BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY

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PRECAUTIONS

< PRECAUTION >

PRECAUTION PRECAUTIONS

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 SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT 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 or batteries, and wait at least three minutes before performing any service.

Precaution for Procedure without Cowl Top Cover

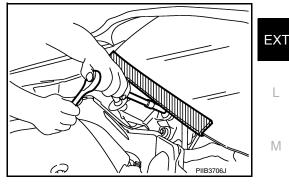
When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.

Precaution for Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- · Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.
- Oily dirt:

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PRECAUTIONS

< PRECAUTION >

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

Special Service Tools

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The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name		Description	
 (J-39570) Chassis Ear	AAAAAA AAAAAA	Locating the noise	
	SIIA0993E		
 (J-46534) Trim Tool Set		Removing trim components	
	AWJIA0483ZZ	Depairing the serves of poice	
— (J-50397) NISSAN Squeak and Rattle Kit	Ly entress & yearship	Repairing the cause of noise	
	ALJIA1232ZZ		_

Commercial Service Tool

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(TechMate No.) Tool name		Description	L
(J-39565)		Locating the noise	
Engine Ear			Μ
	SIIA0995E		Ν

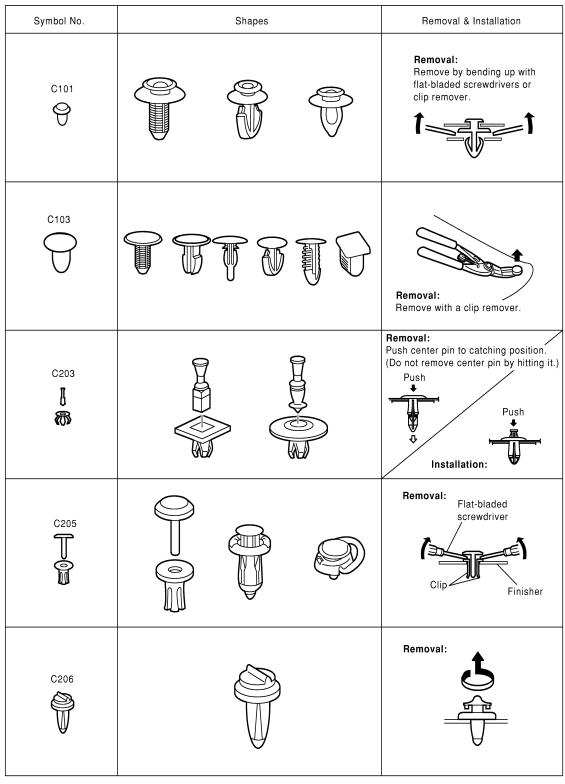
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CLIP LIST

Descriptions for Clips

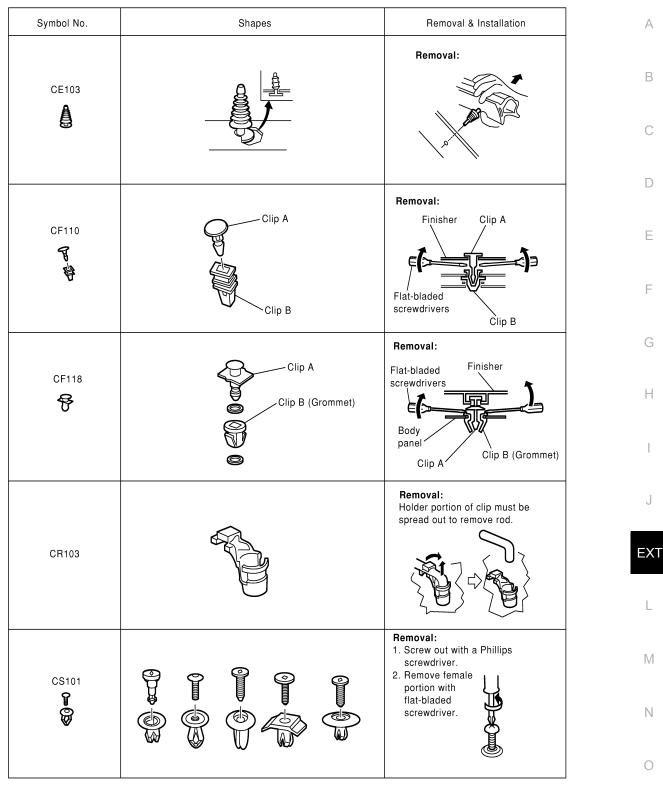
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Replace any clips which are damaged during removal or installation.



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Symbol No.	Shapes	Removal & Installation
CG101		Removal: Installation: Rotate 45° to remove Installation: Removal: Installation:
CS102	(A) Designed	
CS113		Removal: Disconnect upper connection of clip with a flat-bladed screwdriver, then remove clip while inserting a flat-bladed screwdriver between body panel and clip.
C111		

SIIA0317E

Symbol No.	Shapes	Removal & Installation
CG104		Removal: Remove by bending up with flat-bladed screwdrivers.
		Radiator grille Body panel
CE114		
	SP V	NV /
CF118	Clip A	Removal: Flat-bladed Finisher
	Clip B (Grommet)	Body panel Clip A Clip B (Grommet)

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

COMPONENT PARTS

ACTIVE GRILLE SHUTTER SYSTEM

ACTIVE GRILLE SHUTTER SYSTEM : Component Parts Location

A. Behind front bumper fascia

No.	Component	Reference
1.	ECM	Refer to EC-27, "ECM".
2.	ТСМ	Refer to TM-16, "CVT CONTROL SYSTEM : TCM".
3.	Active grille shutter	Refer to EXT-11. "ACTIVE GRILLE SHUTTER SYSTEM : Active grille shutter".

For the engine related component parts, refer to EC-22. "Component Parts Location".

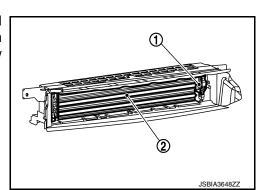
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COMPONENT PARTS

< SYSTEM DESCRIPTION >

ACTIVE GRILLE SHUTTER SYSTEM : Active grille shutter

Active grille shutter is located at front bumper lower opening, and according to the signal from ECM it operates actuator ① to perform open/close movement of flap ② to control the amount of air flow taken into engine compartment.



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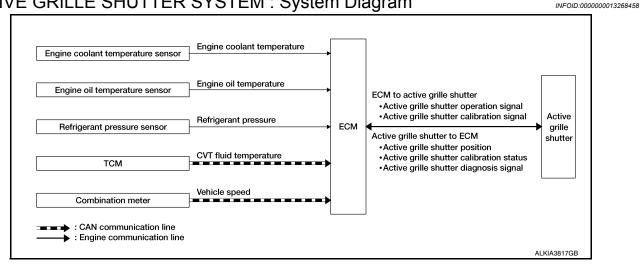
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SYSTEM

SYSTEM ACTIVE GRILLE SHUTTER SYSTEM ACTIVE GRILLE SHUTTER SYSTEM : System Diagram



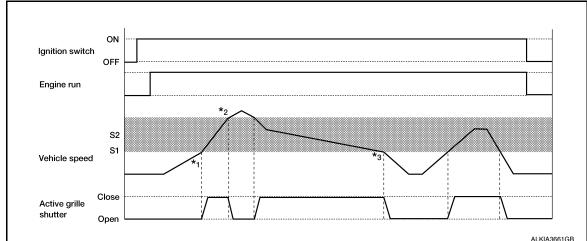
ACTIVE GRILLE SHUTTER SYSTEM : System Description

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While driving, the active grille shutter system closes shutter to reduce air flow to engine compartment for the purpose of reducing aerodynamic drag, and as a result, improves the vehicle's fuel efficiency.

