

SECTION **VTL** VENTILATION SYSTEM

CONTENTS

AUTOMATIC AIR CONDITIONER	EVAPORATOR	16
PRECAUTION	Removal and Installation	16
PRECAUTIONS	HEATER CORE	17
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	Removal and Installation	17
Precaution for Working with HFC-134a (R-134a).....	BLOWER MOTOR	18
PREPARATION	Removal and Installation	18
PREPARATION	FAN CONTROL AMPLIFIER	19
Commercial Service Tool	Removal and Installation	19
FUNCTION DIAGNOSIS	INTAKE DOOR MOTOR	20
AIR CONDITIONER FILTER	Removal and Installation	20
Description	AIR MIX DOOR MOTOR	21
ON-VEHICLE MAINTENANCE	Removal and Installation	21
AIR CONDITIONER FILTER	MODE DOOR MOTOR	22
Removal and Installation	Removal and Installation	22
ON-VEHICLE REPAIR	DUCTS AND GRILLES	23
CONTROLLER	Removal and Installation	23
Removal and Installation	PTC HEATER	28
Disassembly and Assembly	Removal and Installation of PTC Control Unit	28
IN-VEHICLE SENSOR	Removal and Installation of PTC Heater	28
Removal and Installation	Removal and Installation of Water Temperature Sensor	28
SUNLOAD SENSOR	MANUAL AIR CONDITIONER	
Removal and Installation	PRECAUTION	30
INTAKE SENSOR	PRECAUTIONS	30
Removal and Installation	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	30
A/C UNIT ASSEMBLY	Precaution for Working with HFC-134a (R-134a).....	30
Removal and Installation	PREPARATION	31
Disassembly and Assembly	PREPARATION	31
	Commercial Service Tool	31

A

B

C

D

E

F

G

H

VTL

J

K

L

M

N

O

P

FUNCTION DIAGNOSIS	32	HEATER CORE	42
AIR CONDITIONER FILTER	32	Removal and Installation	42
Description	32	BLOWER MOTOR	43
ON-VEHICLE MAINTENANCE	33	Removal and Installation	43
AIR CONDITIONER FILTER	33	BLOWER FAN RESISTOR	44
Removal and Installation	33	Removal and Installation	44
ON-VEHICLE REPAIR	34	INTAKE DOOR	45
CONTROLLER	34	Intake Door Cable Adjustment	45
Removal and Installation	34	AIR MIX DOOR	46
Disassembly and Assembly	35	Air Mix Door Cable Adjustment	46
INTAKE SENSOR	36	MODE DOOR	47
Removal and Installation	36	Mode Door Cable Adjustment	47
A/C UNIT ASSEMBLY	37	DUCTS AND GRILLES	48
Removal and Installation	37	Removal and Installation	48
Disassembly and Assembly	39	PTC HEATER	53
EVAPORATOR	41	Removal and Installation of PTC Control Unit	53
Removal and Installation of Evaporator	41	Removal and Installation of PTC Heater	53
		Removal and Installation of Water Temperature Sensor	53

PRECAUTION

PRECAUTIONS

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

INFOID:000000001696273

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 SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

Precaution for Working with HFC-134a (R-134a)

INFOID:000000001696274

WARNING:

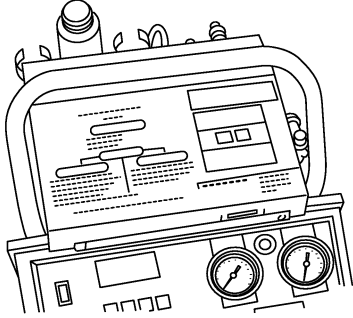
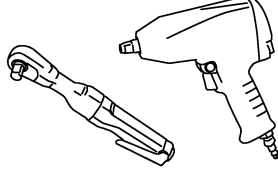
- Use only specified oil for the HFC-134a (R-134a) A/C system and HFC-134a (R-134a) components. If oil other than that specified is used, compressor malfunction is likely to occur.
- The specified HFC-134a (R-134a) oil rapidly absorbs moisture from the atmosphere. The following handling precautions must be observed:
 - When removing refrigerant components from a vehicle, immediately cap (seal) the component to minimize the entry of moisture from the atmosphere.
 - When installing refrigerant components to a vehicle, do not remove the caps (unseal) until just before connecting the components. Connect all refrigerant loop components as quickly as possible to minimize the entry of moisture into system.
 - Only use the specified oil from a sealed container. Immediately reseal containers of oil. Without proper sealing, oil will become moisture saturated and should not be used.
 - Avoid breathing A/C refrigerant and oil vapor or mist. Exposure may irritate eyes, nose and throat. Use only approved recovery/recycling equipment to discharge HFC-134a (R-134a) refrigerant. If accidental system discharge occurs, ventilate work area before resuming service. Additional health and safety information may be obtained from refrigerant and oil manufacturers.
 - Do not allow A/C oil to come in contact with styrofoam parts. Damage may result.

PREPARATION

PREPARATION

Commercial Service Tool

INFOID:000000001696276

Tool name	Description
(J-41810-NI) Refrigerant identifier equipment (R-134a)  RJIA0197E	For checking refrigerant purity and system contamination
Power tool  PBIC0190E	Loosening bolts and nuts

FUNCTION DIAGNOSIS

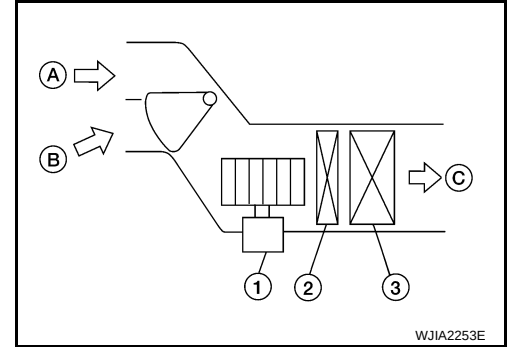
AIR CONDITIONER FILTER

Description

INFOID:000000001696277

FUNCTION

The fresh air (A) and the recirculated air (B) drawn inside the passenger compartment by the front blower motor (1) is kept clean (C) on either mode by the air conditioner filter (2), located before the evaporator (3), in the A/C unit assembly.



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

VTL

ON-VEHICLE MAINTENANCE

AIR CONDITIONER FILTER

Removal and Installation

INFOID:000000001696278

REPLACEMENT TIMING

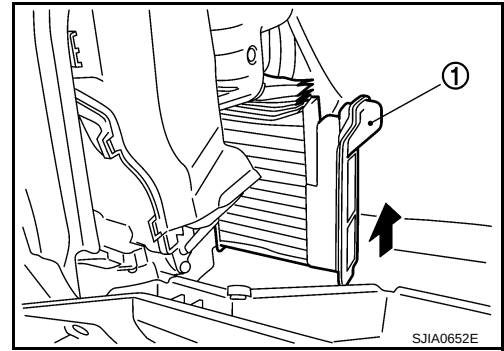
Replace the air conditioner filter according to the maintenance schedules. Refer to [MA-7. "Periodic Maintenance"](#).

NOTE:

The air conditioner filter caution label is located inside the glove box door.

REPLACEMENT PROCEDURES

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11. "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11. "Removal and Installation"](#).
3. Compress the air conditioner filter (1) downward while sliding it to the RH side of the vehicle to release the upper pawl.
4. Move the bottom of air conditioner filter (1) upward as shown to release the bottom tab, then remove it.



5. Replace the air conditioner filter with new one and install the new filter in the A/C unit assembly.
CAUTION:
Make sure that the air conditioner filter lower tab is fully seated, and that the air conditioner upper pawl is locked into place securing the new filter into the A/C unit assembly.
6. Install the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11. "Removal and Installation"](#).
7. Install the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11. "Removal and Installation"](#).

ON-VEHICLE REPAIR

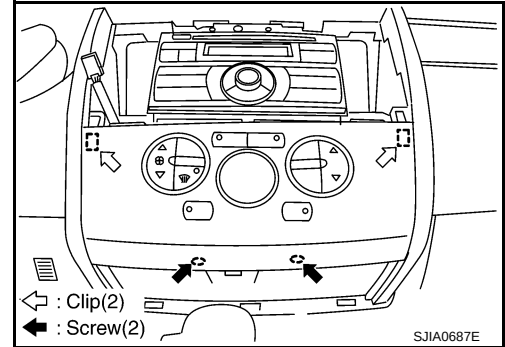
CONTROLLER

Removal and Installation

INFOID:000000001696279

REMOVAL

1. Remove cluster lid C and instrument finisher D. Refer to [JP-11, "Removal and Installation"](#).
2. Remove the front air control screws and release the front air control clips, and then remove the front air control.

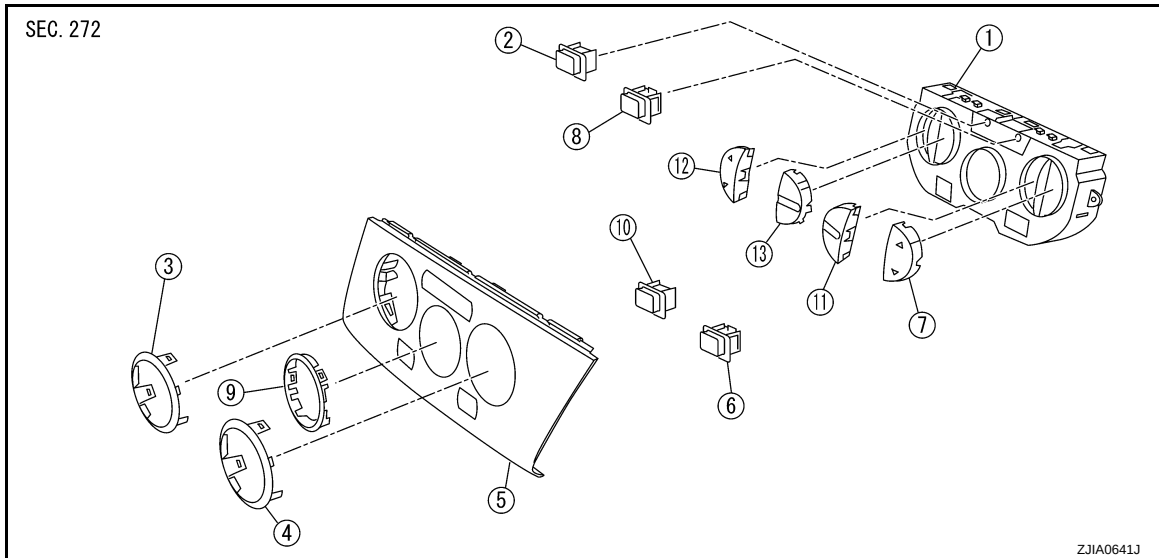


INSTALLATION

Installation is in the reverse order of removal.

Disassembly and Assembly

INFOID:000000001696280



- | | | |
|----------------------|-----------------|----------------|
| 1. Front air control | 2. FRE button | 3. MODE ring |
| 4. TEMP ring | 5. A/C finisher | 6. A/C button |
| 7. TEMP button | 8. REC button | 9. LCD ring |
| 10. Rear DEF button | 11. AUTO button | 12. FAN button |
| 13. MODE button | | |

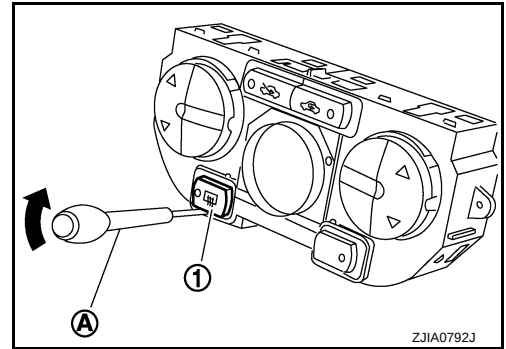
DISASSEMBLY

CONTROLLER

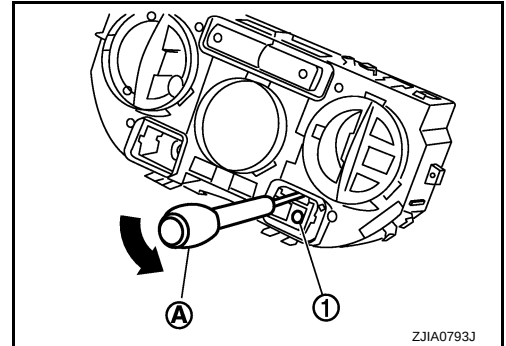
< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

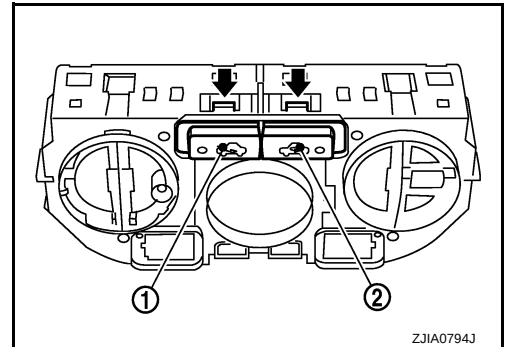
1. Remove rear DEF button (1) using a suitable tool (A) as shown.



2. Remove A/C button (1) using a suitable tool (A) as shown.



3. Remove FRE button (1) and REC button (2) using a suitable tool as shown.



ASSEMBLY

Assembly is in the reverse order of disassembly.

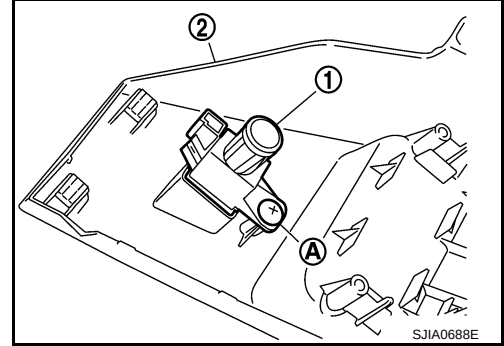
IN-VEHICLE SENSOR

Removal and Installation

INFOID:000000001696282

REMOVAL

1. Remove instrument lower finisher. Refer to [IP-11, "Removal and Installation"](#).
2. Remove in-vehicle sensor screw (A), and then remove in-vehicle sensor (1) from instrument lower finisher (2).



INSTALLATION

Installation is in the reverse order of removal.

