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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:000000012408348

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.

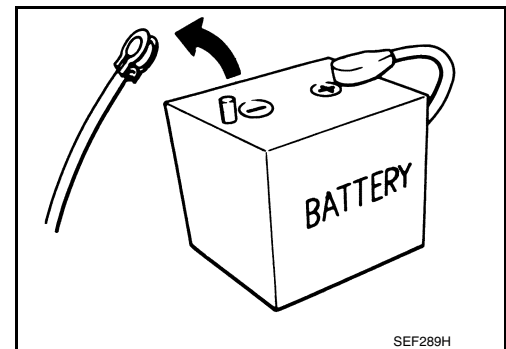
Precautions for Removing Battery Terminal

INFOID:000000013036728

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

D4D engine	: 20 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		
V9X engine	: 4 minutes		
YD25DDTi	: 2 minutes		



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.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

PRECAUTIONS

< PRECAUTION >

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
 - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
 - Driving for 30 minutes or more on a steep slope.
- 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.

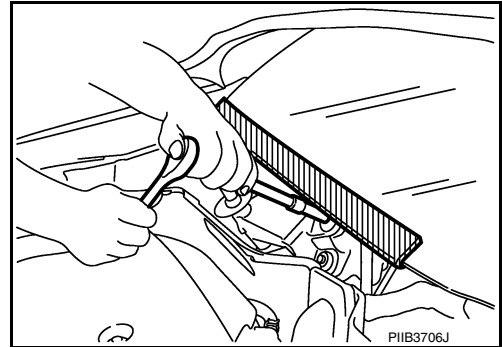
NOTE:

The removal of 12V battery may cause a DTC detection error.

Precaution for Procedure without Cowl Top Cover

INFOID:000000012408349

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



PREPARATION

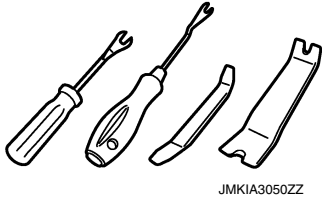
< PREPARATION >

PREPARATION

PREPARATION

Commercial Service Tool

INFOID:000000012408351

Tool name	Description
Remover tool 	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

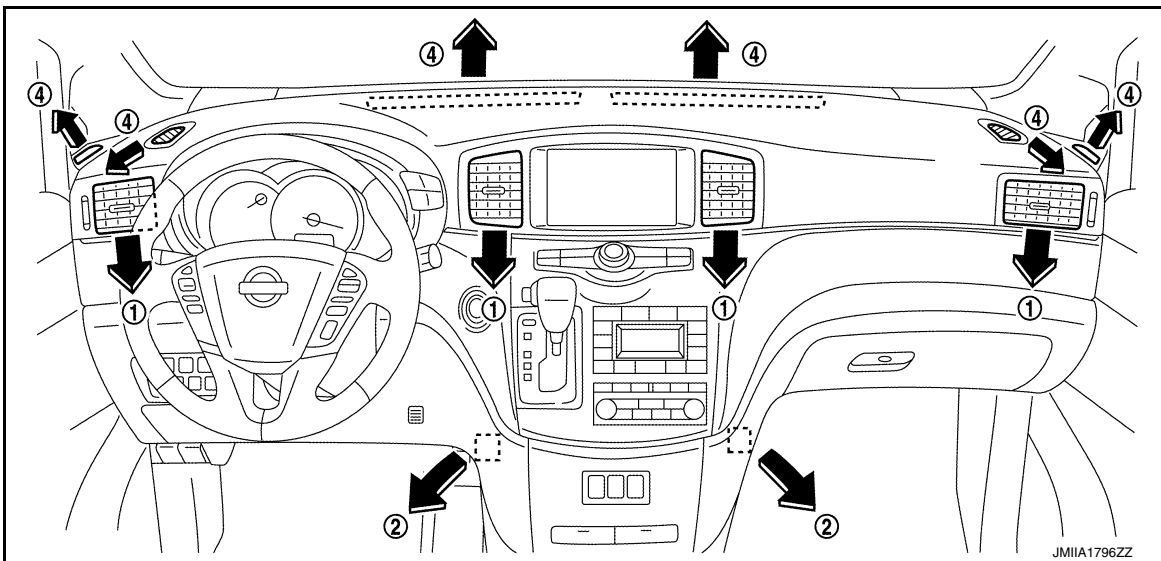
INFOID:000000012408352

OUTLINE

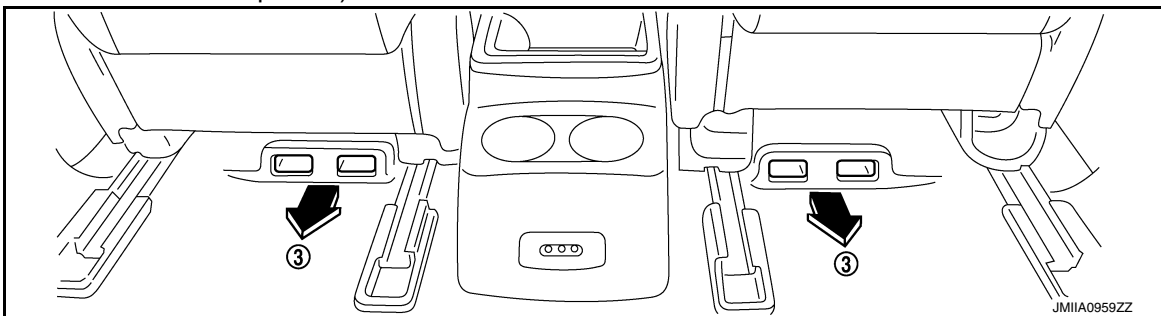
Ventilation system is controlled by A/C auto amp. (AUTOMATIC AIR CONDITIONING) or A/C amp. (MANUAL AIR CONDITIONING). For details of air conditioning system, refer to [HAC-17, "FRONT AUTOMATIC AIR CONDITIONING SYSTEM : System Description"](#) (AUTOMATIC AIR CONDITIONING) or [HAC-166, "FRONT MANUAL AIR CONDITIONING SYSTEM : System Description"](#) (MANUAL AIR CONDITIONING).

