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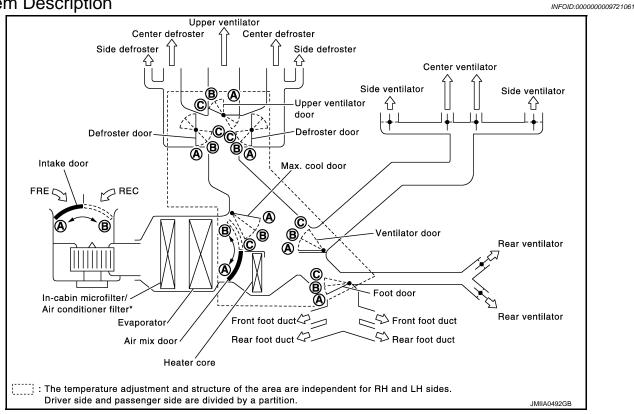
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SYSTEM DESCRIPTION

SWITCHES AND THEIR CONTROL FUNCTION

System Description



*: Models for Mexico.

							Door p	osition			
Switch position		Ventilator door	Max. cool door	Defroster door	Foot door	Upper ventila- tor door	Intake door	Air mix door (Driver side)	Air mix door (Pas- senger side)		
AUTO switch		*		AUTO					AU	TO	
	VENT	•	~ ;	А	Α	А	Α		İ	_	_
MODE	B/L	į	₩.	В	В	А	В		_		
switch	FOOT	,	ن.	С	В	В	С	_	†		
•	D/F	Ş	m;	С	В	В	В		В		
DEF switch	(4)		*	С	С	С	Α		В		
UPPER VENT	ON	â	*			1	1	A-B			
switch	OFF	Î	0	1	_	-		С			

SWITCHES AND THEIR CONTROL FUNCTION

< SYSTEM DESCRIPTION >

[WITHOUT 7 INCH DISPLAY]

							Door p	osition			
Switch position		Ventilator door	Max. cool door	Defroster door	Foot door	Upper ventila- tor door	Intake door	Air mix door (Driver side)	Air mix door (Pas- senger side)		
Intake	ON		*						Α*		
switch	OFF	ڪ	0						B [*]		
_			.0°C)°F)							А	
control switch (Driver side)			⇒ 31.5°C ⇒ 89°F)							AUTO	
(.0°C)°F)							E	3
_			18.0°C (60°F)	_	_	_	_	_		А	
Temperature control switch (Driver side)			⇒ 31.5°C ⇒ 89°F)							AUTO	_
(2.000, 0.00)	DUAL switch:		.0°C)°F)							В	
Temperature	ON ON		.0°C)°F)								А
control switch (Passenger	control switch (Passenger		⇒ 31.5°C ⇒ 89°F)							_	AUTO
side)			.0°C)°F)								В
	ON/OFF s	witch		С	С	В	С	_	В	_	_

^{*:} Inlet status is displayed by indicator when activating automatic control.

[WITHOUT 7 INCH DISPLAY]

AIR DISTRIBUTION

System Description

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Discharge air flow								
Mode position indication		Air outlet/distribution						
	Condition		VENT		FO	OT	DEE	
		Front	Upper	Rear	Front	Rear	DEF	
ن ړ-		81%	8%	11%	_	_	_	
***	DUAL switch: OFF	41%	10%	17%	24%	8%	_	
	UPPER VENT - switch : ON	12%	12%	16%	27%	10%	23%	
,	SWIICH : ON	11%	11%	14%	25%	10%	29%	
*		11%	11%	12%	_	_	66%	

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Discharge air flo	DW .						
Mode position indication				Air outlet/d	distribution		
	Condition		VENT		FO	ОТ	DEE
		Front	Upper	Rear	Front	Rear	DEF
نہ۔		88%	_	12%	_	_	_
ジャ	DUAL switch: OFF	47%	_	18%	26%	9%	_
نړ.	UPPER VENT	13%	_	17%	33%	12%	25%
*	switch : OFF	12%	_	16%	28%	12%	32%
*		11%	_	15%	_	_	74%

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PRECAUTION

PRECAUTIONS FOR USA AND CANADA

FOR USA AND CANADA: Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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.

FOR MEXICO

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

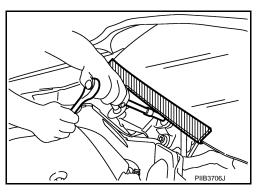
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Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
 ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with
 a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing
 serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution for Procedure without Cowl Top Cover

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



Precautions for Removing of Battery Terminal

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

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

NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

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

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

CAUTION:

- CFC-12 (R-12) refrigerant and HFC-134a (R-134a) refrigerant are not compatible. Compressor malfunction is likely to occur if the refrigerants are mixed, refer to "CONTAMINATED REFRIGERANT" below. To determine the purity of HFC-134a (R-134a) in the vehicle and recovery tank, use Refrigerant Recovery/Recycling Recharging equipment and Refrigerant Identifier.
- Use only specified lubricant for the HFC-134a (R-134a) A/C system and HFC-134a (R-134a) components. Compressor malfunction is likely to occur if lubricant other than that specified is used.
- The specified HFC-134a (R-134a) lubricant rapidly absorbs moisture from the atmosphere. The following handling precautions must be observed:
- Immediately cap (seal) immediately the component to minimize the entry of moisture from the atmosphere when removing refrigerant components from a vehicle.
- Never remove the caps (unseal) until just before connecting the components when installing refrigerant components to a vehicle. Connect all refrigerant loop components as quickly as possible to minimize the entry of moisture into system.
- Use only the specified lubricant from a sealed container. Immediately reseal containers of lubricant. Lubricant becomes saturated with moisture and should not be used without proper sealing.
- Never allow lubricant (A/C System Oil Type S) to come in to contact with styrene foam parts. Damage may result.

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CONTAMINATED REFRIGERANT

Take the appropriate steps shown below if a refrigerant other than pure HFC-134a (R-134a) is identified in a vehicle:

- Explain to the customer that environmental regulations prohibit the release of contaminated refrigerant into the atmosphere.
- Explain that recovery of the contaminated refrigerant could damage service equipment and refrigerant supply.
- Suggest the customer return the vehicle to the location of previous service where the contamination may have occurred.
- If repairing, recover the refrigerant using only dedicated equipment and containers. Never reintroduce contaminated refrigerant into the existing service equipment. Contact a local refrigerant product retailer for available service if the facility does not have dedicated recovery equipment. This refrigerant must be disposed of in accordance with all federal and local regulations. In addition, replacement of all refrigerant system components on the vehicle is recommended.
- The air conditioner warranty is void if the vehicle is within the warranty period. Please contact Nissan Customer Affairs for further assistance.

General Refrigerant Precaution

INFOID:0000000009721067

WARNING:

- Never breathe A/C refrigerant and lubricant vapor or mist. Exposure may irritate eyes, nose or throat. Remove HFC-134a (R-134a) from the A/C system, using certified service equipment meeting requirements of SAE J-2210 [HFC-134a (R-134a) recycling equipment], or J-2209 [HFC-134a (R-134a) recovery equipment]. Ventilate the work area before resuming service if accidental system discharge occurs. Additional health and safety information may be obtained from refrigerant and lubricant manufacturers.
- Never release refrigerant into the air. Use approved recovery/recycling equipment to capture the refrigerant each time an air conditioning system is discharged.
- Always wear eye and hand protection (goggles and gloves) when working with any refrigerant or air conditioning system.
- Never store or heat refrigerant containers above 52°C (126°F).
- Never heat a refrigerant container with an open flame. Place the bottom of the container in a warm pail of water if container warming is required.
- Never intentionally drop, puncture, or incinerate refrigerant containers.
- Keep refrigerant away from open flames. Poisonous gas is produced if refrigerant burns.
- Refrigerant displaces oxygen, therefore be certain to work in well ventilated areas to prevent suffocation.
- Never pressure test or leakage test HFC-134a (R-134a) service equipment and/or vehicle air conditioning systems with compressed air during repair. Some mixtures of air and HFC-134a (R-134a) have proven to be combustible at elevated pressures. These mixtures, if ignited, may cause injury or property damage. Additional health and safety information may be obtained from refrigerant manufacturers.

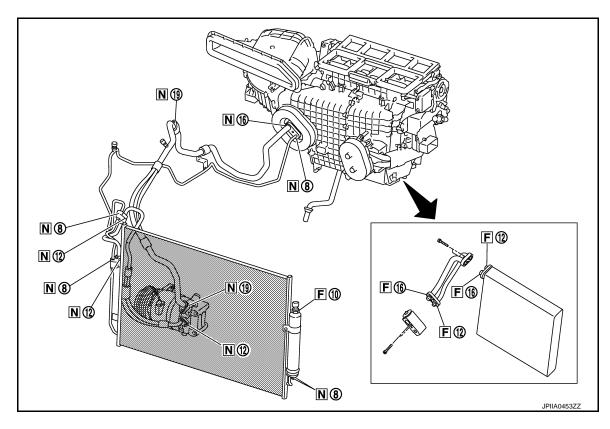
Refrigerant Connection

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A new type refrigerant connection has been introduced to all refrigerant lines except the following locations.

- Expansion valve to evaporator
- Refrigerant pressure sensor to liquid tank

O-RING AND REFRIGERANT CONNECTION



F. Former type refrigerant connection N. New type refrigerant connection

O: O-ring size

CAUTION:

The new and former refrigerant connections use different O-ring configurations. Never confuse O-rings since they are not interchangeable. Refrigerant may leak at the connection if an incorrect O-ring is installed.

O-Ring Part Numbers and Specifications

Connection type	Piping connection point		Part number	QTY	O-ring size
	Low-pressure flexible hose to low-pressure pipe	Э	92474 N8210	1	φ19
	Low-pressure flexible hose to low-pressure pip High-pressure pipe to condenser pipe assembly Condenser pipe assembly (Inlet) to high-pressure hose (One-touch joint) Condenser assembly to condenser pipe assembly Low-pressure pipe to expansion valve High-pressure pipe to expansion valve Compressor to low-pressure flexible hose Compressor to high-pressure flexible hose Liquid tank to condenser assembly Refrigerant pressure sensor to liquid tank Expansion valve to evaporator pipe assembly	y (Outlet)	92471 N8210	1	ф8
		ıre flexible	92472 N8210	1	ф12
Low-pressure flexible hose to low-pressure p High-pressure pipe to condenser pipe assem Condenser pipe assembly (Inlet) to high-pres hose (One-touch joint) Condenser assembly to condenser pipe as- sembly Low-pressure pipe to expansion valve High-pressure pipe to expansion valve Compressor to low-pressure flexible hose Compressor to high-pressure flexible hose Liquid tank to condenser assembly Refrigerant pressure sensor to liquid tank Expansion valve to evaporator pipe assembly	Inlet	92472 N8210	1	φ12	
	sembly	Sion valve Sio	ф8		
New	Low-pressure pipe to expansion valve	1	92473 N8210	1	φ16
Compressor to low	High-pressure pipe to expansion valve	pipe to expansion valve			ф8
	Compressor to low-pressure flexible hose	92474 N8210	1	φ19	
	Compressor to high-pressure flexible hose		92472 N8210	1	φ12
	Limited to a little and a littl	Inlet	00474 N0040	1	
	Liquid tank to condenser assembly	Outlet	92471 N8210	1	- φ8
	Refrigerant pressure sensor to liquid tank		J2476 89956	1	φ10
		Inlet	92475 71L00	1	φ12
Condenser pipe assembly (Inlet) to high-pressure flexible hose (One-touch joint) 92472 N8210	1	φ16			
	hose (One-touch joint) Condenser assembly to condenser pipe assembly Low-pressure pipe to expansion valve High-pressure pipe to expansion valve Compressor to low-pressure flexible hose Compressor to high-pressure flexible hose Liquid tank to condenser assembly Refrigerant pressure sensor to liquid tank Expansion valve to evaporator pipe assembly Inlet Outlet Evaporator to evaporator pipe assembly	92475 71L00	1	φ12	
		Outlet	92475 72L00	1	φ16

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WARNING:

Check that all refrigerant is discharged into the recycling equipment and the pressure in the system is less than the atmospheric pressure. Then gradually loosen the discharge side hose fitting and remove it.

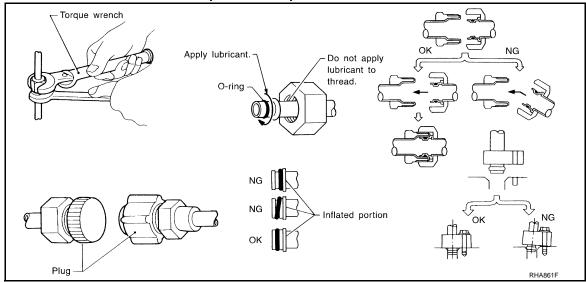
CAUTION:

Observe the following items when replacing or cleaning refrigerant cycle components.

- Store it in the same way as it is when mounted on the car when the compressor is removed. Failure
 to do so will cause lubricant to enter the low-pressure chamber.
- Always use a torque wrench and a back-up wrench when connecting tubes.
- Immediately plug all openings to prevent entry of dust and moisture after disconnecting tubes.
- Connect the pipes at the final stage of the operation when installing an air conditioner in the vehicle.
 Never remove the seal caps of pipes and other components until just before they are required for connection.
- Allow components stored in cool areas to warm to working area temperature before removing seal caps. This prevents condensation from forming inside A/C components.
- Thoroughly remove moisture from the refrigeration system before charging the refrigerant.
- Always replace used O-rings.
- Apply lubricant to the circle of the O-rings shown in illustration when a connecting tube. Never apply lubricant to threaded portion.

Name : A/C System Oil Type S

- O-ring must be closely attached to the groove portion of tube.
- Never damage O-ring and tube when replacing the O-ring.
- Connect tube until a click can be heard. Then tighten the nut or bolt by hand. Check that the O-ring is
 installed to the tube correctly.
- Perform leakage test and check that there is no leakage from connections after connecting the line.
 Disconnect the line and replace the O-ring when the refrigerant leakage point is found. Then tighten the connections of seal seat to the specified torque.



Service Equipment

INFOID:0000000009721069

RECOVERY/RECYCLING EQUIPMENT

Be certain to follow the manufacturer instructions for machine operation and machine maintenance. Never introduce any refrigerant other than that specified into the machine.

ELECTRICAL LEAK DETECTOR

Be certain to follow the manufacturer instructions for tester operation and tester maintenance.

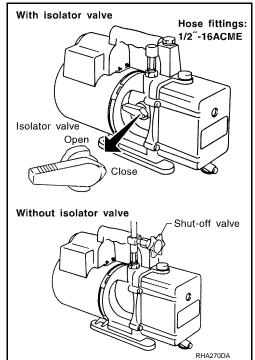
VACUUM PUMP

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The lubricant contained inside the vacuum pump is not compatible with the specified lubricant for HFC-134a (R-134a) A/C systems. The vent side of the vacuum pump is exposed to atmospheric pressure. So the vacuum pump lubricant may migrate out of the pump into the service hose. This is possible when the pump is switched OFF after evacuation (vacuuming) and the hose is connected to it. To prevent this migration, use a manual valve placed near the hose-to-pump connection, as per the following procedure.

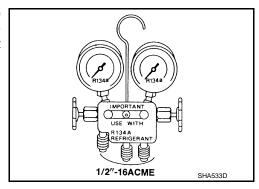
- Vacuum pumps usually have a manual isolator valve as part of the pump. Close this valve to isolate the service hose from the pump.
- Use a hose equipped with a manual shut-off valve near the pump end for pumps without an isolator. Close the valve to isolate the hose from the pump.
- Disconnect the hose from the pump if the hose has an automatic shut-off valve. As long as the hose is connected, the valve is open and lubricating oil may migrate.

Some one-way valves open when vacuum is applied and close under the no vacuum condition. Such valves may restrict the ability of the pump to create a deep vacuum and are not recommended.



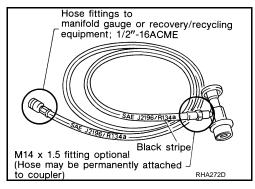
MANIFOLD GAUGE SET

Be certain that the gauge face indicates HFC-134a or R-134a. Be sure the gauge set has 1/2"-16 ACME threaded connections for service hoses. Confirm the set has been used only with refrigerant HFC-134a (R-134a) and specified lubricants.



SERVICE HOSES

Be certain that the service hoses display the markings described (colored hose with a black stripe). All hoses must equip positive shut-off devices (either manual or automatic) near the end of the hoses opposite to the manifold gauge.



SERVICE COUPLERS

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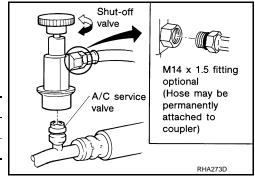
PRECAUTIONS

< PRECAUTION >

[WITHOUT 7 INCH DISPLAY]

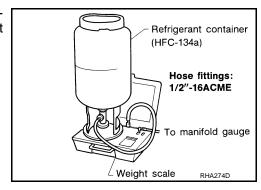
Never attempt to connect HFC-134a (R-134a) service couplers to a CFC-12 (R-12) A/C system. The HFC-134a (R-134a) couplers do not properly connect to the CFC-12 (R-12) system. However, if an improper connection is attempted, discharging and contamination may occur.

Shut-off valve rotation	A/C service valve
Clockwise	Open
Counterclockwise	Close



REFRIGERANT WEIGHT SCALE

Verify that no refrigerant other than HFC-134a (R-134a) and specified lubricants have been used with the scale. The hose fitting must be 1/2"-16 ACME if the scale controls refrigerant flow electronically.



CHARGING CYLINDER

Use of a charging cylinder is not recommended. Refrigerant may be vented into the air from the top valve of the cylinder when filling the cylinder with refrigerant. Also, the accuracy of the cylinder is generally less than that of an electronic scale or of quality recycle/recharge equipment.

COMPRESSOR

< PRECAUTION >

[WITHOUT 7 INCH DISPLAY]

COMPRESSOR

General Precautions

INFOID:0000000009721070

CAUTION:

- Plug all openings to prevent moisture and foreign material from entering.
- Store it in the same way as it is when mounted on the car when the compressor is removed.
- Follow "Maintenance of Lubricant Quantity in Compressor" exactly when replacing or repairing compressor. Refer to HA-25, "Maintenance of Lubricant Quantity".
- Keep friction surfaces between clutch and pulley clean. Wipe it off by using a waste moistened with thinner if the surface is contaminated with lubricant.
- Turn the compressor shaft by hand more than five turns in both directions after compressor service operation. This equally distributes lubricant inside the compressor. Let the engine idle and operate the compressor for one hour after the compressor is installed.
- Apply voltage to the new compressor and check for normal operation after replacing the compressor magnet clutch.

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FLUORESCENT LEAK DETECTOR

< PRECAUTION >

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FLUORESCENT LEAK DETECTOR

General Precautions

CAUTION:

- The A/C system contains a fluorescent leak detection dye used for locating refrigerant leakages. An ultraviolet (UV) lamp is required to illuminate the dye when inspecting for leakages.
- Always wear fluorescence enhancing UV safety goggles to protect eyes and enhance the visibility of the fluorescent dye.
- The fluorescent dye leak detector is not a replacement for an electrical leak detector (SST: J-41995).
 The fluorescent dye leak detector should be used in conjunction with an electrical leak detector (SST: J-41995) to pin-point refrigerant leakages.
- Read and follow all manufacturer operating instructions and precautions prior to performing work for safety and customer satisfaction.
- A compressor shaft seal should not necessarily be repaired because of dye seepage. The compressor shaft seal should only be repaired after confirming the leakage with an electrical leak detector (SST: J-41995).
- Always remove any remaining dye from the leakage area after repairs are completed to avoid a misdiagnosis during future service.
- Never allow dye to come into contact with painted body panels or interior components. Immediately clean with the approved dye cleaner if dye is spilled. Fluorescent dye left on a surface for an extended period of time cannot be removed.
- Never spray fluorescent dye cleaning agent on hot surfaces (engine exhaust manifold, etc.).
- Never use more than one refrigerant dye bottle [1/4 ounce (7.4 cc)] per A/C system.
- Leak detection dyes for HFC-134a (R-134a) and CFC-12 (R-12) A/C systems are different. Never use HFC-134a (R-134a) leak detection dye in CFC-12 (R-12) A/C system or CFC-12 (R-12) leak detection dye in HFC-134a (R-134a) A/C system, otherwise A/C system damage may result.
- The fluorescent properties of the dye remains for three or more years unless a compressor malfunction occurs.

IDENTIFICATION

NOTE:

Vehicles with factory installed fluorescent dye have a green label.

Vehicles without factory installed fluorescent dye have a blue label.

IDENTIFICATION LABEL FOR VEHICLE

Vehicles with factory installed fluorescent dye have an identification label on the front side of hood.

PREPARATION

PREPARATION

Special Service Tool

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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

HFC-134a (R-134a) Service Tool and Equipment

- Never mix HFC-134a (R-134a) refrigerant and/or its specified lubricant with CFC-12 (R-12) refrigerant and/or its lubricant.
- Separate and non-interchangeable service equipment must be used for handling each type of refrigerant/ lubricant.
- Refrigerant container fittings, service hose fittings and service equipment fittings (equipment that handles
 refrigerant and/or lubricant) are different between CFC-12 (R-12) and HFC-134a (R-134a). This is to avoid
 mixed use of the refrigerants/lubricant.
- Never use adapters that convert one size fitting to another. Refrigerant/lubricant contamination occurs and compressor malfunction may result.

