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# SECTION VTL

## VENTILATION SYSTEM

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# SWITCHES AND THEIR CONTROL FUNCTION

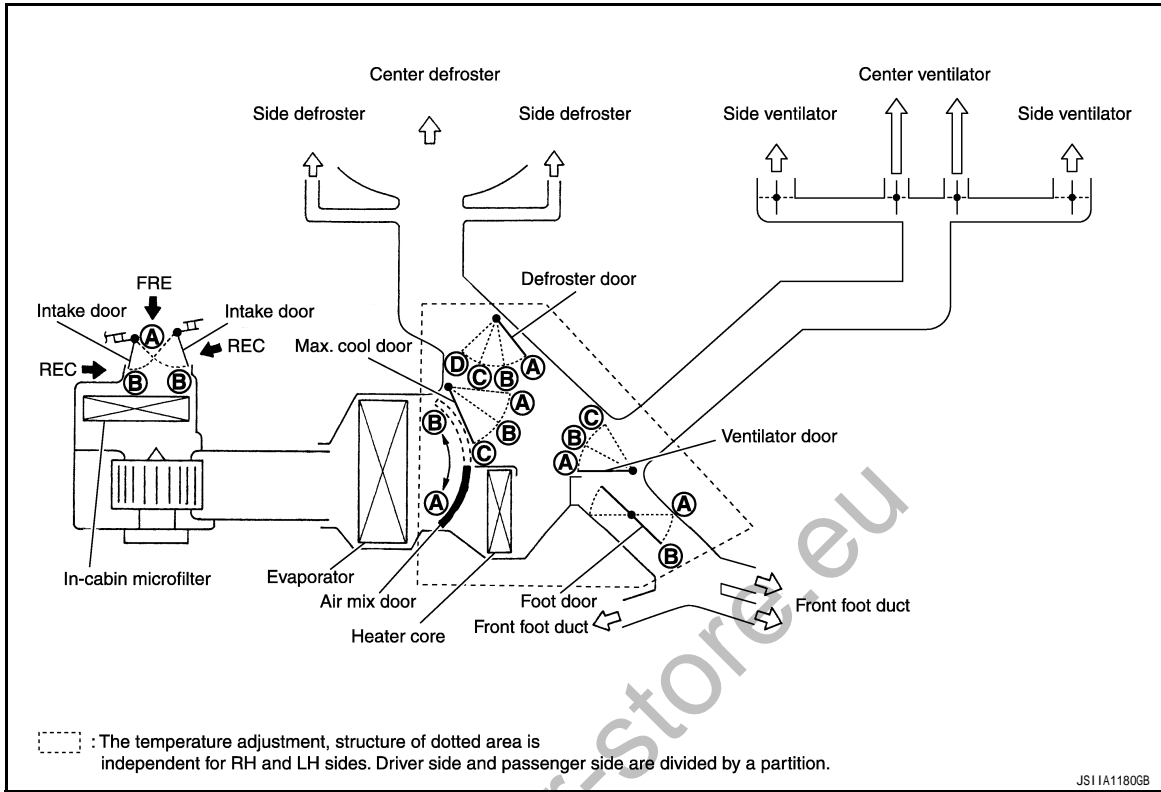
< FUNCTION DIAGNOSIS >

## FUNCTION DIAGNOSIS

### SWITCHES AND THEIR CONTROL FUNCTION

#### System Description

INFOID:000000003860687



JS11A1180GB

Position or switch	DUAL switch	MODE switch				DEF switch		AUTO switch	FRE switch	REC switch	Temperature control dial (Driver side)		Temperature control dial (Passenger side)		OFF switch
		VENT	B/L	FOOT	D/F	ON	OFF								
Door		MODE									18°C (60°F)	32°C (90°F)	18°C (60°F)	32°C (90°F)	
Ventilator door	—	(A)	(B)	(C)	(C)	(C)	—	—	—	—	—	—	—	(C)	
Max.cool door	—	(A)	(B)	(C)	(C)	(C)	—	—	—	—	—	—	—	(C)	
Defroster door	—	(D)	(D)	(C)	(B)	(A)	—	—	—	—	—	—	—	(C)	
Foot door	—	(B)	(B)	(B)	(B)	(A)	—	AUTO	—	—	—	—	—	(B)	
Intake door	—	—				(B)	(B)	—	(B)* AUTO	(A)* AUTO	—	—	—	—	(B)
Air mix door (Driver side)	—	—				—	—	—	—	—	(A)	AUTO	(B)	—	—
Air mix door (Passenger side)	ON	—				—	—	—	—	—	—	(A)	AUTO	(B)	—
	OFF	—				—	—	—	—	—	(A)	AUTO	(B)	—	—

\*:Inlet status is displayed by LED when activating automatic control.

JS11A1181GB






# AIR DISTRIBUTION

< FUNCTION DIAGNOSIS >

## AIR DISTRIBUTION

### System Description

INFOID:000000003860688

Discharge air flow				
Mode position indication	Condition	Air outlet/distribution		
		VENT	FOOT	DEF
	DUAL switch: OFF	100%	—	—
		63%	37%	—
		15%	57%	28%
		10%	43%	47%
		13%	—	87%

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# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000004160714

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 AIRBAG" and "SEAT BELT" 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 "SRS AIRBAG".
- 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.

#### Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:000000004160715

#### **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. 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.

#### Precaution for Battery Service

INFOID:000000004160716

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.

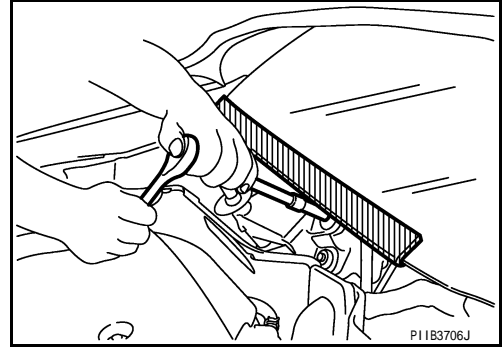
# PRECAUTIONS

## < PRECAUTION >

### Precaution for Procedure without Cowl Top Cover

INFOID:000000004160717

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



### Precautions For Xenon Headlamp Service

INFOID:000000004160718

#### **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.).

### General Precautions

INFOID:000000004173678

#### **CAUTION:**

After finishing servicing, check that all the tools and waste are stored in a customary place.

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# PREPARATION

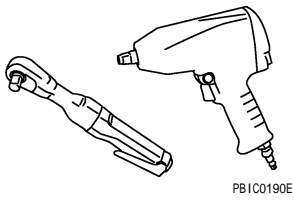
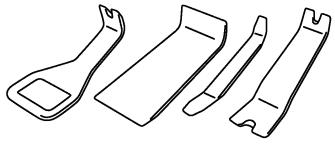
< PREPARATION >

## PREPARATION

### PREPARATION

Commercial Service Tool

INFOID:000000003860700

Tool name	Description
<p data-bbox="162 514 276 546">Power tool</p>  <p data-bbox="868 630 933 651">PB1C0190E</p>	<p data-bbox="1079 514 1372 546">For loosening bolts and nuts</p>
<p data-bbox="162 766 300 798">Remover tool</p>  <p data-bbox="868 882 933 903">P11B7923J</p>	<p data-bbox="1079 766 1412 798">Remove clips, pawls, metal clips</p>

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# IN-CABIN MICROFILTER

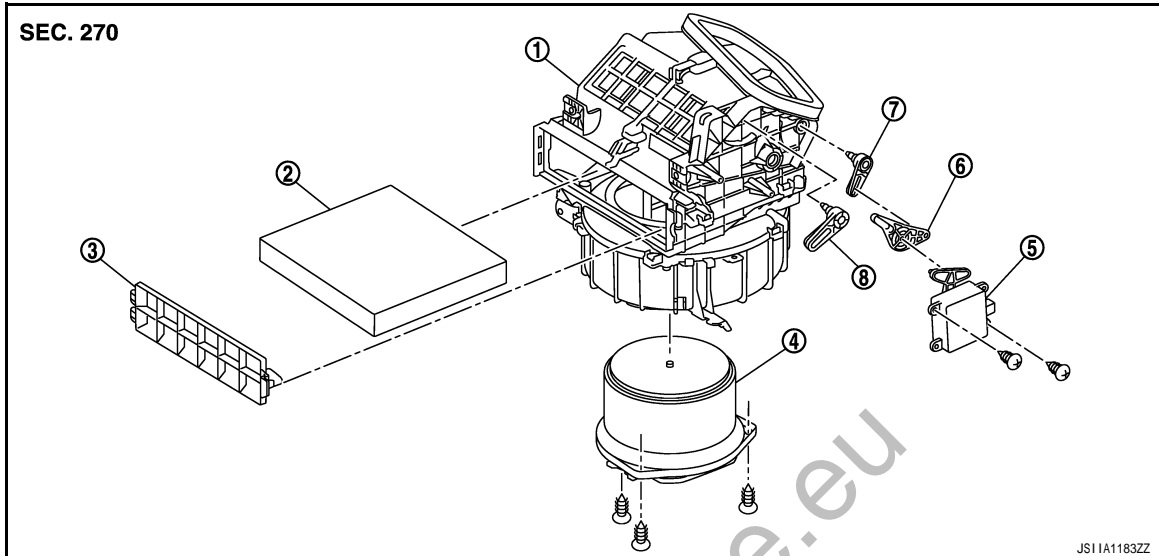
< ON-VEHICLE MAINTENANCE >

## ON-VEHICLE MAINTENANCE

### IN-CABIN MICROFILTER

Exploded View

INFOID:000000003860702



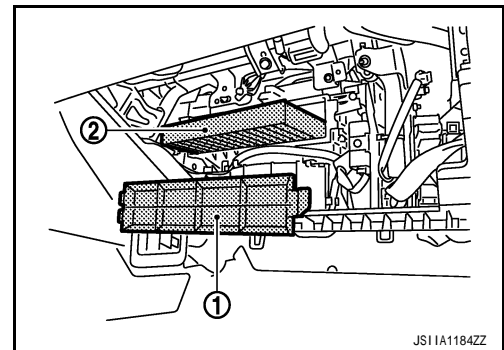
- |                          |                         |                     |
|--------------------------|-------------------------|---------------------|
| 1. Blower unit           | 2. In-cabin microfilter | 3. Filter cover     |
| 4. Blower motor assembly | 5. Intake door motor    | 6. Intake door link |
| 7. Intake door lever 1   | 8. Intake door lever 2  |                     |

### Removal and Installation

INFOID:000000003860703

#### REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-11, "Exploded View"](#).
2. Remove filter cover (1), and then remove in-cabin microfilter (2).