AIR FLOW

Front



Rear (Second seat underfoot portion)



x: Applicable

MODE/DEF position indication	Air outlet				
	Ventilator (1)		Foot		Defroster (4)
	Center	Side	Front (2)	Rear (3)	
	x	x	—	—	—
	x	x	x	x	—
	—	x	x	x	x
	—	x	x	x	x
	—	x	—	—	x

VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

VENTILATION SYSTEM (REAR AIR CONDITIONING)

VENTILATION SYSTEM (REAR AIR CONDITIONING) : System Description

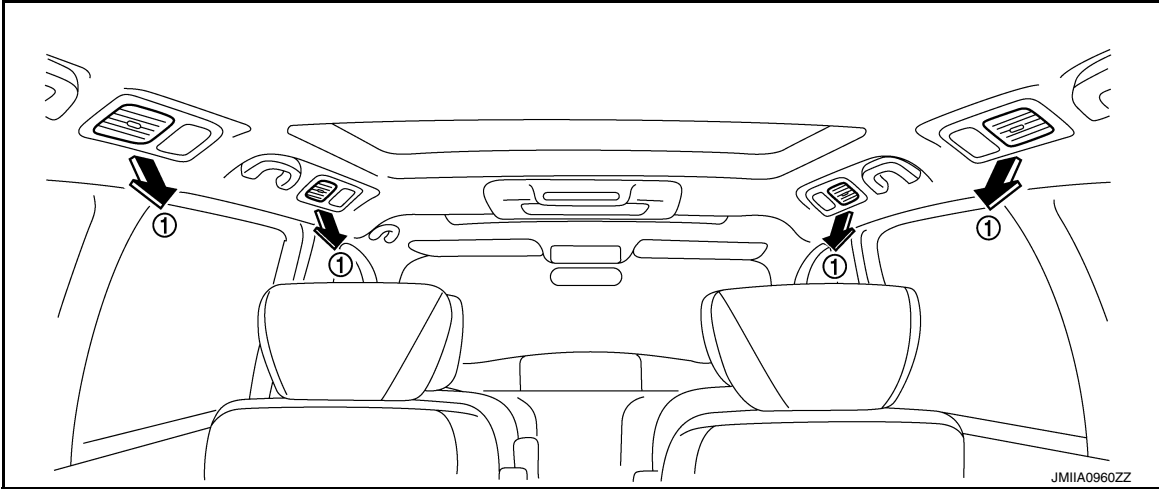
INFOID:000000012408353

OUTLINE

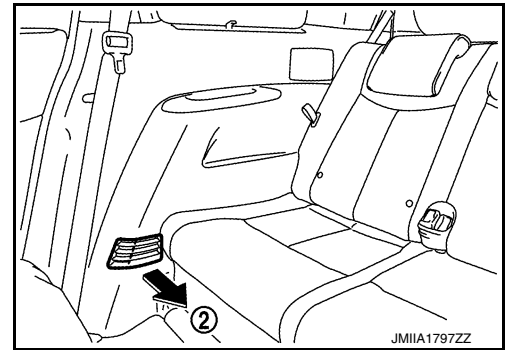
Ventilation system is controlled by A/C auto amp. (AUTOMATIC AIR CONDITIONING) or A/C amp. (MANUAL AIR CONDITIONING). For details of air conditioning system, refer to [HAC-27. "REAR AUTOMATIC AIR CONDITIONING SYSTEM : System Description"](#) (AUTOMATIC AIR CONDITIONING) or [HAC-171. "REAR MANUAL AIR CONDITIONING SYSTEM : System Description"](#) (MANUAL AIR CONDITIONING).

AIR FLOW

Headlining



Rear (Third seat underfoot portion)



