

D

Е

F

Н

Ν

0

# **CONTENTS**

SYMPTOM DIAGNOSIS3
SQUEAK AND RATTLE TROUBLE DIAG- NOSES3
Work Flow
PRECAUTION9
PRECAUTIONS9
FOR USA AND CANADA
EXCEPT FOR MEXICO
PREPARATION11
PREPARATION
REMOVAL AND INSTALLATION12
FRONT BUMPER
REAR BUMPER

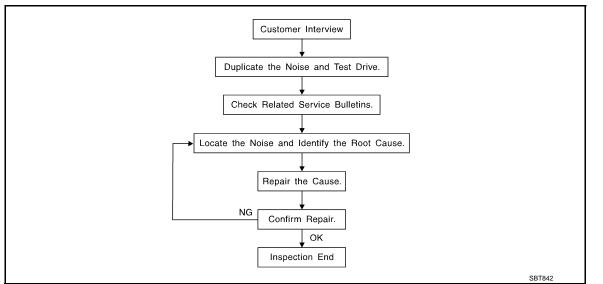
FRONT GRILLE
COWL TOP20Exploded View20Removal and Installation20
FENDER PROTECTOR23
FENDER PROTECTOR
REAR WHEEL HOUSE PROTECTOR
MUDGUARD25Exploded View
FLOOR SIDE FAIRING
ROOF RAIL28Exploded View28Removal and Installation28
ROOF SIDE MOLDING30
NORMAL ROOF30  NORMAL ROOF : Exploded View30  NORMAL ROOF : Removal and Installation30
SUNROOF         31           SUNROOF: Exploded View         31           SUNROOF: Removal and Installation         31

DOOR OUTSIDE MOLDING33	DOOR PARTING SEAL	37
Exploded View		
Removal and Installation	•	
DOOR OUTSIDE LOWER MOLDING35	DOOR SASH COVER	39
Exploded View	Exploded View	39
Removal and Installation 35	Removal and Installation	30

# SYMPTOM DIAGNOSIS

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



#### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <a href="EXT-7">EXT-7</a>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics
  are provided so the customer, service adviser and technician are all speaking the same language when
  defining the noise.
- Squeak (Like tennis shoes on a clean floor)
   Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces
   higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping
- Creak (Like walking on an old wooden floor)
   Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle)
   Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door)
  Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
   Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise)
   Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee)
   Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that a technician may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

Α

EXT

M

N

0

Р

F

#### < SYMPTOM DIAGNOSIS >

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when the repair is reconfirmed.

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).
- 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

#### CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

#### LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis ear: J-39570, Engine ear and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- Removing the components in the area that is are suspected to be the cause of the noise.
   Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- Tapping or pushing/pulling the component that is are suspected to be the cause of the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the noise.
- Placing a piece of paper between components that are suspected to be the cause of the noise.
- Looking for loose components and contact marks.
   Refer to <u>EXT-5</u>, "Inspection Procedure".

## REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- Separate components by repositioning or loosening and retightening the component, if possible.
- Insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through the authorized Nissan Parts Department.

## **CAUTION:**

# Never use excessive force as many components are constructed of plastic and may be damaged. NOTE:

Always check with the Parts Department for the latest parts information.

The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100  $\times$  135 mm (3.94  $\times$  5.31 in)/76884-71L01: 60  $\times$  85 mm (2.36  $\times$  3.35 in)/76884-71L02:15  $\times$  25 mm (0.59  $\times$  0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30  $\times$  50 mm (1.18  $\times$  1.97in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

#### < SYMPTOM DIAGNOSIS >

 $68370-4B000: 15 \times 25 \text{ mm}$  (0.59  $\times$  0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll The following materials, not found in the kit, can also be used to repair squeaks and rattles.

**UHMW (TEFLON) TAPE** 

Insulates where slight movement is present. Ideal for instrument panel applications.

SILICONE GREASE

Used in place of UHMW tape that is be visible or does not fit. Will only last a few months.

SILICONE SPRAY

Used when grease cannot be applied.

**DUCT TAPE** 

Used to eliminate movement.

#### CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

# Inspection Procedure

Refer to Table of Contents for specific component removal and installation information.

#### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

- 1. The cluster lid A and instrument panel
- Acrylic lens and combination meter housing
- Instrument panel to front pillar garnish
- Instrument panel to windshield
- 5. Instrument panel mounting pins
- Wiring harnesses behind the combination meter
- A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

#### CAUTION:

Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible.

#### CENTER CONSOLE

Components to pay attention to include:

- Shifter assembly cover to finisher
- A/C control unit and cluster lid C
- Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

#### DOORS

Pay attention to the following:

- 1. Finisher and inner panel making a slapping noise
- Inside handle escutcheon to door finisher
- Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.

EXT-5

#### TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer. In addition look for the following:

- Trunk lid dumpers out of adjustment
- Trunk lid striker out of adjustment 2.

Revision: 2011 November

J

Α

В

D

F

Н

INFOID:0000000006259229

N

**2011 MURANO** 

#### < SYMPTOM DIAGNOSIS >

- 3. The trunk lid torsion bars knocking together
- A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- 2. Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

#### SEATS

When isolating seat noise it's important to note the position the seats in and the load placed on the seat when the noise occurs. These conditions should be duplicated when verifying and isolating the cause of the noise. Cause of seat noise include:

- 1. Headrest rods and holder
- 2. A squeak between the seat pad cushion and frame
- 3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### UNDERHOOD

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

- Any component mounted to the engine wall
- Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- 6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

< SYMPTOM DIAGNOSIS >

# **Diagnostic Worksheet**

INFOID:0000000006259230

Α

В

D

Е

F

Н

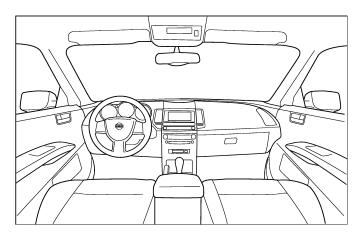


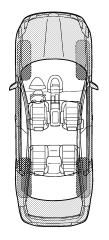
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

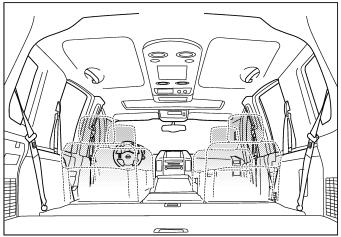
#### Dear Nissan Customer:

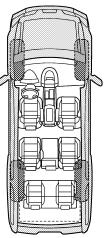
We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service advisor or technician to ensure we confirm the noise you are hearing.

I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)
The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.









Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

PIIB8740E

EXT

ı

 $\mathbb{N}$ 

Ν

 $\circ$ 

Briefly describe the location where the noi	se occurs:			
II. WHEN DOES IT OCCUR? (please che  ☐ anytime	_	•	ply) it in the ra	in
<ul><li>☐ 1st time in the morning</li><li>☐ only when it is cold outside</li><li>☐ only when it is hot outside</li></ul>	_	or dusty co	ing or wet onditions	
III. WHEN DRIVING:	IV. WH	AT TYPE	OF NOIS	E
□ through driveways     □ over rough roads     □ over speed bumps     □ only about mph     □ on acceleration     □ coming to a stop     □ on turns: left, right or either (circle)     □ with passengers or cargo     □ other: after driving miles or min  TO BE COMPLETED BY DEALERSHIP IT  Test Drive Notes:	crea	k (like wa e (like sha ek (like a k (like a cloo np (heavy g (like a bu	Iking on a king a ba knock at th ck second	ne door) hand) knock noise)
		YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm	n repair			
VIN:			ne:	

This form must be attached to Work Order

PIIB8742E

# **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

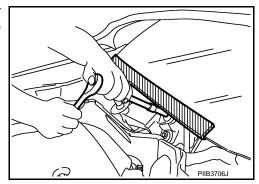
#### **WARNING:**

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 USA AND CANADA: 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.



## FOR USA AND CANADA: Precaution for Work

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

#### **EXCEPT FOR MEXICO**

EXCEPT FOR MEXICO: Precaution for Supplemental Restraint System (SRS) "AIR

EXT

Α

В

D

Е

INFOID:0000000006259233

M

Ν

0

4 P

Revision: 2011 November EXT-9 2011 MURANO

# BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000006259235

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

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

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

#### **WARNING:**

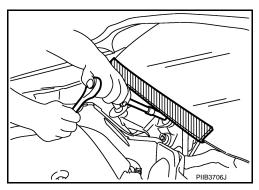
Always observe the following items for preventing accidental activation.

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

**EXCEPT FOR MEXICO: Precaution for Procedure without Cowl Top Cover** 

INFOID:0000000006259237

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



INFOID:0000000006259238

#### **EXCEPT FOR MEXICO: Precaution for Work**

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their
  operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

# **PREPARATION**

Α

В

INFOID:0000000006259239

INFOID:0000000006259240

# **PREPARATION**

# **PREPARATION**

# **Special Service Tools**

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

To (Ken T	Description		
(J-39570) Chassis ear		Locates the noise	
(1.42000)	SIIAO993E		
(J-43980) NISSAN Squeak and Rattle Kit	SIIA0994E	Repairs the cause of noise	

# Commercial Service Tools

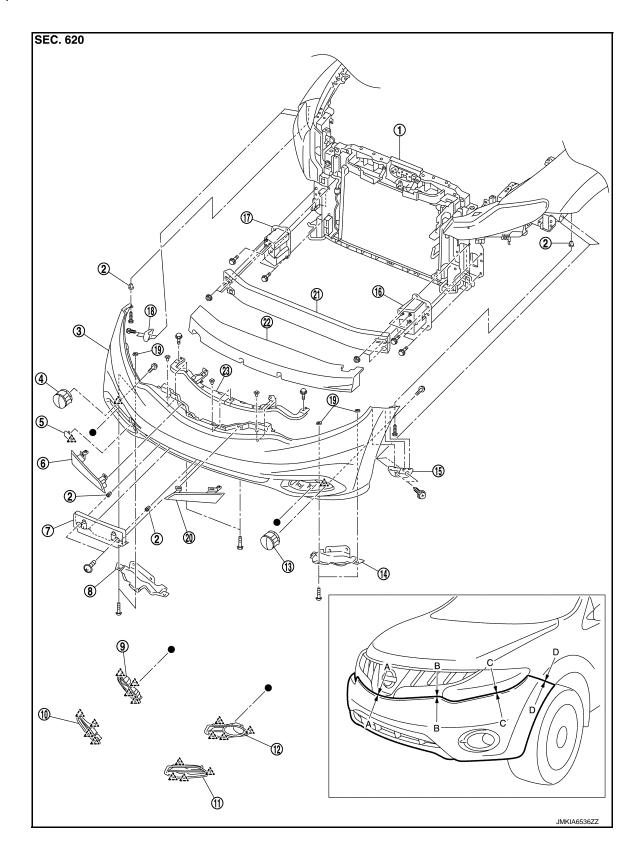
	Tool name	Description		
Engine ear	SIIA0995E	Locates the noise	EX	
Remover tool	PIIB7923J	Removes clips, pawls and metal clips	N	
			C	
Power tool			F	

PIIB1407E

# REMOVAL AND INSTALLATION

# FRONT BUMPER

Exploded View



#### FRONT BUMPER

#### < REMOVAL AND INSTALLATION >

1.	Radiator core support	2.	Grommet	3.	Bumper fascia assembly	Α
4.	Front fog lamp RH	5.	Bumper lower molding	6.	Head lamp extension panel RH	
7.	License plate bracket	8.	Bumper lower finisher RH	9.	Bumper molding RH (With fog lamp)	
10.	Bumper molding RH (Without fog lamp)	11.	Bumper molding LH (Without fog lamp)	12.	Bumper molding LH (With fog lamp)	В
13.	Front fog lamp LH	14.	Bumper lower finisher LH	15.	Bumper side bracket LH	
16.	Bumper stay LH	17.	Bumper stay RH	18.	Bumper side bracket RH	
19.	J nut	20.	Head lamp extension panel LH	21.	Bumper reinforcement	С
22.	Energy absorber	23.	Bumper retainer assembly			
<u>^</u> \	: Pawl					

#### Removal and Installation

INFOID:0000000006259242

D

Е

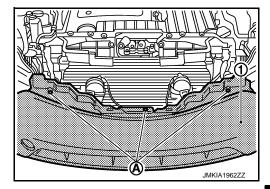
F

# REMOVAL

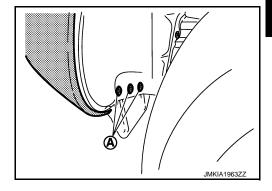
#### **CAUTION:**

Bumper fascia is made of resin. Do not apply strong force to it, and be careful to prevent contact with oil.

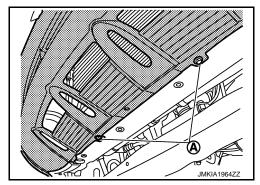
- 1. Fully open hood assembly.
- 2. Remove front grille. Refer to EXT-18, "Removal and Installation".
- 3. Remove headlamp extension panel. Refer to EXL-168, "Removal and Installation".
- 4. Remove clips (A) of bumper fascia assembly (1) upper side.



5. Remove fender protector fixing clips (A) (LH/RH).



- 6. Remove front under cover and bumper lower finisher (LH/RH). Refer to EXT-26, "Exploded View".
- 7. Remove bumper fascia assembly fixing bolts (A).



