

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:0000000010981797

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. 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.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000011014464

CAUTION:

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

- Before removing and installing any control units, first turn the ignition power source and accessory power source to the OFF, 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. Open driver door.
3. Turn the ignition switch to the ON position.
(At this time, the steering lock will be released.)
4. Turn the ignition switch to OFF position with driver door open.
5. Wait for 3 minutes or longer with driver door open.

NOTE:

- Do not close driver door because the steering wheel locks when driver door is closed.

PRECAUTIONS

< PRECAUTION >

- The auto acc function is adapted to this vehicle. For this reason, even when the ignition switch is turned to OFF position, the accessory power source does not turned OFF and continues to be supplied for a certain amount of time.
- 6. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- 7. Perform the necessary repair operation.
- 8. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from OFF position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
- 9. Perform self-diagnosis check of all control units using CONSULT.

Precautions for Removing Battery Terminal

INFOID:0000000011014465

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the intelligent key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing "How to disconnect 12V battery terminal" described below.

NOTE:

Some ECUs operate for a certain fixed time even after ignition switch is turned OFF and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

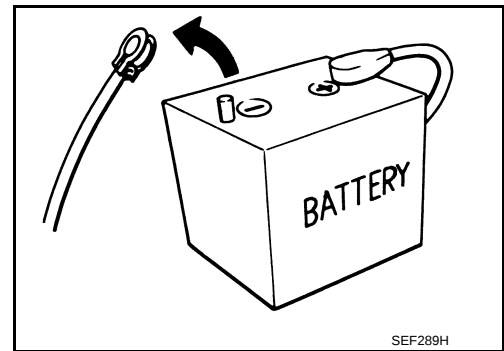
NOTE:

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.



HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to Instruction 1 or Instruction 2 described below.

For vehicles parked by ignition switch OFF, refer to Instruction 2.

INSTRUCTION 1

1. Open the hood.
2. Turn key switch to the OFF position with the driver side door opened.
3. Get out of the vehicle and close the driver side door.
4. Wait at least 3 minutes. For vehicle with the engine listed below, remove the battery terminal after a lapse of the specified time.

D4D engine	: 20 minutes
HRA2DDT	: 12 minutes
K9K engine	: 4 minutes
M9R engine	: 4 minutes
R9M engine	: 4 minutes
V9X engine	: 4 minutes

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.

5. Remove 12V battery terminal.

CAUTION:

After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

INSTRUCTION 2 (FOR VEHICLES PARKED BY IGNITION SWITCH OFF)

1. Unlock the door with intelligent key or remote keyless entry.

PRECAUTIONS

< PRECAUTION >

NOTE:

At this moment, ACC power is supplied.

2. Open the driver side door.
3. Open the hood.
4. Close the driver side door.
5. Wait at least 3 minutes.

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.

6. Remove 12V battery terminal.

CAUTION:

