

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Center Applique Nuts	6 N·m	53 lb in
Grille Screws	9 N·m	80 lb in
High Mount Stop Lamp	2 N·m	18 lb in
Liftgate Applique Bolts	2.3 N·m	20 lb in
Rear License Plate Wiring Harness Bolt	2.3 N·m	20 lb in
Rocker Panel Finish Panel Screws	1.5 N·m	13 lb in
Rear Spoiler Nuts	6 N·m	53 lb in

Emblem/Nameplate Repair

Caution: Use of harsh chemicals when cleaning can damage exterior lamps. Suggested cleaners are a mild soap and water, or Varnish Makers and Painters (VM&P) Naptha. VM&P Naptha is a specific type of naptha and should not be substituted by any other naptha.

1. Wash the panel using soap and water.
2. Wipe the panel dry.
3. Use a clean rag and 3M General Purpose Adhesive Cleaner 08984 or the equivalent in order to wipe the panel and the adhesive side of the emblem/nameplate.
4. Use a clean rag and an alcohol/water mixture in order to remove residue from the following components:
 - The molding
 - The emblem
 - The nameplate

Caution: If tape is still intact on the molding or panel, do not remove the tape. Clean the tape and the mating surface with Adhesive Cleaner. Wipe the tape and mating surface with a clean, soft cloth. If the tape is damaged, refer to Emblem/Nameplate Replacement.

5. Apply a length of masking tape or a magnetic strip as a guide, if needed.

Caution: Use the minimum amount of adhesive required. Adhesive drips or squeeze-out may cause paint damage.

6. Apply a thin film of adhesive to the back of the emblem/nameplate.
 - The molding
 - The emblem
 - The nameplate
7. Press the piece into place.

If you use the LOCTITE™ 414 adhesive GM P/N 1052621 (Canadian P/N 993365) or the equivalent, apply constant pressure to the molding for 30 seconds or until a firm bond has been made.

Paint Protective Film Replacement (VGC)

1. The paint protective film and vehicle surface temperature should be 13-32°C (55-90°F) for best results.
2. Automatic car washes should be avoided for at least 24 hours after the paint protective film application.
3. Wipe the vehicle surface with isopropyl alcohol or flash naphtha at the application area.
4. Dry the surface with a clean lint-free cloth.
5. Create a mixture of 25 percent isopropyl alcohol and 75 percent water and two drops of baby shampoo per 16 oz of fluid mixture.
6. Remove the backing liner from the protective film patch.
7. Use the solution to liberally spray the adhesive side of the protective patch, the mounting location along with your hands.
8. Position the paint protective film patch to the desired location on the vehicle.
9. Spray the surface of the film with the alcohol, water and soap solution.
10. Using a dampened squeegee, start at the center of the protective patch, working outward in order to remove the air and solution from under the protective patch.
11. Release any air bubbles with a pin.
12. Dry the surface with a clean, lint-free cotton cloth.

Front Door Frame Applique Replacement (Enclave)

Stripes or Decals

The stripes and decals adhere to a painted surface using pressure sensitive adhesive.

The use of a wetting solution aids the technician in lifting and positioning the stripe or decal during the installation. The wetting solution ensures a better bond between the stripe or decal and the panel assembly. Use a wetting solution when applying large stripe and decal packages.

Complete the following procedures before you apply a stripe or a decal:

1. Place the front door window in the full down position.
 2. Remove the front door outer belt sealing strip. Refer to [Front Side Door Window Belt Outer Sealing Strip Replacement](#) .
 3. Remove the front door window inner sealing strip. Refer to [Front Side Door Window Belt Inner Sealing Strip Replacement](#) .
- Metal repair or refinishing after a collision
 - Painting the underlying surface

Maintain a temperature 21-38°C (70-100°F) on the body surfaces and the decals prior to installation. The decal requires auxiliary heat sources in order to warm the body surfaces and decals. If the temperature is below 21°C (70°F) the decal may not adhere to the body surface properly.

Important: You may apply stripes or decals using the dry method. Use the wet method if the dry method does not result in a bubble free application. This may be the case in large graphics packages.

Use the wet method in order to apply the stripes or decals that are applied on flexible surfaces (fascias, etc.). This will reduce the formation of bubbles under the decal due to the outgassing potential of the flexible materials.

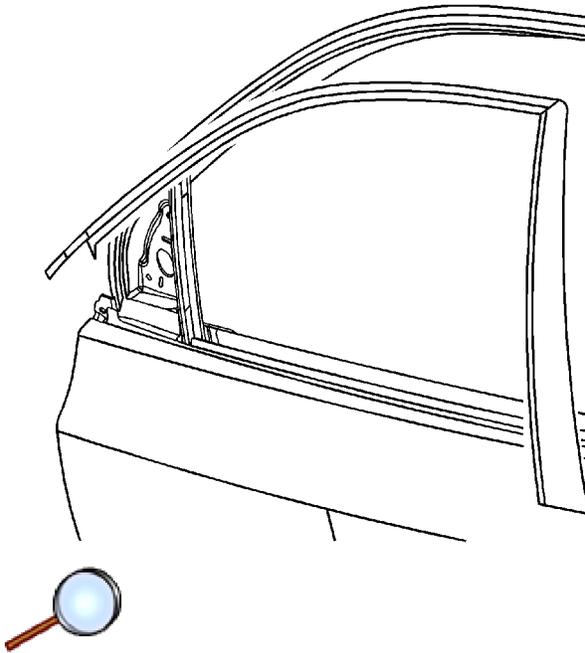
Use the following equipment and materials in order to apply a stripe or a decal:

- A wetting solution
 - A foaming type of window cleaner that does not contain ammonia.
- A silicone, wax and grease remover
- Varnish Makers and Painters (VM&P) Naptha
- Isopropyl alcohol
- A squeegee
 - 75-100 mm (3-4 in) wide
 - Made of plastic or hard rubber
 - Deburr any sharp or rough edges in order to prevent scratching of the stripe or decal.
- A water bucket and sponge or spray bottle

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- Sandpaper
 - 800 grit or finer
 - Wet or dry type
- A heat gun [J 25070](#)
- A clean, lint-free wiping cloth
- A sharp knife or razor blade
- A pair of scissors
- A fine pin or needle
- A marking pencil

Stripe or Decal Removal



1. Remove the following components:
 - Necessary moldings or trim panel
 - Molding attaching clips
 - Handles
 - Sidemarker lamps
 - Other stripe or decal overlapping parts
2. Clean the following areas as needed:
 - The repair surfaces
 - The adjacent panels
 - The openings
3. Use 3M™ ScotchBrite molding adhesive remover disk 3M™ P/N 07502 or equivalent in order to remove the stripe or decal from the body panel.
4. Use Varnish Makers and Painters (VM&P) Naptha to remove all traces of adhesive residue from the painted surfaces.