×: Applicable

Mode position	Air outlet	
	Ventilator (1)	Foot (2)
	×	—
	×	×
	—	×

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

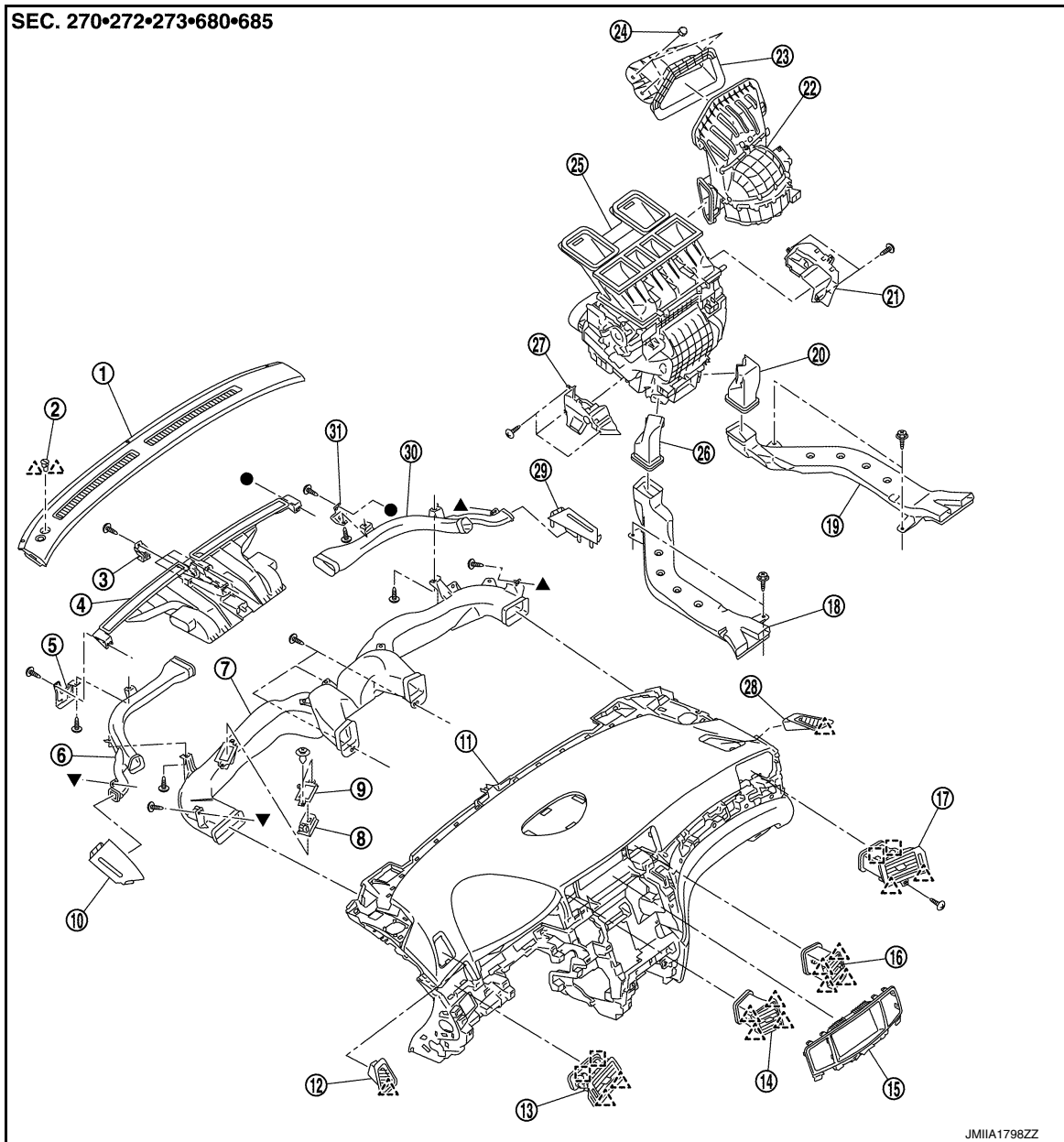
REMOVAL AND INSTALLATION

DUCT AND GRILLE

Exploded View

INFOID:000000012408354

FRONT



- | | | |
|------------------------------------|---------------------------------|------------------------------------|
| 1. Instrument upper garnish | 2. Sunload sensor | 3. Instrument panel center bracket |
| 4. Front defroster nozzle | 5. Instrument panel bracket LH | 6. Side defroster nozzle LH |
| 7. Center ventilator duct | 8. Ionizer (if equipped) | 9. Ionizer bracket (if equipped) |
| 10. Front pillar lower garnish LH | 11. Instrument panel | 12. Side defroster grille LH |
| 13. Side ventilator grille LH | 14. Center ventilator grille LH | 15. Cluster lid D |
| 16. Center ventilator grille RH | 17. Side ventilator grille RH | 18. Front floor duct 2 LH |
| 19. Front floor duct 2 RH | 20. Front floor duct 1 RH | 21. Foot duct RH |
| 22. Blower unit assembly | 23. Intake duct | 24. Clip |
| 25. Heater & cooling unit assembly | 26. Front floor duct 1 LH | 27. Foot duct LH |

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

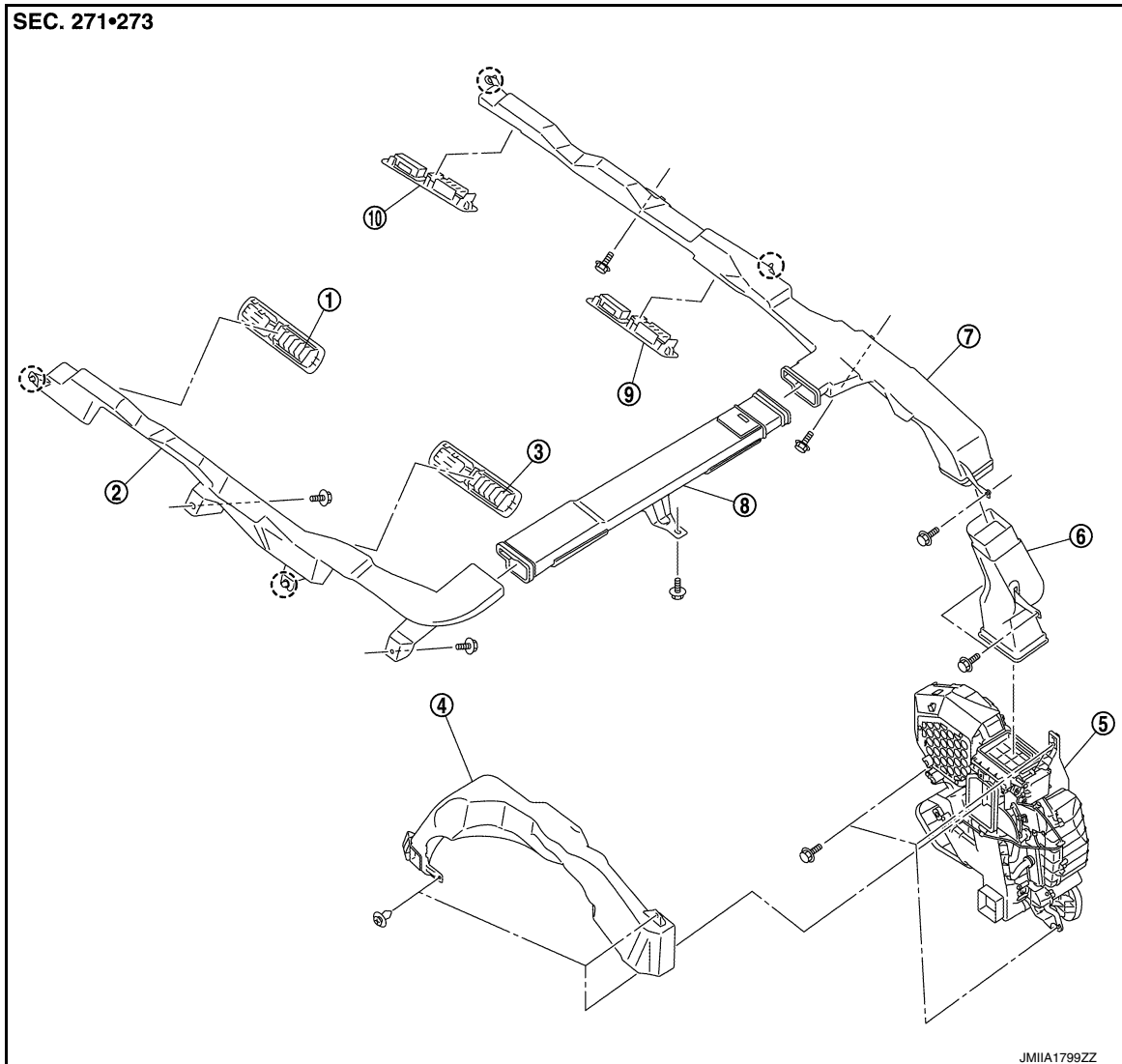
28. Side defroster grille RH 29. Front pillar lower garnish RH 30. Side defroster nozzle RH
 31. Instrument panel bracket RH