After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

VENTILATION SYSTEM

System Description

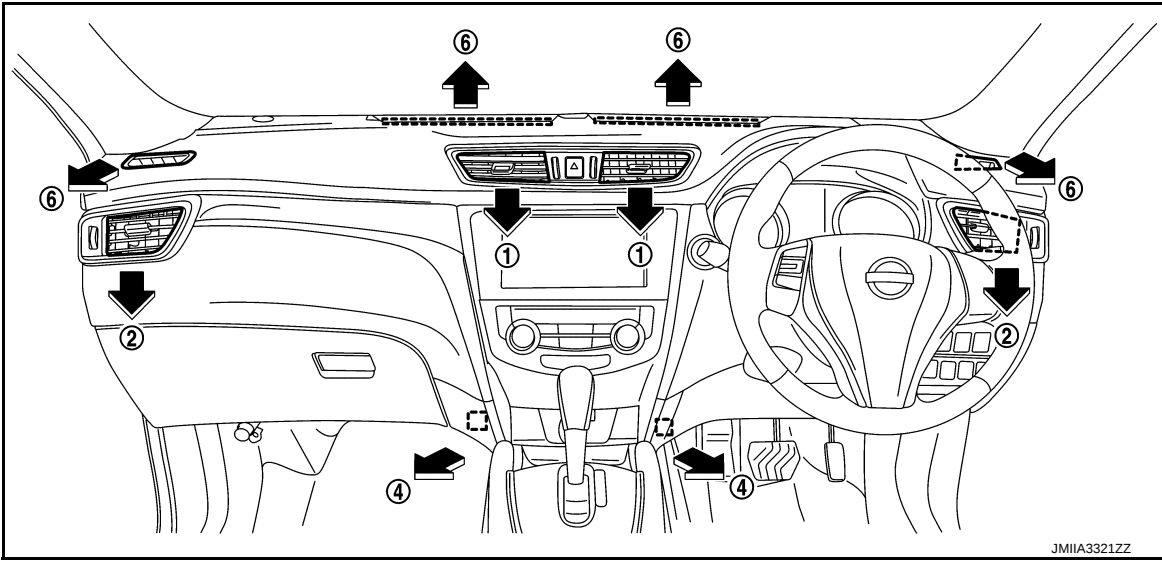
INFOID:0000000010981801

OUTLINE

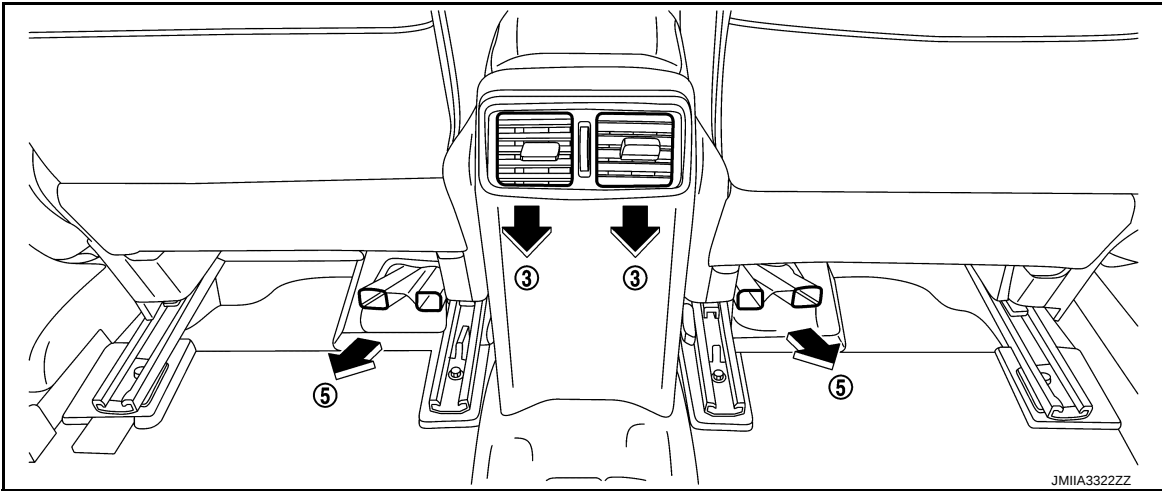
Ventilation system is controlled by A/C auto amp. (AUTOMATIC AIR CONDITIONER) or A/C control (MANUAL AIR CONDITIONER). For details of air conditioner system, refer to [HAC-21, "AUTOMATIC AIR CONDITIONING SYSTEM : System Description"](#) (AUTOMATIC AIR CONDITIONER), [HAC-149, "MANUAL AIR CONDITIONING SYSTEM : System Description"](#) (MANUAL AIR CONDITIONER).

AIR FLOW

Front



Rear



x: Applicable

MODE/DEF position indication	AIR OUTLET					
	Ventilator			Foot		Defroster ⑥
	Front		Rear ③*	Front ④	Rear ⑤	
	Center ①	Side ②				
	×	×	×	—	—	—
	×	×	×	×	×	—

VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

MODE/DEF position indication	AIR OUTLET					
	Ventilator			Foot		Defroster ⑥
	Front		Rear ③*	Front ④	Rear ⑤	
	Center ①	Side ②				
	—	×	×	×	×	×
	—	×	×	×	×	×
	—	×	×	—	—	×