Stripe or Decal Installation -- Wet Method

1. Place the front door window in the full down position.
2. Remove the front door window inner sealing strip. Refer to [Front Side Door Window Belt Inner Sealing Strip Replacement](#) .
3. Remove the front door outer belt sealing strip. Refer to [Front Side Door Window Belt Outer Sealing Strip Replacement](#) .
4. Prepare the surface.

Important: Remove any imperfections that would appear through the stripe or decal if the area has been refinished.

5. Clean the painted surface using the following types of removers:
 - Silicone
 - Wax
 - Grease
6. Clean the area where the stripe or decal will be applied using a 50-50 mixture of isopropyl alcohol and water.
7. Wipe the panel surface using a clean cloth while the solvent is still wet. Allow the panel surface to dry.
8. Apply the wetting solution to the area where you are installing the stripe or decal.

Application of a soapy wetting solution on the top side of the stripe or decal will ease the pull of the squeegee on the stripe or decal.

Important: Do not touch the adhesive backing of the stripes.

9. Apply the wetting solution on the adhesive side of the stripe or decal.

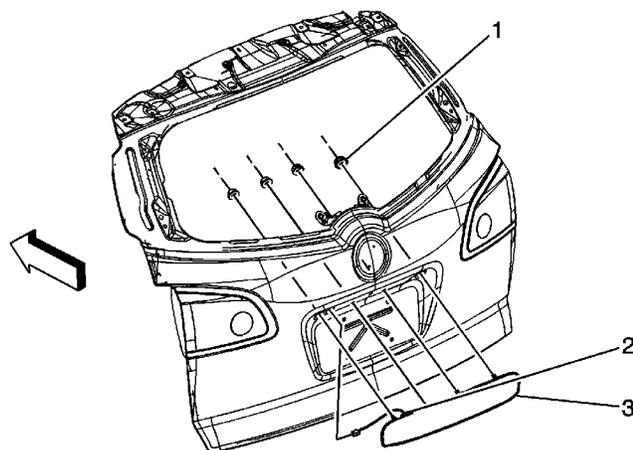
Remove the backing material of the stripe or the decal as needed.

10. Apply the strip or decal to the panel. The wetting solution will allow movement for proper positioning on the panel surface.
11. Working from the center where possible, squeegee the stripe or decal into position. Apply additional wetting solution as needed to ease installation.
12. Apply heat to the stripe or decal at the recessed areas. Press the stripe or decal into the recess to obtain a firm bond.
13. Use adequate light reflection to inspect the stripe or decal from a critical angle. This technique detects any irregularities that may have developed during the installation.

Important: Do not use a razor blade or a knife edge to pierce the air bubbles.

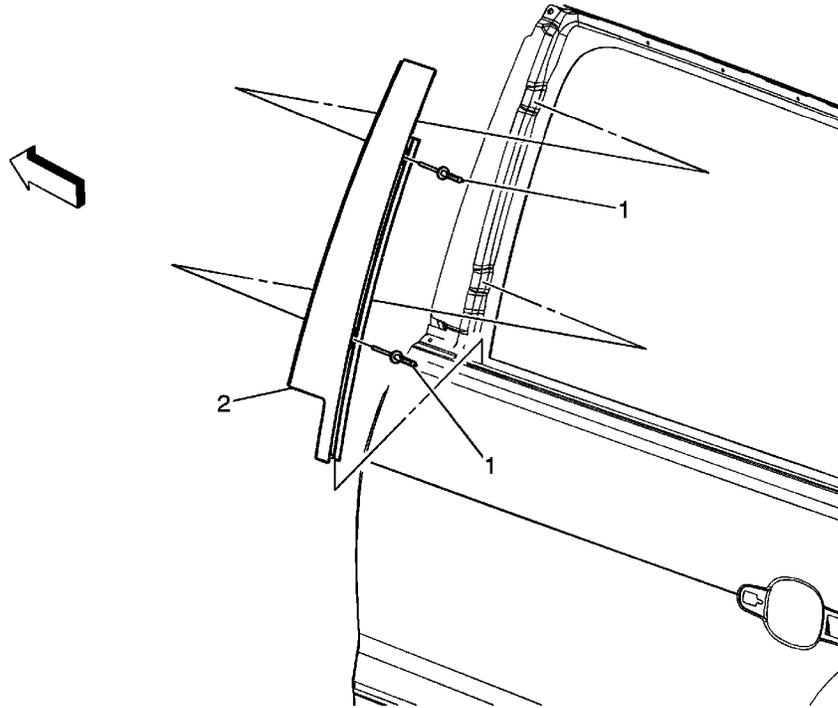
14. Remove all air bubbles by piercing the bubble with one of the following items:
 - A safety pin
 - A needle
 - A tool with the same size piercing tip
15. Pierce the bubble on the outer edge. Force the air out through the opposite edge using the blade of the squeegee.
16. Install any previously removed components. Clean the components as needed.

Liftgate Applique Replacement (Enclave)



Callout	Component Name
<p>Preliminary Procedures</p>	
<p>1. Remove the liftgate interior trim panel. Refer to Liftgate Trim Panel Replacement. 2. Disconnect the rear liftgate applique electrical connector from the rear body harness.</p>	
<p>1</p>	<p>Liftgate Applique Nuts (Qty: 4)</p> <p>Caution: Refer to Fastener Caution in the Preface section.</p> <p>Tighten 6 N·m (53 lb in)</p>
<p>2</p>	<p>Liftgate Applique Electrical Harness and Grommet</p>
<p>4</p>	<p>Liftgate Applique Assembly</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Disconnect and release the electrical harness grommet from the liftgate outer panel. 2. Release the center retention clip securing the applique to the liftgate outer panel. 3. Remove the liftgate applique. 4. Transfer parts as necessary.