ECM controls active grille shutter system by detecting vehicle status through respective modules and sensors. Active grille shutter actuator is equipped with self-diagnosis function. When a malfunction is detected, a signal is transmitted to the ECM and the ECM records the active grille shutter malfunction.

BASIC MOVEMENTS



- S1: 30 km/h (19 MPH)
- S2: Approx. 30 140 km/h (19 88 MPH)
- *1: Shutter initial position learning
- *2: Judgment of high vehicle speed
- *3: Judgment of low vehicle speed

DESCRIPTION OF MOVEMENTS

Active grille shutter is fully open when the vehicle stops or the ignition switch is turned OFF.

ECM operates the shutter to close position in order to perform shutter's initial position learning whenever the ignition switch is turned OFF \rightarrow ON and the engine is started. At the end of initial position learning ECM operates shutter to open position.

While driving, after the initial position learning ends, ECM operates the active grille shutter to close position when the operational conditions of active grille shutter are met.

While driving at high speed, ECM operates the shutter to open position when the vehicle reaches the specified speed in order to prevent the shutter from shutting up due to wind resistance.

SYSTEM

< SYSTEM DESCRIPTION >

When the vehicle speed is reduced below the specified speed ECM operates active grille shutter to open position.

NOTE:

- When any one of the conditions for opening the active grille shutter is satisfied, ECM performs active grille shutter initial position learning even when the vehicle speed is less than 30 km/h.
- ECM may perform active grille shutter initial position learning according to other diagnosis conditions.

ACTIVE GRILLE SHUTTER OPERATIONAL CONDITIONS

ECM operates active grille shutter to close position when all of the following conditions are met.

Item	Status	
Active grille shutter initial position learning	Complete	D
Vehicle speed	Approx. 30 - 140 km/h (19 - 88 MPH)	
Engine coolant temperature	Approx. less than 95°C (203°F)	F
Engine oil temperature	Approx. less than 140°C (284°F)	
CVT fluid temperature	Approx. less than 135°C (275°F)	
Cooling fan	OFF	F
Refrigerant pressure	0.98 MPa (10.0 kg/cm ² , 142.1 psi) or less	
Malfunction of engine coolant temperature sensor system	Not detected	G
Malfunction of engine oil temperature sensor system	Not detected	0
Malfunction of vehicle speed sensor system	Not detected	
Malfunction of CAN communication system	Not detected	Н

ECM operates active grille shutter to open position when one of the following conditions is met.

Item	Status	I
Vehicle speed	 22 km/h (14 MPH) or less 140 km/h (88 MPH) or more 	
Engine coolant temperature	Approx. 95°C (203°F) or more	
Engine oil temperature	Approx. 140°C (284°F) or more	
CVT fluid temperature	Approx. 135°C (275°F) or more	Ε>
Cooling fan	ON	
Refrigerant pressure	1.18 MPa (12.04 kg/cm ² , 171.1 psi) or more	
Malfunction of engine coolant temperature sensor system	Detected	L
Malfunction of engine oil temperature sensor system	Detected	
Malfunction of vehicle speed sensor system	Detected	N
Malfunction of CAN communication system	Detected	

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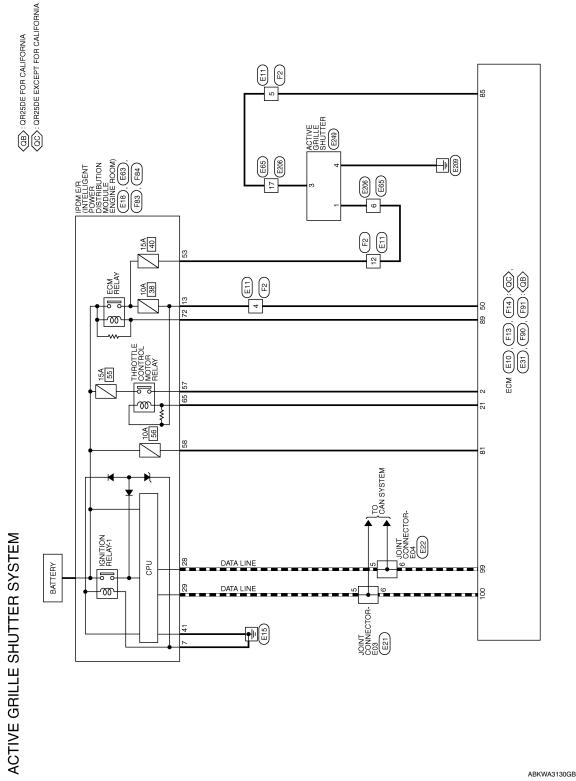
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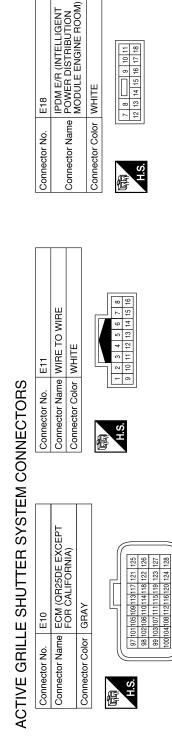
WIRING DIAGRAM ACTIVE GRILLE SHUTTER

Wiring Diagram

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Signal Name

Color of Wire

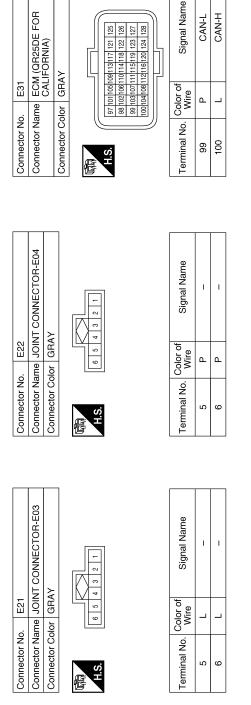
Terminal No.

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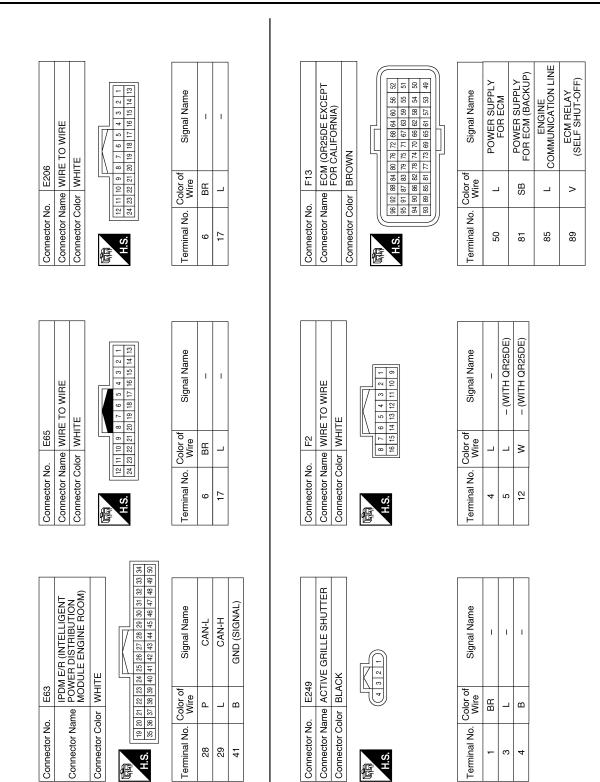
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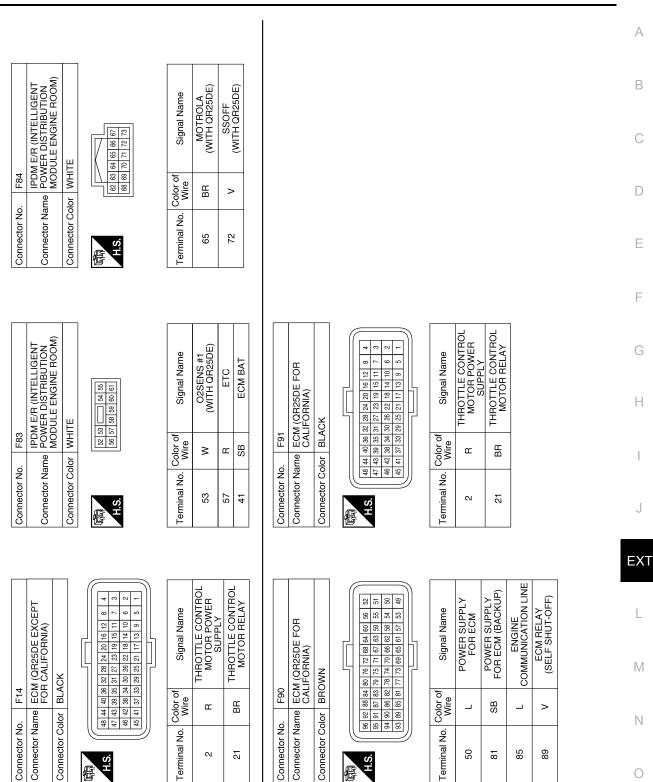
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ACTIVE GRILLE SHUTTER

