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# 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:000000006931319

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:000000006931321

- 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 a 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.

# PREPARATION

< PREPARATION >

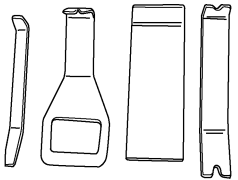
## PREPARATION

### PREPARATION

#### Special Service Tool


INFOID:000000006931336

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 <div style="text-align: center;">  <p>AWJIA0483ZZ</p> </div>	Removing trim components

#### Commercial Service Tool

INFOID:000000006931337

(Kent-Moore No.) Tool name	Description
( — ) Power tool <div style="text-align: center;">  <p>PIIB1407E</p> </div>	Loosening nuts, screws and bolts

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# IN-CABIN MICROFILTER

< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

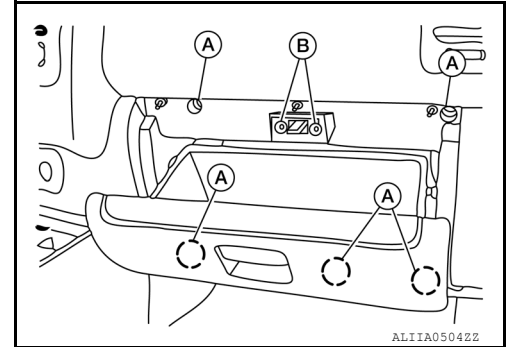
### IN-CABIN MICROFILTER

#### Removal and Installation

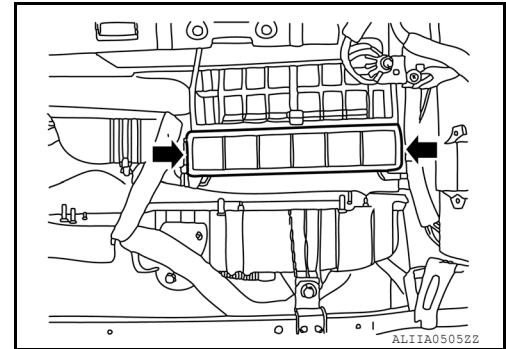
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#### REMOVAL

1. Open the glove box door.
2. Remove the glove box screws (A) and glove box latch striker screws (B).



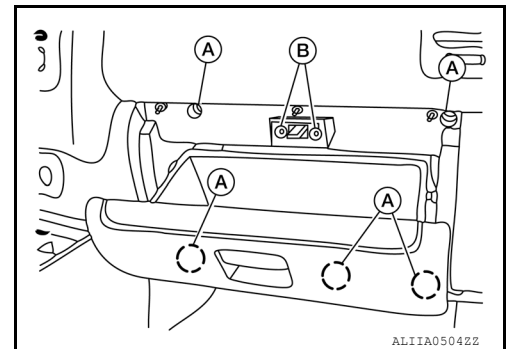
3. Gently release the two tabs to remove the filter cover.



4. Remove the old filter.

#### INSTALLATION

1. Install the new filter.
2. Install the filter cover.
3. Install the glove box screws (A) and glove box latch striker screws (B).



