

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

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# AUTOMATIC AIR CONDITIONER SYSTEM

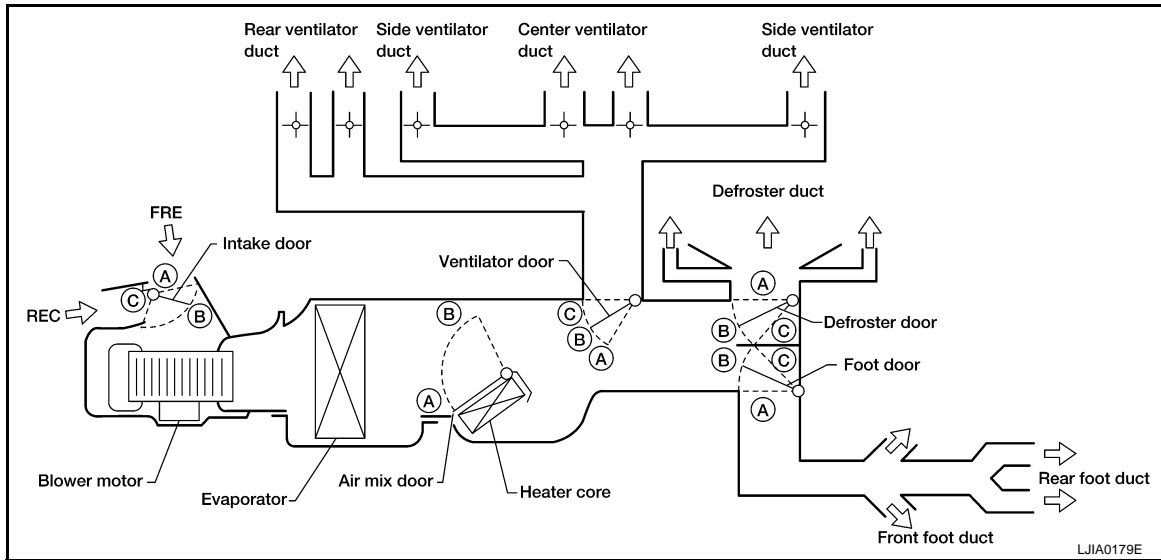
< FUNCTION DIAGNOSIS >

## FUNCTION DIAGNOSIS

AUTOMATIC AIR CONDITIONER SYSTEM  
WITH COLOR DISPLAY

WITH COLOR DISPLAY : Switches And Their Control Function

INFOID:000000004335593



Position or switch	MODE DIAL					AUTO SW	REC SW		Temperature DIAL			
	VENT	B/L	FOOT	D/F	DEF		ON	OFF				
Door						AUTO			"18"	—	"32"	
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.

AWIA1053GB

WITH COLOR DISPLAY : Discharge Air Flow

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# AUTOMATIC AIR CONDITIONER SYSTEM

