

**SECTION** **VTL**  
**VENTILATION SYSTEM**

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# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000007377167

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.

#### Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:000000007377168

#### **CAUTION:**

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

- Before removing and installing any control units, first turn the 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 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 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.

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## PRECAUTIONS

### < PRECAUTION >

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

# PREPARATION

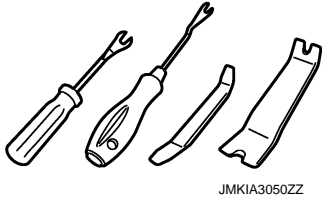
< PREPARATION >

## PREPARATION

### PREPARATION

#### Commercial Service Tool

INFOID:000000007377169

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

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# VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### VENTILATION SYSTEM

### VENTILATION SYSTEM (FRONT AIR CONDITIONING)

### VENTILATION SYSTEM (FRONT AIR CONDITIONING) : System Description

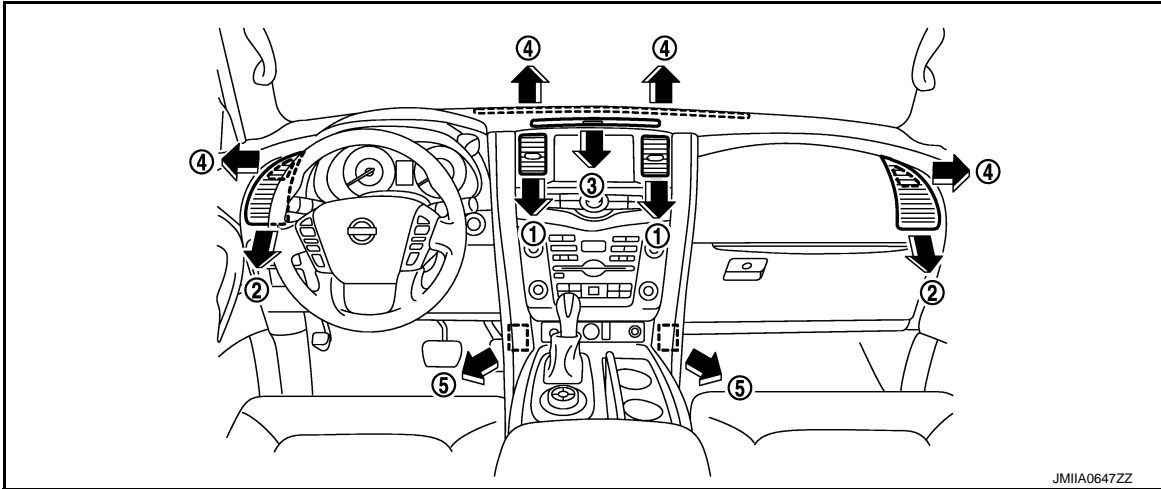
INFOID:000000007377170

#### OUTLINE

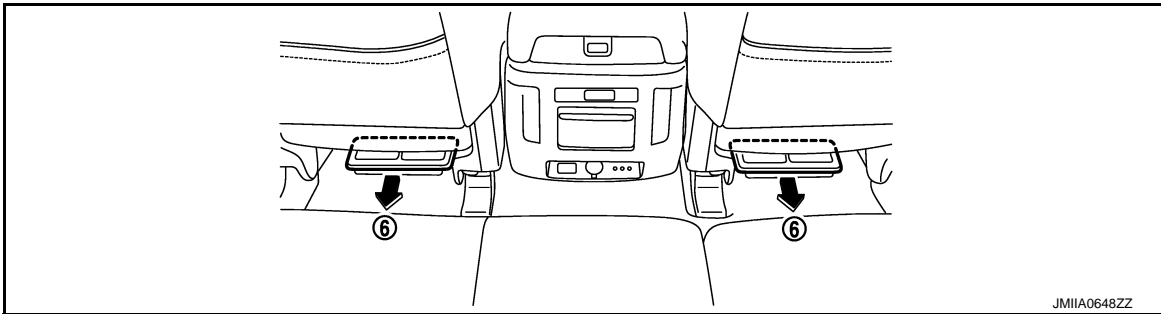
Ventilation system is controlled by A/C control. For details of air conditioner system, refer to [HAC-15. "FRONT AUTOMATIC AIR CONDITIONING SYSTEM : System Description"](#).

