Technical Service Information Bulletin
July 25, 2007

Title:

WIND NOISE FROM FRONT SIDE WINDOW AREA AT HIGHWAY SPEEDS

Models:

'07 – '08 LS 460 (Standard Wheelbase)

TSIB
NVH
NV009-07
REVISED

TSIB REVISION NOTICE:

- **January 29, 2008: 2008 model year LS 460 has been added to Applicable Vehicles. The Production Change Information table has been updated.**
- **September 18, 2007: The Foam Dimensions in step 3A of the Repair Procedure: Part 1 step A have been updated.**

Previous versions of this TSIB should be discarded.

Introduction

Some 2007 – 2008 model year LS 460 customers may complain of a wind noise from the front side window area when driving at highway speeds. Use the repair procedure below to improve this condition.

NOTE:

It is important to note that this TSIB addresses unusual interior noises caused by slight variations in certain parts, and by carefully following the instructions in this TSIB, these noises can be improved. Your customers must be aware that some level of wind turbulence noise, especially in cross wind conditions, is present in all vehicles. A vehicle, such as the LS 460, which is one of the quietest vehicles on the market today, may tend to draw attention to normal wind turbulence or rushing sounds because of the relative absence of other ambient noises.

Applicable Vehicles

- **2007 – 2008** model year **LS 460 (Standard Wheelbase)** vehicles.

NOTE:

- **Part 1 of the repair procedure (install EPT foam to various locations) applies ONLY to 2007 model year vehicles produced BEFORE the Production Change VIN shown in this TSIB.**
- **Part 2 of the repair procedure (install laminated glass) applies to all 2007 model year LS 460 (standard wheelbase) vehicles, and to 2008 model year vehicles up to the 2008 model year VIN break shown in the Production Change information table.**

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
NV7015	R & R Front Door Glass (Both Sides)	1.4	68102–50190	59	43
Combo A	Apply Foam to Multiple Locations (Both Sides)	4.2		59	99

Applicable Warranty*:

This repair is covered under the Lexus Comprehensive Warranty. This warranty is in effect for 48 months or 50,000 miles, whichever occurs first, from the vehicle's in-service date.

* Warranty application is limited to correction of a problem based upon a customer's specific complaint.

Production Change Information

MODEL	PRODUCTION CHANGE EFFECTIVE VIN
2007 LS 460	JTHBL46F675038718 Vehicles produced up to the VIN break receive both foam and glass. Vehicles produced after receive glass only.
2008 LS 460	JTHBL46F985056194 Vehicles produced up to VIN break receive glass only. This TSIB does NOT apply to vehicles produced after VIN break.

Required Tools & Equipment

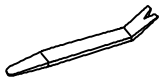
TOOLS & MATERIAL	PART NUMBER	QUANTITY
Drill	–	1
4-mm Drill Bit (0.16 in.)	–	1
Riveter	–	1
Torque Wrench	–	1
Molding and Clip Remover	–	1
Metric Ruler or Calipers	–	1
Instant “Super” Glue	–	1
Adhesive (for Service Hole Cover)	–	As Needed
Double-sided Foam Tape (for Front Door Belt Molding End Cover Rear)	–	As Needed

SPECIAL SERVICE TOOLS (SSTs)	PART NUMBER	QTY	DRW**
Plastic Pry Tool Set*	00002–06000–01	1	21

COMPONENT(S) OF KIT/SET

NOTE:
- All components from this kit/set are required.

- Plastic Panel Clip Removal Tool (P/N 00002–06001–01)



- Plastic Emblem Removal Tool (P/N 00002–06002–01)

* Essential SSTs.

** Drawer number in SST Storage System.

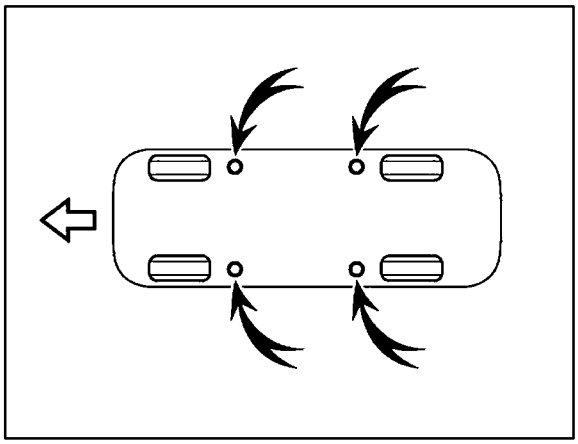
Parts Information

PART NUMBER	PART NAME		QTY
75793–50010	Wind Noise Repair Kit [Size: Thickness x Width x Length in mm]		2
	1	Sponge Sealer for Belt Molding [5 x 10 x 142]	–
	1	Sponge Sealer for Belt Molding [5 x 5 x 925]	
	1	Rubber Sealer for Outer Weatherstrip [1.5 x 4 x 740]	
	1	Sponge Sealer for Glass Run [7 x 7 x 70]	
	1	Sponge Sealer for Roof Drip Molding [20 x 15 x 55]	
	1	Sponge Sealer for Fender [I-Shape, T=12]	
	1	Sponge Sealer for Upper Front Door [5 x 10 x 50]	
68101–50200	Glass Sub-assembly, Front Door, RH		1
68102–50200	Glass Sub-assembly, Front Door, LH		1
75562–30070	Clip, Roof Drip Side Finish Molding, No. 2		8
90269–A0006	Rivet		6
67831–50050	Cover, Front Door Service Hole, RH		1
67832–50030	Cover, Front Door Service Hole, LH		1

Repair Procedure Sections

Checking For Body Plugs

1. Check to make sure that the body plugs under the vehicle are present.
2. If the plugs are missing, order and install the body plugs.
3. Test drive the vehicle to see if the noise is gone or significantly reduced.
   - If the noise is gone or significantly reduced, do NOT perform the rest of this TSIB.
   - If the wind noise is still the same, perform this TSIB.



NOTE:
- **Part 1 of the repair procedure (install EPT foam to various locations) applies ONLY to 2007 model year vehicles produced BEFORE the production change VIN.**
- **Part 2 of the repair procedure (install laminated glass) applies to all 2007 model year LS 460 (standard wheelbase) vehicles, and to 2008 model year vehicles up to the 2008 model year VIN break.**

Repair Procedure Overview

The repair procedure consists of two parts:

Part 1: Install EPT foam to various locations (except for step B, where a rubber stabilizer strip is glued on).

A. Add EPT foam behind chrome belt molding.

B. Add rubber stabilizer to outer door glass seal lip.

C. Add EPT foam to glass run rubber.

D. Add EPT foam behind body color windshield molding at base of A-pillar.

E. Add EPT foam under fender at base of A-pillar.

F. Add EPT foam to outside door panel near base of A-pillar.

Part 2: Install laminated glass

NOTE:
Perform this repair to both sides of the vehicle.

