

**SECTION VTL**  
**VENTILATION 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:000000008638722

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 SR and SB section 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 which 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 SR section.
- 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 Airbag Diagnosis Sensor Unit or other Airbag 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 for Work

INFOID:000000008638723

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
  - Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.  
Then rub with a soft and dry cloth.
  - Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.  
Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

#### Precautions For Xenon Headlamp Service

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#### **WARNING:**

Comply with the following warnings to prevent any serious accident.

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## PRECAUTIONS

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- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Do not work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Do not turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Do not touch the bulb glass immediately after turning it OFF. It is extremely hot.

### **CAUTION:**

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

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Do not perform HID circuit inspection with a tester.
- Do not touch the xenon bulb glass with hands. Do not put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Do not wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

# PREPARATION

< PREPARATION >

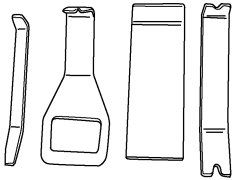
## PREPARATION

### PREPARATION

#### Special Service Tool


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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-46534) Trim tool set  AWJIA0463ZZ	Removing trim components

#### Commercial Service Tool

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Tool name	Description
Power tool  PIIB1407E	Removing nuts, screws and bolts

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VTL

# AUTOMATIC AIR CONDITIONER SYSTEM

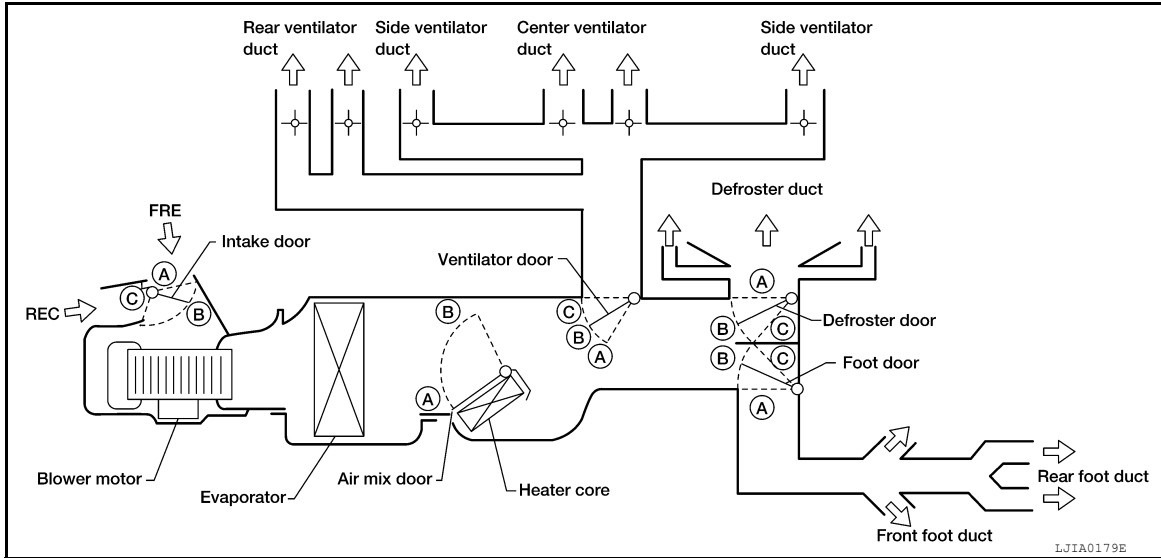
< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### AUTOMATIC AIR CONDITIONER SYSTEM WITH COLOR DISPLAY

#### WITH COLOR DISPLAY : Switches And Their Control Function

INFOID:000000008638727



Position or switch	MODE DIAL					AUTO SW	REC SW		Temperature DIAL			
	VENT	B/L	FOOT	D/F	DEF		ON	OFF				
Door						AUTO			18°C (60°F)	—	32°C (90°F)	
Ventilator door	A	B	C	C	C	AUTO	—	—	—			
Foot door	A	B	C	C	A		—	—	—			
Defroster door	A	A	B	C	C		—	—	—			
Air mix door	—				—		—	A	AUTO	B	—	
Intake door	—				C		A	AUTO*1	—			

\*1: Automatically controlled when REC switch is OFF.