#### INSTALLATION

Installation is basically the reverse order of removal.

#### Replacement

INFOID:000000003860704

Replace in-cabin microfilter.  
Refer to [MA-8, "Schedule 1"](#) and [MA-10, "Schedule 2"](#).  
Affix a caution label inside the glove box when replacing filter.

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# DUCT AND GRILLE

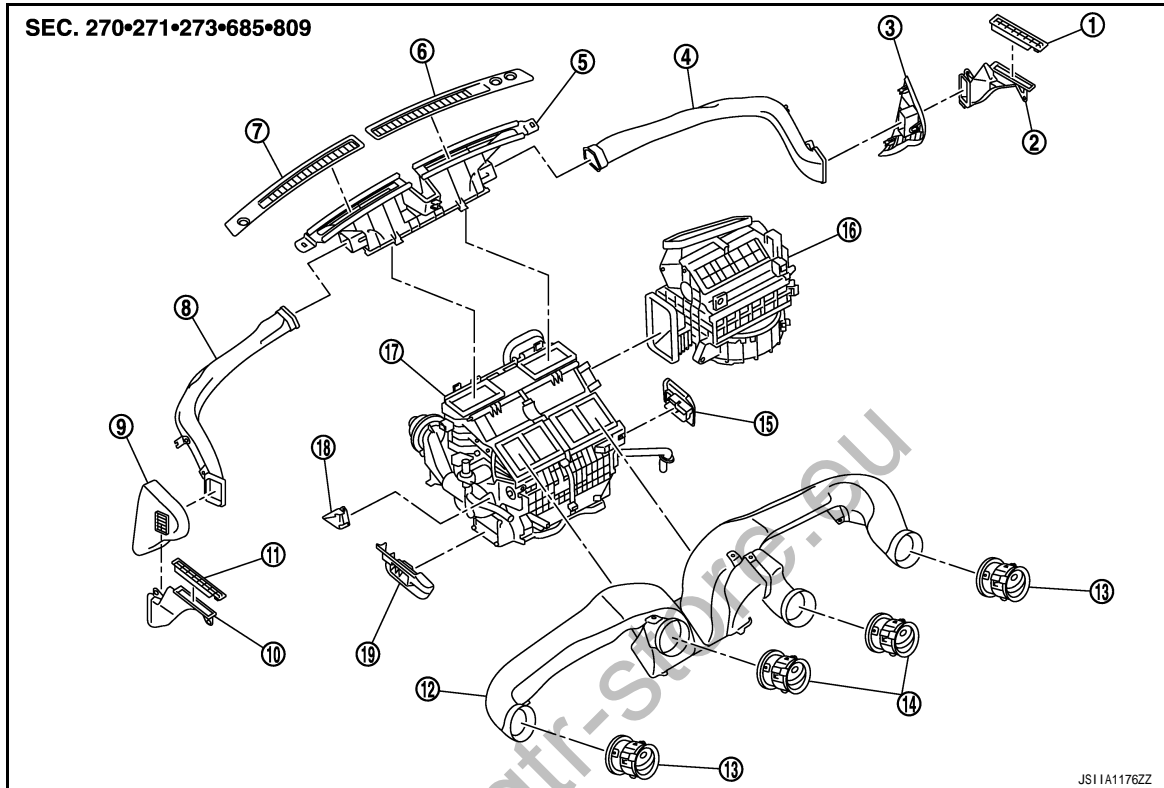
< ON-VEHICLE REPAIR >

## ON-VEHICLE REPAIR

### DUCT AND GRILLE

Exploded View

INFOID:000000003860733



- |                              |                                    |                                      |
|------------------------------|------------------------------------|--------------------------------------|
| 1. Side defroster grille RH  | 2. Side defroster duct RH          | 3. Instrument panel side finisher RH |
| 4. Side defroster nozzle RH  | 5. Front defroster nozzle          | 6. Front defroster grille RH         |
| 7. Front defroster grille LH | 8. Side defroster nozzle LH        | 9. Instrument panel side finisher LH |
| 10. Side defroster duct LH   | 11. Side defroster grille LH       | 12. Ventilator duct                  |
| 13. Side ventilator grille   | 14. Center ventilator grille       | 15. Foot grille RH                   |
| 16. Blower unit              | 17. Heater & cooling unit assembly | 18. Heater duct                      |
| 19. Foot grille LH           |                                    |                                      |

#### NOTE:

Foot duct is integrated in the heater & cooling unit assembly. Refer to [HA-50. "Exploded View \(GT-R certified NISSAN dealer\)".](#)

### CENTER VENTILATOR GRILLE AND SIDE VENTILATOR GRILLE

### CENTER VENTILATOR GRILLE AND SIDE VENTILATOR GRILLE : Removal and Installation

INFOID:000000003860734

#### REMOVAL

Driver Side


1. Remove instrument panel pad A. Refer to [IP-11. "Exploded View"](#).

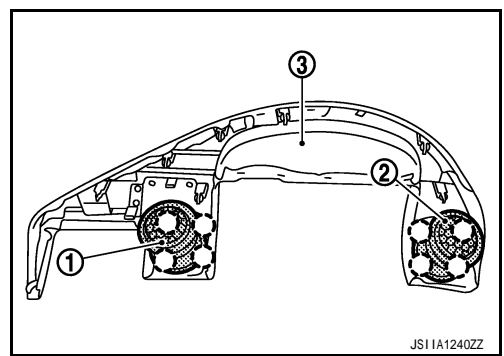


# DUCT AND GRILLE

## < ON-VEHICLE REPAIR >


2. Pull to remove center ventilator grille (1) and side ventilator grille (2) from instrument panel pad A (3), using flat screwdriver to push the pawls.