#### AIR FLOW

Front



Rear



#### AIR DISTRIBUTION

Front A/C Unit

Discharge air flow							
Mode position	Condition	Air outlet/distribution					
		VENT			FOOT		DEF (4)
		Center (1)	Side (2)	Upper (3)	Front (5)	Rear (6)	
	DUAL and Upper ventilator switch: ON	×	×	×	—	—	—
		×	×	×	×	×	—
		—	×	×	×	×	×
		—	×	×	×	×	×
		—	×	—	—	—	—

# VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

## VENTILATION SYSTEM (REAR AIR CONDITIONING)

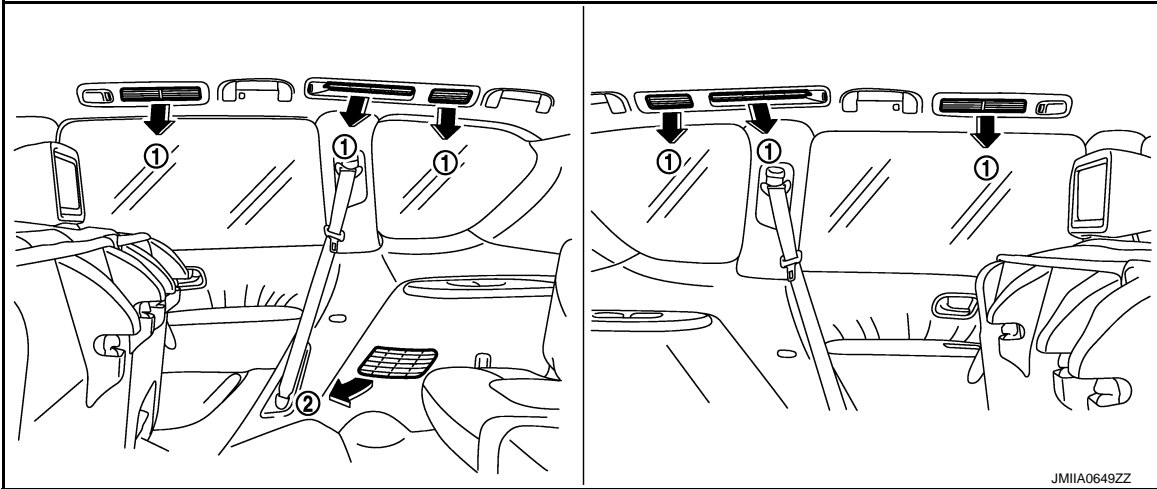
### VENTILATION SYSTEM (REAR AIR CONDITIONING) : System Description

INFOID:000000007377171

#### OUTLINE

Rear cooling system is controlled by rear blower switch. Refer to [HAC-24, "REAR AUTOMATIC AIR CONDITIONING SYSTEM : System Description"](#).

#### AIR FLOW



#### AIR DISTRIBUTION

Rear A/C Unit

VTL

Discharge air flow		
Mode position	Air outlet/distribution	
	VENT (1)	FOOT (2)
	x	—
	x	x
	—	x

# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

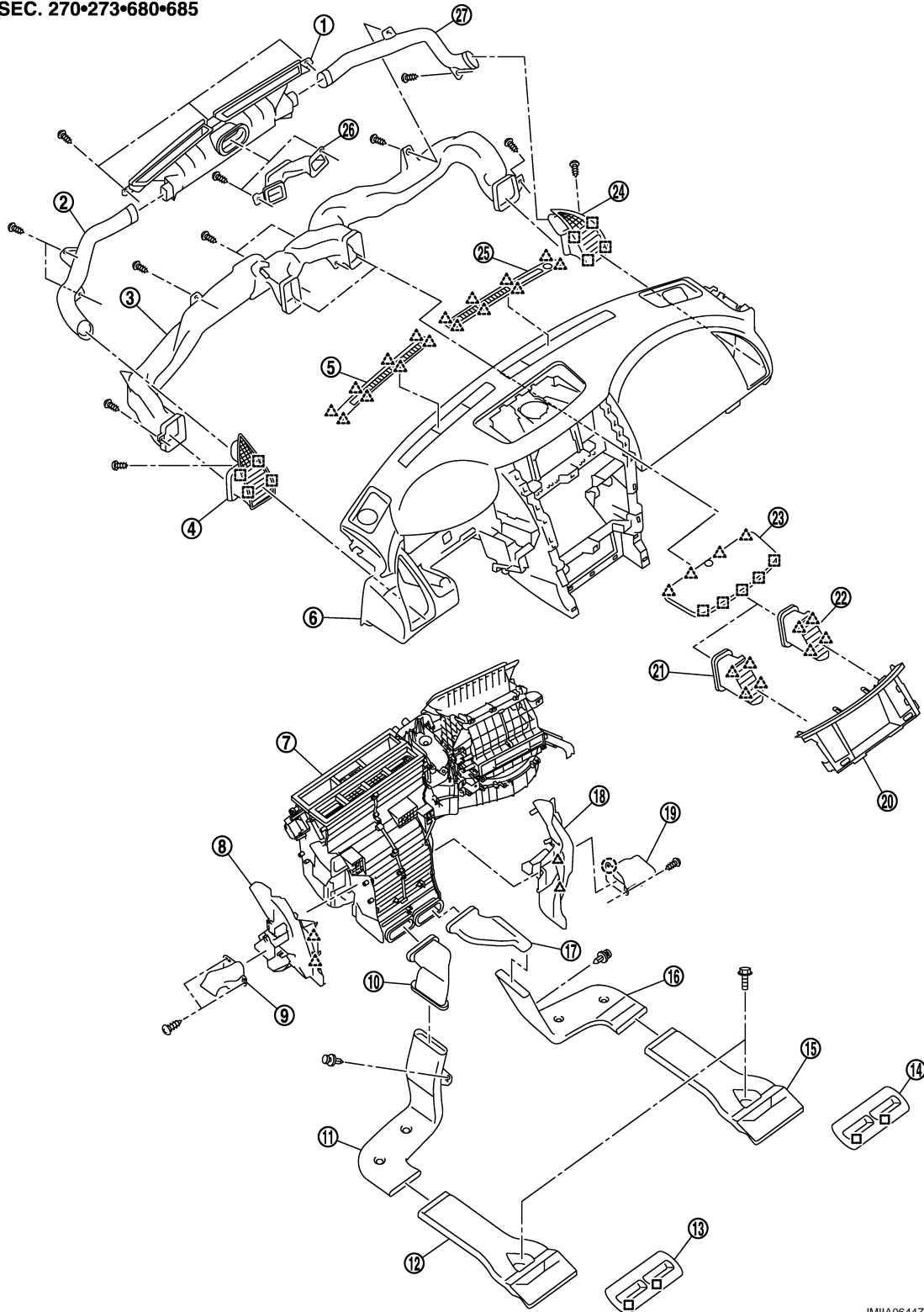
### DUCT AND GRILLE

Exploded View

INFOID:000000007377172

FRONT

SEC. 270•273•680•685



JMIA0644ZZ



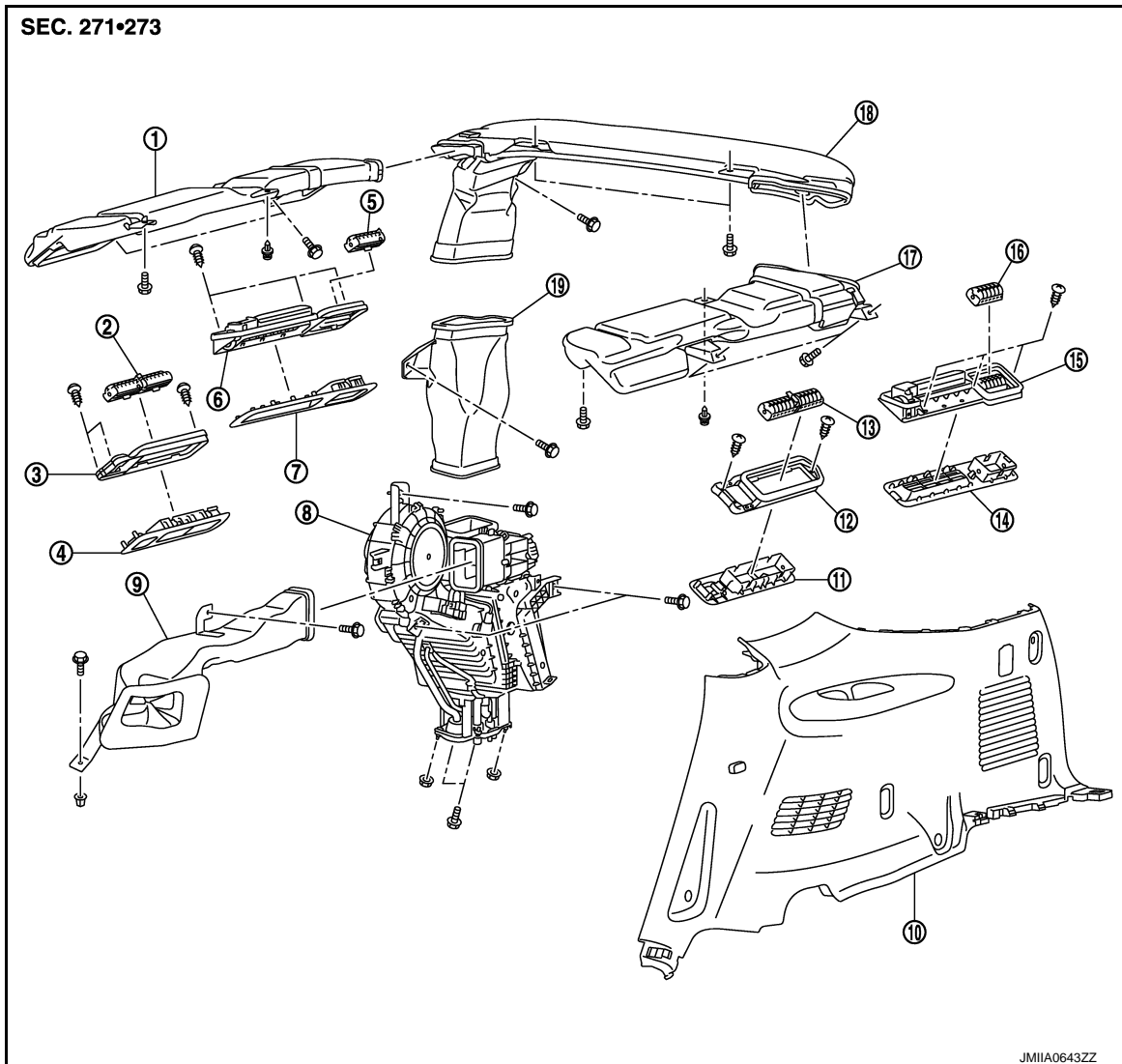
# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

- |                                 |                              |                                 |
|---------------------------------|------------------------------|---------------------------------|
| 1. Front defroster nozzle       | 2. Side defroster nozzle LH  | 3. Side ventilator duct         |
| 4. Side ventilator grille LH    | 5. Front defroster grille LH | 6. Instrument panel             |
| 7. A/C unit assembly            | 8. Foot duct LH              | 9. Foot grille LH               |
| 10. Floor duct 1 LH             | 11. Floor duct 2 LH          | 12. Floor duct 3 LH             |
| 13. Floor grille LH             | 14. Floor grille RH          | 15. Floor duct 3 RH             |
| 16. Floor duct 2 RH             | 17. Floor duct 1 RH          | 18. Foot duct RH                |
| 19. Foot grill RH               | 20. Cluster lid D            | 21. Center ventilator grille RH |
| 22. Center ventilator grille RH | 23. Upper ventilator grille  | 24. Side ventilator grille LH   |
| 25. Front defroster grille RH   | 26. Upper ventilator duct    | 27. Side ventilator nozzle RH   |

- : Clip  
 △ : Pawl  
 □ : Metal clip

### REAR



- |  |                                       |                               |
|--|---------------------------------------|-------------------------------|
| 1. Roof duct RH                        | 2. Rear ventilator outlet grille A RH | 3. Rear ventilator base RH    |
| 4. Rear ventilator garnish A RH        | 5. Rear ventilator outlet grille B RH | 6. Rear ventilator grille RH  |
| 7. Rear ventilator garnish B RH        | 8. Rear A/C unit assembly             | 9. Rear ventilator duct lower |
| 10. Luggage side finisher RH           | 11. Rear ventilator garnish A LH      | 12. Rear ventilator base LH   |
| 13. Rear ventilator outlet grille A LH | 14. Rear ventilator garnish B LH      | 15. Rear ventilator grille LH |

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# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

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16. Rear ventilator outlet grille B LH

17. Roof duct LH

Roof duct center

19. Rear ventilator duct upper

## CENTER VENTILATOR GRILLE

### CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000007377173

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-14, "Removal and Installation"](#).
2. Remove center ventilator grille from cluster lid D.