Repair Procedure: Disassembly

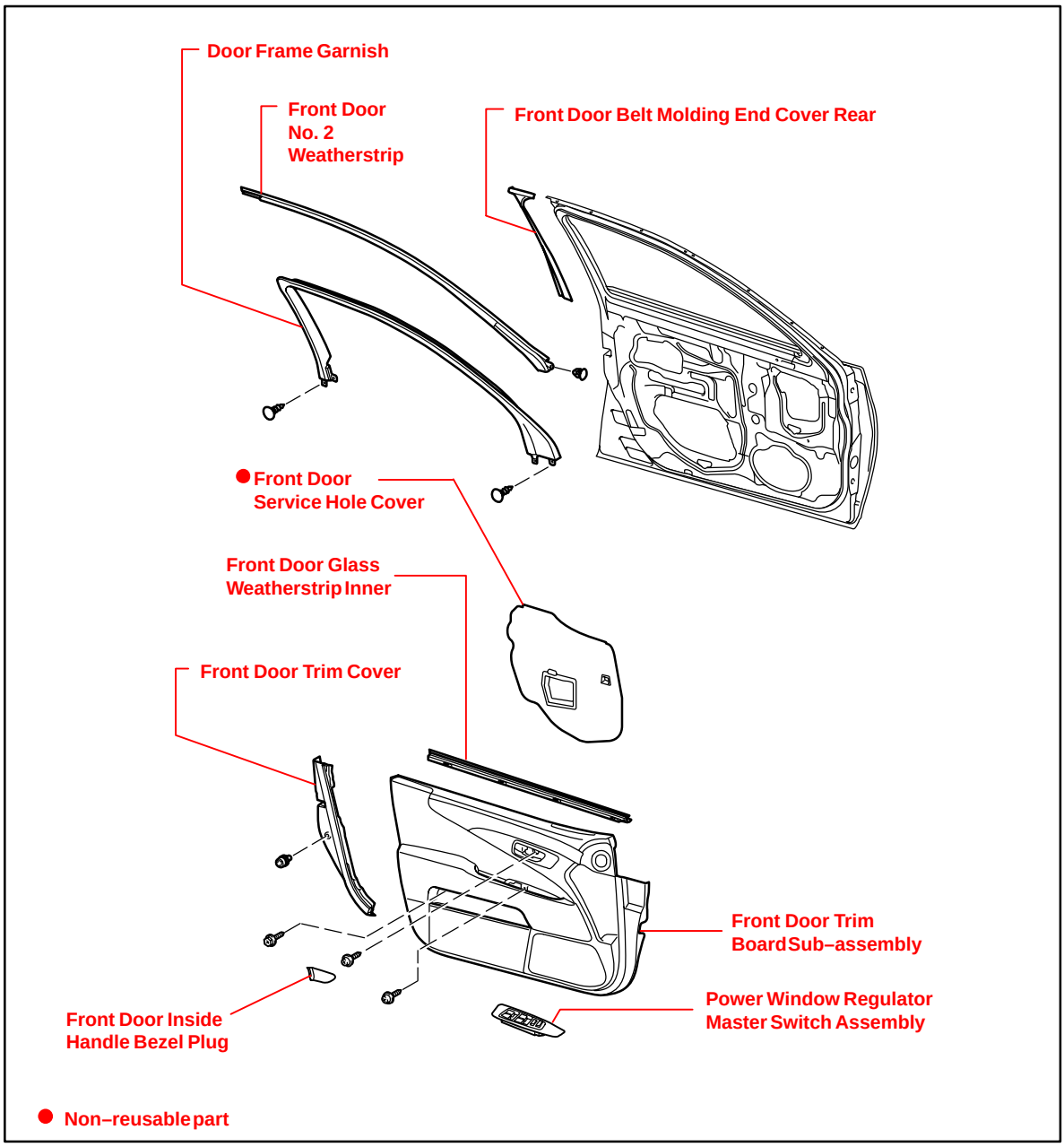
1. Record the radio station presets.
2. Remove the front door trim board sub-assembly, front door glass sub-assembly, and front door belt molding sub-assembly.

HINT:

Use the same procedures for the RH side and LH side. (The procedures listed below are for the LH side).

NOTE:

Overview illustration of parts involved.



Repair Procedure: Disassembly (Continued)

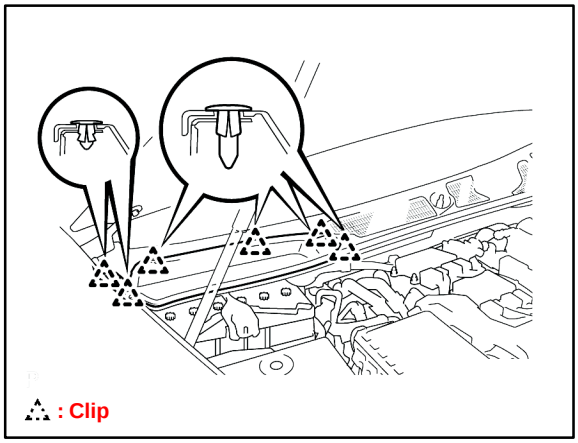
A. Lower the front door glass so that approximately 2 inches of glass is remaining above the belt molding.

NOTE:

This will line up the window glass mounting bolts correctly for removal of the glass, later in the process.

B. Remove the 6 clips and cowl top ventilator louver RH.

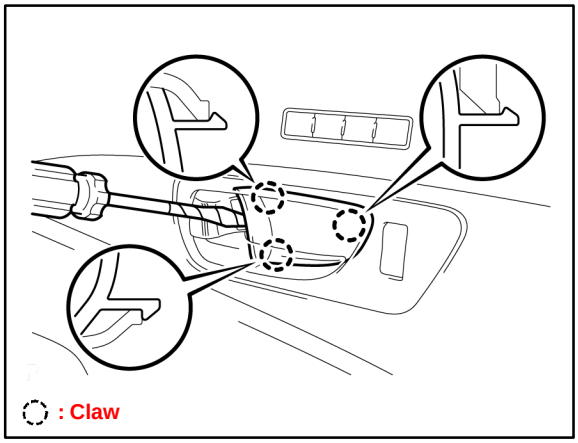
C. Disconnect the negative (–) battery terminal.



CAUTION:

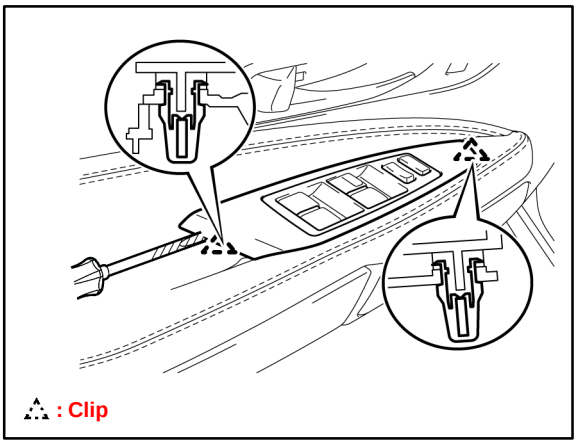
Wait at least 90 seconds after disconnecting the cable from the negative (–) battery terminal to prevent airbag and seat belt pretensioner activation.