Rear Door Frame Applique Replacement (OUTLOOK/Enclave)

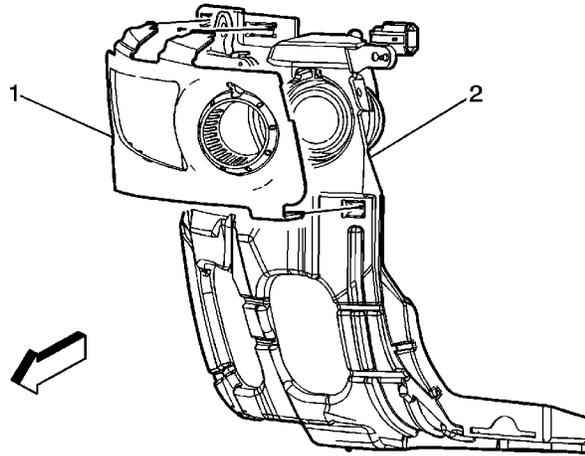


Callout	Component Name
<p>Preliminary Procedure</p> <ol style="list-style-type: none"> Place the rear door window in the full down position. Remove the rear door outer belt sealing strip. Refer to Rear Side Door Window Inner Sealing Strip Replacement. Remove the rear door window inner sealing strip. Refer to Rear Side Door Window Outer Sealing Strip Replacement. 	
<p>1</p>	<p>Rear Side Door Applique Rivets (Qty: 2)</p> <p>Tip</p> <ol style="list-style-type: none"> Apply masking tape to the door frame and applique. Pull the window channel weatherstrip from the applique to expose the rivets. Drill out the rivets to remove the applique.
<p>2</p>	<p>Rear Door Applique</p> <p>Tip:</p>

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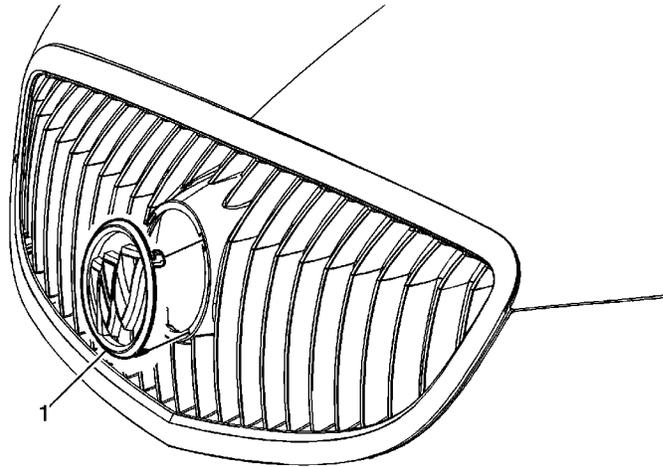
Pull the applique up and out of the door.

Front Fog Lamp Bezel Replacement (Enclave)



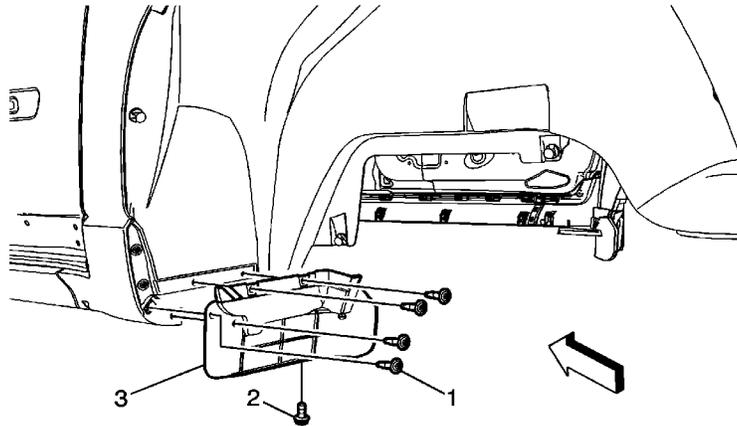
Callout	Component Name
<p>Preliminary Procedure</p>	
<p>Remove the parking and front fog lamp bracket. Refer to Parking and Front Fog Lamp Bracket Replacement .</p>	
<p>1</p>	<p>Front Fog Lamp Bezel</p> <p>Procedure</p> <p>Disengage the front fog lamp bezel tabs from the parking and front fog lamp bracket.</p>
<p>2</p>	<p>Parking and Front Fog Lamp Bracket</p>

Radiator Grille Emblem/Nameplate Replacement (Enclave)



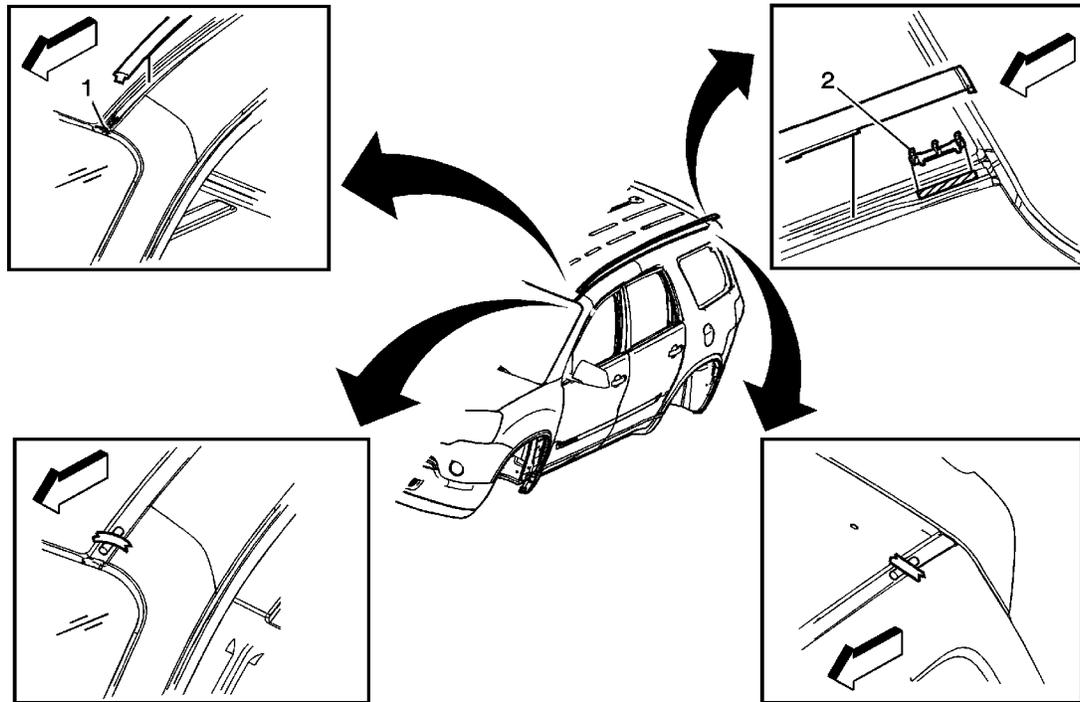
Callout	Component Name
1	Radiator Grille Emblem (Tri-Shield) Procedure <ol style="list-style-type: none"> 1. Open the hood. 2. Squeeze the 4 tabs on the emblem in order to unlock the emblem from the radiator grille. 3. Rotate the emblem in a counter-clockwise direction and push outward. 4. Remove the emblem from the radiator grille.