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ACTIVE GRILLE SHUTTER

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< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow

Customer Interview Duplicate the Noise and Test Drive. Check Related Service Bulletins. Locate the Noise and Identify the Root Cause. Repair the Cause. NG Confirm Repair. OK Inspection End

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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 customer's comments; refer to <u>EXT-22</u>, "<u>Diagnostic Worksheet</u>". 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, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving 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 bumble bee) Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you 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

< PERIODIC MAINTENANCE >

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 you confirm the repair.	А
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.	В
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".	С
5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on CVT and 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. 	D
CHECK RELATED SERVICE BULLETINS	E
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.	F
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: J-39565 and mechanic's stethoscope).	G
 Narrow down the noise to a more specific area and identify the cause of the noise by: removing the components in the area that you suspect the noise is coming from. 	
Do not use too much force when removing clips and fasteners, otherwise clips and fasteners can be broken or lost during the repair, resulting in the creation of new noise.	Н
 tapping or pushing/pulling the component that you suspect is causing the noise. Do not tap or push/pull the component with excessive force, otherwise the poise will be eliminated only. 	
Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.	
• feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the	
noise. placing a piece of paper between components that you suspect are causing the noise. 	J
 looking for loose components and contact marks. 	0
Refer to EXT-19, "Generic Squeak and Rattle Troubleshooting".	
REPAIR THE CAUSEIf the cause is a loose component, tighten the component securely.	EXT
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-50397) is available through your authorized NISSAN Parts Depart- 	L
ment. CAUTION:	M
Do not use excessive force as many components are constructed of plastic and may be damaged.	1 1 1
NOTE:	
 Always check with the Parts Department for the latest parts information. The materials contained in the NISSAN Squeak and Rattle Kit (J-50397) are listed on the inside cover of the kit; and can each be ordered separately as needed. 	Ν
 The following materials not found in the kit can also be used to repair squeaks and rattles. 	0
 SILICONE GREASE: Use instead of UHMW tape that will be visible or does not fit. The silicone grease will only last a few months. 	0
 SILICONE SPRAY: Use when grease cannot be applied. DUCT TAPE: Use to eliminate movement. 	Р
CONFIRM THE REPAIR	I
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.	
Generic Squeak and Rattle Troubleshooting	
Refer to Table of Contents for specific component removal and installation information.	

< PERIODIC MAINTENANCE >

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

- 1. Cluster lid A and the instrument panel
- 2. Acrylic lens and combination meter housing
- 3. Instrument panel to front pillar finisher
- 4. Instrument panel to windshield
- 5. Instrument panel pins
- 6. Wiring harnesses behind the combination meter
- 7. 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 silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

CAUTION:

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

CENTER CONSOLE

Components to pay attention to include:

- 1. Shift selector assembly cover to finisher
- 2. A/C control unit and cluster lid C
- 3. 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:

- 1. Finisher and inner panel making a slapping noise
- 2. Inside handle escutcheon to door finisher
- 3. 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. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the NISSAN Squeak and Rattle Kit (J-50397) to repair the noise.

TRUNK

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

- 1. Trunk lid bumpers out of adjustment
- 2. Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 4. 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:

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- 2. Sun visor 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.

OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage. In addition look for:



< PERIODIC MAINTENANCE >

- 1. Loose harness or harness connectors.
- 2. Front console map/reading lamp lens loose.
- 3. Loose screws at console attachment points.

SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. 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:

- 1. Any component installed to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator installation 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.

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< PERIODIC MAINTENANCE >

Diagnostic Worksheet

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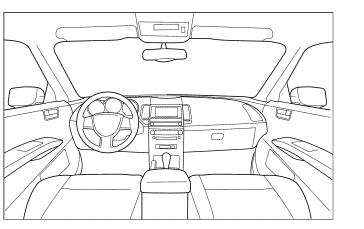
Dear Customer:

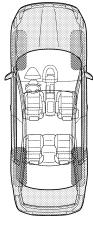
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

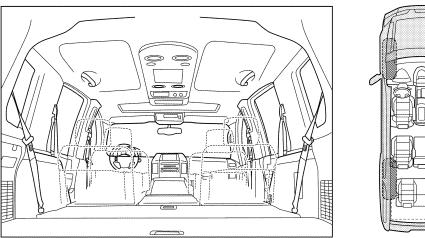
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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.

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< PERIODIC MAINTENANCE >

	noise occurs	:		
. WHEN DOES IT OCCUR? (please	check the bo	xes that app	oly)	
Anytime	🗆 Af	ter sitting ou	ut in the rai	n
☐ 1st time in the morning	Πw	hen it is rain	ning or wet	
Only when it is cold outside	🗌 Dr	y or dusty c	onditions	
Only when it is hot outside	🗌 Ot	her:		
II. WHEN DRIVING:	IV. W	HAT TYPE (OF NOISE	:
☐ Through driveways	🗆 Sc	queak (like te	ennis shoe	s on a clean floor)
Over rough roads	🗌 Cr	eak (like wa	lking on ar	n old wooden floor)
Over speed bumps	🗌 Ra	attle (like sha	aking a bab	oy rattle)
Only about mph		iock (like a k		
On acceleration	🗌 Tic	ck (like a clo	ck second	hand)
Coming to a stop		ump (heavy		
On turns: left, right or either (circle)) 🛛 🖾 Bu	ızz (like a bu	imble bee)	
With passengers or cargo				
☐ Other:				
After driving miles or r	minutes			
	P PERSONN	EL		
U BE COMPLETED BY DEALERSHI				
O BE COMPLETED BY DEALERSHI				
		YES	NO	Initials of person performing
Test Drive Notes:		YES	NO	Initials of person performing
est Drive Notes:		YES	NO	Initials of person performing
		YES	NO	Initials of person performing
Fest Drive Notes: /ehicle test driven with customer - Noise verified on test drive	nfirm repair	YES	NO	Initials of person performing
Test Drive Notes: /ehicle test driven with customer - Noise verified on test drive - Noise source located and repaired	·			performing