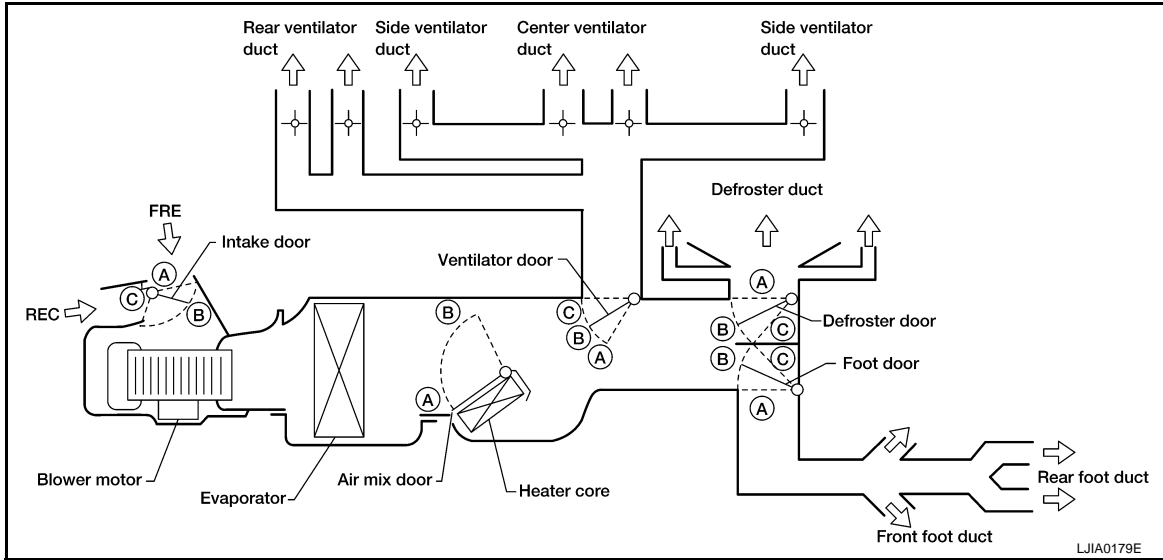
< FUNCTION DIAGNOSIS >

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

INFOID:000000004392441



# AUTOMATIC AIR CONDITIONER SYSTEM

## < FUNCTION DIAGNOSIS >

Position or switch	MODE SWITCH					AUTO SW	REC SW		TEMPERATURE SWITCH			
	VENT	B/L	FOOT	D/F	DEF		ON	OFF	<div style="display: flex; align-items: center; justify-content: center;"> <span style="margin-right: 5px;">△</span> <span style="margin-right: 5px;">▽</span> </div>			
Door						AUTO						
							*	○	"18"	—	"32"	
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.

AWIIA1059GB

## WITH MONOCHROME DISPLAY : Discharge Air Flow

INFOID:000000004392442

AWIIA1105ZZ

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

# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000004362914

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 Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:000000004399685

#### **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.

This vehicle is equipped with a push-button ignition switch and a 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 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. Carry the Intelligent Key or insert it to the key slot and 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.
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.

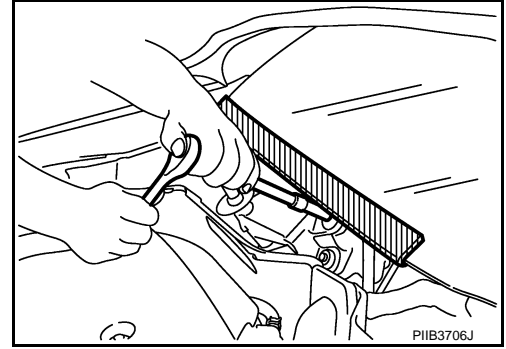
# PRECAUTIONS

## < PRECAUTION >

### Precaution for Procedure without Cowl Top Cover

INFOID:000000004362916

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



### Precautions For Xenon Headlamp Service

INFOID:000000004362917

#### **WARNING:**

Comply with the following warnings to prevent any serious accident.

- 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.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never 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.)
- Never 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.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

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# PREPARATION


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## PREPARATION

### PREPARATION

#### Commercial Service Tool

INFOID:000000004362918

Tool number Tool name	Description
Power tool  PIIB1407E	Removing bolts and nuts



# IN-CABIN MICROFILTER

< ON-VEHICLE MAINTENANCE >

## ON-VEHICLE MAINTENANCE

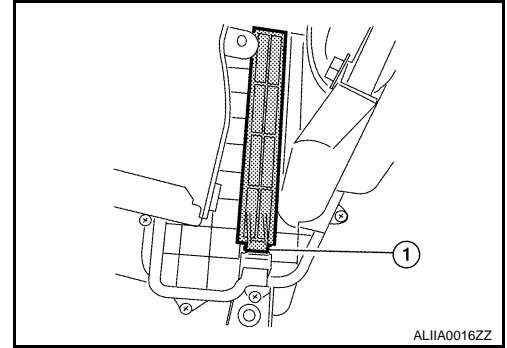
### IN-CABIN MICROFILTER

#### Removal and Installation

INFOID:000000003897325

#### 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 by using the pull tab on the bottom of the filter.



#### INSTALLATION

Installation is in the reverse order of removal.