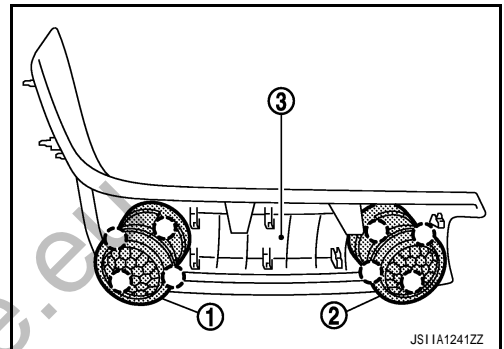
 : Pawl



### Passenger Side

1. Remove instrument panel pad C. Refer to [IP-11, "Exploded View"](#).
2. Pull to remove center ventilator grille (1) and side ventilator grille (2) from instrument panel pad C (3), using flat screwdriver to push the pawls.

 : Pawl



## INSTALLATION

Installation is basically the reverse order of removal.

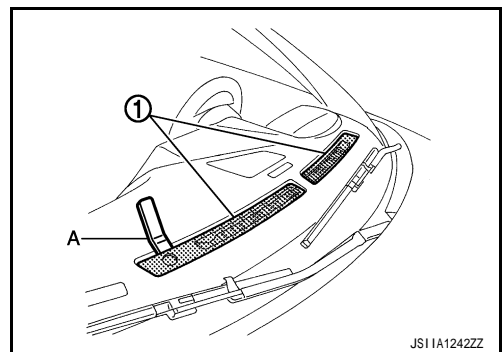
### FRONT DEFROSTER GRILLE

#### FRONT DEFROSTER GRILLE : Removal and Installation

INFOID:000000003860738

#### REMOVAL

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



## INSTALLATION

Installation is basically the reverse order of removal.

### SIDE DEFROSTER GRILLE

#### SIDE DEFROSTER GRILLE : Removal and Installation

INFOID:000000003860736

#### REMOVAL

Driver Side

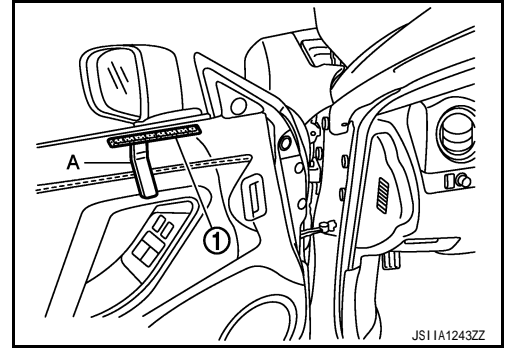
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## DUCT AND GRILLE

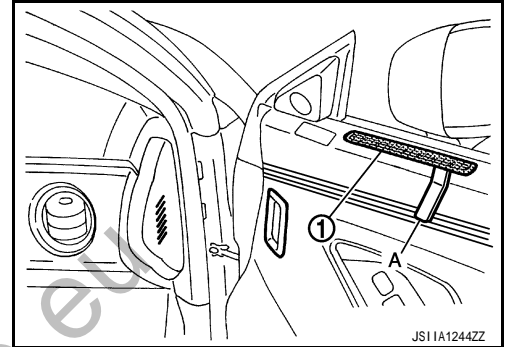
### < ON-VEHICLE REPAIR >

Remove side defroster grille LH (1), using remover tools (A).



Passenger Side

Remove side defroster grille RH (1), using remover tools (A).



### INSTALLATION

Installation is basically the reverse order of removal.

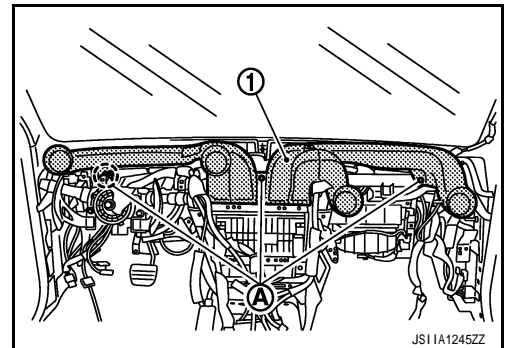
### VENTILATOR DUCT

#### VENTILATOR DUCT : Removal and Installation

INFOID:000000003860740

### REMOVAL

1. Remove instrument panel assembly. Refer to [IP-11, "Exploded View"](#).
2. Remove mounting screws (A), and then remove ventilator duct (1).



### INSTALLATION

Installation is basically the reverse order of removal.