#### WITH COLOR DISPLAY : Discharge Air Flow

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# AUTOMATIC AIR CONDITIONER SYSTEM

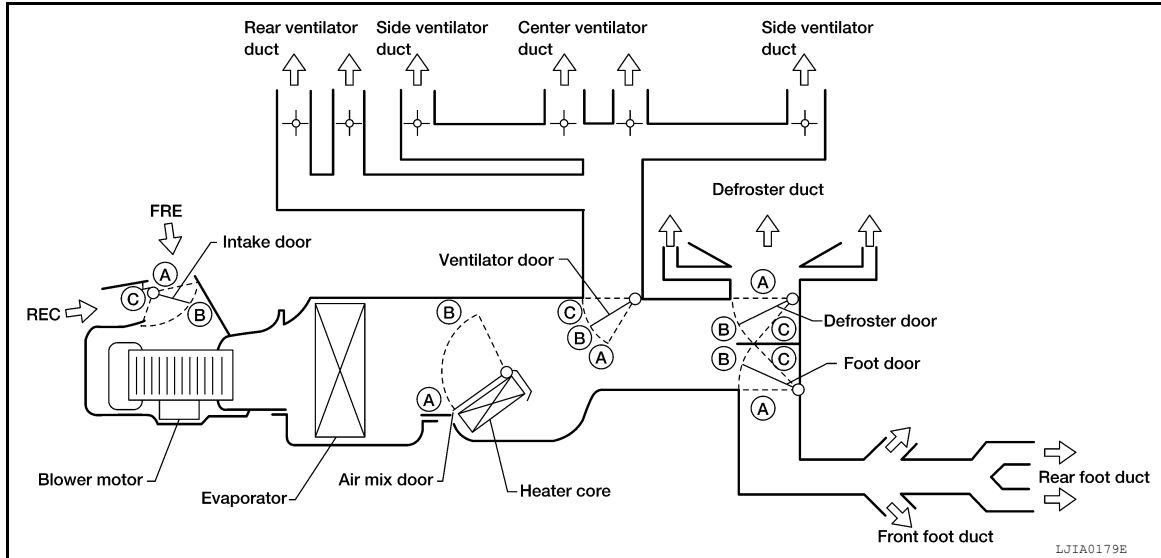
## < SYSTEM DESCRIPTION >

Mode door position	Air outlet/distribution		
	Vent	Foot	Defroster
	100%	—	—
	57%	43%	—
	27%	50%	23%
	27%	41%	32%
	22%	—	78%

WITH MONOCHROME DISPLAY

WITH MONOCHROME DISPLAY : Switches And Their Control Function

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# AUTOMATIC AIR CONDITIONER SYSTEM

## < SYSTEM DESCRIPTION >

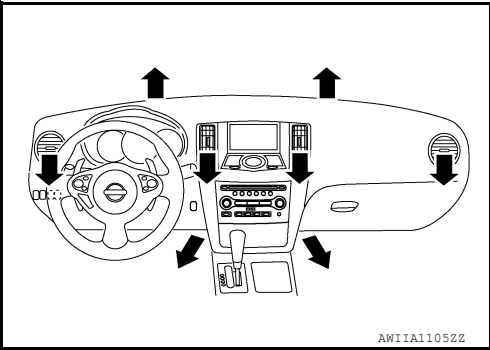
Position or switch	MODE SWITCH					AUTO SW	REC SW		TEMPERATURE SWITCH		
	VENT	B/L	FOOT	D/F	DEF		ON	OFF			
Door						AUTO					
	*	○					18°C (60°F)	—	32°C (90°F)		
Ventilator door	A	B	C	C	C	AUTO	—		—		
Foot door	A	B	C	C	A		—		—		
Defroster door	A	A	B	C	C		—		—		
Air mix door	—			—			—		A	AUTO	B
Intake door	—			C			A	AUTO*1	—		

\*1: Automatically controlled when REC switch is OFF.






AWI1A1419GB

## WITH MONOCHROME DISPLAY : Discharge Air Flow

INFOID:000000008638730



AWI1A1105Z2

Mode door position	Air outlet/distribution		
	Vent	Foot	Defroster
	100%	—	—
	57%	43%	—
	27%	50%	23%
	27%	41%	32%
	22%	—	78%



# IN-CABIN MICROFILTER

< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

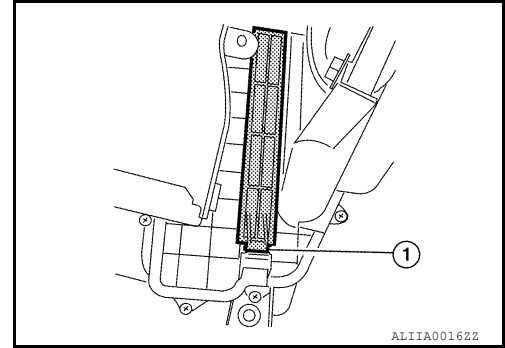
### IN-CABIN MICROFILTER

#### Removal and Installation

INFOID:000000008638731

#### REMOVAL

1. Disengage the filter cover tab (1) by pushing up and pull out to remove the filter cover.
2. Remove the in-cabin microfilter from the blower unit.