#### INSTALLATION

Install in the reverse order of removal.

## SIDE VENTILATOR GRILLE

### SIDE VENTILATOR GRILLE : Removal and Installation

INFOID:000000007377174

#### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#).
2. Remove fixing screw, and then remove side ventilator grille from instrument panel.

#### INSTALLATION

Install in the reverse order of removal.

## FRONT DEFROSTER GRILLE

### FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000007377175

#### REMOVAL

Remove front defroster grilles, using remover tools.

#### INSTALLATION

Install in the reverse order of removal.

## UPPER VENTILATOR GRILLE

### UPPER VENTILATOR GRILLE : Removal and Installation

INFOID:000000007377176

#### REMOVAL

Remove upper ventilator grille, using remover tools.

#### INSTALLATION

Install in the reverse order of removal.

## SIDE VENTILATOR DUCT

### SIDE VENTILATOR DUCT : Removal and Installation

INFOID:000000007377177

#### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#).
2. Remove fixing screws, and then remove side ventilator duct from instrument panel.

#### INSTALLATION

Install in the reverse order of removal.

## UPPER VENTILATOR DUCT

### UPPER VENTILATOR DUCT : Removal and Installation

INFOID:000000007377178

#### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#).

# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

2. Remove front defroster nozzle. Refer to [VTL-11, "FRONT DEFROSTER NOZZLE : Removal and Installation"](#).
3. Remove fixing screws, and then remove upper ventilator duct.

### INSTALLATION

Install in the reverse order of removal.

## FRONT DEFROSTER NOZZLE

### FRONT DEFROSTER NOZZLE : Removal and Installation

INFOID:000000007377179

### REMOVAL

1. Remove instrument panel assembly. Refer to [VTL-8, "Exploded View"](#).
2. Remove fixing screws, and then remove front defroster nozzle.

### INSTALLATION

Install in the reverse order of removal.

## SIDE DEFROSTER NOZZLE

### SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:000000007377180

### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#).
2. Remove fixing screw, and then remove side defroster nozzle.

### INSTALLATION

Install in the reverse order of removal.

## FLOOR DUCT 1

### FLOOR DUCT 1 : Removal and Installation

INFOID:000000007377181

### REMOVAL

1. Remove center console assembly. Refer to [IP-25, "Removal and Installation"](#).
2. Remove floor duct 1.

### INSTALLATION

Install in the reverse order of removal.

## FLOOR DUCT 2

### FLOOR DUCT 2 : Removal and Installation

INFOID:000000007377182

### REMOVAL

1. Pull up front of front floor carpet of securing work space. Refer to [INT-24, "FRONT FLOOR CARPET : Removal and Installation"](#).
2. Remove fixing clip, and then remove floor duct 2.

### INSTALLATION

Install in the reverse order of removal.

## FLOOR DUCT 3

### FLOOR DUCT 3 : Removal and Installation

INFOID:000000007377183

### REMOVAL

1. Pull up front of front floor carpet of securing work space. Refer to [INT-24, "FRONT FLOOR CARPET : Removal and Installation"](#).
2. Remove mounting bolt, and then remove floor duct 1.

### INSTALLATION

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# DUCT AND GRILLE

## < REMOVAL AND INSTALLATION >

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Install in the reverse order of removal.

### REAR FLOOR GRILLE

#### REAR FLOOR GRILLE : Removal and Installation

INFOID:000000007377184

##### REMOVAL

Disengage fixing metal clips, and then remove rear floor grille.

##### INSTALLATION

Install in the reverse order of removal.

### FOOT DUCT

#### FOOT DUCT : Removal and Installation

INFOID:000000007377185

##### REMOVAL

1. Remove steering member. Refer to [HA-42. "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove fixing screws, and then remove foot duct.