*: with rear ventilator grille

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

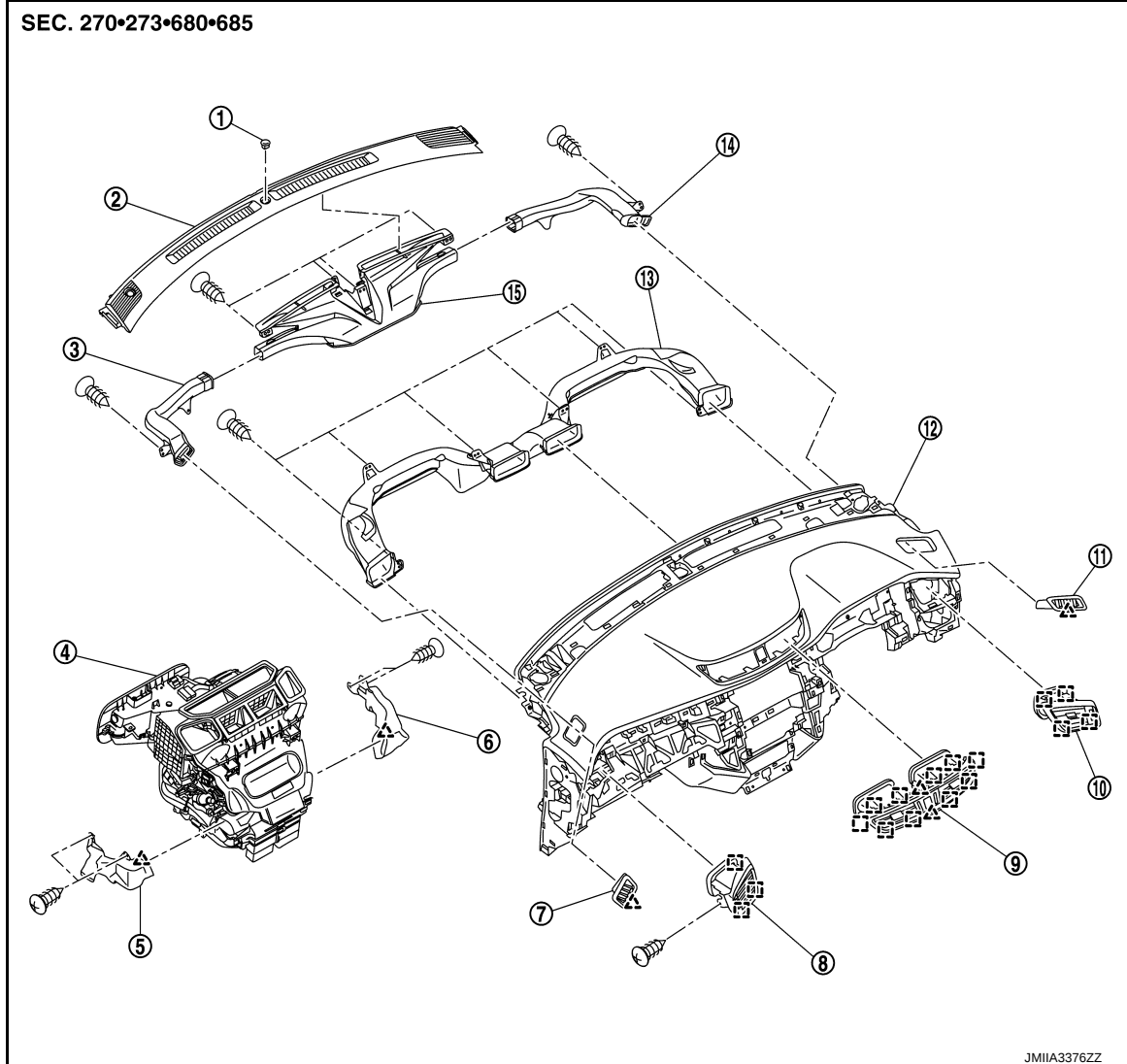
REMOVAL AND INSTALLATION

DUCT AND GRILLE

Exploded View

INFOID:0000000010981802

Front (RHD models)



- | | | |
|-----------------------------|-----------------------------|-----------------------------|
| ① Sunload sensor | ② Instrument garnish | ③ Side defroster nozzle LH |
| ④ A/C unit assembly | ⑤ Foot duct LH | ⑥ Foot duct RH |
| ⑦ Side defroster grille LH | ⑧ Side ventilator grille LH | ⑨ Center ventilator grille |
| ⑩ Side ventilator grille RH | ⑪ Side defroster grille RH | ⑫ Instrument panel assembly |
| ⑬ Center ventilator duct | ⑭ Side defroster nozzle RH | ⑮ Front defroster nozzle |