	Tool number (Kent-Moore No.) Tool name	Description	- 0
(ACR2005-NI) ACR5 A/C Service Center	WJIA0293E	Function: Refrigerant recovery, recycling and recharging	G H VTL
(J-41995) Electrical leak detector	AHA281A	Power supply: DC 12 V (Battery terminal)	J K L
(J-43926) Refrigerant dye leak detection kit Kit includes: (J-42220) UV lamp and UV safety goggles (J-41459) HFC-134a (R-134a) dye injector Use with J-41447, 1/4 ounce bottle (J-41447) HFC-134a (R-134a) fluorescent leak detection dye (Box of 24, 1/4 ounce bottles) (J-43872) Refrigerant dye cleaner	W/shield Refrigerant dye cleaner dye identification label (24 labels) NOTICE The AC or indigenation spherocorous th degrees to code of KENT-MOORE (Theme the Acceptance of the Code of th	Power supply: DC 12 V (Battery terminal)	M N O

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Tool number (Kent-Moore No.) Tool name		Description	
(J-42220) UV lamp and UV safety goggles	SHA438F	Power supply: DC 12 V (Battery terminal) For checking refrigerant leakage when fluorescent dye is equipped in A/C system Includes: UV lamp and UV safety goggles	
(J-41447) HFC-134a (R-134a) fluorescent leak detection dye (Box of 24, 1/4 ounce bottles)	Refrigerant dye (24 bottles) SHA439F	Application: For HFC-134a (R-134a) PAG oil Container: 1/4 ounce (7.4 cc) bottle (Includes self-adhesive dye identification labels for affixing to vehicle after charging system with dye.)	
(J-41459) HFC-134a (R-134a) dye injector Use with J-41447, 1/4 ounce bottle	SHA440F	For injecting 1/4 ounce of fluorescent leak detection dye into A/C system	
(J-43872) Refrigerant dye cleaner	SHA441F	For cleaning dye spills	
(J-39183) Manifold gauge set (with hoses and couplers)	R.JIA0196E	Identification: • The gauge face indicates HFC-134a (R 134a). Fitting size: Thread size • 1/2″-16 ACME	
Service hoses High-pressure side hose (J-39501-72) Low-pressure side hose (J-39502-72) Utility hose (J-39476-72)	S-NT201	Hose color: • Low-pressure side hose: Blue with black stripe • High-pressure side hose: Red with black stripe • Utility hose: Yellow with black stripe or green with black stripe Hose fitting to gauge: • 1/2″-16 ACME	

Tool number (Kent-Moore No.) Tool name		Description
Service couplers • High-pressure side coupler (J-39500-20) • Low-pressure side coupler (J-39500-24)	S-NT202	Hose fitting to service hose: M14 x 1.5 fitting is optional or permanently attached.
(J-39650) Refrigerant weight scale	S-NT200	For measuring of refrigerant Fitting size: Thread size 1/2 ["] -16 ACME
(J-39649) Vacuum pump (Including the isolator valve)	O NT203	Capacity: • Air displacement: 4 CFM • Micron rating: 20 microns • Oil capacity: 482 g (17 oz) Fitting size: Thread size • 1/2″-16 ACME

Commercial Service Tool

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Tool name		Description
Refrigerant identifier equipment	RJA0197E	Checking for refrigerant purity and system contamination
Remover tools	JMKIA3050ZZ	Remove clips, pawls and metal clips

Sealant or/and Lubricant

INFOID:0000000009721074

- HFC-134a (R-134a) Service Tool and Equipment
 Never mix HFC-134a (R-134a) refrigerant and/or its specified lubricant with CFC-12 (R-12) refrigerant and/
- Separate and non-interchangeable service equipment must be used for handling each type of refrigerant/ lubricant.

PREPARATION

< PREPARATION >

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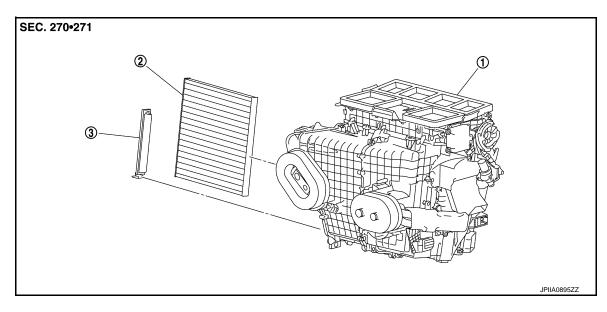
- Refrigerant container fittings, service hose fittings and service equipment fittings (equipment that handles refrigerant and/or lubricant) are different between CFC-12 (R-12) and HFC-134a (R-134a). This is to avoid mixed use of the refrigerants/lubricant.
- Never use adapters that convert one size fitting to another. Refrigerant/lubricant contamination occurs and compressor malfunction may result.

Tool name		Description
HFC-134a (R-134a) refrigerant	S-NT196	Container color: Light blue Container marking: HFC-134a (R- 134a) Fitting size: Thread size • Large container 1/2″-16 ACME
A/C System Oil Type S (DH-PS)	JMIIA1759ZZ	Type: Polyalkylene glycol oil (PAG), type S (DH-PS) Application: HFC-134a (R-134a) swash plate compressors Capacity: 40 m ℓ (1.4 US fl oz, 1.4 Imp fl oz)

PERIODIC MAINTENANCE

IN-CABIN MICROFILTER

Exploded View



- Heater & cooling unit assembly
- In-cabin microfilter (Air conditioner filter)*
- Filter cover

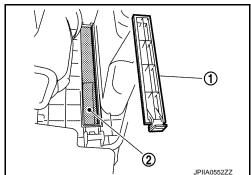
*: Models for Mexico.

Removal and Installation

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REMOVAL

1. Remove filter cover (1), and then remove in-cabin microfilter or air conditioner filter (2).



INSTALLATION

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

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

Replacement

Replace in-cabin microfilter or air conditioner filter.

Models for North America: Refer to MA-9, "FOR NORTH AMERICA: Introduction of Periodic Maintenance". Models for Mexico: Refer to MA-12, "FOR MEXICO: Periodic Maintenance".

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

Revision: 2013 August VTL-21 2014 MURANO

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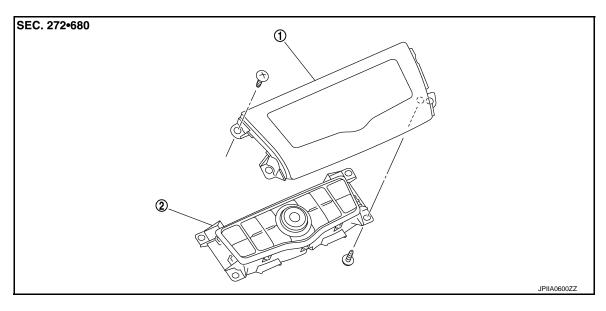
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REMOVAL AND INSTALLATION

A/C CONTROL

Exploded View

DISASSEMBLY



1. Cluster lid D

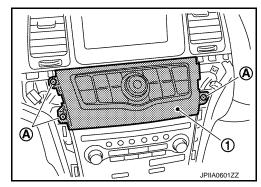
2. A/C control

Removal and Installation

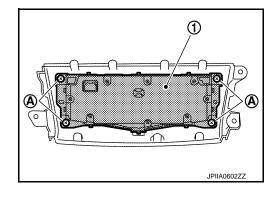
INFOID:0000000009721079

REMOVAL

- 1. Remove instrument stay cover LH. Refer to IP-14, "Exploded View".
- 2. Remove instrument stay cover RH. Refer to IP-14. "Exploded View".
- 3. Remove fixing screws (A) and then remove cluster lid D (1).



4. Remove fixing screws (A) and then remove A/C control (1).



A/C CONTROL

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Install in the reverse order of removal.

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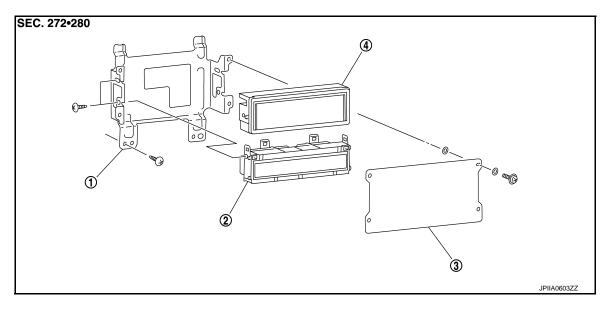
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A/C DISPLAY

Exploded View

DISASSEMBLY



- 1. Bracket
- 4. AV display

2. A/C display

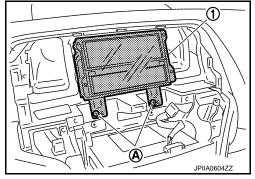
3. CRT filter

Removal and Installation

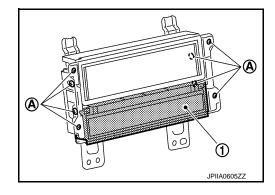
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REMOVAL

- 1. Remove central ventilator assembly. Refer to IP-14, "Exploded View".
- 2. Remove fixing screws (A) and then remove mounting bracket (1).



3. Remove fixing screws (A) and then remove A/C display (1).



INSTALLATION

Install in the reverse order of removal.

[WITHOUT 7 INCH DISPLAY]

A/C AUTO AMP.

Exploded View

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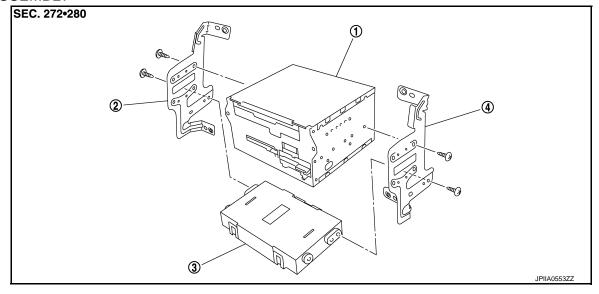
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DISASSEMBLY



1. AV control unit

2. Bracket LH

3. A/C auto amp.

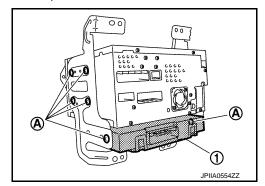
4. Bracket RH

Removal and Installation

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REMOVAL

- 1. Remove AV control unit. Refer to the following.
 - Refer to AV-276, "Exploded View" (BOSE AUDIO WITHOUT NAVIGATION).
 - Refer to AV-448, "Exploded View" (BOSE AUDIO WITH NAVIGATION).
- 2. Remove fixing screws (A) and then remove A/C auto amp. (1).



INSTALLATION

Install in the reverse order of removal.

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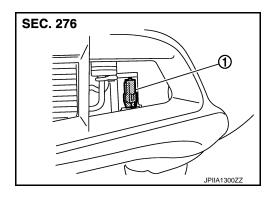
Revision: 2013 August VTL-25 2014 MURANO

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AMBIENT SENSOR

Exploded View

1. Ambient sensor

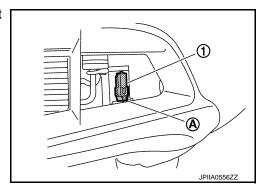


Removal and Installation

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REMOVAL

Disconnect ambient sensor connector (A) and then remove ambient sensor (1).



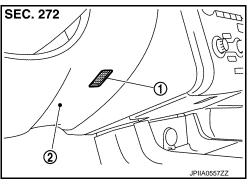
INSTALLATION

Install in the reverse order of removal.

IN-VEHICLE SENSOR

Exploded View

- ____
- 1. In-vehicle sensor
- 2. Instrument lower panel LH



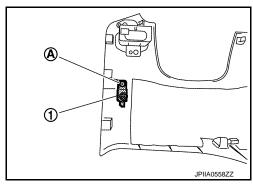
Removal and Installation

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REMOVAL

- 1. Remove instrument lower panel LH. Refer to IP-14, "Exploded View".
- 2. Remove fixing screw (A) and then remove in-vehicle sensor (1).



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INSTALLATION

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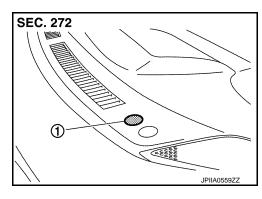
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SUNLOAD SENSOR

Exploded View

1. Sunload sensor

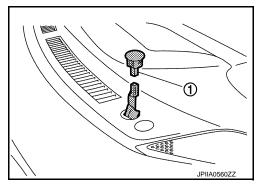


Removal and Installation

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REMOVAL

Disconnect sunload sensor connector and then remove sunload sensor (1).

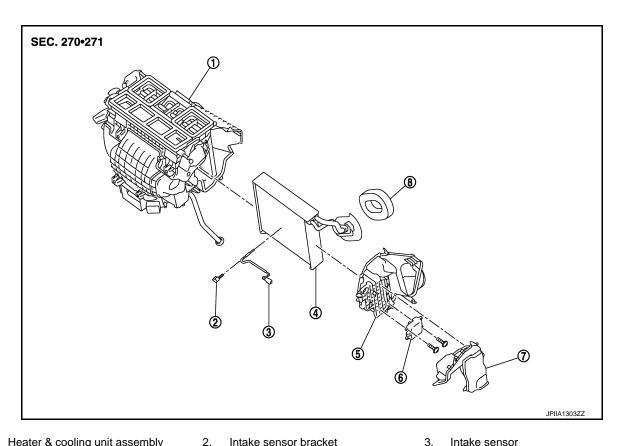


INSTALLATION

Install in the reverse order of removal.

INTAKE SENSOR

Exploded View



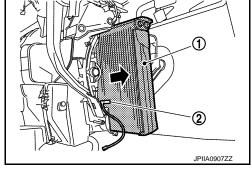
- Heater & cooling unit assembly
- Evaporator assembly
- Foot duct RH

- 2. Intake sensor bracket
- 5. Evaporator cover
- Cooler pipe grommet
- Intake sensor
- 6. Air mix door motor (Passenger side)

Removal and Installation

REMOVAL

- Remove evaporator pipe assembly. Refer to <u>VTL-36</u>. "Exploded View".
- Slide the evaporator (1) toward the right side of the vehicle and then remove intake sensor (2).



INSTALLATION

Note the following items and then install in the reverse order of removal. **CAUTION:**

- Replace the O-ring with a new one. Apply a coat of compressor oil to the O-ring prior to installation.
- Install the intake sensor in the same position as the removed intake sensor when replacing the intake sensor.
- · Never rotate the bracket insertion part when removing and installing the intake sensor.
- Check for refrigerant leakage when charging refrigerant.

VTL-29 Revision: 2013 August 2014 MURANO

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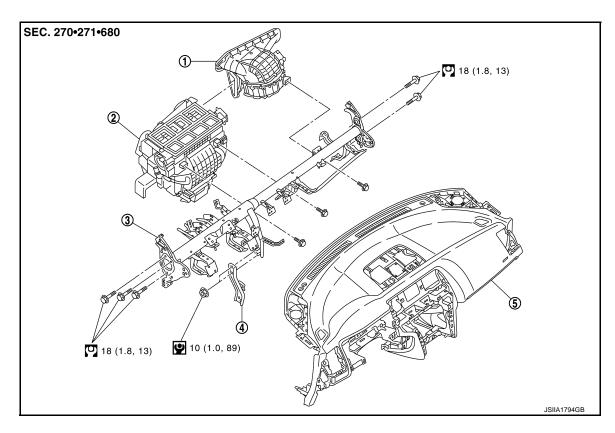
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BLOWER UNIT

Exploded View

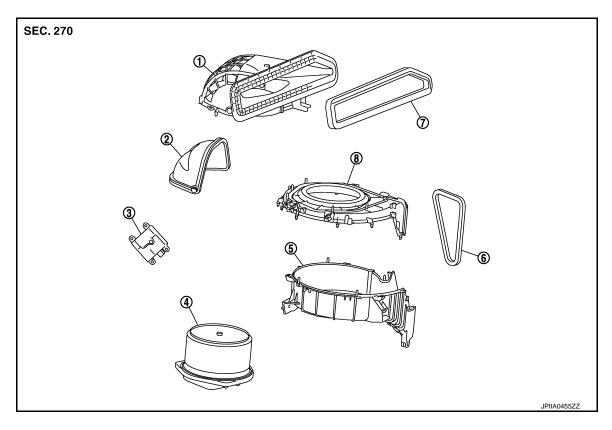
REMOVAL



- 1. Blower unit assembly
- 4. Instrument stay
- : N·m (kg-m, ft-lb)
- : N·m (kg-m, in-lb)

DISASSEMBLY

- 2. Heater & cooling unit assembly
- 5. Instrument panel assembly
- 3. Steering member



- 1. Shutter box case
- 4. Blower motor assembly
- 7. Intake seal

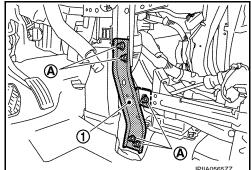
- 2. Intake door
- 5. Intake lower case
- 8. Intake upper case
- Intake door motor
- 6. Outlet seal

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Removal and Installation

REMOVAL

- 1. Remove instrument panel assembly. Refer to IP-14, "Exploded View".
- 2. Remove mounting nuts (A) and then remove instrument panel stay (1).



- 3. Disconnect intake door motor and blower motor connectors.
- 4. Remove heater & cooling unit assembly and blower unit mounting bolts (A).

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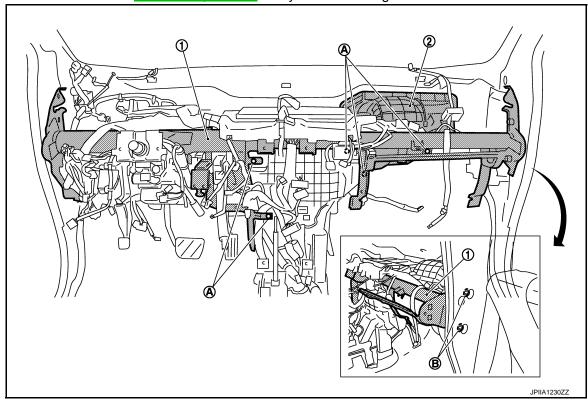
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5. Remove mounting bolts (B) and then remove blower unit assembly (2) while pulling the steering member (1) to the front. Refer to <u>GI-4, "Components"</u> for symbols in the figure.



INSTALLATION

Install in the reverse order of removal.

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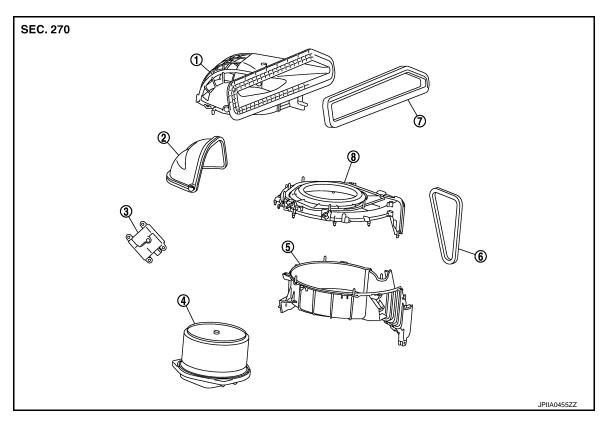
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BLOWER MOTOR

Exploded View



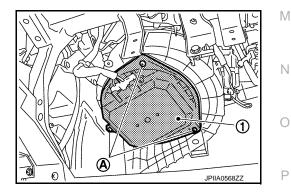
- 1. Shutter box case
- 4. Blower motor assembly
- 7. Intake seal

- 2. Intake door
- 5. Intake lower case
- 8. Intake upper case
- 3. Intake door motor
- 6. Outlet seal

Removal and Installation

REMOVAL

- Remove instrument lower panel RH. Refer to <u>IP-14, "Exploded View"</u>.
- 2. Disconnect blower motor connector.
- 3. Remove fixing screws (A) and then remove blower motor (1).

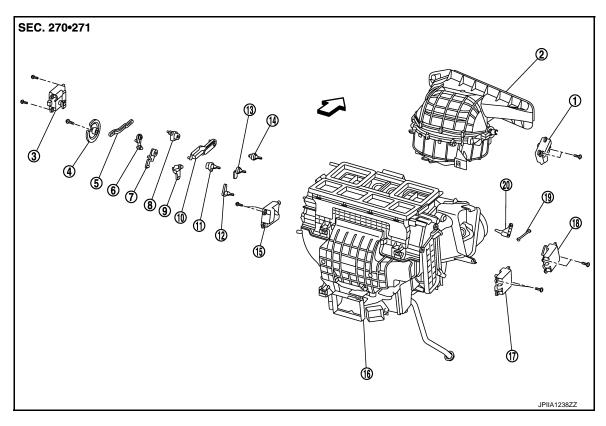


INSTALLATION

Install in the reverse order of removal.

INTAKE DOOR MOTOR

Exploded View INFOID:0000000009721096



- Intake door motor 1.
- Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- ⟨
 ⇒ : Vehicle front

- 2. Bower unit assembly
- 5. Rod link
- 8. Mode door lever
- 11. Ventilator door lever
- 14. Defroster door lever
- 17. Air mix door motor (Passenger side) 18. Upper ventilator door motor
- 20. Upper ventilator door lever

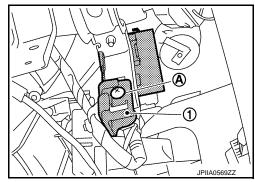
- 3. Mode door motor
- 6. Max. cool door link
- Ventilator door link
- 12. Foot door lever
- 15. Air mix door motor (Driver side)

Removal and Installation

INFOID:0000000009721097

REMOVAL

- Remove instrument lower panel RH. Refer to IP-14, "Exploded View".
- Remove fixing screw (A) and then move the key less controller assembly bracket (1) to a position where it does not inhibit work.



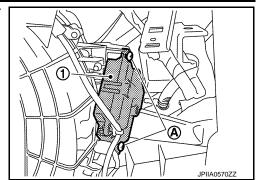
Disconnect intake door motor connector.

INTAKE DOOR MOTOR

< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

4. Remove fixing screws (A) and then remove intake door motor (1).



INSTALLATION

Install in the reverse order of removal.

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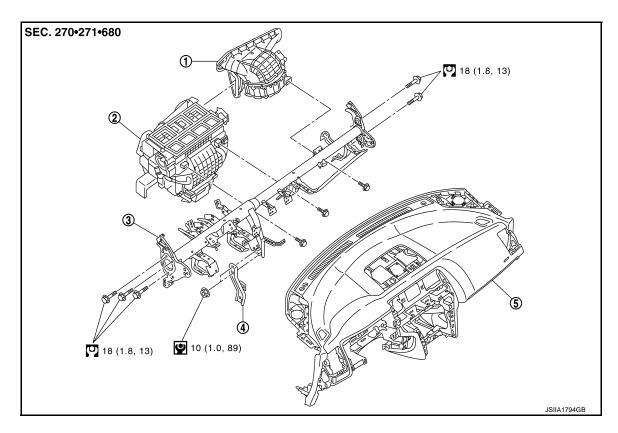
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HEATER & COOLING UNIT ASSEMBLY

Exploded View

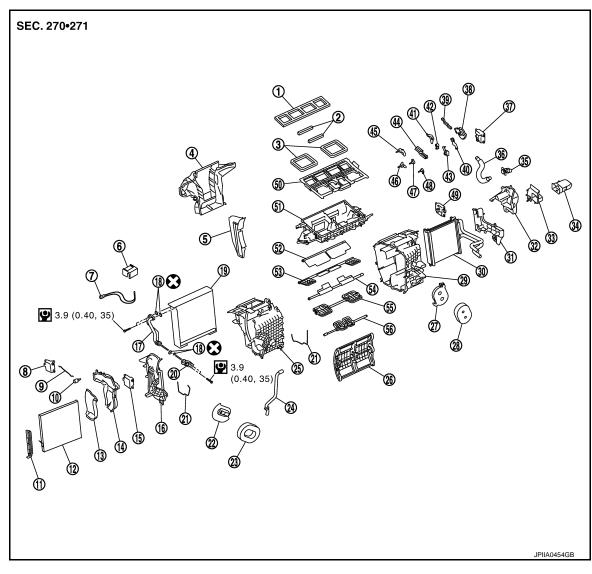
REMOVAL



- 1. Blower unit assembly
- 4. Instrument stay
- : N·m (kg-m, ft-lb)
- : N·m (kg-m, in-lb)

DISASSEMBLY

- 2. Heater & cooling unit assembly
- 5. Instrument panel assembly
- 3. Steering member



1.	Ventilator seal
4.	Adapter case

7. Intake sensor

Upper ventilator door lever 10.

13. Foot duct 1 RH

Heater & cooling unit case cover

19. Evaporator

Grommet 22.

Heater & cooling unit case RH 25.

28. Heater pipe grommet

Heater pipe cover 31.

Heater duct 34.

37. Mode door motor

Max. cool door link 40.

43. Mode door lever

46. Foot door lever

49. Air mix door motor (Driver side)

52. Ventilator door

Defroster door

2. Upper ventilator seal

5. Center case

8. Upper ventilator door motor

Filter cover 11.