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

VTL

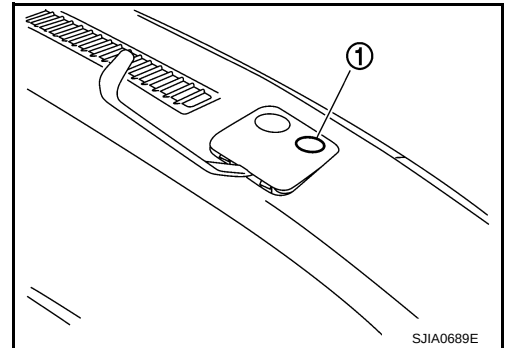
SUNLOAD SENSOR

Removal and Installation

INFOID:000000001696283

REMOVAL

1. Remove instrument upper mask using a suitable tool as shown.
2. Disconnect sunload sensor connector, and then remove sunload sensor (1).



INSTALLATION

Installation is in the reverse order of removal.

INTAKE SENSOR

Removal and Installation

INFOID:000000001696284

REMOVAL

1. Remove the evaporator. Refer to [VTL-16. "Removal and Installation"](#).

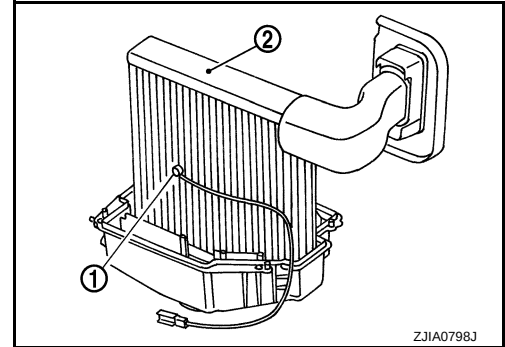
CAUTION:

Cap or wrap the joint of the pipe with suitable material such as vinyl tape to avoid the entry of air.

2. Remove the intake sensor (1) from the evaporator (2).

CAUTION:

Mark the position of intake sensor on the evaporator for installation.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Replace O-rings for A/C piping with new ones, and then apply compressor oil to it when installing it.
- Install the intake sensor in the same position as the original intake sensor.
- When recharging refrigerant, check for leaks.

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

VTL

A/C UNIT ASSEMBLY

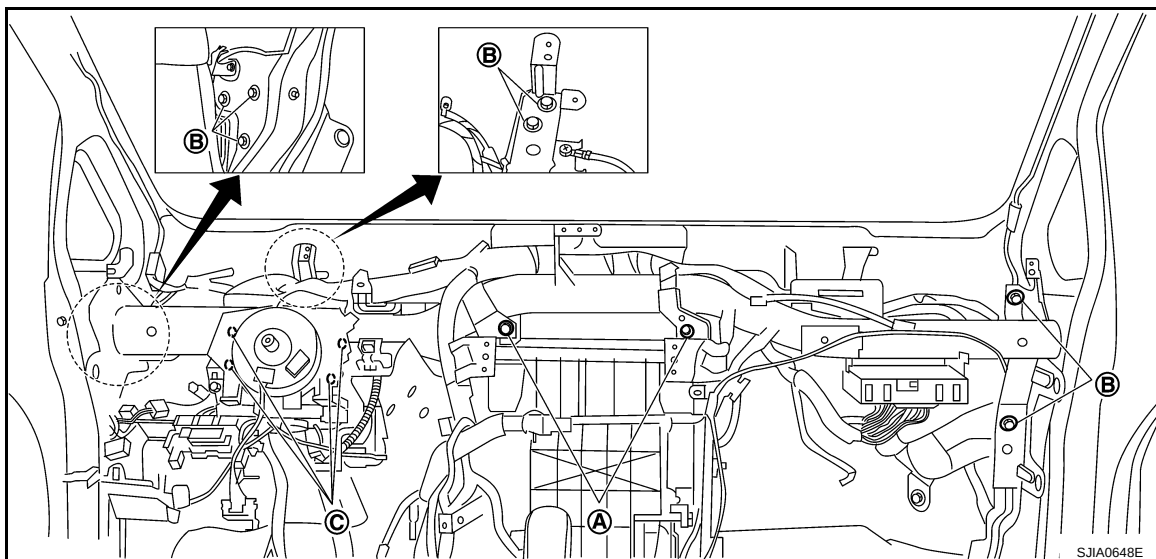
< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

A/C UNIT ASSEMBLY

Removal and Installation

INFOID:000000001696285



A. A/C unit assembly bolts

B. Steering member bolts

C. Steering column nuts

NOTE:

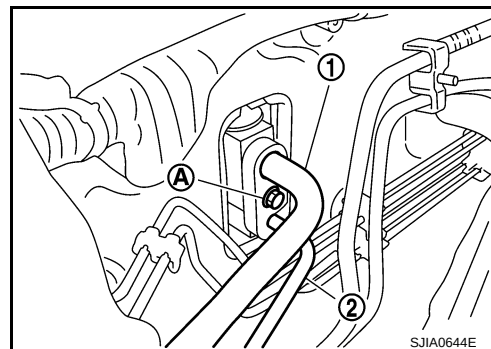
A LHD model shown, RHD model similar.

REMOVAL

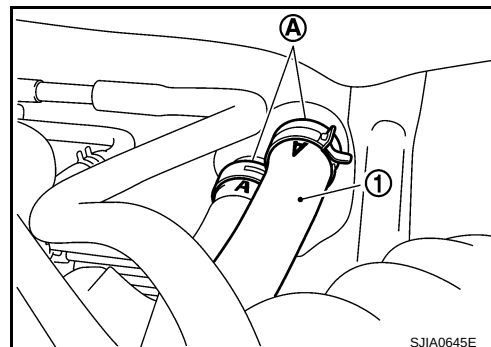
1. Use the recovery/recycling equipment (for HFC-134a) to discharge the refrigerant. Refer to [HA-29, "HFC-134a \(R-134a\) Service Procedure"](#).
2. Drain the coolant from the cooling system. Refer to [CO-11, "Changing Engine Coolant"](#) (HR16DE), [CO-35, "Changing Engine Coolant"](#) (MR18DE), [CO-58, "Draining"](#) (K9K).
3. Remove cowl top cover. Refer to [EXT-20, "Removal and Installation"](#).
4. Remove lower dash insulator.
5. Remove bolt (A), and then disconnect low-pressure flexible hose (1) and high-pressure pipe (2) from evaporator.

CAUTION:

Cap or wrap the joint of the pipe with suitable material such as vinyl tape to avoid the entry of air.



6. Remove clamps (A), and then disconnect heater hoses (1) from heater core.

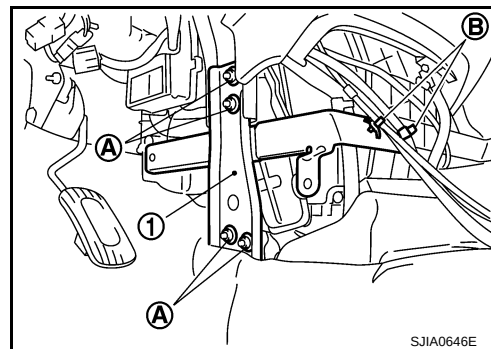


A/C UNIT ASSEMBLY

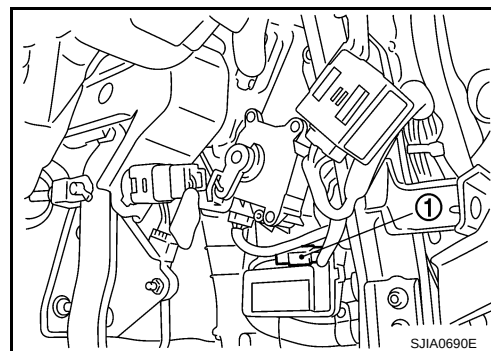
< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

7. Remove console box assembly. Refer to [IP-11, "Removal and Installation"](#)
8. Remove the instrument stay nuts (A) and harness clamps (B), and then remove instrument stay (1).



9. Disconnect intake sensor connector (1).



10. Remove instrument panel and pad. Refer to [IP-11, "Removal and Installation"](#).
11. Remove side ventilator ducts. Refer to [VTL-23, "Removal and Installation"](#).
12. Remove center ventilator ducts. Refer to [VTL-23, "Removal and Installation"](#).
13. Remove the side kicking plates. Refer to [INT-20, "Removal and Installation"](#).
14. Disconnect the fuel filler door cable and the rear hatch door cable (if equipped).
15. Remove A/C unit assembly bolts, steering member bolts, steering column nuts and harness clips.
16. Remove steering member, and then remove A/C unit assembly.

INSTALLATION

Installation is in the reverse order of removal.

- Fill the cooling system with coolant. Refer to [CO-11, "Changing Engine Coolant"](#) (HR16DE), [CO-35, "Changing Engine Coolant"](#) (MR18DE), [CO-58, "Refilling"](#) (K9K).
- Recharge the refrigerant. Refer to [HA-29, "HFC-134a \(R-134a\) Service Procedure"](#).

A/C unit assembly bolt	: 6.9 N·m (0.7 kg-m, 61 in-lb)
Steering member bolt	: 12 N·m (1.25 kg-m, 9 ft-lb)
Steering column nut	: -Refer to ST-9, "Removal and Installation" .

CAUTION:

- Replace O-rings for A/C piping with new ones, and then apply compressor oil to it when installing it.
- When recharging refrigerant, check for leaks.

A/C UNIT ASSEMBLY

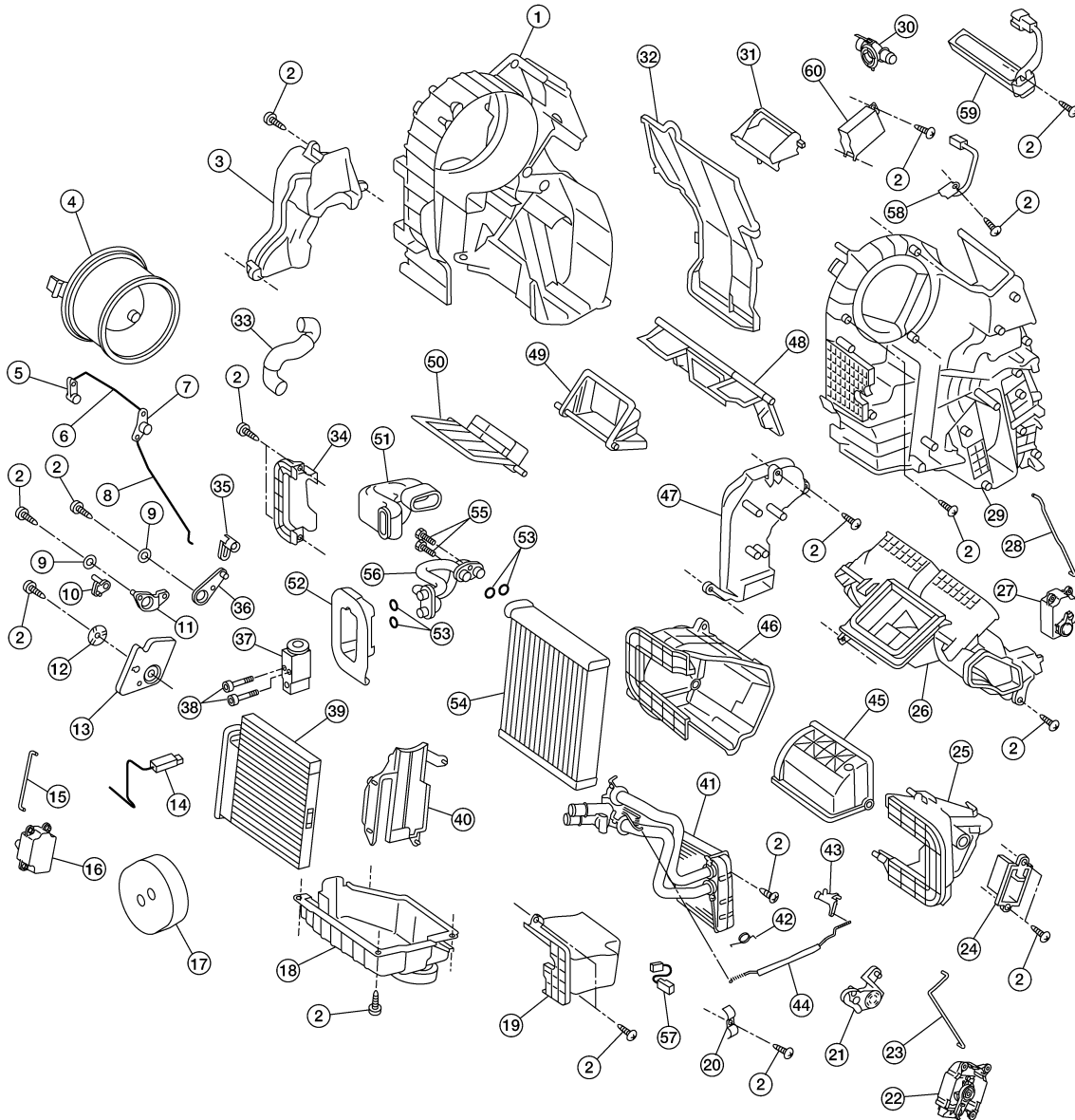
< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

Disassembly and Assembly

INFOID:000000001696286

SEC.272



AWIIA0590ZZ

- | | | |
|------------------------------------|--|--------------------------------------|
| 1. Blower case (right) | 2. Screw | 3. Foot duct (right) |
| 4. Blower motor | 5. Sub ventilator-defroster door lever | 6. Sub ventilator-defroster door rod |
| 7. Ventilator-defroster door lever | 8. Ventilator-defroster door rod | 9. Washer |
| 10. Intake door lever | 11. Ventilator-defroster door link | 12. Washer |
| 13. Main link | 14. Intake sensor | 15. Mode door rod |
| 16. Mode door motor | 17. Heater pipe packing | 18. Lower blower case |
| 19. Heater pipe cover | 20. Heater pipe clip | 21. Intake door lever |
| 22. Intake door motor | 23. Intake door rod | 24. Variable blower control |

A/C UNIT ASSEMBLY

< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

- | | | |
|-----------------------------|---------------------------|-------------------------------|
| 25. Intake case (left) | 26. Center defroster duct | 27. Air mix door motor |
| 28. Air mix door rod | 29. Blower case (left) | 30. Aspirator |
| 31. Cover | 32. Cover | 33. Cooling hose |
| 34. Expansion valve cover | 35. Foot door lever | 36. Foot door link |
| 37. Expansion valve | 38. Bolt | 39. Air conditioner filter |
| 40. Evaporator cover | 41. Heater core | 42. Spring |
| 43. Air mix door lever | 44. Water valve rod | 45. Intake door |
| 46. Intake case (right) | 47. Foot duct (left) | 48. Ventilator-defroster door |
| 49. Foot door | 50. Air mix door | 51. Seal |
| 52. Expansion valve grommet | 53. O-ring | 54. Evaporator |
| 55. Bolt | 56. Cooler pipe assembly | 57. Water temperature sensor |
| 58. Full hot switch | 59. PTC heater | 60. PTC control unit |

CAUTION:

After installing door motor, perform door motor starting position reset by following self-diagnosis STEP-3. Refer to [HAC-213, "Front Air Control Self-Diagnosis"](#).