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# DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

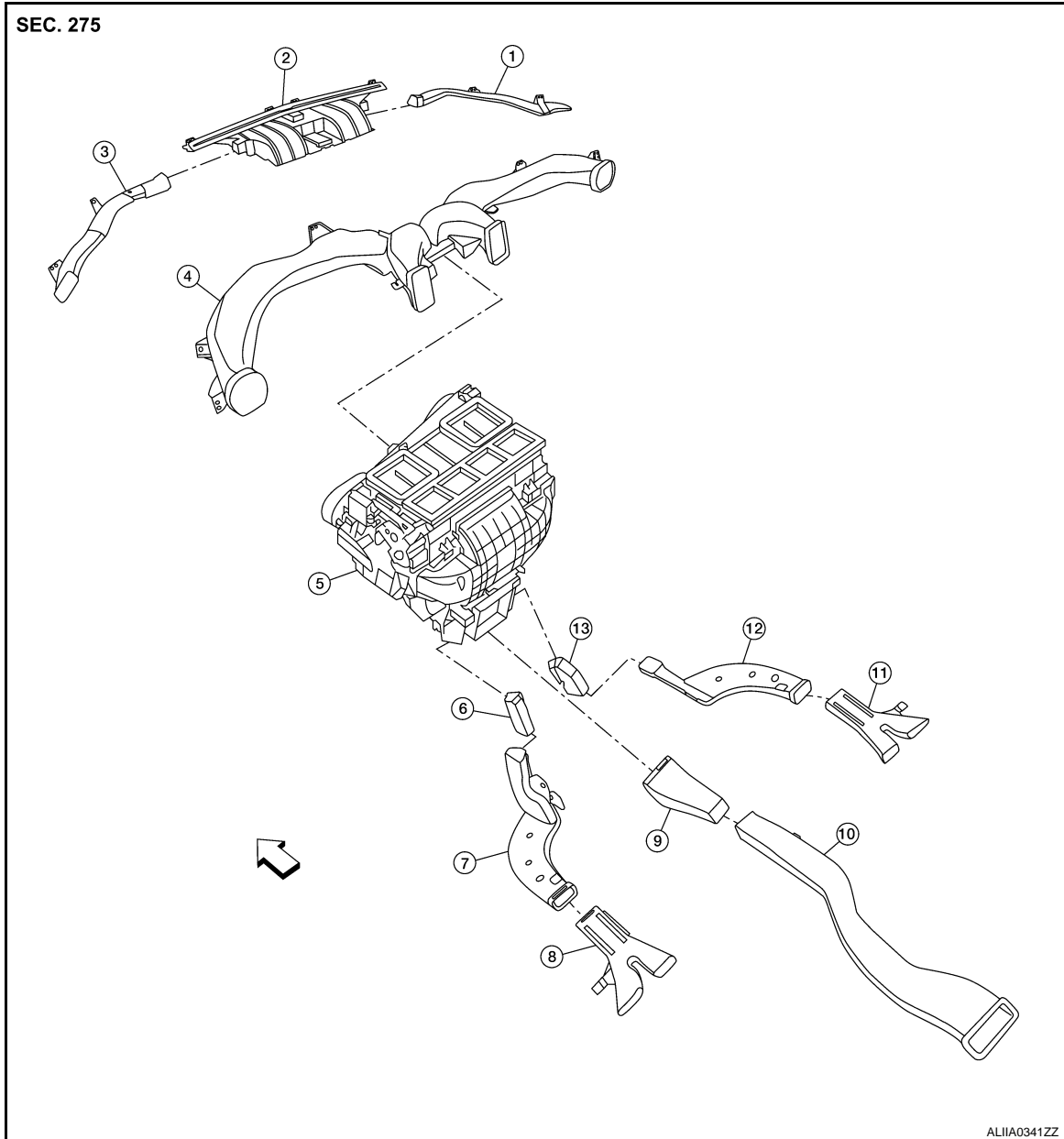
## ON-VEHICLE REPAIR

### DUCTS AND GRILLES

Exploded View

INFOID:000000003897339

#### Ducts

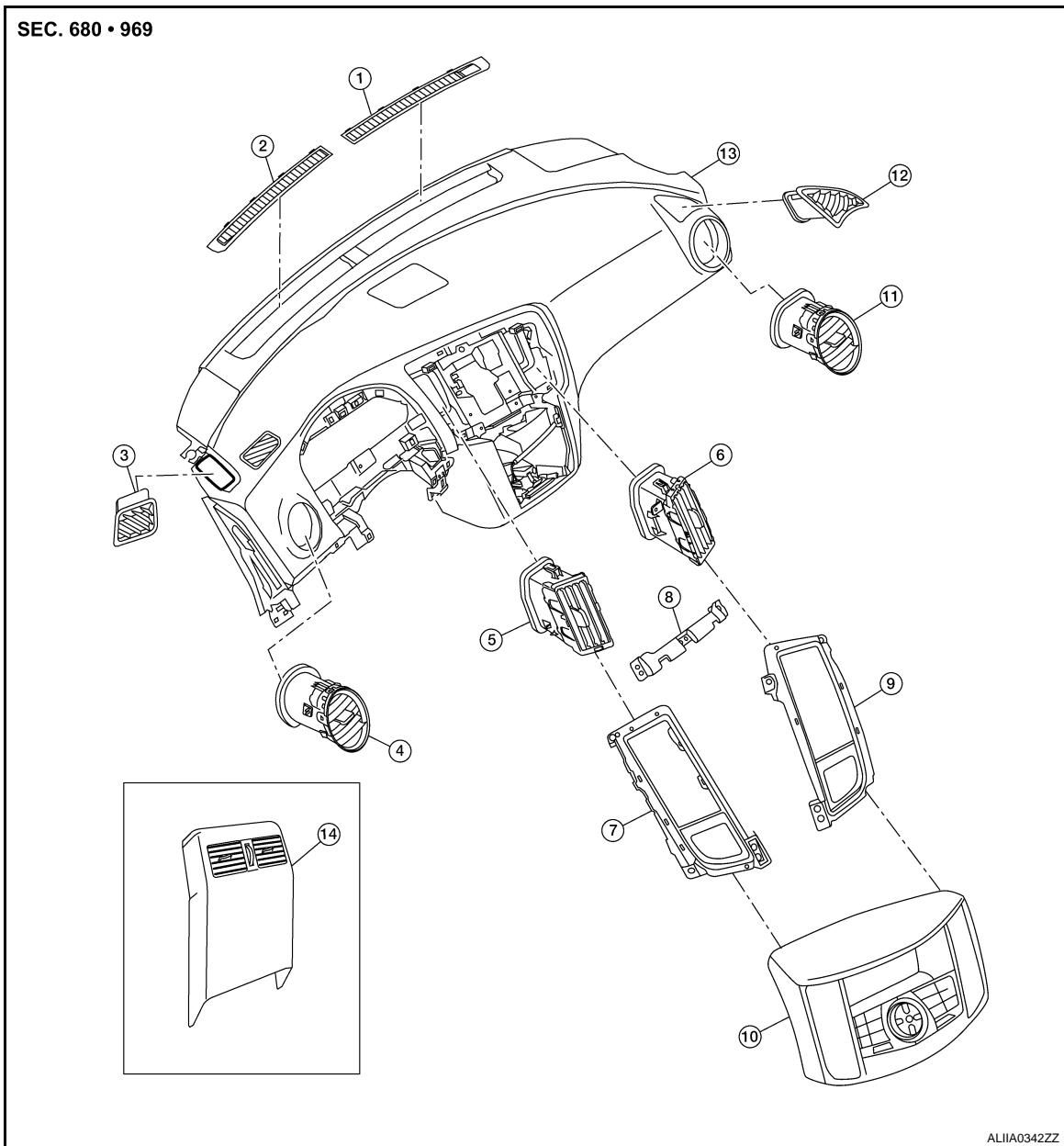


- |                                   |                                     |                                |
|-----------------------------------|-------------------------------------|--------------------------------|
| 1. Side defroster nozzle (RH)     | 2. Front defroster nozzle           | 3. Side 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