D. Remove the front door inside handle bezel plug.
   a. Using the plastic pry tool, detach the 3 claws and remove the bezel plug.
   b. Remove the screw located behind the bezel plug

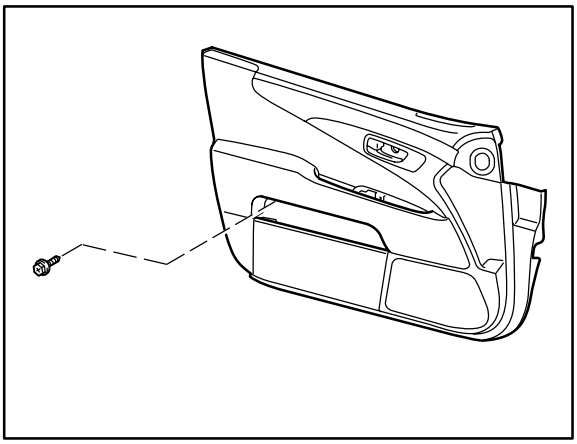


Repair Procedure: Disassembly (Continued)

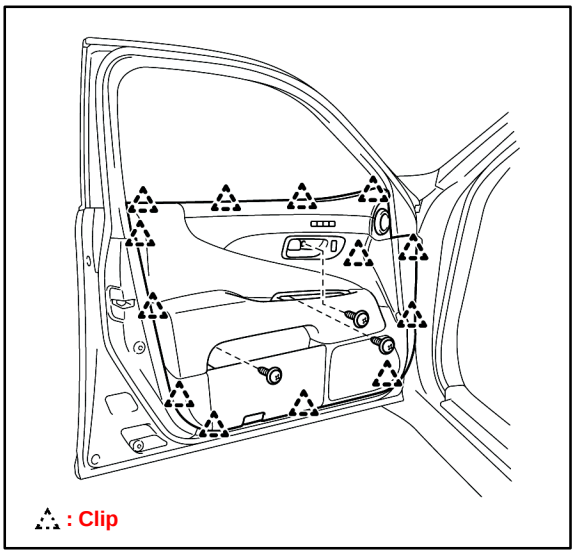
E. Remove the front power window regulator master switch assembly.
   a. Using the plastic pry tool, disengage the 2 clips.
   b. Disconnect the connector and remove the power window regulator master switch.
   c. Remove the screw located behind the switch assembly.



F. Remove the screw located below the armrest.

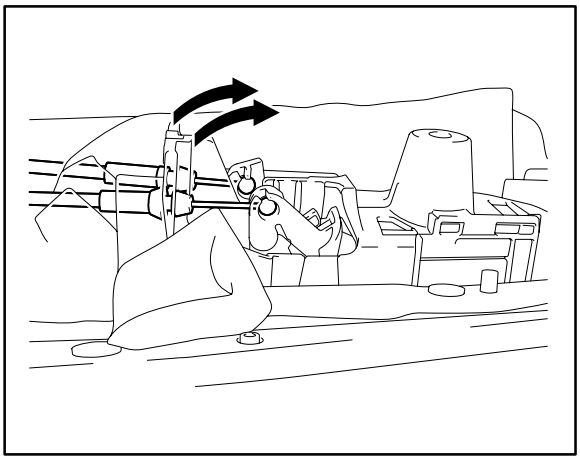


G. Remove the front door trim board sub-assembly.
   a. Disengage the 13 clips and remove the trim cover.

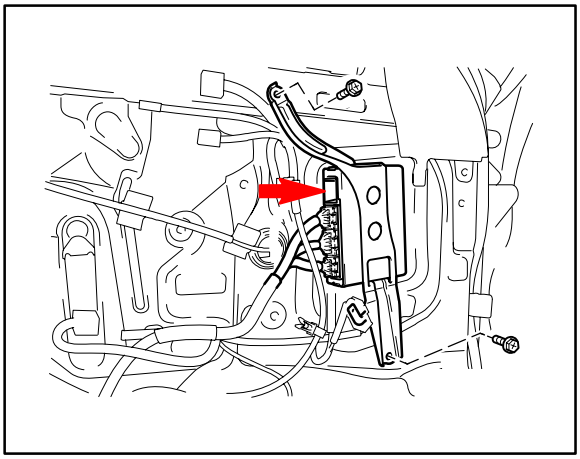


Repair Procedure: Disassembly (Continued)

b. Disconnect the 2 cables from the inside handle.



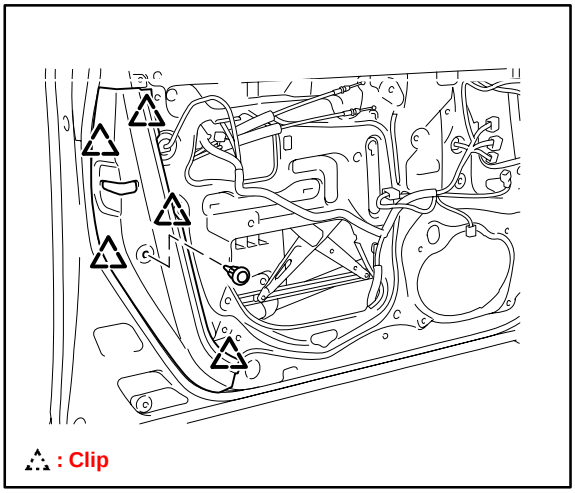
c. Disconnect the wiring connector from the front door trim board sub-assembly to the front door ECU LH.



H. Remove the front door trim cover.

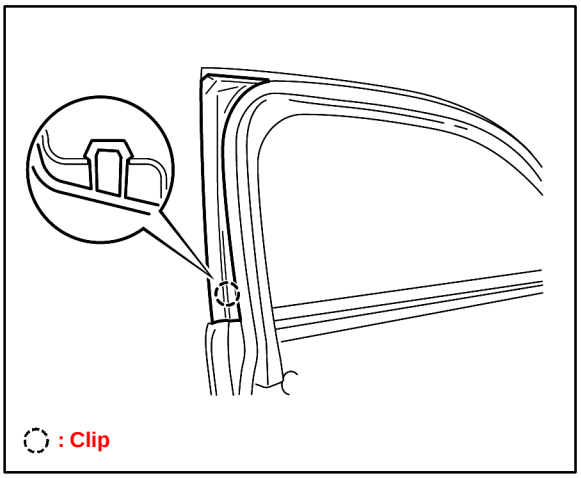
a. Remove the screw.

b. Using a clip remover, detach the 5 clips.

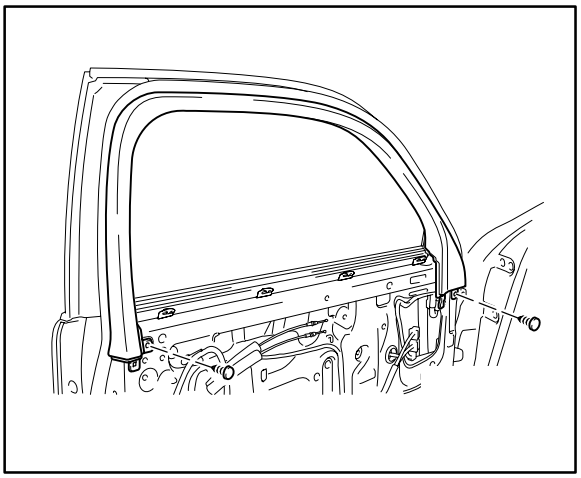


Repair Procedure: Disassembly (Continued)

I. Remove the front door belt molding end cover rear. Using the plastic pry tool, disengage the lower clip and remove the front door belt molding end cover rear.