△ : Pawl

□ : Metal clip

●, ▲, ▼ : Indicates that the part is connected at points with same symbol in actual vehicle.

REAR



- | | | |
|---------------------------------|---------------------------------|--------------------------------|
| 1. Rear ventilator grille 1 LH | 2. Rear upper ventilator duct 1 | 3. Rear ventilator grille 2 LH |
| 4. Rear foot duct 1 | 5. Rear A/C unit assembly | 6. Rear ventilator pillar duct |
| 7. Rear upper ventilator duct 3 | 8. Rear upper ventilator duct 2 | 9. Rear ventilator grille 2 RH |
| 10. Rear ventilator grille 1 RH | | |

□ : Clip

CENTER VENTILATOR GRILLE

CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000012408355

REMOVAL

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

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DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

INSTALLATION

Install in the reverse order of removal.

SIDE VENTILATOR GRILLE

SIDE VENTILATOR GRILLE : Removal and Installation

INFOID:000000012408356

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#).
2. Remove fixing screw (passenger side only).
3. Disengage fixing pawls and metal clips, and then remove side ventilator grille.

INSTALLATION

Install in the reverse order of removal.

SIDE DEFROSTER GRILLE

SIDE DEFROSTER GRILLE : Removal and Installation


INFOID:000000012408357

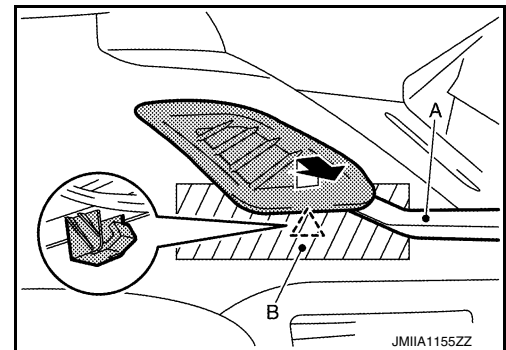
REMOVAL

Disengage fixing pawl using a remover tool (A), and then remove side defroster grille.

CAUTION:

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

 : Pawl



INSTALLATION

Install in the reverse order of removal.

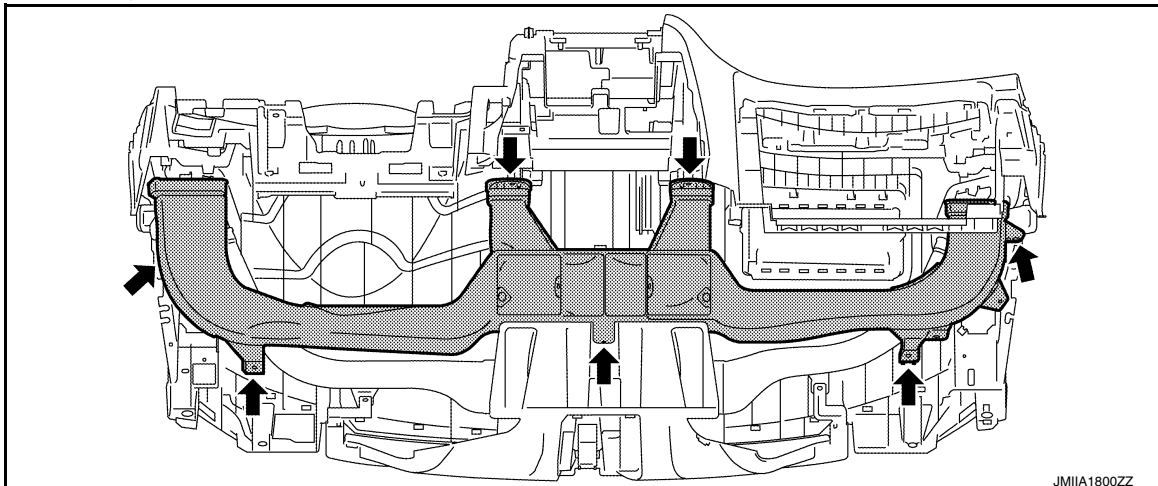
CENTER VENTILATOR DUCT


CENTER VENTILATOR DUCT : Removal and Installation

INFOID:000000012408358

REMOVAL

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



 : Screw

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

INSTALLATION

Install in the reverse order of removal.