< ON-VEHICLE REPAIR >

## 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:0000000004237159

#### REMOVAL

1. Disconnect the battery negative and positive terminals.
2. Remove the instrument panel. Refer to [JP-11, "Exploded View"](#).
3. Remove the front defroster nozzle.

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# DUCTS AND GRILLES

## < ON-VEHICLE REPAIR >

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Installation is in the reverse order of removal.

### UPPER VENTILATOR DUCT

#### UPPER VENTILATOR DUCT : Removal and Installation

INFOID:000000003897342

##### REMOVAL

1. Disconnect the battery negative and positive terminals.
2. Remove the instrument panel. Refer to [IP-12. "Removal and Installation"](#).
3. Remove the RH and LH side defroster nozzles.
4. Remove the upper ventilator duct.

##### INSTALLATION

Installation is in the reverse order of removal.

### SIDE DEFROSTER NOZZLE

#### SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:000000004237160

##### REMOVAL

1. Disconnect the battery negative and positive terminals.
2. Remove the instrument panel. Refer to [IP-12. "Removal and Installation"](#).
3. Remove the front defroster nozzle.
4. Remove the RH and LH side defroster nozzles.

##### INSTALLATION

Installation is in the reverse order of removal.

### REAR FLOOR DUCTS

#### REAR FLOOR DUCTS : Removal and Installation

INFOID:000000003897347

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

###### Removal

1. Disconnect the battery negative and positive terminals.
2. Remove the floor carpet. Refer to [INT-29. "Removal and Installation"](#).
3. Remove the rear floor duct (RH, LH) clips.
4. Remove the rear floor ducts (RH, LH).

###### Installation

Installation is in the reverse order of removal.

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

###### Removal

1. Disconnect the battery negative and positive terminals.
2. Remove the floor carpet. Refer to [INT-29. "Removal and Installation"](#).
3. Remove the rear ventilator duct (RH, LH) clips.
4. Remove the rear ventilator ducts (RH, LH).

###### Installation

Installation is in the reverse order of removal.

### CONNECTOR DUCT

###### Removal

1. Remove the center console. Refer to [IP-16. "Removal and Installation"](#).
2. Remove the connector duct (RH, LH).

###### Installation

Installation is in the reverse order of removal.

# DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

## REAR VENTILATOR DUCTS

### REAR VENTILATOR DUCTS : Removal and Installation

INFOID:000000003897346

#### CONNECTOR DUCT (CENTER)

##### Removal

1. Remove the center console. Refer to [IP-12, "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-12, "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:000000003897343

#### 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:000000003897340

#### REMOVAL

1. Remove cluster lid D. Refer to [IP-11, "Exploded View"](#).
2. Remove the A/C switch assembly or the NAVI control unit from cluster lid D, if equipped.
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

INFOID:000000003897341

##### **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.

#### REMOVAL

1. Remove the instrument panel. Refer to [IP-12, "Removal and Installation"](#).
2. Remove the upper ventilator duct from the instrument panel.

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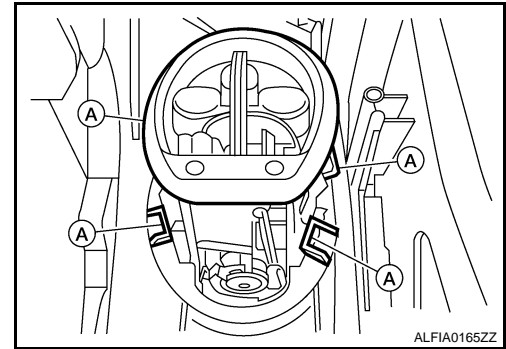
## DUCTS AND GRILLES

### < ON-VEHICLE REPAIR >

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:000000004223686

#### 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-12, "Removal and Installation"](#).
2. Remove the glove box assembly. Refer to [IP-12, "Removal and Installation"](#).
3. Depress the LH and RH bottom clips (A) and the LH upper clip (B) with suitable tools.