EXT

L

M

Ν

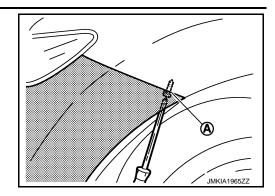
0

Revision: 2011 November EXT-13 2011 MURANO

#### FRONT BUMPER

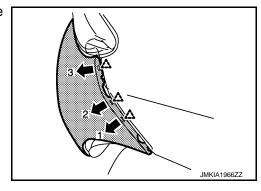
#### < REMOVAL AND INSTALLATION >

8. Remove bumper fascia assembly fixing screws (A) (LH/RH).



- Disconnect front fog lamp harness connector (LH/RH).
- 10. Pull the bumper fascia side toward the vehicle side to disengage the fitting of bumper side bracket and bumper fascia side.





11. Remove bumper fascia assembly.

#### **CAUTION:**

When removing bumper fascia assembly, 2 workers are required so as to prevent it from dropping.

- 12. Remove the following parts after removing bumper fascia assembly.
  - Front fog lamp assembly (LH/RH). Refer to EXL-170, "Removal and Installation".
  - Bumper side bracket (LH/RH)
  - · License plate bracket
- 13. Remove energy absorber.
- 14. Remove bumper reinforcement mounting nuts, and then remove bumper reinforcement.
- 15. Remove bumper stay (LH/RH) mounting bolts, and then remove bumper stay (LH/RH).

#### **INSTALLATION**

Install in the reverse order of removal.

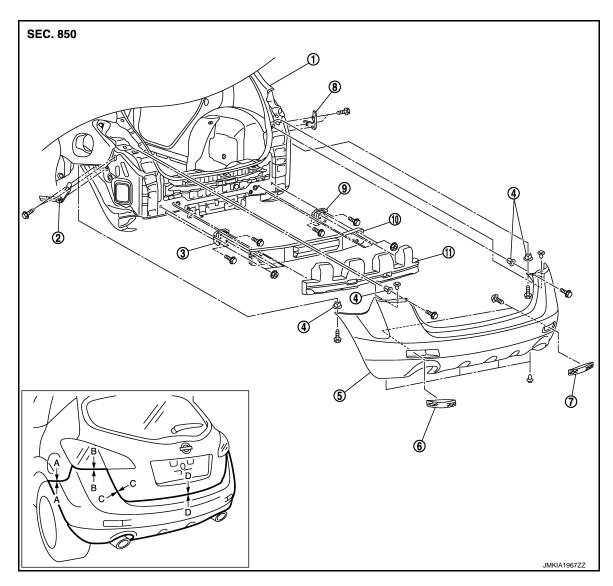
#### NOTE:

After installing, perform fitting adjustment.

Portion		Clearance
Front bumper – Front grille	A – A	0.2 – 2.8 mm (0.008 – 0.110 in)
Front bumper – Headlamp extension panel	B – B	0.2 – 2.8 mm (0.008 – 0.110 in)
Front bumper – Headlamp	C – C	0.3 – 2.7 mm (0.012 – 0.106 in)
Front bumper – Front fender	D – D	0.0 – 0.8 mm (0.000 – 0.031 in)

# REAR BUMPER

Exploded View



- 1. Rear body complete
- 4. Grommet
- Reflex reflector RH
- 10. Bumper reinforcement
- 2. Bumper side bracket LH
- 5. Bumper fascia assembly
- 8. Bumper side bracket RH
- 11. Energy absorber

- 3. Bumper stay LH
- 6. Reflex reflector LH
- 9. Bumper stay RH

#### Removal and Installation

## **REMOVAL**

#### **CAUTION:**

Bumper fascia is made of resin. Never apply strong force to it, and be careful to prevent contact with oil.

- 1. Fully open back door assembly.
- 2. Remove rear combination lamp (LH/RH).

EXT

Α

В

D

Е

F

Н

M

N

0

Р

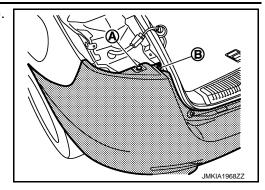
INFOID:0000000006259244

Revision: 2011 November EXT-15 2011 MURANO

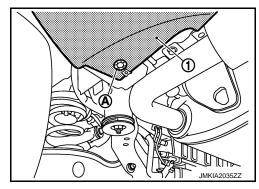
# **REAR BUMPER**

# < REMOVAL AND INSTALLATION >

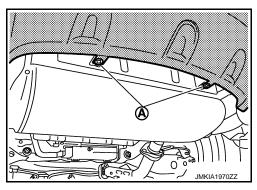
- 3. Remove clips (A) located under rear combination lamp (LH/RH).
- 4. Remove screws (B) (LH/RH).



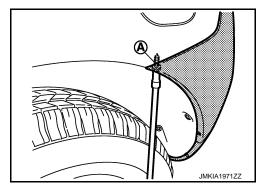
- 5. Remove rear mudguard. Refer to EXT-25, "Removal and Installation".
- 6. Remove clips (A) of bumper fascia (1) underside (LH/RH).



7. Remove clips (A) of bumper fascia underside.



8. Remove screws (A) of bumper fascia front end upper (LH/RH).

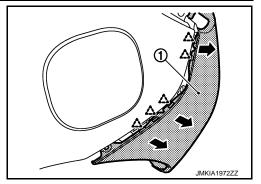


# **REAR BUMPER**

#### < REMOVAL AND INSTALLATION >

Pull to release bumper fascia assembly (1) from bumper side bracket.



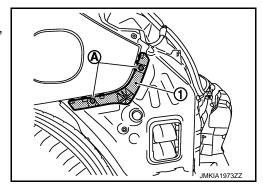


10. Remove bumper fascia assembly.

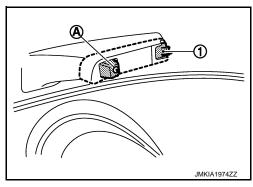
#### **CAUTION:**

When removing bumper fascia assembly, 2 workers are required so as to prevent it from dropping.

- 11. Remove the following parts after removing rear bumper fascia.
  - Bumper side bracket (LH/RH)
     Remove bumper side bracket (1) fixing screws (A) (LH/RH),
     and then remove bumper side bracket (LH/RH).



Reflex reflector (LH/RH)
 Remove reflex reflector (1) fixing screws (A) (LH/RH), and
then remove reflex reflector (LH/RH).



- 12. Remove energy absorber.
- 13. Remove bumper reinforcement mounting nuts (LH/RH), and then remove bumper reinforcement.
- 14. Remove bumper stay mounting bolts, and then remove bumper stay.

# **INSTALLATION**

Install in the reverse order of removal.

#### NOTE:

After installing, perform fitting adjustment.

