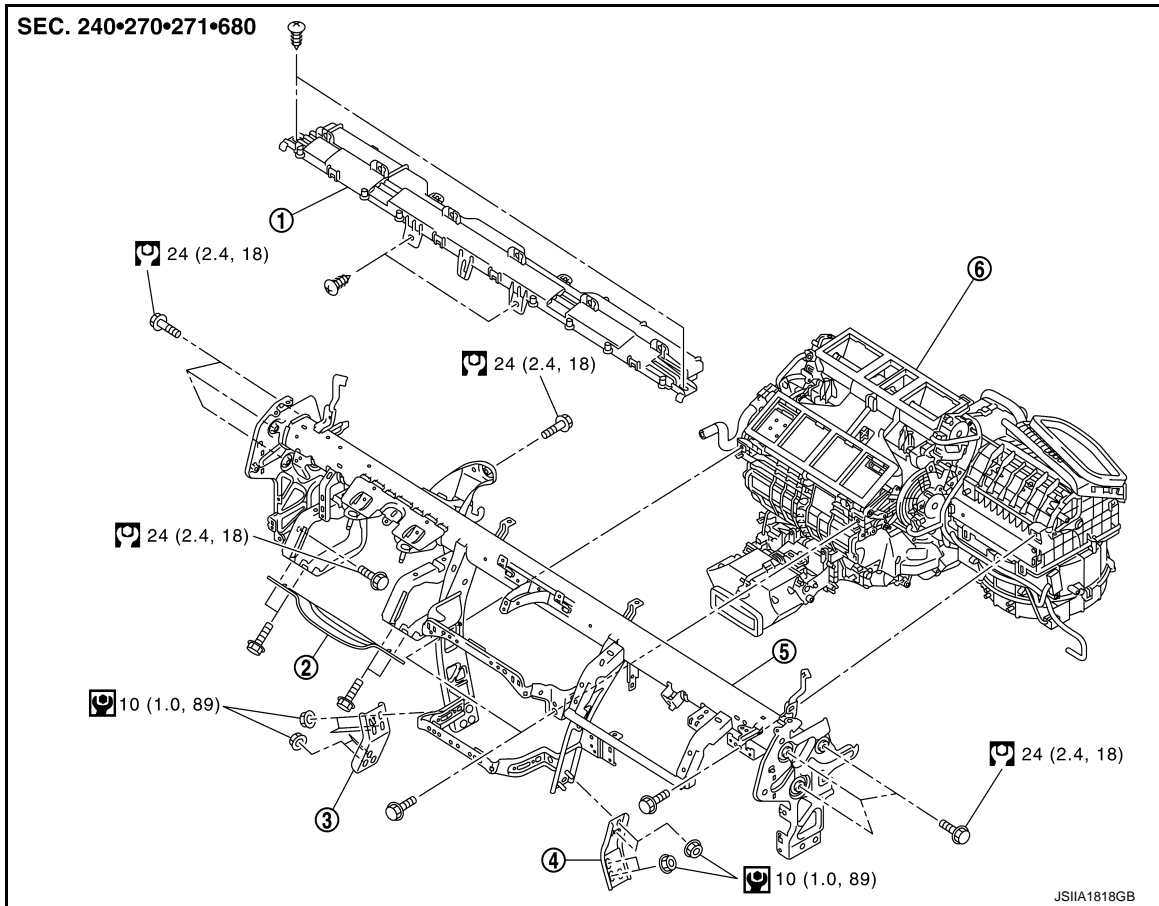
< REMOVAL AND INSTALLATION >

## BLOWER UNIT

Exploded View

INFOID:000000010095995

### REMOVAL



- |                       |                    |                       |
|-----------------------|--------------------|-----------------------|
| 1. PCB harness        | 2. Knee protector  | 3. Instrument stay RH |
| 4. Instrument stay LH | 5. Steering member | 6. A/C unit assembly  |

: N·m (kg-m, in-lb)