#### INSTALLATION

Installation is in the reverse order of removal.

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# DUCTS AND GRILLES

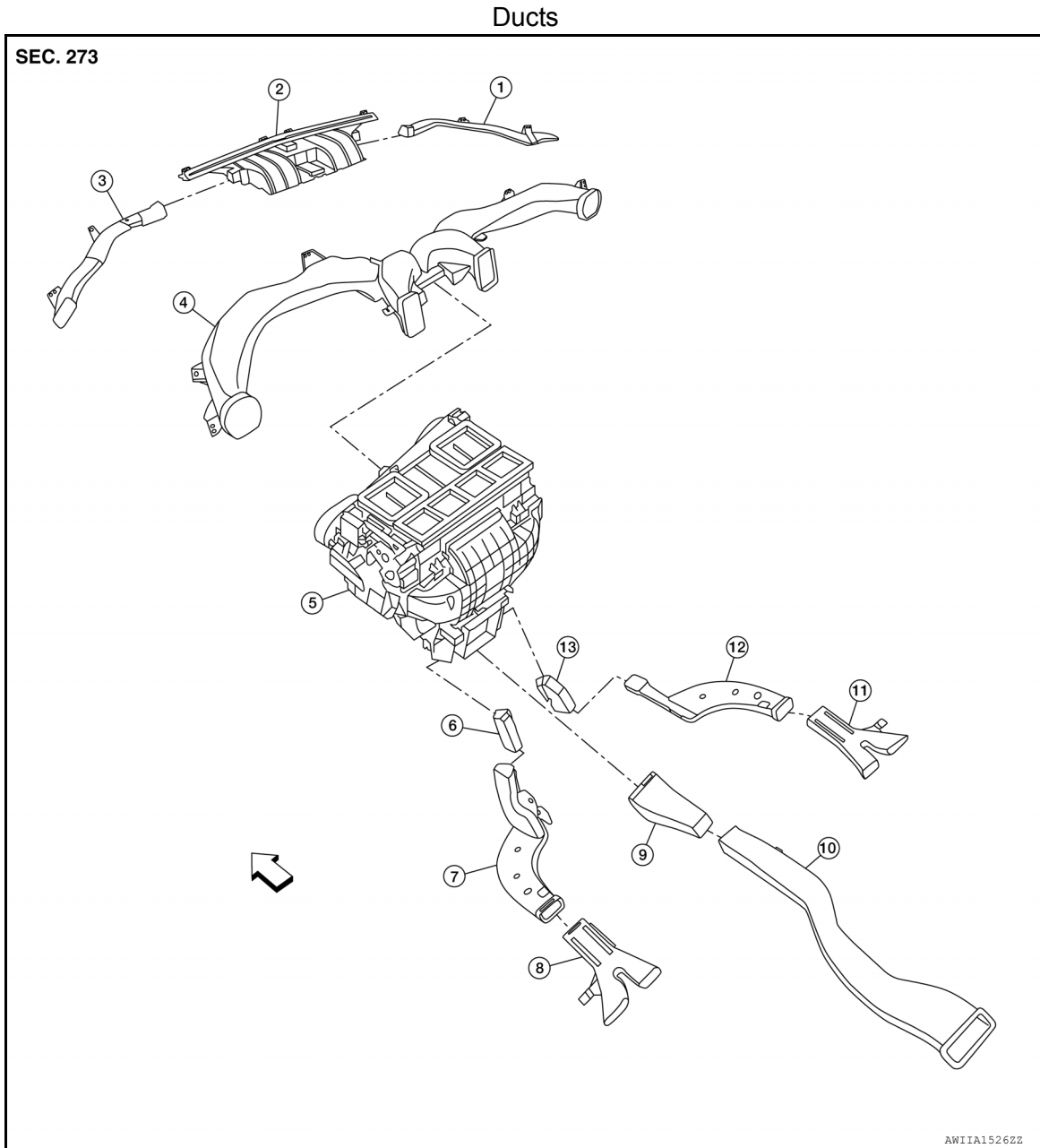
< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### DUCTS AND GRILLES