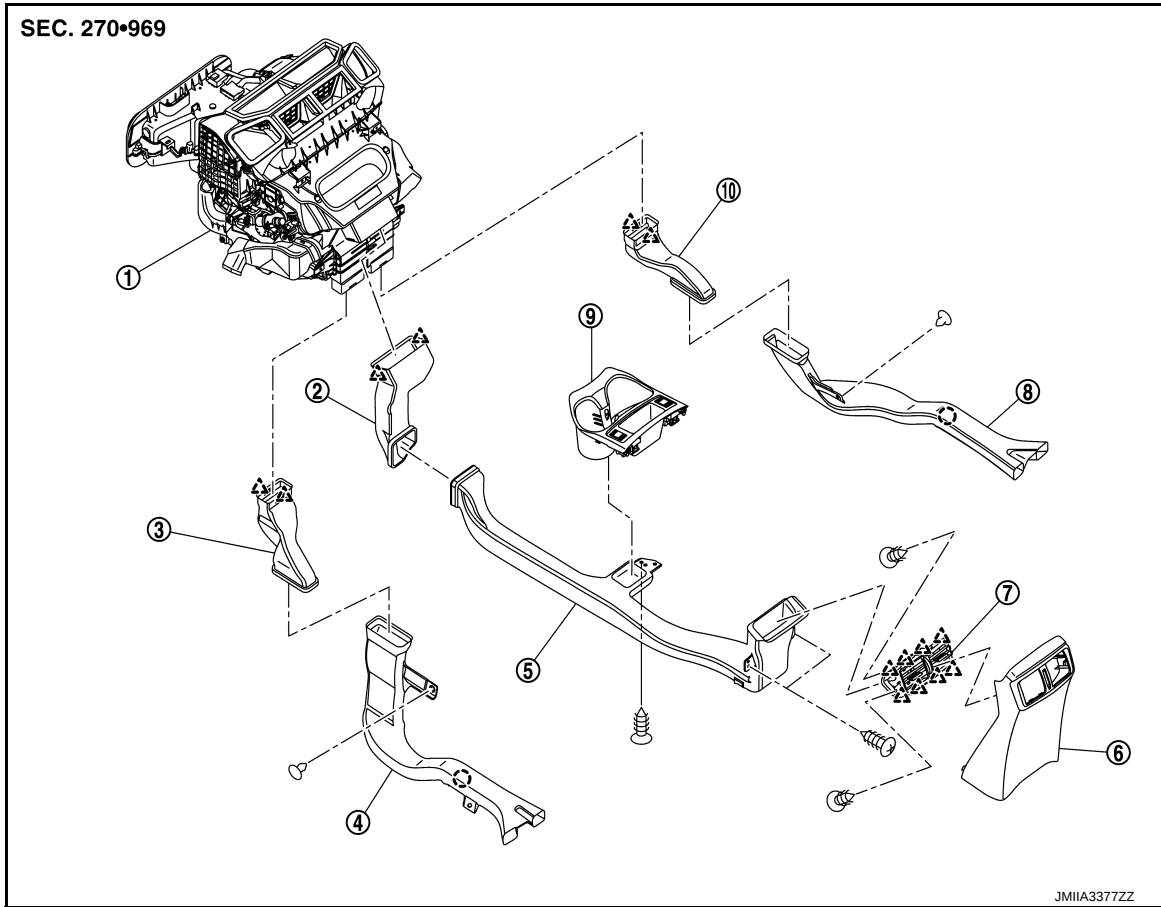
△ : Pawl

□ : Metal clip

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

Rear (RHD models)



- | | | |
|---------------------------|---------------------------|----------------------------|
| ① A/C unit assembly | ② Rear ventilator duct 1* | ③ Rear floor duct 1 LH |
| ④ Rear floor duct 2 LH | ⑤ Rear ventilator duct 2* | ⑥ Console rear finisher* |
| ⑦ Rear ventilator grille* | ⑧ Rear floor duct 2 RH | ⑨ Console switch finisher* |
| ⑩ Rear floor duct 1 RH | | |

○ : Clip
△ : Pawl

*: with rear ventilator models

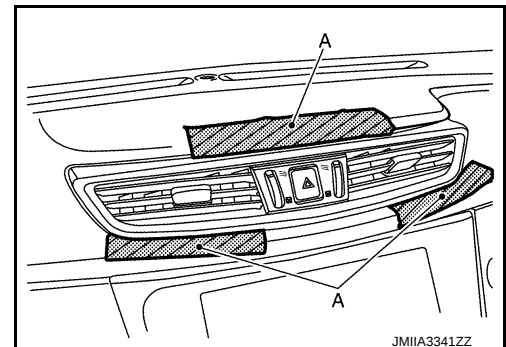
CENTER VENTILATOR GRILLE

CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:0000000010981803

REMOVAL

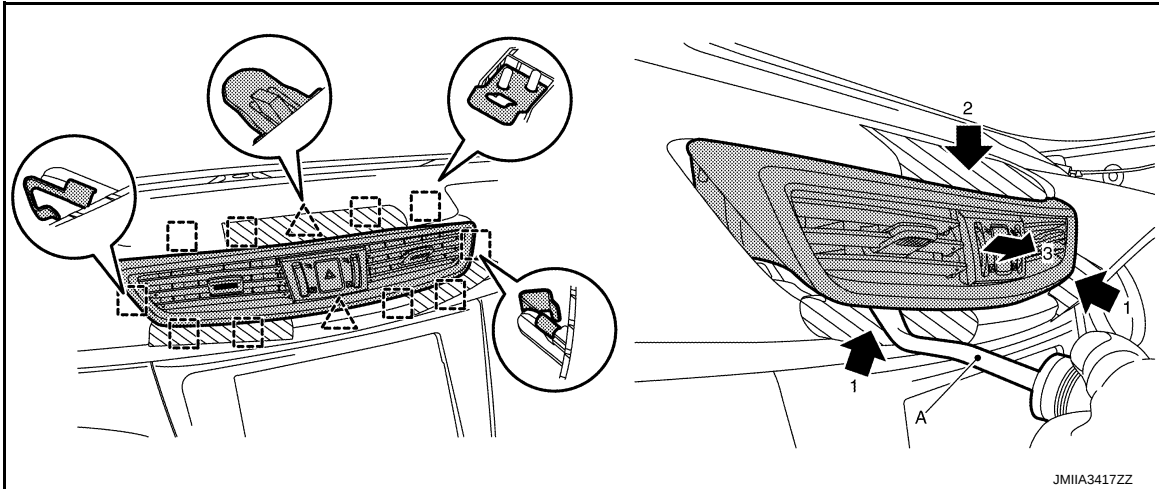
1. Apply protective tapes (A) on instrument panel assembly to protect from damage.



DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

- Disengage fixing metal clips and pawls using remover tool (A), and then remove center ventilator grille according to numerical order 1→3 indicated arrows as shown in the figure.



△ : Pawl
 □ : Metal clip

- Disconnect harness connector from center ventilator grille.

INSTALLATION

Install in the reverse order of removal.