This form must be attached to Work Order

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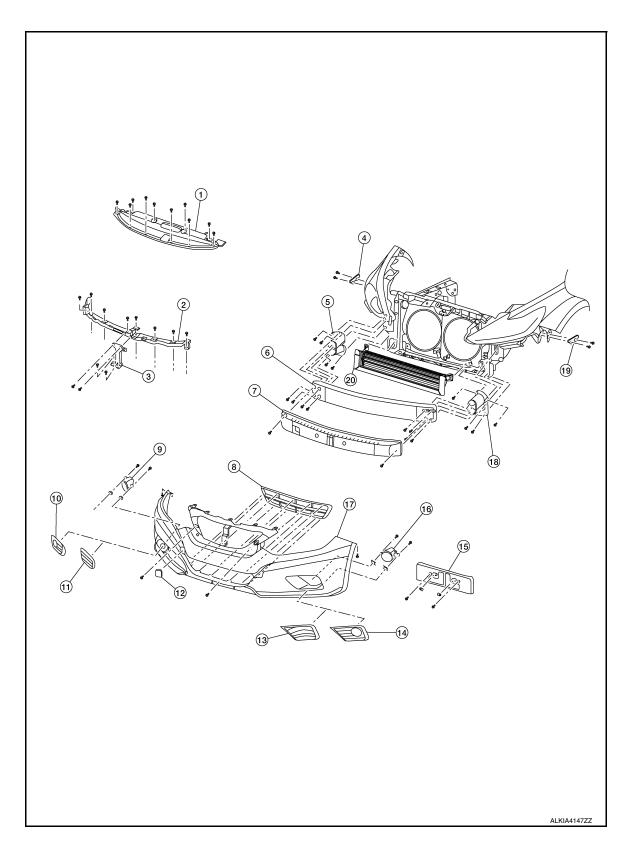
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< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION FRONT BUMPER

Exploded View

INFOID:000000012592597



< REMOVAL AND INSTALLATION >

- 1. Core support cover
- 4. Front bumper fascia side bracket 5. (RH)
- 7. Front energy absorber
- 10. Front fog lamp finisher (RH) (if equipped)
- Front bumper fascia finisher (LH) (w/o fog lamps)
- 16. Front fog lamp (LH) (if equipped)
- 19. Front bumper fascia side bracket 20. Active grille shutter (LH)

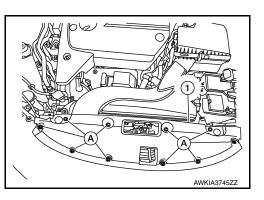
- 2. Front bumper fascia upper retain- 3. er bracket
 - . Front bumper reinforcement sup- 6. port (RH)
- 8. Front bumper lower grille
- 11. Front bumper fascia finisher (RH) 12. (w/o fog lamps)
- 14. Front fog lamp finisher (LH) (if equipped)
- 17. Front bumper fascia

- Front bumper reinforcement
- Front bumper reinforcement
- Front fog lamp (RH) (if equipped)
 Tow cover
- 15. Front license plate bracket
- Front bumper reinforcement support (LH)

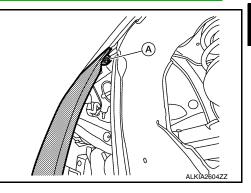
Removal and Installation

REMOVAL

1. Remove the core support cover clips (A), then remove the core support cover (1).

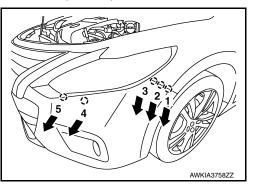


- Partially remove the front fender protectors (LH/RH). Refer to <u>EXT-36. "FENDER PROTECTOR :</u> <u>Removal and Installation"</u>.
- 3. Remove the front under cover. Refer to EXT-38, "FRONT UNDER COVER : Removal and Installation".
- 4. Remove the front bumper fascia to fender screw (A) (LH/RH).



- 5. Disconnect the harness connectors from front fog lamps (LH/RH) (if equipped).
- 6. Release the front bumper fascia from the front bumper fascia side brackets (LH/RH).
- Remove the front bumper fascia by releasing in the order shown.
 CAUTION:

When removing front bumper fascia, two people are required to avoid damaging.



2016 Altima Sedan

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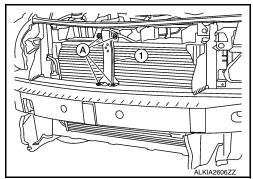
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< REMOVAL AND INSTALLATION >

- 8. Disconnect the harness connectors from front sonar sensors (if equipped).
- 9. Remove the front energy absorber.
- 10. Remove the front bumper reinforcement bracket bolts (A) and the front bumper reinforcement bracket (1).

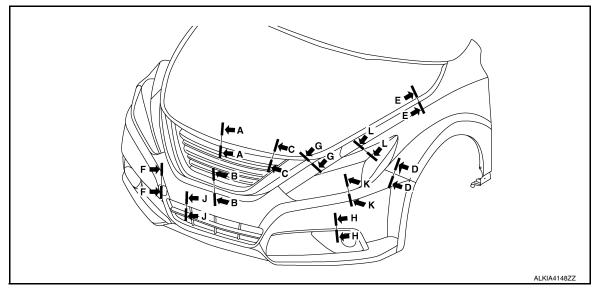


- 11. Remove the front bumper reinforcement nuts (LH/RH), then the front bumper reinforcement.
- 12. Remove the front bumper support bolts, then the front bumper reinforcement supports (LH/RH).
- 13. Remove the following parts after removing front bumper fascia.
 - Front grille. Refer to EXT-31, "Removal and Installation".
 - Front bumper fascia (LH/RH) finisher (if equipped)
 - Tow cover
 - Front fog lamp finishers (LH/RH) (if equipped)
 - Front fog lamp (LH/RH) (if equipped). Refer to EXL-119, "Removal and Installation".
 - Front bumper fascia side brackets (LH/RH)
 - Front license plate bracket (if equipped)

INSTALLATION

Installation is in the reverse order of removal.

· Adjust fog lamp aiming (if equipped). Refer to EXL-115, "Aiming Adjustment".



mm (in)

Section	Measurement	Minimum	Target Value	Maximum
A-A	Clearance	3.9 (0.15)	6.0 (0.24)	8.1 (0.32)
B-B	Clearance	0.6 (0.02)	2.0 (0.08)	3.4 (0.13)
C-C	Clearance	3.9 (0.15)	6.0 (0.24)	8.1 (0.32)
C-C	Surface height	1.4 (0.06)	3.0 (0.12)	4.6 (0.18)
D-D	Clearance	0.3 (0.01)	0.3 (0.01)	1.0 (0.04)
D-D	Surface height	-1.7 (-0.07)	-0.7 (-0.03)	0.3 (0.01)
E-E	Clearance	2.5 (0.10)	3.5 (0.14)	4.5 (0.18)



< REMOVAL AND INSTALLATION >

Section	Measurement	Minimum	Target Value	Maximum	
E-E	Surface height	-1.0 (-0.04)	0.0 (0.00)	1.0 (0.04)	
F-F	Clearance	0.0 (0.00)	0.5 (0.02)	1.0 (0.04)	
F-F	Surface height	-0.2 (-0.01)	0.3 (0.01)	0.8 (0.03)	
G-G	Clearance	0.1 (0.00)	1.7 (0.07)	3.3 (0.13)	
H-H	Clearance	0.3 (0.01)	1.3 (0.05)	2.3 (0.09)	
J-J	Clearance	0.1 (0.00)	1.0 (0.04)	1.9 (0.07)	
K-K	Clearance	0.2 (0.01)	1.5 (0.06)	3.2 (0.13)	
L-L	Clearance	0.1 (0.00)	1.5 (0.06)	2.9 (0.11)	
L-L	Surface height	-1.5 (-0.06)	0.0 (0.00)	1.5 (0.06)	