Rocker Panel Extension Molding Replacement



Callout	Component Name
1	Rocker Panel Extension Molding Screw (Qty: 4) Caution: Refer to Fastener Caution in the Preface section. Tighten 2.5 N·m (22 lb in)
2	Rocker Panel Extension Molding Bolt Tighten 5.0 N·m (44 lb in)
3	Rocker Panel Extension Molding Assembly Tip Position the top edge of the molding under the front bottom edge of the rear wheelhouse panel prior to installing the screws.

Roof Panel Molding Retainer Replacement

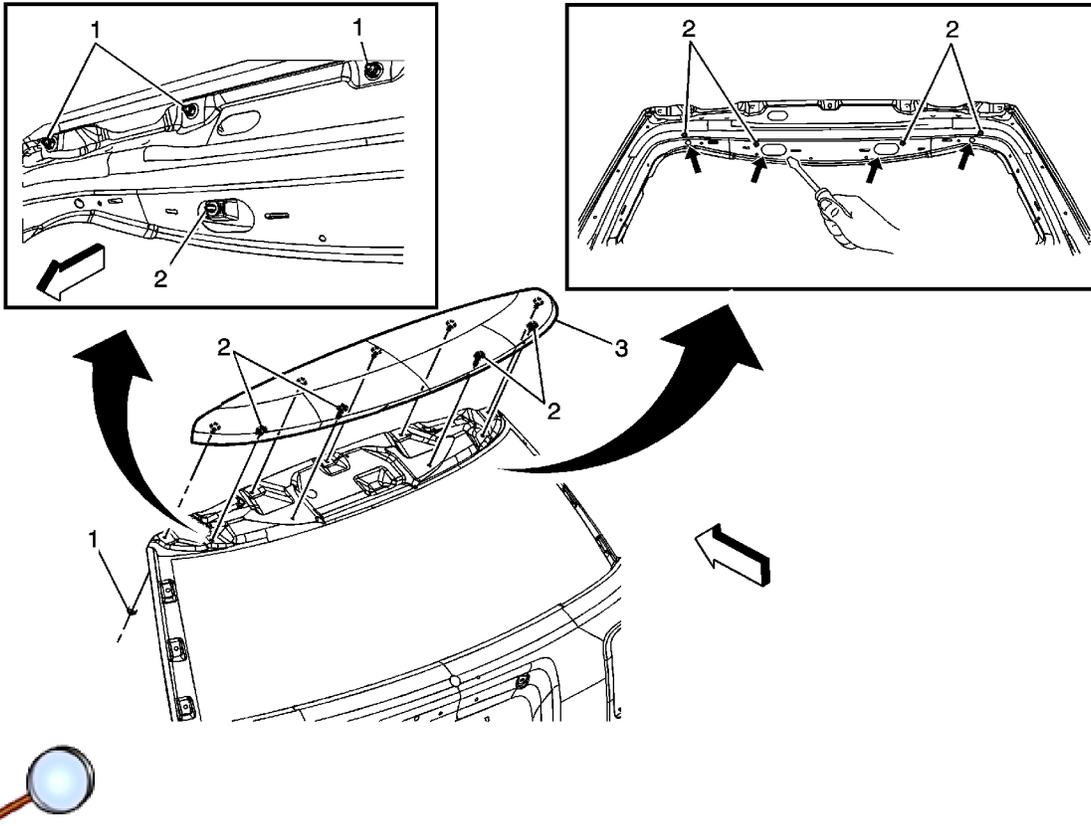


Callout	Component Name
Caution:	Refer to Tape Corners of Panel Caution in the Preface section.
Caution:	Refer to Exterior Trim Emblem Removal Caution in the Preface section.
Preliminary Procedure	
<ol style="list-style-type: none"> 1. Lift the roof panel molding in order to access the retainer clip. 2. Carefully cut the epoxy bond at both edges of the retainer clip using a sharp tool. 3. Cut far enough into the epoxy in order to help release the retainer clip and not damage the painted surface of the ditch. 4. Protect the painted surface of the ditch using a clean towel when releasing the retainer from the ditch. 5. Clean the remaining epoxy using a 50/50 mixture by volume of isopropyl alcohol and clean drinkable water. 6. Use fine grit sand paper to scuff the bonding surface where the new retainer clip will be installed. 7. Wipe the surface with the alcohol solution and let the solution evaporate prior to bonding the new clip. 8. Position and secure the retainer clip with the molding attached. 9. Press the ditch molding into the ditch to achieve proper positioning. 10. Apply the epoxy to the underside of the retainer and clip into the final position. 	

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11. Ambient and body panel temperature should be at least 21°C (70°F) prior to bonding.	
1	<p>Roof Panel Molding Retainer (Front)</p> <p>Procedure</p> <ol style="list-style-type: none">1. The front retainer is placed 15-20 mm from the front edge of the window frame, centered side to side in the ditch channel.2. Place a small piece of wooden block or equivalent above the molding to gain downward pressure for proper clip position.3. Apply masking tape over the wooden block and secure to the body.4. Allow approximately 15 minutes to develop sufficient bond strength.5. Remove the masking tape after the bonding time has elapsed.
2	<p>Roof Panel Molding Retainer (Rear)</p> <p>Procedure</p> <ol style="list-style-type: none">1. The rear retainer is placed 15-20 mm from the rear edge of the roof panel, centered side to side in the ditch channel.2. Place a small piece of wooden block or equivalent above the molding to gain downward pressure for proper clip position.3. Apply masking tape over the wooden block and secure to the body.4. Allow approximately 15 minutes to develop sufficient bond strength.5. Remove the masking tape after the bonding time has elapsed.