SIDE VENTILATOR GRILLE

SIDE VENTILATOR GRILLE : Removal and Installation

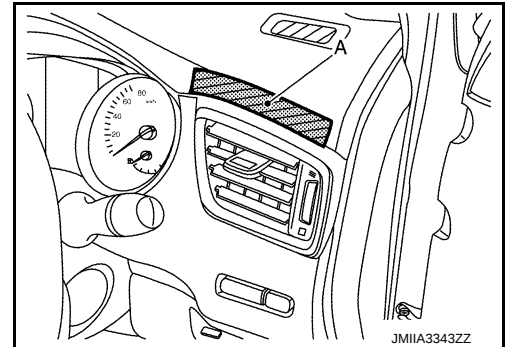
INFOID:0000000010981804

VTL

REMOVAL

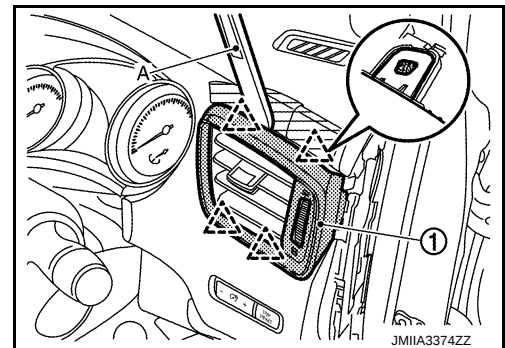
Driver Side

- Remove instrument mask (driver side). Refer to [IP-14. "Removal and Installation"](#) (LHD models) or [IP-41. "Removal and Installation"](#) (RHD models).
- Apply protective tape (A) on instrument panel assembly to protect from damage.



- Disengage fixing pawls using a remover tool (A), and then remove side ventilator grille (finisher portion) ①.

△ : Pawl

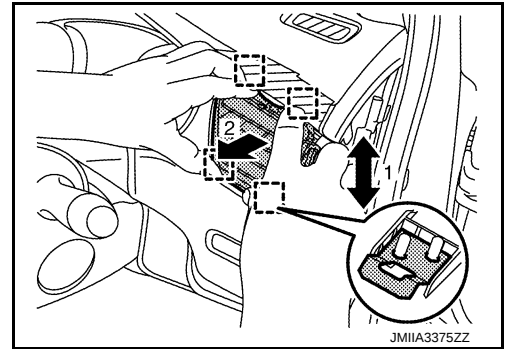


DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

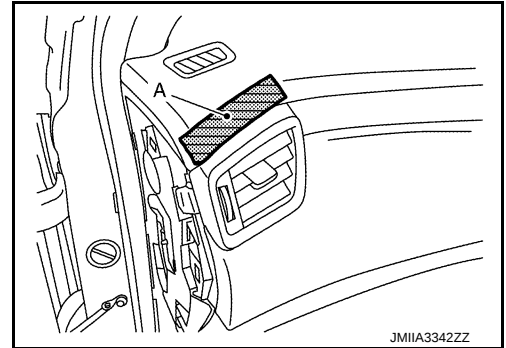
4. Disengage fixing metal clips, and then remove side ventilator grille (case portion) according to numerical order 1→2 indicated by arrows as shown in the figure.

 : Metal clip



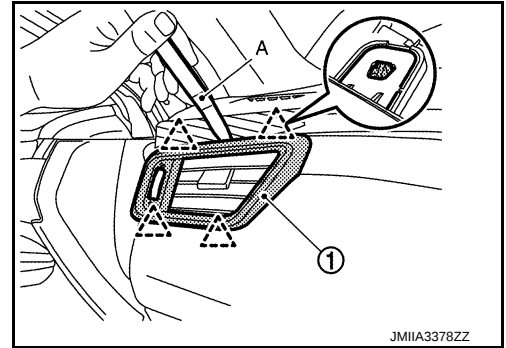
Passenger Side

1. Remove instrument mask (passenger side). Refer to [IP-14, "Removal and Installation"](#) (LHD models) or [IP-41, "Removal and Installation"](#) (RHD models).
2. Apply protective tape (A) on instrument panel assembly to protect from damage.



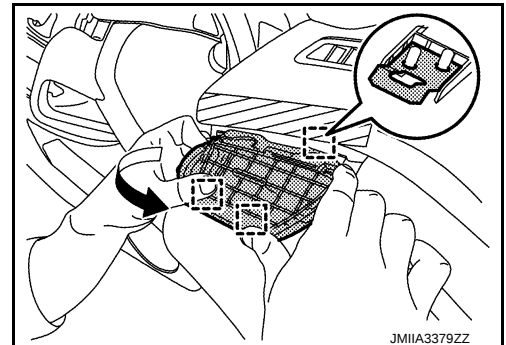
3. Disengage fixing pawls using a remover tool (A), and then remove side ventilator grille (finisher portion) ①.

 : Pawl



4. Disengage fixing metal clips, and then remove side ventilator grille (case portion) by arrows as shown in the figure.

 : Metal clip



INSTALLATION

Install in the reverse order of removal.