### FRONT DEFROSTER NOZZLE

#### FRONT DEFROSTER NOZZLE : Removal and Installation

INFOID:000000003860744

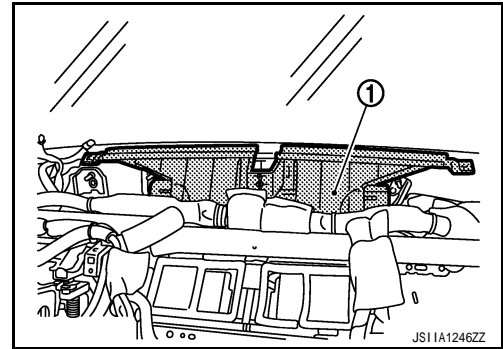
### REMOVAL

1. Remove side defroster nozzles. Refer to [VTL-8, "Exploded View"](#).

# DUCT AND GRILLE

## < ON-VEHICLE REPAIR >

2. Remove front defroster nozzle (1).



## INSTALLATION

Installation is basically the reverse order of removal.

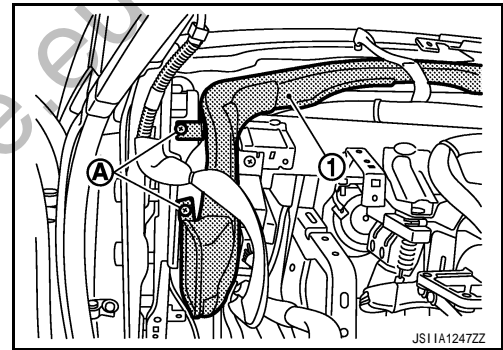
## SIDE DEFROSTER NOZZLE

### SIDE DEFROSTER NOZZLE : Removal and Installation

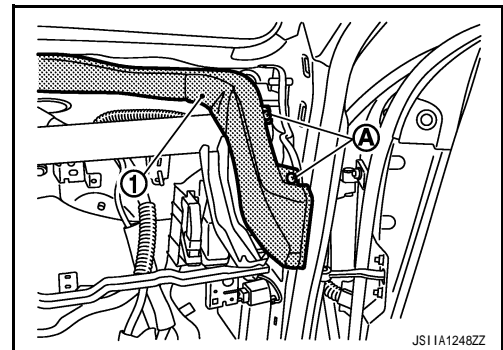
INFOID:000000003860746

## REMOVAL

1. Remove ventilator duct. Refer to [VTL-8, "Exploded View"](#).
2. Remove mounting screws (A), and then remove side defroster nozzle LH (1).



3. Remove mounting screws (A), and then remove side defroster nozzle RH (1).



## INSTALLATION

Installation is basically the reverse order of removal.

## SIDE DEFROSTER DUCT

### SIDE DEFROSTER DUCT : Removal and Installation

INFOID:000000003860748

## REMOVAL

### Driver Side

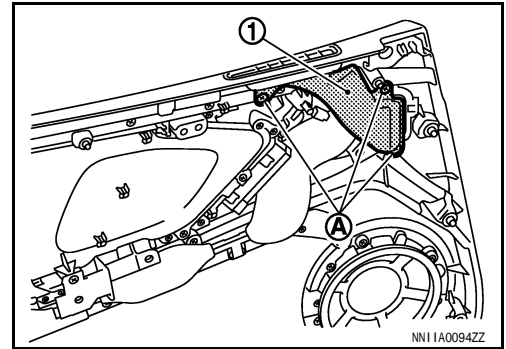
1. Remove door finisher LH. Refer to [INT-11, "Exploded View"](#).

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## DUCT AND GRILLE

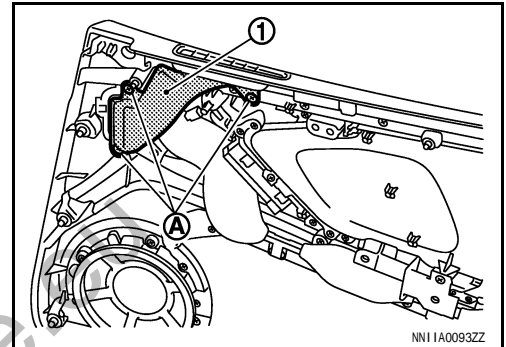
### < ON-VEHICLE REPAIR >

2. Remove mounting screws (A), and then remove side defroster duct LH (1).



### Passenger Side

1. Remove door finisher RH. Refer to [INT-11, "Exploded View"](#).
2. Remove mounting screws (A), and then remove side defroster duct RH (1).



## INSTALLATION

Installation is basically the reverse order of removal.


## FOOT GRILLE

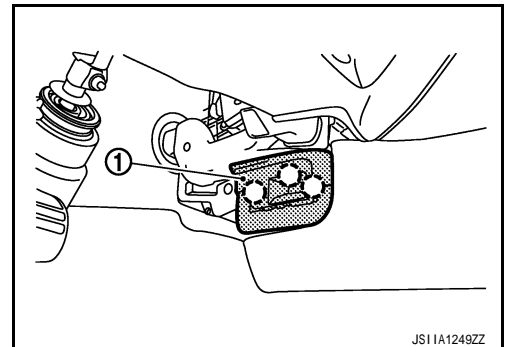
### FOOT GRILLE : Removal and Installation

INFOID:000000003860756


## REMOVAL

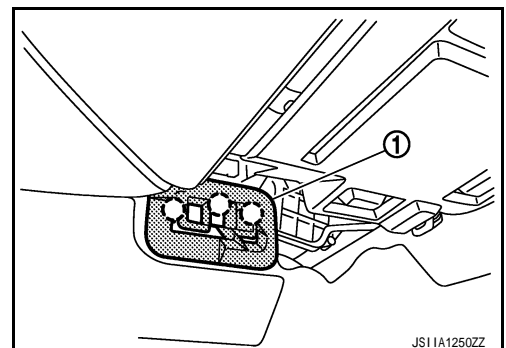
1. Remove foot grille LH (1).