Rear Spoiler Replacement (Enclave, Traverse)

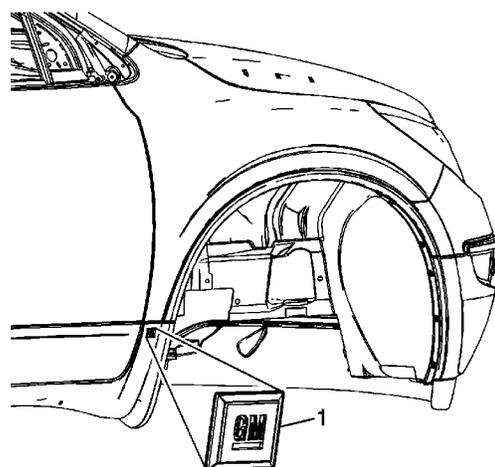


Callout	Component Name
<p>Preliminary Procedures</p> <ol style="list-style-type: none"> 1. Open the rear liftgate. 2. Remove the interior liftgate garnish molding. Refer to Liftgate Garnish Molding Replacement. 3. Disconnect the center high mounted stop lamp electrical connector. 4. Disconnect the rear window washer nozzle hose from the bottom side of the rear spoiler and washer nozzle spout. 	
<p>1</p>	<p>Rear End Spoiler Assembly Nut (Qty: 5)</p> <p>Caution: Refer to Fastener Caution in the Preface section.</p> <p>Tighten 6 N·m (53 lb in)</p>
<p>2</p>	<p>Rear End Spoiler Assembly Integral Retainer (Qty: 4)</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Insert a flat-bladed tool into the access holes in the inner liftgate panel in

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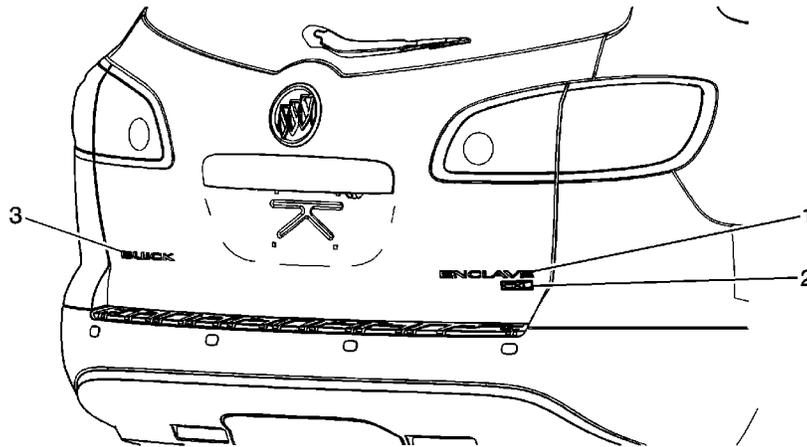
	<p>order to release the clips while lifting up on the outside edges of the rear spoiler.</p> <ol style="list-style-type: none">2. Release the integral clips from across the upper liftgate flange working from the outboard edge inward.3. Transfer the rear window washer nozzle.
3	<p>Rear End Spoiler Assembly</p> <p>Tip Remove and transfer the high mounted stop lamp. Refer to High Mount Stop Lamp Replacement.</p>

Front Side Door Emblem/Nameplate Replacement (Enclave GM)



Callout	Component Name
1	<p>Front Side Door Nameplate/Emblem</p> <p>Caution: Refer to Exterior Trim Emblem Removal Caution in the Preface section.</p> <p>Procedure</p> <ol style="list-style-type: none"> The part and surface should be 21°C (70°F) prior to installation. The vehicle should remain 21°C (70°F) for one hour after assembly to allow adhesive to develop sufficient bond strength. Use a J 25070 Heat Gun or equivalent to remove the old nameplate. Clean all the adhesive residue from the door and wipe the surface dry with a clean lint-free towel prior to installing new nameplate. When removing protective liners from adhesive backed nameplates, be careful not to touch the tape with hands and do not allow the tape to come in contact with dirt or any foreign matter prior to adhesion. Close the door prior to installing the new nameplate/emblem to the lower front rocker molding. Remove the protective liner from the back side of the adhesive tape. Align the nameplate/emblem to the front rocker molding and press to ensure full adhesion is made.

Liftgate Emblem/Nameplate Replacement (Enclave Nameplate)

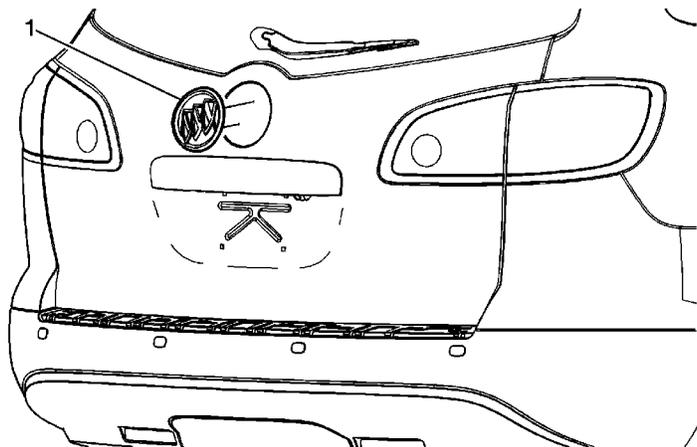


Callout	Component Name
1	<p>Liftgate Emblem (ENCLAVE)</p> <p>Caution: Refer to Exterior Trim Emblem Removal Caution in the Preface section.</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Use a J 25070 or equivalent to remove the old emblem. Clean all the adhesive residue from the liftgate, wipe the surface dry with a clean lint-free towel prior to installing new emblem. 2. When removing protective liners from adhesive backed emblems, be careful not to touch the tape with hands and do not allow the tape to come in contact with dirt or any foreign matter prior to adhesion. 3. Close the liftgate prior to installing the new emblem to the liftgate. 4. Remove the protective liner from the back side of the adhesive tape. 5. Align the emblem to the liftgate and press to ensure full adhesion is made.
2	<p>Liftgate Emblem (CX, CXL)</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Use a J 25070 or equivalent to remove the old emblem. Clean all the adhesive residue from the endgate, wipe the surface dry with a clean lint-free towel prior to installing new emblem. 2. When removing protective liners from adhesive backed emblems, be careful not to touch the tape with hands and do not allow the tape to come in contact with dirt or any foreign matter prior to adhesion. 3. Close the liftgate prior to installing the new emblem to the liftgate. 4. Remove the protective liner from the back side of the adhesive tape.