Portion		Clearance
Rear bumper – Rear fender	<b>A</b> – <b>A</b>	0.0 – 1.0 mm (0.000 – 0.039 in)
Rear bumper – Rear combination lamp	B – B	0.5 – 3.5 mm (0.020 – 0.138 in)
Rear bumper – Back door	C – C	4.0 – 8.0 mm (0.157 – 0.315 in)
Rear bumper – Back door	D – D	5.0 – 9.0 mm (0.197 – 0.354 in)

Revision: 2011 November EXT-17 2011 MURANO

Α

В

С

D

Е

\_

G

Н

1

EXT

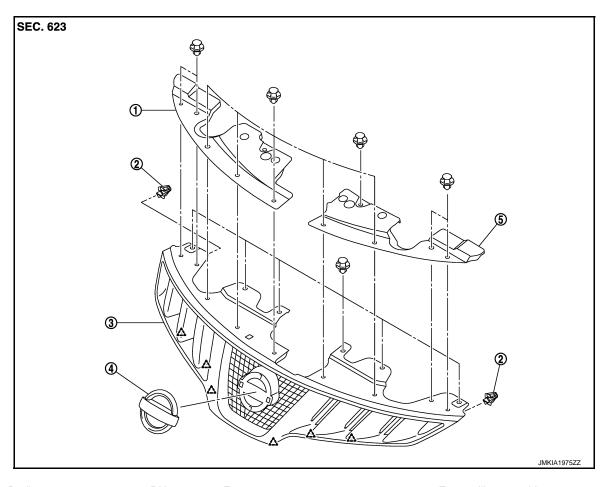
M

Ν

0

# **FRONT GRILLE**

Exploded View



- 1. Radiator core support cover RH
- 4. Front emblem

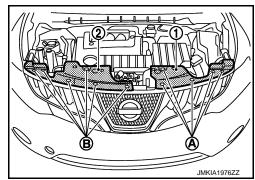
- 2. Fastener
- 5. Radiator core support cover LH
- 3. Front grille assembly

## Removal and Installation

#### **REMOVAL**

∠^`\_ : Pawl

- 1. Fully open hood assembly.
- 2. Remove radiator core support cover LH (1) fixing clips (A), and then remove radiator core support cover LH.
- 3. Remove radiator core support cover RH (2) fixing clips (B), and then remove radiator core support cover RH.

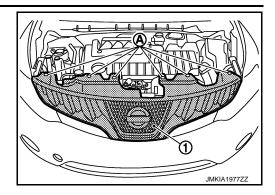


INFOID:0000000006259246

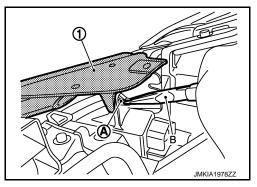
# **FRONT GRILLE**

# < REMOVAL AND INSTALLATION >

4. Remove front grille (1) fixing clips (A).

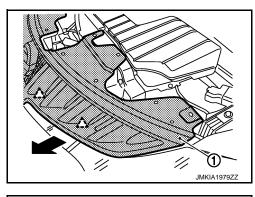


5. Disengage fastener (A) of fixing front grille (1) with plier (B).



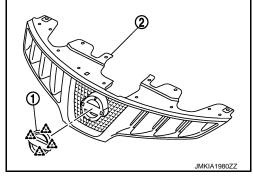
6. Pull front grille (1) horizontally toward vehicle front, and then remove front grille.





- 7. Remove the front emblem after removing front grille.
  - Remove emblem (1) fixing pawls.
  - Remove emblem from front grille (2).





**INSTALLATION** 

Install in the reverse order of removal.

Ρ

Revision: 2011 November EXT-19 2011 MURANO

В

Α

D

Е

F

G

Н

I

J

EXT

\_

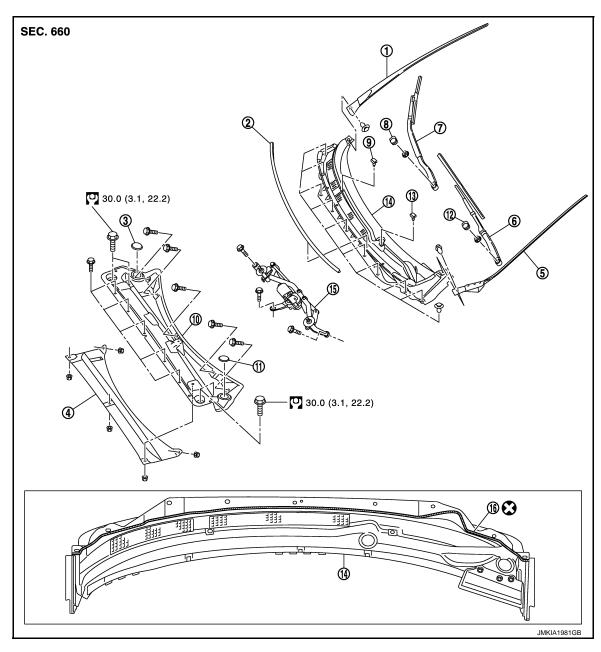
M

Ν

0

# **COWL TOP**

Exploded View



- 1. Windshield side molding RH
- 4. Extension cowl top
- 7. Front wiper arm and blade RH
- 10. Extension cowl top
- 13. Washer nozzle LH
- 16. EPT sealer

- 2. Cowl top seal
- 5. Windshield side molding LH
- 8. Front wiper arm cover RH
- 11. Rubber plug LH
- 14. Cowl top cover

- 3. Rubber plug RH
- 6. Front wiper arm and blade LH
- 9. Washer nozzle RH
- 12. Front wiper arm cover LH
- 15. Front wiper drive assembly

Refer to  $\underline{\mbox{GI-4, "Components"}}$  for symbols in the figure.

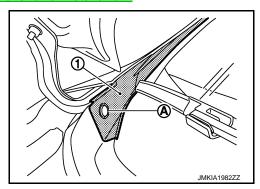
# Removal and Installation

#### **REMOVAL**

Fully open hood assembly.

Revision: 2011 November EXT-20 2011 MURANO

- Remove front wiper arm blade (LH/RH). Refer to WW-117, "Removal and Installation".
- 3. Remove windshield side molding (1) fixing clips (A) (LH/RH).



Α

В

D

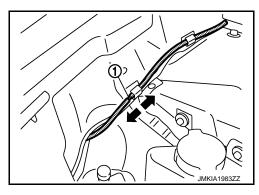
Е

F

Н

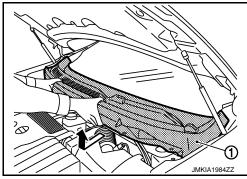
Р

4. Disconnect front washer tube connector (1).

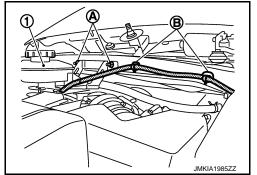


- 5. Remove cowl top cover fixing clips.
- 6. Pull forward to release cowl top cover (1) from windshield glass. **CAUTION:**

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



- 7. Remove the following parts after removing cowl top cover.
  - Cowl top seal
  - Washer nozzle (LH/RH)
  - · Washer tube
  - EPT sealer
- Remove front wiper drive assembly. Refer to <u>WW-121, "Removal and Installation"</u>.
- 9. Remove brake reservoir tank (1) fixing nuts (A).
- 10. Remove brake fluid level switch harness clips (B).