4. Close the glove box door.

# DUCTS AND GRILLES

< REMOVAL AND INSTALLATION >

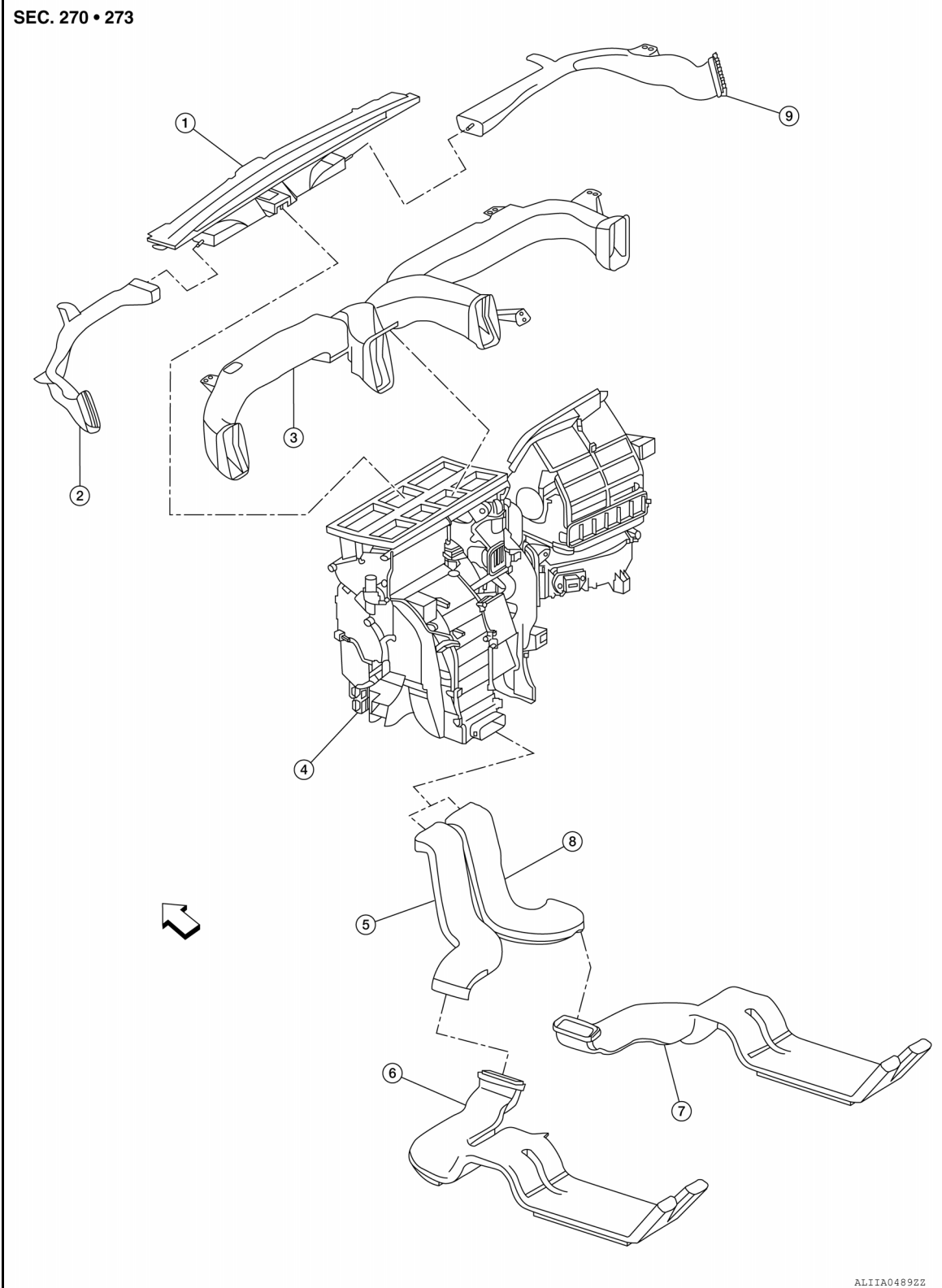
## REMOVAL AND INSTALLATION

### DUCTS AND GRILLES

Exploded View

INFOID:000000006942734

Ducts - Front Heating and Cooling Unit Assembly



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# DUCTS AND GRILLES

## < REMOVAL AND INSTALLATION >

---

- |  |  |                                      |
|--|--|--------------------------------------|
| 1. Defroster nozzle                        | 2. Side defroster duct LH                | 3. Center ventilator duct            |
| 4. Front heating and cooling unit assembly | 5. Floor connector duct LH (if equipped) | 6. Front floor duct LH (if equipped) |
| 7. Front floor duct RH (if equipped)       | 8. Floor connector duct RH (if equipped) | 9. Side defroster duct RH            |

↶ Front

## DEFROSTER NOZZLE

### DEFROSTER NOZZLE : Removal and Installation

INFOID:000000006942735

#### REMOVAL

1. Remove the side defroster ducts (LH/RH). Refer to [VTL-6, "SIDE DEFROSTER DUCT : Removal and Installation"](#).
2. Remove the defroster nozzle screws.
3. Remove the defroster nozzle.

#### INSTALLATION

Installation is in the reverse order of removal.

## CENTER VENTILATOR DUCT

### CENTER VENTILATOR DUCT : Removal and Installation

INFOID:000000006942736

#### REMOVAL

1. Remove the instrument panel. Refer to [IP-15, "Removal and Installation"](#).
2. Remove the center ventilator duct screws.
3. Remove the center ventilator duct.

#### INSTALLATION

Installation is in the reverse order of removal.

## SIDE DEFROSTER DUCT

### SIDE DEFROSTER DUCT : Removal and Installation

INFOID:000000007882242

#### REMOVAL

1. Remove the instrument panel. Refer to [IP-15, "Removal and Installation"](#).
2. Remove the side defroster duct screws.
3. Remove the side defroster duct (LH/RH).

#### INSTALLATION

Installation is in the reverse order of removal.

## FRONT FLOOR DUCT

### FRONT FLOOR DUCT : Removal and Installation

INFOID:000000007955504

#### REMOVAL

1. Remove the front floor trim. Refer to [INT-50, "Removal and Installation - Passenger Van"](#).
2. Disconnect the front floor duct from the front connector duct (LH/RH).
3. Remove the front floor duct (LH/RH).

#### INSTALLATION

Installation is in the reverse order of removal.