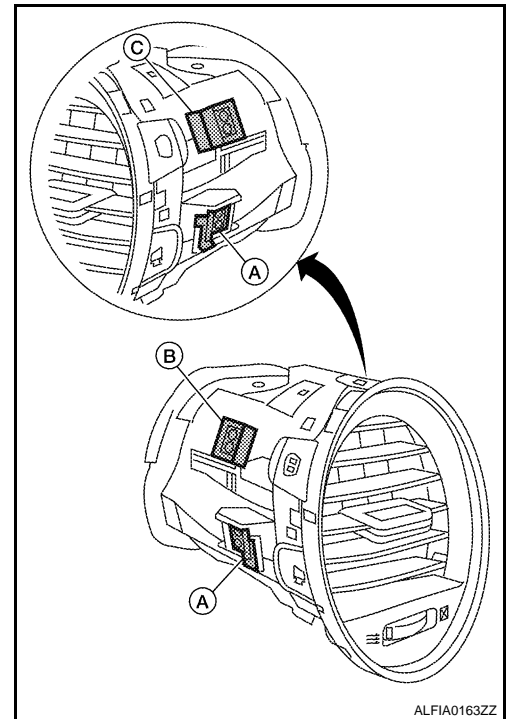
**CAUTION:**

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.
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.

## DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

### 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-12, "Removal and Installation"](#).
2. Remove the instrument panel lower cover LH. Refer to [IP-12, "Removal and Installation"](#).

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

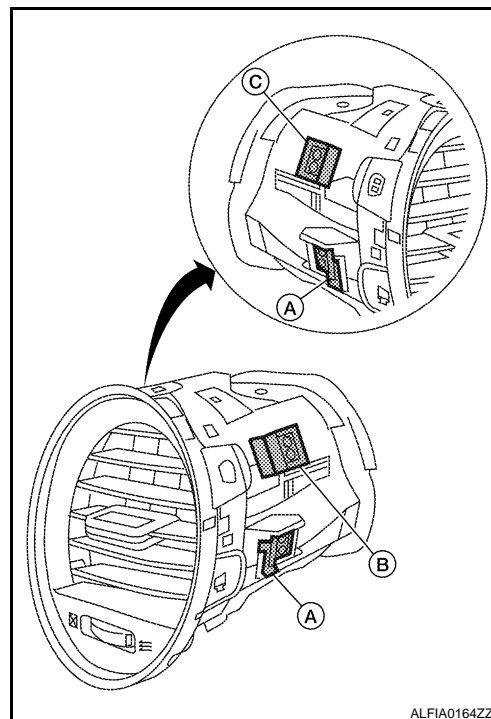
#### CAUTION:

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:000000003897344

#### 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:000000003897345

#### REMOVAL

Remove console rear finisher. Refer to [IP-11, "Exploded View"](#).

#### NOTE:

The rear ventilator is part of the console rear finisher.

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## DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

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### INSTALLATION

Installation is in the reverse order of removal.