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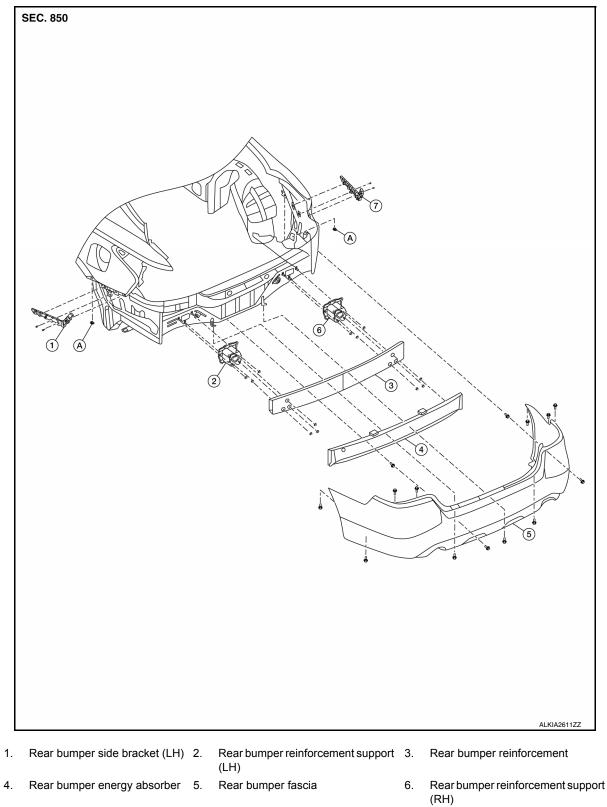
REAR BUMPER

< REMOVAL AND INSTALLATION >

REAR BUMPER

Exploded View

INFOID:000000012592599



7. Rear bumper side bracket (RH) A. Clip

REAR BUMPER

< REMOVAL AND INSTALLATION >

Removal and Installation

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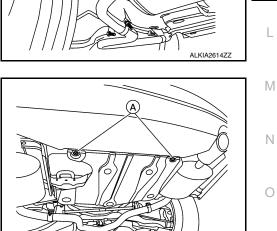
REMOVAL

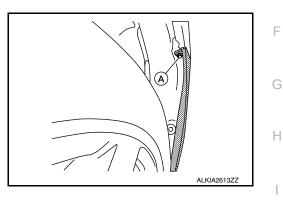
- 1. Remove the rear combination lamps (LH/RH). Refer to EXL-125, "Removal and Installation".
- 2. Remove the rear bumper fascia clips (A) and screws (B) (LH/ RH).

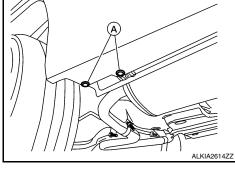
3. Remove the rear bumper fascia upper side screws (A) (LH/RH).

4. Remove rear bumper fascia lower side clips (A) (LH/RH).

5. Remove the rear bumper fascia lower rear clips (A).



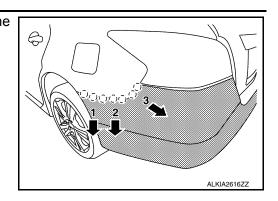




REAR BUMPER

< REMOVAL AND INSTALLATION >

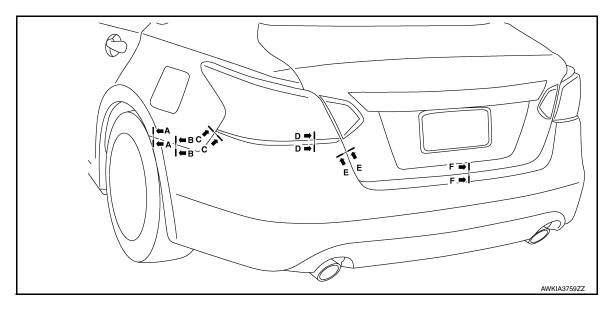
Pull rear bumper fascia outward in the order as shown by the arrows to release from rear bumper side brackets (LH/RH).
 (_): Pawl



- 7. Disconnect the harness connectors from rear sonar sensors.
- Remove the rear bumper fascia.
 CAUTION: When removing rear bumper fascia, two people are required to avoid damaging.
- 9. Remove the rear bumper side brackets (LH/RH).
- 10. Remove rear bumper energy absorber.
- 11. Remove the rear bumper reinforcement nuts (LH/RH) and the rear bumper reinforcement.
- 12. Remove the nuts and the rear bumper supports (LH/RH).

INSTALLATION

Installation is in the reverse order of removal.



mm (in)

Section	Measurement	Minimum	Target Value	Maximum
A-A	Clearance	0.3 (0.01)	0.3 (0.01)	1.0 (0.04)
A-A	Surface height	-1.7 (-0.07)	-0.7 (-0.03)	0.3 (0.01)
B-B	Clearance	0.3 (0.01)	0.3 (0.01)	1.0 (0.04)
B-B	Surface height	-1.7 (-0.07)	-0.7 (-0.03)	0.3 (0.01)
C-C	Clearance	0.3 (0.01)	0.3 (0.01)	1.0 (0.04)
C-C	Surface height	-1.7 (-0.07)	-0.7 (-0.03)	0.3 (0.01)
D-D	Clearance	0.5 (0.02)	2.0 (0.08)	3.5 (0.14)
D-D	Surface height	-1.5 (-0.06)	0.0 (0.00)	1.5 (0.06)
E-E	Clearance	4.0 (0.16)	6.0 (0.24)	8.0 (0.31)
F-F	Clearance	4.0 (0.16)	6.0 (0.24)	8.0 (0.31)

FRONT GRILLE

< REMOVAL AND INSTALLATION >

FRONT GRILLE

Exploded View

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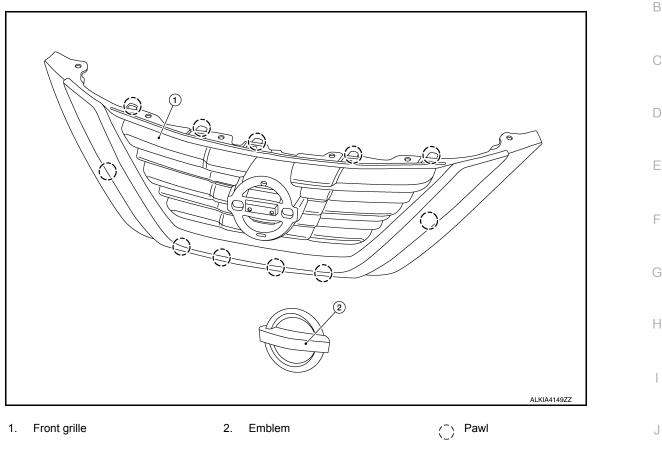
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Removal and Installation

REMOVAL

- 1. Remove core support cover. Refer to EXT-25, "Removal and Installation".
- 2. Release the front grille pawls from the front bumper fascia and remove.
- 3. Remove the front grille emblem (if necessary).

INSTALLATION

Installation is in the reverse order of removal.

ACTIVE GRILLE SHUTTER

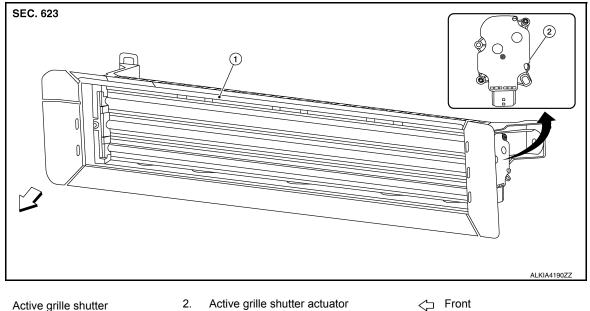
< REMOVAL AND INSTALLATION >

ACTIVE GRILLE SHUTTER

Exploded View

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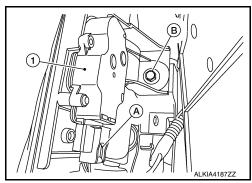
1. Active grille shutter

Active grille shutter actuator 2.

