

SECTION **VTL** VENTILATION SYSTEM

CONTENTS

PRECAUTION	3	UPPER VENTILATOR DUCT	11
PRECAUTIONS	3	UPPER VENTILATOR DUCT : Removal and Installation	11
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	3	SIDE DEFROSTER DUCT	12
Precautions Necessary for Steering Wheel Rotation After Battery Disconnection	3	SIDE DEFROSTER DUCT : Removal and Installation	12
Precaution for Battery Service	4	SIDE DEFROSTER NOZZLE	12
PREPARATION	5	SIDE DEFROSTER NOZZLE : Removal and Installation	12
PREPARATION	5	FRONT DEFROSTER NOZZLE	12
Commercial Service Tool	5	FRONT DEFROSTER NOZZLE : Removal and Installation	12
SYSTEM DESCRIPTION	6	HEATER DUCT	12
VENTILATION SYSTEM	6	HEATER DUCT : Removal and Installation	12
System Description	6	FOOT DUCT	13
REMOVAL AND INSTALLATION	8	FOOT DUCT : Removal and Installation	13
DUCT AND GRILLE	8	REAR MODE DOOR CASE	13
Exploded View	8	REAR MODE DOOR CASE : Removal and Installation	13
CENTER VENTILATOR GRILLE	9	REAR VENTILATOR GRILLE	14
CENTER VENTILATOR GRILLE : Removal and Installation	9	REAR VENTILATOR GRILLE : Removal and Installation	14
SIDE VENTILATOR GRILLE	10	REAR VENTILATOR DUCT	14
SIDE VENTILATOR GRILLE : Removal and Installation	10	REAR VENTILATOR DUCT : Removal and Installation	14
UPPER VENTILATOR GRILLE	10	BLOWER UNIT	16
UPPER VENTILATOR GRILLE : Removal and Installation	10	Exploded View	16
FRONT DEFROSTER GRILLE	10	BLOWER UNIT	17
FRONT DEFROSTER GRILLE : Removal and Installation	10	BLOWER UNIT : Removal and Installation	17
VENTILATOR DUCT	11	BLOWER MOTOR	18
VENTILATOR DUCT : Removal and Installation	11	BLOWER MOTOR : Removal and Installation	18
		IN-CABIN MICROFILTER	19

A

B

C

D

E

F

G

H

VTL

J

K

L

M

N

O

P

Exploded View	19
Removal and Installation	19
Replacement	19

SERVICE DATA AND SPECIFICATIONS	
(SDS)	20
In-cabin microfilter	20

SERVICE DATA AND SPECIFICATIONS	
(SDS)	20

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000008143716

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 Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:000000008143717

CAUTION:

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

- Before removing and installing any control units, first turn the 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 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. Turn the 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.

PRECAUTIONS

< PRECAUTION >

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 ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT.