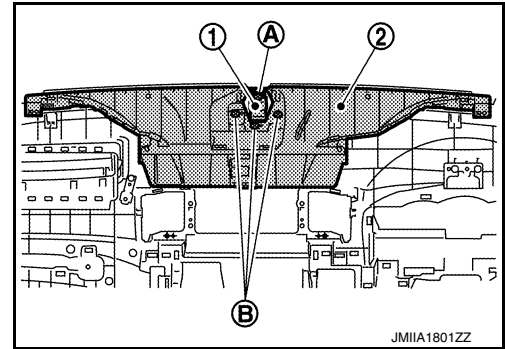
FRONT DEFROSTER NOZZLE

FRONT DEFROSTER NOZZLE : Removal and Installation

INFOID:000000012408359

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#).
2. Remove center ventilator duct. Refer to [VTL-10, "CENTER VENTILATOR DUCT : Removal and Installation"](#).
3. Remove side defroster nozzle LH and RH. Refer to [VTL-11, "SIDE DEFROSTER NOZZLE : Removal and Installation"](#).
4. Remove fixing screw (A), and then remove instrument panel center bracket (1).
5. Remove fixing screws (B), and then remove front defroster nozzle (2).



INSTALLATION

Install in the reverse order of removal.

SIDE DEFROSTER NOZZLE

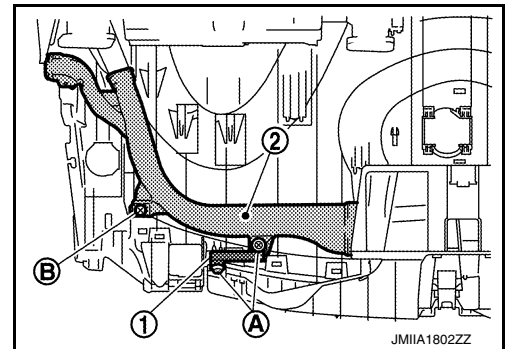
SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:000000012408360

REMOVAL

Driver Side

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



Passenger Side

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

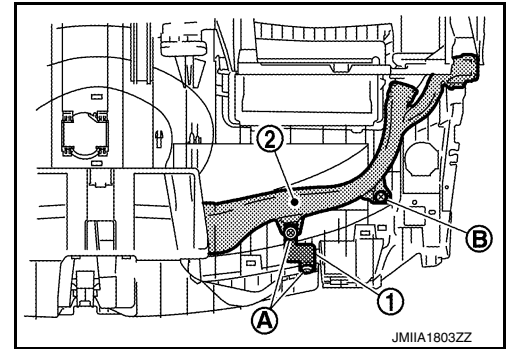
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DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

2. Remove fixing screws (A), and then remove instrument panel bracket RH (1).
3. Remove fixing screw (B), and then remove side defroster nozzle RH (2).



INSTALLATION

Install in the reverse order of removal.

FRONT FLOOR DUCT 1

FRONT FLOOR DUCT 1 : Removal and Installation

INFOID:000000012408361

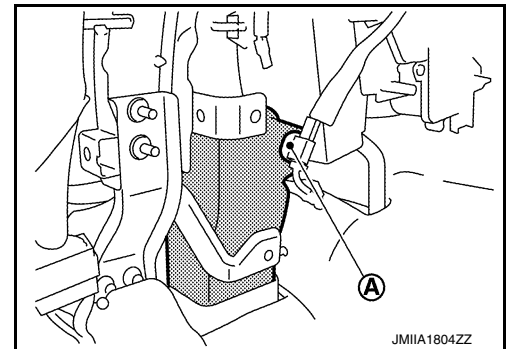
REMOVAL

Driver Side

1. Remove instrument lower cover LH. Refer to [IP-14. "Removal and Installation"](#).
2. Remove front floor duct 1 LH.

Passenger Side

1. Remove instrument lower cover RH. Refer to [IP-14. "Removal and Installation"](#).
2. Remove harness fixing clip (A), and then remove front floor duct 1 RH.



INSTALLATION

Install in the reverse order of removal.

FRONT FLOOR DUCT 2

FRONT FLOOR DUCT 2 : Removal and Installation

INFOID:000000012408362

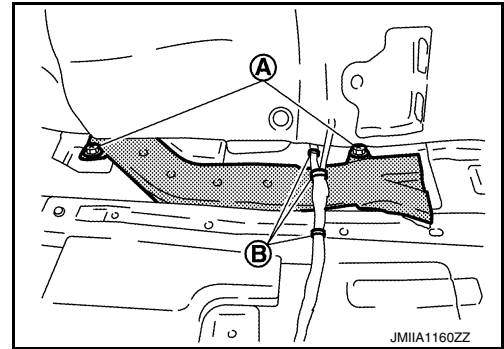
REMOVAL

1. Pull up front of front floor carpet to secure work space. Refer to [INT-30. "FRONT FLOOR CARPET : Removal and Installation"](#).
2. Remove front floor spacer. Refer to [INT-30. "Exploded View"](#).

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

3. Remove fixing screws (A) and harness clips (B), and then remove front floor duct 2.



INSTALLATION

Install in the reverse order of removal.