14. Foot duct 2 RH

17. Evaporator pipe assembly

Expansion valve

23. Cooler pipe grommet

Air mix door (Slide door) 26.

29. Heater & cooling unit case LH

32. Foot duct 2 LH

Aspirator 35.

38. Main link

41. Ventilator door link

44. Defroster door link

47. Defroster door lever

Distributor upper case 50.

53. Foot door

56. Upper ventilator door 3. Defroster seal

6. Intake sensor bracket

9. Upper ventilator door rod

In-cabin microfilter 12.

(Air conditioner filter)* 15. Air mix door motor (Passenger side)

O-ring 18.

Case packing

Drain hose 24.

27. Heater pipe support

30. Heater core

Foot duct 1 LH 33.

36. Aspirator hose

39. Rod link

42. Foot door link

45. Ventilator door lever

48. Max. cool door lever

Distributor lower case

54. Max. cool door Α

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: Always replace after every disassembly.

: N⋅m (kg-m, in-lb)

*: Models for Mexico.

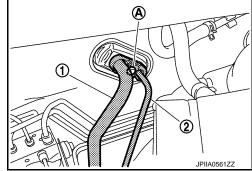
Removal and Installation

INFOID:0000000009721099

REMOVAL

- 1. Collect the refrigerant with refrigerant collecting equipment (for HFC134a).
- Drain engine coolant. Refer to CO-11, "Draining".
- Remove mounting bolt (A) and then disconnect the low-pressure pipe (1) and high-pressure pipe (2) from the expansion valve. **CAUTION:**

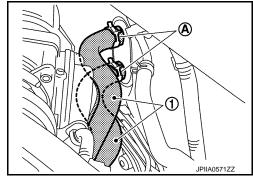
Cap or wrap the joint of the A/C piping and expansion valvewith suitable material such as vinyl tape to avoid the entry



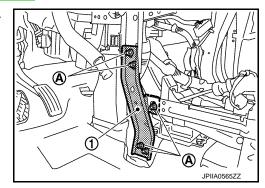
Remove fixing clamps (A) and then disconnect the heater hoses

CAUTION:

- · Some coolant may spill when heater hoses are disconnected. Wipe them off with wastes.
- Close the coolant inlet/outlet on the heater core and heater hoses with wastes.

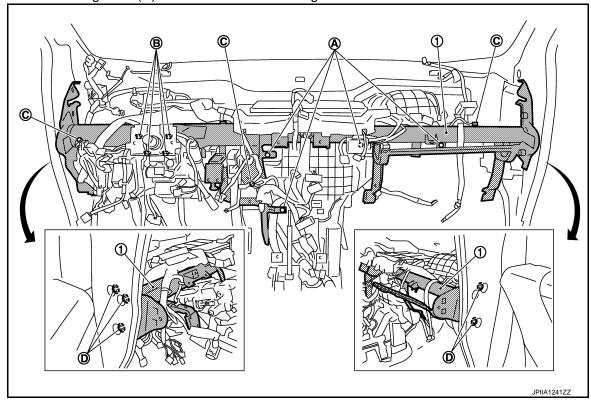


- Remove instrument panel assembly. Refer to IP-14, "Exploded View".
- Remove mounting nuts (A) and then remove instrument stay (1).

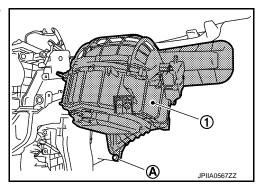


- 7. Remove heater & cooling unit assembly and blower unit mounting bolts (A). Refer to GI-4, "Components" for symbols shown in the figure.
- 8. Remove steering column mounting nuts (B). Refer to the following.
 - Refer to ST-37, "WITHOUT ELECTRIC MOTOR: Exploded View" (WITHOUT ELECTRIC MOTOR).
 - Refer to ST-40, "WITH ELECTRIC MOTOR: Exploded View" (WITH ELECTRIC MOTOR).
- 9. Remove ground bolts (C) from the steering member (1).
- 10. Remove harness clip from the steering member.
- 11. Disconnect intake door motor and blower motor connectors.

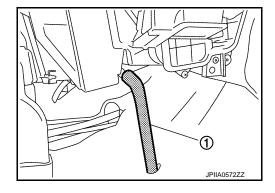
12. Remove mounting bolts (D) and then remove steering member from the vehicle.



13. Remove fixing screw (A) and then remove blower unit assembly (1).



14. Disconnect drain hose (1) from heater & cooling unit assembly.



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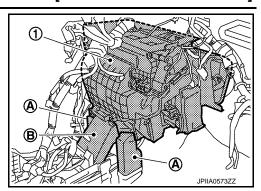
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HEATER & COOLING UNIT ASSEMBLY

< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

15. Remove rear foot ducts 1 (A) and rear ventilator duct 1 (B), and then remove heater & cooling unit assembly (1).



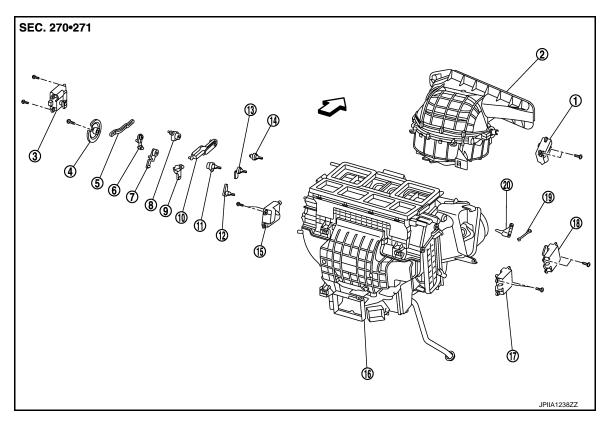
INSTALLATION

Note the following items and then install in the reverse order of removal. **CAUTION:**

- Replace the O-ring with a new one. Apply a coat of compressor oil to the O-ring prior to installation.
- Check for refrigerant leakage when charging refrigerant. NOTE:
- Refer to CO-12, "Refilling" when filling the radiator with engine coolant.
- Charge the refrigerant again.

UPPER VENTILATOR DOOR MOTOR

Exploded View INFOID:0000000009721100



- Intake door motor 1.
- 4. Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- ⟨
 ⇒ : Vehicle front

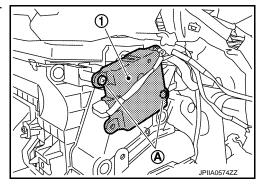
- 2. Bower unit assembly
- 5. Rod link
- 8. Mode door lever
- 11. Ventilator door lever
- 14. Defroster door lever
- 17.
- Upper ventilator door lever

- 3. Mode door motor
- 6. Max. cool door link
- 9. Ventilator door link
- 12. Foot door lever
- Air mix door motor (Driver side) 15.
- Air mix door motor (Passenger side) 18. Upper ventilator door motor

Removal and Installation

REMOVAL

- Remove blower unit assembly. Refer to VTL-30, "Exploded View".
- Disconnect upper ventilator door motor connector.
- Remove fixing screws (A) and then remove upper ventilator door motor (1).



INSTALLATION

VTL-41 Revision: 2013 August 2014 MURANO

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UPPER VENTILATOR DOOR MOTOR

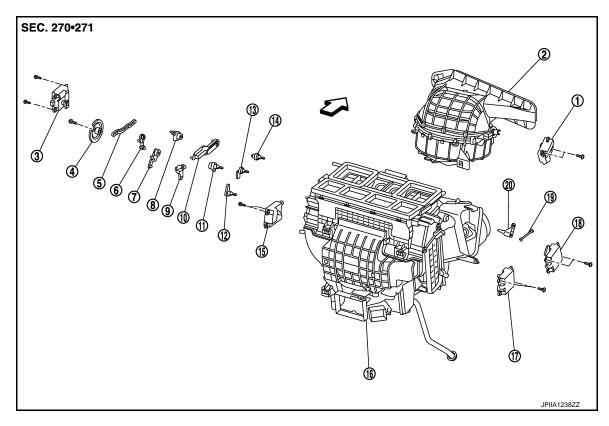
< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

Install in the reverse order of removal.

MODE DOOR MOTOR

Exploded View INFOID:0000000009721102



- Intake door motor 1.
- 4. Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- ⟨
 ⇒ : Vehicle front

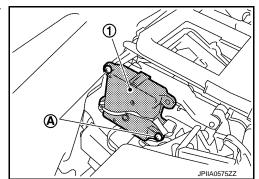
- 2. Bower unit assembly
- 5. Rod link
- Mode door lever 8.
- 11. Ventilator door lever
- 14. Defroster door lever
- 17. Air mix door motor (Passenger side) 18. Upper ventilator door motor
- Upper ventilator door lever

- 3. Mode door motor
- 6. Max. cool door link
- 9. Ventilator door link
- 12. Foot door lever
- Air mix door motor (Driver side) 15.

Removal and Installation

REMOVAL

- 1. Remove instrument panel assembly. Refer to IP-14, "Exploded View".
- Disconnect mode door motor connector.
- Remove fixing screws (A) and then remove mode door motor (1).



INSTALLATION

VTL-43 Revision: 2013 August 2014 MURANO

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MODE DOOR MOTOR

[WITHOUT 7 INCH DISPLAY]

Install in the reverse order of removal.

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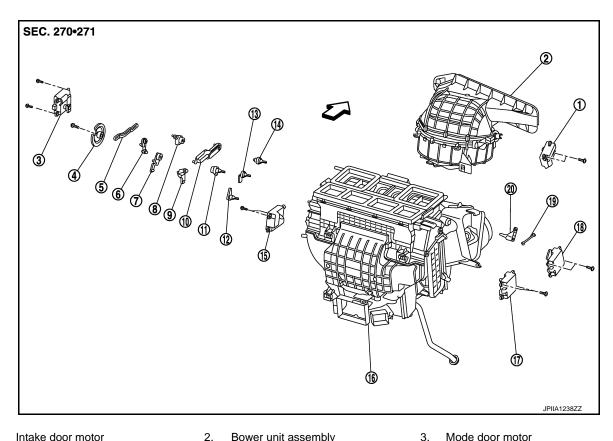
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AIR MIX DOOR MOTOR

Exploded View INFOID:0000000009721104



- Intake door motor 1.
- 4. Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- : Vehicle front

- 2. Bower unit assembly
- 5. Rod link
- 8. Mode door lever
- 11. Ventilator door lever
- Defroster door lever 14.
- 17.
- Upper ventilator door lever

- Mode door motor
- 6. Max. cool door link
- 9. Ventilator door link
- 12. Foot door lever
- 15. Air mix door motor (Driver side)
- Air mix door motor (Passenger side) 18. Upper ventilator door motor

Removal and Installation

REMOVAL

Driver Side

1. Set the temperature at full cold.

CAUTION:

The angle may be out, when installing the air mix door motor to the air mix door, unless the above procedure is performed.

- Disconnect the battery cable from the negative terminal.
- Remove foot duct LH. Refer to VTL-69, "FOOT DUCT: Exploded View".
- Disconnect air mix door motor connector.

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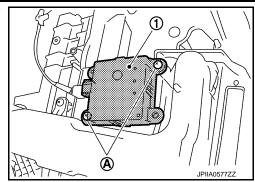
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AIR MIX DOOR MOTOR

< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

5. Remove fixing screws (A) and then remove air mix door motor (1).



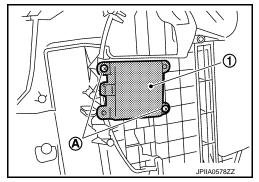
Passenger Side

1. Set the temperature at full cold.

CAUTION:

The angle may be out, when installing the air mix door motor to the air mix door, unless the above procedure is performed.

- 2. Disconnect the battery cable from the negative terminal.
- 3. Remove foot duct RH. Refer to VTL-69, "FOOT DUCT: Exploded View".
- 4. Disconnect the air mix door motor connector.
- 5. Remove fixing screws (A) and then remove air mix door motor (1).



INSTALLATION

Install in the reverse order of removal.

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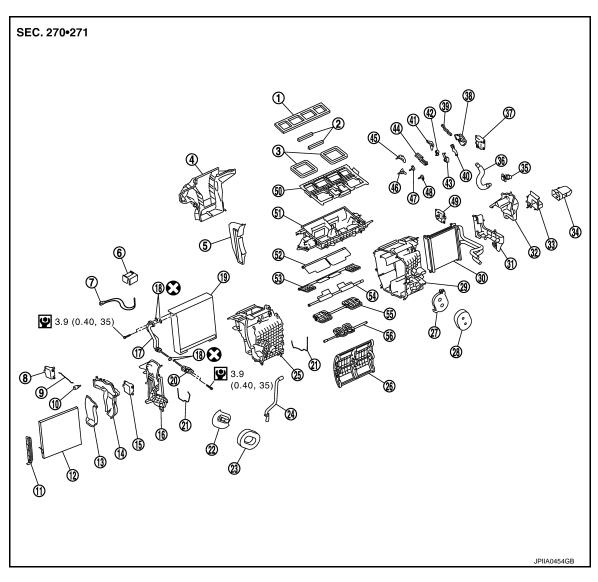
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HEATER CORE

Exploded View



1	Ventilator seal	
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- 4. Adapter case
- 7. Intake sensor
- 10. Upper ventilator door lever
- 13. Foot duct 1 RH
- 16. Heater & cooling unit case cover
- 19. Evaporator
- 22. Grommet
- 25. Heater & cooling unit case RH
- 28. Heater pipe grommet
- 31. Heater pipe cover
- 34. Heater duct
- 37. Mode door motor
- 40. Max. cool door link
- 43. Mode door lever

- 2. Upper ventilator seal
- Center case
- 8. Upper ventilator door motor
- 11. Filter cover
- 14. Foot duct 2 RH
- 17. Evaporator pipe assembly
- 20. Expansion valve
- 23. Cooler pipe grommet
- 26. Air mix door (Slide door)
- 29. Heater & cooling unit case LH
- 32. Foot duct 2 LH
- 35. Aspirator
- 38. Main link
- 41. Ventilator door link
- Defroster door link

- 3. Defroster seal
- 6. Intake sensor bracket
- 9. Upper ventilator door rod
- In-cabin microfilter
 (Air conditioner filter*
- 15. Air mix door motor (Passenger side)
- 18. O-ring
- 21. Case packing
- 24. Drain hose
- 27. Heater pipe support
- 30. Heater core
- 33. Foot duct 1 LH
- Aspirator hose
- 39. Rod link
- 42. Foot door link
- 45. Ventilator door lever

[WITHOUT 7 INCH DISPLAY]

48. Max. cool door lever

54. Max. cool door

46. Foot door lever	47.	Defroster door lever
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49. Air mix door motor (Driver side) 50. Distributor upper case 51. Distributor lower case

52. Ventilator door 53. Foot door

55. Defroster door 56. Upper ventilator door

: Always replace after every disassembly.

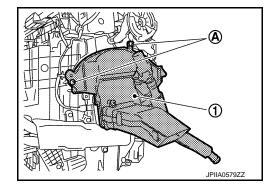
: N·m (kg-m, in-lb)

Removal and Installation

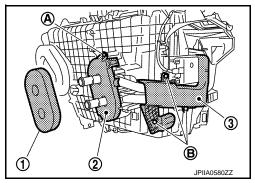
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REMOVAL

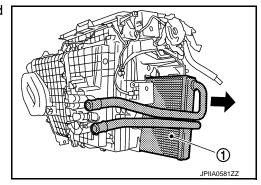
- 1. Remove heater & cooling unit assembly. Refer to VTL-36, "Exploded View".
- 2. Remove fixing screws (A) and then remove foot duct LH (1).



- 3. Remove heater pipe grommet (1).
- 4. Remove fixing screw (A) and then remove heater pipe support (2).
- 5. Remove fixing screws (B) and then remove heater pipe cover (3).



6. Slide the heater core (1) in the direction shown by the arrow, and then remove it.



INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Replace the O-ring with a new one. Apply a coat of compressor oil to the O-ring prior to installation.
- Check for refrigerant leakage when charging refrigerant.
 NOTE:
- Refer to CO-12, "Refilling" when filling the radiator with engine coolant.
- Charge the refrigerant again.

^{*:} Models for Mexico.

DUCT AND GRILLE CENTER VENTILATOR GRILLE

CENTER VENTILATOR GRILLE: Exploded View



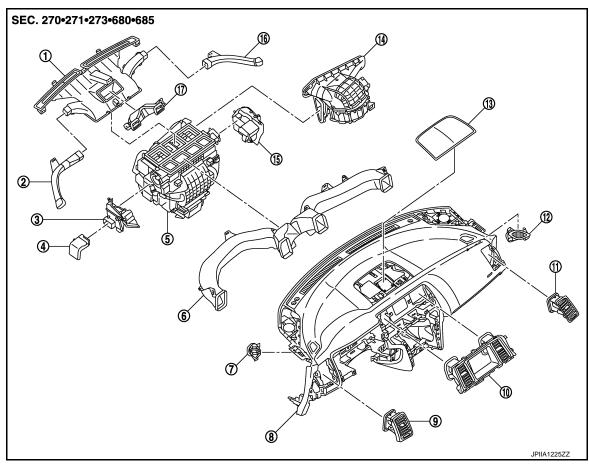
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- Defroster nozzle
- Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- Side defroster nozzle LH 2.
- 5. Heater & cooling unit assembly
- Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- Foot duct LH 3.
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

CENTER VENTILATOR GRILLE: Removal and Installation

REMOVAL

- Remove cluster lid A. Refer to IP-14, "Exploded View".
- Remove cluster lid D. Refer to IP-14, "Exploded View".

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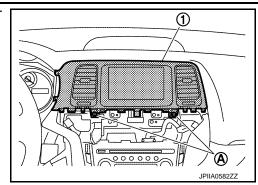
VTL-49 2014 MURANO Revision: 2013 August

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3. Remove fixing screws (A) and then remove center ventilator grille assembly (1).

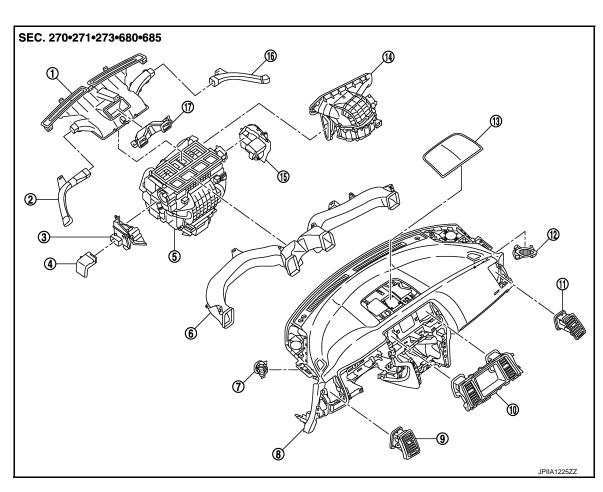


INSTALLATION

Install in the reverse order of removal.

SIDE VENTILATOR GRILLE

SIDE VENTILATOR GRILLE: Exploded View



- 1. Defroster nozzle
- 4. Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- 2. Side defroster nozzle LH
- Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- 3. Foot duct LH
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

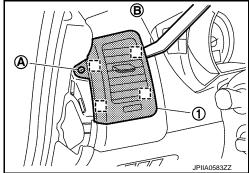
SIDE VENTILATOR GRILLE: Removal and Installation

REMOVAL

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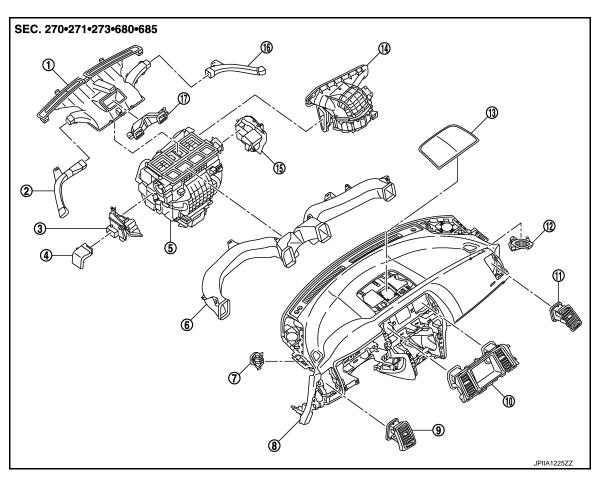
- Remove instrument side finisher (LH/RH). Refer to IP-14, "Exploded View".
- 2. Remove fixing screw (A).
- Remove side ventilator grille metal clip using remover tool (B) and then remove side ventilator grille (1).

: Metal clip



INSTALLATION Install in the reverse order of removal. SIDE DEFROSTER GRILLE

SIDE DEFROSTER GRILLE: Exploded View



- Defroster nozzle
- Heater duct
- Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- Side defroster nozzle LH
- Heater & cooling unit assembly
- Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- Foot duct LH
- Ventilator duct
- Side ventilator grille LH
- Side defroster grille RH
- 15. Foot duct RH

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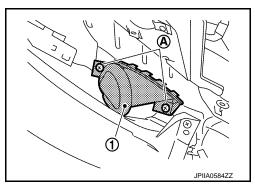
SIDE DEFROSTER GRILLE: Removal and Installation

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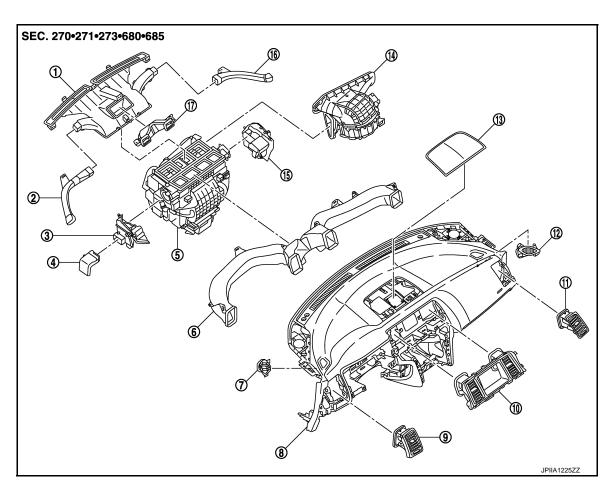
REMOVAL

- Remove defroster nozzle and side defroster nozzle. Refer to <u>VTL-55</u>, "<u>DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE</u>: <u>Exploded View</u>".
- 2. Remove fixing screws (A) and then remove side defroster grilles (left/right) (1).



INSTALLATION
Install in the reverse order of removal.
VENTILATOR DUCT

VENTILATOR DUCT: Exploded View



- 1. Defroster nozzle
- Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 2. Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 3. Foot duct LH
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

- 13. Center speaker grille
- 14. Blower unit assembly
- 15. Foot duct RH

- 16. Side defroster nozzle RH
- 17. Upper ventilator duct

VENTILATOR DUCT: Removal and Installation

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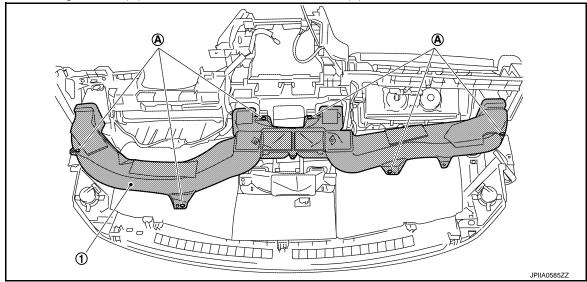
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REMOVAL

1. Remove defroster nozzle and side defroster nozzle. Refer to VTL-55, "DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE : Exploded View".