Precaution for Battery Service

INFOID:000000008143718

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

PREPARATION

< PREPARATION >

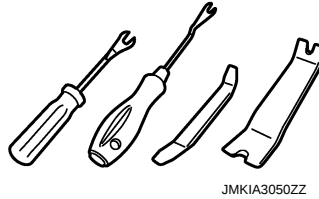
PREPARATION

PREPARATION

Commercial Service Tool

INFOID:0000000008143719

Tool name	Description
Remover tool	Remove clips, pawls, metal clips



JMKIA3050ZZ

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

VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

VENTILATION SYSTEM

System Description

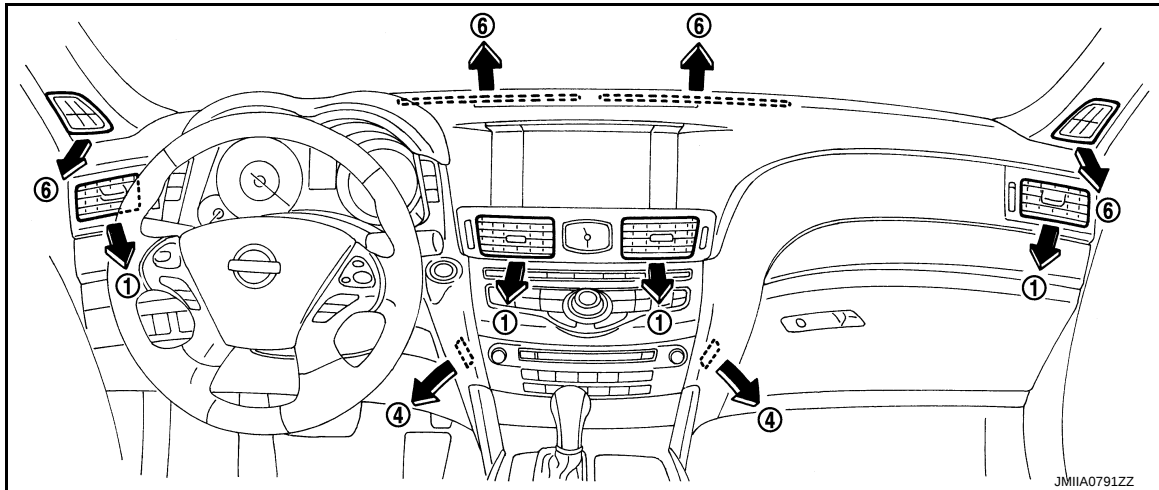
INFOID:000000008143720

OUTLINE

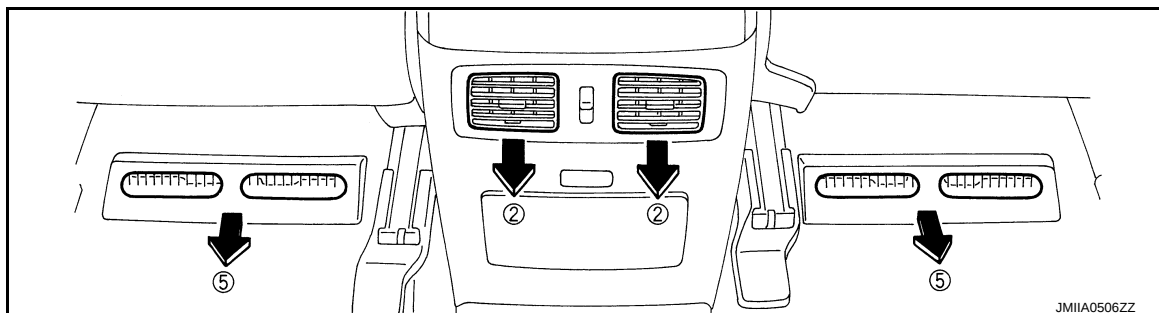
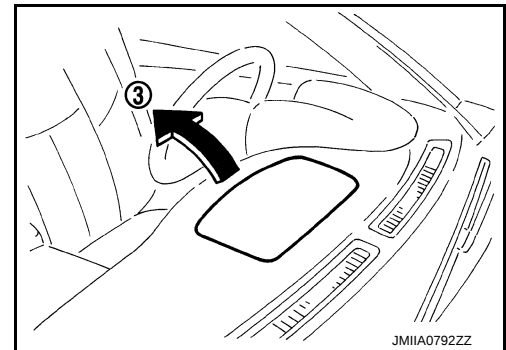
Ventilation system is controlled by A/C auto amp. For details of automatic air conditioner system, refer to [HAC-16. "AUTOMATIC AIR CONDITIONING SYSTEM : System Description"](#).

AIR FLOW

Front



Upper



VENTILATION SYSTEM

< SYSTEM DESCRIPTION >

Discharge air flow											
Mode position	Condition				Air outlet / distribution						
					VENT				FOOT		DEF (6)
					Front		Upper (3)	Rear (2)	Front (4)	Rear (5)	
					Center (1)	Side (1)					
	• DUAL: OFF • Rear ventilator: Close	Upper Vent: ON	Temperature control switch (driver side)	18°C (60°F)	×	×	×	×	×	—	—
		Other than 18°C (60°F)*1		×	×	×	×	—	—	—	
			—	×	×	×	×	×	×	×	—
			—	—	×	×	×	×	×	×	×
			—	—	×	×	×	×	×	×	×
			—	—	×	×	×	×	×	×	×
		—	—	×	×	×	×	×	×	×	

- *1: Air blow is also supplied to front foot until passenger room temperature stabilizes when temperature setting is other than 18°C (60°F). At that time, air blowing is the same as 18°C (60°F) setting.
- *2: During automatic defogging control. (Forest air system)