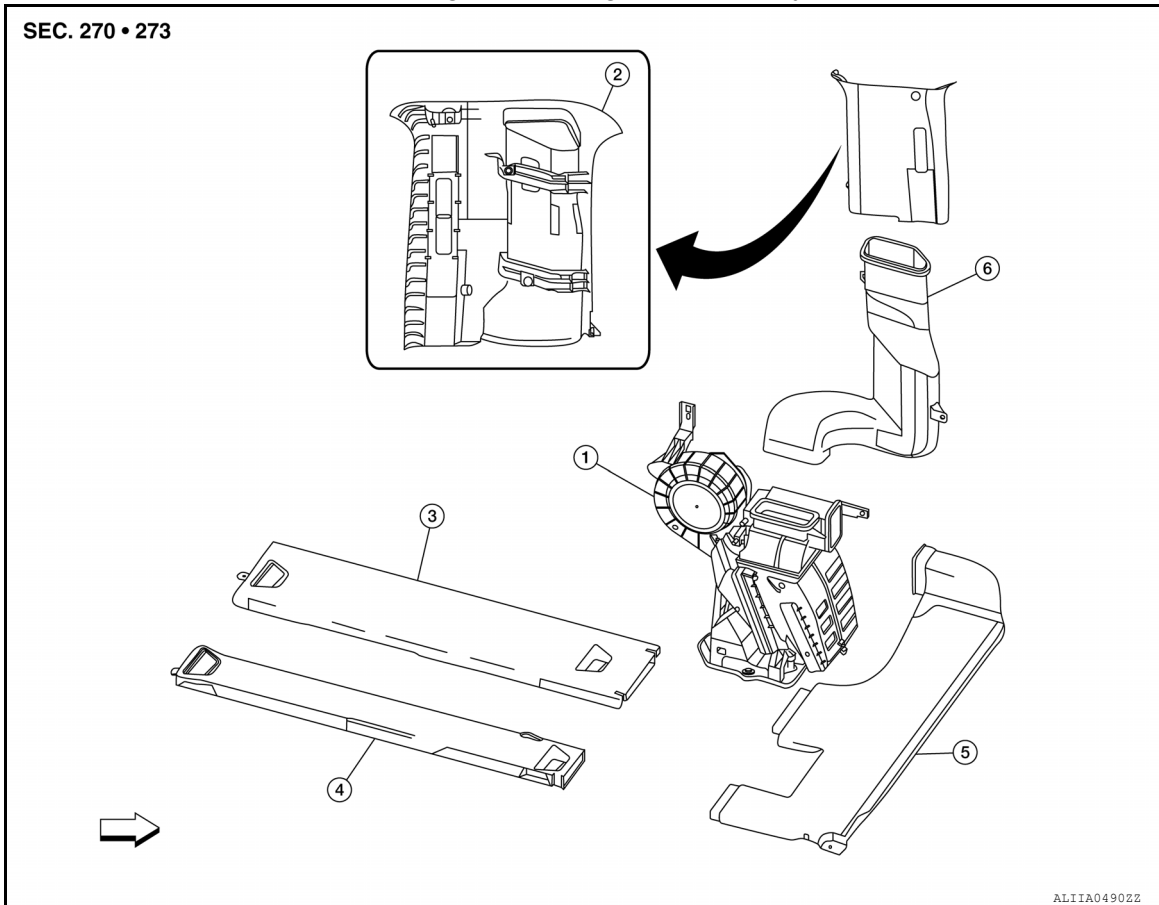
# DUCTS AND GRILLES

< REMOVAL AND INSTALLATION >

Exploded View

INFOID:000000007956445

Ducts - Rear heating and cooling unit assembly (if equipped)



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|---|--|-------------------------------|
| 1. Rear heating and cooling unit assembly | 2. Center upper pillar finisher LH (rear ventilator) | 3. Rear floor duct LH         |
| 4. Rear floor duct RH                     | 5. Rear floor connecting duct                        | 6. Rear ventilator duct lower |
- ⇐ Front

## REAR FLOOR DUCT

### REAR FLOOR DUCT : Removal and Installation - Rear Floor Duct

INFOID:000000007956444

#### REMOVAL

1. Remove the rear floor trim. Refer to [INT-50. "Removal and Installation - Passenger Van"](#).
2. Remove the rear floor duct screws, then remove the rear floor duct (LH/RH).

#### INSTALLATION

Installation is in the reverse order of removal.

### REAR FLOOR DUCT : Removal and Installation - Rear Floor Connecting Duct

INFOID:000000008030157

#### REMOVAL

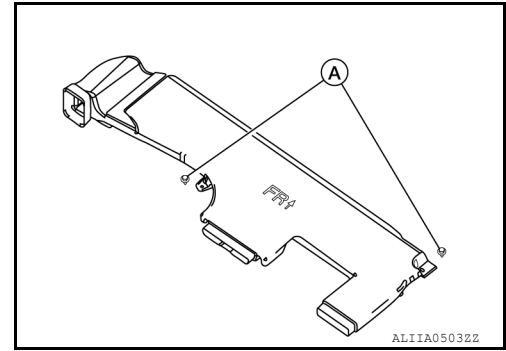
1. Remove the center pillar lower finisher LH. Refer to [INT-28. "CENTER PILLAR LOWER FINISHER : Removal and Installation"](#).
2. Partially remove the rear floor trim. Refer to [INT-50. "Removal and Installation - Passenger Van"](#).

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## DUCTS AND GRILLES

### < REMOVAL AND INSTALLATION >

3. Remove the rear floor connecting duct screws (A), then remove the rear floor connecting duct.



### INSTALLATION

Installation is in the reverse order of removal.