##### INSTALLATION

Install in the reverse order of removal.

### FOOT GRILLE

#### FOOT GRILLE : Removal and Installation

INFOID:000000007377186

##### REMOVAL

Driver side

1. Remove instrument lower panel RH. Refer to [IP-14. "Removal and Installation"](#).
2. Remove fixing screws, and then remove foot grille.

Passenger side

1. Remove instrument lower cover. Refer to [IP-14. "Removal and Installation"](#).
2. Remove fixing screws and clip, and then remove foot grille.

##### INSTALLATION

Install in the reverse order of removal.

### REAR VENTILATOR DUCT LOWER

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

INFOID:000000007377187

##### REMOVAL

1. Remove luggage side lower finisher RH. Refer to [INT-35. "LUGGAGE SIDE LOWER FINISHER : Removal and Installation"](#).
2. Remove mounting bolts, and then remove rear ventilator duct lower.

##### INSTALLATION

Install in the reverse order of removal.

### REAR VENTILATOR DUCT UPPER

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

INFOID:000000007377188

##### REMOVAL

1. Remove back pillar garnish RH. Refer to [INT-36. "BACK PILLAR GARNISH : Removal and Installation"](#).
2. Remove mounting bolt, and then remove rear ventilator grille upper.

##### INSTALLATION

Install in the reverse order of removal.

# DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

## ROOF DUCT

### ROOF DUCT : Removal and Installation

INFOID:000000007377189

#### REMOVAL

1. Remove headlining. Refer to [INT-28, "Removal and Installation"](#).
2. Remove mounting bolts and clip, and then remove roof duct (LH/RH).
3. Remove rear ventilator duct upper.
4. Remove roof duct (center).

#### INSTALLATION

Install in the reverse order of removal.

## REAR VENTILATOR GRILLE

### REAR VENTILATOR GRILLE : Removal and Installation

INFOID:000000007377190

#### REMOVAL

1. Remove headlining. Refer to [INT-28, "Removal and Installation"](#).
2. Remove fixing screws, and then remove rear ventilator grille A and B from headlining.

#### INSTALLATION

Install in reverse order of removal.