VTL

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

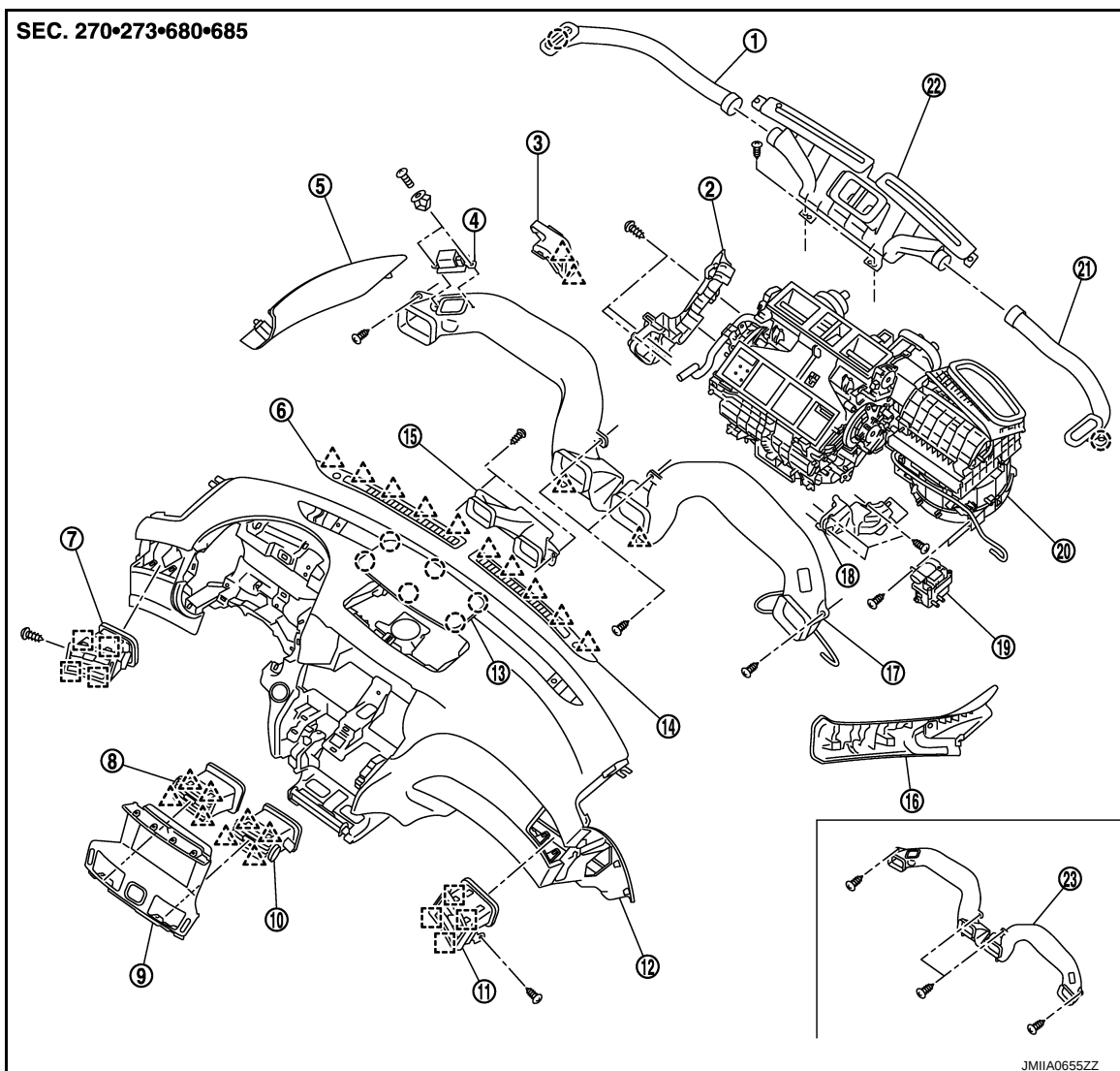
REMOVAL AND INSTALLATION

DUCT AND GRILLE

Exploded View

INFOID:000000008143721

FRONT



- | | | |
|--|---|-------------------------------|
| 1. Side defroster nozzle LH | 2. Foot duct LH | 3. Foot grille LH |
| 4. Ionizer | 5. Side defroster duct (front pillar gar-nish) LH | 6. front defroster grille LH |
| 7. Side defroster grille LH | 8. Center ventilator grille LH | 9. Center ventilator assembly |
| 10. Center ventilator grille RH | 11. Side ventilator grille RH | 12. Instrument panel assembly |
| 13. Upper ventilator grille | 14. Front ventilator grille RH | 15. Upper ventilator duct |
| 16. Side defroster duct (front pillar gar-nish) RH | 17. Ventilator duct | 18. Foot duct RH |
| 19. Aroma unit | 20. A/C unit assembly | 21. Side defroster nozzle RH |
| 22. Front defroster nozzle | 23. Ventilator duct | |

△ : Pawl

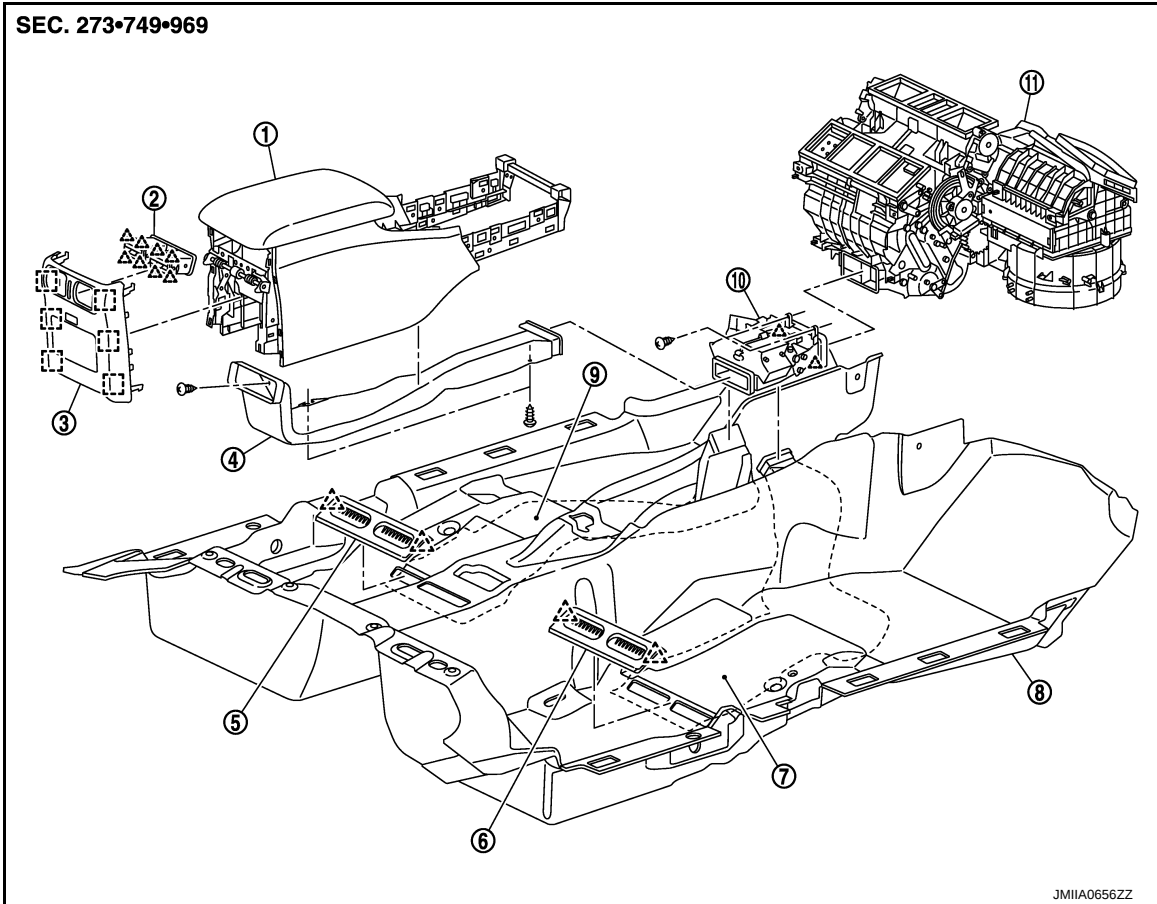
□ : Metal clip

○ : Clip

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

REAR



CENTER VENTILATOR GRILLE

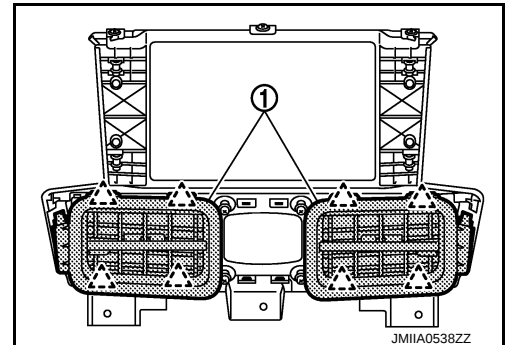
CENTER VENTILATOR GRILLE : Removal and Installation

INFOID:000000008143722

REMOVAL

1. Remove center ventilator assembly. Refer to [IP-13. "Removal and Installation"](#).
2. Disengage the pawls, and then remove center ventilator grille (1).