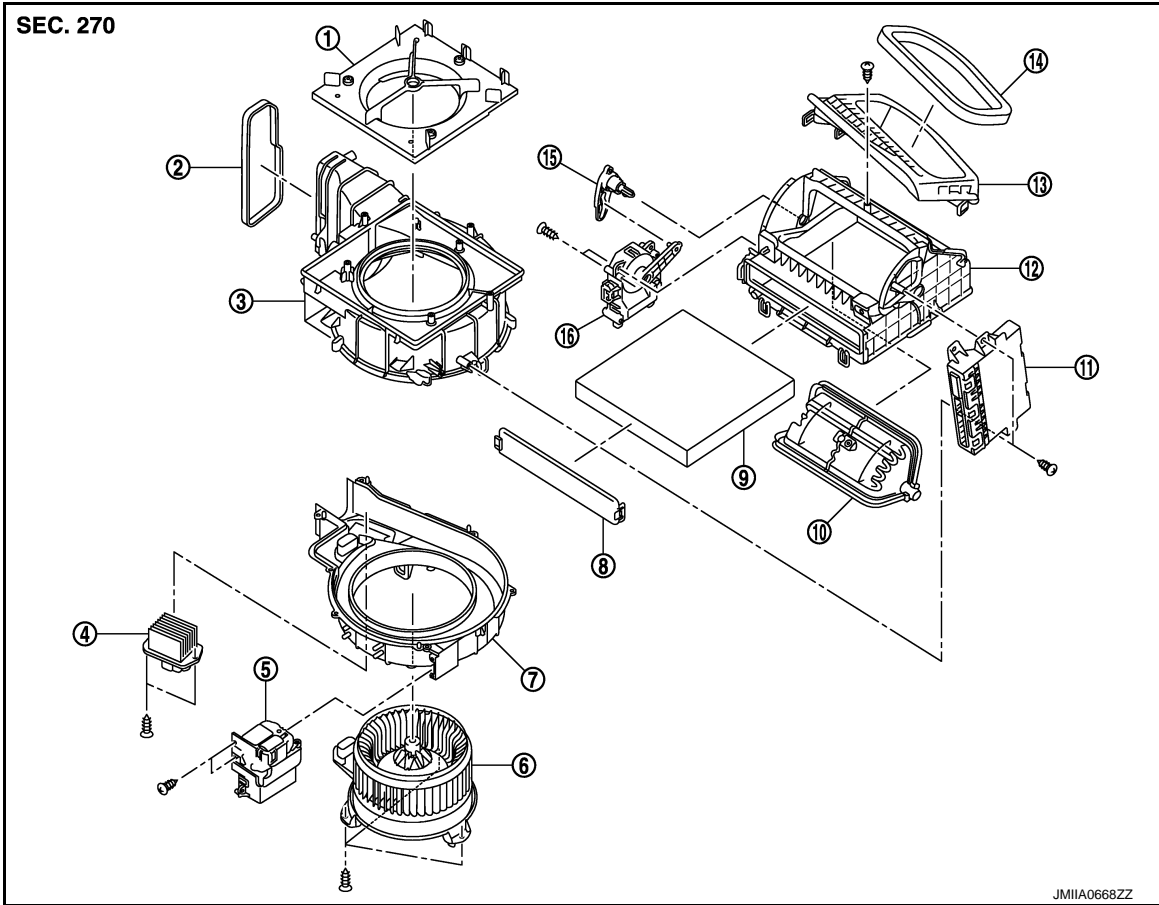
: N·m (kg-m, ft-lb)

### DISASSEMBLY



# BLOWER UNIT

< REMOVAL AND INSTALLATION >



- |                      |                   |                         |
|----------------------|-------------------|-------------------------|
| 1. Intake bell mouth | 2. Seal           | 3. Intake upper case    |
| 4. Power transistor  | 5. Aroma unit     | 6. Blower motor         |
| 7. Intake lower case | 8. Filter cover   | 9. In-cabin microfilter |
| 10. Intake door      | 11. A/C auto amp. | 12. Intake box          |
| 13. Intake box duct  | 14. Seal          | 15. Intake door lever   |
| 16. Intake door link |                   |                         |