Exploded View

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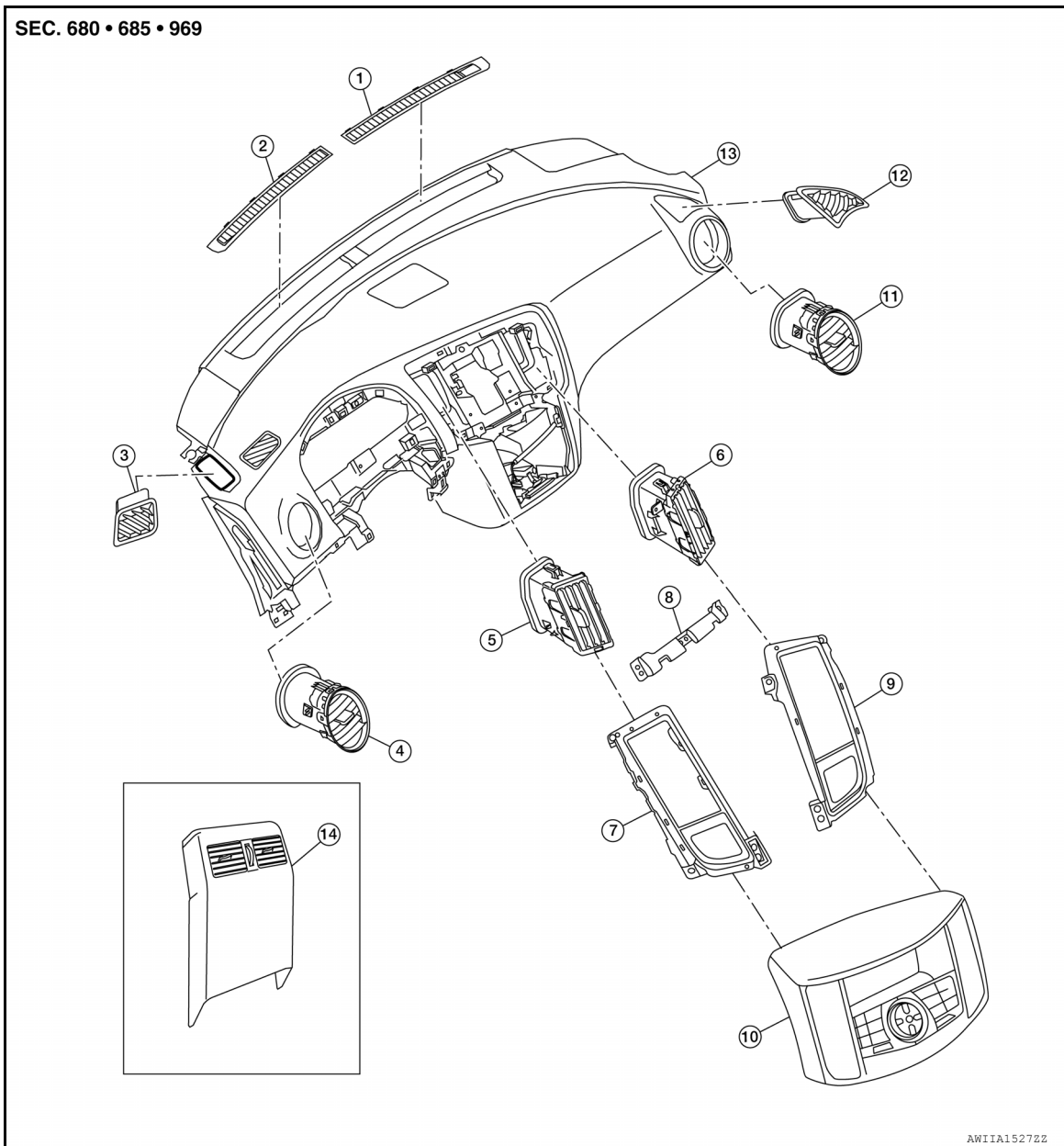


- |                                   |                                     |                                |
|-----------------------------------|-------------------------------------|--------------------------------|
| 1. Side defroster nozzle (RH)     | 2. Front defroster nozzle           | 3. Side defroster nozzle (LH)  |
| 4. Upper ventilator duct          | 5. Heater and cooling unit assembly | 6. Connector duct (LH)         |
| 7. Floor ventilator duct (LH)     | 8. Rear floor duct (LH)             | 9. Connector duct (center)     |
| 10. Rear ventilator duct (center) | 11. Rear floor duct (RH)            | 12. Floor ventilator duct (RH) |
| 13. Connector duct (RH)           | ↔ Front                             |                                |