J. Remove the door frame garnish. Using the plastic pry tool, remove the 2 clips and garnish.



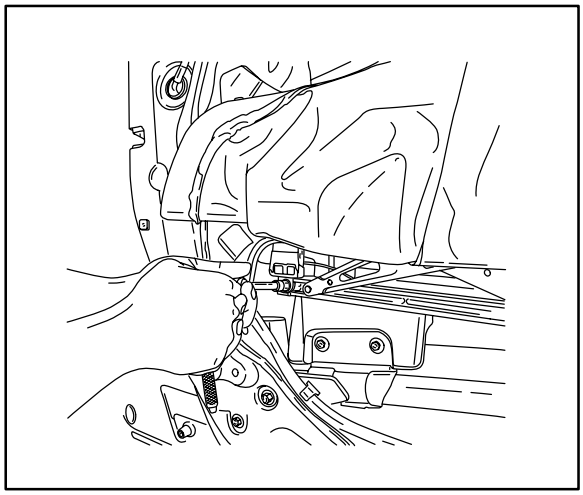
Repair Procedure: Disassembly (Continued)

K. Remove the front No. 1 speaker assembly by removing the 4 screws and disconnecting the connector.

NOTE:

The speaker is removed for access to the front window glass run. During assembly, use this access hole to make sure that the glass run is installed correctly inside the door.

L. Remove the front door service hole cover LH.
Remove the lower half of the service hole cover.

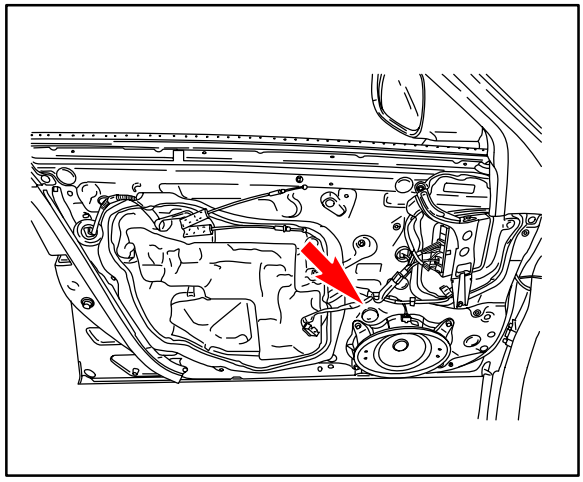


HINT:

Peel back the lower half of the cover and tape open temporarily to gain access to the door glass mounting bolt and the rear glass run.

M. Remove the front door glass sub-assembly.

a. Remove the hole plug

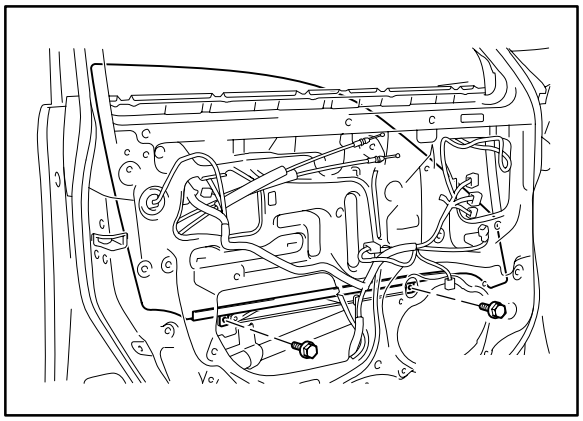


Repair Procedure: Disassembly (Continued)

b. Remove the 2 bolts.

NOTE:

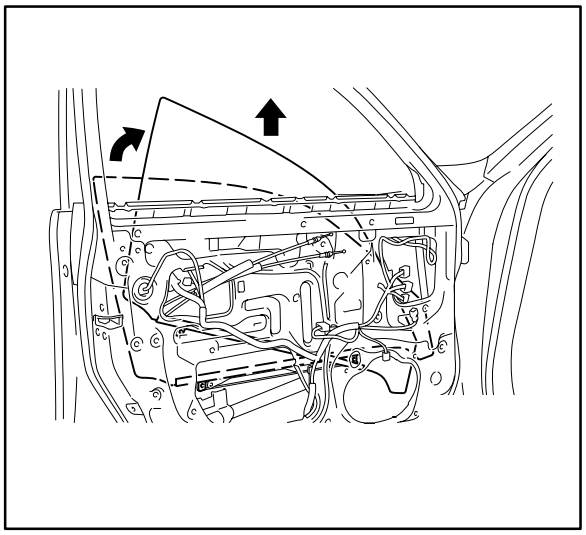
Be careful when removing the bolts as the glass may fall and become damaged.



c. Remove the door glass in the direction indicated by the arrows in the illustration.

NOTE:

Be careful NOT to damage the glass.



Repair Procedure: Disassembly (Continued)

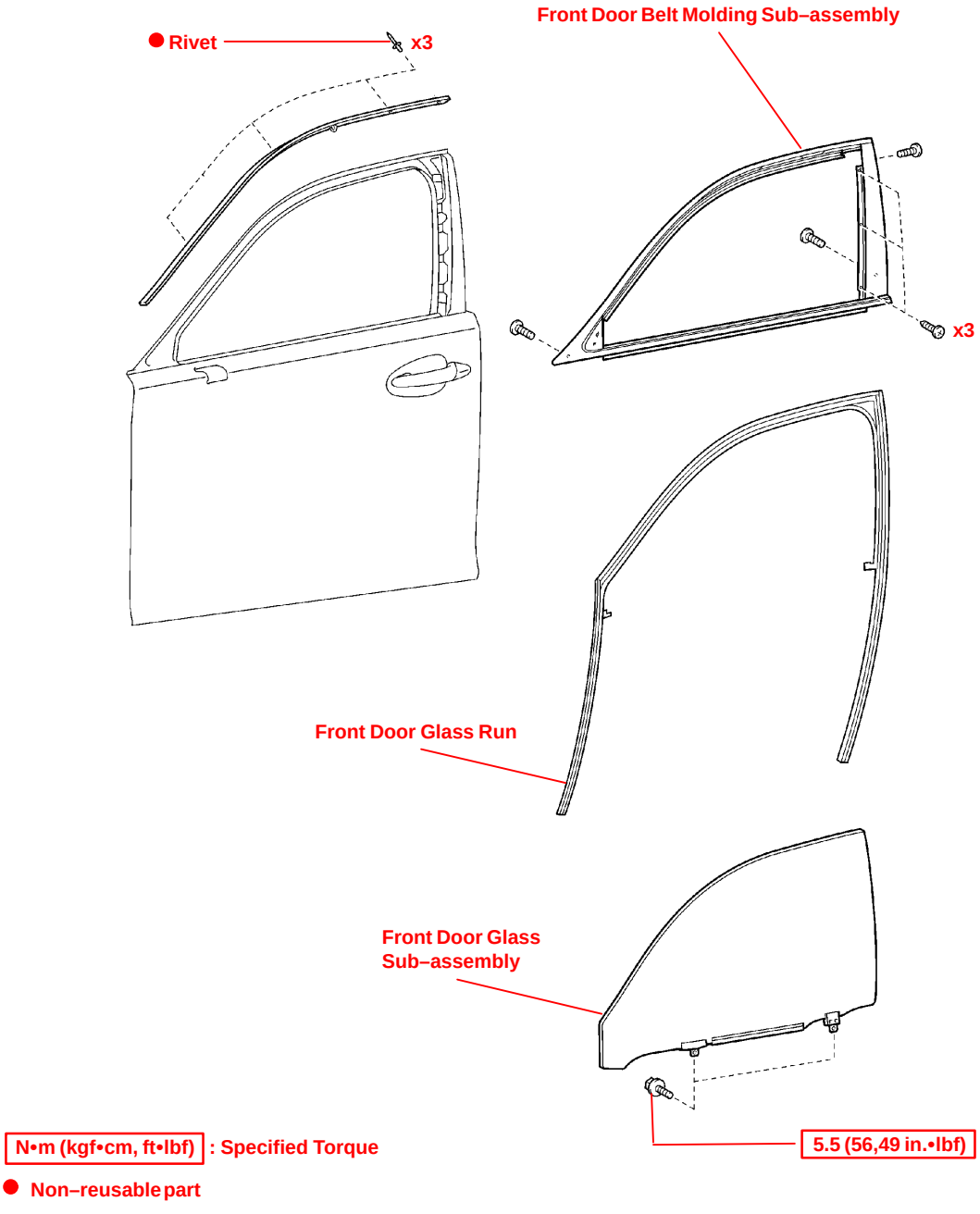
NOTE:

Overview of Additional Components to Remove.