△ : Pawl



INSTALLATION

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

Install in the reverse order of removal.

SIDE VENTILATOR GRILLE

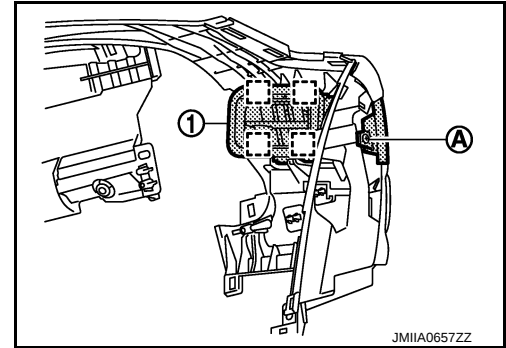
SIDE VENTILATOR GRILLE : Removal and Installation

INFOID:000000008143723

REMOVAL

1. Remove instrument side finisher and instrument lower panel. Refer to [IP-13, "Removal and Installation"](#).
2. Remove screw (A).
3. Disengage the metal clips, and then remove side ventilator grille (1).

 : Metal clip



INSTALLATION

Install in the reverse order of removal.

UPPER VENTILATOR GRILLE

UPPER VENTILATOR GRILLE : Removal and Installation

INFOID:000000008143724

REMOVAL

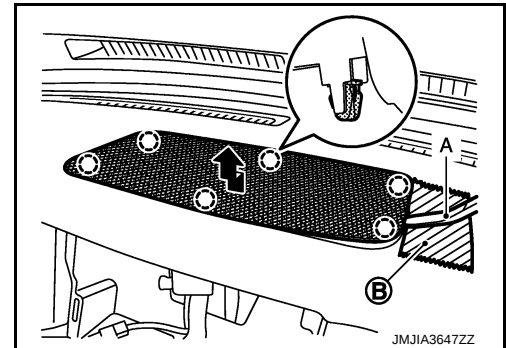
1. Insert a remover tool (A) between upper ventilator grille and instrument panel, and disengage clips.

CAUTION:

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

2. Lift up upper ventilator grille toward vehicle upper, pull toward vehicle rear, and lift up again toward vehicle upper.

 : Clip



INSTALLATION

Install in the reverse order of removal.

FRONT DEFROSTER GRILLE

FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000008143725

REMOVAL

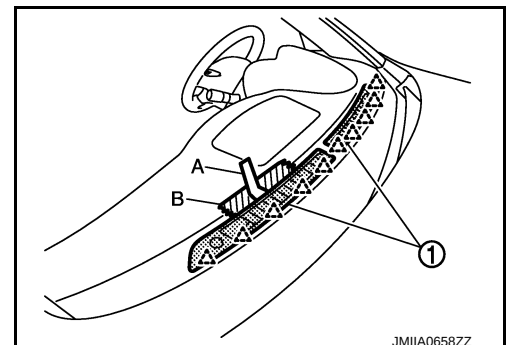
1. Remove front defroster grilles (1), using remover tools (A).

CAUTION:

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

2. Remove sensors from front defroster grilles.

 : Pawl



DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

INSTALLATION

Install in the reverse order of removal.

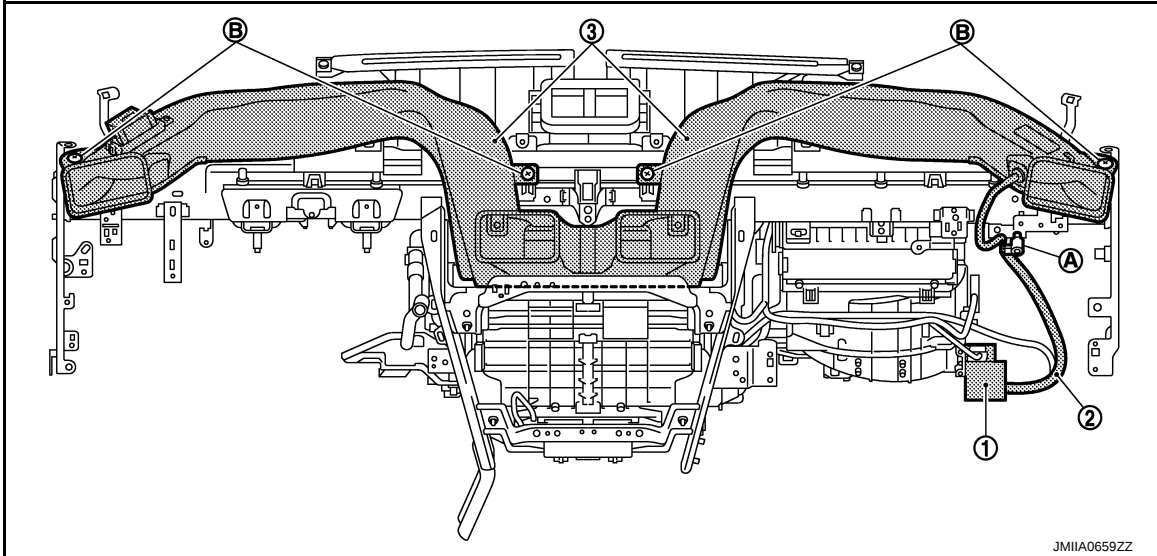
VENTILATOR DUCT

VENTILATOR DUCT : Removal and Installation

INFOID:000000008143726

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13, "Removal and Installation"](#).
2. Remove tube (2) that is connected to aroma unit (1) and remove clips. (models with forest air conditioning system).
3. Remove mounting screws (B), and then remove ventilator duct (3).