# DUCTS AND GRILLES

< REMOVAL AND INSTALLATION >

## Grilles



- |   |  |   |
|---|--|---|
| 1. Front defroster grille (RH)            | 2. Front defroster grille (LH)                             | 3. Side defroster grille (LH)             |
| 4. Side ventilator grille (LH)            | 5. Center ventilator grille (LH)                           | 6. Center ventilator grille (RH)          |
| 7. Center ventilator grille finisher (LH) | 8. Cluster lid D support                                   | 9. Center ventilator grille finisher (RH) |
| 10. Cluster lid D                         | 11. Side ventilator grille (RH)                            | 12. Side defroster grille (RH)            |
| 13. Instrument panel                      | 14. Rear ventilator grille (part of rear console finisher) |   |

## FRONT DEFROSTER NOZZLE

### FRONT DEFROSTER NOZZLE : Removal and Installation

INFOID:000000008638733

#### REMOVAL

#### **CAUTION:**

**Before servicing, turn the ignition switch off, disconnect both battery terminals and wait at least three minutes.**

1. Disconnect the battery negative and positive terminals.
2. Remove the instrument panel. Refer to [IP-10. "Exploded View"](#).

# DUCTS AND GRILLES

## < REMOVAL AND INSTALLATION >

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3. Remove the front defroster nozzle.

### INSTALLATION

Installation is in the reverse order of removal.

### UPPER VENTILATOR DUCT

#### UPPER VENTILATOR DUCT : Removal and Installation

INFOID:000000008638734

### REMOVAL

#### **CAUTION:**

**Before servicing, turn the ignition switch off, disconnect both battery terminals and wait at least three minutes.**

1. Disconnect the battery negative and positive terminals.
2. Remove the instrument panel. Refer to [IP-11, "Removal and Installation"](#).
3. Remove the upper ventilator duct.

### INSTALLATION

Installation is in the reverse order of removal.

### SIDE DEFROSTER NOZZLE

#### SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:000000008638735

### REMOVAL

#### **CAUTION:**

**Before servicing, turn the ignition switch off, disconnect both battery terminals and wait at least three minutes.**

1. Disconnect the battery negative and positive terminals.
2. Remove the instrument panel. Refer to [IP-11, "Removal and Installation"](#).
3. Remove the front defroster nozzle.
4. Remove the RH/LH side defroster nozzle.

### INSTALLATION

Installation is in the reverse order of removal.

### REAR FLOOR DUCTS

#### REAR FLOOR DUCTS : Removal and Installation

INFOID:000000008638736

#### REAR FLOOR DUCT (RH, LH)

##### Removal

1. Remove the rear ventilator duct (center). Refer to [VTL-13, "REAR VENTILATOR DUCTS : Removal and Installation"](#).
2. Remove the rear floor duct (RH, LH) clips.
3. Remove the rear floor ducts (RH, LH).

##### Installation

Installation is in the reverse order of removal.

#### FLOOR VENTILATOR DUCT (RH, LH)

##### Removal

1. Remove the connector duct. Refer to [VTL-12, "REAR FLOOR DUCTS : Removal and Installation"](#).
2. Remove the rear ventilator duct (RH, LH) clips.
3. Remove the rear ventilator ducts (RH, LH).

##### Installation

Installation is in the reverse order of removal.

### CONNECTOR DUCT

# DUCTS AND GRILLES

## < REMOVAL AND INSTALLATION >

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### Removal

1. Remove the center console. Refer to [IP-14, "Removal and Installation"](#).
2. Remove the connector duct (RH, LH).

### Installation

Installation is in the reverse order of removal.

## REAR VENTILATOR DUCTS

### REAR VENTILATOR DUCTS : Removal and Installation

INFOID:000000008638737

### CONNECTOR DUCT (CENTER)

#### Removal

1. Remove the center console. Refer to [IP-14, "Removal and Installation"](#).
2. Remove the rear ventilator duct (center).
3. Remove the connector duct (center).

#### Installation

Installation is in the reverse order of removal.

### REAR VENTILATOR DUCT (CENTER)

#### Removal

1. Remove the center console. Refer to [IP-14, "Removal and Installation"](#).
2. Remove the rear ventilator duct (center).