### REAR VENTILATOR DUCT

#### REAR VENTILATOR DUCT : Removal and Installation - Rear Ventilator Duct Lower

INFOID:000000007956448

### REMOVAL

1. Remove the center pillar lower finisher LH. Refer to [INT-28, "CENTER PILLAR LOWER FINISHER : Removal and Installation"](#).
2. Remove the rear ventilator duct lower.

### INSTALLATION

Installation is in the reverse order of removal.

#### REAR VENTILATOR DUCT : Removal and Installation - Rear Ventilator Duct Upper

INFOID:000000007956447

### REMOVAL

1. Remove the center pillar upper finisher LH. Refer to [INT-29, "CENTER PILLAR UPPER FINISHER : Removal and Installation"](#).

#### NOTE:

The rear ventilator duct upper is serviced as part of the center upper pillar finisher LH on passenger vans.

### INSTALLATION

Installation is in the reverse order of removal.

### Exploded View

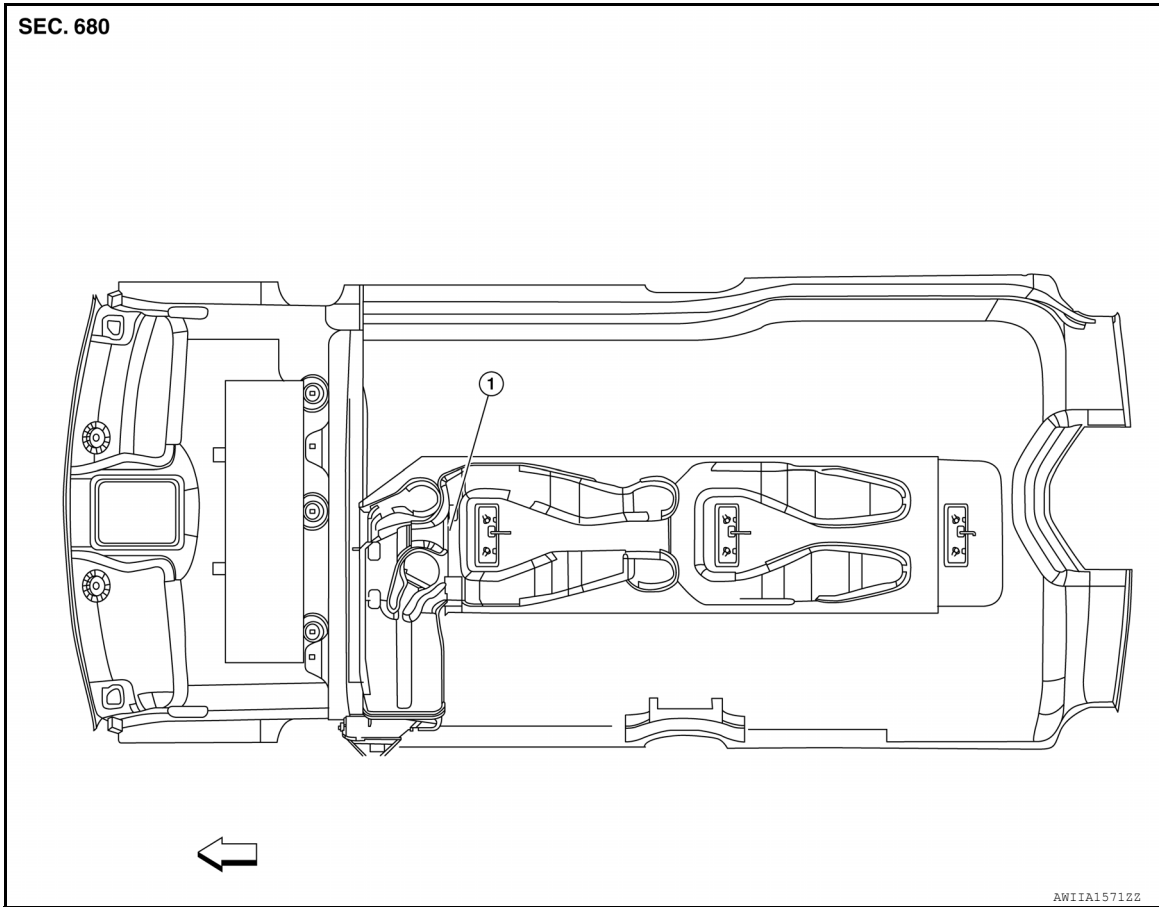
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# DUCTS AND GRILLES

< REMOVAL AND INSTALLATION >

Ducts - Rear overhead (if equipped)



1. Roof duct

← Front

## ROOF DUCT

### ROOF DUCT : Removal and Installation

INFOID:000000007956446

#### REMOVAL

The roof duct is serviced as part of the headlining. Refer to [INT-54, "Front Headlining"](#).

#### INSTALLATION

Installation is in the reverse order of removal.