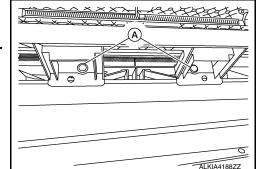
Removal and Installation

REMOVAL

- Remove bolts and partially detach front under cover. Refer to EXT-38, "Exploded View". 1.
- 2. Disconnect the harness connector (A) from the active grille shutter actuator (1).
- Remove the active grille shutter nut [(B) (LH/RH)]. 3.



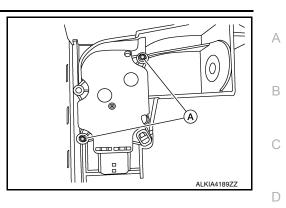
- 4. Remove the active grille shutter clips (A). **CAUTION:**
 - Do not damage active grille shutter clips.
 - Replace any active grille shutter clips that are broken or damaged.



ACTIVE GRILLE SHUTTER

< REMOVAL AND INSTALLATION >

5. Remove active grille shutter actuator bolts (A) then remove (if necessary).



INSTALLATION Installation is in the reverse order of removal.

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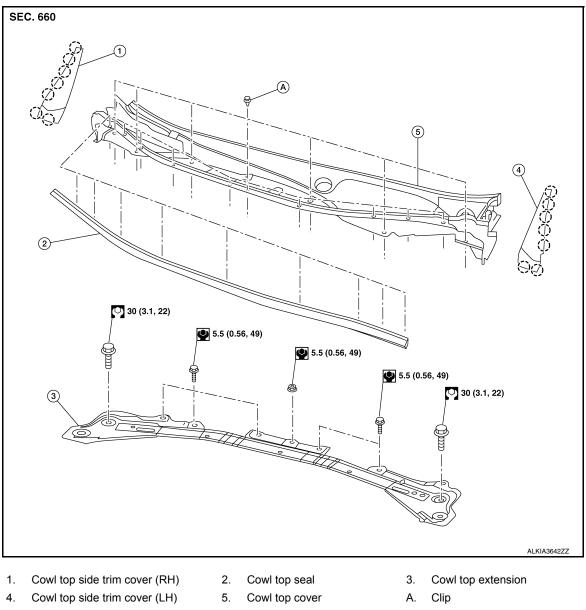
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COWL TOP

Exploded View

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() Pawl

Removal and Installation

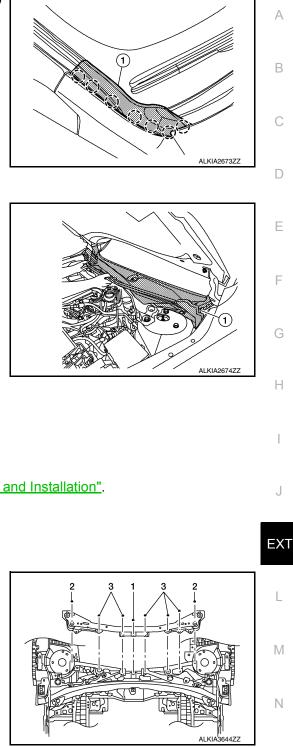
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COWL TOP COVER

Removal

- 1. Remove front wiper arms (LH/RH). Refer to WW-48. "Removal and Installation".
- 2. Release the cowl top seal clips, then remove the cowl top seal.

Release the pawls, then remove cowl top side trim covers (1) (LH/RH).
 (⁻): Pawl



- 4. Remove cowl top cover clips.
- 5. Pull forward to release cowl top cover (1) and remove.

Installation

Installation is in the reverse order of removal.

COWL TOP EXTENSION

Removal

- 1. Remove front wiper drive assembly. Refer to <u>WW-54, "Removal and Installation"</u>.
- 2. Remove cowl top extension bolts and cowl top extension.

Installation

Installation is in the reverse order of removal

NOTE:

Tighten cowl top extension bolts in numerical sequence as shown.

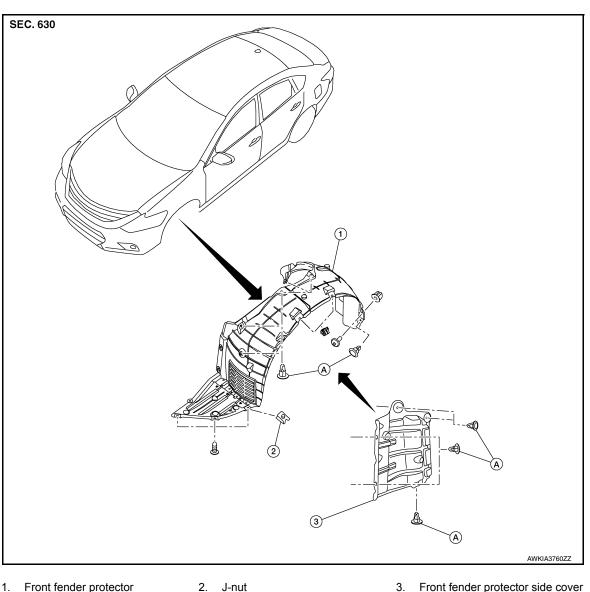
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FENDER PROTECTOR FENDER PROTECTOR

FENDER PROTECTOR : Exploded View

INFOID:000000012592605



1. Front fender protector

A. Clip

FENDER PROTECTOR : Removal and Installation

INFOID:000000012592606

REMOVAL

- 1. Remove the mudguard. Refer to EXT-40, "Removal and Installation".
- Remove rivets securing the fender protector to the front under cover. 2. **CAUTION:**

Do not attempt to forcibly separate the fender protector from the front under cover. Utilize a drill to remove the rivets.

3. Release the front fender protector clips and screws, then remove the front fender protector.

INSTALLATION

Installation is in the reverse order of removal. **CAUTION:**

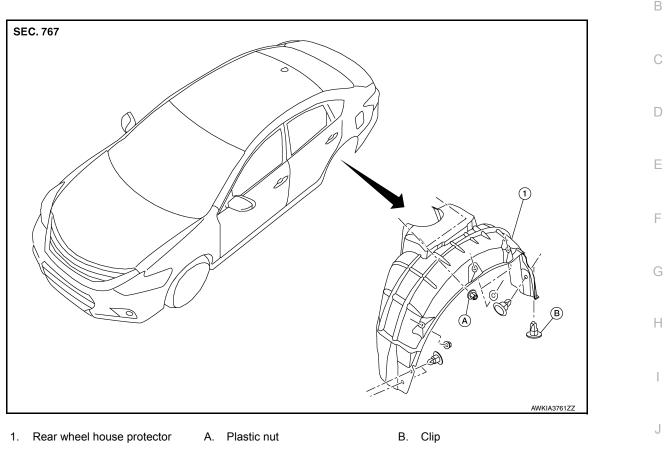
Replace rivets utilized to secure the fender protector to the front under cover.

Revision: November 2015

EXT-36

2016 Altima Sedan

REAR WHEEL HOUSE PROTECTOR REAR WHEEL HOUSE PROTECTOR : Exploded View



REAR WHEEL HOUSE PROTECTOR : Removal and Installation

REMOVAL

- 1. Remove the rear tires. Refer to WT-54, "Adjustment".
- 2. Remove the mudguard. Refer to EXT-40, "Removal and Installation".
- 3. Release the rear wheel house protector clips and plastic nuts, then remove the rear wheen house protector.

INSTALLATION

Installation is in the reverse order of removal.