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# BLOWER UNIT

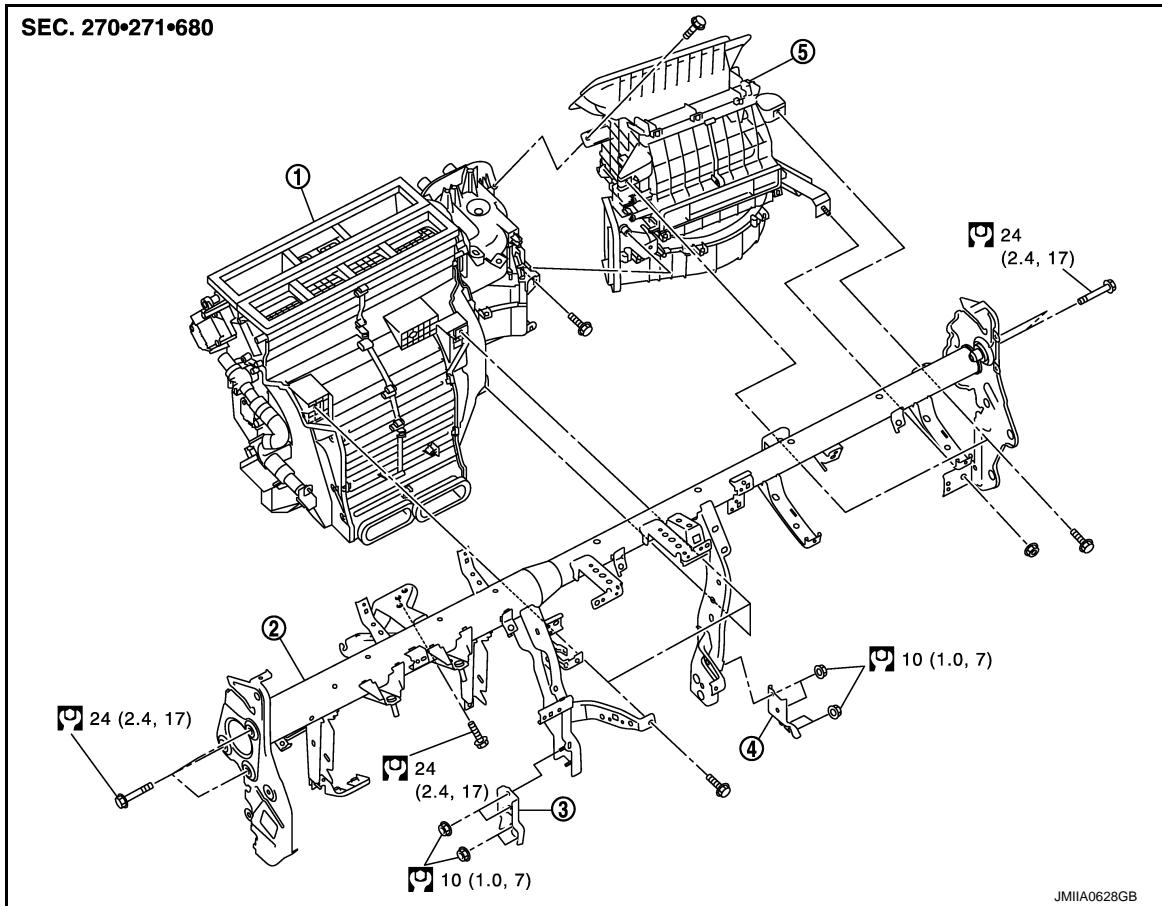
< REMOVAL AND INSTALLATION >

## BLOWER UNIT

Exploded View

INFOID:000000007377191

REMOVAL



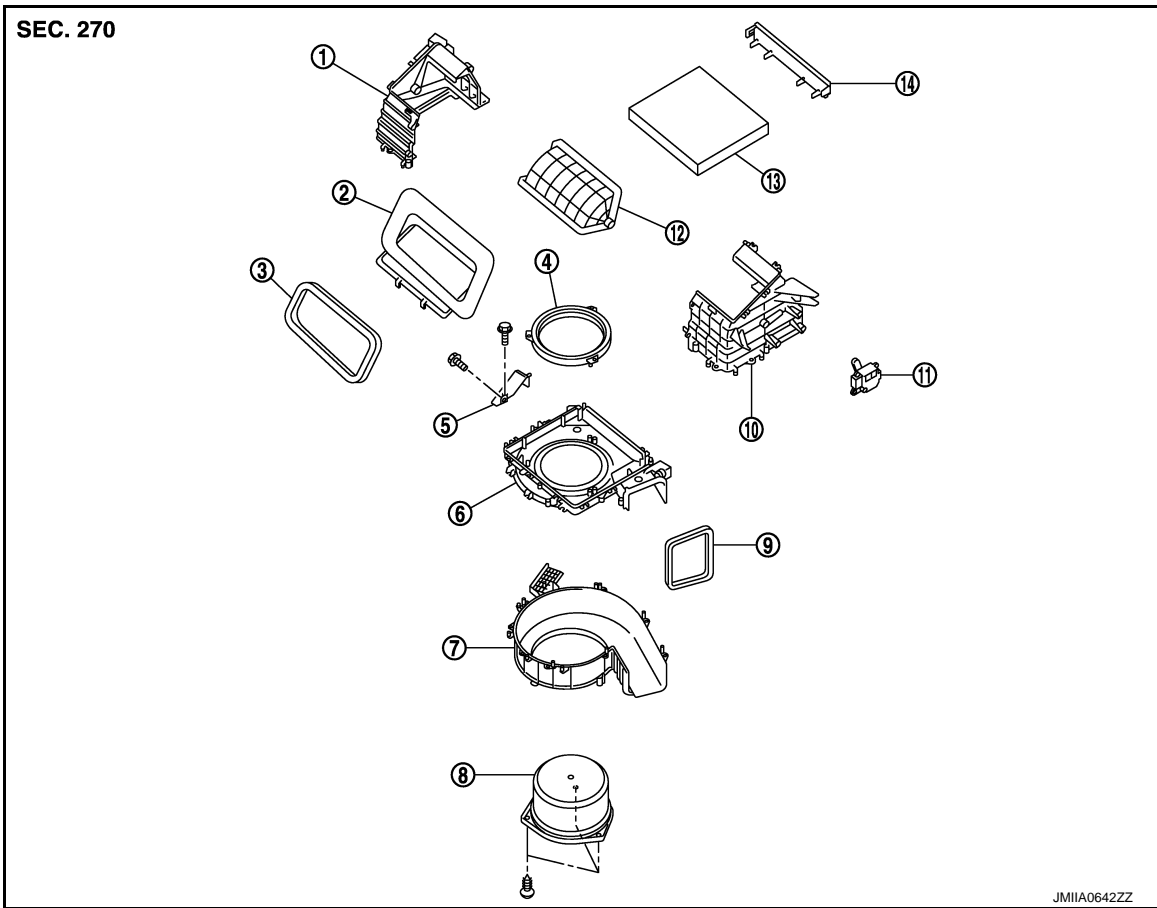
1. Heater & cooling unit assembly
2. Steering member
3. Instrument stay LH
4. Instrument stay RH
5. Blower unit assembly