CAUTION:

The following steps are only required for vehicles produced BEFORE the VIN break. If the vehicle was produced AFTER the VIN break, do NOT perform the foam repairs. Replace the front door glass only.

Diagram Showing Additional Parts to Remove



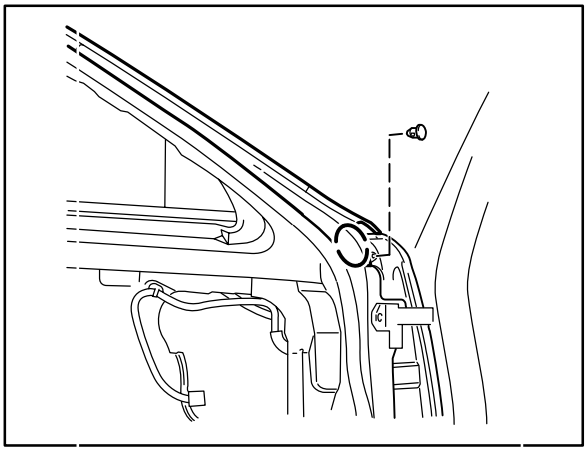
Repair Procedure: Disassembly (Continued)

N. Remove the front door glass run.

O. Remove the front door No. 2 weatherstrip.

HINT:

This is the weatherstrip located at the top of the door.



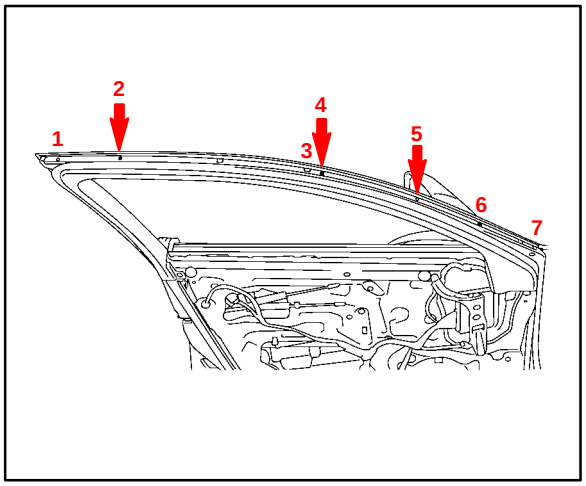
P. Remove the front door belt molding sub–assembly.

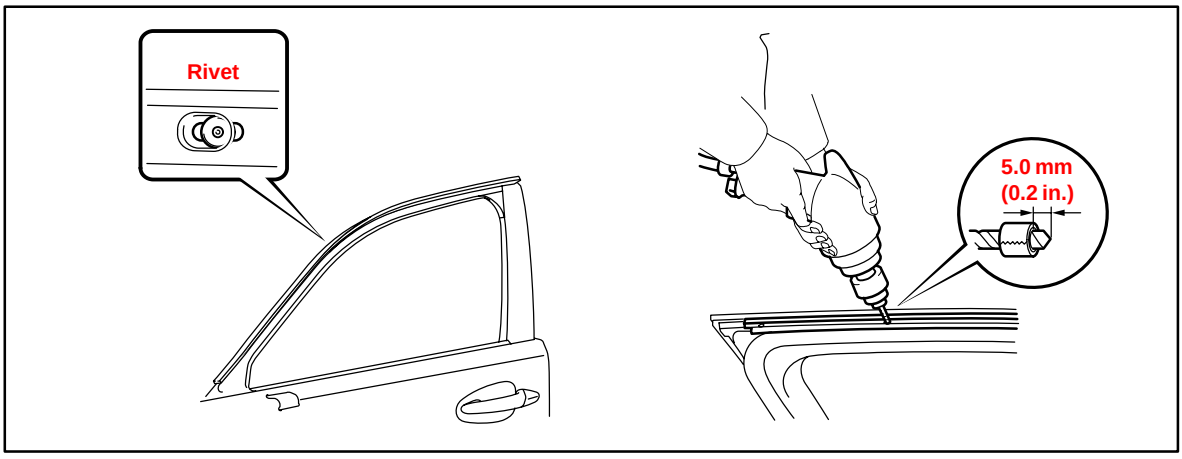
NOTE:

- **Only 3 of the 7 rivets need to be drilled out (numbers 2, 4, & 5 in the illustration below).**
- **Drill out the 3 rivets that do NOT have a pink paint mark next to the rivet.**

a. Wrap tape around a 4-mm (0.157-in.) drill bit.

b. Lightly press the drill against the rivet and drill off the rivet's flange.



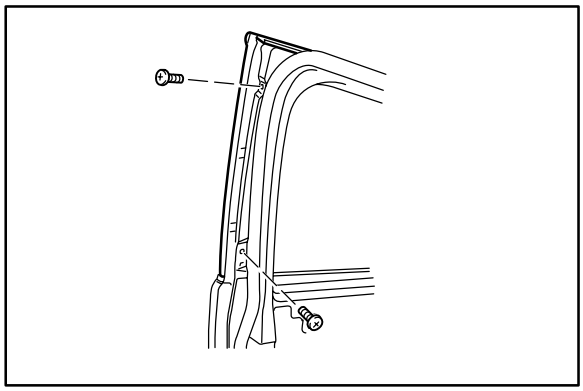


Repair Procedure: Disassembly (Continued)

NOTE:
- **Pressing the drill too firmly will cause the rivet to turn and result in the rivet NOT being drilled through.**
- **Do NOT pry the rivet with the drill, because this may cause damage to the installation holes of the rivet or the drill bit.**

c. Using a vacuum cleaner, remove the rivet fragments and shavings from the drilled area.

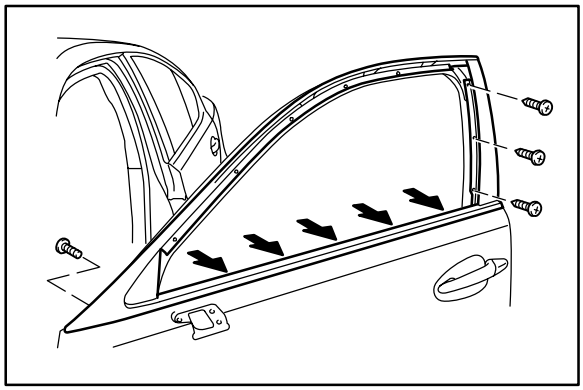
Remove the two screws at the rear edge of the door frame.



d. Loosen the 5 belt line screws indicated by the arrows.