#### Installation

Installation is in the reverse order of removal.

## FRONT DEFROSTER GRILLE

### FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000008638738

#### REMOVAL

Remove the front defroster grille from the instrument panel.

#### **CAUTION:**

**Use a suitable tool to remove the grille to avoid damage to the instrument panel.**

#### INSTALLATION

Installation is in the reverse order of removal.

## CENTER VENTILATOR GRILLES

### CENTER VENTILATOR GRILLES : Removal and Installation

INFOID:000000008638739

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-10, "Exploded View"](#).
2. Remove the A/C switch assembly or the multifunction switch from cluster lid D.
3. Remove the cluster lid D support.
4. Remove the center ventilator grilles with finisher.
5. Remove the center ventilator grille from the finisher.

#### INSTALLATION

Installation is in the reverse order of removal.

## SIDE VENTILATOR GRILLES

### SIDE VENTILATOR GRILLES : Removal and Installation

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#### **NOTE:**

This procedure should only be used if the side ventilator grille is going to be reused for installation and not replaced with a new one.

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# DUCTS AND GRILLES

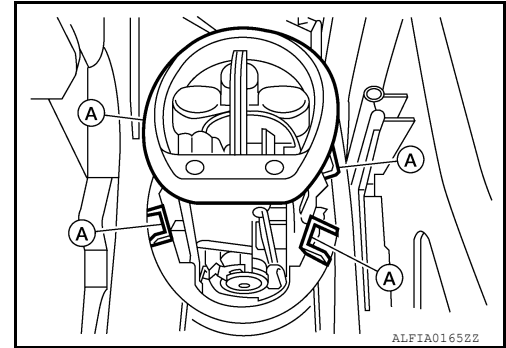
## < REMOVAL AND INSTALLATION >

### REMOVAL

1. Remove the instrument panel. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the upper ventilator duct from the instrument panel.
3. Release the clips (A) with a suitable tool and push the side ventilator grille out the front of the instrument panel.

**CAUTION:**

Use care to remove the side ventilator grille so as not to damage the instrument panel.



### INSTALLATION

Installation is in the reverse order of removal.

**CAUTION:**

Use care when inserting the side ventilator grille so as not to damage the instrument panel.

### SIDE VENTILATOR GRILLES : Replacement

INFOID:000000008638741

#### RH SIDE VENTILATOR GRILLE

**CAUTION:**

This procedure should only be used when replacing the RH side ventilator grille with a new one, as the side ventilator grille will be damaged during removal and cannot be reused.

#### Removal

1. Remove the RH instrument side mask. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the glove box assembly. Refer to [IP-11, "Removal and Installation"](#).
3. Depress the LH and RH bottom clips (A) and the LH upper clip (B) with suitable tools.

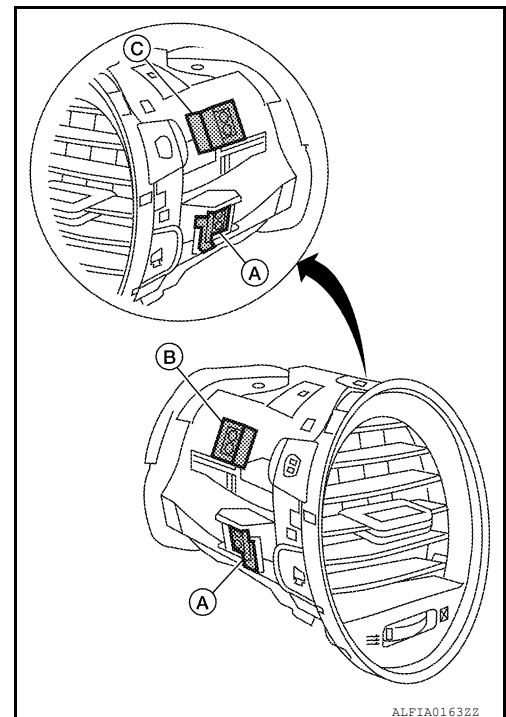
**CAUTION:**

Use care when inserting the suitable tool so as not to damage the instrument panel.

4. Grip the front of the side ventilator grille with a suitable tool to pull from the front and use your hand to push from behind to remove the side ventilator grille from the instrument panel. Discard the side ventilator grille.

**CAUTION:**

- The RH upper clip (C) will bend when the side ventilator grille is removed.
- Use care when removing the side ventilator grille so as not to damage the instrument panel.
- The side ventilator grille cannot be reused.