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

DISASSEMBLY

# BLOWER UNIT

## < REMOVAL AND INSTALLATION >



- |                          |                           |                      |
|--------------------------|---------------------------|----------------------|
| 1. Shutter box case RH   | 2. Shutter box upper case | 3. Packing           |
| 4. Bellmouth ring        | 5. Blower unit bracket    | 6. Intake upper case |
| 7. Intake lower case     | 8. Blower motor assembly  | 9. Packing           |
| 10. Shutter box case LH  | 11. Intake door motor     | 12. Intake door      |
| 13. In-cabin microfilter | 14. Filter cover          |                      |

## Removal and Installation

INFOID:0000000007377192

### REMOVAL

1. Remove A/C unit assembly. Refer to [HA-42, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove mounting bolts, and then disconnect heater & cooling unit assembly and blower unit assembly.

### INSTALLATION

Install in the reverse order of removal.

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# BLOWER MOTOR

< REMOVAL AND INSTALLATION >

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## BLOWER MOTOR

### FRONT A/C UNIT

#### FRONT A/C UNIT : Exploded View

INFOID:000000007377193

Refer to [VTL-14, "Exploded View"](#).

#### FRONT A/C UNIT : Removal and Installation

INFOID:000000007377194

#### REMOVAL

1. Remove instrument lower cover. Refer to [IP-14, "Removal and Installation"](#).
2. Disconnect blower motor connector.
3. Remove fixing screws, and then remove blower motor.

#### INSTALLATION

Install in the reverse order of removal.

### REAR A/C UNIT ASSEMBLY

#### REAR A/C UNIT ASSEMBLY : Exploded View

INFOID:000000007377195

Refer to [HA-46, "Exploded View"](#)

#### REAR A/C UNIT ASSEMBLY : Removal and Installation

INFOID:000000007377196

#### REMOVAL

1. Removal rear A/C unit assembly. Refer to [HA-47, "REAR A/C UNIT ASSEMBLY : Removal and Installation"](#).
2. Disconnect blower motor connector.
3. Remove fixing screws, and then remove blower motor.



# IN-CABIN MICROFILTER

< REMOVAL AND INSTALLATION >

## IN-CABIN MICROFILTER

### Exploded View

INFOID:000000007377197

Refer to [VTL-14. "Exploded View"](#).

### Removal and Installation

INFOID:000000007377198

#### REMOVAL

1. Remove glove box assembly. Refer to [IP-14. "Removal and Installation"](#).
2. Remove filter cover, and then remove air conditioner filter.

#### **CAUTION:**

**If the filter is deformed/damaged when removing, replace it with a new one. Deformed/damaged filter may deteriorate the dust collecting performance.**

#### INSTALLATION

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

#### **CAUTION:**

**When installing, handle the filter with extreme care to avoid deforming/damaging.**

### Replacement

INFOID:000000007377199

Replace in-cabin microfilter.

Refer to [MA-8. "FOR NORTH AMERICA : Schedule 1"](#) and [MA-10. "FOR NORTH AMERICA : Schedule 2"](#).

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

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# SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

In-cabin microfilter

INFOID:000000007377200

Replacement interval	<a href="#">MA-8. "FOR NORTH AMERICA : Schedule 1"</a> and <a href="#">MA-10. "FOR NORTH AMERICA : Schedule 2"</a>
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