INSTALLATION

Install in the reverse order of removal.

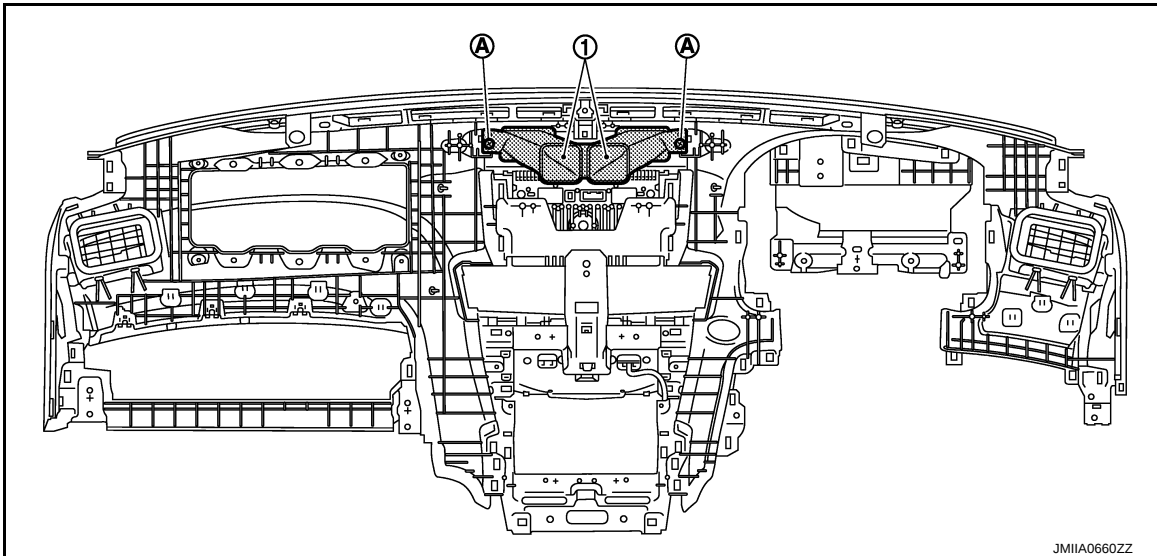
UPPER VENTILATOR DUCT

UPPER VENTILATOR DUCT : Removal and Installation

INFOID:000000008143727

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13, "Removal and Installation"](#).
2. Remove mounting screws (A), and then remove upper ventilator duct (1).



INSTALLATION

A

B

C

D

E

F

G

H

VTL

J

K

L

M

N

O

P

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

Install in the reverse order of removal.

SIDE DEFROSTER DUCT

SIDE DEFROSTER DUCT : Removal and Installation

INFOID:0000000008143728

REMOVAL

Remove front pillar garnish. Refer to [INT-31. "FRONT PILLAR GARNISH : Removal and Installation"](#).

INSTALLATION

Install in the reverse order of removal.

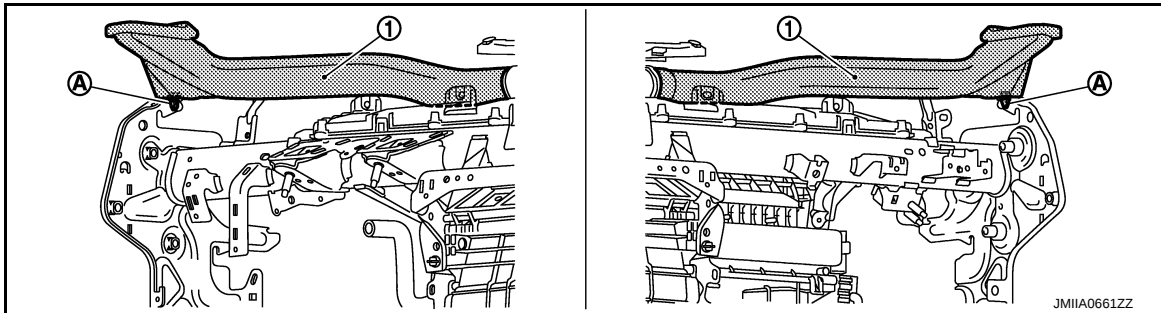
SIDE DEFROSTER NOZZLE

SIDE DEFROSTER NOZZLE : Removal and Installation

INFOID:0000000008143729

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13. "Removal and Installation"](#).
2. Disengage pawls (A), and then remove side defroster nozzle (1).



INSTALLATION

Install in the reverse order of removal.

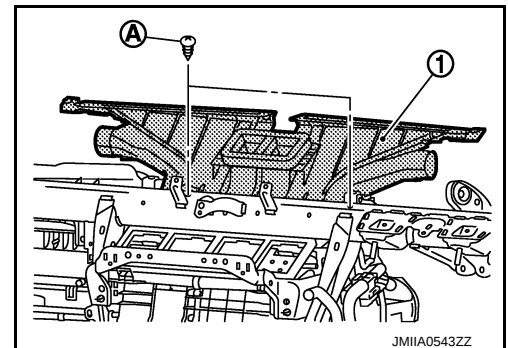
FRONT DEFROSTER NOZZLE

FRONT DEFROSTER NOZZLE : Removal and Installation

INFOID:0000000008143730

REMOVAL

1. Remove instrument panel assembly. Refer to [IP-13. "Removal and Installation"](#).
2. Remove side defroster nozzle. Refer to [VTL-12. "SIDE DEFROSTER NOZZLE : Removal and Installation"](#).
3. Remove PCB harness of steering member upper part. Refer to [HA-42. "Exploded View"](#).
4. Remove mounting screws (A), and then remove front defroster nozzle (1).