- 11. Remove extension cowl top mounting bolts, and then remove extension cowl top.
- 12. Remove dash lower insulator upper mounting nuts, and then remove dash lower insulator upper.

EXT Ν

# **COWL TOP**

#### < REMOVAL AND INSTALLATION >

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- When installing cowl top cover, check that blind clips are securely fitted in panel holes on body, and then press them in.
- Always replace cowl top cover EPT sealer on rear of vehicle with a new one when installing old cowl top cover.
- After installing, perform adjustment of wiper arms. Refer to WW-117, "Adjustment".

# **FENDER PROTECTOR**

#### < REMOVAL AND INSTALLATION >

# FENDER PROTECTOR FENDER PROTECTOR

FENDER PROTECTOR: Exploded View

#### INFOID:0000000006259249

Α

В

C

D

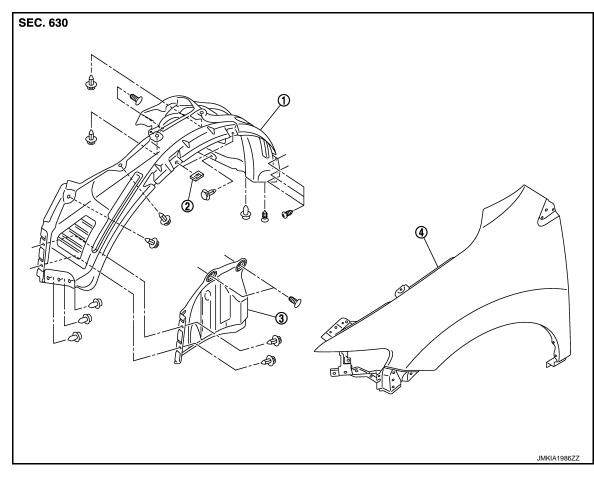
Е

F

Н

**EXT** 

#### FENDER PROTECTOR



- Fender protector
- 2. Fender clip

3. Splash guard

# 4. Front fender

# FENDER PROTECTOR: Removal and Installation

#### INFOID:0000000006259250

#### **REMOVAL**

- 1. Remove front mudguard (LH/RH). Refer to EXT-25, "Removal and Installation".
- 2. Remove splash guard fixing clips and then remove splash guard.
- 3. Remove front fender protector fixing clips.
- 4. Release front fender protector upper fixing clip downward, and then remove front fender protector.

#### **INSTALLATION**

Install in the reverse order of removal.

# REAR WHEEL HOUSE PROTECTOR

N

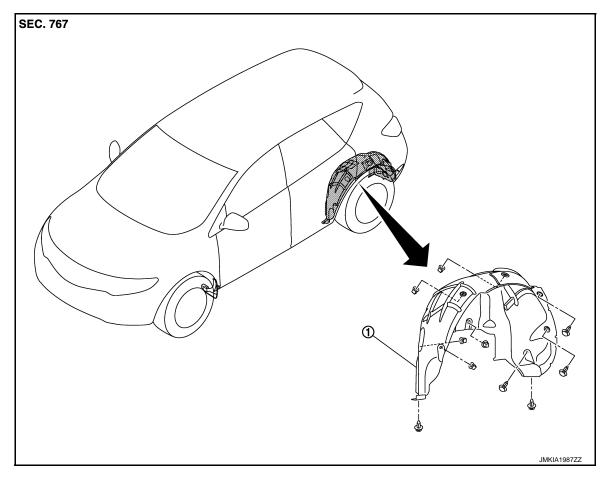
Р

0

Revision: 2011 November EXT-23 2011 MURANO

# REAR WHEEL HOUSE PROTECTOR: Exploded View

INFOID:0000000006259251



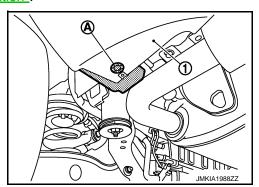
1. Rear wheel house protector

# REAR WHEEL HOUSE PROTECTOR: Removal and Installation

INFOID:0000000006259252

# **REMOVAL**

- 1. Remove rear mudguard. Refer to EXT-25, "Removal and Installation".
- 2. Remove clip (A) of rear bumper fascia (1).



- 3. Remove rear wheel house protector fixing clips.
- 4. Remove rear wheel house protector fixing plastic nuts and then remove rear wheel house protector.

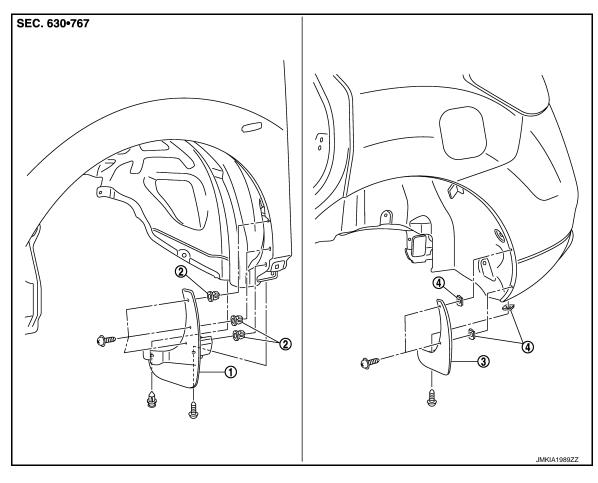
#### **INSTALLATION**

Install in the reverse order of removal.

# **MUDGUARD**

**Exploded View** INFOID:0000000006259253

## **MUDGUARD**



- Front mudguard
- Grommet

Rear mudguard

J-nut

# Removal and Installation

#### **REMOVAL**

# FRONT MUDGUARD

- Remove front mudguard fixing screws.
- 2. Remove front mudguard fixing clip.
- Remove front mudguard.

#### **REAR MUDGUARD**

- 1. Remove rear mudguard fixing screws.
- 2. Remove rear mudguard.

#### **INSTALLATION**

Install in the reverse order of removal.