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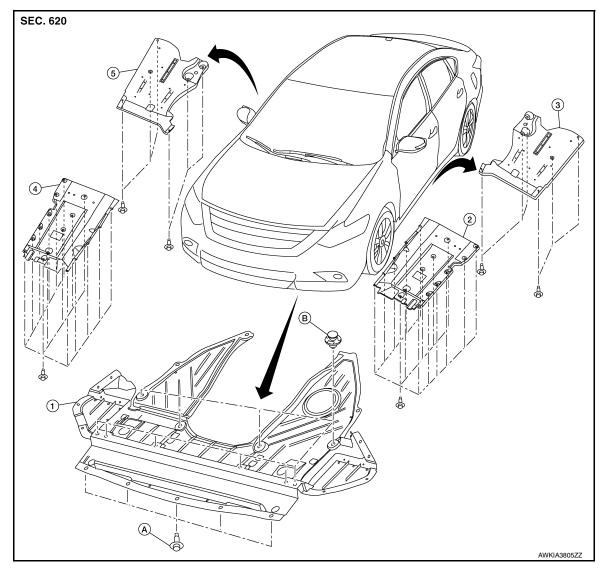
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UNDER COVER

Exploded View

INFOID:000000013043273



- 1. Front under cover
- 4. Floor under cover (RH) (if equipped)
- B. Screws

- 2. Floor under cover (LH) (if equipped)
 - Rear under cover (RH) (if A equipped)
- 3. Rear under cover (LH) (if equipped)
 - A. Clip

FRONT UNDER COVER

FRONT UNDER COVER : Removal and Installation

REMOVAL

1. Remove rivets securing the front under cover to the fender protector. CAUTION:

Do not attempt to forcibly separate the front under cover from the fender protector. Utilize a drill to remove the rivets.

2. Remove the front under cover clips and screws, then remove front under cover.

5.

INSTALLATION



INFOID:000000013043274

UNDER COVER

< REMOVAL AND INSTALLATION >		
Installation is in the reverse order of removal. CAUTION: Replace rivets utilized to secure the front under cover to the fender protector. FLOOR UNDER COVER		A
FLOOR UNDER COVER : Removal and Installation	INFOID:000000013043275	В
REMOVAL Remove the floor under cover bolts and remove.		С
INSTALLATION Installation is in the reverse order of removal. REAR UNDER COVER		D
REAR UNDER COVER : Removal and Installation	INFOID:000000013043276	Е
REMOVAL Remove the rear under cover bolts and remove.		F
INSTALLATION Installation is in the reverse order of removal.		I
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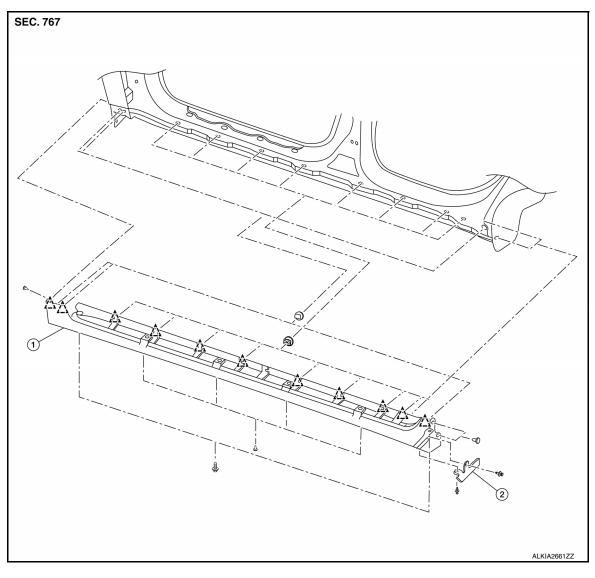
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< REMOVAL AND INSTALLATION > MUDGUARD

Exploded View

INFOID:000000012592613



1. Center mudguard

2. Rear wheel wind deflector

Clips کے ک

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Removal and Installation

REMOVAL

- 1. Remove the center mudguard clips located on the under body.
- 2. Remove the center mudguard screws and the center mudguard.

INSTALLATION

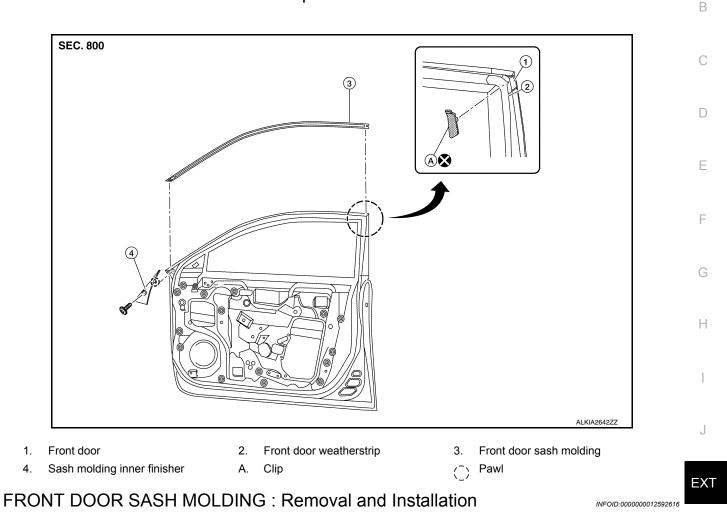
Installation is in the reverse order of removal.

INFOID:000000012592614



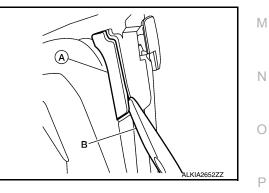
DOOR SASH MOLDING FRONT DOOR SASH MOLDING

FRONT DOOR SASH MOLDING : Exploded View



REMOVAL

- 1. Remove the door mirror assembly. Refer to MIR-20, "Removal and Installation".
- Remove the clip (A) using a suitable tool (B).
 CAUTION: Do not reuse the clip (A).



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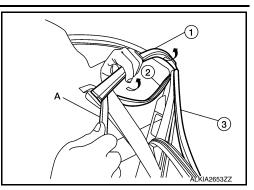
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INFOID:000000012592615

DOOR SASH MOLDING

< REMOVAL AND INSTALLATION >

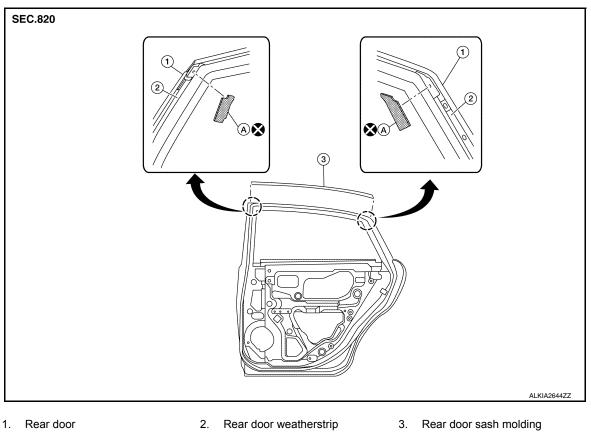
- 3. Reposition the front door weatherstrip (2).
- 4. Reposition the front door rubber run (3).
- 5. Remove the front door sash molding (1) using a suitable tool (A), starting at the lower rear edge and rotating towards the top of the door as shown and remove.