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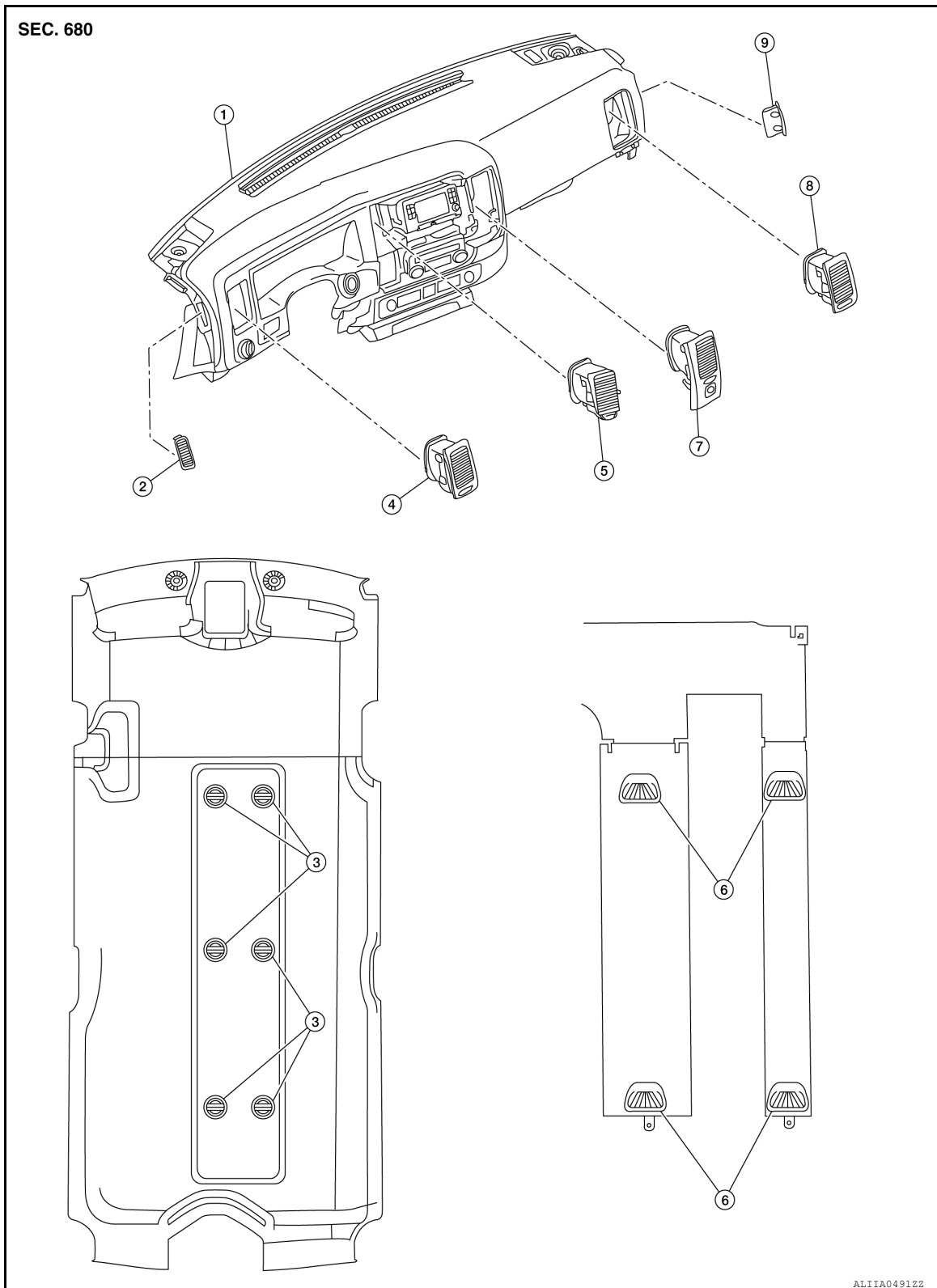
# DUCTS AND GRILLES

< REMOVAL AND INSTALLATION >

Exploded View

INFOID:000000007882241

## Grilles



- |                                |                                |   |
|--------------------------------|--------------------------------|---|
| 1. Instrument panel            | 2. Side defroster grille LH    | 3. Rear ventilator grille (if equipped) |
| 4. Side ventilator grille LH   | 5. Center ventilator grille LH | 6. Rear floor grille (if equipped)      |
| 7. Center ventilator grille RH | 8. Side ventilator grille RH   | 9. Side defroster grille RH             |