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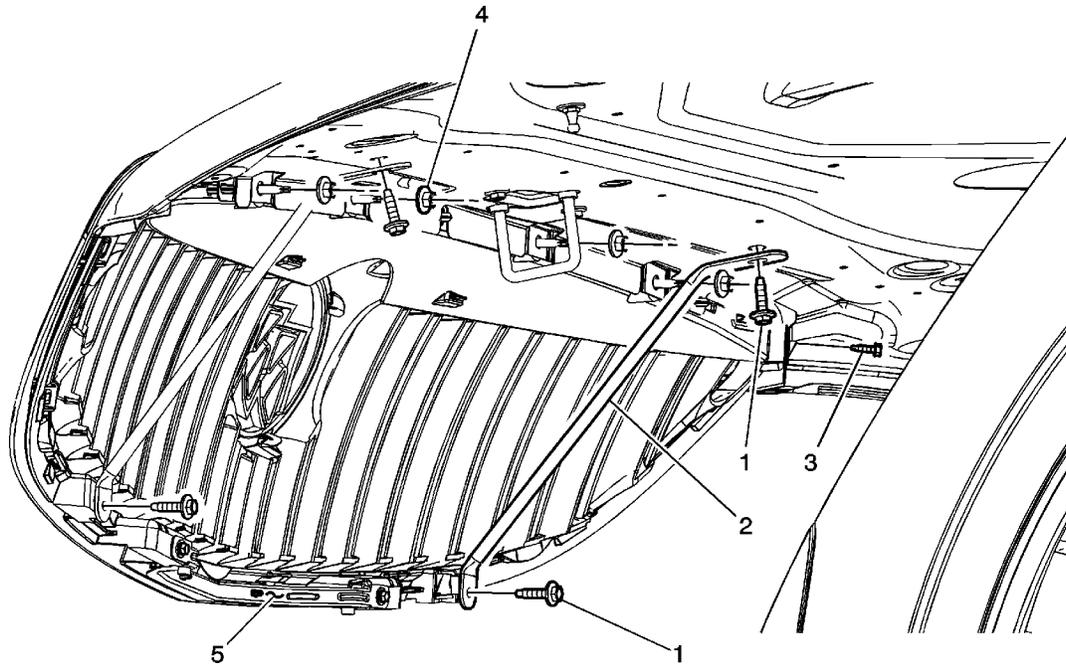
	5. Align the emblem to the liftgate and press to ensure full adhesion is made.
3	<p>Liftgate Nameplate (BUICK)</p> <p>Procedure</p> <ol style="list-style-type: none">1. Use a J 25070 or equivalent to remove the old nameplate. Clean all the adhesive residue from the liftgate, wipe the surface dry with a clean lint-free towel prior to installing new nameplate.2. When removing protective liners from adhesive backed nameplates, be careful not to touch the tape with hands and do not allow the tape to come in contact with dirt or any foreign matter prior to adhesion.3. Close the liftgate prior to installing the new nameplate to the liftgate.4. Remove the protective liner from the back side of the adhesive tape.5. Align the nameplate to the liftgate and press to ensure full adhesion is made.

Liftgate Emblem/Nameplate Replacement (Enclave Tri Shield)



Callout	Component Name
1	<p>Liftgate Emblem (Tri-Shield)</p> <p>Caution: Refer to Exterior Trim Emblem Removal Caution in the Preface section.</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Use a J 25070 or equivalent to remove the old emblem. Clean all the adhesive residue from the liftgate, wipe the surface dry with a clean lint-free towel prior to installing new emblem. 2. When removing protective liners from adhesive backed emblems, be careful not to touch the tape with hands and do not allow the tape to come in contact with dirt or any foreign matter prior to adhesion. 3. Close the liftgate prior to installing the new emblem to the liftgate. 4. Remove the protective liner from the back side of the adhesive tape. 5. Align the emblem to the two guide holes in the liftgate outer panel and press to ensure full adhesion is made.

Radiator Grille Replacement (Enclave)



Callout	Component Name
Preliminary Procedure	
Open the hood in order to access the fasteners for the radiator grille.	
1	Radiator Grille Support Bracket Bolt (Qty: 4) Caution: Refer to Fastener Caution in the Preface section. Tighten 2.5 N·m (22 lb in)
2	Radiator Grille Support Bracket (Qty: 2)
3	Radiator Grille Outer Bracket Bolt (Qty: 2) Tighten 2.5 N·m (22 lb in)
4	Radiator Grille Upper Nut (Qty: 4) Tighten 9 N·m (80 lb in)
	Radiator Grille Assembly

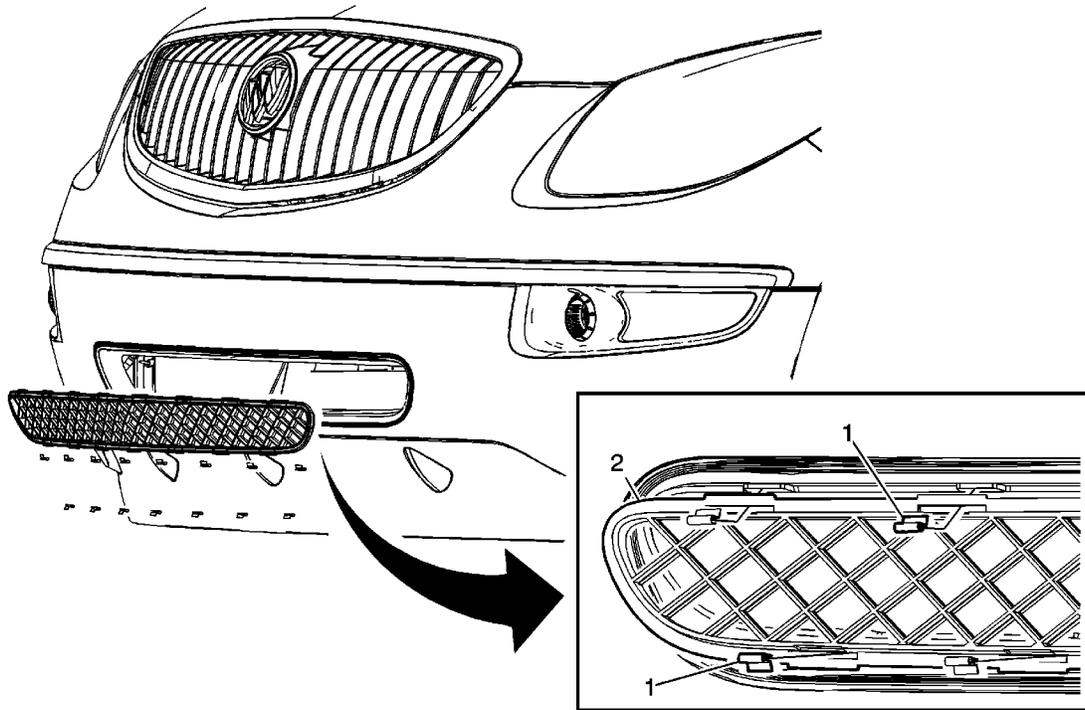
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Tip