INSTALLATION Installation is in the reverse order of removal. REAR DOOR SASH MOLDING

REAR DOOR SASH MOLDING : Exploded View

INFOID:000000012592617



A. Rear door clip (front/rear)

REAR DOOR SASH MOLDING : Removal and Installation

INFOID:000000012592618

REMOVAL

1. Remove the rear door finisher. Refer to INT-18, "Removal and Installation".

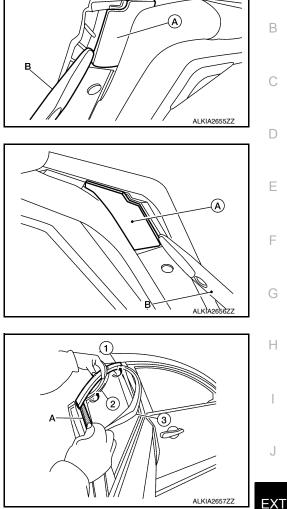
DOOR SASH MOLDING

< REMOVAL AND INSTALLATION >

 Remove the rear door front clip (A) using a suitable tool (B) and remove.
 CAUTION: Do not reuse the clip (A).

Remove the rear door rear clip (A) using a suitable tool (B) and remove.
 CAUTION:
 Do not reuse the clip (A).

- 4. Reposition the rear door weatherstrip (2).
- 5. Reposition the rear door rubber run (3).
- 6. Remove the rear door sash molding (1) using a suitable tool (A), starting at the lower rear edge and rotating towards the top of the door as shown and remove.



INSTALLATION Installation is in the reverse order of removal.

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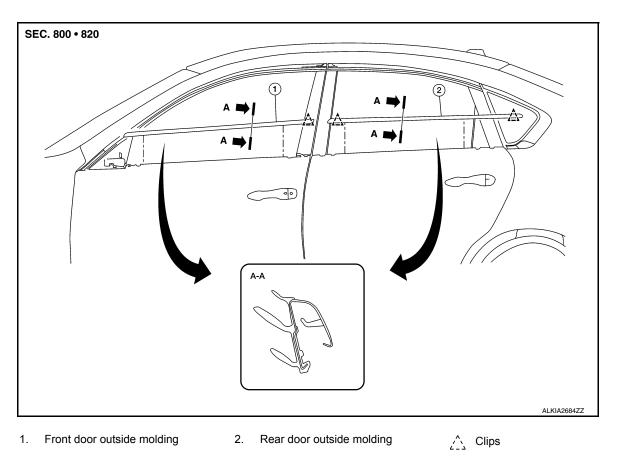
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DOOR OUTSIDE MOLDING

Exploded View

INFOID:000000012592619



Removal and Installation

INFOID:000000012592620

FRONT DOOR OUTSIDE MOLDING

Removal

- 1. Remove the door mirror assembly. Refer to <u>MIR-20, "Removal and Installation"</u>.
- 2. Lift and twist from rear side, disconnect clips from flange and pull the front door outside molding toward rear of the vehicle.

Installation

Installation is in the reverse order of removal.

REAR DOOR OUTSIDE MOLDING

Removal

- 1. Remove the rear door finisher. Refer to <u>INT-18. "Removal and Installation"</u>.
- 2. Lift and twist from rear side, disconnect clips from flange and pull the rear door outside molding out.

Installation

Installation is in the reverse order of removal.

ROOF SIDE MOLDING

< REMOVAL AND INSTALLATION >

ROOF SIDE MOLDING

Exploded View

INFOID:000000012592621

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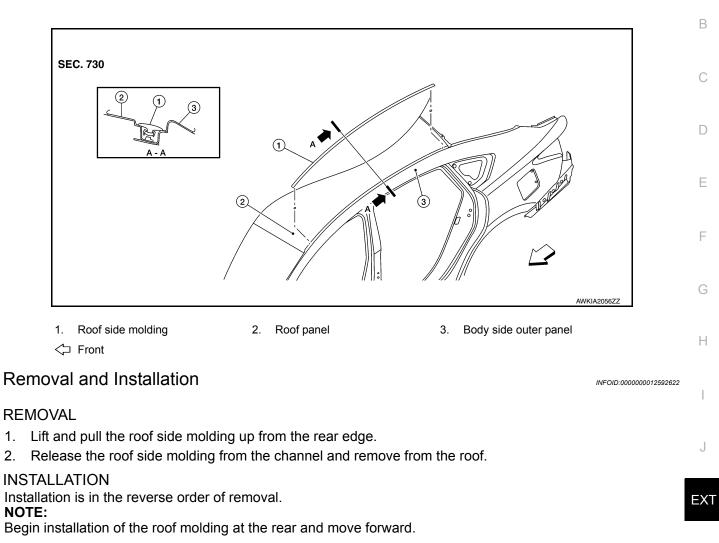
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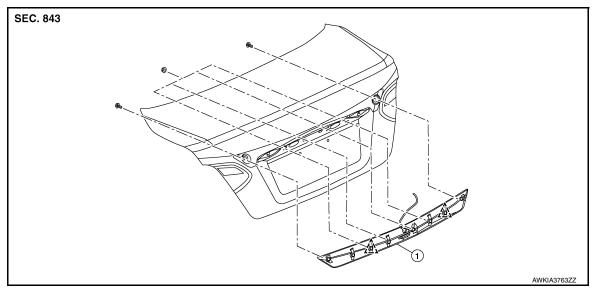
LICENSE LAMP FINISHER

< REMOVAL AND INSTALLATION >

LICENSE LAMP FINISHER

Exploded View

INFOID:000000012592623



1. License lamp finisher $\bigwedge_{L=2}^{\wedge}$ Clip

Removal and Installation

INFOID:000000012592624

REMOVAL

- 1. Remove the trunk lid finisher (if equipped). Refer to <u>INT-33, "TRUNK LID FINISHER : Removal and Instal-</u> lation".
- 2. Remove the license lamp finisher nuts and bolts.
- 3. Remove license lamp finisher by pulling toward the rear, then disconnect the harness connector from the trunk opener request switch and remove.

INSTALLATION

Installation is in the reverse order of removal.

REAR SPOILER

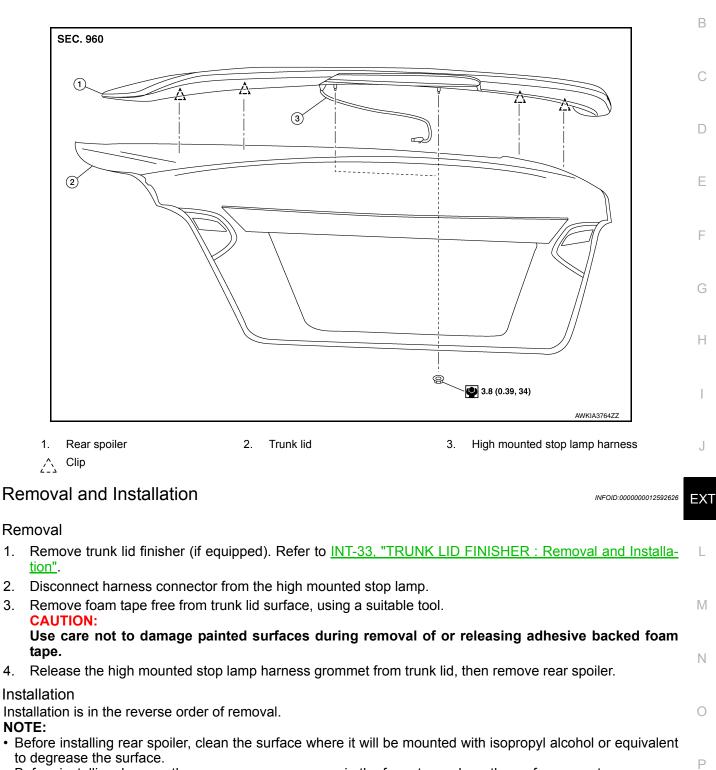
< REMOVAL AND INSTALLATION >

REAR SPOILER

Exploded View

INFOID:000000012592625

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- Before installing, be sure there are no gaps or waves in the foam tape where the surfaces meet.
- During installation, be sure grommet of high mounted stop lamp harness is fully seated into trunk lid opening prior to final rear spoiler assembly placement.

1.

3.