## CENTER VENTILATOR GRILLES

Revision: March 2012

VTL-10

2012 NV

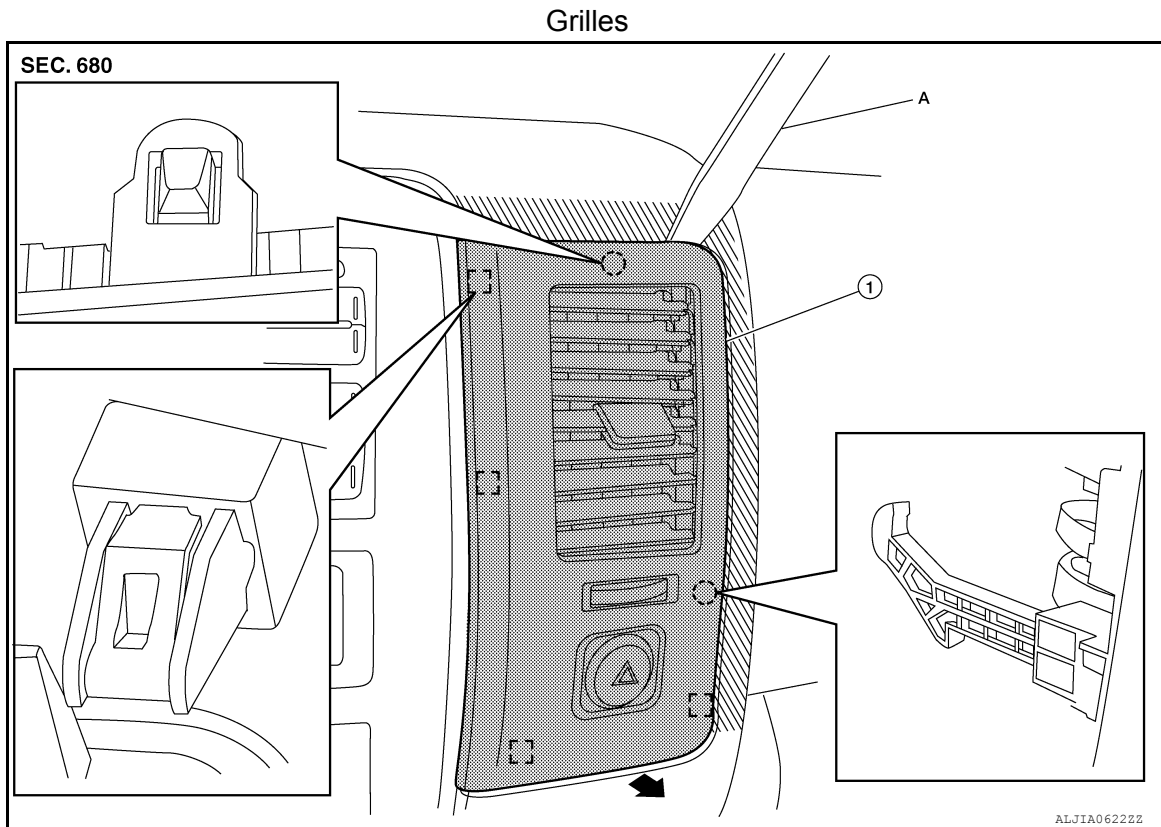
# DUCTS AND GRILLES

< REMOVAL AND INSTALLATION >

## CENTER VENTILATOR GRILLES : Removal and Installation

INFOID:000000006942741

### CENTER VENTILATOR GRILLE RH



1. Center ventilator grille (RH)

A. Suitable tool

☐ Metal clip

○ Pawl

#### Removal

1. Release the center ventilator grille RH from the instrument panel using a taped suitable tool.

#### **CAUTION:**

**Use care when removing the center ventilator grille (RH). Place protective tape around the component and suitable tool to avoid damage to the instrument panel.**

2. Disconnect the harness connector from the hazard switch.
3. Remove the center ventilator grille RH.

#### Installation

Installation is in the reverse order of removal.

### CENTER VENTILATOR GRILLE LH

#### Removal

1. Remove cluster lid C. Refer to [IP-22, "Removal and Installation"](#).
2. Release the clips and remove the center ventilator grille LH from the front of cluster lid C.

#### Installation

Installation is in the reverse order of removal.

## SIDE VENTILATOR GRILLES

### SIDE VENTILATOR GRILLES : Removal and Installation

INFOID:000000006942742

### SIDE VENTILATOR GRILLE RH

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# DUCTS AND GRILLES

## < REMOVAL AND INSTALLATION >

### Removal

1. Remove the instrument lower panel RH and glove box assembly. Refer to [IP-24. "Removal and Installation"](#).
2. Remove the screw and the side ventilator grille RH from the instrument panel.

### Installation

Installation is in the reverse order of removal.

### CAUTION:

**Use care not to damage the instrument panel when inserting the side ventilator grille RH.**

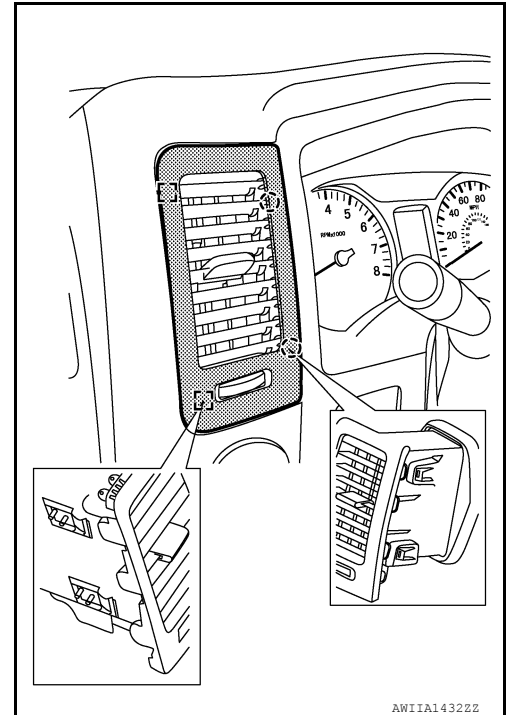
## SIDE VENTILATOR GRILLE LH

### Removal

1. Remove the instrument lower panel LH. Refer to [IP-18. "Removal and Installation"](#).
2. Release the clips and remove the side ventilator grille LH from the front of the instrument panel.