2. Remove fixing screws (A) and then remove ventilator duct (1).



INSTALLATION

Install in the reverse order of removal.

UPPER VENTILATOR DUCT

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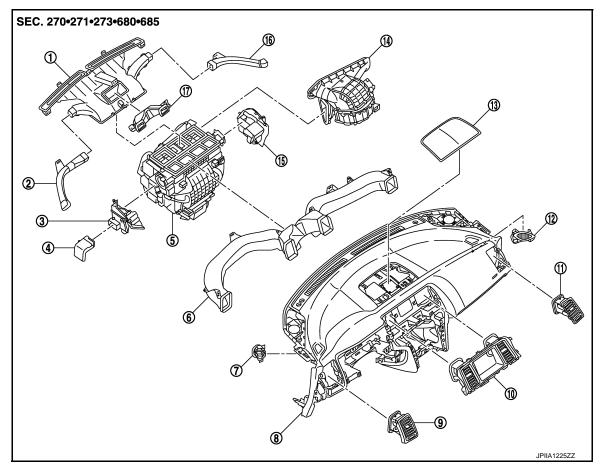
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UPPER VENTILATOR DUCT: Exploded View





- 1. Defroster nozzle
- 4. Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- 2. Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

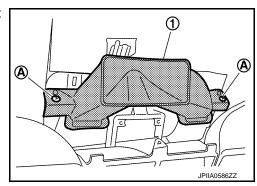
- 3. Foot duct LH
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

UPPER VENTILATOR DUCT: Removal and Installation

INFOID:0000000009721117

REMOVAL

- Remove defroster nozzle and side defroster nozzle. Refer to <u>VTL-55</u>, "<u>DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE</u>: <u>Exploded View</u>".
- 2. Remove fixing screws (A) and then remove upper ventilator duct (1).



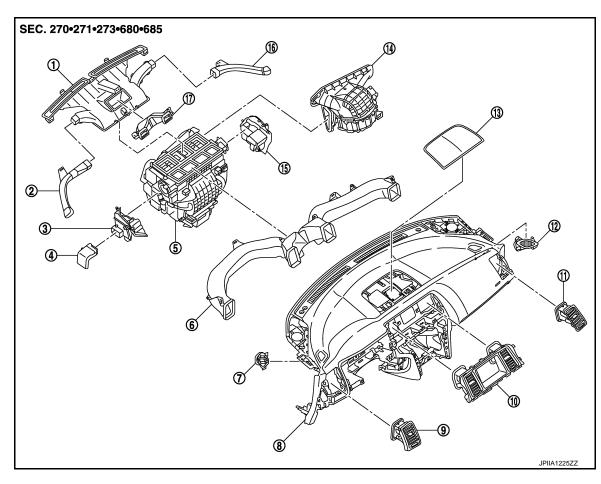
INSTALLATION

Install in the reverse order of removal.

DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE

DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE: Exploded View

INFOID:0000000009721118



- Defroster nozzle
- 4. Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- 2. Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- . Foot duct LH
- 6. Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE: Removal and Installation

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REMOVAL

Remove instrument panel assembly. Refer to <u>IP-14, "Exploded View"</u>.

Revision: 2013 August VTL-55 2014 MURANO

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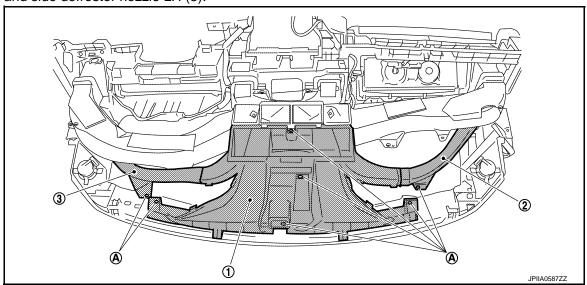
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2. Remove fixing screws (A) and then remove defroster nozzle (1) together with the side defroster nozzle RH (2) and side defroster nozzle LH (3).



3. Remove side defroster nozzle LH and RH from defroster nozzle.

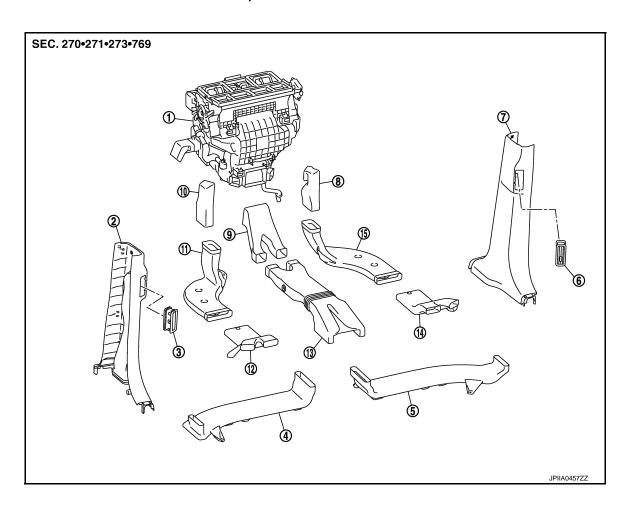
INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR GRILLE

REAR VENTILATOR GRILLE: Exploded View

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DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- 2. Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

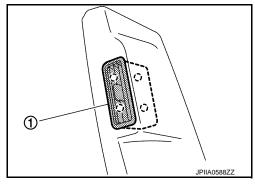
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REAR VENTILATOR GRILLE: Removal and Installation

REMOVAL

- 1. Remove center pillar lower garnish. Refer to INT-20, "Exploded View".
- 2. Disengage joints of the tabs and then remove rear ventilator grille (1).

() : Clip



INSTALLATION
Install in the reverse order of removal.
REAR VENTILATOR DUCT 1

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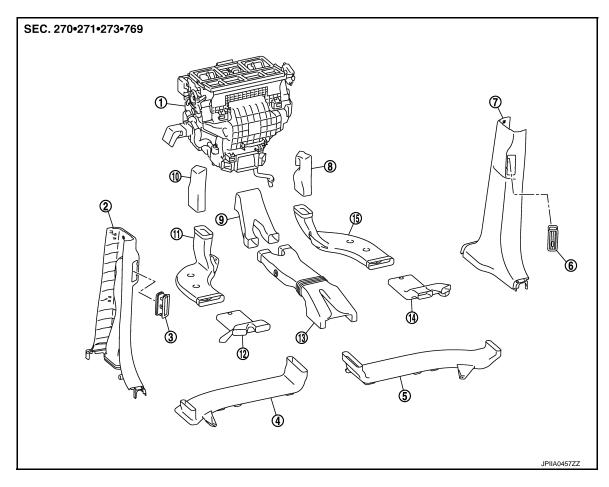
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REAR VENTILATOR DUCT 1: Exploded View

INFOID:0000000009721122



- Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

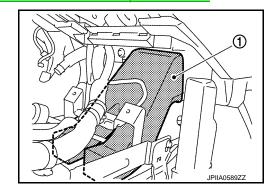
- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR DUCT 1: Removal and Installation

REMOVAL

- 1. Remove rear ventilator duct 2. Refer to VTL-59, "REAR VENTILATOR DUCT 2: Exploded View".
- 2. Remove rear ventilator duct 1 (1).



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INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR DUCT 2

REAR VENTILATOR DUCT 2: Exploded View



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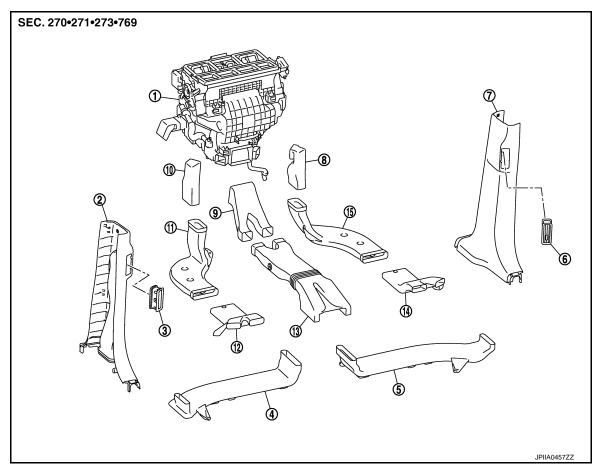
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- Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

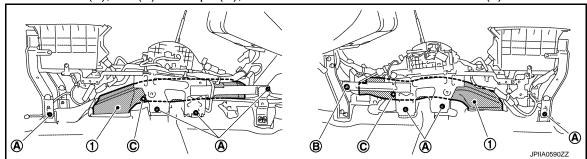
- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR DUCT 2: Removal and Installation

REMOVAL

- 1. Remove front seat assembly (LH and RH). Refer to SE-92. "Exploded View".
- Remove lower console finisher (LH and RH). Refer to IP-22, "Exploded View".
- 3. Remove screws (A), nut (B) and clips (C), and then remove rear ventilator duct 2 (1).



Revision: 2013 August VTL-59 2014 MURANO

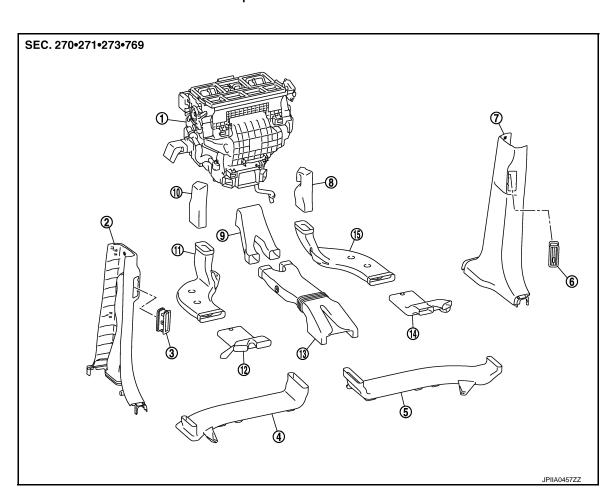
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INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR DUCT 3

REAR VENTILATOR DUCT 3: Exploded View



- Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR DUCT 3: Removal and Installation

INFOID:0000000009721127

REMOVAL

Driver Side

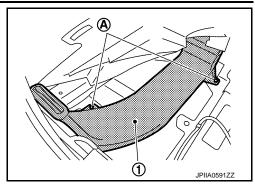
- Remove front seat assembly LH. Refer to <u>SE-92, "Exploded View"</u>.
- Pull up the driver side floor carpet. Refer to <u>INT-24, "Exploded View"</u>.

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

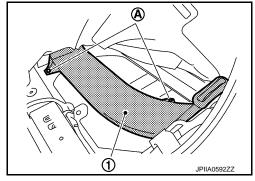
[WITHOUT 7 INCH DISPLAY]

3. Remove fixing screws (A) and then remove rear ventilator duct 3 LH (1).



Passenger side

- 1. Remove front seat assembly RH. Refer to <a>SE-92, "Exploded View".
- 2. Pull up the passenger side floor carpet. Refer to INT-24, "Exploded View".
- 3. Remove fixing screws (A) and then remove rear ventilator duct 3 RH (1).



INSTALLATION
Install in the reverse order of removal.
REAR VENTILATOR DUCT 4

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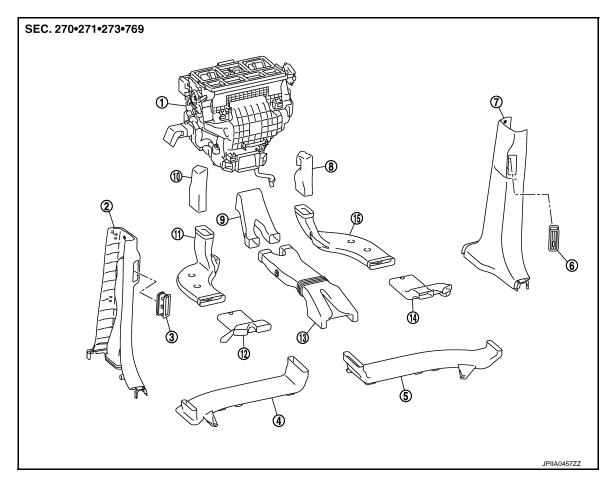
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REAR VENTILATOR DUCT 4: Exploded View

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- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

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REAR VENTILATOR DUCT 4: Removal and Installation

REMOVAL

Remove center pillar lower garnish. Refer to INT-20, "Exploded View".

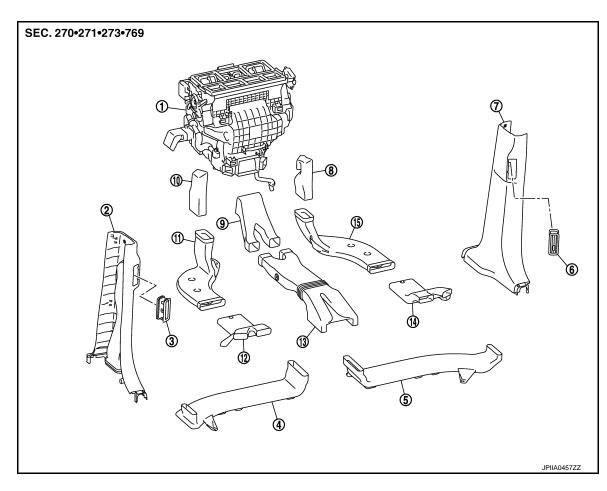
INSTALLATION

Install in the reverse order of removal.

REAR FOOT DUCT 1

REAR FOOT DUCT 1: Exploded View

INFOID:0000000009721130



- Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- Rear ventilator duct 4 7. (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

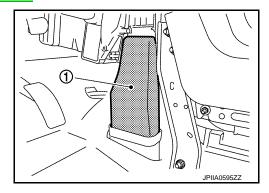
- Rear ventilator grille LH 3.
- 6. Rear ventilator grille RH
- Rear ventilator duct 1 9.
- 12. Rear foot duct 3 LH
- Rear foot duct 2 RH

REAR FOOT DUCT 1: Removal and Installation

REMOVAL

Driver Side

- Remove instrument lower cover LH. Refer to IP-14, "Exploded View".
- Remove rear foot duct 1 LH (1).



Passenger Side

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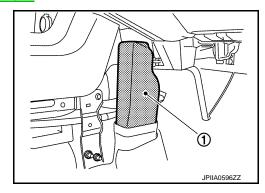
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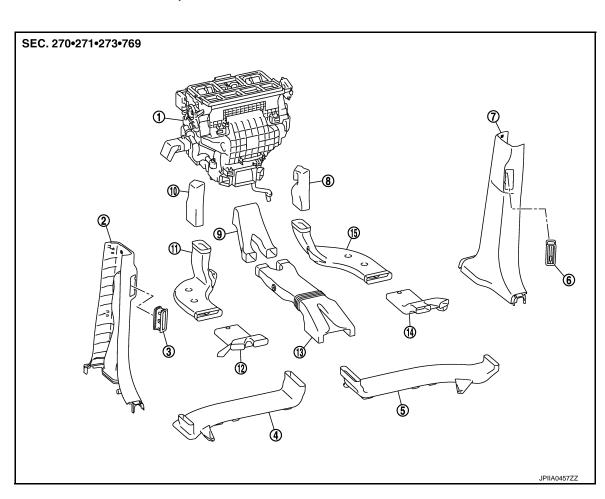
< REMOVAL AND INSTALLATION >

- 1. Remove instrument lower cover RH. Refer to IP-14, "Exploded View".
- 2. Remove rear foot duct 1 RH (1).



INSTALLATION
Install in the reverse order of removal.
REAR FOOT DUCT 2

REAR FOOT DUCT 2: Exploded View



- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

[WITHOUT 7 INCH DISPLAY]

REAR FOOT DUCT 2: Removal and Installation

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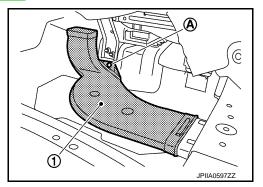
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REMOVAL

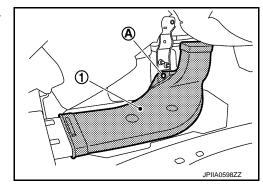
Driver Side

- 1. Remove rear foot duct 1 LH. Refer to VTL-63, "REAR FOOT DUCT 1: Exploded View".
- Pull up the driver side floor carpet. Refer to <u>INT-24</u>, "Exploded View".
- 3. Remove fixing clip (A) and then remove rear foot duct 2 LH (1).



Passenger Side

- 1. Remove rear foot duct 1 RH. Refer to VTL-63, "REAR FOOT DUCT 1: Exploded View".
- Pull up the passenger side floor carpet. Refer to <u>INT-24, "Exploded View"</u>.
- 3. Remove fixing clip (A) and then remove rear foot duct 2 RH (1).



INSTALLATION

Install in the reverse order of removal.

REAR FOOT DUCT 3

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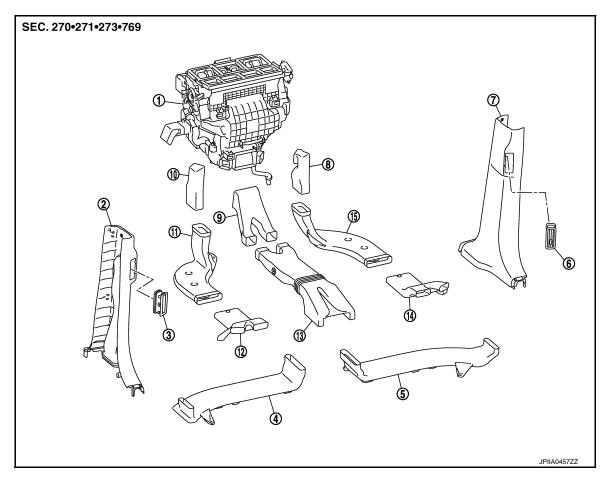
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REAR FOOT DUCT 3: Exploded View



- Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- Rear ventilator duct 3 RH 5.
- Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

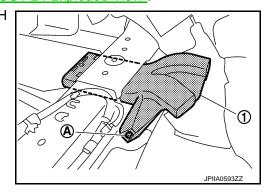
- Rear ventilator grille LH 3.
- 6. Rear ventilator grille RH
- Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR FOOT DUCT 3: Removal and Installation

REMOVAL

Driver side

- Remove rear foot duct 2 LH. Refer to VTL-64, "REAR FOOT DUCT 2 : Exploded View".
- 2. Remove fixing screw (A) and then remove rear foot duct 3 LH (1).

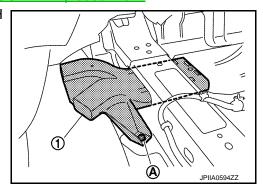


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Passenger side

[WITHOUT 7 INCH DISPLAY]

- 1. Remove rear foot duct 2 RH. Refer to VTL-64, "REAR FOOT DUCT 2: Exploded View".
- 2. Remove fixing screw (A) and then remove rear foot duct 3 RH

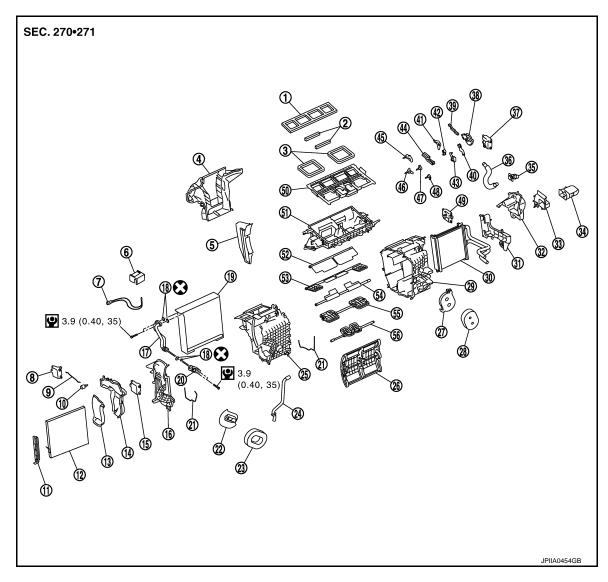


INSTALLATION Install in the reverse order of removal.

HEATER DUCT

HEATER DUCT: Exploded View

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- 1. Ventilator seal
- 4. Adapter case
- 7. Intake sensor

- 2. Upper ventilator seal
- 5. Center case
- 8. Upper ventilator door motor
- 3. Defroster seal
- Intake sensor bracket
- 9. Upper ventilator door rod

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DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

10.	Upper ventilator door lever	11.	Filter cover	12.	In-cabin microfilter (Air conditioner filter*
13.	Foot duct 1 RH	14.	Foot duct 2 RH	15.	Air mix door motor (Passenger side)
16.	Heater & cooling unit case cover	17.	Evaporator pipe assembly	18.	O-ring
19.	Evaporator	20.	Expansion valve	21.	Case packing
22.	Grommet	23.	Cooler pipe grommet	24.	Drain hose
25.	Heater & cooling unit case RH	26.	Air mix door (Slide door)	27.	Heater pipe support
28.	Heater pipe grommet	29.	Heater & cooling unit case LH	30.	Heater core
31.	Heater pipe cover	32.	Foot duct 2 LH	33.	Foot duct 1 LH
34.	Heater duct	35.	Aspirator	36.	Aspirator hose
37.	Mode door motor	38.	Main link	39.	Rod link
40.	Max. cool door link	41.	Ventilator door link	42.	Foot door link
43.	Mode door lever	44.	Defroster door link	45.	Ventilator door lever
46.	Foot door lever	47.	Defroster door lever	48.	Max. cool door lever
49.	Air mix door motor (Driver side)	50.	Distributor upper case	51.	Distributor lower case
52.	Ventilator door	53.	Foot door	54.	Max. cool door
55.	Defroster door	56.	Upper ventilator door		
	: Always replace after every disassem	bly.			

^{*:} Models for Mexico.

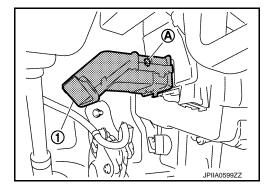
: N·m (kg-m, in-lb)

HEATER DUCT: Removal and Installation

INFOID:0000000009721137

REMOVAL

- 1. Remove instrument lower panel LH. Refer to IP-14, "Exploded View".
- 2. Remove fixing screw (A) and then remove heater duct (1).



INSTALLATION
Install in the reverse order of removal.
FOOT DUCT

FOOT DUCT : Exploded View

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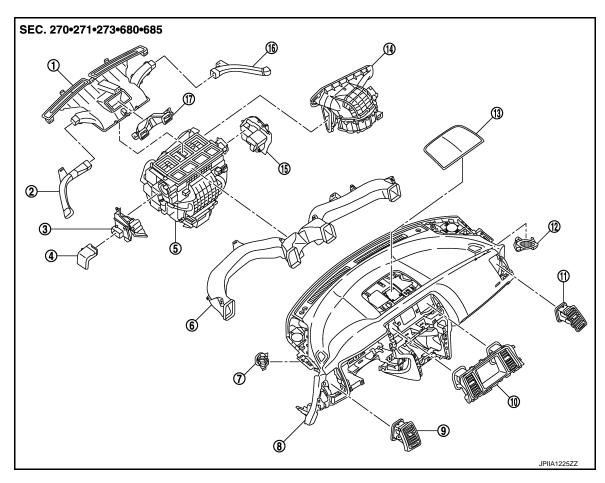
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- 1. Defroster nozzle
- 4. Heater duct
- Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- 3. Foot duct LH
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

FOOT DUCT: Removal and Installation

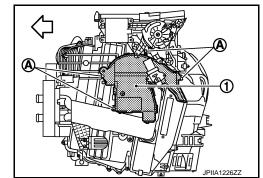
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REMOVAL

Driver Side

- Remove instrument lower panel LH. Refer to <u>IP-14, "Exploded View"</u>.
- 2. Remove fixing screws (A) and then remove foot duct LH (1).