#### Installation

**CAUTION:**

Use care when inserting the new side ventilator grille so as not to damage the instrument panel.

1. Insert the new side ventilator grille into the front of the instrument panel. Push the new side ventilator grille in evenly so it does not get cocked to one side.

## DUCTS AND GRILLES

### < REMOVAL AND INSTALLATION >

2. Push the new side ventilator grille in until it is flush with the opening in the front of the instrument panel. Make sure the side ventilator grille is correctly seated into the upper ventilator duct when fully inserted into the opening in the front of the instrument panel.

### LH SIDE VENTILATOR GRILLE

#### CAUTION:

This procedure should only be used when replacing the LH side ventilator grille, as the side ventilator grille will be damaged during removal and cannot be reused.

#### Removal

1. Remove the LH instrument side mask. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the instrument panel lower cover LH. Refer to [IP-11, "Removal and Installation"](#).

3. Depress the LH and RH bottom clips (A) and the RH upper clip (B) with suitable tools.

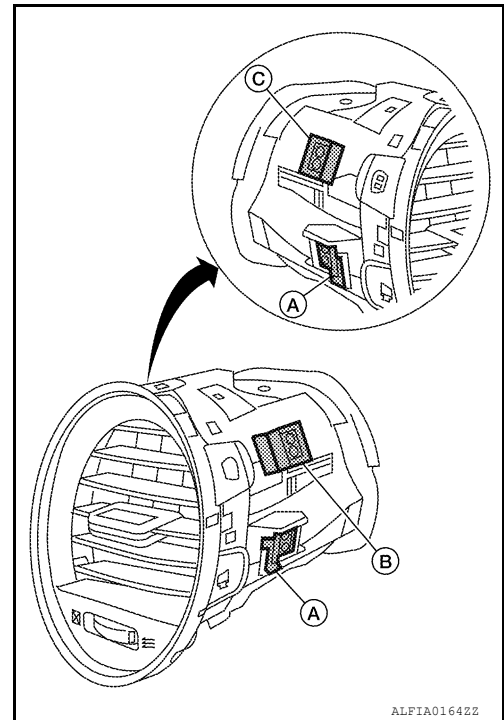
#### CAUTION:

Use care when inserting the suitable tool so as not to damage the instrument panel.

4. Grip the front of the side ventilator grille with a suitable tool to pull from the front and use your hand to push from behind to remove the side ventilator grille from the instrument panel. Discard the side ventilator grille.

#### CAUTION:

- The LH upper clip (C) will bend when the side ventilator grille is removed.
- Use care when removing the side ventilator grille so as not to damage the instrument panel.
- The side ventilator grille cannot be reused.



#### Installation

#### CAUTION:

Use care when inserting the new side ventilator grille so as not to damage the instrument panel.

1. Insert the new side ventilator grille into the front of the instrument panel. Push the new side ventilator grille in evenly so it does not get cocked to one side.
2. Push the new side ventilator grille in until it is flush with the opening in the front of the instrument panel. Make sure the side ventilator grille is correctly seated into the upper ventilator duct when fully inserted into the opening in the front of the instrument panel.

## SIDE DEFROSTER GRILLES

### SIDE DEFROSTER GRILLES : Removal and Installation

INFOID:000000008638742

#### REMOVAL

Remove side defroster grilles from the instrument panel using a suitable tool.

#### CAUTION:

Use a suitable tool to remove the grille to avoid damage to the instrument panel.

#### INSTALLATION

Installation is in the reverse order of removal.

## REAR VENTILATOR GRILLE

### REAR VENTILATOR GRILLE : Removal and Installation

INFOID:000000008638743

#### REMOVAL

## DUCTS AND GRILLES

### < REMOVAL AND INSTALLATION >

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Remove console rear finisher. Refer to [IP-14, "Exploded View"](#).

**NOTE:**

The rear ventilator grille is part of the console rear finisher.

### INSTALLATION

Installation is in the reverse order of removal.