CENTER VENTILATOR DUCT

CENTER VENTILATOR DUCT : Removal and Installation

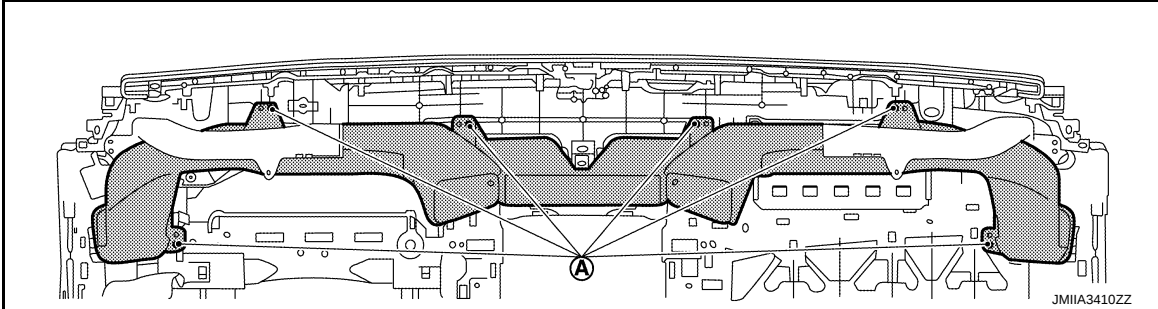
INFOID:000000010981805

REMOVAL

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#) (LHD models) or [IP-41, "Removal and Installation"](#) (RHD models).
2. Remove front defroster nozzle. Refer to [VTL-11, "FRONT DEFROSTER NOZZLE : Removal and Installation"](#).
3. Remove fixing screws (A), and then remove center ventilator duct assembly from instrument panel assembly.



INSTALLATION

Install in the reverse order of removal.

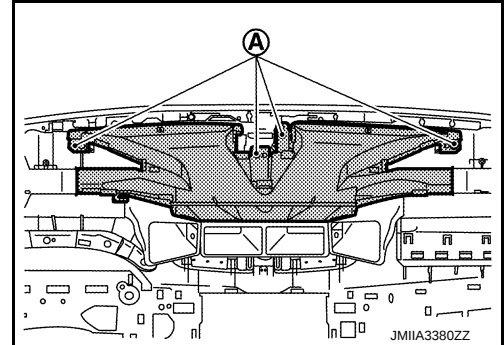
FRONT DEFROSTER NOZZLE

FRONT DEFROSTER NOZZLE : Removal and Installation

INFOID:0000000010981806

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#) (LHD models) or [IP-41, "Removal and Installation"](#) (RHD models).
2. Remove fixing screws (A), and then remove center defroster nozzle from instrument panel assembly.



INSTALLATION

Install in the reverse order of removal.

SIDE DEFROSTER NOZZLE

SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:0000000010981807

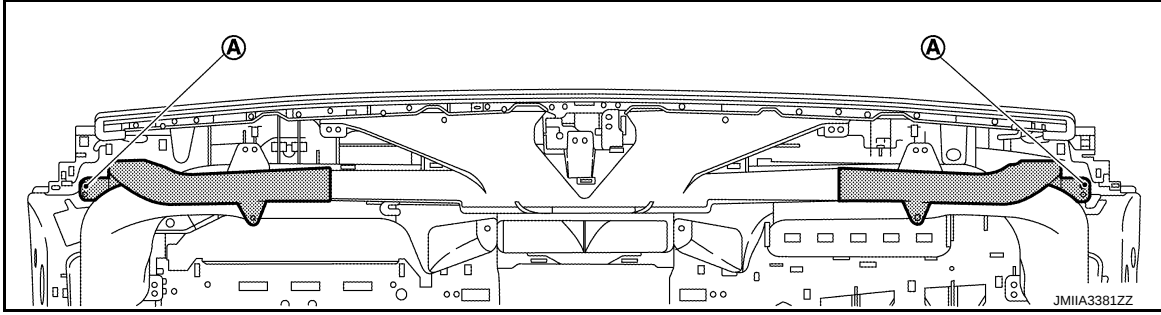
REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#) (LHD models) or [IP-41, "Removal and Installation"](#) (RHD models).

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

2. Remove fixing screws (A), and then remove side defroster nozzle LH and RH from instrument panel assembly.



INSTALLATION

Install in the reverse order of removal.

SIDE DEFROSTER GRILLE

SIDE DEFROSTER GRILLE : Removal and Installation

INFOID:0000000010981808

REMOVAL

1. Remove side defroster nozzle. Refer to [VTL-11, "SIDE DEFROSTER NOZZLE : Removal and Installation"](#).
2. Disengage fixing pawl, and then remove side defroster grille LH or RH.

INSTALLATION

Install in the reverse order of removal.