EXT

Α

В

D

Е

F

Н

INFOID:0000000006259254

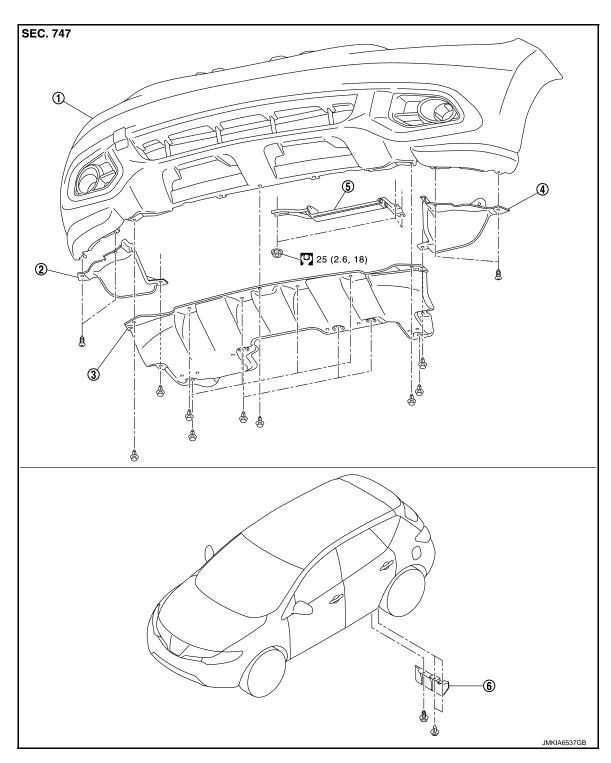
M

Ν

0

# FLOOR SIDE FAIRING

Exploded View



- 1. Bumper fascia assembly
- 2. Bumper lower finisher RH
- 4. Bumper lower finisher LH

Refer to  $\underline{\text{GI-4.}}$  "Components" for symbols in the figure.

- 5. Air lower guide
- 3. Front under cover
- 6. Wind deflector

# Removal and Installation

INFOID:0000000006259256

**REMOVAL** 

# FLOOR SIDE FAIRING

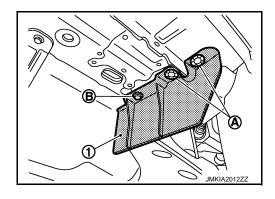
# < REMOVAL AND INSTALLATION >

#### FRONT UNDER COVER

- 1. Remove front under cover mounting clips.
- 2. Remove front under cover.

#### WIND DEFLECTOR

- 1. Remove wind deflector (1) fixing clips (A) and bolt (B).
- 2. Remove wind deflector.



**INSTALLATION** 

Install in the reverse order of removal.

Α

В

C

D

Е

F

G

Н

EXT

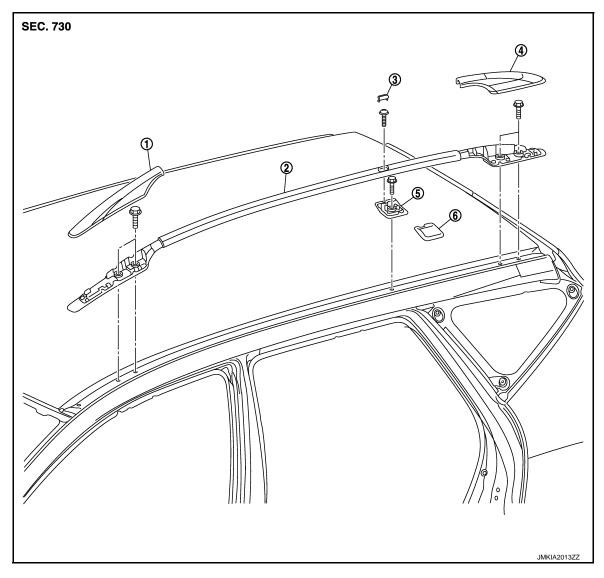
M

N

0

# **ROOF RAIL**

Exploded View



- 1. Front roof rail cover
- 4. Rear roof rail cover
- 2. Roof rail assembly
- 5. Center leg assembly
- Center roof rail cover
- 6. Center leg cover

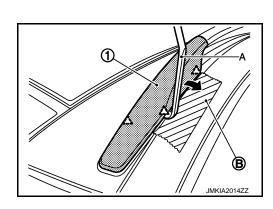
# Removal and Installation

# REMOVAL

Remove front roof rail cover (1) with remover tool (A).
 CAUTION:

Apply protective tape (B) around the roof rail.





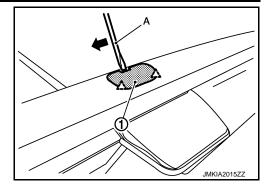
INFOID:0000000006259258

## **ROOF RAIL**

# < REMOVAL AND INSTALLATION >

2	Remove cer	ator roof r	ail cover /	1) with	romovor	tool (	۸۱
۷.	Remove cer	nter roor ra	ali cover (	i) with	remover	LOOI (	H).

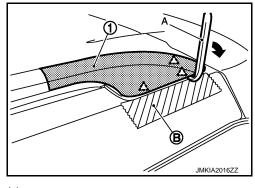
\_\_\_\_\_\_: Pawl



3. Remove rear roof rail cover (1) with remover tool (A).

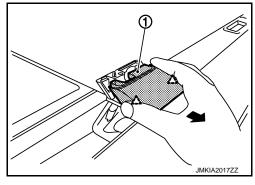
Apply protective tape (B) around the roof rail.

\_\_\_\_\_\_: Pawl



- 4. Remove roof rail mounting bolts, and then remove roof rail assembly.
- 5. Pull to the side, disengage pawls and remove center leg cover (1).

\_\_\_\_\_: Pawl



6. Remove roof rail center leg assembly mounting bolt, and then remove roof rail center leg assembly.

#### **INSTALLATION**

Install in the reverse order of removal.

EXT

Α

В

D

Е

Н

M

Ν

0

# **ROOF SIDE MOLDING**

**NORMAL ROOF** 

NORMAL ROOF: Exploded View

SEC. 730

1. Roof side molding

2. Roof side molding clip

( ) : Clip

Refer to GI-4, "Components" for symbols in the figure.

# NORMAL ROOF: Removal and Installation

INFOID:0000000006259260

INFOID:0000000006259259

#### **REMOVAL**

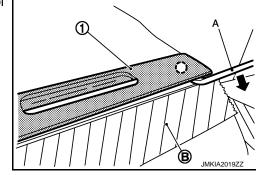
1. Remove roof rail assembly and roof rail center leg assembly. Refer to EXT-28, "Removal and Installation".

2. Disengage roof side molding (1) fixing clips with remover tool (A).

#### **CAUTION:**

Apply protective tape (B) around the roof side molding.