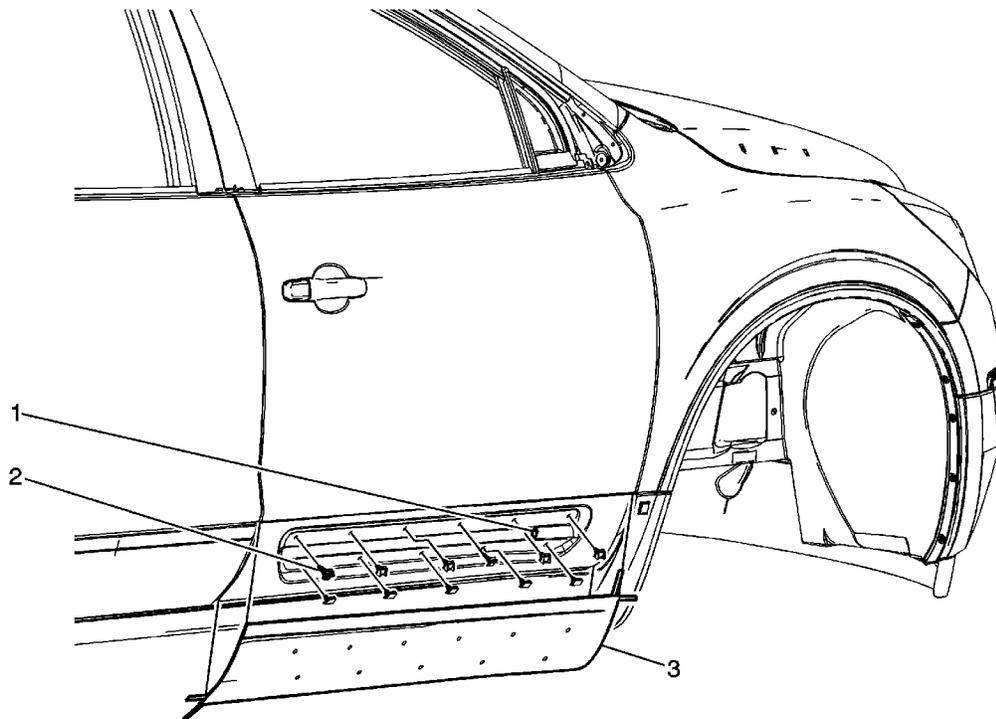
Transfer the radiator grille emblem. Refer to [Radiator Grille Emblem/Nameplate Replacement](#).

Radiator Lower Grille Replacement (Enclave)



Callout	Component Name
<p>Procedure</p> <ol style="list-style-type: none"> 1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle. 2. Remove the lower radiator retainers from the air baffle. 	
1	<p>Radiator Lower Grille Edge Type Clip (Qty: 15)</p> <p>Tip Release the clips from inside the lower radiator grille.</p>
2	<p>Radiator Lower Grille</p> <p>Procedure Remove the lower grille from inside the lower bumper fascia.</p>

Front Side Door Lower Molding Replacement (Enclave)

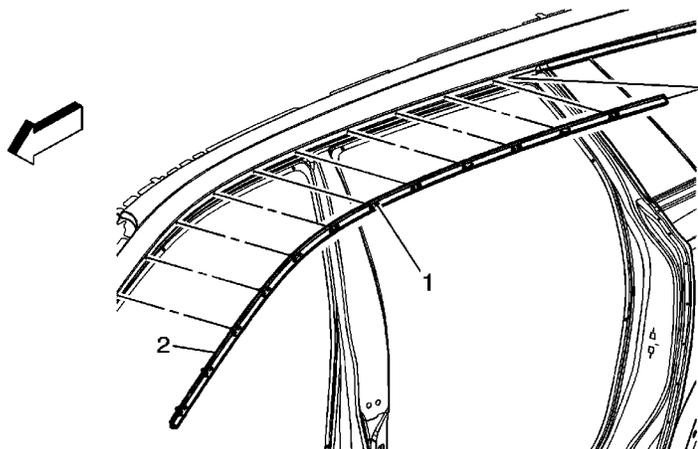


Callout	Component Name
<p>Preliminary Procedure</p> <ol style="list-style-type: none"> Using a J 25070 Heat Gun in a circular motion, warm the lower edge of the front side door molding prior to removal. Carefully clean the body panel thoroughly prior to bonding the new lower body side molding to the door. 	
1	<p>Front Side Door Lower Locating Hole</p> <p>Procedure</p> <p>Align the pin on the backside of the molding to the hole prior to securing the retainers.</p>
2	<p>Front Side Door Molding Integral Retainers (Qty: 11)</p>
3	<p>Front Side Door Lower Molding</p> <p>Procedure</p> <ol style="list-style-type: none"> Close the door upon assembly of the new lower front door molding. Align the locator pin and secure the retainers.

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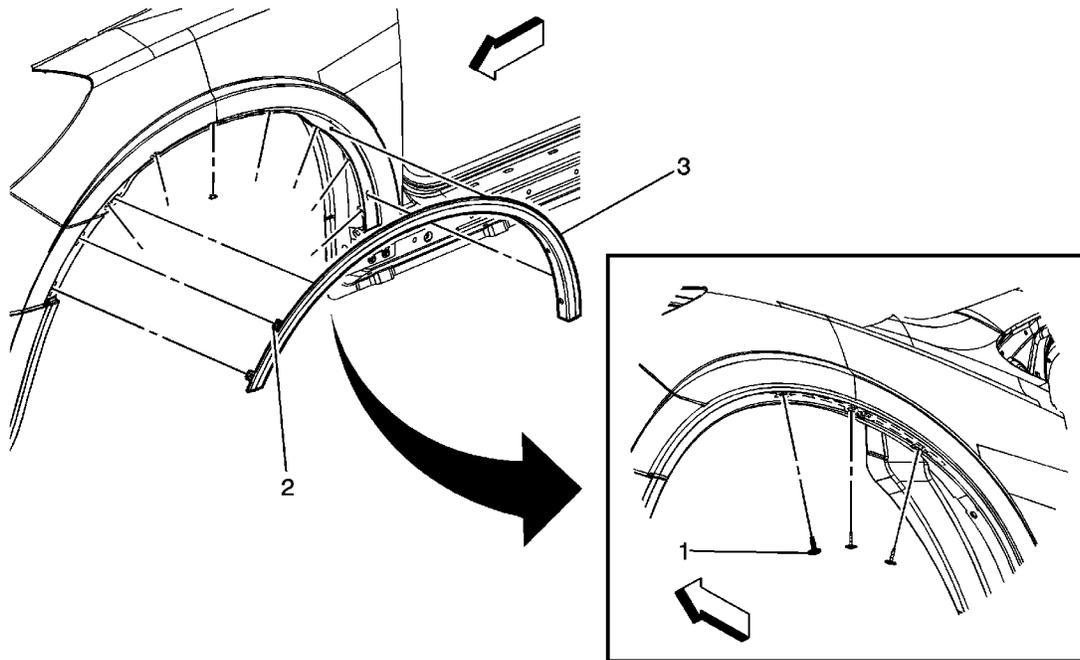
3. Release the adhesive tape backing and using a clean shop towel and the palm of the hand, completely wet out the entire periphery of the molding in order to assure complete adhesion of the lower front door bodyside molding.