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

EVAPORATOR

Removal and Installation

INFOID:000000001696371

REMOVAL

1. Remove the A/C unit assembly. Refer to [VTL-12, "Removal and Installation"](#).

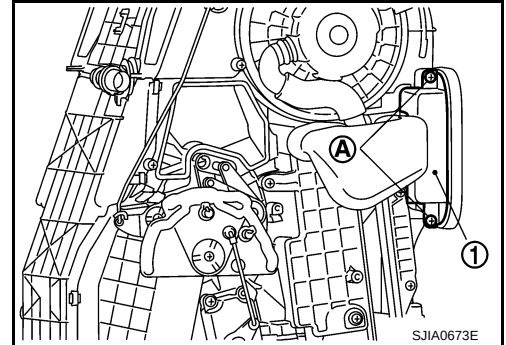
CAUTION:

Cap or wrap the joint of the pipe with suitable material such as vinyl tape to avoid the entry of air.

2. Remove the air conditioner filter.
3. Remove foot duct (right). Refer to [VTL-23, "Removal and Installation"](#).
4. Remove screws (A), and then remove expansion valve cover (1).

NOTE:

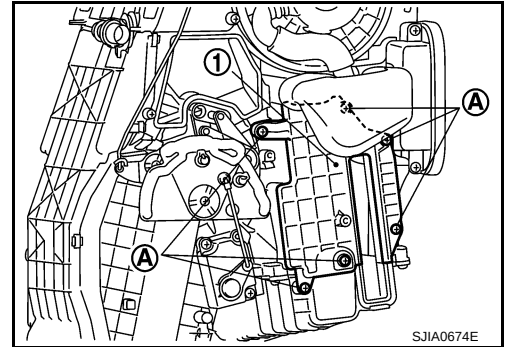
Manual A/C system shown, automatic A/C system similar.



5. Remove screws (A), and then remove evaporator cover (1).

NOTE:

Manual A/C system shown, automatic A/C system similar.

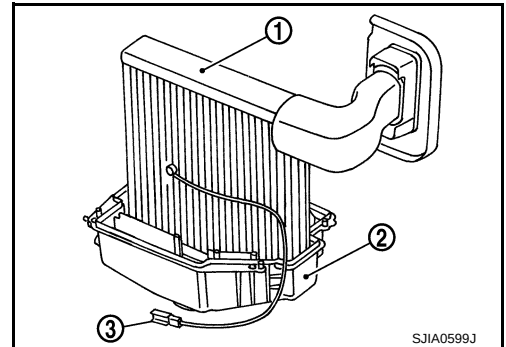


6. Remove the evaporator (1) with lower blower case (2) from the A/C unit assembly.
7. Remove the intake sensor (3) from the evaporator (1).

CAUTION:

Note the position of the intake sensor on the evaporator for installation.

8. Remove the evaporator (1) from the lower blower case (2).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Replace O-rings for A/C piping with new ones, and then apply compressor oil to it when installing it.
- Install the intake sensor in the same position on the evaporator.
- When recharging refrigerant, check for leaks.

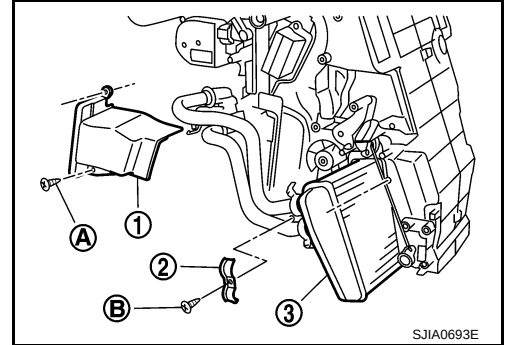
HEATER CORE

Removal and Installation

INFOID:000000001696357

REMOVAL

1. Remove the A/C unit assembly. Refer to [VTL-12, "Removal and Installation"](#).
2. Remove foot duct (left). Refer to [VTL-23, "Removal and Installation"](#).
3. Remove the heater pipe cover screws (A), and then remove the heater pipe cover (1).
4. Remove the heater pipe clip screw (B), and then remove the heater pipe clip (2).
5. Slide the heater core (3) out of the A/C unit assembly to remove.



INSTALLATION

Installation is in the reverse order of removal.

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

VTL

BLOWER MOTOR

Removal and Installation

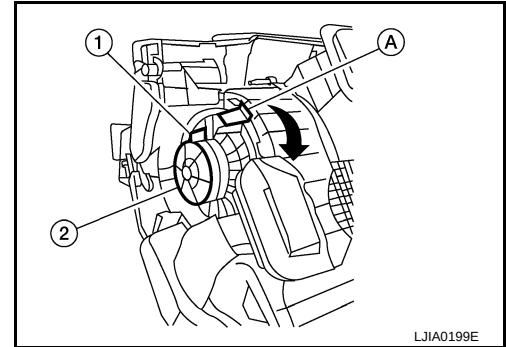
INFOID:000000001696287

REMOVAL

1. Remove instrument panel and pad. Refer to [IP-11, "Removal and Installation"](#).
2. Remove side ventilator duct (right). Refer to [VTL-23, "Removal and Installation"](#).
3. Disconnect front blower motor connector (1).
4. Push the flange holding hook (A) toward the front blower motor (2), then rotate the front blower motor (2) clockwise and remove it from the A/C unit assembly.

CAUTION:

When front blower fan and front blower motor are manufactured, the balance is adjusted, do not disassemble to replace the individual parts.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Rotate the front blower motor until the front blower motor flange holding hook locks securely into the A/C unit assembly.

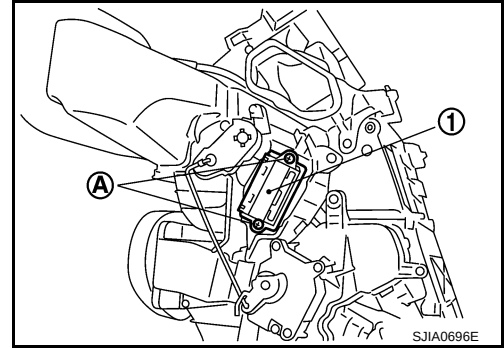
FAN CONTROL AMPLIFIER

Removal and Installation

INFOID:000000001696291

REMOVAL

1. Remove the A/C unit assembly. Refer to [VTL-12, "Removal and Installation"](#).
2. Remove the fan control amp. screws (A), and then remove the fan control amp. (1).



INSTALLATION

Installation is in the reverse order of removal.

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

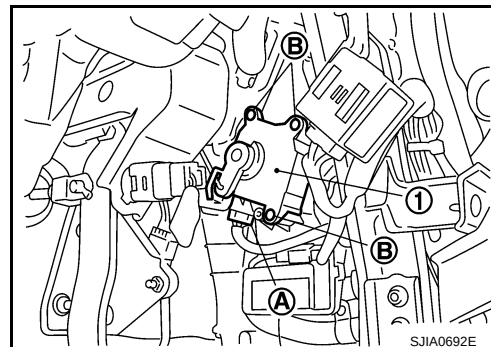
INTAKE DOOR MOTOR

Removal and Installation

INFOID:000000001696288

REMOVAL

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Disconnect the intake door motor connector (A).
4. Remove the intake door motor screws (B), and then remove the intake door motor (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installing door motor, perform door motor starting position reset by following self-diagnosis STEP-3. Refer to [HAC-213, "Front Air Control Self-Diagnosis"](#).

AIR MIX DOOR MOTOR

< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

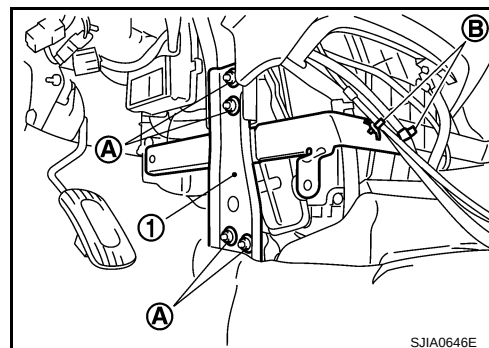
AIR MIX DOOR MOTOR

Removal and Installation

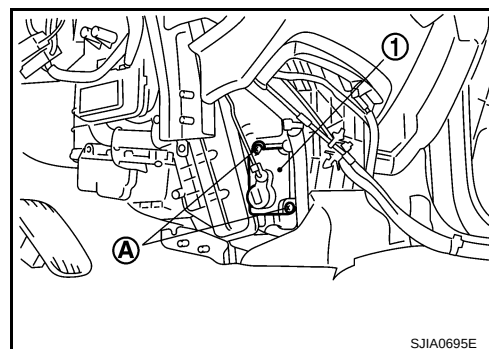
INFOID:000000001696289

REMOVAL

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Remove the console box assembly. Refer to [IP-11, "Removal and Installation"](#).
4. Remove the instrument stay nuts (A) and harness clamps (B), and then remove instrument stay (1).



5. Remove the air mix door motor screws (A), and then pull out the air mix door motor (1).
6. Disconnect the air mix door motor connector and remove the air mix door motor (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installing door motor, perform door motor starting position reset by following self-diagnosis STEP-3. Refer to [HAC-213, "Front Air Control Self-Diagnosis"](#).

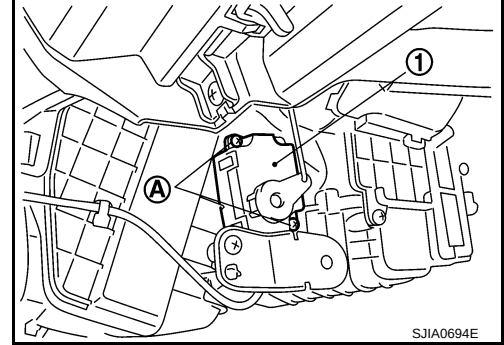
MODE DOOR MOTOR

Removal and Installation

INFOID:000000001696290

REMOVAL

1. Remove the glove box assembly and instrument lower cover (RH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the instrument lower finisher and instrument lower cover (LH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Remove the mode door motor screws (A), and then pull out the mode door motor (1).
4. Disconnect mode door motor connector and remove the mode door motor (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installing door motor, perform door motor starting position reset by following self-diagnosis STEP-3. Refer to [HAC-213, "Front Air Control Self-Diagnosis"](#).

DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

DUCTS AND GRILLES

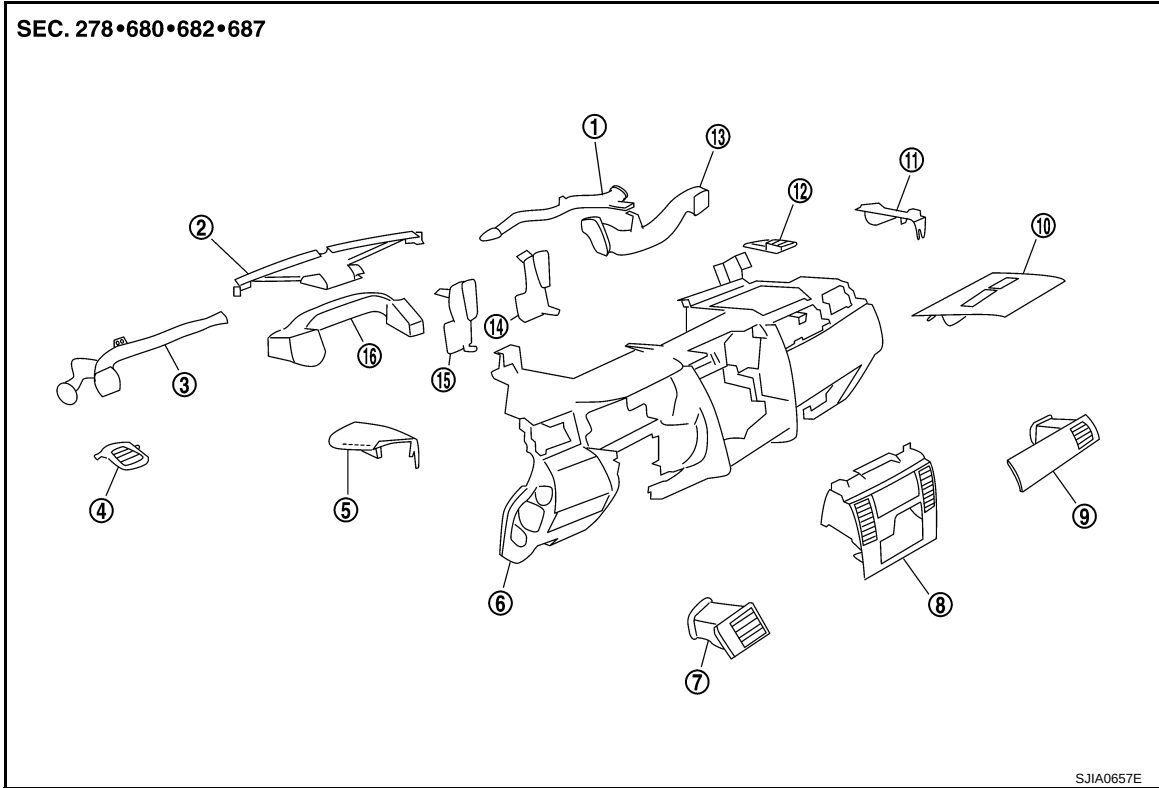
Removal and Installation

INFOID:000000001696358

NOTE:

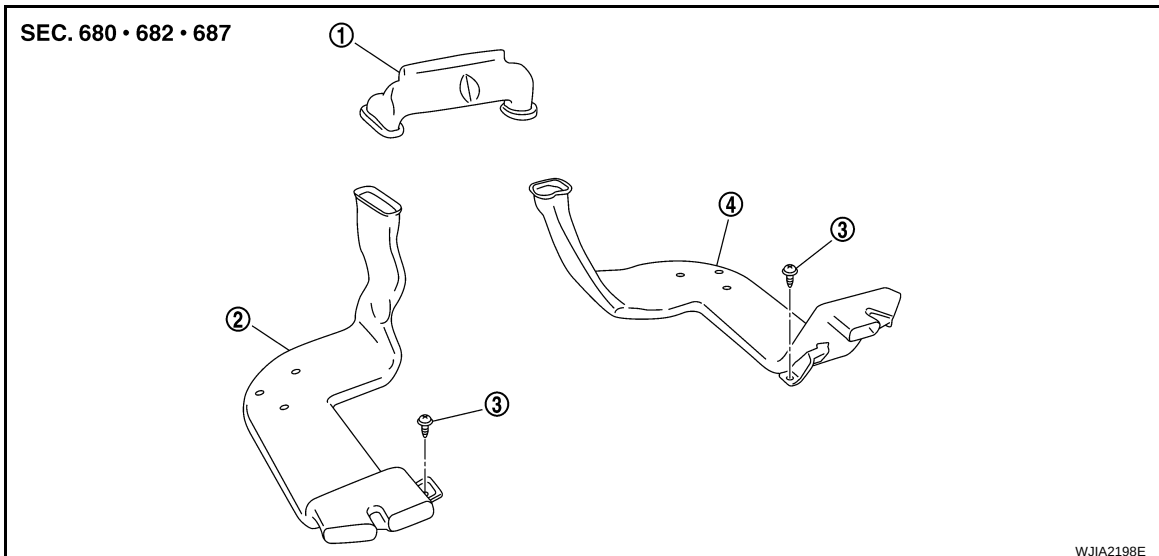
A LHD vehicle shown, RHD vehicle similar

Instrument Panel Ducts



- | | | |
|------------------------------------|------------------------------------|-------------------------------------|
| 1. Side defroster duct (right) | 2. Defroster nozzle | 3. Side defroster duct (left) |
| 4. Side defroster grille (left) | 5. Instrument side panel (left) | 6. Instrument panel and pad |
| 7. Side ventilator assembly (left) | 8. Cluster lid C | 9. Side ventilator assembly (right) |
| 10. Instrument finisher E | 11. Instrument side panel (right) | 12. Side defroster grille (right) |
| 13. Side ventilator duct (right) | 14. Center ventilator duct (right) | 15. Center ventilator duct (left) |
| 16. Side ventilator duct (left) | | |

Floor Ducts



DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

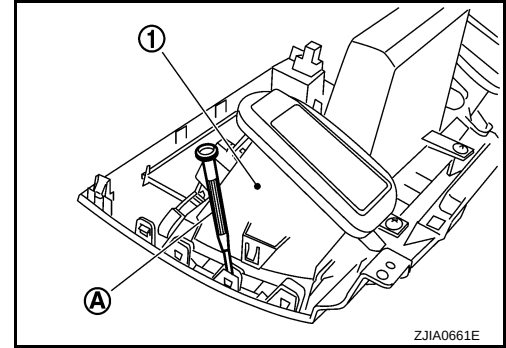
[AUTOMATIC AIR CONDITIONER]

1. Front floor duct
2. Rear floor duct (left)
3. Clip
4. Rear floor duct (right)

CENTER VENTILATOR GRILLES

Removal

1. Remove cluster lid C. Refer to [IP-10, "Component Parts"](#).
2. Remove center ventilator grilles (1) from cluster lid C using suitable tool (A).



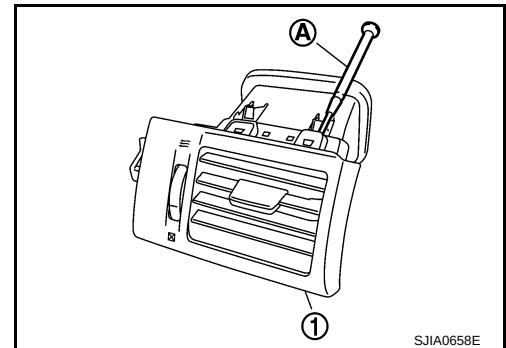
Installation

Installation is in the reverse order of removal.

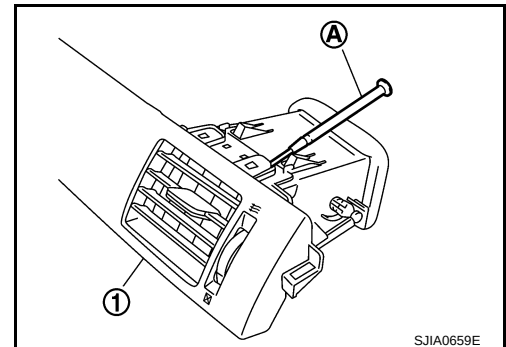
SIDE VENTILATOR GRILLES (LH/RH)

Removal

1. Remove side ventilator assembly (LH). Refer to [IP-10, "Component Parts"](#).
2. Remove side ventilator grille (LH) (1) using suitable tool (A).



3. Remove side ventilator assembly (RH). Refer to [IP-10, "Component Parts"](#).
4. Remove the side ventilator grille (RH) screw.
5. Remove side ventilator grille (RH) (1) using suitable tool (A).



Installation

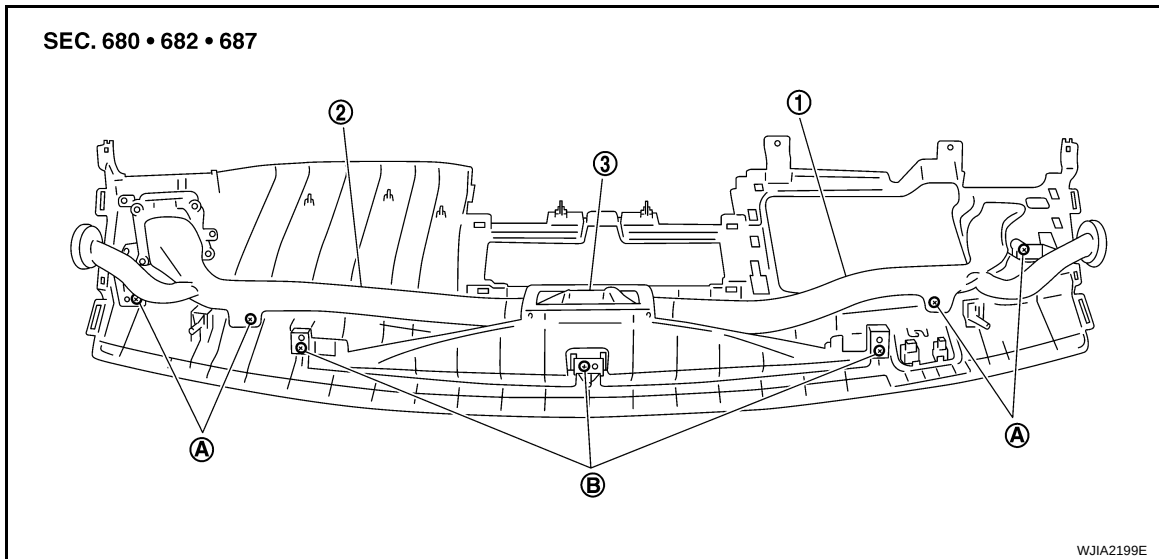
Installation is in the reverse order of removal.

DEFROSTER NOZZLE AND SIDE DEFROSTER DUCTS (LH/RH)

DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]



- | | | |
|------------------------------|-----------------------------|---------------------|
| 1. Side defroster duct (RH) | 2. Side defroster duct (LH) | 3. Defroster nozzle |
| A. Side defroster duct screw | B. Defroster nozzle screw | |

Removal

1. Remove instrument upper finisher. Refer to [IP-10, "Component Parts"](#).
2. Remove screws and then remove side defroster duct (RH) and side defroster duct (LH).
3. Remove screws, and then remove defroster nozzle.

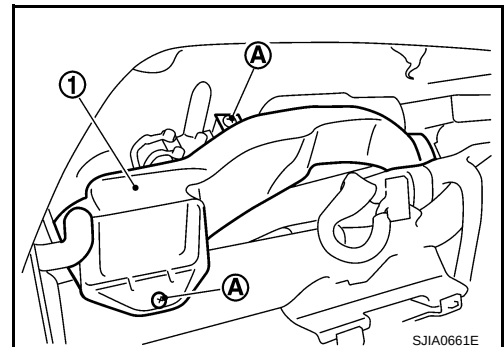
Installation

Installation is in the reverse order of removal.

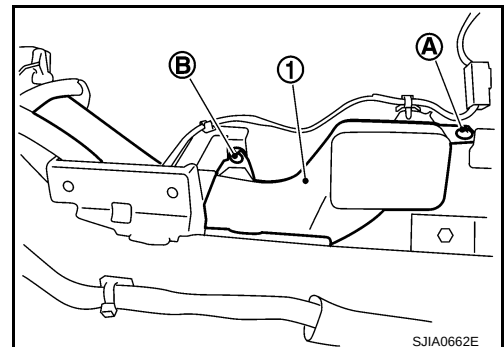
SIDE VENTILATOR DUCTS

Removal

1. Remove instrument panel and pad. Refer to [IP-10, "Component Parts"](#).
2. Remove screws (A), and then remove side ventilator duct (left) (1).



3. Remove screw (A) and clip (B), and then remove side ventilator duct (right) (1).



Installation

Installation is in the reverse order of removal.

DUCTS AND GRILLES

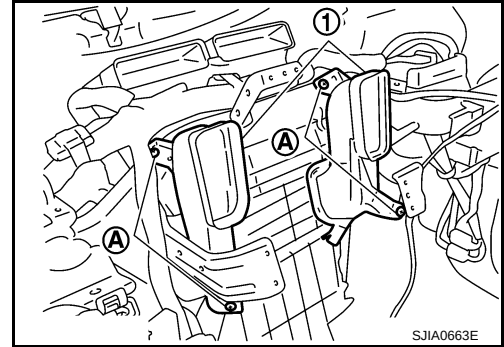
< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

CENTER VENTILATOR DUCTS

Removal

1. Remove instrument panel and pad. Refer to [IP-10. "Component Parts"](#).
2. Remove screws (A), and then remove center ventilator ducts (1).



Installation

Installation is in the reverse order of removal.

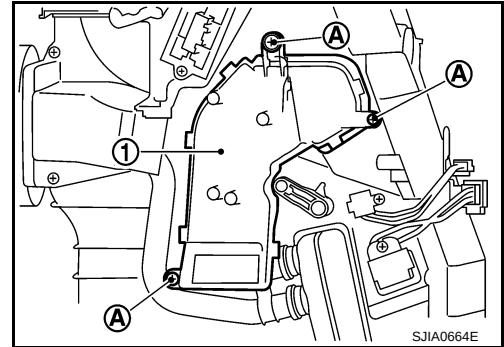
SIDE FOOT DUCTS

NOTE:

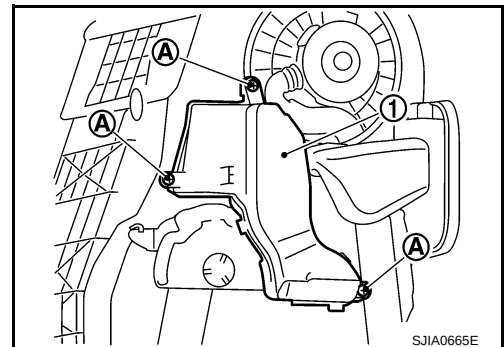
The side foot ducts are part of the A/C unit assembly case.

Removal

1. Remove A/C unit assembly. Refer to [VTL-12. "Removal and Installation"](#).
2. Remove screws (A), and then remove side foot duct (LH) (1).



3. Remove screws (A), and then remove side foot duct (RH) (1).



Installation

Installation is in the reverse order of removal.

FLOOR DUCTS

Removal

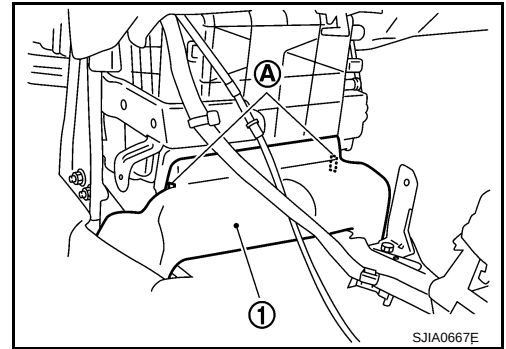
1. Remove front seats and center console assembly. Refer to [SE-14. "Removal and Installation"](#) and [IP-11. "Removal and Installation"](#).

DUCTS AND GRILLES

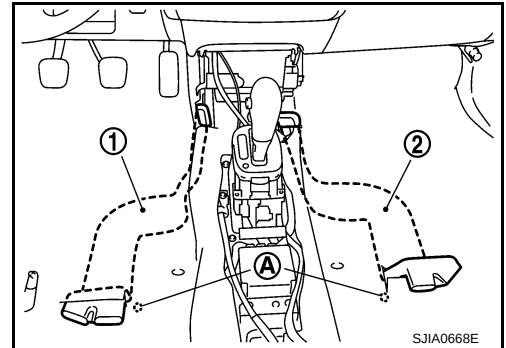
< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

2. Disengage claws (A), and then remove front floor duct (1).



3. Peel back floor trim to a point where floor duct is visible.
4. Remove clips (A), and then remove rear floor duct (left) (1) and rear floor duct (right) (2).



Installation

Installation is in the reverse order of removal.

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

VTL

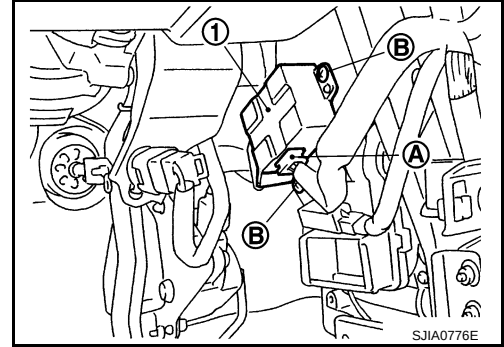
PTC HEATER

Removal and Installation of PTC Control Unit

INFOID:000000001696502

REMOVAL

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Disconnect the PTC control unit connector (A).
4. Remove the PTC control unit screws (B), and then remove the PTC control unit (1).



INSTALLATION

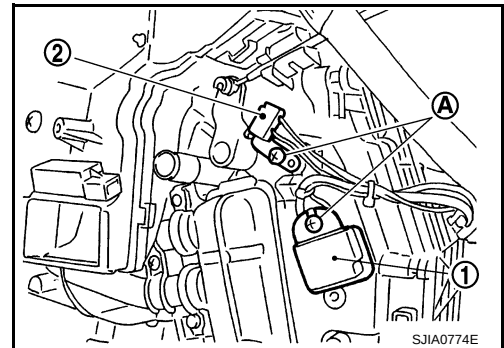
Installation is in the reverse order of removal.