: Vehicle front



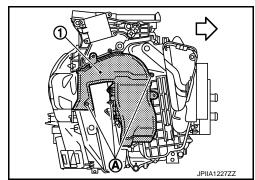
Passenger side

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITHOUT 7 INCH DISPLAY]

- 1. Remove blower unit assembly. Refer to VTL-30, "Exploded View".
- 2. Remove fixing screws (A) and fixing harness clip, and then remove foot duct RH (1).



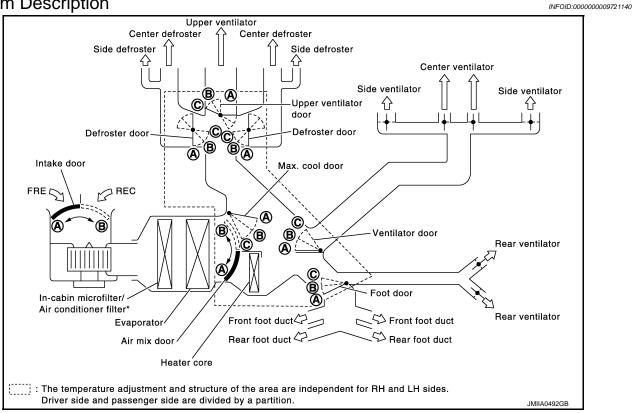
INSTALLATION

Install in the reverse order of removal.

SYSTEM DESCRIPTION

SWITCHES AND THEIR CONTROL FUNCTION

System Description



* : Models for Mexico.

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	Door position										
Switch position			Ventilator door	Max. cool door	Defroster door	Foot	Upper ventila- tor door	Intake door	Air mix door (Driver side)	Air mix door (Pas- senger side)	
AUTO switch	O switch ¥			AUTO					AU	ТО	
	VENT	~;		А	Α	Α	Α	_	_		
MODE	B/L	3		В	В	А	В				
switch	FOOT	ن		С	В	В	С				
	D/F	₩.		С	В	В	В		В		
DEF switch	(* -	С	С	С	Α		В		_
UPPER VENT	ON		*					A-B — — — — — — — — — — — — — — — — — — —			
switch Intake	OFF	7	0							ı	
	ON	-	*						A*		
switch	OFF	©	0						B [*]		
	DUAL	18 (6								A	
Temperature control dial (Driver side)	DUAL switch: OFF	switch: 18.5°C	⇒ 31.5°C ⇒ 89°F)							AUTO	
,			.0°C 0°F)							В	
			.0°C D°F)	_	_	_	_	_		Α	
Temperature control dial (Driver side)		18.5°C ⇔ 31.5°C (61°F ⇔ 89°F)							_	AUTO	_
	DUAL switch:									В	
Temperature control dial (Passenger side)	ON .	18.0°C (60°F) 18.5°C ⇔ 31.5°C (61°F ⇔ 89°F)									Α
										_	AUTO
			.0°C 0°F)						В		
ON/OFF switch				С	С	В	С	_	В	_	_

^{*:} Inlet status is displayed by indicator when activating automatic control.

AIR DISTRIBUTION

System Description

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Discharge air flow							
Mode position		Air outlet/distribution					
indication	Condition	VENT			FOOT		DEE
		Front	Upper	Rear	Front	Rear	DEF
ن ړ-	DUAL switch: OFF . UPPER VENT - switch : ON	81%	8%	11%	_	_	_
***		41%	10%	17%	24%	8%	_
		12%	12%	16%	27%	10%	23%
,		11%	11%	14%	25%	10%	29%
*		11%	11%	12%	_	_	66%

JPIIA0509GB

Discharge air flow							
Mode position		Air outlet/distribution					
indication	Condition	VENT		FOOT		DEE	
		Front	Upper	Rear	Front	Rear	DEF
- , i	DUAL switch: OFF	88%	_	12%	_	_	_
<u>*;</u>		47%	_	18%	26%	9%	
ί.	UPPER VENT	13%	_	17%	33%	12%	25%
)	SWILCH . OFF	12%	_	16%	28%	12%	32%
*		11%	_	15%	_	_	74%

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PRECAUTION

PRECAUTIONS FOR USA AND CANADA

FOR USA AND CANADA: Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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.

FOR MEXICO

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

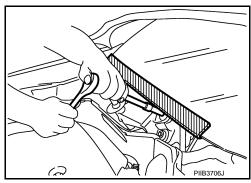
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Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
 ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with
 a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing
 serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution for Procedure without Cowl Top Cover

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



Precautions for Removing of Battery Terminal

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

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

NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

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

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

CAUTION:

- CFC-12 (R-12) refrigerant and HFC-134a (R-134a) refrigerant are not compatible. Compressor malfunction is likely to occur if the refrigerants are mixed, refer to "CONTAMINATED REFRIGERANT" below. To determine the purity of HFC-134a (R-134a) in the vehicle and recovery tank, use Refrigerant Recovery/Recycling Recharging equipment and Refrigerant Identifier.
- Use only specified lubricant for the HFC-134a (R-134a) A/C system and HFC-134a (R-134a) components. Compressor malfunction is likely to occur if lubricant other than that specified is used.
- The specified HFC-134a (R-134a) lubricant rapidly absorbs moisture from the atmosphere. The following handling precautions must be observed:
- Immediately cap (seal) immediately the component to minimize the entry of moisture from the atmosphere when removing refrigerant components from a vehicle.
- Never remove the caps (unseal) until just before connecting the components when installing refrigerant components to a vehicle. Connect all refrigerant loop components as quickly as possible to minimize the entry of moisture into system.
- Use only the specified lubricant from a sealed container. Immediately reseal containers of lubricant. Lubricant becomes saturated with moisture and should not be used without proper sealing.
- Never allow lubricant (A/C System Oil Type S) to come in to contact with styrene foam parts. Damage may result.

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CONTAMINATED REFRIGERANT

Take the appropriate steps shown below if a refrigerant other than pure HFC-134a (R-134a) is identified in a vehicle:

- Explain to the customer that environmental regulations prohibit the release of contaminated refrigerant into the atmosphere.
- Explain that recovery of the contaminated refrigerant could damage service equipment and refrigerant supply.
- Suggest the customer return the vehicle to the location of previous service where the contamination may have occurred.
- If repairing, recover the refrigerant using only dedicated equipment and containers. Never reintroduce contaminated refrigerant into the existing service equipment. Contact a local refrigerant product retailer for available service if the facility does not have dedicated recovery equipment. This refrigerant must be disposed of in accordance with all federal and local regulations. In addition, replacement of all refrigerant system components on the vehicle is recommended.
- The air conditioner warranty is void if the vehicle is within the warranty period. Please contact Nissan Customer Affairs for further assistance.

General Refrigerant Precaution

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WARNING:

- Never breathe A/C refrigerant and lubricant vapor or mist. Exposure may irritate eyes, nose or throat. Remove HFC-134a (R-134a) from the A/C system, using certified service equipment meeting requirements of SAE J-2210 [HFC-134a (R-134a) recycling equipment], or J-2209 [HFC-134a (R-134a) recovery equipment]. Ventilate the work area before resuming service if accidental system discharge occurs. Additional health and safety information may be obtained from refrigerant and lubricant manufacturers.
- Never release refrigerant into the air. Use approved recovery/recycling equipment to capture the refrigerant each time an air conditioning system is discharged.
- Always wear eye and hand protection (goggles and gloves) when working with any refrigerant or air conditioning system.
- Never store or heat refrigerant containers above 52°C (126°F).
- Never heat a refrigerant container with an open flame. Place the bottom of the container in a warm pail of water if container warming is required.
- Never intentionally drop, puncture, or incinerate refrigerant containers.
- Keep refrigerant away from open flames. Poisonous gas is produced if refrigerant burns.
- Refrigerant displaces oxygen, therefore be certain to work in well ventilated areas to prevent suffocation.
- Never pressure test or leakage test HFC-134a (R-134a) service equipment and/or vehicle air conditioning systems with compressed air during repair. Some mixtures of air and HFC-134a (R-134a) have proven to be combustible at elevated pressures. These mixtures, if ignited, may cause injury or property damage. Additional health and safety information may be obtained from refrigerant manufacturers.

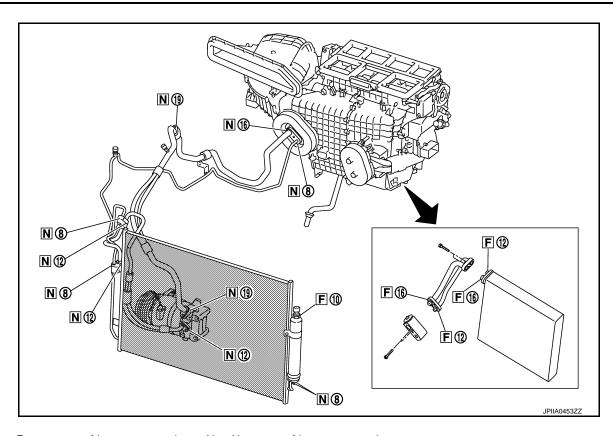
Refrigerant Connection

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A new type refrigerant connection has been introduced to all refrigerant lines except the following locations.

- Expansion valve to evaporator
- Refrigerant pressure sensor to liquid tank

O-RING AND REFRIGERANT CONNECTION



F. Former type refrigerant connection N. New type refrigerant connection

O : O-ring size

CAUTION:

The new and former refrigerant connections use different O-ring configurations. Never confuse O-rings since they are not interchangeable. Refrigerant may leak at the connection if an incorrect O-ring is installed.

O-Ring Part Numbers and Specifications

Connection type	Piping connection point		Part number	QTY	O-ring size
	Low-pressure flexible hose to low-pressure pipe		92474 N8210	1	φ19
	High-pressure pipe to condenser pipe assembly (Outlet)		92471 N8210	1	ф8
	Condenser pipe assembly (Inlet) to high-pressure flexible hose (One-touch joint)		92472 N8210	1	ф12
	Condenser assembly to condenser pipe as-	Inlet	92472 N8210	1	φ12
New	sembly	Outlet	92471 N8210	1	ф8
	Low-pressure pipe to expansion valve		92473 N8210	1	φ16
	High-pressure pipe to expansion valve		92471 N8210	1	ф8
	Compressor to low-pressure flexible hose		92474 N8210	1	φ19
	Compressor to high-pressure flexible hose		92472 N8210	1	φ12
		Inlet	00474 N0040	1	- ф8
	Liquid tank to condenser assembly	Outlet	92471 N8210	1	
	Refrigerant pressure sensor to liquid tank		J2476 89956	1	φ10
Former	Expansion valve to evaporator pipe assembly	Inlet	92475 71L00	1	φ12
		Outlet	92475 72L00	1	φ16
	F	Inlet	92475 71L00	1	φ12
	Evaporator to evaporator pipe assembly	Outlet	92475 72L00	1	φ16

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WARNING:

Check that all refrigerant is discharged into the recycling equipment and the pressure in the system is less than the atmospheric pressure. Then gradually loosen the discharge side hose fitting and remove it.

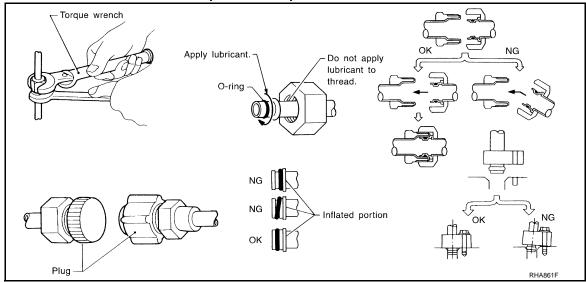
CAUTION:

Observe the following items when replacing or cleaning refrigerant cycle components.

- Store it in the same way as it is when mounted on the car when the compressor is removed. Failure
 to do so will cause lubricant to enter the low-pressure chamber.
- Always use a torque wrench and a back-up wrench when connecting tubes.
- Immediately plug all openings to prevent entry of dust and moisture after disconnecting tubes.
- Connect the pipes at the final stage of the operation when installing an air conditioner in the vehicle.
 Never remove the seal caps of pipes and other components until just before they are required for connection.
- Allow components stored in cool areas to warm to working area temperature before removing seal caps. This prevents condensation from forming inside A/C components.
- Thoroughly remove moisture from the refrigeration system before charging the refrigerant.
- Always replace used O-rings.
- Apply lubricant to the circle of the O-rings shown in illustration when a connecting tube. Never apply lubricant to threaded portion.

Name : A/C System Oil Type S

- O-ring must be closely attached to the groove portion of tube.
- Never damage O-ring and tube when replacing the O-ring.
- Connect tube until a click can be heard. Then tighten the nut or bolt by hand. Check that the O-ring is
 installed to the tube correctly.
- Perform leakage test and check that there is no leakage from connections after connecting the line.
 Disconnect the line and replace the O-ring when the refrigerant leakage point is found. Then tighten the connections of seal seat to the specified torque.



Service Equipment

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RECOVERY/RECYCLING EQUIPMENT

Be certain to follow the manufacturer instructions for machine operation and machine maintenance. Never introduce any refrigerant other than that specified into the machine.

ELECTRICAL LEAK DETECTOR

Be certain to follow the manufacturer instructions for tester operation and tester maintenance.

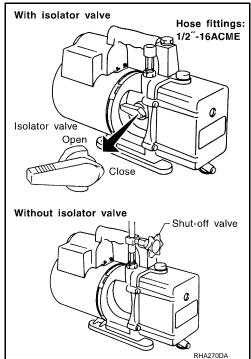
VACUUM PUMP

[WITH 7 INCH DISPLAY]

The lubricant contained inside the vacuum pump is not compatible with the specified lubricant for HFC-134a (R-134a) A/C systems. The vent side of the vacuum pump is exposed to atmospheric pressure. So the vacuum pump lubricant may migrate out of the pump into the service hose. This is possible when the pump is switched OFF after evacuation (vacuuming) and the hose is connected to it. To prevent this migration, use a manual valve placed near the hose-to-pump connection, as per the following procedure.

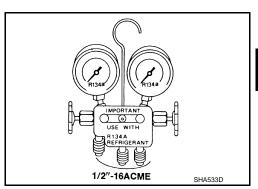
- Vacuum pumps usually have a manual isolator valve as part of the pump. Close this valve to isolate the service hose from the pump.
- Use a hose equipped with a manual shut-off valve near the pump end for pumps without an isolator. Close the valve to isolate the hose from the pump.
- Disconnect the hose from the pump if the hose has an automatic shut-off valve. As long as the hose is connected, the valve is open and lubricating oil may migrate.

Some one-way valves open when vacuum is applied and close under the no vacuum condition. Such valves may restrict the ability of the pump to create a deep vacuum and are not recommended.



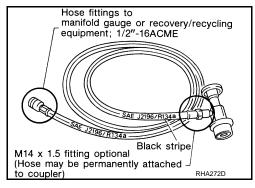
MANIFOLD GAUGE SET

Be certain that the gauge face indicates HFC-134a or R-134a. Be sure the gauge set has 1/2"-16 ACME threaded connections for service hoses. Confirm the set has been used only with refrigerant HFC-134a (R-134a) and specified lubricants.



SERVICE HOSES

Be certain that the service hoses display the markings described (colored hose with a black stripe). All hoses must equip positive shut-off devices (either manual or automatic) near the end of the hoses opposite to the manifold gauge.



SERVICE COUPLERS

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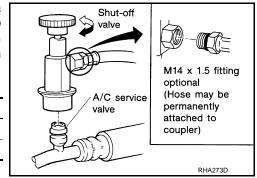
PRECAUTIONS

< PRECAUTION >

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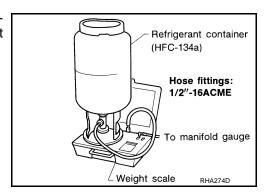
Never attempt to connect HFC-134a (R-134a) service couplers to a CFC-12 (R-12) A/C system. The HFC-134a (R-134a) couplers do not properly connect to the CFC-12 (R-12) system. However, if an improper connection is attempted, discharging and contamination may occur.

Shut-off valve rotation	A/C service valve
Clockwise	Open
Counterclockwise	Close



REFRIGERANT WEIGHT SCALE

Verify that no refrigerant other than HFC-134a (R-134a) and specified lubricants have been used with the scale. The hose fitting must be 1/2"-16 ACME if the scale controls refrigerant flow electronically.



CHARGING CYLINDER

Use of a charging cylinder is not recommended. Refrigerant may be vented into the air from the top valve of the cylinder when filling the cylinder with refrigerant. Also, the accuracy of the cylinder is generally less than that of an electronic scale or of quality recycle/recharge equipment.

COMPRESSOR

< PRECAUTION > [WITH 7 INCH DISPLAY]

COMPRESSOR

General Precautions

CAUTION:

- Plug all openings to prevent moisture and foreign material from entering.
- Store it in the same way as it is when mounted on the car when the compressor is removed.
- Follow "Maintenance of Lubricant Quantity in Compressor" exactly when replacing or repairing compressor. Refer to HA-25, "Maintenance of Lubricant Quantity".
- Keep friction surfaces between clutch and pulley clean. Wipe it off by using a waste moistened with thinner if the surface is contaminated with lubricant.
- Turn the compressor shaft by hand more than five turns in both directions after compressor service operation. This equally distributes lubricant inside the compressor. Let the engine idle and operate the compressor for one hour after the compressor is installed.
- Apply voltage to the new compressor and check for normal operation after replacing the compressor magnet clutch.

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FLUORESCENT LEAK DETECTOR

< PRECAUTION > [WITH 7 INCH DISPLAY]

FLUORESCENT LEAK DETECTOR

General Precautions INFOID:000000009721150

CAUTION:

- The A/C system contains a fluorescent leak detection dye used for locating refrigerant leakages. An
 ultraviolet (UV) lamp is required to illuminate the dye when inspecting for leakages.
- Always wear fluorescence enhancing UV safety goggles to protect eyes and enhance the visibility of the fluorescent dye.
- The fluorescent dye leak detector is not a replacement for an electrical leak detector (SST: J-41995).
 The fluorescent dye leak detector should be used in conjunction with an electrical leak detector (SST: J-41995) to pin-point refrigerant leakages.
- Read and follow all manufacturer operating instructions and precautions prior to performing work for safety and customer satisfaction.
- A compressor shaft seal should not necessarily be repaired because of dye seepage. The compressor shaft seal should only be repaired after confirming the leakage with an electrical leak detector (SST: J-41995).
- Always remove any remaining dye from the leakage area after repairs are completed to avoid a misdiagnosis during future service.
- Never allow dye to come into contact with painted body panels or interior components. Immediately clean with the approved dye cleaner if dye is spilled. Fluorescent dye left on a surface for an extended period of time cannot be removed.
- Never spray fluorescent dye cleaning agent on hot surfaces (engine exhaust manifold, etc.).
- Never use more than one refrigerant dye bottle [1/4 ounce (7.4 cc)] per A/C system.
- Leak detection dyes for HFC-134a (R-134a) and CFC-12 (R-12) A/C systems are different. Never use HFC-134a (R-134a) leak detection dye in CFC-12 (R-12) A/C system or CFC-12 (R-12) leak detection dye in HFC-134a (R-134a) A/C system, otherwise A/C system damage may result.
- The fluorescent properties of the dye remains for three or more years unless a compressor malfunction occurs.

IDENTIFICATION

NOTE:

Vehicles with factory installed fluorescent dye have a green label.

Vehicles without factory installed fluorescent dye have a blue label.

IDENTIFICATION LABEL FOR VEHICLE

Vehicles with factory installed fluorescent dye have an identification label on the front side of hood.

[WITH 7 INCH DISPLAY]

PREPARATION

PREPARATION

Special Service Tool

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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

HFC-134a (R-134a) Service Tool and Equipment

- Never mix HFĆ-134a (R-134a) refrigerant and/or its specified lubricant with CFC-12 (R-12) refrigerant and/or its lubricant.
- Separate and non-interchangeable service equipment must be used for handling each type of refrigerant/ lubricant.
- Refrigerant container fittings, service hose fittings and service equipment fittings (equipment that handles
 refrigerant and/or lubricant) are different between CFC-12 (R-12) and HFC-134a (R-134a). This is to avoid
 mixed use of the refrigerants/lubricant.
- Never use adapters that convert one size fitting to another. Refrigerant/lubricant contamination occurs and compressor malfunction may result.

	Tool number (Kent-Moore No.) Tool name	Description	_
(ACR2005-NI) ACR5 A/C Service Center	WJIA0293E	Function: Refrigerant recovery, recycling and recharging	\
(J-41995) Electrical leak detector	AHA281A	Power supply: DC 12 V (Battery terminal)	
(J-43926) Refrigerant dye leak detection kit Kit includes: (J-42220) UV lamp and UV safety goggles (J-41459) HFC-134a (R-134a) dye injector Use with J-41447, 1/4 ounce bottle (J-41447) HFC-134a (R-134a) fluorescent leak detection dye (Box of 24, 1/4 ounce bottles) (J-43872) Refrigerant dye cleaner	Wyshield Refrigerant dye cleaner dye identification label (24 labels) NOTICE The King Label and Additional Control and Contro	Power supply: DC 12 V (Battery terminal)	_

(Ker	ool number nt-Moore No.) Tool name	Description
(J-42220) UV lamp and UV safety goggles	SHA438F	Power supply: DC 12 V (Battery terminal) For checking refrigerant leakage when fluorescent dye is equipped in A/C system Includes: UV lamp and UV safety goggles
(J-41447) HFC-134a (R-134a) fluorescent leak detection dye (Box of 24, 1/4 ounce bottles)	Refrigerant dye (24 bottles) SHA439F	Application: For HFC-134a (R-134a) PAG oil Container: 1/4 ounce (7.4 cc) bottle (Includes self-adhesive dye identification labels for affixing to vehicle after charging system with dye.)
(J-41459) HFC-134a (R-134a) dye injector Use with J-41447, 1/4 ounce bottle	SHA440F	For injecting 1/4 ounce of fluorescent leak detection dye into A/C system
(J-43872) Refrigerant dye cleaner	SHA441F	For cleaning dye spills
(J-39183) Manifold gauge set (with hoses and couplers)	RJIA0196E	Identification: • The gauge face indicates HFC-134a (R-134a). Fitting size: Thread size • 1/2″-16 ACME
Service hoses • High-pressure side hose (J-39501-72) • Low-pressure side hose (J-39502-72) • Utility hose (J-39476-72)	S-NT201	 Hose color: Low-pressure side hose: Blue with black stripe High-pressure side hose: Red with black stripe Utility hose: Yellow with black stripe or green with black stripe Hose fitting to gauge: 1/2"-16 ACME

	Tool number Kent-Moore No.) Tool name	Description
 Service couplers High-pressure side coupler (J-39500-20) Low-pressure side coupler (J-39500-24) 	S-NT202	Hose fitting to service hose: M14 x 1.5 fitting is optional or permanently attached.
(J-39650) Refrigerant weight scale	S-NT200	For measuring of refrigerant Fitting size: Thread size 1/2 ⁻¹⁶ ACME
(J-39649) Vacuum pump (Including the isolator valve)	NT203	Capacity: • Air displacement: 4 CFM • Micron rating: 20 microns • Oil capacity: 482 g (17 oz.) Fitting size: Thread size • 1/2 -16 ACME

Commercial Service Tool

INFOID:0000000009721152

Tool name		Description	
Refrigerant identifier equipment	RJA0197E	Checking for refrigerant purity and system contamination	
Remover tools	JMKIA3050ZZ	Remove clips, pawls and metal clips	

Sealant or/and Lubricant

INFOID:0000000009721153

- HFC-134a (R-134a) Service Tool and Equipment
 Never mix HFC-134a (R-134a) refrigerant and/or its specified lubricant with CFC-12 (R-12) refrigerant and/
- Separate and non-interchangeable service equipment must be used for handling each type of refrigerant/ lubricant.