## BLOWER UNIT

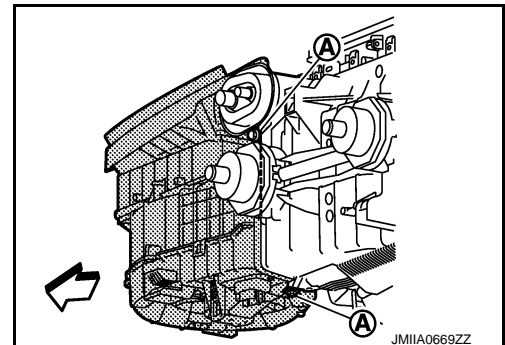
### BLOWER UNIT : Removal and Installation

INFOID:000000010095996

#### REMOVAL

1. Remove A/C unit assembly. Refer to [HA-45. "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#)
2. Remove fixing screws (A), and then separate blower unit and heater & cooling unit assembly.

← : Vehicle front



#### INSTALLATION

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

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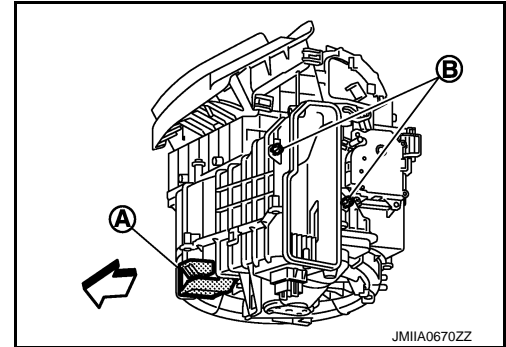
# BLOWER UNIT

## < REMOVAL AND INSTALLATION >

### CAUTION:

Check locating pin (A) and joint portions (B) are fitted completely.

← : Vehicle front



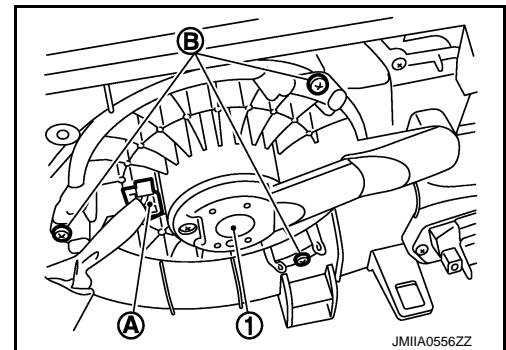
## BLOWER MOTOR

### BLOWER MOTOR : Removal and Installation

INFOID:000000010095997

#### REMOVAL

1. Remove instrument lower cover. Refer to [IP-13, "Removal and Installation"](#).
2. Disconnect blower motor connector (A).
3. Remove fixing screws (B), and then remove blower motor (1).



#### INSTALLATION

Install in the reverse order of removal.

# IN-CABIN MICROFILTER

< REMOVAL AND INSTALLATION >

## IN-CABIN MICROFILTER

### Exploded View

INFOID:000000010095998

Refer to [VTL-16. "Exploded View"](#).

### Removal and Installation

INFOID:000000010095999

#### REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-13. "Removal and Installation"](#).
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:000000010096000

Replace in-cabin microfilter.

Refer to [VTL-20. "In-cabin microfilter"](#).

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

A

B

C

D

E

F

G

H

VTL

J

K

L

M

N

O

P

# SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

In-cabin microfilter

INFOID:0000000010096001

Replacement interval	<a href="#">MA-9. "FOR NORTH AMERICA : Introduction of Periodic Maintenance"</a> and <a href="#">MA-12. "FOR MEXICO : Periodic Maintenance"</a>
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