FOOT DUCT

FOOT DUCT : Removal and Installation

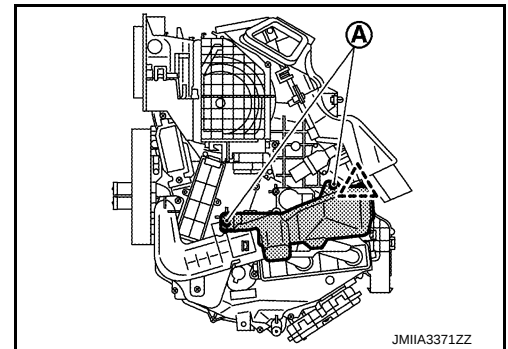
INFOID:0000000010981809

REMOVAL

Foot Duct LH

1. Remove instrument lower cover. Refer to [IP-14, "Removal and Installation"](#). (LHD models)
2. Remove glove box cover. Refer to [IP-41, "Removal and Installation"](#). (RHD models)
3. Remove fixing screws (A) and pawl, and then remove foot duct LH.

 : Pawl



Foot Duct RH

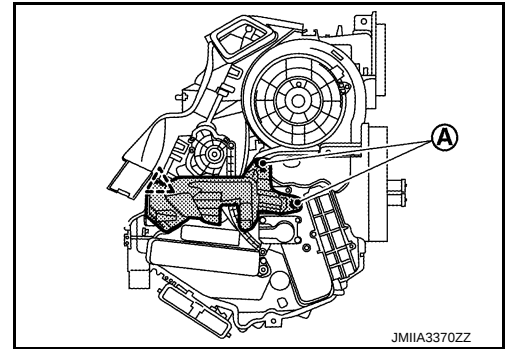
1. Remove instrument lower cover. Refer to [IP-41, "Removal and Installation"](#). (RHD models)
2. Remove glove box cover. Refer to [IP-14, "Removal and Installation"](#). (LHD models)

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

3. Remove fixing screws (A) and pawl, and then remove foot duct RH.

 : Pawl



INSTALLATION

Install in the reverse order of removal.

REAR FLOOR DUCT 1

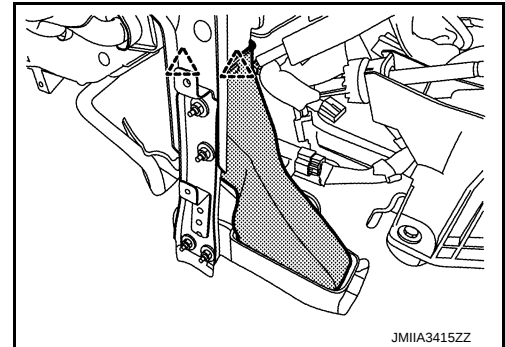
REAR FLOOR DUCT 1 : Removal and Installation

INFOID:0000000010981810

REMOVAL

1. Remove center console assembly. Refer to [IP-25, "Removal and Installation"](#) (LHD models) or [IP-52, "Removal and Installation"](#) (RHD models).
2. Disengage fixing pawls, and then remove rear floor duct 1.

 : Pawl



INSTALLATION

Install in the reverse order of removal.

REAR FLOOR DUCT 2

REAR FLOOR DUCT 2 : Removal and Installation

INFOID:0000000010981811

REMOVAL

1. Remove front seat assembly. Refer to [SE-41, "Removal and Installation"](#).
2. Remove dash side finisher. Refer to [INT-26, "DASH SIDE FINISHER : Removal and Installation"](#).
3. Remove center pillar lower garnish. Refer to [INT-27, "CENTER PILLAR LOWER GARNISH : Removal and Installation"](#).
4. Remove center console assembly. Refer to [IP-25, "Removal and Installation"](#) (LHD models) or [IP-52, "Removal and Installation"](#) (RHD models).
5. Peel off front floor carpet of front side. Refer to [INT-30, "FRONT FLOOR CARPET : Removal and Installation"](#).
6. Disconnect fixing clips and harness clip, and then remove rear floor duct 2.

INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR DUCT 1

REAR VENTILATOR DUCT 1 : Removal and Installation

INFOID:0000000010981812

REMOVAL

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#) (LHD models) or [IP-41, "Removal and Installation"](#) (RHD models).
2. Disengage pawls, and then remove rear ventilator duct 1.

INSTALLATION

Install in the reverse order of removal.