INSTALLATION

Install in the reverse order of removal.

HEATER DUCT

HEATER DUCT : Removal and Installation

INFOID:0000000008143731

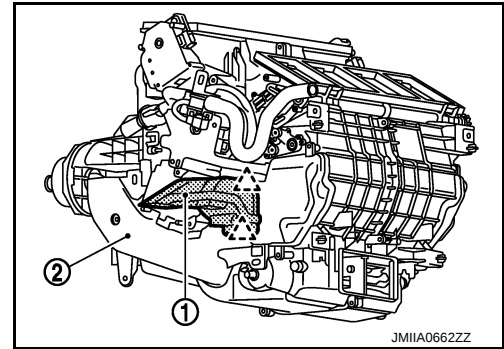
REMOVAL

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

Disengage the pawls, and then remove heater duct (1) from foot duct (2).

 : Pawl



INSTALLATION

Install in the reverse order of removal.

FOOT DUCT

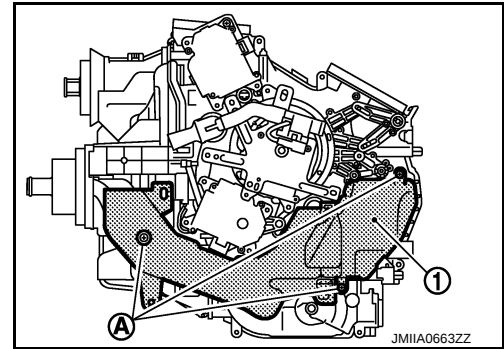
FOOT DUCT : Removal and Installation

INFOID:000000008143732

REMOVAL

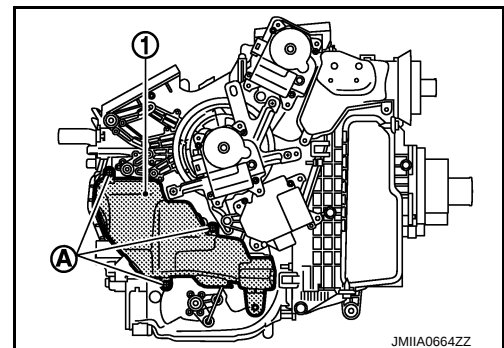
Driver side

1. Remove A/C unit assembly. Refer to [HA-44, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove harness clip from foot duct.
3. Remove mounting screws (A), and then remove foot duct LH (1).



Passenger side

1. Remove A/C unit assembly. Refer to [HA-44, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#).
2. Remove mounting screws (A), and then remove foot duct RH (1).



INSTALLATION

Install in the reverse order of removal.

REAR MODE DOOR CASE

REAR MODE DOOR CASE : Removal and Installation

INFOID:000000008143733

REMOVAL

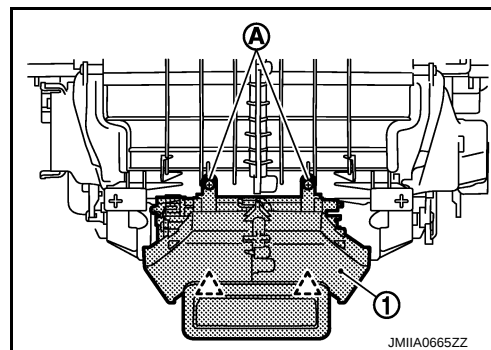
1. Remove instrument panel assembly. Refer to [IP-13, "Removal and Installation"](#).

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

2. Remove rear mode door case mounting screws (A).
3. Disengage pawls, and then remove rear mode door case (1).

 : Pawl



INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR GRILLE

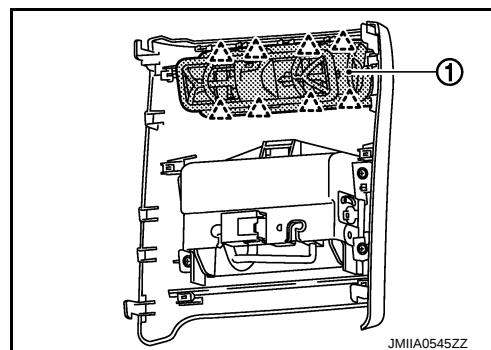
REAR VENTILATOR GRILLE : Removal and Installation

INFOID:0000000008143734

REMOVAL

1. Remove rear console finisher. Refer to [IP-24, "Removal and Installation"](#).
2. Disengage pawls, and then remove rear ventilator grille (1).

 : Pawl



INSTALLATION

Install in the reverse order of removal.

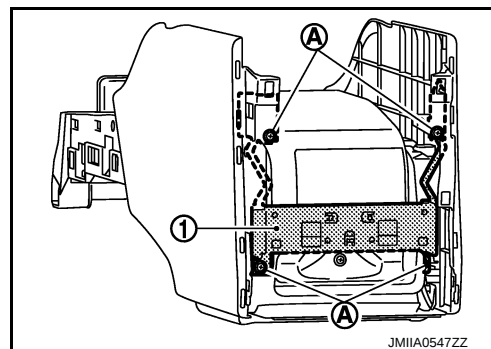
REAR VENTILATOR DUCT

REAR VENTILATOR DUCT : Removal and Installation

INFOID:0000000008143735

REMOVAL

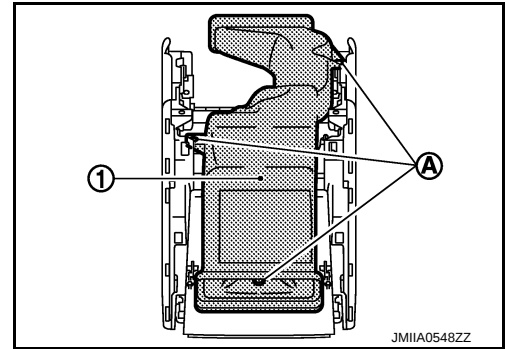
1. Remove center console lid assembly. Refer to [IP-27, "Disassembly and Assembly"](#).
2. Remove mounting screws (A), and then remove console rear reinforcement (1).



DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

3. Remove mounting screws (A), and then remove rear ventilator duct (1).



INSTALLATION

Install in the reverse order of removal.

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

BLOWER UNIT

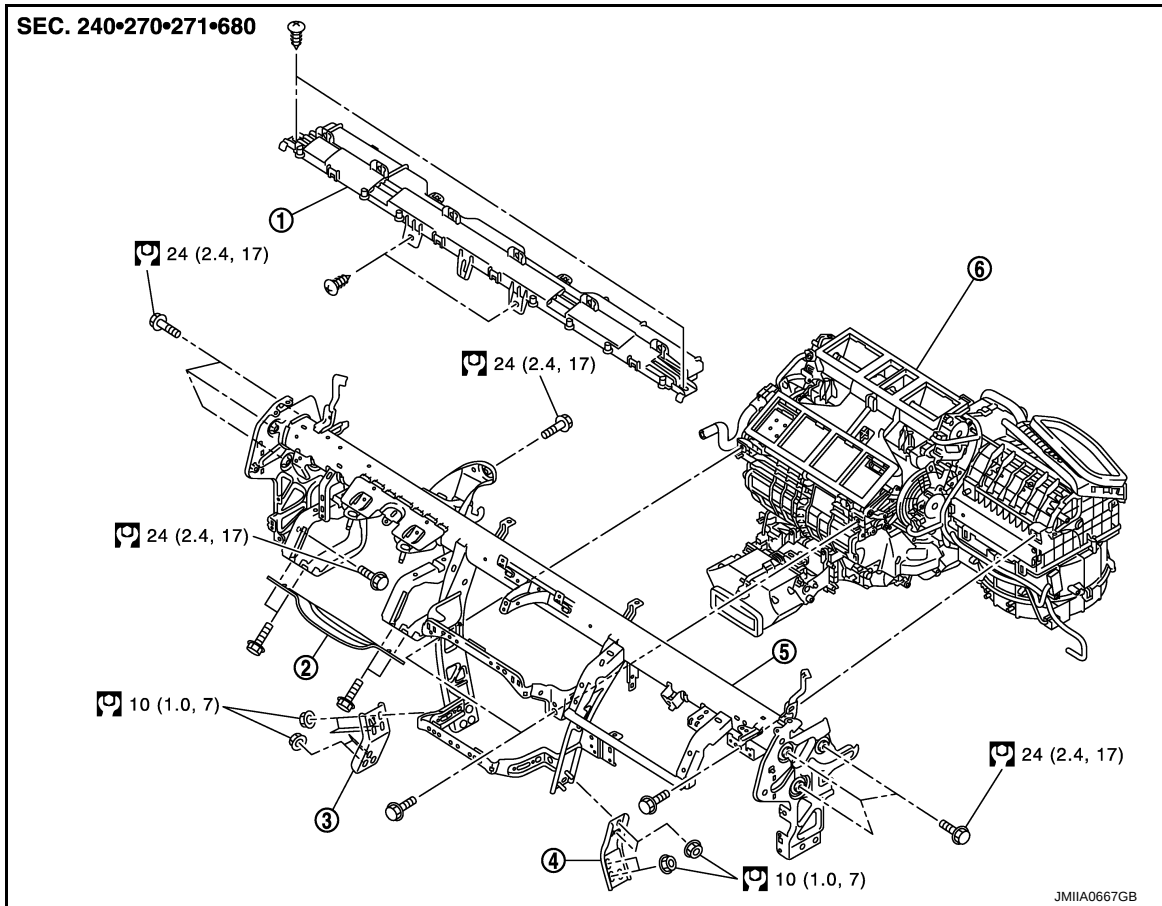
< REMOVAL AND INSTALLATION >

BLOWER UNIT

Exploded View

INFOID:000000008143736

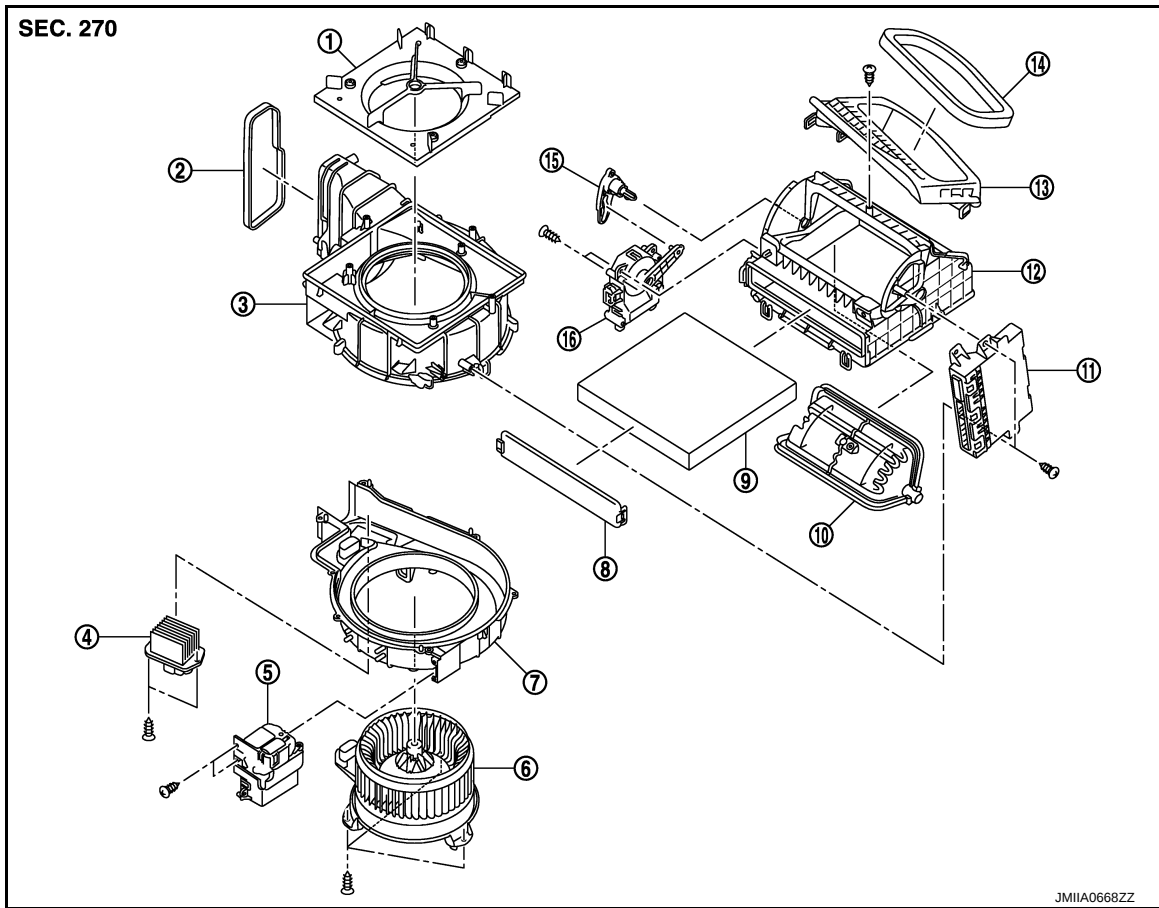
REMOVAL



DISASSEMBLY

BLOWER UNIT

< REMOVAL AND INSTALLATION >



- | | | |
|----------------------|-----------------|-------------------------|
| 1. Intake bell mouth | 2. Seal | 3. Intake upper case |
| 4. Power transistor | 5. Aroma unit | 6. Blower motor |
| 7. Intake lower case | 8. Filter cover | 9. In-cabin microfilter |
| 10. Intake door | 11. A/C amp. | 12. Intake box |
| 13. Intake box duct | 14. Seal | 15. Intake door lever |
| 16. Intake door link | | |

BLOWER UNIT

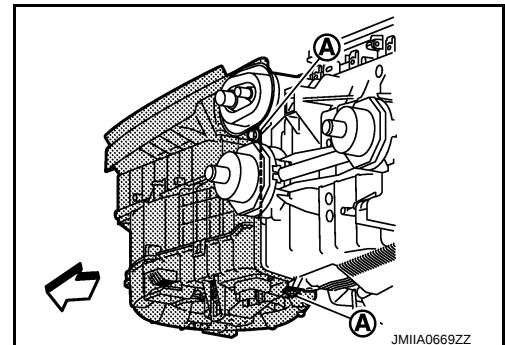
BLOWER UNIT : Removal and Installation

INFOID:000000008143737

REMOVAL

1. Remove A/C unit assembly. Refer to [HA-44, "HEATER & COOLING UNIT ASSEMBLY : Removal and Installation"](#)
2. Remove mounting screws (A), and then separate blower unit and heater & cooling unit assembly.

← : Vehicle front



INSTALLATION

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

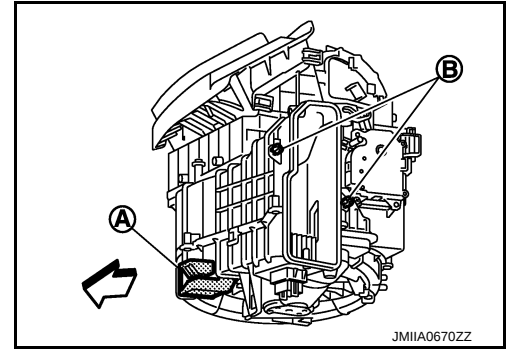
BLOWER UNIT

< REMOVAL AND INSTALLATION >

CAUTION:

Check locating pin (A) and joint portions (B) are fitted completely.

⇐ : Vehicle front



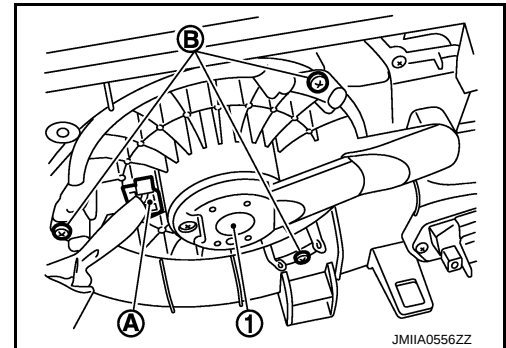
BLOWER MOTOR

BLOWER MOTOR : Removal and Installation

INFOID:000000008143738

REMOVAL

1. Remove instrument lower cover. Refer to [IP-13, "Removal and Installation"](#).
2. Disconnect blower motor connector (A).
3. Remove mounting screws (B), and then remove blower motor (1).



INSTALLATION

Install in the reverse order of removal.

IN-CABIN MICROFILTER

< REMOVAL AND INSTALLATION >

IN-CABIN MICROFILTER

Exploded View

INFOID:0000000008143739

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

Removal and Installation

INFOID:0000000008143740

REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-13. "Removal and Installation"](#).
2. Remove filter cover, and then remove in-cabin microfilter.

INSTALLATION

Note the following items, 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 duct collecting performance.
- When installing, handle the filter with extreme care to avoid deforming/damaging.

Replacement

INFOID:0000000008143741

Replace in-cabin microfilter.

Refer to [MA-6. "Schedule 1"](#) and [MA-8. "Schedule 2"](#).

Affix a caution label inside the glove box when replacing filter.

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:0000000008143742

Replacement interval	MA-6. "Schedule 1" and MA-8. "Schedule 2"
----------------------	---