PREPARATION

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- Refrigerant container fittings, service hose fittings and service equipment fittings (equipment that handles refrigerant and/or lubricant) are different between CFC-12 (R-12) and HFC-134a (R-134a). This is to avoid mixed use of the refrigerants/lubricant.
- Never use adapters that convert one size fitting to another. Refrigerant/lubricant contamination occurs and compressor malfunction may result.

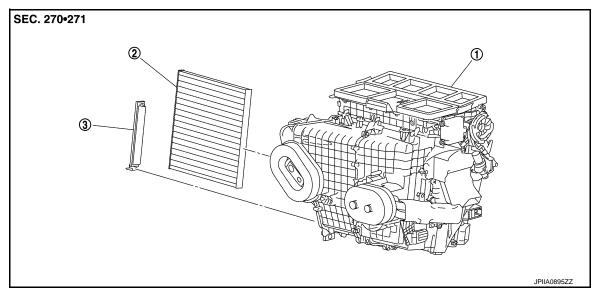
Tool name		Description	
HFC-134a (R-134a) refrigerant	S-NT196	Container color: Light blue Container marking: HFC-134a (R- 134a) Fitting size: Thread size • Large container 1/2"-16 ACME	
A/C System Oil Type S (DH-PS)	JMIIA1759ZZ	Type: Polyalkylene glycol oil (PAG), type S (DH-PS) Application: HFC-134a (R-134a) swash plate compressors Capacity: 40 m ℓ (1.4 US fl oz., 1.4 Imp fl oz.)	

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PERIODIC MAINTENANCE

IN-CABIN MICROFILTER

Exploded View



- 1. Heater & cooling unit assembly
- In-cabin microfilter (Air conditioner filter)*
- 3. Filter cover

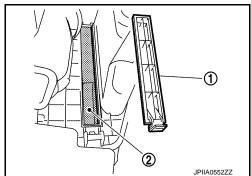
*: Models for Mexico.

Removal and Installation

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REMOVAL

1. Remove filter cover (1) and then remove in-cabin microfilter or air conditioner filter (2).



INSTALLATION

Note the following items and then install in the reverse order of removal. **CAUTION:**

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

Replacement

Replace in-cabin microfilter or air conditioner filter.

Models for North America: Refer to MA-9, "FOR NORTH AMERICA: Introduction of Periodic Maintenance". Models for Mexico: Refer to MA-12, "FOR MEXICO: Periodic Maintenance".

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

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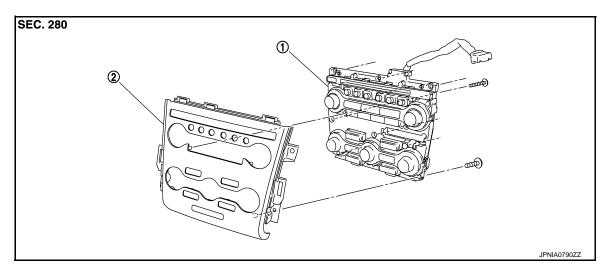
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REMOVAL AND INSTALLATION

PRESET SWITCH

Exploded View INFOID:0000000009721157



1. Preset switch

2. Cluster lid C

Removal and Installation

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REMOVAL

Remove preset switch. Refer to the following.

- Refer to <u>AV-286</u>, "<u>Exploded View</u>" (BOSE AUDIO WITHOUT NAVIGATION).
 Refer to <u>AV-458</u>, "<u>Exploded View</u>" (BOSE AUDIO WITH NAVIGATION).

INSTALLATION

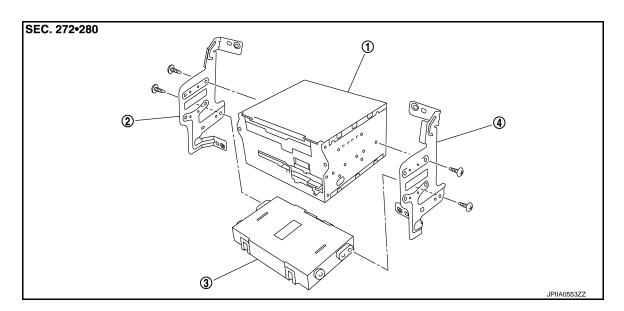
Install in the reverse order of removal.

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A/C AUTO AMP.

Exploded View



1. AV control unit

2. Bracket LH

3. A/C auto amp.

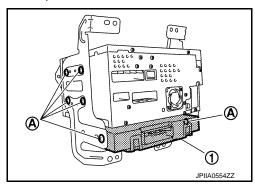
4. Bracket RH

Removal and Installation

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REMOVAL

- 1. Remove AV control unit. Refer to the following.
 - Refer to AV-276, "Exploded View" (BOSE AUDIO WITHOUT NAVIGATION).
 - Refer to AV-448, "Exploded View" (BOSE AUDIO WITH NAVIGATION).
- 2. Remove fixing screws (A) and then remove A/C auto amp. (1).



INSTALLATION

Install in the reverse order of removal.

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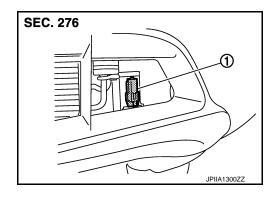
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AMBIENT SENSOR

Exploded View

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1. Ambient sensor

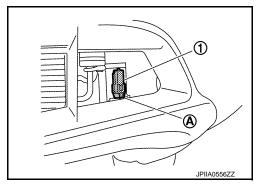


Removal and Installation

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REMOVAL

Disconnect ambient sensor connector (A) and then remove ambient sensor (1).



INSTALLATION

Install in the reverse order of removal.

IN-VEHICLE SENSOR

Exploded View

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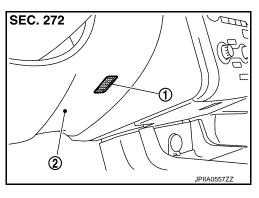
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- 1. In-vehicle sensor
- 2. Instrument lower panel LH

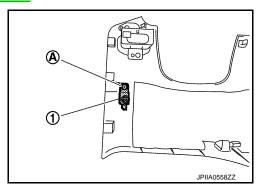


Removal and Installation

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REMOVAL

- 1. Remove instrument lower panel LH. Refer to IP-14, "Exploded View".
- 2. Remove fixing screw (A) and then remove in-vehicle sensor (1).



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Install in the reverse order of removal.

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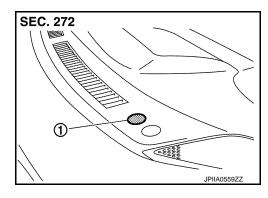
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SUNLOAD SENSOR

Exploded View

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1. Sunload sensor

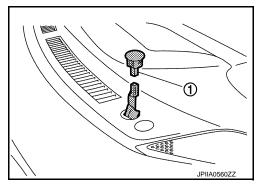


Removal and Installation

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REMOVAL

Disconnect sunload sensor connector and then remove sunload sensor (1).



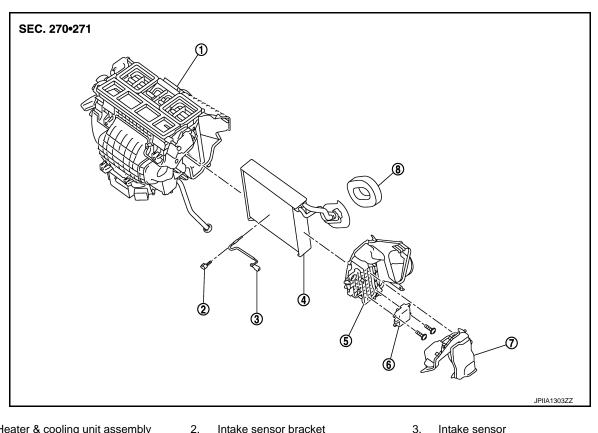
INSTALLATION

Install in the reverse order of removal.

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INTAKE SENSOR

Exploded View



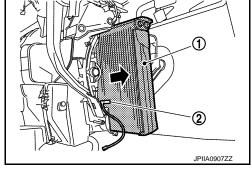
- Heater & cooling unit assembly
- Evaporator assembly
- Foot duct RH

- 2. Intake sensor bracket
- 5. Evaporator cover
- Cooler pipe grommet
- Intake sensor
- 6. Air mix door motor (Passenger side)

Removal and Installation

REMOVAL

- Remove evaporator pipe assembly. Refer to VTL-100, "Exploded View".
- Slide the evaporator (1) toward the right side of the vehicle and then remove intake sensor (2).



INSTALLATION

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

- Replace the O-ring with a new one. Apply a coat of compressor oil to the O-ring prior to installation.
- Install the intake sensor in the same position as the removed intake sensor when replacing the intake sensor.
- · Never rotate the bracket insertion part when removing and installing the intake sensor.
- Check for refrigerant leakage when charging refrigerant.

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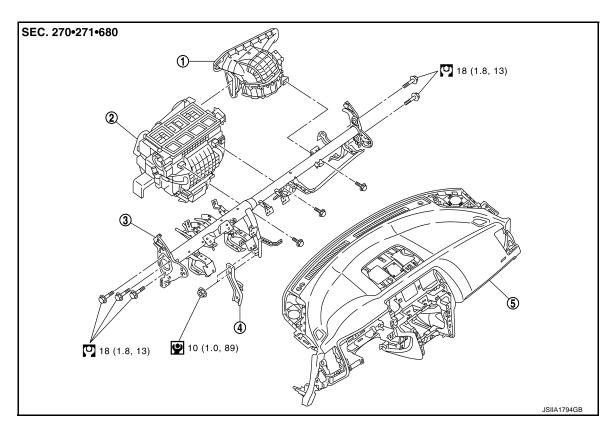
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BLOWER UNIT

Exploded View

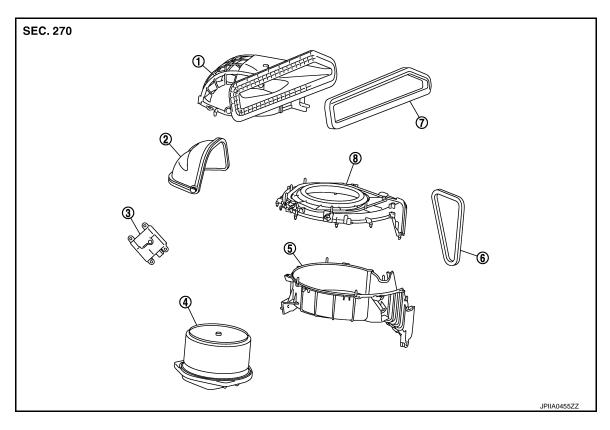
REMOVAL



- 1. Blower unit assembly
- 4. Instrument stay
- : N·m (kg-m, ft-lb)
- : N-m (kg-m, in-lb)

DISASSEMBLY

- 2. Heater & cooling unit assembly
- 5. Instrument panel assembly
- 3. Steering member



- 1. Shutter box case
- 4. Blower motor assembly
- 7. Intake seal

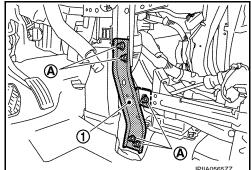
- 2. Intake door
- 5. Intake lower case
- 8. Intake upper case
- 3. Intake door motor
- 6. Outlet seal

INFOID:0000000009721170

Removal and Installation

REMOVAL

- 1. Remove instrument panel assembly. Refer to IP-14, "Exploded View".
- 2. Remove mounting nuts (A) and then remove instrument panel stay (1).



- 3. Disconnect intake door motor and blower motor connectors.
- 4. Remove heater & cooling unit assembly and blower unit mounting bolts (A).

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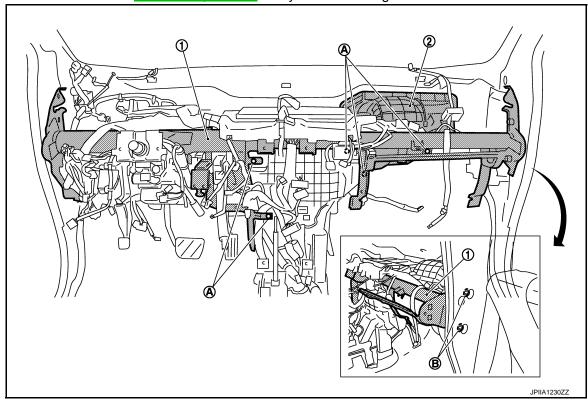
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Revision: 2013 August VTL-95 2014 MURANO

5. Remove mounting bolts (B) and then remove blower unit assembly (2) while pulling the steering member (1) to the front. Refer to GI-4, "Components" for symbols in the figure.



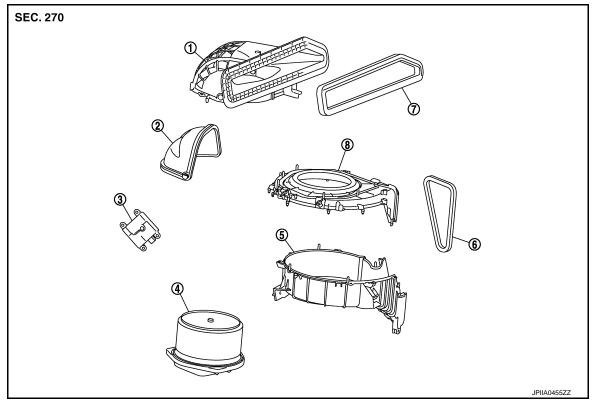
INSTALLATION

Install in the reverse order of removal.

INFOID:0000000009721171

BLOWER MOTOR

Exploded View



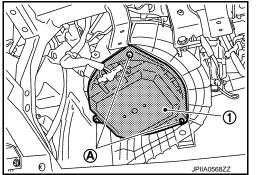
- 1. Shutter box case
- 4. Blower motor assembly
- 7. Intake seal

- 2. Intake door
- 5. Intake lower case
- 8. Intake upper case
- 3. Intake door motor
- 6. Outlet seal

Removal and Installation

REMOVAL

- Remove instrument lower panel RH. Refer to <u>IP-14, "Exploded View"</u>.
- 2. Disconnect blower motor connector.
- 3. Remove fixing screws (A) and then remove blower motor (1).



INSTALLATION

Install in the reverse order of removal.

Revision: 2013 August VTL-97 2014 MURANO

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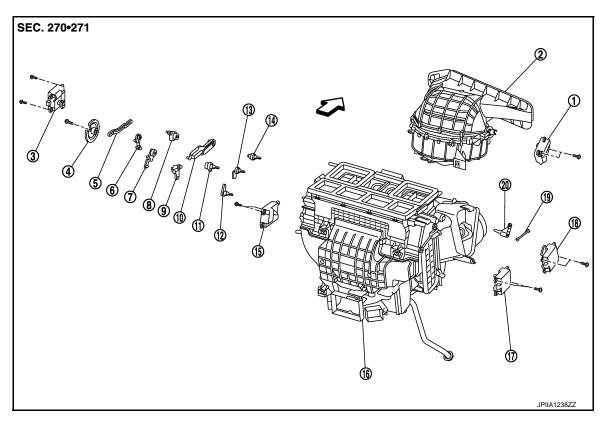
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INTAKE DOOR MOTOR

Exploded View INFOID:0000000009721173



- Intake door motor 1.
- Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- : Vehicle front

- 2. Bower unit assembly
- 5. Rod link
- 8. Mode door lever
- 11. Ventilator door lever
- 14. Defroster door lever
- 17. Air mix door motor (Passenger side) 18. Upper ventilator door motor
- 20. Upper ventilator door lever

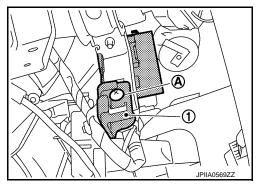
- 3. Mode door motor
- 6. Max. cool door link
- Ventilator door link
- 12. Foot door lever
- 15. Air mix door motor (Driver side)

Removal and Installation

INFOID:0000000009721174

REMOVAL

- Remove instrument lower panel RH. Refer to IP-14, "Exploded View".
- Remove fixing screw (A) and then move the key less controller assembly bracket (1) to a position where it does not inhibit work.



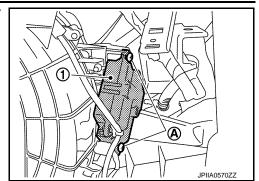
Disconnect intake door motor connector.

INTAKE DOOR MOTOR

< REMOVAL AND INSTALLATION >

[WITH 7 INCH DISPLAY]

4. Remove fixing screws (A) and then remove intake door motor (1).



INSTALLATION

Install in the reverse order of removal.

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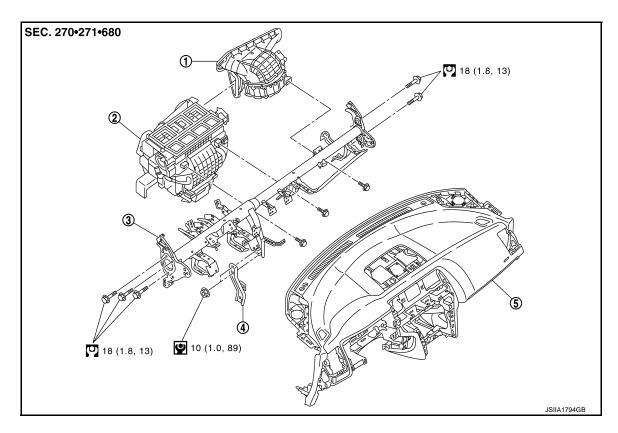
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HEATER & COOLING UNIT ASSEMBLY

Exploded View

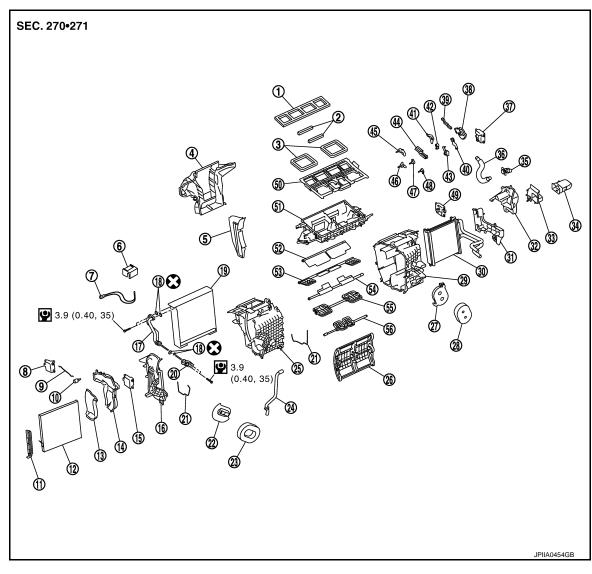
REMOVAL



- 1. Blower unit assembly
- 4. Instrument stay
- : N·m (kg-m, ft-lb)
- : N-m (kg-m, in-lb)

DISASSEMBLY

- 2. Heater & cooling unit assembly
- 5. Instrument panel assembly
- 3. Steering member



4.	Adapter case

1.

Ventilator seal

7. Intake sensor

Upper ventilator door lever 10.

13. Foot duct 1 RH

Heater & cooling unit case cover

19. Evaporator

Grommet 22.

Heater & cooling unit case RH 25.

28. Heater pipe grommet

Heater pipe cover 31.

Heater duct 34.

37. Mode door motor

Max. cool door link 40.

43. Mode door lever

Foot door lever

49. Air mix door motor (Driver side)

Ventilator door 52.

Defroster door

2. Upper ventilator seal

5. Center case

8. Upper ventilator door motor

Filter cover 11.

14. Foot duct 2 RH

17. Evaporator pipe assembly

Expansion valve

23. Cooler pipe grommet

Air mix door (Slide door) 26.

29. Heater & cooling unit case LH

32. Foot duct 2 LH

Aspirator 35.

38. Main link

Ventilator door link 41.

44. Defroster door link

47. Defroster door lever

50. Distributor upper case

53. Foot door

56. Upper ventilator door 3. Defroster seal

6. Intake sensor bracket

9. Upper ventilator door rod

In-cabin microfilter 12. (Air conditioner filter)*

15. Air mix door motor (Passenger side)

O-ring 18.

Case packing

Drain hose 24.

27. Heater pipe support

30. Heater core

Foot duct 1 LH 33.

36. Aspirator hose

39. Rod link

Foot door link 42.

45. Ventilator door lever

48. Max. cool door lever

Distributor lower case

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: Always replace after every disassembly.

. N⋅m (kg-m, in-lb)

*: Models for Mexico.

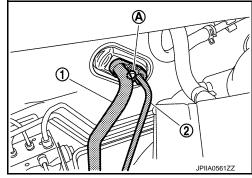
Removal and Installation

INFOID:0000000009721176

REMOVAL

- 1. Collect the refrigerant with refrigerant collecting equipment (for HFC134a).
- Drain engine coolant. Refer to CO-11, "Draining".
- Remove mounting bolt (A) and then disconnect the low-pressure pipe (1) and high-pressure pipe (2) from the expansion valve. **CAUTION:**

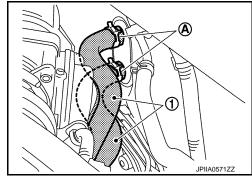
Cap or wrap the joint of the A/C piping and expansion valvewith suitable material such as vinyl tape to avoid the entry



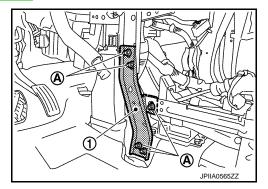
Remove fixing clamps (A) and then disconnect the heater hoses

CAUTION:

- · Some coolant may spill when heater hoses are disconnected. Wipe them off with wastes.
- Close the coolant inlet/outlet on the heater core and heater hoses with wastes.

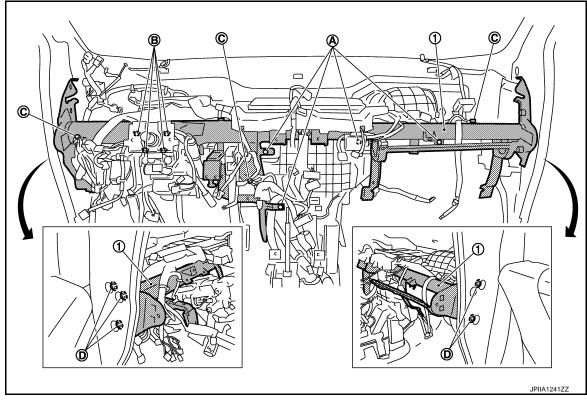


- Remove instrument panel assembly. Refer to IP-14, "Exploded View".
- Remove mounting nuts (A) and then remove instrument stay (1).