NOTE:
These 5 screws do NOT have to be fully removed

e. Remove the 4 screws and belt molding.



CAUTION:
Remove any fragments of the 3 rivets remaining on the molding assembly.

Repair Procedure: Part 1

Perform the required repairs as described below.

CAUTION:

The foam repairs (steps [A] through [F]) only apply to vehicles produced BEFORE the VIN Break.

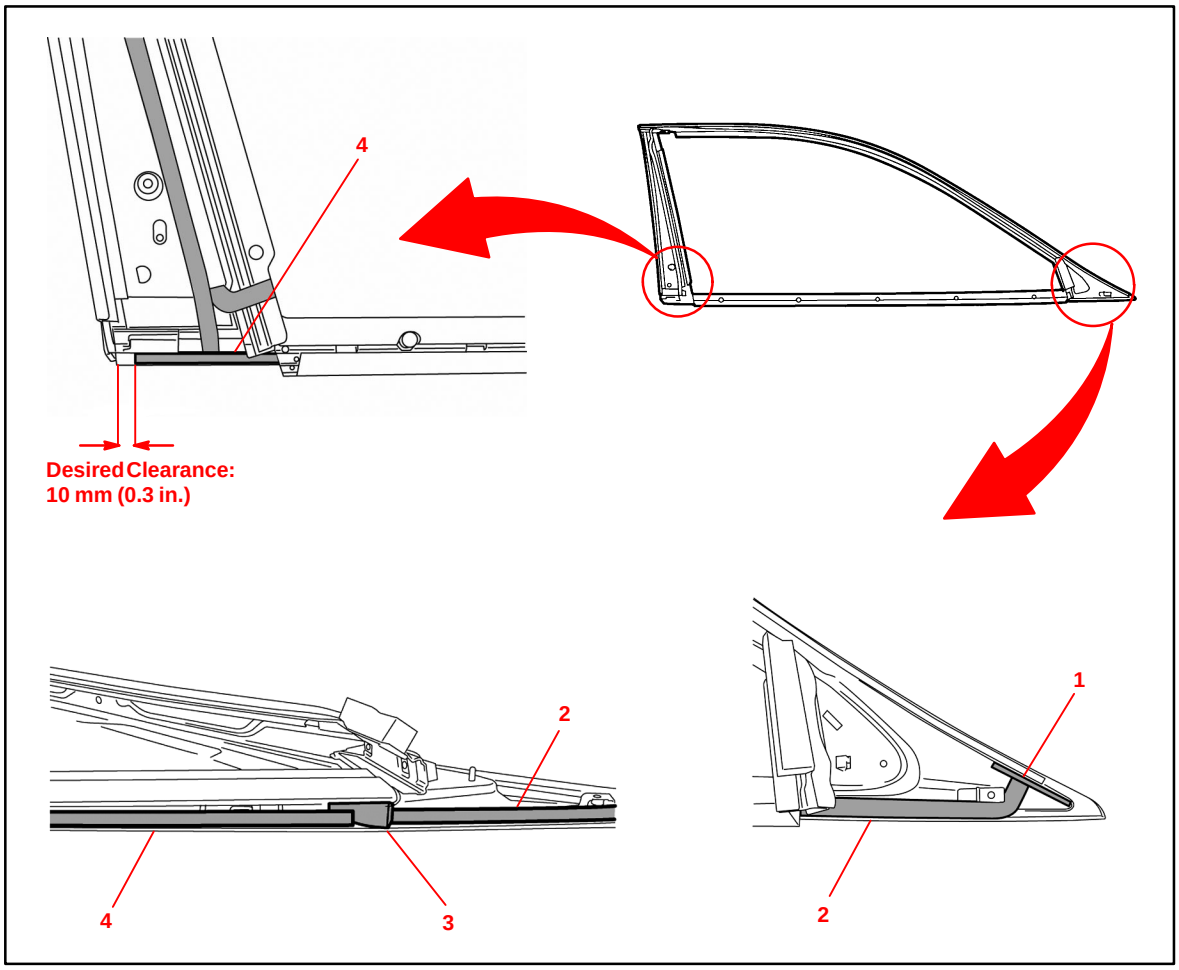
Part 1, Step A:

1. Add EPT foam behind the chrome belt molding.

   Dimensions: 5 x 5 x 925 mm (0.20 x 0.20 x 36.40 in.)

2. Attach the NEW EPT foam on the front door belt molding (refer to 4 in the following illustration).

3. Replace existing foam (refer to 2 in the following illustration).



A. Remove the original EPT foam (refer to 2 in the illustration above) and replace with NEW EPT foam (from the repair kit) as shown above.

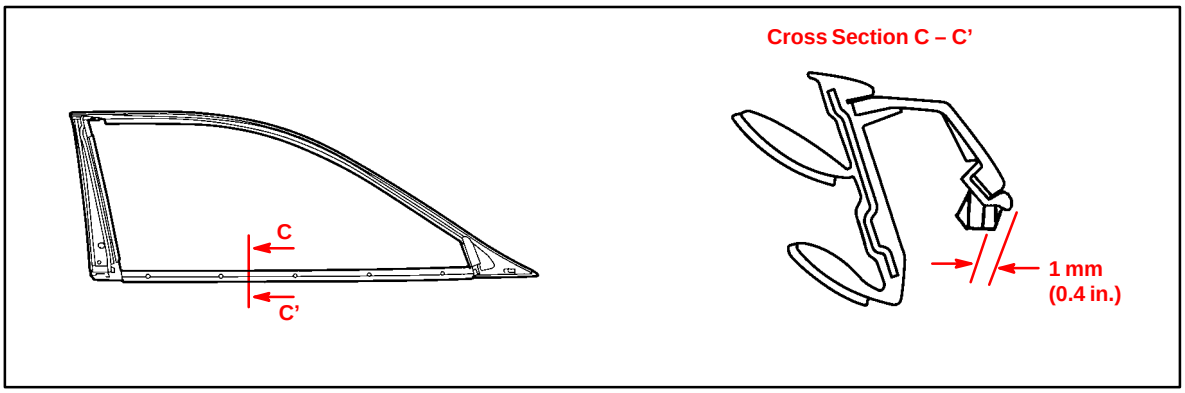
   NEW EPT Foam Dimensions: 5 x 10 x 142 mm (0.20 x 0.40 x 5.6 in.).

NOTE:

Make sure there is NO gap between the NEW foam (refer to 2 in the illustration above) and existing foam (refer to 1 & 3 in the illustration above).

Repair Procedure: Part 1 (Continued)

B. Attach the NEW foam (refer to 2 in the previous illustration), overlapping the existing foam (refer to 3 in the previous illustration).



NOTE:

The NEW foam (refer to 4 in the illustration on page 15) MUST be located 1 mm (0.03 in.) from the bottom edge of the molding (see cross section C – C' in the illustration above).

HINT:

When installing foam (refer to 4 in the illustration on page 15), cut the foam 10 mm (0.3 in.) from the rear edge of the front door belt molding.