FOOT DUCT

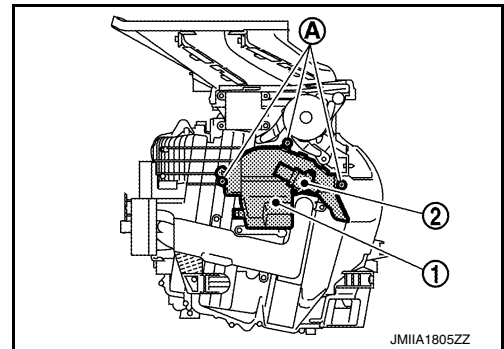
FOOT DUCT : Removal and Installation

INFOID:000000012408363

REMOVAL

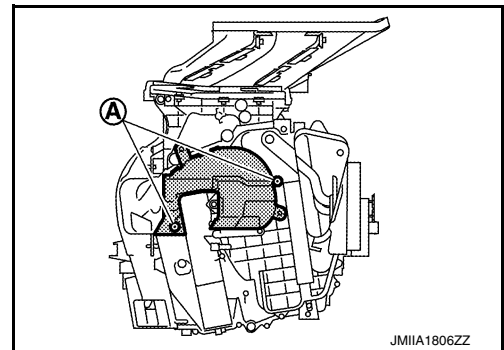
Driver Side

1. Remove instrument lower cover LH. Refer to [IP-14. "Removal and Installation"](#).
2. Remove fixing screws (A), and then remove foot duct LH (1) and aspirator (2) from heater & cooling unit assembly as a set.



Passenger Side

1. Remove heater & cooling unit assembly. Refer to [HA-48. "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove fixing screws (A), and then remove foot duct RH from heater & cooling unit assembly.



INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR GRILLE

REAR VENTILATOR GRILLE : Removal and Installation

INFOID:000000012408364

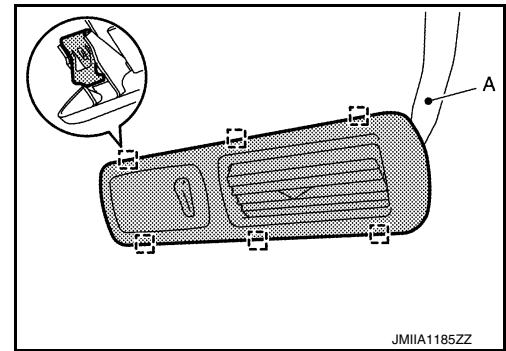
REMOVAL

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

Disengage fixing metal clips using a remover tool (A), and then remove rear ventilator grille.

 : Metal clip



INSTALLATION

Install in reverse order of removal.

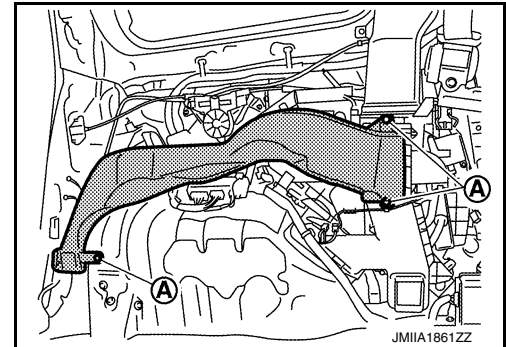
REAR FOOT DUCT

REAR FOOT DUCT : Removal and Installation

INFOID:000000012408365

REMOVAL

1. Remove luggage side lower finisher RH. Refer to [INT-43. "LUGGAGE SIDE LOWER FINISHER : Removal and Installation"](#).
2. Remove fixing clips (A), and then remove rear foot duct 1.



INSTALLATION

Install in the reverse order of removal.

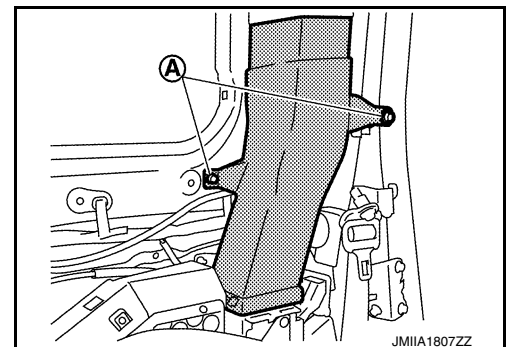
REAR VENTILATOR DUCT

REAR VENTILATOR DUCT : Removal and Installation

INFOID:000000012408366

REMOVAL

1. Remove back pillar garnish RH. Refer to [INT-27. "BACK PILLAR GARNISH : Removal and Installation"](#).
2. Remove mounting bolts (A), and then remove rear ventilator pillar duct.

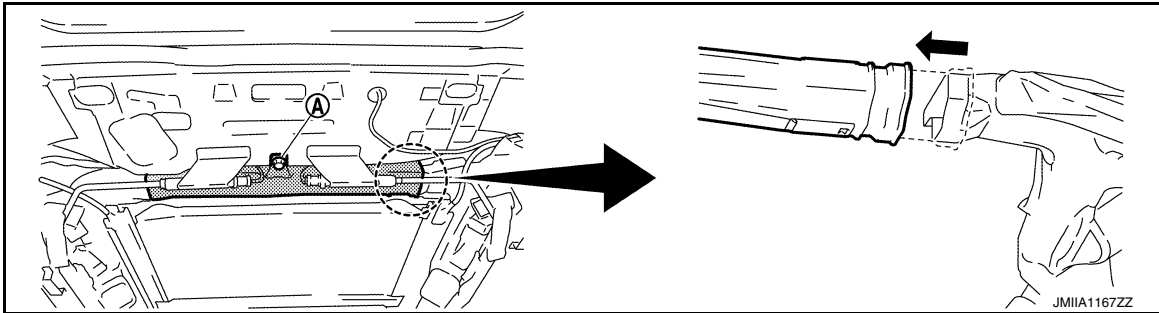


3. Remove headlining. Refer to [INT-35. "Removal and Installation"](#).
4. Remove mounting bolt (A).


DUCT AND GRILLE

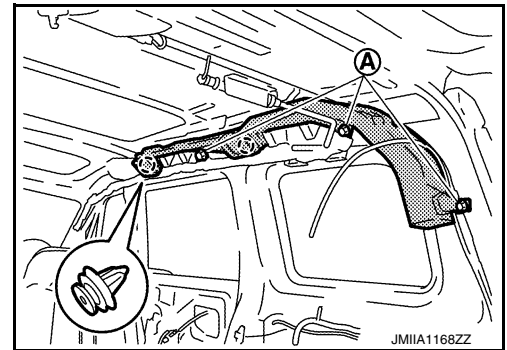
< REMOVAL AND INSTALLATION >

- Slide the right side of rear upper ventilator duct 2 as shown in the figure, disengage rear upper ventilator duct 3, and then remove rear upper ventilator duct 2.