 : Pawl



2. Remove foot grille RH (1).

 : Pawl



## INSTALLATION

Installation is basically the reverse order of removal.

## HEATER DUCT

# DUCT AND GRILLE

< ON-VEHICLE REPAIR >

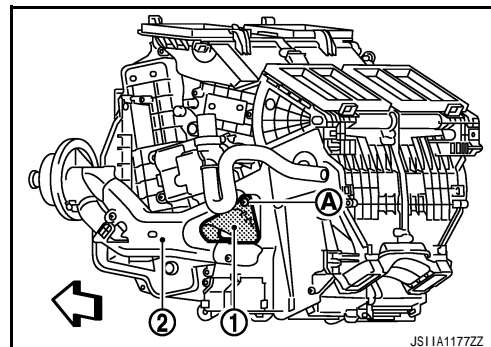
## HEATER DUCT : Removal and Installation

INFOID:000000003860760

### REMOVAL

Remove mounting screw (A), and then remove heater duct (1) from heater & cooling unit assembly (2).

← : Vehicle front



### INSTALLATION

Installation is basically the reverse order of removal.

## FOOT DUCT

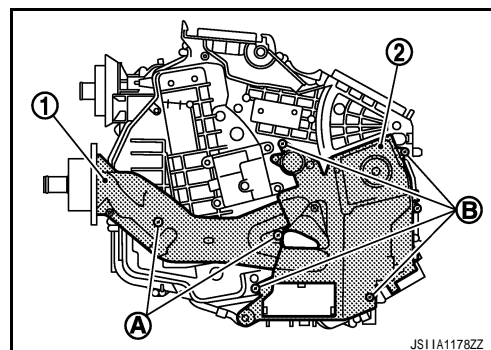
### FOOT DUCT : Removal and Installation

INFOID:000000003860758

### REMOVAL

#### Driver Side

1. Remove heater & cooling unit assembly. Refer to [HA-50, "Exploded View \(GT-R certified NISSAN dealer\)"](#).
2. Remove aspirator.
3. Remove mounting screws (A), and then remove heater pipe cover (1).
4. Remove mounting screws (B), and then remove foot duct LH (2).



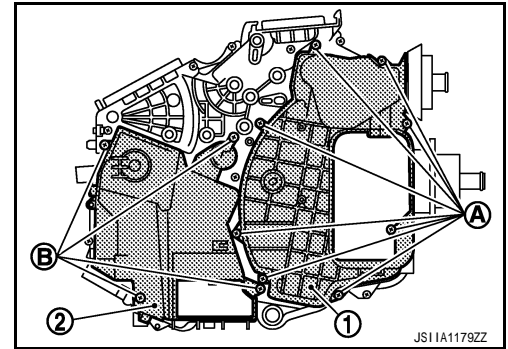
#### Passenger Side

1. Set the temperature (passenger side) at 18.0°C (60°F).
2. Disconnect the battery cable from negative terminal.  
**CAUTION:**  
**The angle may be out, when installing the air mix door motor to the air mix door, unless the above 2 procedures are performed.**
3. Remove heater & cooling unit assembly. Refer to [HA-50, "Exploded View \(GT-R certified NISSAN dealer\)"](#).
4. Remove air mix door motor (passenger side). Refer to [HAC-120, "Exploded View"](#).
5. Remove mode door motor and links. Refer to [HAC-119, "Exploded View"](#).

## DUCT AND GRILLE

### < ON-VEHICLE REPAIR >

6. Remove mounting screws (A), and then remove evaporator cover (1).
7. Remove mounting screws (B), and then remove foot duct RH (2).



### INSTALLATION

Installation is basically the reverse order of removal.