Removal and Installation of PTC Heater

INFOID:000000001696503

REMOVAL

1. Remove the instrument panel and pad. Refer to [IP-11, "Removal and Installation"](#).
2. Disconnect the PTC heater connector and full hot switch connector.
3. Remove the PTC heater and full hot switch screws (A), and then remove the PTC heater (1) and full hot switch (2).



INSTALLATION

Installation is in the reverse order of removal.

Removal and Installation of Water Temperature Sensor

INFOID:000000001696504

REMOVAL

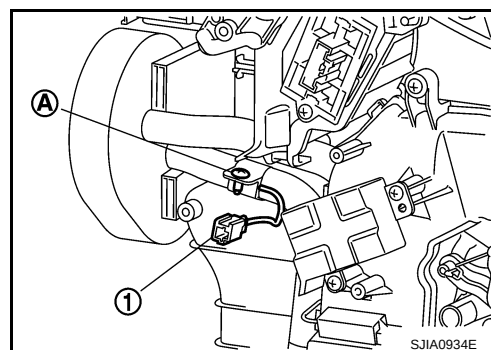
1. Remove the A/C unit assembly. Refer to [VTL-12, "Removal and Installation"](#).
2. Remove the heater pipe cover. Refer to [VTL-39, "Disassembly and Assembly"](#).

PTC HEATER

< ON-VEHICLE REPAIR >

[AUTOMATIC AIR CONDITIONER]

3. Remove the water temperature sensor screw (A), and then remove the water temperature sensor (1).



INSTALLATION

Installation is in the reverse order of removal.

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

PRECAUTION

PRECAUTIONS

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

INFOID:000000001696378

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 SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

Precaution for Working with HFC-134a (R-134a)

INFOID:000000001696379

WARNING:

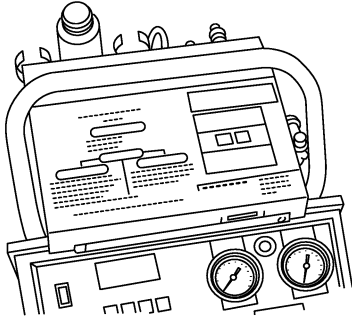
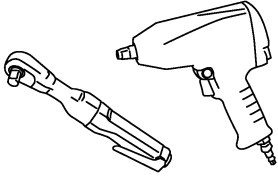
- Use only specified oil for the HFC-134a (R-134a) A/C system and HFC-134a (R-134a) components. If oil other than that specified is used, compressor malfunction is likely to occur.
- The specified HFC-134a (R-134a) oil rapidly absorbs moisture from the atmosphere. The following handling precautions must be observed:
 - When removing refrigerant components from a vehicle, immediately cap (seal) the component to minimize the entry of moisture from the atmosphere.
 - When installing refrigerant components to a vehicle, do not remove the caps (unseal) until just before connecting the components. Connect all refrigerant loop components as quickly as possible to minimize the entry of moisture into system.
 - Only use the specified oil from a sealed container. Immediately reseal containers of oil. Without proper sealing, oil will become moisture saturated and should not be used.
 - Avoid breathing A/C refrigerant and oil vapor or mist. Exposure may irritate eyes, nose and throat. Use only approved recovery/recycling equipment to discharge HFC-134a (R-134a) refrigerant. If accidental system discharge occurs, ventilate work area before resuming service. Additional health and safety information may be obtained from refrigerant and oil manufacturers.
 - Do not allow A/C oil to come in contact with styrofoam parts. Damage may result.

PREPARATION

PREPARATION

Commercial Service Tool

INFOID:000000001696380

Tool name	Description
(J-41810-NI) Refrigerant identifier equipment (R-134a)  RJIA0197E	For checking refrigerant purity and system contamination
Power tool  PBIC0190E	Loosening bolts and nuts

A

B

C

D

E

F

G

H

VTL

J

K

L

M

N

O

P

FUNCTION DIAGNOSIS

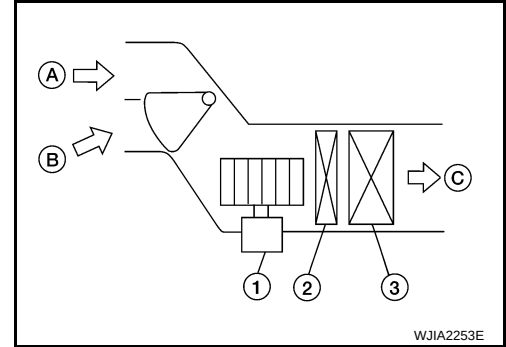
AIR CONDITIONER FILTER

Description

INFOID:000000001710935

FUNCTION

The fresh air (A) and the recirculated air (B) drawn inside the passenger compartment by the front blower motor (1) is kept clean (C) on either mode by the air conditioner filter (2), located before the evaporator (3), in the A/C unit assembly.



ON-VEHICLE MAINTENANCE

AIR CONDITIONER FILTER

Removal and Installation

INFOID:000000001710936

REPLACEMENT TIMING

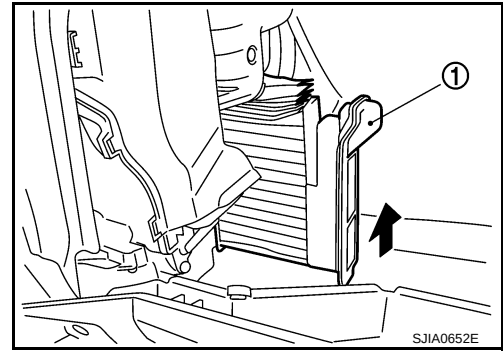
Replace the air conditioner filter according to the maintenance schedules. Refer to [MA-7, "Periodic Maintenance"](#).

NOTE:

The air conditioner filter caution label is located inside the glove box door.

REPLACEMENT PROCEDURES

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Compress the air conditioner filter (1) downward while sliding it to the RH side of the vehicle to release the upper pawl.
4. Move the bottom of air conditioner filter (1) upward as shown to release the bottom tab, then remove it.



5. Replace the air conditioner filter with new one and install the new filter in the A/C unit assembly.

CAUTION:

Make sure that the air conditioner filter lower tab is fully seated, and that the air conditioner upper pawl is locked into place securing the new filter into the A/C unit assembly.

6. Install the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
7. Install the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).

ON-VEHICLE REPAIR

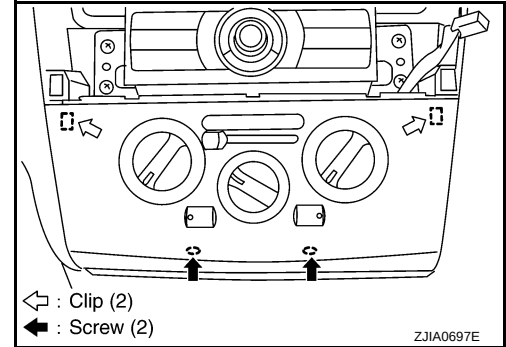
CONTROLLER

Removal and Installation

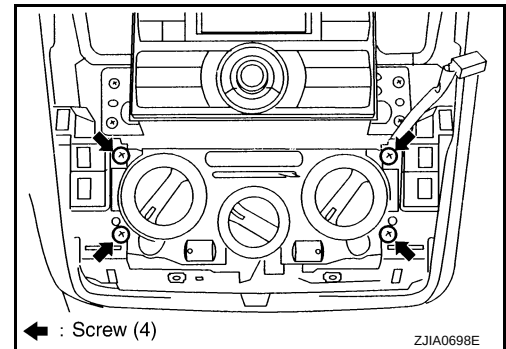
INFOID:000000001696528

REMOVAL

1. Remove cluster lid C and instrument finisher D. Refer to [JP-11, "Removal and Installation"](#).
2. Remove intake door lever knob. Refer to [VTL-35, "Disassembly and Assembly"](#).
3. Remove mounting screws and clips, and then remove controller finisher.



4. Remove mounting screws, and then pull out controller.



5. Remove instrument panel and pad. Refer to [JP-11, "Removal and Installation"](#).
6. Remove air mix door cable, mode door cable and intake door cable from A/C unit assembly.
7. Disconnect connector, and then remove controller.

INSTALLATION

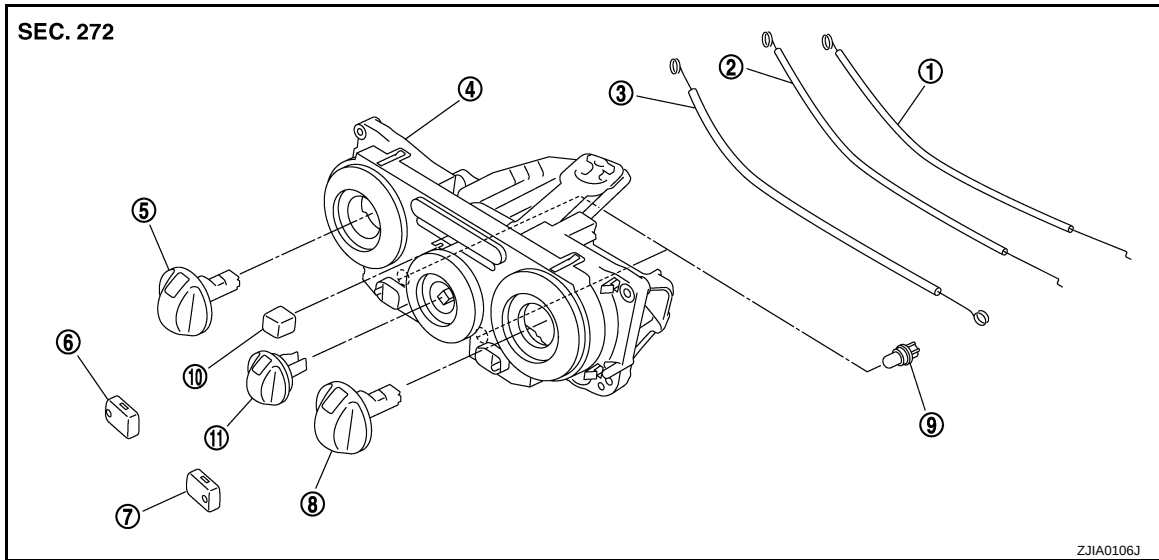
Installation is in the reverse order of removal.

CAUTION:

Adjust the door cables during installation. Refer to [VTL-45, "Intake Door Cable Adjustment"](#), [VTL-47, "Mode Door Cable Adjustment"](#) and [VTL-46, "Air Mix Door Cable Adjustment"](#).

Disassembly and Assembly

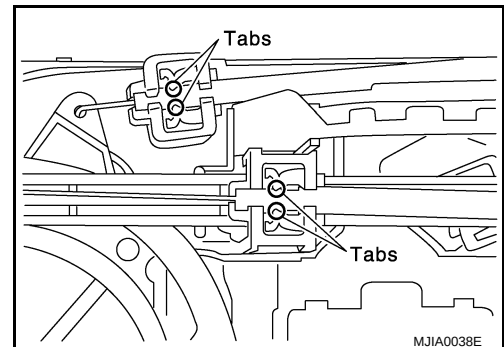
INFOID:000000001696529



- | | | |
|----------------------------|-----------------------------|----------------------|
| 1. Air mix door cable | 2. Intake door cable | 3. Mode door cable |
| 4. A/C controller assembly | 5. Mode control dial | 6. Rear DEF button |
| 7. A/C button | 8. Temperature control dial | 9. Illumination bulb |
| 10. Intake door lever knob | 11. Fan control dial | |

CAUTION:

Install inner cable of each door cable to the corresponding lever, as shown in the figure. Press outer cable until it hooks on the tabs and becomes secure.



INTAKE SENSOR

Removal and Installation

INFOID:000000001700349

REMOVAL

1. Remove the evaporator. Refer to [VTL-41, "Removal and Installation of Evaporator"](#).

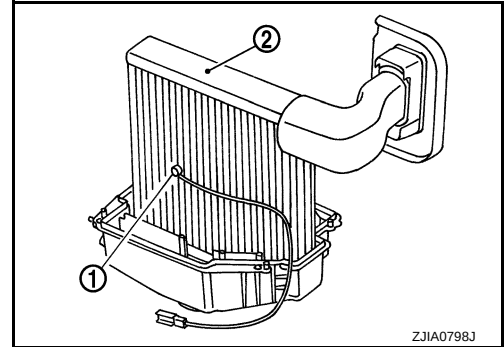
CAUTION:

Cap or wrap the joint of the pipe with suitable material such as vinyl tape to avoid the entry of air.

2. Remove the intake sensor (1) from the evaporator (2).

CAUTION:

Mark the position of intake sensor on the evaporator for installation.



INSTALLATION

Installation is in the reverse order of removal.

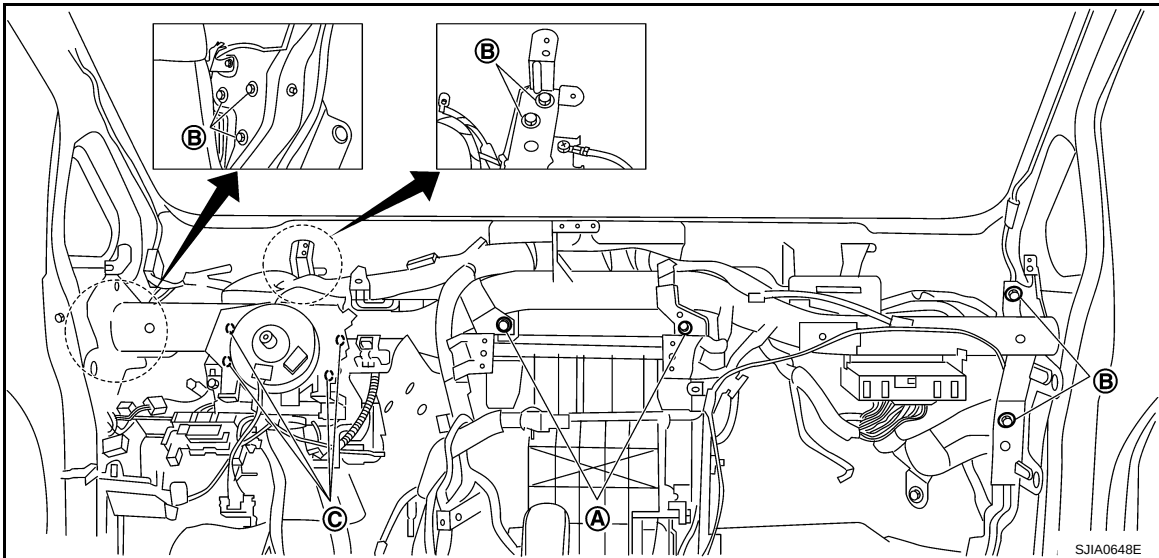
CAUTION:

- Replace O-rings for A/C piping with new ones, and then apply compressor oil to it when installing it.
- Install the intake sensor in the same position as the original intake sensor.
- When recharging refrigerant, check for leaks.