# BLOWER UNIT

< REMOVAL AND INSTALLATION >

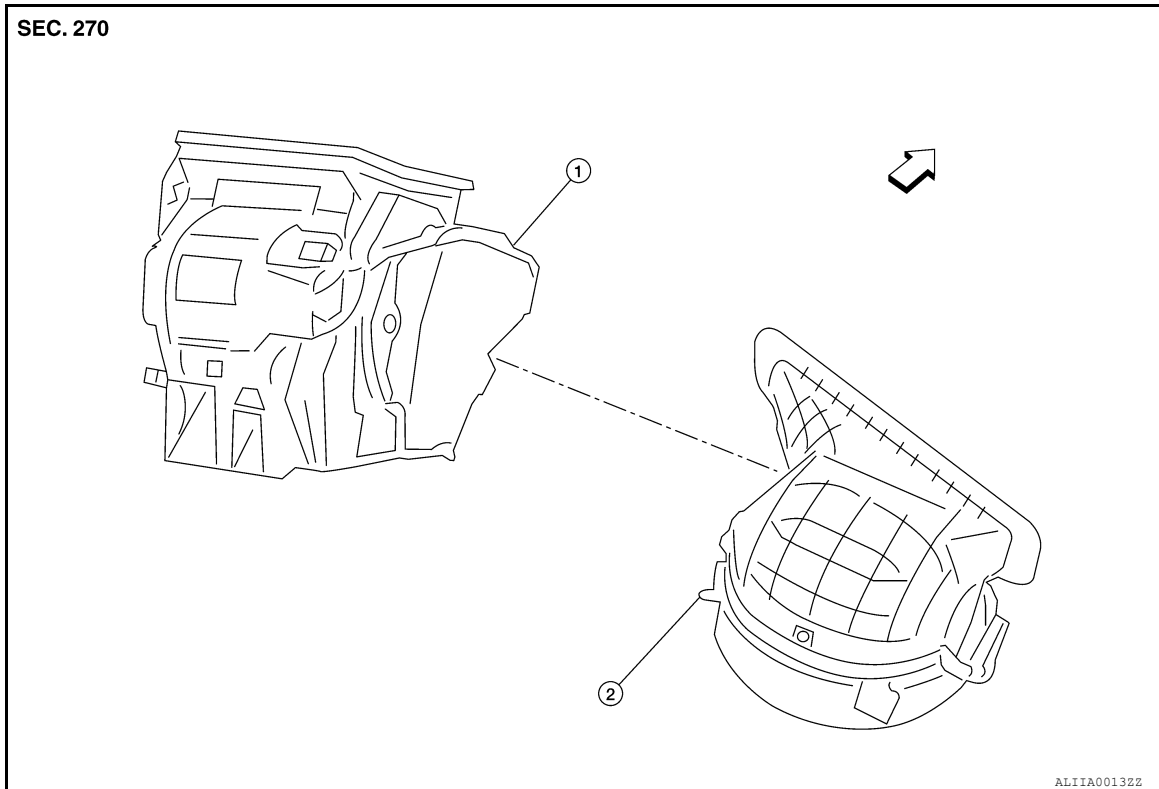
## BLOWER UNIT

## BLOWER UNIT

## BLOWER UNIT : Removal and Installation

INFOID:000000008638744

### COMPONENTS



1. Heater and cooling unit

2. Blower unit

← Front

### REMOVAL

1. Remove the heater and cooling unit assembly. Refer to [HA-44, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Disconnect the blower motor connector.
3. Remove the blower unit screws and the blower unit.

### INSTALLATION

Installation is in the reverse order of removal.

## BLOWER MOTOR

## BLOWER MOTOR : Removal and Installation

INFOID:000000008638745

### REMOVAL

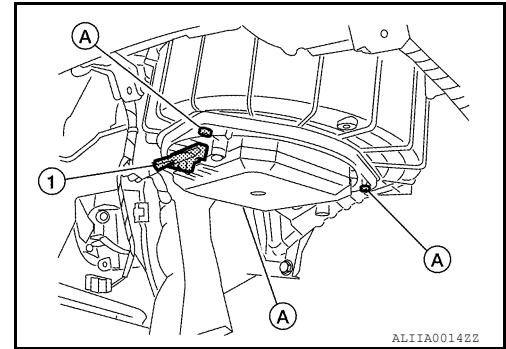
1. Remove the glove box assembly. Refer to [IP-10, "Exploded View"](#).

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## BLOWER UNIT

### < REMOVAL AND INSTALLATION >

2. Disconnect the blower motor connector (1).
3. Remove the three blower motor screws (A) and the blower motor from the blower unit.



### INSTALLATION

Installation is in the reverse order of removal.

### FAN CONTROL AMP.

### FAN CONTROL AMP. : Removal and Installation

INFOID:000000008638746

The fan control amplifier is part of the blower motor. Refer to [VTL-17, "BLOWER MOTOR : Removal and Installation"](#).