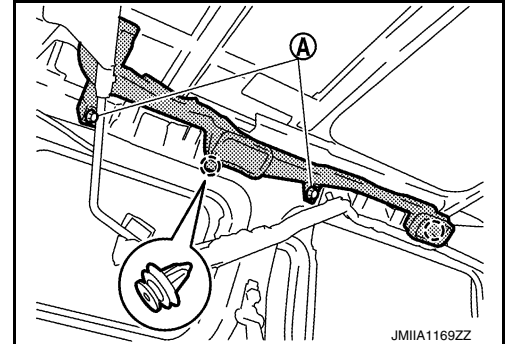
- Remove rear sunroof stay (sunroof models only). Refer to [RF-59. "REAR SUNROOF : Exploded View"](#).
- Remove curtain air bag mounting bolts. Refer to [SR-22. "Exploded View"](#).
- Remove mounting bolts (A), and then remove fixing clips.

 : Clip



- Remove rear upper ventilator duct 3.
- Remove mounting bolts (A), and then remove fixing clips.

 : Clip



- Remove rear upper ventilator duct 1.

INSTALLATION

Install in the reverse order of removal.

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BLOWER UNIT

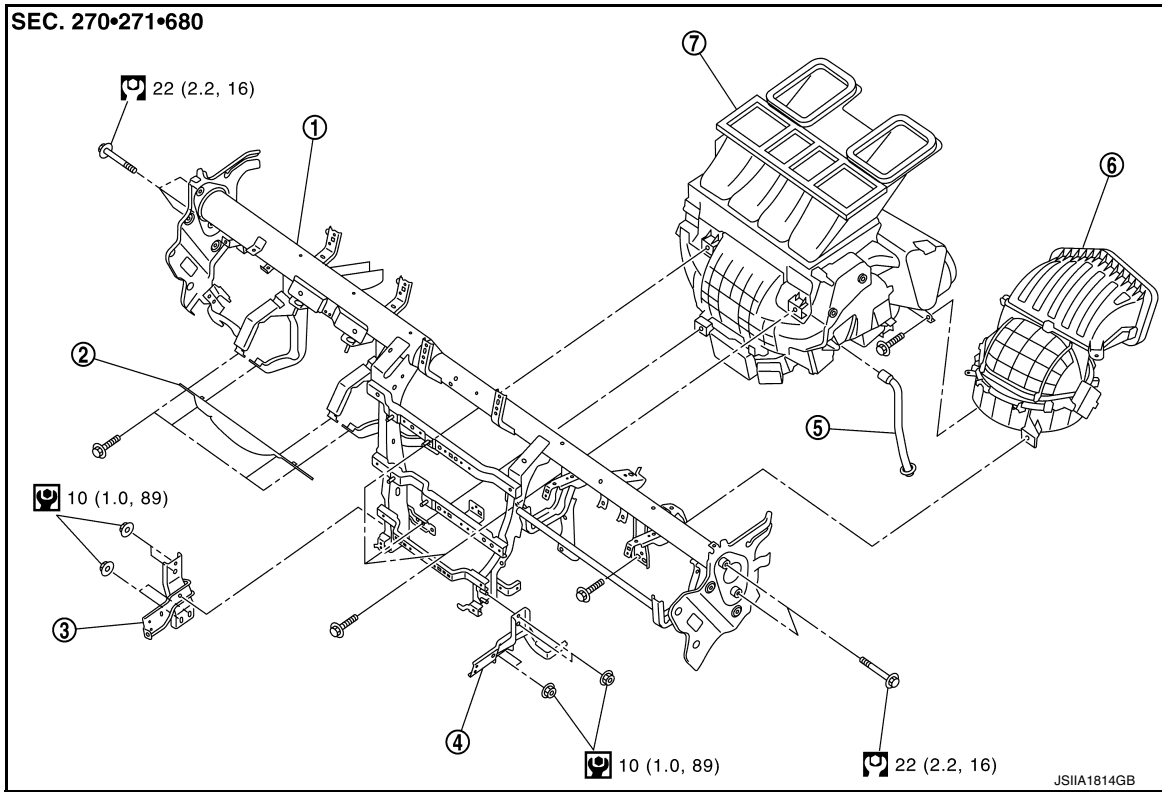
< REMOVAL AND INSTALLATION >

BLOWER UNIT


Exploded View


INFOID:000000012408367

REMOVAL



- | | | |
|-----------------------------------|-------------------|-------------------------|
| 1. Steering member | 2. Knee protector | 3. Instrument stay LH |
| 4. Instrument stay RH | 5. Drain hose | 6. Blower unit assembly |
| 7. Heater & cooling unit assembly | | |