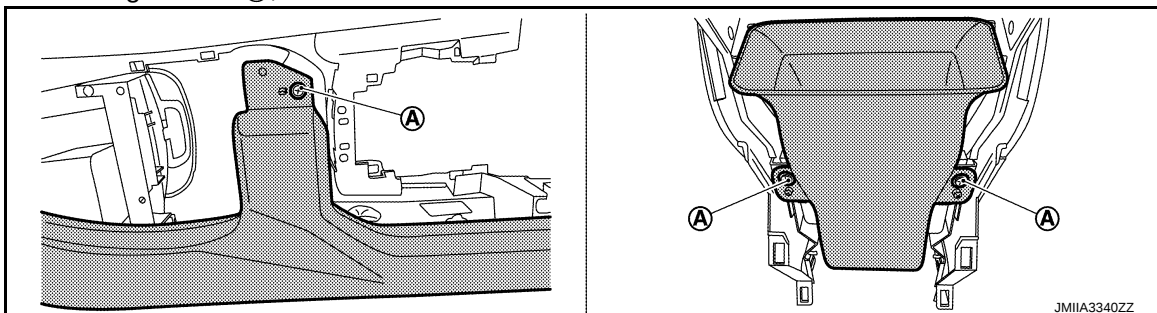
REAR VENTILATOR DUCT 2

REAR VENTILATOR DUCT 2 : Removal and Installation

INFOID:0000000010981813

REMOVAL

1. Remove center console assembly. Refer to [IP-25, "Removal and Installation"](#) (LHD models) or [IP-52, "Removal and Installation"](#) (RHD models).
2. Remove fixing screws (A), and then remove rear ventilator duct 2.



INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR GRILLE

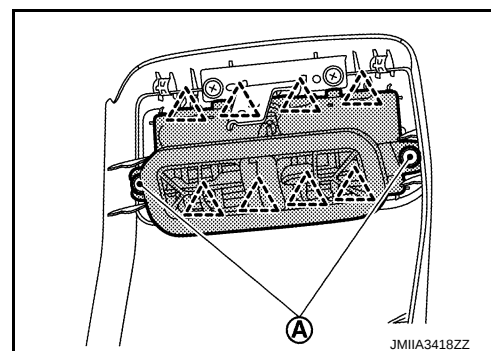
REAR VENTILATOR GRILLE : Removal and Installation

INFOID:0000000010981814

REMOVAL

1. Remove console rear finisher assembly. Refer to [IP-25, "Removal and Installation"](#) (LHD models) or [IP-52, "Removal and Installation"](#) (RHD models).
2. Remove fixing screws (A) and pawls, and then remove rear ventilator grille from console rear finisher assembly.

 : Pawl



INSTALLATION

Install in the reverse order of removal.

BLOWER MOTOR

< REMOVAL AND INSTALLATION >

BLOWER MOTOR

Exploded View

INFOID:0000000010981815

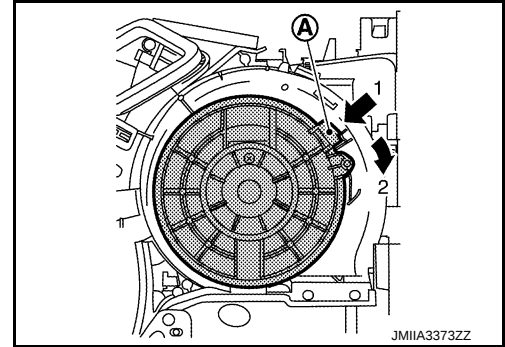
Refer to [HA-40, "Exploded View"](#).

Removal and Installation

INFOID:0000000010981816

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-14, "Removal and Installation"](#) (LHD models) or [IP-41, "Removal and Installation"](#) (RHD models).
2. Disconnect blower motor connector and remove fixing screw.
3. Press flange holding hook Ⓐ, and then turn blower motor clockwise according to numerical order 1→2 indicated by arrows as shown in the figure.



4. Pull outside, and then remove blower motor.

INSTALLATION

Install in the reverse order of removal.

A
B
C
D
E
F
G
H
J
K
L
M
N
O
P

VTL

AIR CONDITIONER FILTER

< REMOVAL AND INSTALLATION >

AIR CONDITIONER FILTER

Exploded View

INFOID:0000000010981817

Refer to [HA-40, "Exploded View"](#).

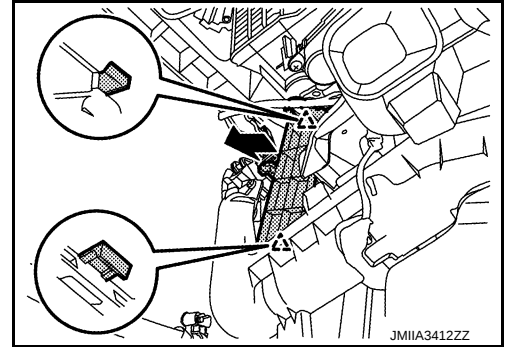
Removal and Installation

INFOID:0000000010981818

REMOVAL

1. Disengage fixing pawls, and then remove filter cover.

 : Pawl



2. Remove air conditioner filter from A/C unit assembly.

INSTALLATION

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

CAUTION:

- If the filter is deformed/damaged when removing, replace it with a new one. Deformed/damaged filter may deteriorate the dust collecting performance.
- When installing, handle the filter with extreme care to avoid deforming/damaging.

Replacement

INFOID:0000000010981819

Replace Air conditioner filter.

Refer to [VTL-17, "Air Conditioner Filter"](#).

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Air Conditioner Filter

INFOID:0000000010981820

Replacement interval	MA-8. "Periodic Maintenance"
----------------------	------------------------------

- A
- B
- C
- D
- E
- F
- G
- H
- VTL
- J
- K
- L
- M
- N
- O
- P