Repair Procedure: Part 1 (Continued)

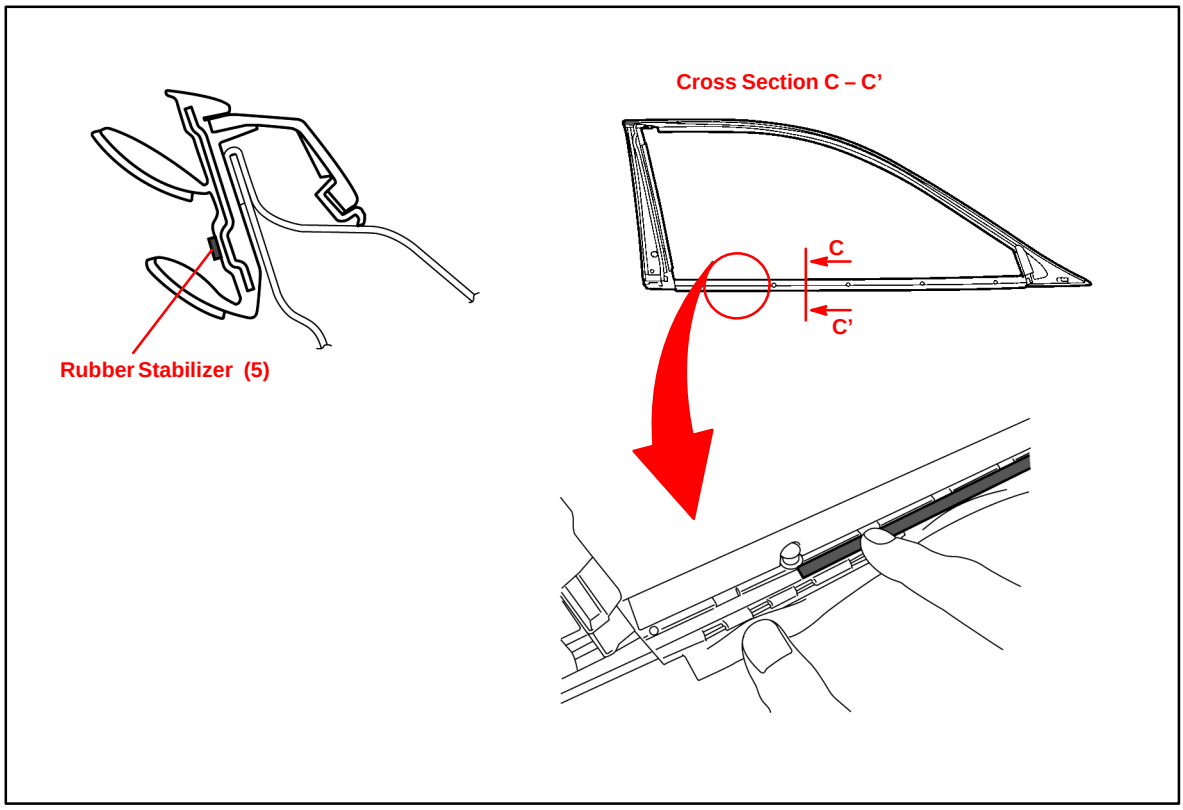
Part 1, Step B:

Add rubber stabilizer to outer door glass seal lip.

Strip of Rubber Dimensions: 1.5 x 4 x 740 mm (0.06 x 0.16 x 29.13 in.)

Attach the rubber stabilizer (refer to 5 in the following illustration) in the front door glass outer weatherstrip.

Strip of Rubber Dimensions: 1.5 x 4 x 740 mm (0.06 x 0.16 x 29.13 in.)

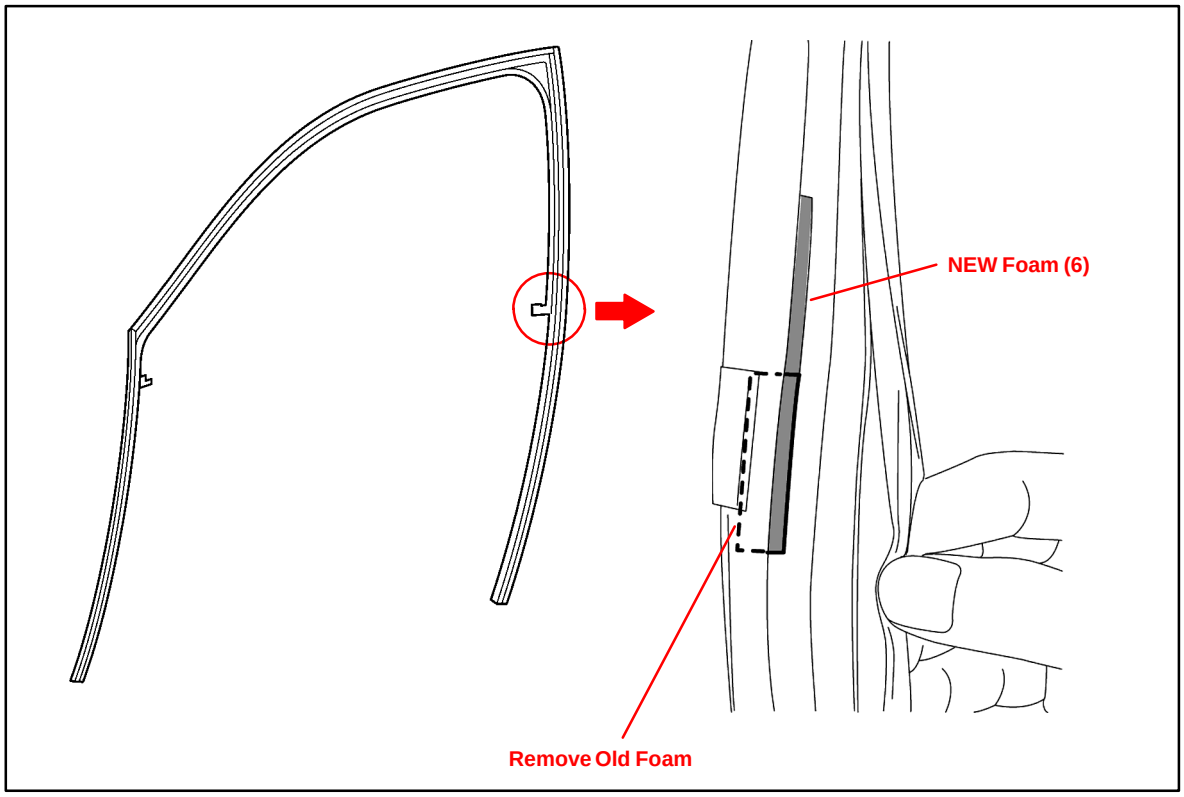


1. Clean the area of the molding where the rubber stabilizer will be installed. Make sure that the area is dry before installing the rubber stabilizer.
2. Attach the rubber stabilizer (refer to 5 in the illustration above) using instant "super" glue.
3. Start from the rear (near the B-pillar end of the belt molding).
4. Align the end of the rubber stabilizer to the last screw hole in the front door glass outer weatherstrip.

Repair Procedure: Part 1 (Continued)

Part 1, Step C:

1. Add EPT foam to glass run rubber.
   Foam Dimensions: 7 x 7 x 70 mm (0.07 x 0.07 x 2.76 in.)
2. Add EPT foam (refer to 6 in the following illustration) in front door glass run at the rear lower corner of the window opening.



3. Remove the existing piece of foam behind the glass run at the location shown in the picture above. Attach the new longer piece of foam (refer to 6 in the illustration above).