A/C UNIT ASSEMBLY

Removal and Installation

INFOID:000000001696531



A. A/C unit assembly bolts

B. Steering member bolts

C. Steering column nuts

NOTE:

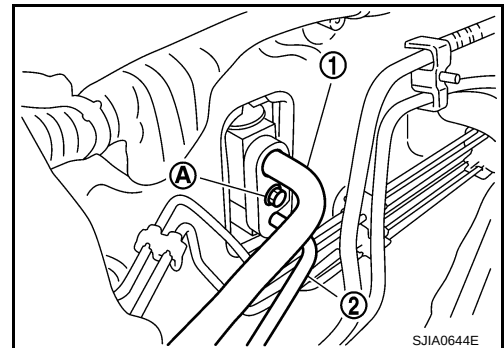
A LHD model shown, RHD model similar.

REMOVAL

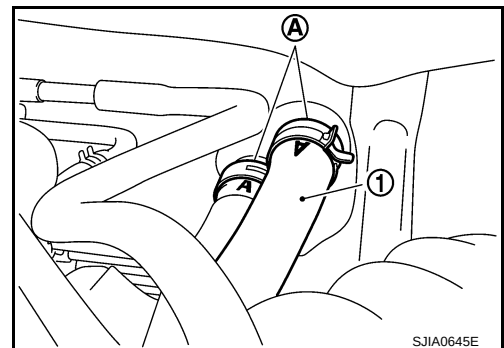
1. Use a recovery/recycling equipment (for HFC-134a) to discharge refrigerant. Refer to [HA-29, "HFC-134a \(R-134a\) Service Procedure"](#).
2. Drain coolant from cooling system. Refer to [CO-11, "Changing Engine Coolant"](#) (HR16DE), [CO-35, "Changing Engine Coolant"](#) (MR18DE), [CO-58, "Draining"](#) (K9K).
3. Remove cowl top cover. Refer to [EXT-20, "Removal and Installation"](#).
4. Remove lower dash insulator.
5. Remove bolt (A), and then disconnect low-pressure flexible hose (1) and high-pressure pipe (2) from evaporator.

CAUTION:

Cap or wrap the joint of the pipe with suitable material such as vinyl tape to avoid the entry of air.



6. Remove clamps (A), and then disconnect heater hoses (1) from heater core.

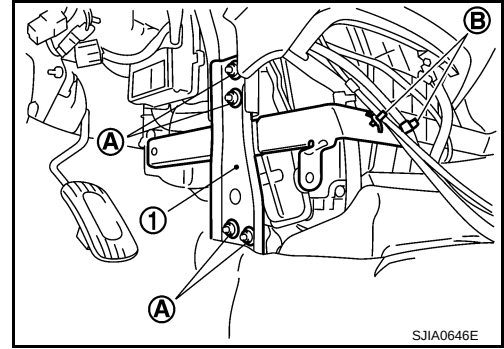


A/C UNIT ASSEMBLY

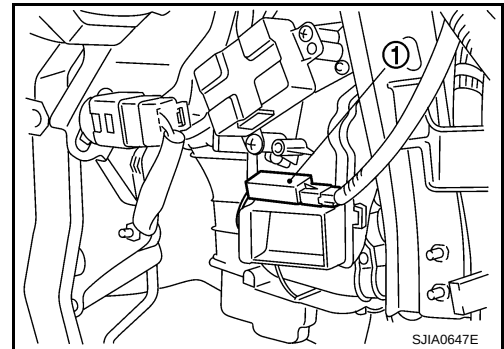
< ON-VEHICLE REPAIR >

[MANUAL AIR CONDITIONER]

7. Remove console box assembly. Refer to [IP-11, "Removal and Installation"](#).
8. Remove instrument stay nuts (A) and harness clamps (B), and then remove instrument stay (1).



9. Disconnect thermo control amp. connector (1).



10. Remove instrument panel and pad. Refer to [IP-11, "Removal and Installation"](#).
11. Remove side ventilator ducts. Refer to [VTL-48, "Removal and Installation"](#).
12. Remove center ventilator ducts. Refer to [VTL-48, "Removal and Installation"](#).
13. Remove side kicking plates. Refer to [INT-20, "Removal and Installation"](#).
14. Disconnect the fuel filler door cable and the rear hatch door cable.
15. Remove A/C unit assembly bolts, steering member bolts, steering column nuts and harness clips.
16. Remove steering member, and then remove A/C unit assembly.

INSTALLATION

Installation is in the reverse order of removal.

- Fill the cooling system. Refer to [CO-11, "Changing Engine Coolant"](#) (HR16DE), [CO-35, "Changing Engine Coolant"](#) (MR18DE), [CO-58, "Refilling"](#) (K9K).
- Recharge the refrigerant.

A/C unit assembly bolt	: 6.9 N·m (0.7 kg-m, 61 in-lb)
Steering member bolt	: 12 N·m (1.25 kg-m, 9 ft-lb)
Steering column nut	: Refer to ST-9, "Removal and Installation" .

CAUTION:

- Replace O-rings for A/C piping with new ones, and apply compressor oil when installing.
- When recharging refrigerant, check for leaks.

A/C UNIT ASSEMBLY

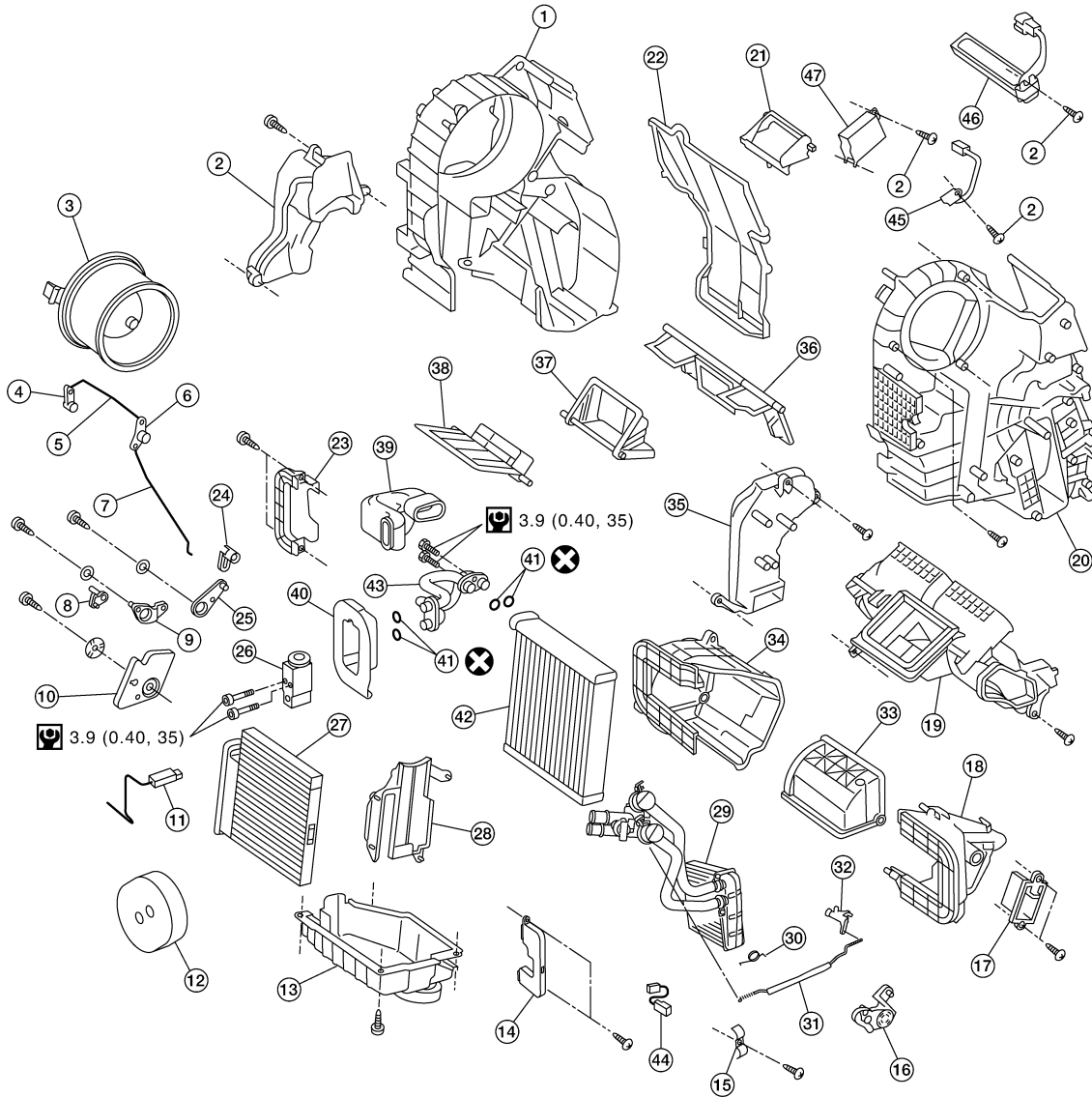
< ON-VEHICLE REPAIR >

[MANUAL AIR CONDITIONER]

INFOID:000000001696532

Disassembly and Assembly

SEC. 270•272



AWIA0591ZZ

- | | | |
|--|--------------------------------------|------------------------------------|
| 1. Blower case (right) | 2. Foot duct (right) | 3. Blower motor |
| 4. Sub ventilator-defroster door lever | 5. Sub ventilator-defroster door rod | 6. Ventilator-defroster door lever |
| 7. Ventilator-defroster door rod | 8. Intake door lever | 9. Ventilator-defroster door link |
| 10. Main link | 11. Thermo control amp. (TYPE 1*) | 12. Heater pipe packing |
| 13. Lower blower case | 14. Heater pipe cover | 15. Heater pipe clip |
| 16. Intake door link | 17. Blower fan resistor | 18. Intake case (left) |
| 19. Center defroster duct | 20. Blower case (left) | 21. Cover |
| 22. Cover | 23. Expansion valve cover | 24. Foot door lever |
| 25. Foot door link | 26. Expansion valve | 27. Air conditioner filter |
| 28. Evaporator cover | 29. Heater core | 30. Spring |
| 31. Water valve rod | 32. Air mix door lever | 33. Intake door |
| 34. Intake case (right) | 35. Foot duct (left) | 36. Ventilator-defroster door |
| 37. Foot door | 38. Air mix door | 39. Seal |
| 40. Expansion valve grommet | 41. O-ring | 42. Evaporator |

A/C UNIT ASSEMBLY

< ON-VEHICLE REPAIR >

[MANUAL AIR CONDITIONER]

- 43. Cooler pipe assembly
- 46. PTC heater

- 44. Water temperature sensor
- 47. PTC control unit

- 45. Full hot switch

EVAPORATOR

Removal and Installation of Evaporator

INFOID:000000001696533

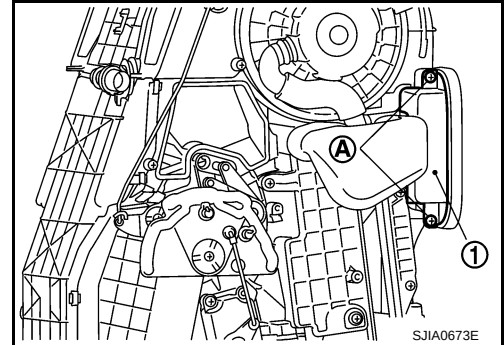
REMOVAL

1. Remove A/C unit assembly. Refer to [VTL-37, "Removal and Installation"](#).

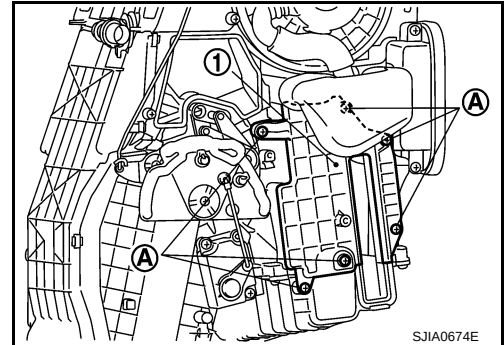
CAUTION:

Cap or wrap the joint of the pipe with suitable material such as vinyl tape to avoid the entry of air.

2. Remove the air conditioner filter.
3. Remove foot duct (right). Refer to [VTL-48, "Removal and Installation"](#).
4. Remove screws (A), and then remove expansion valve cover (1).



5. Remove screws (A), and then remove evaporator cover (1).

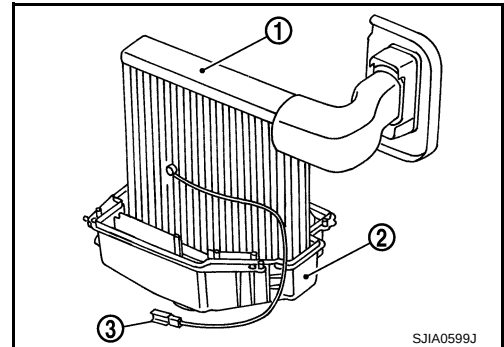


6. Remove the evaporator (1) with lower blower case (2) from the A/C unit assembly.
7. Remove the thermo control amp. (3) from the evaporator (1).

CAUTION:

Note the position of the thermo control amp. on the evaporator for installation.

8. Remove the evaporator (1) from the lower blower case (2).



INSTALLATION

Installation is in the reverse order of removal.