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# BLOWER UNIT

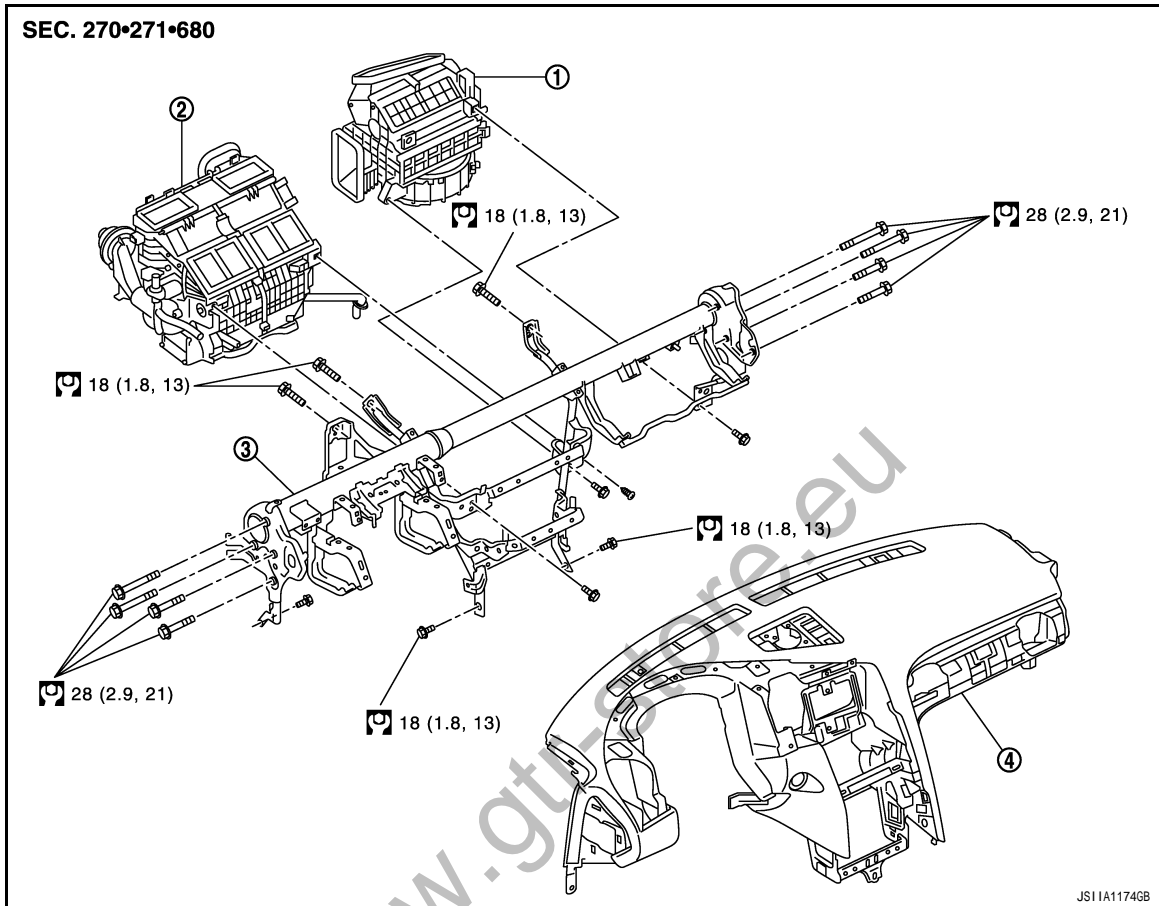
< ON-VEHICLE REPAIR >

## BLOWER UNIT

Exploded View

INFOID:000000003971567

REMOVAL



1. Blower unit
2. Heater & cooling unit assembly
3. Steering member
4. Instrument panel assembly

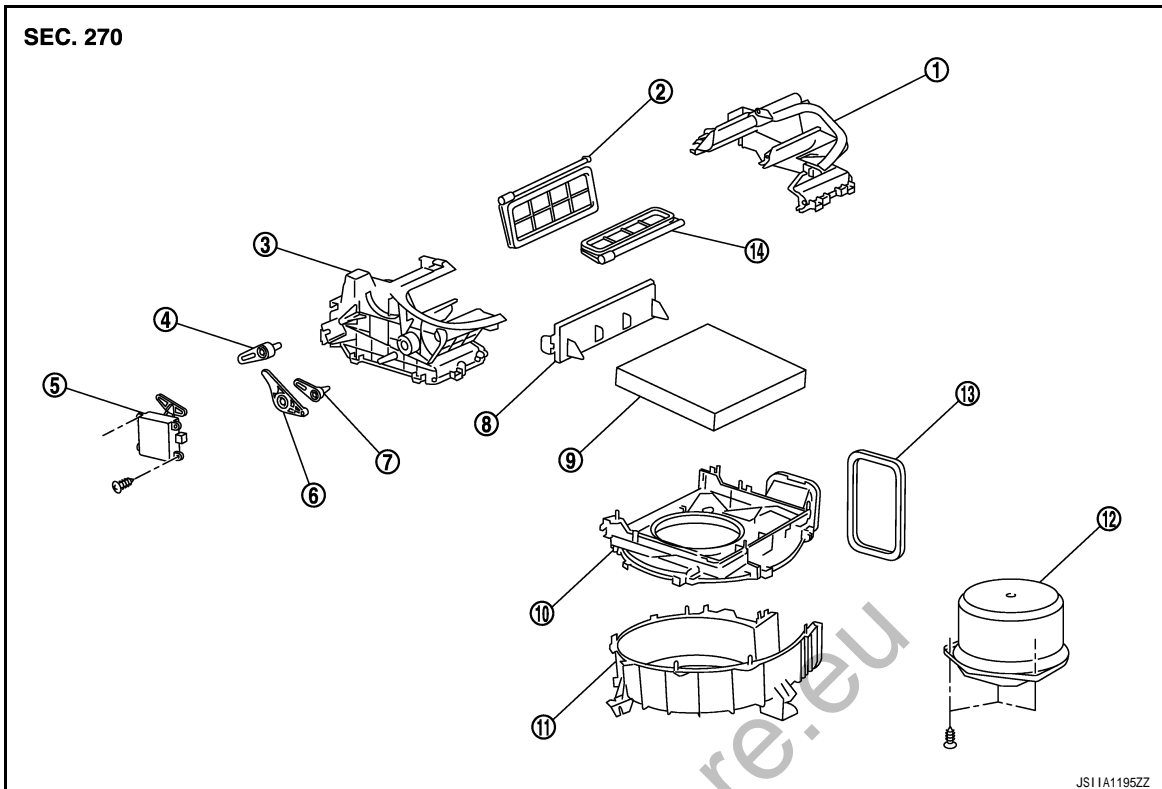
Refer to [GI-4. "Components"](#) for symbols in the figure.