☐: Metal Clip

○: Pawl



### Installation

Installation is in the reverse order of removal.

### CAUTION:

**Use care not to damage the instrument panel when inserting the side ventilator grille LH.**

## SIDE DEFROSTER GRILLES

### SIDE DEFROSTER GRILLES : Removal and Installation

INFOID:000000006942744

### REMOVAL

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

### CAUTION:

**Use a taped or plastic suitable tool to remove the side defroster 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:000000007958409

### REMOVAL

# DUCTS AND GRILLES

## < REMOVAL AND INSTALLATION >

1. Release the clips and remove the rear ventilator grille(s) from the headlining.

### INSTALLATION

Installation is in the reverse order of removal.

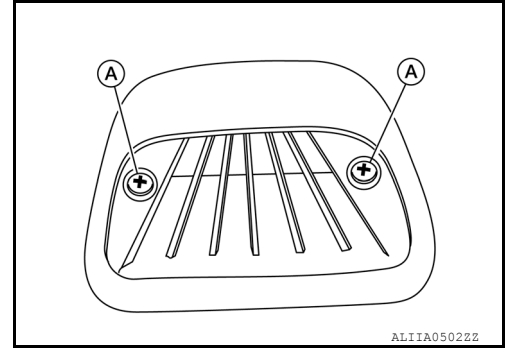
### REAR FLOOR GRILLE

### REAR FLOOR GRILLE : Removal and Installation

INFOID:000000008017968

### REMOVAL

1. Remove the two screws (A) from the rear floor grille.
2. Remove the rear floor grille.



### INSTALLATION

Installation is in the reverse order of removal.