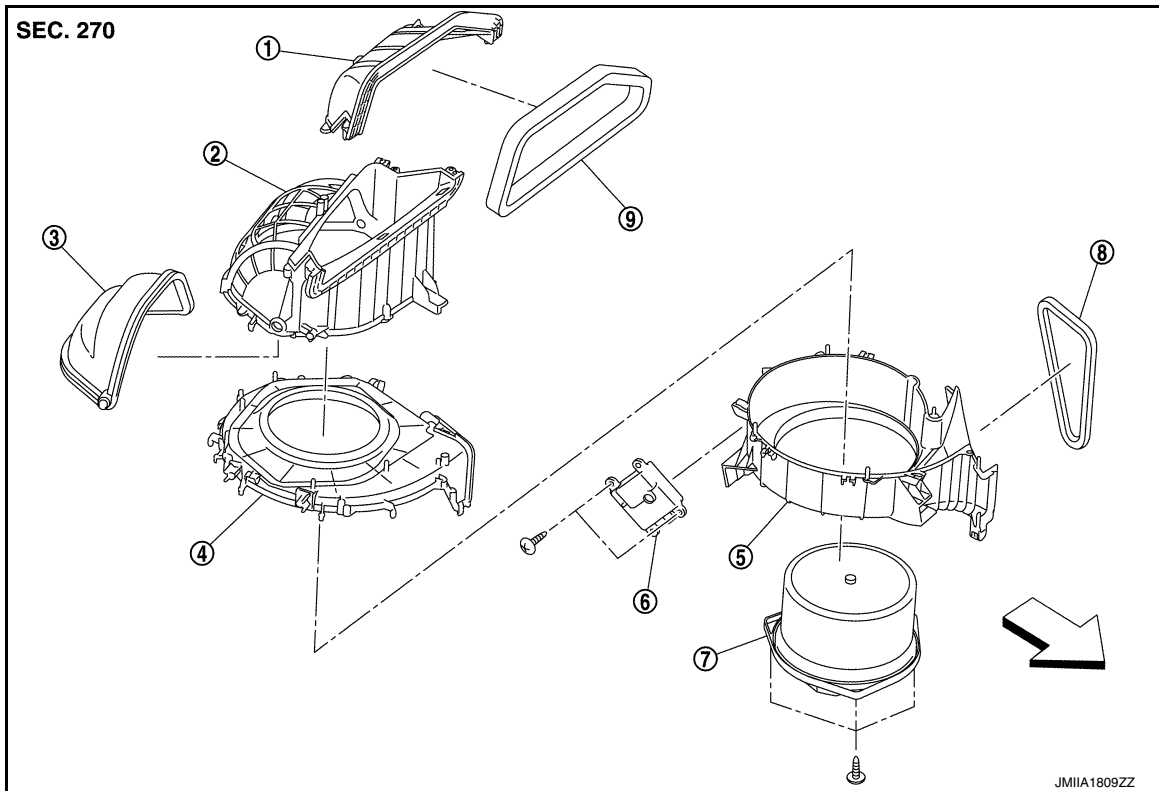
 : N·m (kg-m, ft-lb)

 : N·m (kg-m, in-lb)

DISASSEMBLY

BLOWER UNIT

< REMOVAL AND INSTALLATION >



- | | | |
|----------------------|------------------------|----------------------|
| 1. Intake duct case | 2. Intake shutter case | 3. Intake door |
| 4. Intake upper case | 5. Intake lower case | 6. Intake door motor |
| 7. Blower motor | 8. Outlet seal | 9. Intake seal |

← : Vehicle front

Removal and Installation

INFOID:000000012408368

REMOVAL

1. Remove front A/C unit assembly. Refer to [HA-48, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove fixing screw, and then separate blower unit assembly and heater & cooling unit assembly.

INSTALLATION

Install in the reverse order of removal.

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BLOWER MOTOR

< REMOVAL AND INSTALLATION >

BLOWER MOTOR

Exploded View

INFOID:000000012408369

FRONT BLOWER MOTOR

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

REAR BLOWER MOTOR

Refer to [HA-55. "Exploded View"](#).

FRONT BLOWER MOTOR

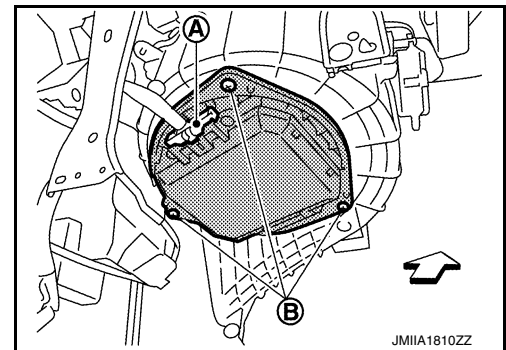
FRONT BLOWER MOTOR : Removal and Installation

INFOID:000000012408370

REMOVAL

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

↔ : Vehicle front



INSTALLATION

Install in the reverse order of removal.

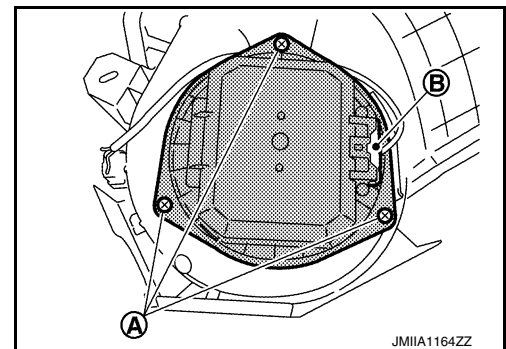
REAR BLOWER MOTOR

REAR BLOWER MOTOR : Removal and Installation

INFOID:000000012408371

REMOVAL

1. Removal rear A/C unit assembly. Refer to [HA-56. "REAR A/C UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove fixing screws (A), and then disconnect harness connector (B).



3. Remove rear blower motor.

INSTALLATION

Install in the reverse order of removal.

IN-CABIN MICROFILTER

< REMOVAL AND INSTALLATION >

IN-CABIN MICROFILTER

Exploded View

INFOID:000000012408372

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

Removal and Installation

INFOID:000000012408373

REMOVAL

1. Remove instrument lower cover RH. Refer to [IP-14, "Removal and Installation"](#).
2. Remove filter cover.
3. Compress in-cabin microfilter while sliding it towards vehicle right side.
4. Remove in-cabin microfilter from heater & cooling unit assembly.

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 then install in the reverse order of removal.

CAUTION:

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

Replacement

INFOID:000000012408374

Replace in-cabin microfilter.

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

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:0000000012408375

Replacement interval	MA-6. "Introduction of Periodic Maintenance".
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