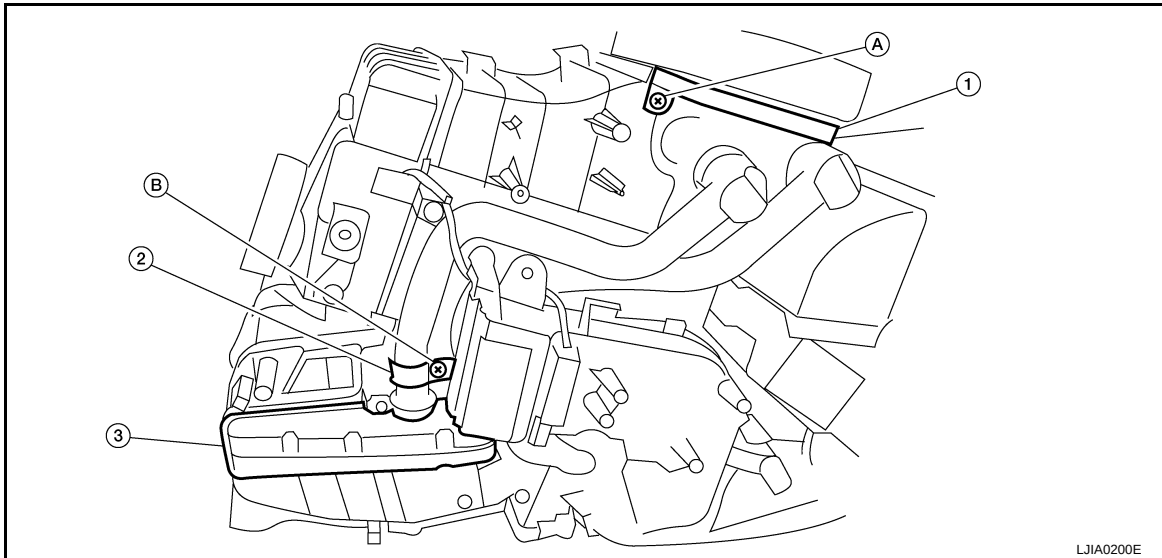
CAUTION:

- Replace O-rings for A/C piping with new ones, and the apply compressor oil to it when installing it.
- Install the thermo control amp. in the same position on the evaporator.
- When recharging refrigerant, check for leaks.

HEATER CORE

Removal and Installation

INFOID:000000001696534



- | | | |
|----------------------------|---------------------------|----------------|
| 1. Heater pipe cover | 2. Heater pipe clip | 3. Heater core |
| A. Heater pipe cover screw | B. Heater pipe clip screw | |

REMOVAL

1. Remove the A/C unit assembly. Refer to [VTL-37, "Removal and Installation"](#).
2. Remove the foot duct (left). Refer to [VTL-48, "Removal and Installation"](#).
3. Remove the heater pipe cover screw, then remove the heater pipe cover.
4. Remove the heater pipe clip screw, then remove the heater pipe clip.
5. Slide the heater core out of the A/C unit assembly.

INSTALLATION

Installation is in the reverse order of removal.

BLOWER MOTOR

Removal and Installation

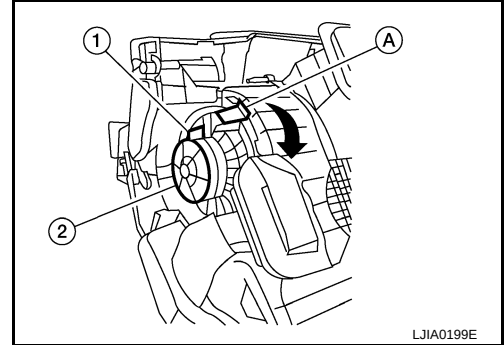
INFOID:000000001696535

REMOVAL

1. Remove instrument panel and pad. Refer to [JP-11, "Removal and Installation"](#).
2. Remove side ventilator duct (right). Refer to [VTL-48, "Removal and Installation"](#).
3. Disconnect front blower motor connector (1).
4. Push the flange holding hook (A) toward the front blower motor (2), then rotate the front blower motor (2) clockwise and remove it from the A/C unit assembly.

CAUTION:

When front blower fan and front blower motor are manufactured, the balance is adjusted, do not disassemble to replace the individual parts.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Rotate the front blower motor until the front blower motor flange holding hook locks securely into the A/C unit assembly.

A

B

C

D

E

F

G

H

VTL

J

K

L

M

N

O

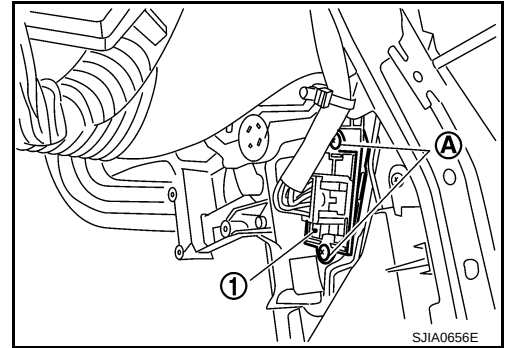
P

BLOWER FAN RESISTOR**Removal and Installation**

INFOID:000000001696536

REMOVAL

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11. "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11. "Removal and Installation"](#).
3. Remove the console side cover. Refer to [IP-10. "Component Parts"](#).
4. Remove the brake pedal assembly for LHD only. Refer to [BR-12. "Removal and Installation"](#).
5. Disconnect the blower fan resistor connector.
6. Remove the blower fan resistor screws (A), then remove the blower fan resistor (1).

**INSTALLATION**

Installation is in the reverse order of removal.

INTAKE DOOR

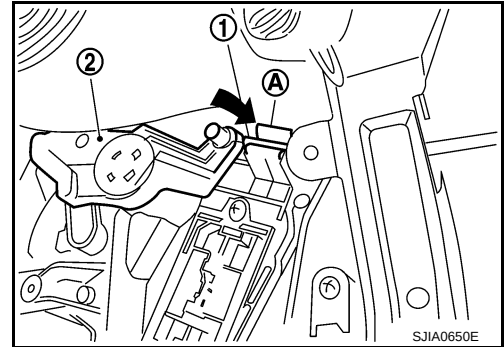
Intake Door Cable Adjustment

INFOID:000000001696537

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Remove outer cable of intake door cable (1) from clamp (A).
4. Set intake door lever to REC position.
5. Push intake door link (2) in the direction shown by the arrow, and then carefully pull outer cable to controller side, and install clamp (A).
6. Operate intake door lever to insure that inner cable moves smoothly.

CAUTION:

When clamping the outer cable, do not move the inner cable.



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

VTL

AIR MIX DOOR

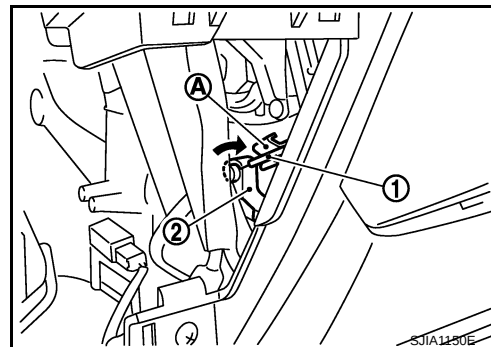
Air Mix Door Cable Adjustment

INFOID:000000001696538

1. Remove steering member. Refer to [ST-9, "Removal and Installation"](#).
2. Remove outer cable of air mix door cable (1) from clamp (A).
3. Set temperature control dial to full cold position.
4. Push air mix door lever (2) in the direction shown by arrow, and then carefully pull outer cable toward controller side, and install clamp (A).
5. Operate temperature control dial to insure that inner cable moves smoothly.

CAUTION:

When clamping the outer cable, do not move the inner cable.



MODE DOOR

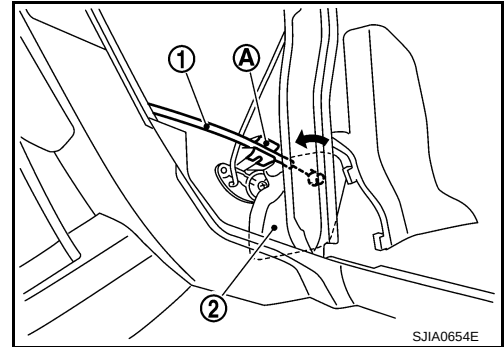
Mode Door Cable Adjustment

INFOID:000000001696539

1. Remove the glove box assembly and instrument lower cover (RH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the instrument lower finisher and instrument lower cover (LH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Remove outer cable of mode door cable (1) from clamp (A).
4. Set mode control dial to VENT position.
5. Push main link (2) in the direction shown by the arrow, and then carefully pull outer cable to controller side, and install clamp (A).
6. Operate mode control dial to insure that inner cable moves smoothly.

CAUTION:

When clamping the outer cable, do not move the inner cable.



7. Turn mode control dial to each position.
8. Confirm that discharge air comes out according to the air distribution table. Refer to [HAC-11, "Discharge Air Flow"](#).

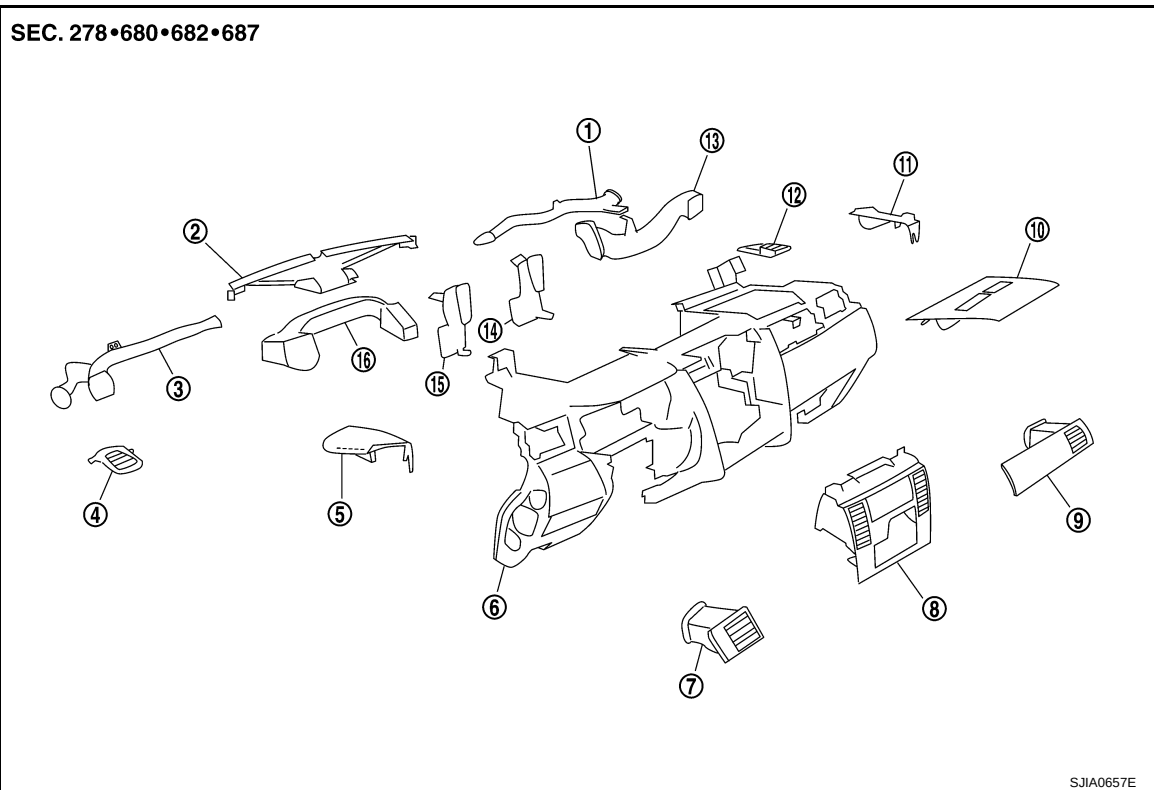
DUCTS AND GRILLES

Removal and Installation

INFOID:000000001696540

Instrument Panel Ducts

SEC. 278 • 680 • 682 • 687



SJIA0657E

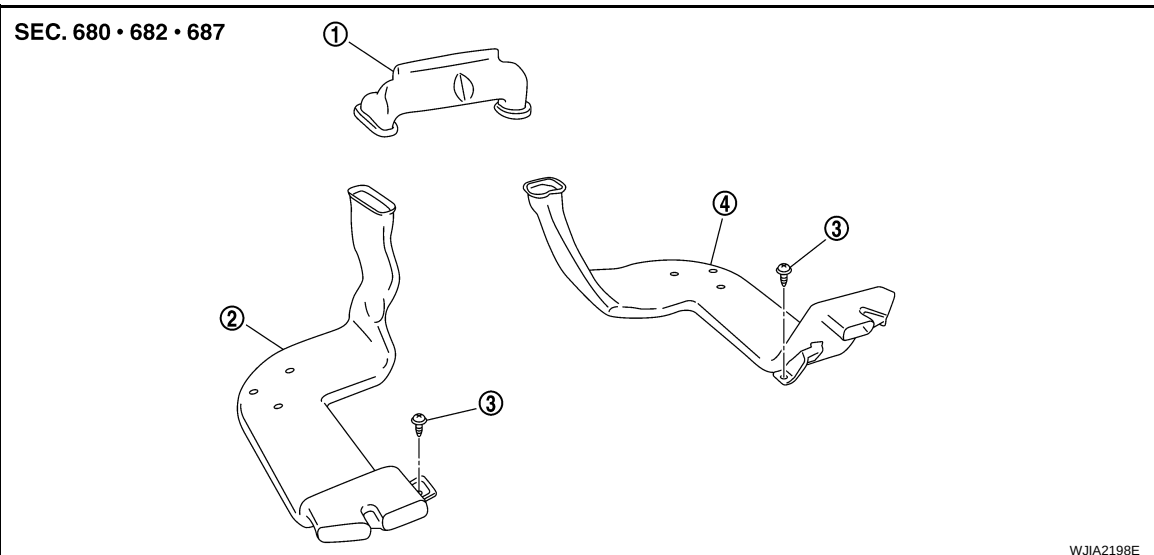
- | | | |
|------------------------------------|------------------------------------|-------------------------------------|
| 1. Side defroster duct (right) | 2. Defroster nozzle | 3. Side defroster duct (left) |
| 4. Side defroster grille (left) | 5. Instrument side panel (left) | 6. Instrument panel and pad |
| 7. Side ventilator assembly (left) | 8. Cluster lid C | 9. Side ventilator assembly (right) |
| 10. Instrument finisher E | 11. Instrument side panel (right) | 12. Side defroster grille (right) |
| 13. Side ventilator duct (right) | 14. Center ventilator duct (right) | 15. Center ventilator duct (left) |
| 16. Side ventilator duct (left) | | |

NOTE:

A LHD model shown, RHD model similar

Floor Ducts

SEC. 680 • 682 • 687



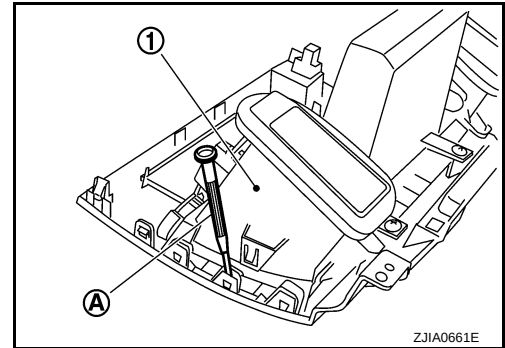
WJIA2198E

1. Front floor duct
2. Rear floor duct (left)
3. Clip
4. Rear floor duct (right)

CENTER VENTILATOR GRILLES

Removal

1. Remove cluster lid C. Refer to [IP-10, "Component Parts"](#).
2. Remove center ventilator grills (1) from cluster lid C using suitable tool (A).