Front and Rear Side Door Opening Frame Reveal Molding Replacement (Enclave)



Callout	Component Name
<p>Preliminary Procedure</p> <p>Open the front and rear door on the side the door opening frame reveal molding will be replaced.</p>	
1	Front and Rear Side Door Opening Frame Reveal Molding Integral Clip (Qty: 12)
2	<p>Front and Rear Side Door Opening Frame Reveal Molding</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Remove the front fender upper rear molding. Refer to Front Fender Upper Rear Molding Replacement. 2. Carefully release the front frame reveal molding from the butt joint located at the quarter panel bezel joint tie plate. 3. Upon installation, secure the butt joint ends firmly together prior aligning the molding retainer clips to the body panel. 4. Secure the front fender upper rear molding. Refer to Front Fender Upper Rear Molding Replacement.

Front Fender Wheel Opening Molding Replacement (Enclave)

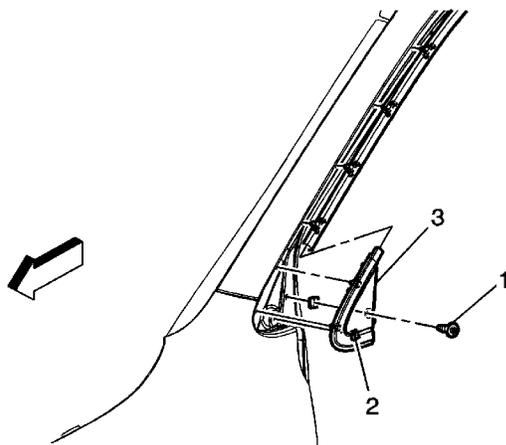


Callout	Component Name
Preliminary Procedures	
<ol style="list-style-type: none"> 1. Release the five forward and six rearward wheelhouse liner screws to allow for the repositioning of the liner. 2. Remove the five screws from the front portion of the wheelhouse liner to fender flange. 3. Remove the three upper fender molding to fender flange push pin retainers. 4. Remove the six rearward flare to fender flange screws. 5. Release the retainer clips, three forward and two rearward from the fender flange. 	
1	Front Wheel Opening Molding Screw (Qty: 5) Caution: Refer to Fastener Caution in the Preface section. Tighten 1.5 N·m (13 lb)
2	Retainer Clips (Qty: 5) Tip

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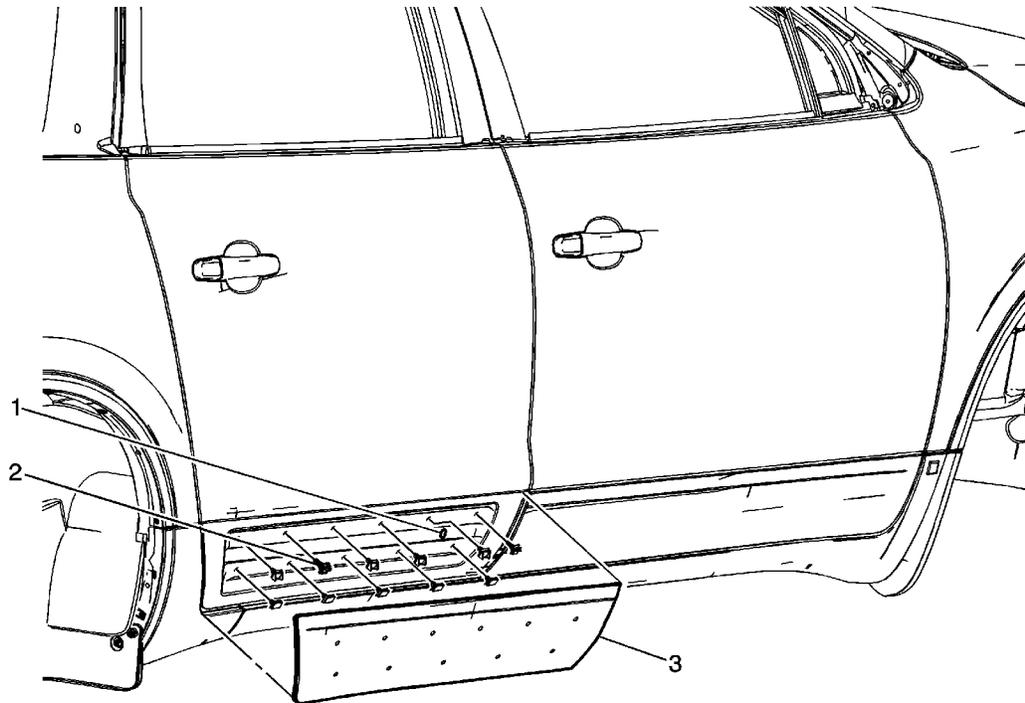
	Release the clips from inside the fender flange.
3	Front Wheel Opening Molding Assembly

Front Fender Upper Rear Molding Replacement (Enclave)



Callout	Component Name
Preliminary Procedure	
Open the front driver or passenger door in order to access the retainers.	
1	Front Fender Upper Rear Molding Screw Caution: Refer to Fastener Caution in the Preface section. Tighten 1.5 N·m (13 lb in)
2	Integral Retainer Clip (Qty: 3)
3	Front Fender Upper Rear Molding Assembly Procedure <ol style="list-style-type: none"> 1. Remove the screw. 2. Carefully release the three retainers from the front fender upper rear molding and release four retainers from the forward edge of the front and rear upper reveal molding. 3. Hold onto the front and rear side door upper reveal molding and pull the front fender upper rear molding butt joint apart.

Rear Side Door Lower Molding Replacement (Enclave)



Callout	Component Name
<p>Preliminary Procedure</p> <p>Using a J 25070 Heat Gun in a circular motion, warm the rear side door molding prior to removal. Carefully clean the body panel thoroughly prior to bonding the new lower body side molding to the door.</p>	
<p>1</p>	<p>Rear Side Door Lower Molding Locating Hole</p> <p>Procedure</p> <p>Align the pin to the center of the door prior to securing the retainers.</p>
<p>2</p>	<p>Lower Molding Integral Retainers (Qty: 11)</p>
<p>3</p>	<p>Rear Side Lower Door Molding</p> <p>Procedure</p> <ol style="list-style-type: none"> Secure the molding retainers to the door and remove the protective liner on the backside of the molding after all of the retainers are secure. Using a clean shop towel and the palm of the hand, wet out the entire periphery of the molding in order to assure complete adhesion of the lower

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door bodyside molding.