DISASSEMBLY

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

# BLOWER UNIT

< ON-VEHICLE REPAIR >



- |                        |                       |                           |
|------------------------|-----------------------|---------------------------|
| 1. Intake box RH       | 2. Intake door 2      | 3. Intake box LH          |
| 4. Intake door lever 2 | 5. Intake door motor  | 6. Intake door link       |
| 7. Intake door lever 1 | 8. Filter cover       | 9. In-cabin microfilter   |
| 10. Intake upper case  | 11. Intake lower case | 12. Blower motor assembly |
| 13. Seal               | 14. Intake door 1     |                           |

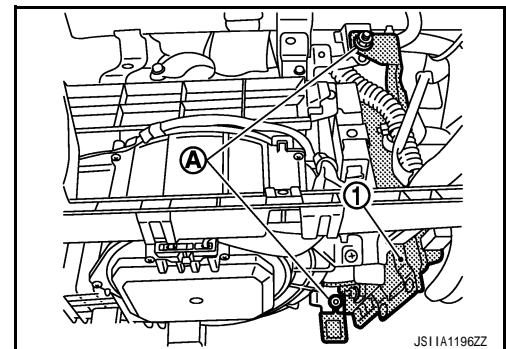
## BLOWER UNIT

### BLOWER UNIT : Removal and Installation

INFOID:000000003971568

#### REMOVAL

1. Remove instrument lower panel RH. Refer to [IP-11, "Exploded View"](#).
2. Remove front floor spacer RH. Refer to [INT-20, "Exploded View"](#).
3. Disconnect E-SUS control unit connector.
4. Disconnect ECM connectors.
5. Remove mounting nuts (A), and then remove ECM (1) with bracket attached.
6. Remove power steering control unit. Refer to [STC-20, "Exploded View \(GT-R certified NISSAN dealer\)"](#).





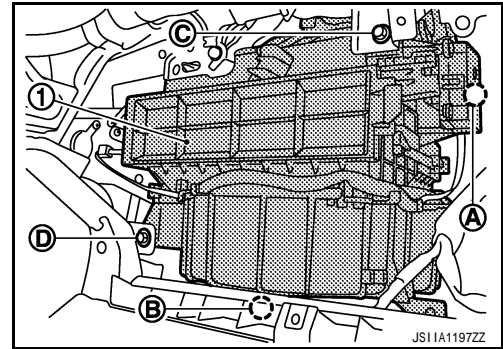
## BLOWER UNIT

### < ON-VEHICLE REPAIR >

7. Disconnect intake door motor connector (A).
8. Disconnect blower motor connector (B).
9. Remove mounting bolt (C) and screw (D), from blower unit (1).
10. Remove blower unit.

**CAUTION:**

Move blower unit rightward, and remove locating pin (1 part) and joint. Then remove blower unit downward.



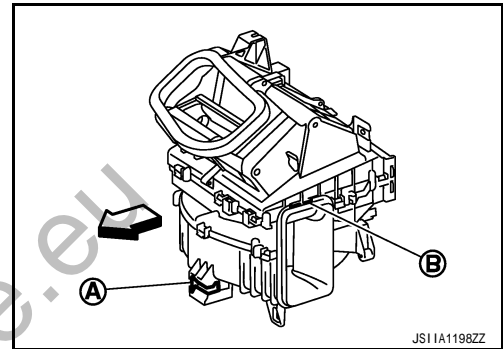
### INSTALLATION

Installation is basically the reverse order of removal.

**CAUTION:**

Make sure locating pin (A) and joint (B) are securely inserted.

← : Vehicle front



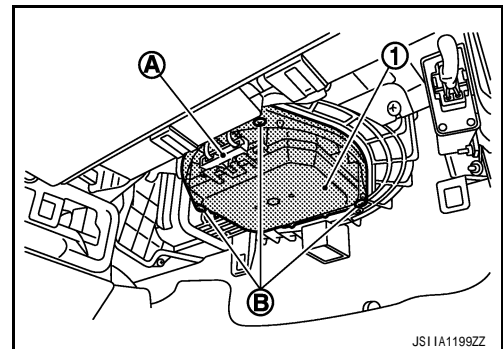
## BLOWER MOTOR

### BLOWER MOTOR : Removal and Installation

INFOID:000000003971569

#### REMOVAL

1. Remove instrument lower cover RH. Refer to [IP-11. "Exploded View"](#).
2. Disconnect blower motor connector (A).
3. Remove mounting screws (B), and then remove blower motor (1).



#### INSTALLATION

Installation is basically the reverse order of removal.

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

VTL