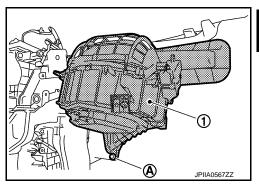


- 7. Remove heater & cooling unit assembly and blower unit mounting bolts (A). Refer to GI-4, "Components" for symbols shown in the figure.
- 8. Remove steering column mounting nuts (B). Refer to the following.
 - Refer to ST-37, "WITHOUT ELECTRIC MOTOR: Exploded View" (WITHOUT ELECTRIC MOTOR).
 - Refer to ST-40, "WITH ELECTRIC MOTOR: Exploded View" (WITH ELECTRIC MOTOR).
- 9. Remove ground bolts (C) from the steering member (1).
- 10. Remove harness clip from the steering member.
- 11. Disconnect intake door motor and blower motor connectors.

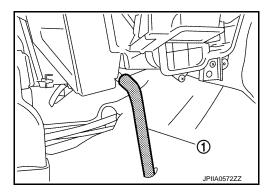
12. Remove mounting bolts (D) and then remove steering member from the vehicle.



13. Remove fixing screw (A) and then remove blower unit assembly (1).



14. Disconnect drain hose (1) from heater & cooling unit assembly.



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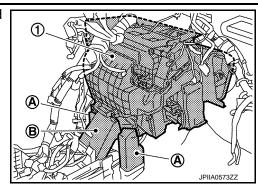
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HEATER & COOLING UNIT ASSEMBLY

< REMOVAL AND INSTALLATION >

[WITH 7 INCH DISPLAY]

15. Remove rear foot ducts 1 (A) and rear ventilator duct 1 (B), and then remove heater & cooling unit assembly (1).



INSTALLATION

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

CAUTION:

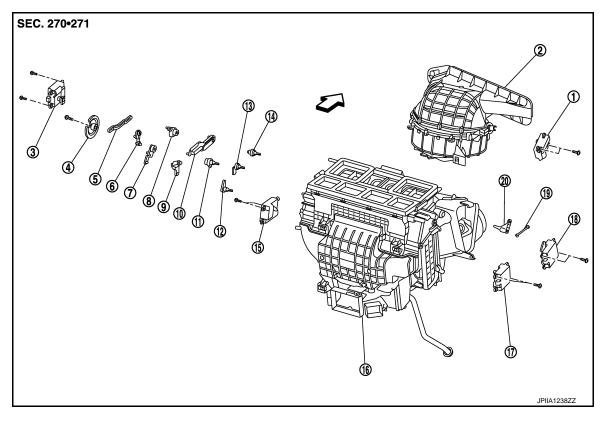
- Replace the O-ring with a new one. Apply a coat of compressor oil to the O-ring prior to installation.
- Check for refrigerant leakage when charging refrigerant.

NOTE:

- Refer to CO-12, "Refilling" when filling the radiator with engine coolant.
- Charge the refrigerant again.

UPPER VENTILATOR DOOR MOTOR

Exploded View INFOID:0000000009721177



- Intake door motor 1.
- 4. Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- ⟨
 ⇒ : Vehicle front

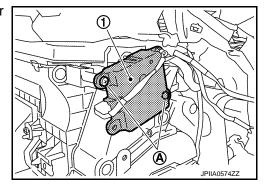
- 2. Bower unit assembly
- 5. Rod link
- 8. Mode door lever
- 11. Ventilator door lever
- 14. Defroster door lever
- 17.
- Upper ventilator door lever

- 3. Mode door motor
- 6. Max. cool door link
- 9. Ventilator door link
- 12. Foot door lever
- Air mix door motor (Driver side) 15.
- Air mix door motor (Passenger side) 18. Upper ventilator door motor

Removal and Installation

REMOVAL

- Remove blower unit assembly. Refer to VTL-94, "Exploded View".
- Disconnect upper ventilator door motor connector.
- Remove fixing screws (A) and then remove upper ventilator door motor (1).



INSTALLATION

VTL-105 Revision: 2013 August 2014 MURANO

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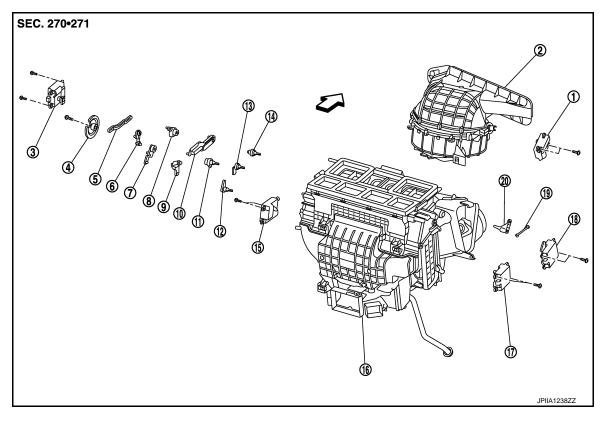
UPPER VENTILATOR DOOR MOTOR

[WITH 7 INCH DISPLAY]

Install in the reverse order of removal.

MODE DOOR MOTOR

Exploded View INFOID:0000000009721179



- Intake door motor 1.
- 4. Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- ⟨
 ⇒ : Vehicle front

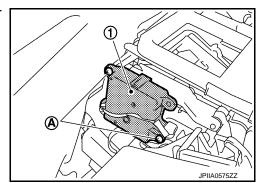
- 2. Bower unit assembly
- 5. Rod link
- Mode door lever 8.
- 11. Ventilator door lever
- 14. Defroster door lever
- Upper ventilator door lever

- 3. Mode door motor
- 6. Max. cool door link
- 9. Ventilator door link
- 12. Foot door lever
- Air mix door motor (Driver side) 15.
- 17. Air mix door motor (Passenger side) 18. Upper ventilator door motor

Removal and Installation

REMOVAL

- 1. Remove instrument panel assembly. Refer to IP-14, "Exploded View".
- Disconnect mode door motor connector.
- Remove fixing screws (A) and then remove mode door motor (1).



INSTALLATION

VTL-107 Revision: 2013 August 2014 MURANO

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MODE DOOR MOTOR



[WITH 7 INCH DISPLAY]

Install in the reverse order of removal.

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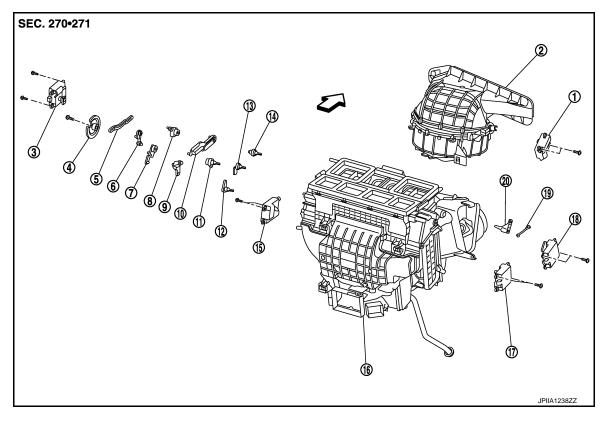
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AIR MIX DOOR MOTOR

Exploded View



- Intake door motor 1.
- 4. Main link
- Max. cool door link 7.
- 10. Defroster door link
- 13. Max. cool door lever
- 16. Heater & cooling unit assembly
- 19. Upper ventilator door rod
- : Vehicle front

- 2. Bower unit assembly
- 5. Rod link
- 8. Mode door lever
- 11. Ventilator door lever
- Defroster door lever 14.
- 17. Air mix door motor (Passenger side) 18. Upper ventilator door motor
- Upper ventilator door lever

- 3. Mode door motor
- 6. Max. cool door link
- 9. Ventilator door link
- 12. Foot door lever
- 15. Air mix door motor (Driver side)

Removal and Installation

REMOVAL

Driver Side

1. Set the temperature at full cold.

CAUTION:

The angle may be out, when installing the air mix door motor to the air mix door, unless the above procedure is performed.

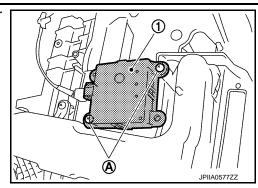
- Disconnect the battery cable from the negative terminal.
- Remove foot duct LH. Refer to VTL-133, "FOOT DUCT: Exploded View".
- Disconnect air mix door motor connector.

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< REMOVAL AND INSTALLATION >

5. Remove fixing screws (A) and then remove air mix door motor (1).



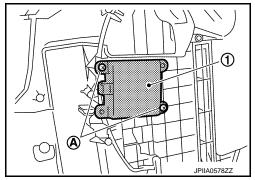
Passenger Side

1. Set the temperature at full cold.

CAUTION:

The angle may be out, when installing the air mix door motor to the air mix door, unless the above procedure is performed.

- 2. Disconnect the battery cable from the negative terminal.
- 3. Remove foot duct RH. Refer to VTL-133, "FOOT DUCT: Exploded View".
- 4. Disconnect the air mix door motor connector.
- 5. Remove fixing screws (A) and then remove air mix door motor (1).



INSTALLATION

Install in the reverse order of removal.

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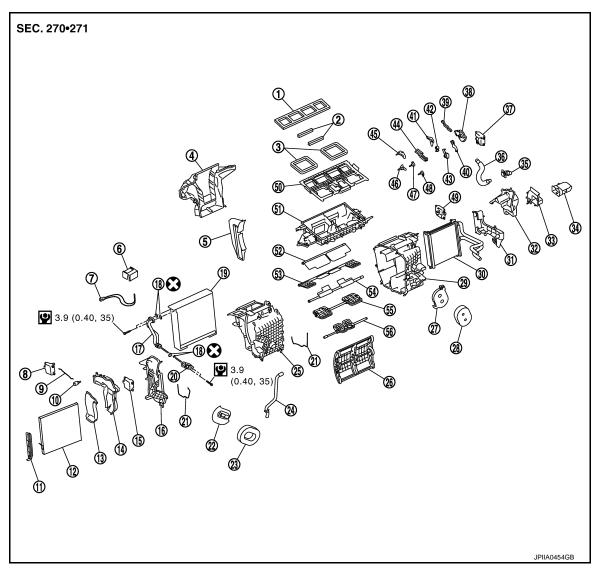
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HEATER CORE

Exploded View INFOID:0000000009721183



- Ventilator seal 1.
- 4. Adapter case
- 7. Intake sensor
- Upper ventilator door lever
- Foot duct 1 RH 13.
- Heater & cooling unit case cover 16.
- 19. Evaporator
- Grommet 22.
- 25. Heater & cooling unit case RH
- Heater pipe grommet 28.
- 31. Heater pipe cover
- 34. Heater duct
- Mode door motor
- Max. cool door link
- Mode door lever

Revision: 2013 August

- Upper ventilator seal 2.
- 5. Center case
- Upper ventilator door motor
- 11. Filter cover
- Foot duct 2 RH
- Evaporator pipe assembly 17.
- 20. Expansion valve
- 23. Cooler pipe grommet
- 26. Air mix door (Slide door)
- Heater & cooling unit case LH 29.
- 32. Foot duct 2 LH
- 35. Aspirator
- 38. Main link
- 41. Ventilator door link
- Defroster door link

- Defroster seal 3.
- 6. Intake sensor bracket
- 9. Upper ventilator door rod
- 12. In-cabin microfilter (Air conditioner filter*
- 15. Air mix door motor (Passenger side)
- 18. O-ring
- 21. Case packing
- 24. Drain hose
- 27. Heater pipe support
- 30. Heater core
- 33. Foot duct 1 LH
- 36. Aspirator hose
- 39. Rod link
- 42. Foot door link
- 45. Ventilator door lever

48. Max. cool door lever

54. Max. cool door

< REMOVAL AND INSTALLATION >

46.	Foot door lever	47.	Defroster	door	leve

49. Air mix door motor (Driver side) 50. Distributor upper case 51. Distributor lower case

52. Ventilator door53. Foot door55. Defroster door56. Upper ventilator door

• Always roplace after every disassembly

: Always replace after every disassembly.

: N·m (kg-m, in-lb)

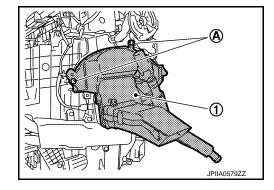
*: Models for Mexico.

Removal and Installation

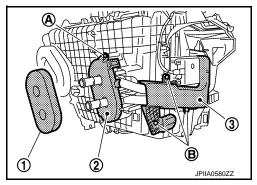
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REMOVAL

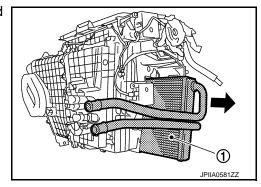
- 1. Remove heater & cooling unit assembly. Refer to VTL-100, "Exploded View".
- 2. Remove fixing screws (A) and then remove foot duct LH (1).



- 3. Remove heater pipe grommet (1).
- 4. Remove fixing screw (A) and then remove heater pipe support (2).
- 5. Remove fixing screws (B) and then remove heater pipe cover (3).



6. Slide the heater core (1) in the direction shown by the arrow, and then remove it.



INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Replace the O-ring with a new one. Apply a coat of compressor oil to the O-ring prior to installation.
- Check for refrigerant leakage when charging refrigerant.
 NOTE:
- Refer to <u>CO-12</u>, "<u>Refilling</u>" when filling the radiator with engine coolant.
- Charge the refrigerant again.

DUCT AND GRILLE CENTER VENTILATOR GRILLE

CENTER VENTILATOR GRILLE: Exploded View



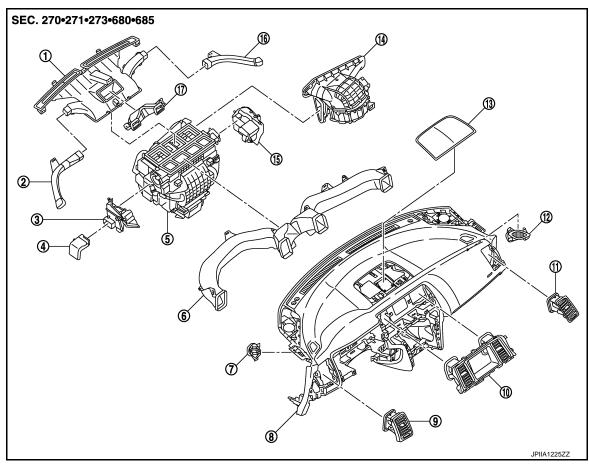
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- Defroster nozzle
- Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- Side defroster nozzle LH 2.
- 5. Heater & cooling unit assembly
- Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- Foot duct LH 3.
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

CENTER VENTILATOR GRILLE: Removal and Installation

REMOVAL

- Remove cluster lid A. Refer to IP-14, "Exploded View".
- Remove cluster lid D. Refer to IP-14, "Exploded View".

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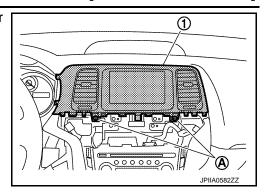
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< REMOVAL AND INSTALLATION >

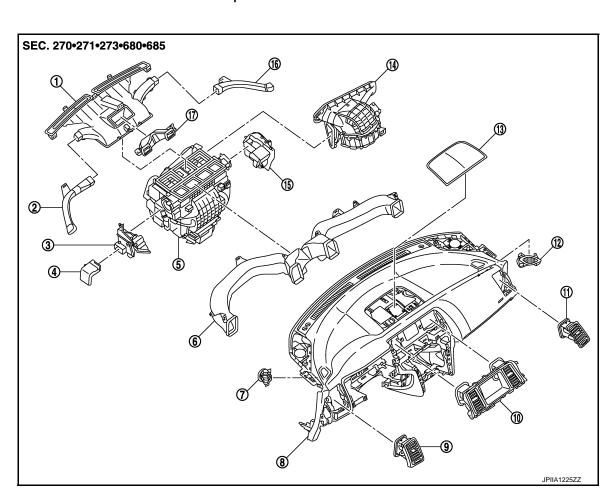
3. Remove fixing screws (A) and then remove center ventilator grille assembly (1).



INSTALLATION

Install in the reverse order of removal. SIDE VENTILATOR GRILLE

SIDE VENTILATOR GRILLE: Exploded View



- 1. Defroster nozzle
- Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- 2. Side defroster nozzle LH
- Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- 3. Foot duct LH
- 6. Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

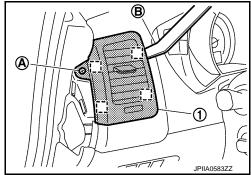
SIDE VENTILATOR GRILLE: Removal and Installation

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< REMOVAL AND INSTALLATION >

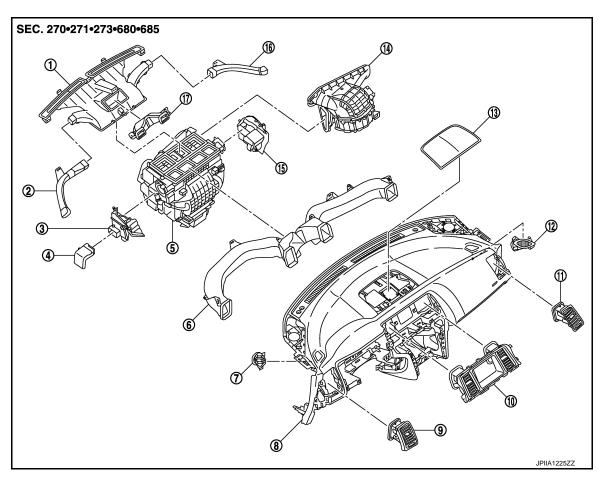
- Remove instrument side finisher (LH/RH). Refer to IP-14, "Exploded View".
- 2. Remove fixing screw (A).
- Remove side ventilator grille metal clip using remover tool (B), and then remove side ventilator grille (1).

: Metal clip



INSTALLATION Install in the reverse order of removal. SIDE DEFROSTER GRILLE

SIDE DEFROSTER GRILLE: Exploded View



- Defroster nozzle
- Heater duct
- Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- Side defroster nozzle RH
- Side defroster nozzle LH
- Heater & cooling unit assembly
- Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- Foot duct LH
- Ventilator duct
- Side ventilator grille LH
- Side defroster grille RH
- 15. Foot duct RH

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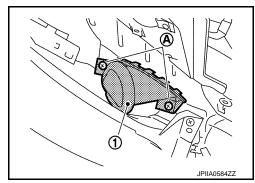
SIDE DEFROSTER GRILLE: Removal and Installation

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REMOVAL

- 1. Remove defroster nozzle and side defroster nozzle. Refer to VTL-119, "DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE: Exploded View".
- 2. Remove fixing screws (A) and then remove side defroster grilles (left/right) (1).

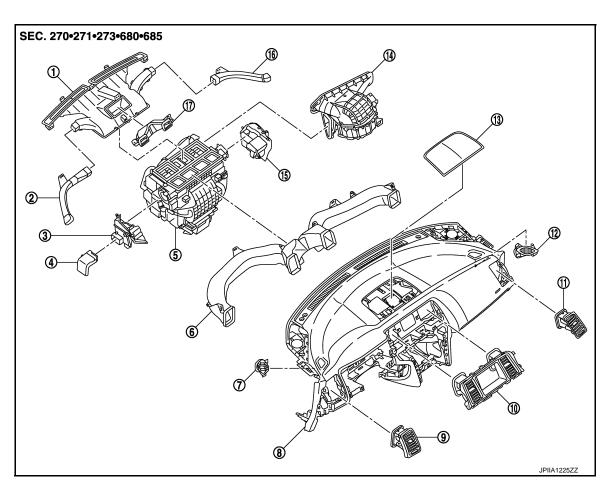


INSTALLATION

Install in the reverse order of removal.

VENTILATOR DUCT

VENTILATOR DUCT: Exploded View



- Defroster nozzle
- 4. Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 2. Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 3. Foot duct LH
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITH 7 INCH DISPLAY]

13. Center speaker grille

- 14. Blower unit assembly
- 15. Foot duct RH

- 16. Side defroster nozzle RH
- 17. Upper ventilator duct

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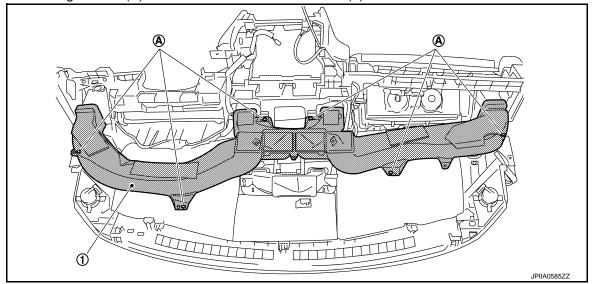
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REMOVAL

1. Remove defroster nozzle and side defroster nozzle. Refer to VTL-119, "DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE: Exploded View".

2. Remove fixing screws (A) and then remove ventilator duct (1).

VENTILATOR DUCT: Removal and Installation



INSTALLATION

Install in the reverse order of removal.

UPPER VENTILATOR DUCT

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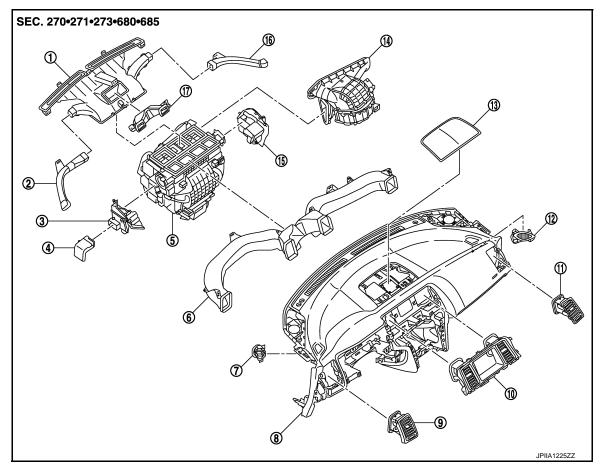
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UPPER VENTILATOR DUCT: Exploded View

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- 1. Defroster nozzle
- 4. Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- 2. Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH14. Blower unit assembly
- 17. Upper ventilator duct

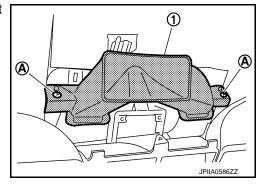
- 3. Foot duct LH
- Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

UPPER VENTILATOR DUCT: Removal and Installation

INFOID:0000000009721194

REMOVAL

- Remove defroster nozzle and side defroster nozzle. Refer to <u>VTL-119</u>, "<u>DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE</u>: <u>Exploded View</u>".
- 2. Remove fixing screws (A) and then remove upper ventilator duct (1).



INSTALLATION

Install in the reverse order of removal.

DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE

DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE : Exploded View

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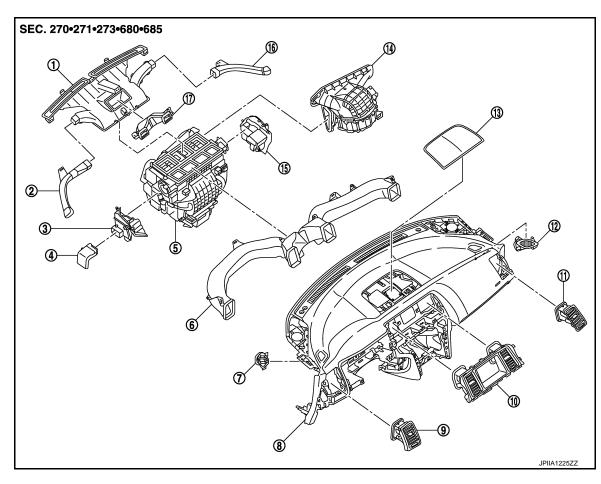
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- 1. Defroster nozzle
- 4. Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- 2. Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- . Foot duct LH
- 6. Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

DEFROSTER NOZZLE AND SIDE DEFROSTER NOZZLE: Removal and Installation

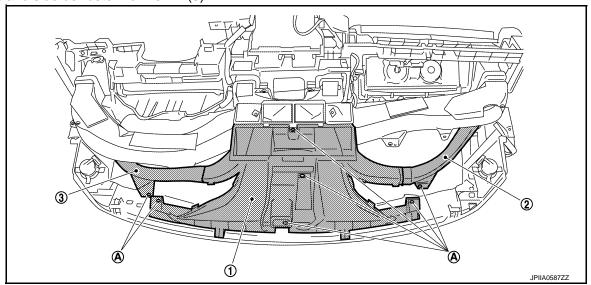
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REMOVAL

Remove instrument panel assembly. Refer to <u>IP-14, "Exploded View"</u>.

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2. Remove fixing screws (A) and then remove defroster nozzle (1) together with the side defroster nozzle RH (2) and side defroster nozzle LH (3).



3. Remove side defroster nozzle LH and RH from defroster nozzle.

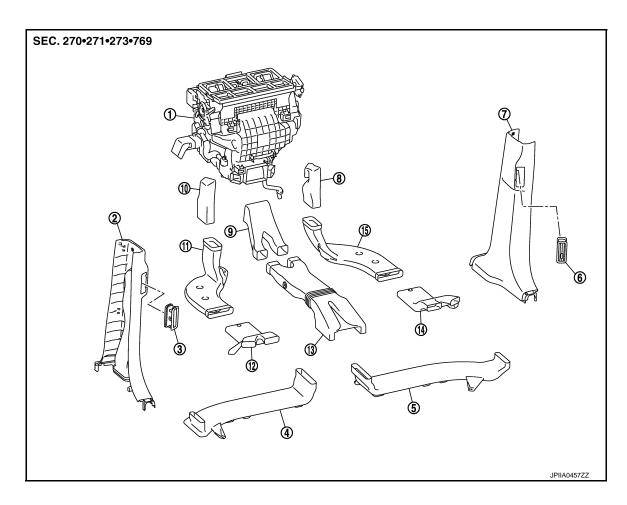
INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR GRILLE

REAR VENTILATOR GRILLE: Exploded View

INFOID:0000000009721197



DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITH 7 INCH DISPLAY]

- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- 2. Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

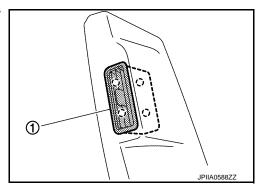
- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR GRILLE: Removal and Installation

INFOID:0000000009721198

REMOVAL

- 1. Remove center pillar lower garnish. Refer to INT-20, "Exploded View".
- 2. Disengage joints of the tabs and then remove rear ventilator grille (1).
 - () : Clip



INSTALLATION
Install in the reverse order of removal.
REAR VENTILATOR DUCT 1

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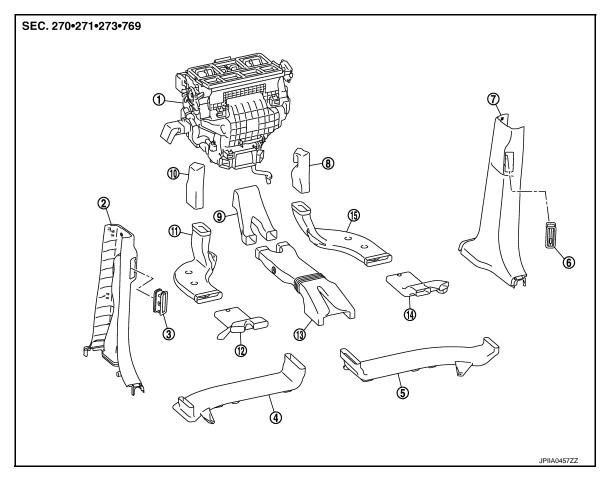
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REAR VENTILATOR DUCT 1: Exploded View

INFOID:0000000009721199



- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

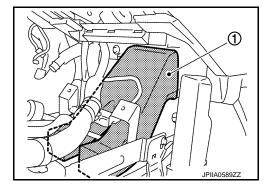
- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR DUCT 1: Removal and Installation

REMOVAL

- 1. Remove rear ventilator duct 2. Refer to VTL-123, "REAR VENTILATOR DUCT 2: Exploded View".
- 2. Remove rear ventilator duct 1 (1).



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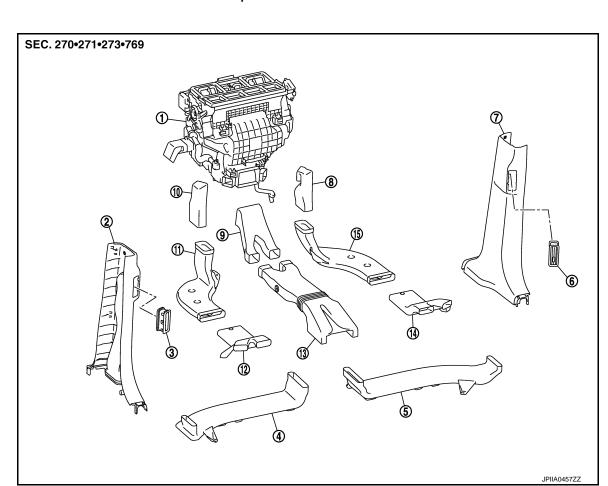
INSTALLATION

Install in the reverse order of removal.

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REAR VENTILATOR DUCT 2

REAR VENTILATOR DUCT 2: Exploded View



- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

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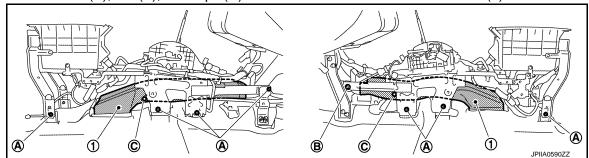
Rear ventilator grille LH

- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR DUCT 2: Removal and Installation

REMOVAL

- 1. Remove front seat assembly (LH and RH). Refer to <u>SE-92, "Exploded View"</u>.
- Remove lower console finisher (LH and RH). Refer to IP-22, "Exploded View".
- 3. Remove screws (A), nut (B), and clips (C) and then remove rear ventilator duct 2 (1).



Revision: 2013 August VTL-123 2014 MURANO

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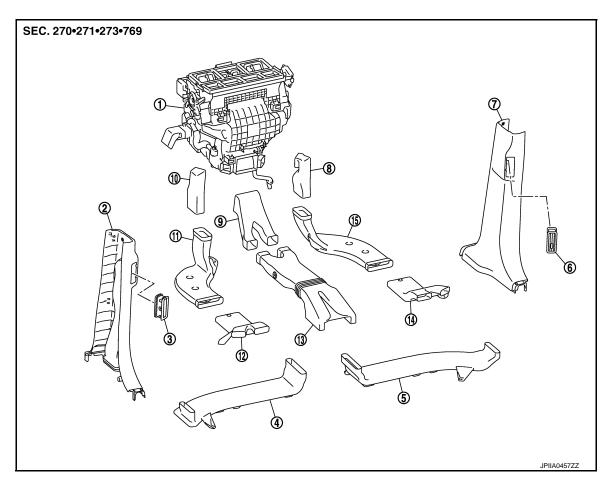
INSTALLATION

Install in the reverse order of removal.

REAR VENTILATOR DUCT 3

REAR VENTILATOR DUCT 3: Exploded View

INFOID:0000000009721203



- Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR DUCT 3: Removal and Installation

INFOID:0000000009721204

REMOVAL

Driver Side

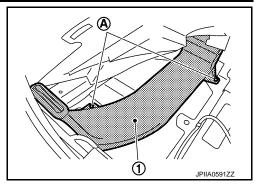
- Remove front seat assembly LH. Refer to <u>SE-92, "Exploded View"</u>.
- Pull up the driver side floor carpet. Refer to <u>INT-24, "Exploded View"</u>.

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

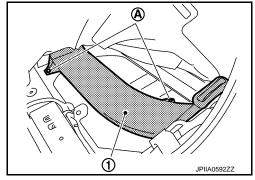
[WITH 7 INCH DISPLAY]

3. Remove fixing screws (A) and then remove rear ventilator duct 3 LH (1).



Passenger side

- 1. Remove front seat assembly RH. Refer to <u>SE-92, "Exploded View"</u>.
- 2. Pull up the passenger side floor carpet. Refer to INT-24, "Exploded View".
- 3. Remove fixing screws (A) and then remove rear ventilator duct 3 RH (1).



INSTALLATION
Install in the reverse order of removal.
REAR VENTILATOR DUCT 4

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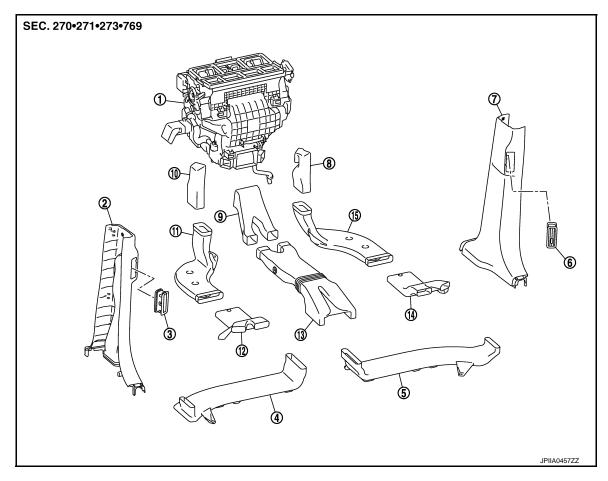
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REAR VENTILATOR DUCT 4: Exploded View

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- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR VENTILATOR DUCT 4: Removal and Installation

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REMOVAL

Remove center pillar lower garnish. Refer to INT-20, "Exploded View".

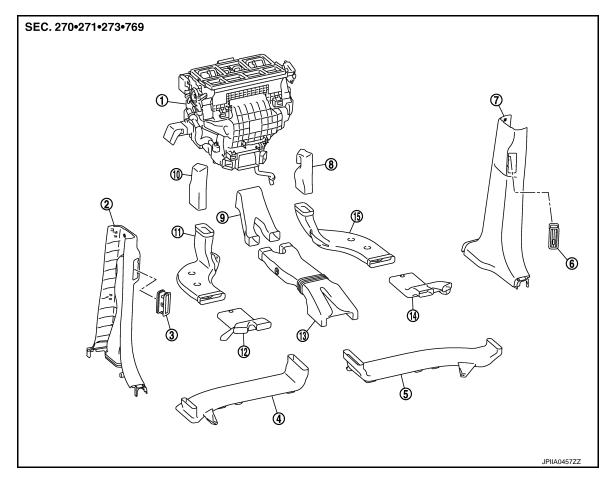
INSTALLATION

Install in the reverse order of removal.

REAR FOOT DUCT 1

REAR FOOT DUCT 1: Exploded View

INFOID:0000000009721207



- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

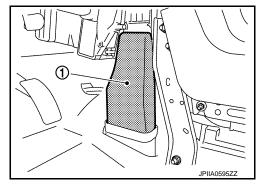
- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

REAR FOOT DUCT 1: Removal and Installation

REMOVAL

Driver Side

- Remove instrument lower cover LH. Refer to <u>IP-14, "Exploded View"</u>.
- 2. Remove rear foot duct 1 LH (1).



Passenger Side

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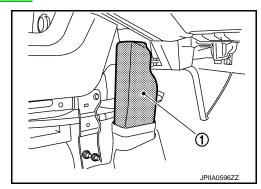
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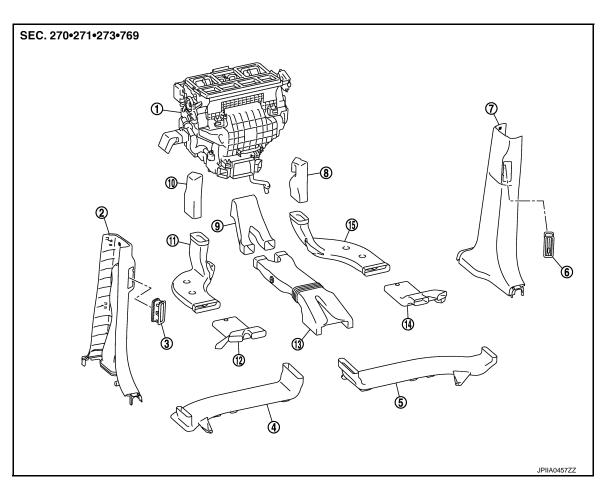
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- Remove instrument lower cover RH. Refer to <u>IP-14, "Exploded View"</u>.
- 2. Remove rear foot duct 1 RH (1).



INSTALLATION
Install in the reverse order of removal.
REAR FOOT DUCT 2

REAR FOOT DUCT 2: Exploded View



- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- 9. Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

[WITH 7 INCH DISPLAY]

REAR FOOT DUCT 2: Removal and Installation

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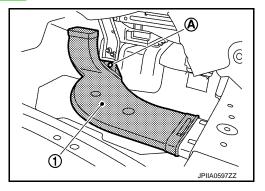
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REMOVAL

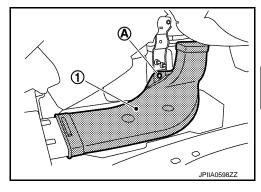
Driver Side

- 1. Remove rear foot duct 1 LH. Refer to VTL-127, "REAR FOOT DUCT 1: Exploded View".
- Pull up the driver side floor carpet. Refer to <u>INT-24</u>, "Exploded View".
- 3. Remove fixing clip (A) and then remove rear foot duct 2 LH (1).



Passenger Side

- 1. Remove rear foot duct 1 RH. Refer to VTL-127, "REAR FOOT DUCT 1: Exploded View".
- Pull up the passenger side floor carpet. Refer to <u>INT-24, "Exploded View"</u>.
- 3. Remove fixing clip (A) and then remove rear foot duct 2 RH (1).



INSTALLATION

Install in the reverse order of removal.

REAR FOOT DUCT 3

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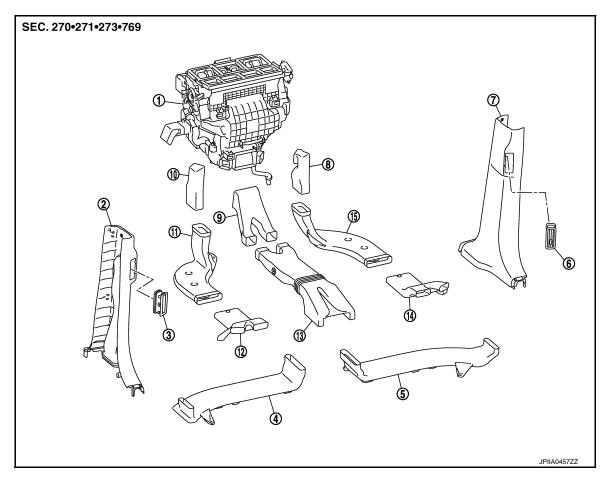
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REAR FOOT DUCT 3: Exploded View

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- 1. Heater & cooling unit assembly
- 4. Rear ventilator duct 3 LH
- 7. Rear ventilator duct 4 (Center pillar lower garnish RH)
- 10. Rear foot duct 1 LH
- 13. Rear ventilator duct 2

- Rear ventilator duct 4 (Center pillar lower garnish LH)
- 5. Rear ventilator duct 3 RH
- 8. Rear foot duct 1 RH
- 11. Rear foot duct 2 LH
- 14. Rear foot duct 3 RH

- 3. Rear ventilator grille LH
- 6. Rear ventilator grille RH
- Rear ventilator duct 1
- 12. Rear foot duct 3 LH
- 15. Rear foot duct 2 RH

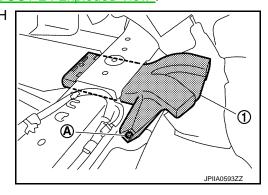
REAR FOOT DUCT 3: Removal and Installation

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REMOVAL

Driver side

- 1. Remove rear foot duct 2 LH. Refer to VTL-128, "REAR FOOT DUCT 2: Exploded View".
- 2. Remove fixing screw (A), and then remove rear foot duct 3 LH (1).



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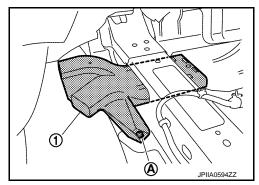
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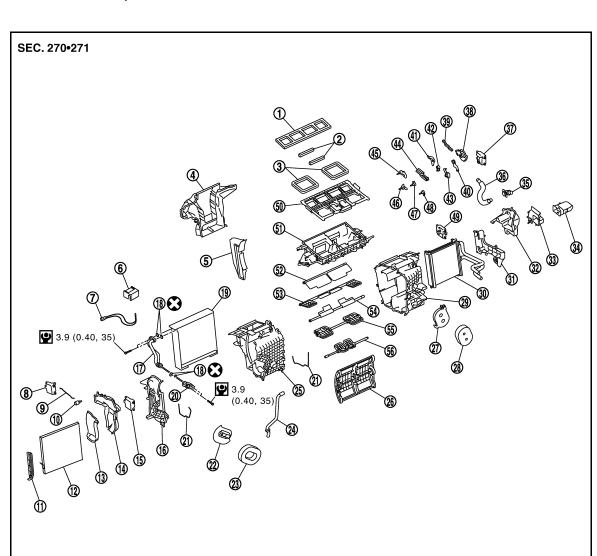
- 1. Remove rear foot duct 2 RH. Refer to VTL-128, "REAR FOOT DUCT 2: Exploded View".
- 2. Remove fixing screw (A) and then remove rear foot duct 3 RH (1).



INSTALLATION
Install in the reverse order of removal.

HEATER DUCT

HEATER DUCT: Exploded View



- 1. Ventilator seal
- 4. Adapter case
- 7. Intake sensor

- 2. Upper ventilator seal
- 5. Center case
- 8. Upper ventilator door motor
- 3. Defroster seal
- Intake sensor bracket
- 9. Upper ventilator door rod

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Revision: 2013 August VTL-131 2014 MURANO

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITH 7 INCH DISPLAY]

10.	Upper ventilator door lever	11.	Filter cover	12.	In-cabin microfilter (Air conditioner filter*			
13.	Foot duct 1 RH	14.	Foot duct 2 RH	15.	Air mix door motor (Passenger side)			
16.	Heater & cooling unit case cover	17.	Evaporator pipe assembly	18.	O-ring			
19.	Evaporator	20.	Expansion valve	21.	Case packing			
22.	Grommet	23.	Cooler pipe grommet	24.	Drain hose			
25.	Heater & cooling unit case RH	26.	Air mix door (Slide door)	27.	Heater pipe support			
28.	Heater pipe grommet	29.	Heater & cooling unit case LH	30.	Heater core			
31.	Heater pipe cover	32.	Foot duct 2 LH	33.	Foot duct 1 LH			
34.	Heater duct	35.	Aspirator	36.	Aspirator hose			
37.	Mode door motor	38.	Main link	39.	Rod link			
40.	Max. cool door link	41.	Ventilator door link	42.	Foot door link			
43.	Mode door lever	44.	Defroster door link	45.	Ventilator door lever			
46.	Foot door lever	47.	Defroster door lever	48.	Max. cool door lever			
49.	Air mix door motor (Driver side)	50.	Distributor upper case	51.	Distributor lower case			
52.	Ventilator door	53.	Foot door	54.	Max. cool door			
55.	Defroster door	56.	Upper ventilator door					
	: Always replace after every disassembly.							

^{*:} Models for Mexico.

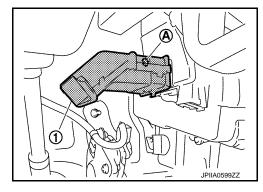
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HEATER DUCT: Removal and Installation

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REMOVAL

- 1. Remove instrument lower panel LH. Refer to IP-14, "Exploded View".
- 2. Remove fixing screw (A) and then remove heater duct (1).



INSTALLATION
Install in the reverse order of removal.
FOOT DUCT

FOOT DUCT : Exploded View

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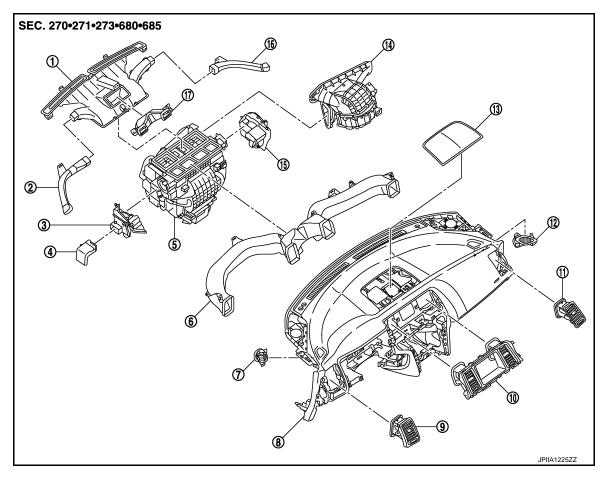
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- 1. Defroster nozzle
- 4. Heater duct
- 7. Side defroster grille LH
- 10. Center ventilator grille assembly
- 13. Center speaker grille
- 16. Side defroster nozzle RH
- 2. Side defroster nozzle LH
- 5. Heater & cooling unit assembly
- 8. Instrument panel assembly
- 11. Side ventilator grille RH
- 14. Blower unit assembly
- 17. Upper ventilator duct

- 3. Foot duct LH
- 6. Ventilator duct
- 9. Side ventilator grille LH
- 12. Side defroster grille RH
- 15. Foot duct RH

FOOT DUCT: Removal and Installation

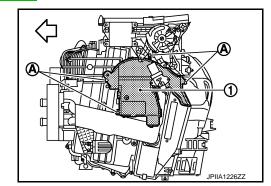
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REMOVAL

Driver Side

- Remove instrument lower panel LH. Refer to <u>IP-14, "Exploded View"</u>.
- 2. Remove fixing screws (A) and then remove foot duct LH (1).

: Vehicle front



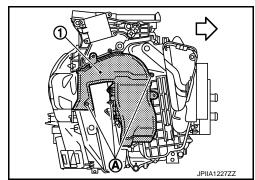
Passenger side

DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

[WITH 7 INCH DISPLAY]

- 1. Remove blower unit assembly. Refer to VTL-94, "Exploded View".
- 2. Remove fixing screws (A) and fixing harness clip, and then remove foot duct RH (1).



INSTALLATION

Install in the reverse order of removal.