( ) : Clip



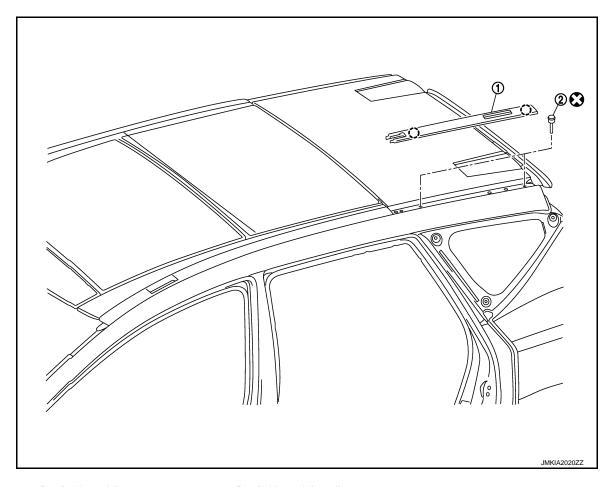
#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

To install roof side molding, check if all clips are matched over holes of panel on vehicle, then push it. SUNROOF

SUNROOF: Exploded View



- 1. Roof side molding
- 2. Roof side molding clip

( ) : Clip

Refer to GI-4, "Components" for symbols in the figure.

# SUNROOF: Removal and Installation

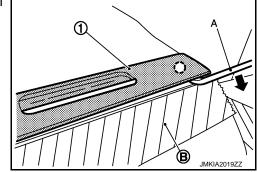
#### **REMOVAL**

- Remove roof rail assembly and roof rail center leg assembly. (with ROOF RAIL) Refer to <u>EXT-28</u>, "Removal and Installation".
- Disengage roof side molding (1) fixing clips with remover tool (A).

#### **CAUTION:**

Apply protective tape (B) around the roof side molding.

( ) : Clip



**INSTALLATION** 

INFOID:0000000006259261

В

D

Е

L

M

INFOID:0000000006259262

Ν

IN

0

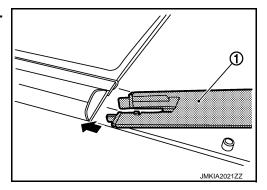
# **ROOF SIDE MOLDING**

# < REMOVAL AND INSTALLATION >

Install in the reverse order of removal.

#### **CAUTION:**

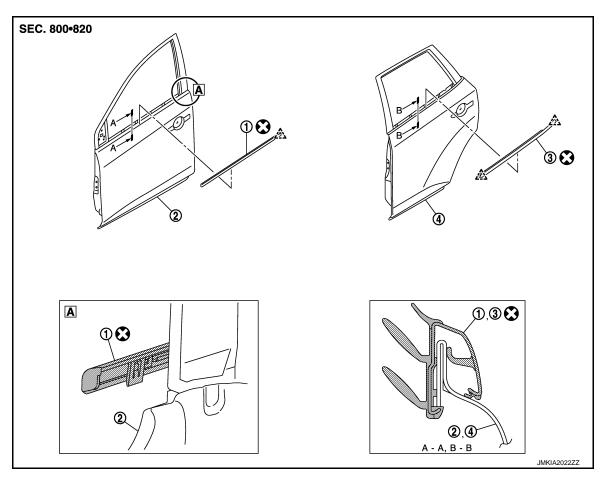
• Insert front end of roof side molding (1) into roof side finisher.



• To install roof side molding, check if all clips are matched over holes of panel on vehicle, then push it.

# DOOR OUTSIDE MOLDING

Exploded View



- Front door outside molding
   Rear door assembly
- 2. Front door assembly
- 3. Rear door outside molding

^` : Pawl

Refer to GI-4, "Components" for symbols in the figure.

# Removal and Installation

#### **REMOVAL**

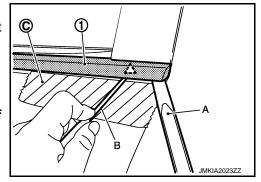
#### FRONT DOOR OUTSIDE MOLDING

- 1. Fully open door window.
- 2. Insert a remover tool (A) into lower space.
- 3. Disengage pawls of fixing front door outside molding (1) with flat blade screw driver (B).



#### **CAUTION:**

Apply protection tape (C) around outer circumference of front door.



EXT

Α

В

D

Е

F

Н

INFOID:0000000006259264

M

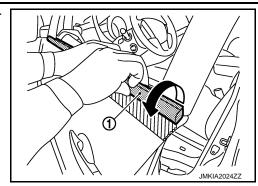
Ν

0

# DOOR OUTSIDE MOLDING

#### < REMOVAL AND INSTALLATION >

4. Twist and pull up to upper side, and then remove front door outside molding (1).



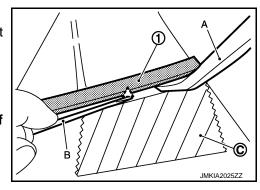
#### REAR DOOR OUTSIDE MOLDING

- 1. Fully open door window.
- 2. Insert a remover tool (A) into lower space.
- 3. Disengage pawls of fixing rear door outside molding (1) with flat blade screw driver (B).

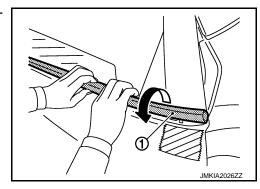


#### **CAUTION:**

Apply protection tape (C) around outer circumference of rear door.



4. Twist and pull up to upper side, and then remove rear door outside molding (1).

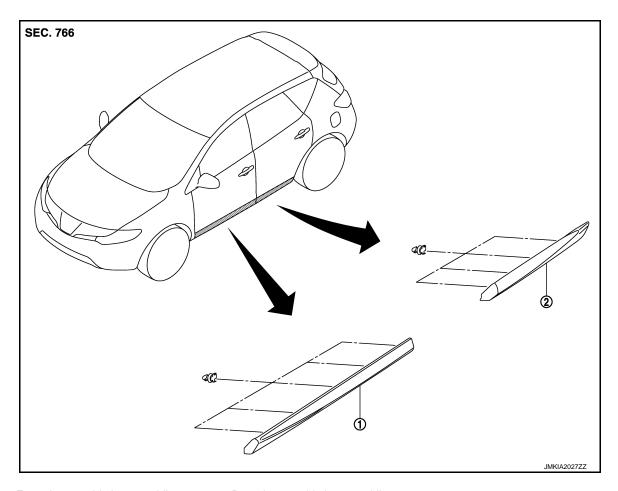


#### **INSTALLATION**

Install in the reverse order of removal.

# DOOR OUTSIDE LOWER MOLDING

Exploded View



1. Front door outside lower molding

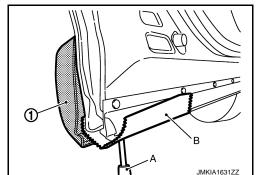
2. Rear door outside lower molding

#### Removal and Installation

## **REMOVAL**

#### FRONT DOOR OUTSIDE LOWER MOLDING

- Using a remover tool (A), disengage the clips from the front door outside lower molding (1) by starting from the rear.
  - **CAUTION:**
  - Apply a protective tape (B) on the door to protect the painted surface from damage.
  - Disengage the clips slowly and carefully.
  - Never pull the front door outside lower molding.