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# BLOWER MOTOR

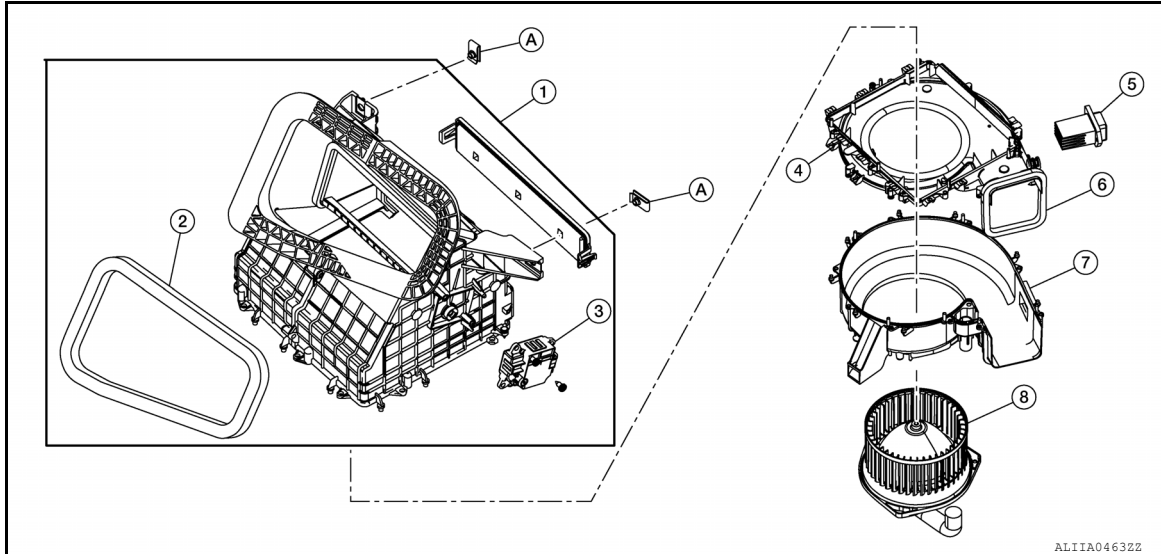
< REMOVAL AND INSTALLATION >

## BLOWER MOTOR

Component

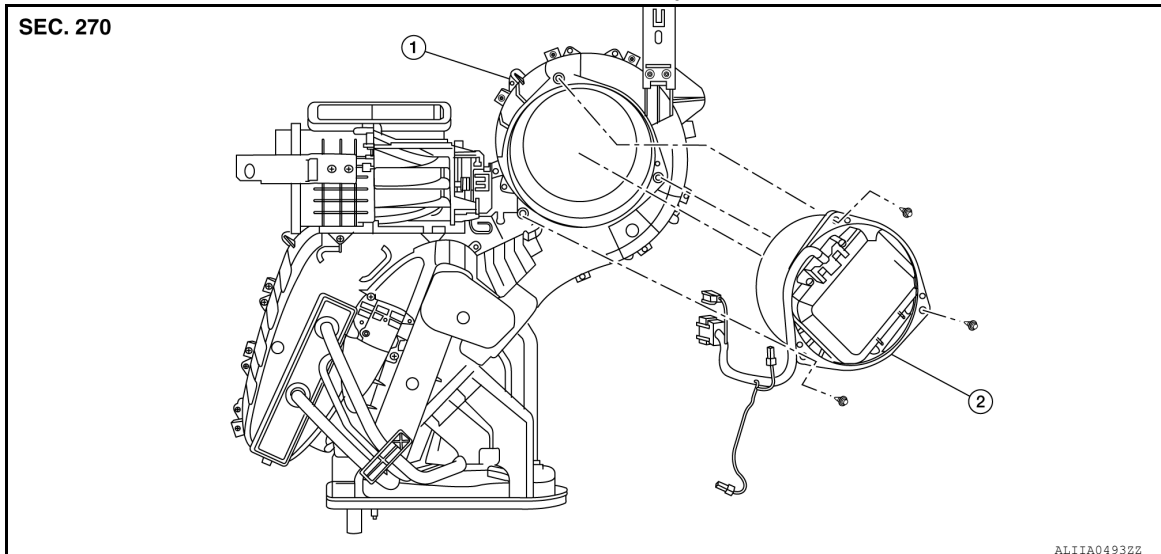
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Front Blower Motor Assembly



- |                                     |                       |                         |
|-------------------------------------|-----------------------|-------------------------|
| 1. Upper blower motor unit assembly | 2. Blower unit seal   | 3. Intake door actuator |
| 4. Lower blower unit duct           | 5. Power transistor   | 6. Blower unit seal     |
| 7. Lower blower motor cover         | 8. Front blower motor | A. Nut                  |

Rear Blower Motor Assembly (If Equipped)



- |   |                      |
|---|----------------------|
| 1. Rear heating and cooling unit assembly | 2. Rear blower motor |
|---|----------------------|

## Removal and Installation - Front Blower Motor

INFOID:000000006931385

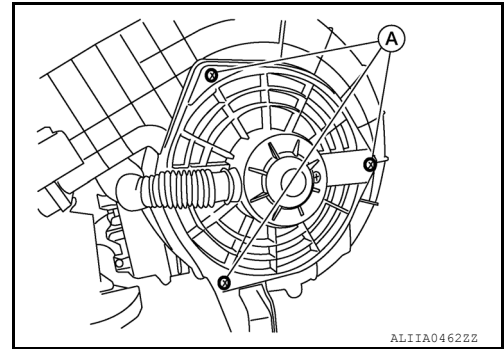
### REMOVAL

1. Disconnect the front blower motor vent hose.

# BLOWER MOTOR

## < REMOVAL AND INSTALLATION >

2. Remove the three front blower motor bolts (A).



3. Disconnect the harness connector from the front blower motor.
4. Separate and remove the front blower motor from the blower motor unit.

**NOTE:**

Do not disassemble the front blower motor to replace individual components, replace as an assembly.

### INSTALLATION

Installation is in the reverse order of removal.

### Removal and Installation - Rear Blower Motor (If Equipped)

INFOID:000000007958410

#### REMOVAL

1. Remove the rear heater and cooling unit assembly. Refer to [HA-80, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation - Rear Heating and Cooling Unit"](#).
2. Disconnect the harness connector from the rear blower motor.
3. Remove the rear blower motor bolts.
4. Remove the rear blower motor from the rear heater and cooling unit assembly.

**NOTE:**

Do not disassemble the rear blower motor to replace individual components, replace as an assembly.

#### INSTALLATION

Installation is in the reverse order of removal.

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# BLOWER MOTOR RESISTOR

< REMOVAL AND INSTALLATION >

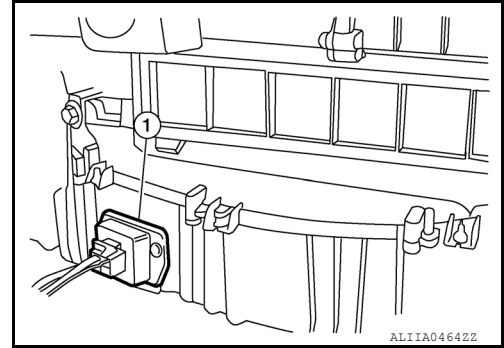
## BLOWER MOTOR RESISTOR

### Removal and Installation

INFOID:000000007236357

#### REMOVAL

1. Remove the instrument lower panel RH and glove box. Refer to [IP-24. "Removal and Installation"](#).
2. Remove the two screws that retain the blower motor resistor (1) to the front blower motor assembly.



3. Disconnect the harness connector from the blower motor resistor.
4. Remove the blower motor resistor.

#### INSTALLATION

Installation is in the reverse order of removal.