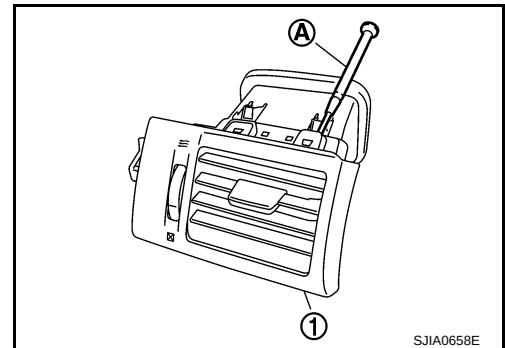
Installation

Installation is in the reverse order of removal.

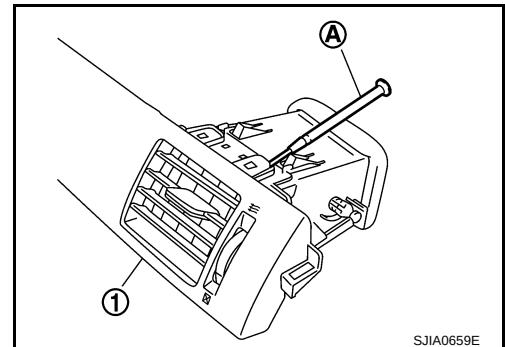
SIDE VENTILATOR GRILLES (LH/RH)

Removal

1. Remove side ventilator assembly (LH). Refer to [IP-10, "Component Parts"](#).
2. Remove side ventilator grille (LH) (1) using suitable tool (A).



3. Remove side ventilator assembly (RH). Refer to [IP-10, "Component Parts"](#).
4. Remove the side ventilator grille (RH) screw.
5. Remove side ventilator grille (RH) (1) using suitable tool (A).



Installation

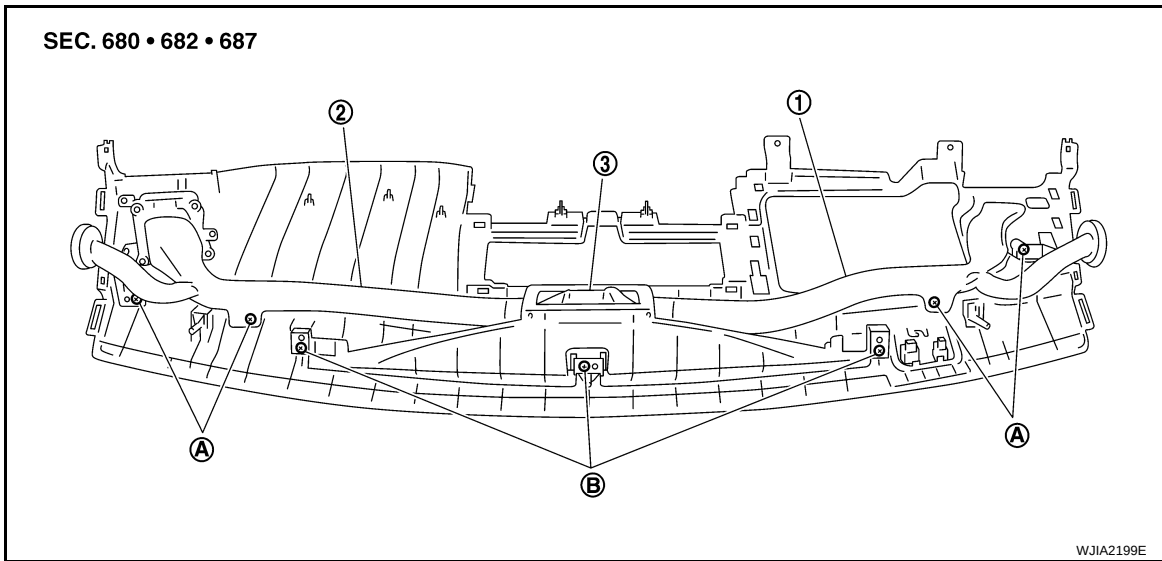
Installation is in the reverse order of removal.

DEFROSTER NOZZLE AND SIDE DEFROSTER DUCTS (LH/RH)

DUCTS AND GRILLES

< ON-VEHICLE REPAIR >

[MANUAL AIR CONDITIONER]



- | | | |
|------------------------------|-----------------------------|---------------------|
| 1. Side defroster duct (RH) | 2. Side defroster duct (LH) | 3. Defroster nozzle |
| A. Side defroster duct screw | B. Defroster nozzle screw | |

Removal

1. Remove instrument upper finisher. Refer to [IP-10, "Component Parts"](#).
2. Remove screws and then remove side defroster duct (RH) and side defroster duct (LH).
3. Remove screws, and then remove defroster nozzle.

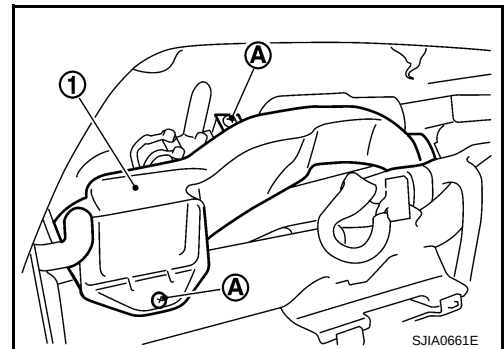
Installation

Installation is in the reverse order of removal.

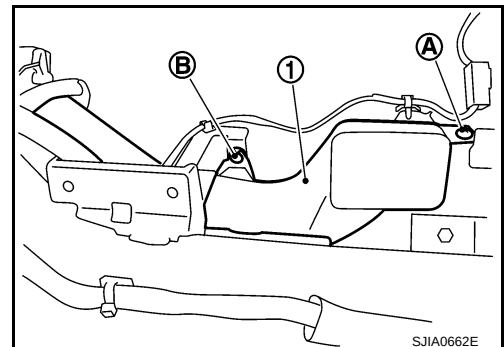
SIDE VENTILATOR DUCTS

Removal

1. Remove instrument panel and pad. Refer to [IP-10, "Component Parts"](#).
2. Remove screws (A), and then remove side ventilator duct (left) (1).



3. Remove screw (A) and clip (B), and then remove side ventilator duct (right) (1).



Installation

Installation is in the reverse order of removal.

DUCTS AND GRILLES

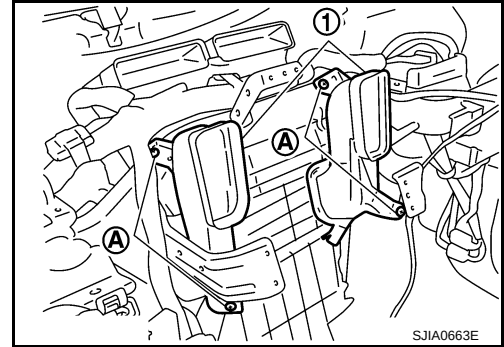
< ON-VEHICLE REPAIR >

[MANUAL AIR CONDITIONER]

CENTER VENTILATOR DUCTS

Removal

1. Remove instrument panel and pad. Refer to [IP-10, "Component Parts"](#).
2. Remove screws (A), and then remove center ventilator ducts (1).



Installation

Installation is in the reverse order of removal.

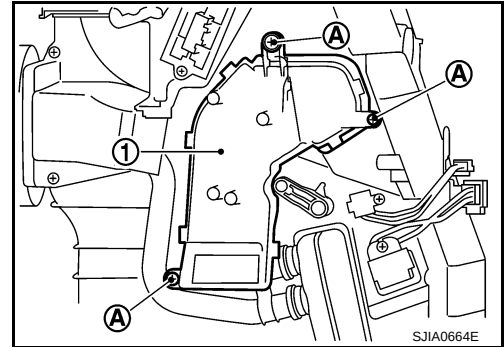
SIDE FOOT DUCTS

NOTE:

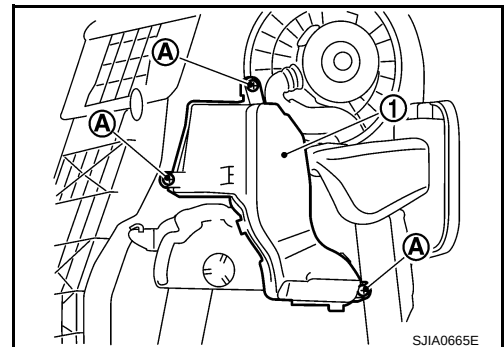
The side foot ducts are part of the A/C unit assembly case.

Removal

1. Remove A/C unit assembly. Refer to [VTL-37, "Removal and Installation"](#).
2. Remove screws (A), and then remove side foot duct (LH) (1).



3. Remove screws (A), and then remove side foot duct (RH) (1).



Installation

Installation is in the reverse order of removal.

FLOOR DUCTS

Removal

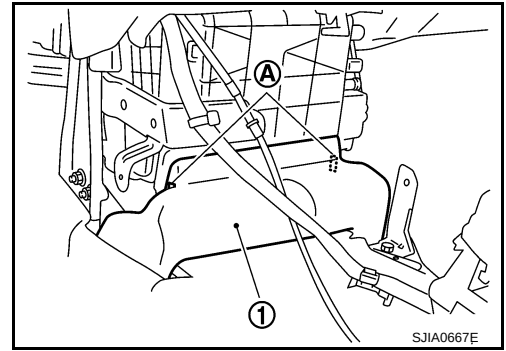
1. Remove front seats and center console assembly. Refer to [SE-14, "Removal and Installation"](#) and [IP-11, "Removal and Installation"](#).

DUCTS AND GRILLES

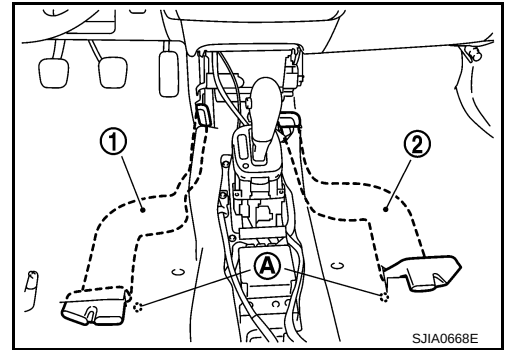
< ON-VEHICLE REPAIR >

[MANUAL AIR CONDITIONER]

2. Disengage claws (A), and then remove front floor duct (1).



3. Peel back floor trim to a point where floor duct is visible.
4. Remove clips (A), and then remove rear floor duct (left) (1) and rear floor duct (right) (2).



Installation

Installation is in the reverse order of removal.

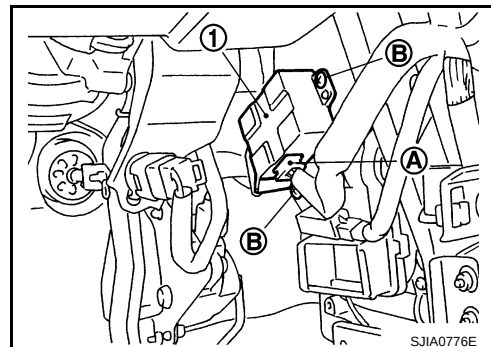
PTC HEATER

Removal and Installation of PTC Control Unit

INFOID:000000001696541

REMOVAL

1. Remove the instrument lower finisher and instrument lower cover (LH) for LHD only. Refer to [IP-11, "Removal and Installation"](#).
2. Remove the glove box assembly and instrument lower cover (RH) for RHD only. Refer to [IP-11, "Removal and Installation"](#).
3. Disconnect connector (A).
4. Remove mounting screws (B), and then remove PTC control unit (1).



INSTALLATION

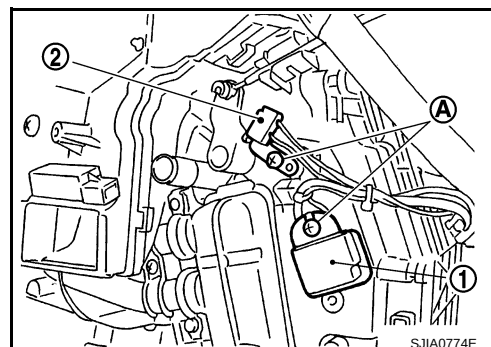
Installation is basically the reverse order of removal.

Removal and Installation of PTC Heater

INFOID:000000001696542

REMOVAL

1. Remove instrument panel and pad. Refer to [IP-11, "Removal and Installation"](#).
2. Disconnect PTC heater connector and full hot switch connector.
3. Remove mounting screws (A), and then remove PTC heater (1) and full hot switch (2).



INSTALLATION

Installation is basically the reverse order of removal.

Removal and Installation of Water Temperature Sensor

INFOID:000000001696543

REMOVAL

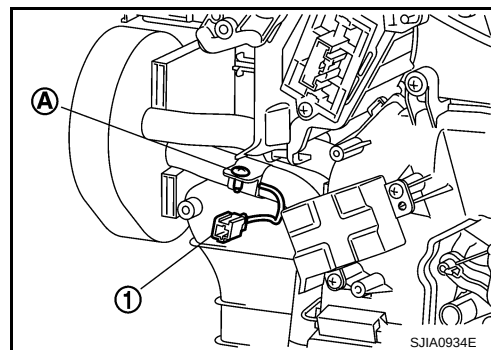
1. Remove A/C unit assembly. Refer to [VTL-37, "Removal and Installation"](#).
2. Remove heater pipe cover. Refer to [VTL-39, "Disassembly and Assembly"](#).

PTC HEATER

< ON-VEHICLE REPAIR >

[MANUAL AIR CONDITIONER]

3. Remove mounting screw (A), and then remove water temperature sensor (1).



INSTALLATION

Installation is basically the reverse order of removal.