# BLOWER UNIT

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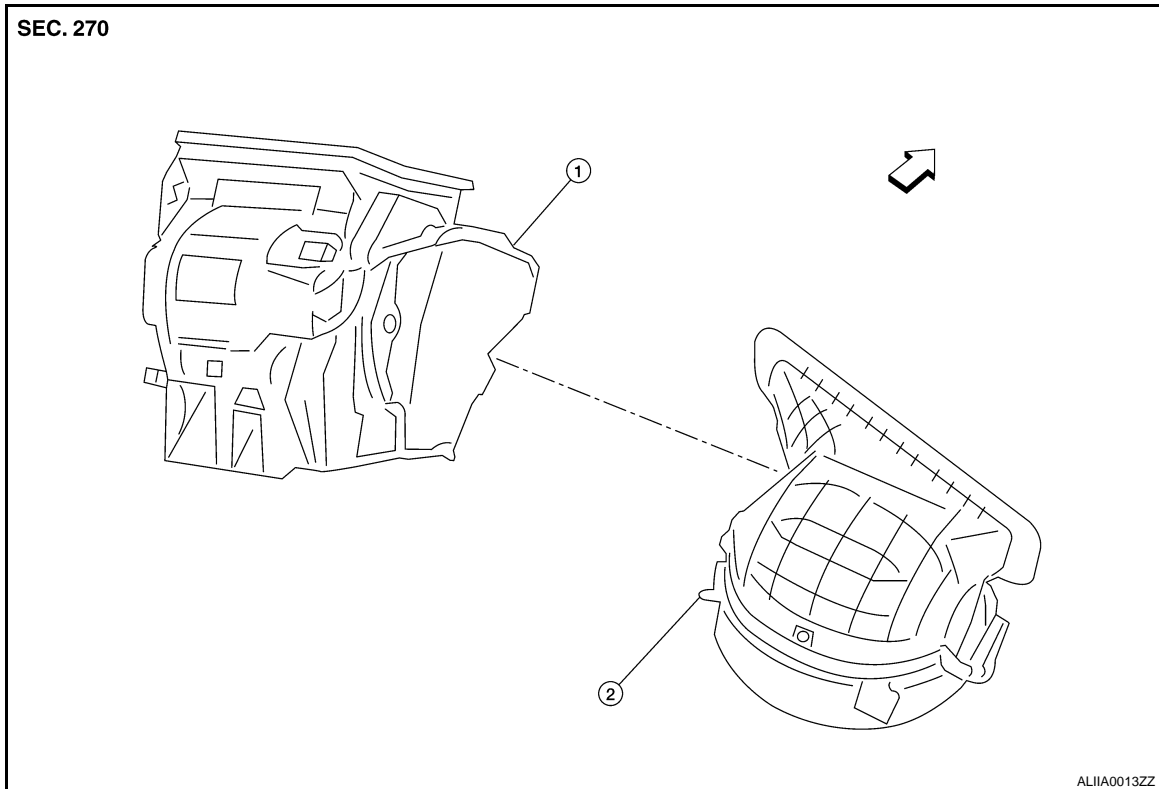
## BLOWER UNIT

## BLOWER UNIT

## BLOWER UNIT : Removal and Installation

INFOID:000000003897331

### COMPONENTS



1. Heater and cooling unit

2. Blower unit

← Front

### REMOVAL

1. Remove the heater and cooling unit assembly. Refer to [HA-53, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Disconnect the blower motor connector.
3. Remove the screws from the blower unit, then remove the blower unit.

### INSTALLATION

Installation is in the reverse order of removal.

## BLOWER MOTOR

## BLOWER MOTOR : Removal and Installation

INFOID:000000003897332

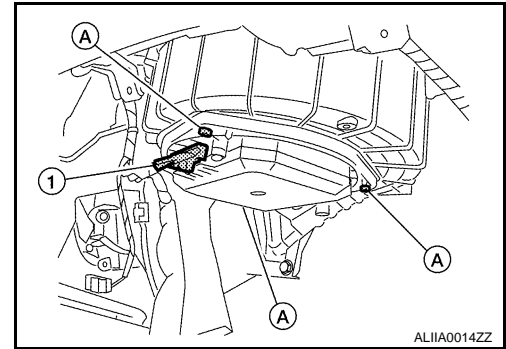
### REMOVAL

1. Remove the glove box. Refer to [IP-11, "Exploded View"](#).

## BLOWER UNIT

### < ON-VEHICLE REPAIR >

2. Disconnect the blower motor connector (1).
3. Remove the three blower motor screws (A) and remove 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:000000003897333

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