2. Remove front door outside lower molding.

REAR DOOR OUTSIDE LOWER MOLDING

EXT

M

Ν

INFOID:0000000006259266

Α

В

D

Е

Revision: 2011 November EXT-35 2011 MURANO

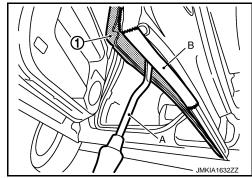
#### DOOR OUTSIDE LOWER MOLDING

#### < REMOVAL AND INSTALLATION >

1. Using a remover tool (A), disengage the clips from the rear door outside lower molding (1) by starting from the rear.

#### **CAUTION:**

- Apply a protective tape (B) on the door to protect the painted surface from damage.
- Disengage the clips slowly and carefully.
- Never pull the front door outside lower molding.



2. Remove rear door outside lower molding.

#### **INSTALLATION**

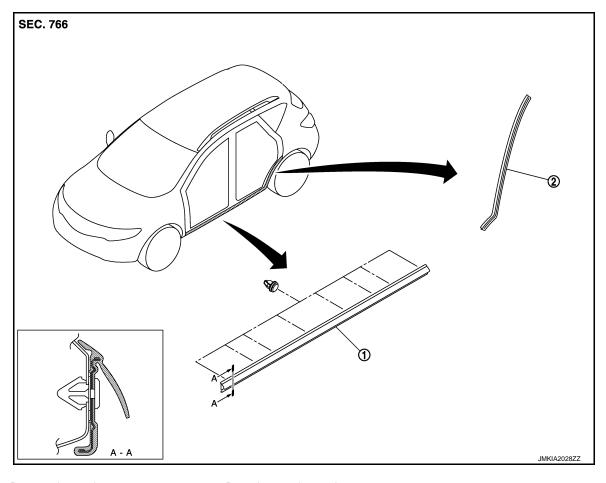
Install in the reverse order of removal.

#### **CAUTION:**

- When installing, check visually the door outside lower molding and the clips, then replace then with new parts if they have been damaged.
- When installing door outside lower molding, check that clips are securely fitted in panel holes on body, and then press them in.

# DOOR PARTING SEAL

**Exploded View** INFOID:0000000006259267



Door parting seal

Rear door parting seal

# Removal and Installation

## **REMOVAL**

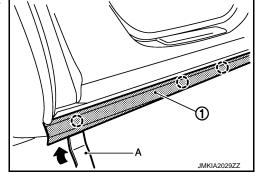
# DOOR PARTING SEAL

- 1. Fully open front door.
- 2. Using a remover tool (A), disengage the clips from the door parting seal (1).

#### **CAUTION:**

- Disengage the clips slowly and carefully.
- Never pull the door parting seal strongly.

( ) : Clip



3. Remove front door parting seal.

#### REAR DOOR PARTING SEAL

Fully open rear door.

**EXT-37** Revision: 2011 November **2011 MURANO** 

EXT

Α

В

D

Е

F

Н

INFOID:0000000006259268

M

Ν

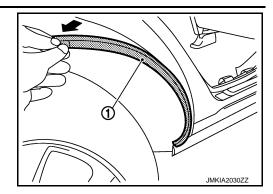
0

Ρ

#### **DOOR PARTING SEAL**

# < REMOVAL AND INSTALLATION >

 Remove rear door parting seal. Pull back rear door parting seal (1).



#### **INSTALLATION**

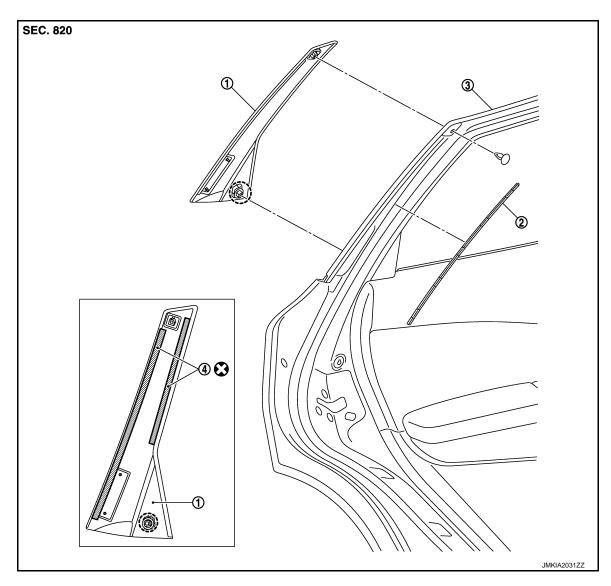
Install in the reverse order of removal.

#### **CAUTION:**

- When installing, check visually the fillet molding and the clips, then replace them with new parts if they have been damaged.
- When installing door parting seal, check that blind clips are securely fitted in panel holes on body, and then press them in.

# DOOR SASH COVER

Exploded View



1. Rear door sash cover

Double-faced adhesive tape

- 2. Rear door sash molding
- 3. Rear door assembly

(\_) : Clip

Refer to GI-4, "Components" for symbols in the figure.

# Removal and Installation

# **REMOVAL**

Remove rear door outside molding. Refer to <u>EXT-33</u>, "Removal and Installation".

EXT

Α

В

D

Е

L

M

N

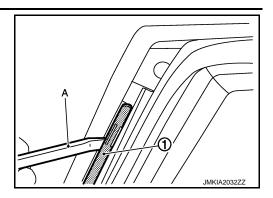
INFOID:0000000006259270

0

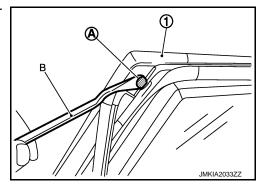
# **DOOR SASH COVER**

#### < REMOVAL AND INSTALLATION >

2. Remove rear door sash molding (1) with remover tool (A).



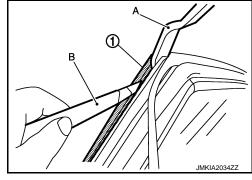
- 3. Remove rear door weather-strip (1) fixing clip (A) with remover tool (B).
- 4. Release roof portion of rear door weather-strip.



- 5. Release roof portion of glass run.
- Release rear door sash cover connection between rear door panel and cover (1), using a remover tool (A) and cutter knife (B), and take off double-faced adhesive tape.

#### **CAUTION:**

Never use a material for remover tool (A) which could damage door panel.



7. Remove rear door sash cover fixing clips, and then remove rear door sash cover.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Replace double-faced adhesive tape on back of cover with a new tape if rear door sash cover is reused.
- Never let air between contact surfaces when installing.
- Remove double-faced adhesive tape remaining on body and back of cover using double-faced adhesive tape remover when removing rear door sash cover.
- Install after cleaning adhesive parts of door side and back of rear door sash cover.
- To secure contact, do not wash vehicle within 24 hours after installation.