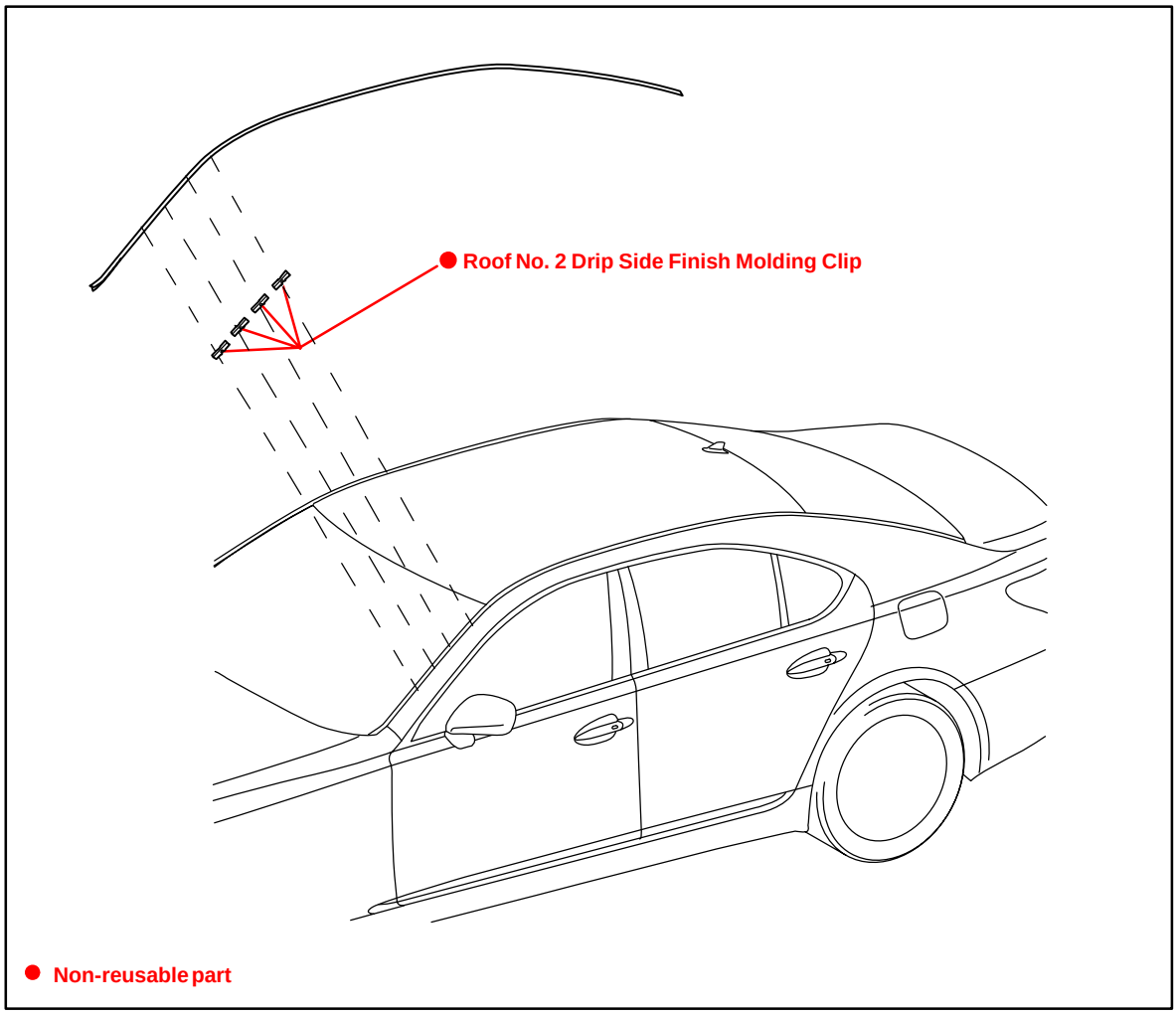
NOTE:
Position the NEW piece of foam (refer to 6 in the following illustration) starting at the lower end of the previous piece of foam.

Repair Procedure: Part 1 (Continued)

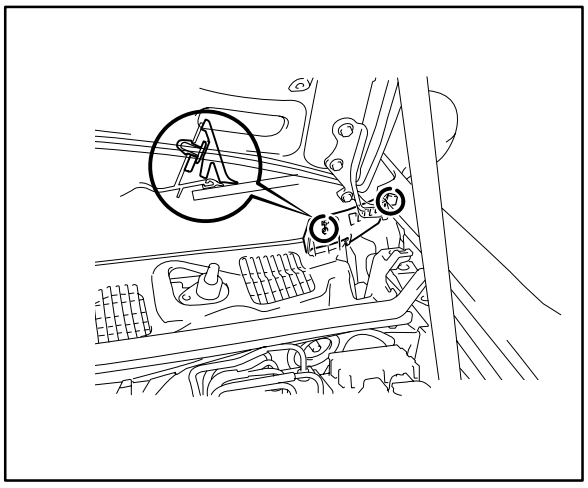
Part 1, Step D:

1. Add EPT foam behind the body color windshield molding (Roof Drip Side Finish molding) at base of A-pillar. (20 x 15 x 55 mm foam)

   Foam Dimensions: 20 x 15 x 55 mm (0.79 x 0.60 x 2.17 in.)



2. Remove the front fender to cowl side seal.



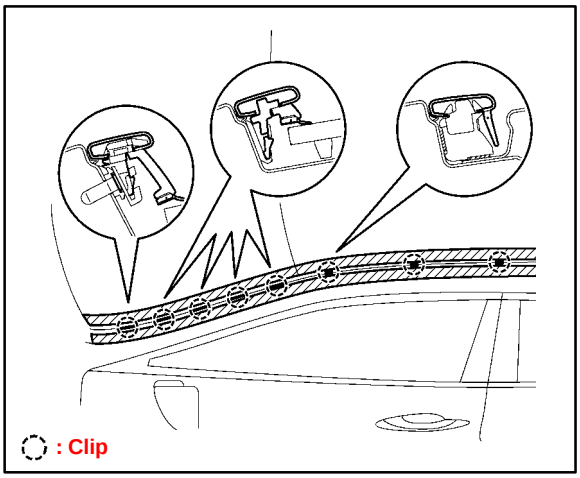
Repair Procedure: Part 1 (Continued)

3. Partially remove the roof drip side finish molding.

NOTE:

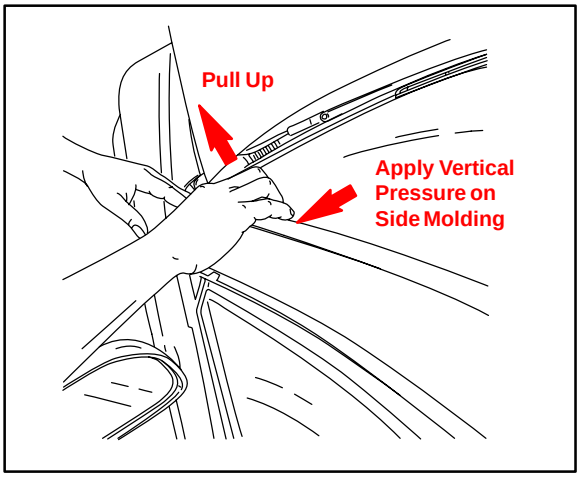
Detach and replace only the 4 WHITE clips from the bottom of the A-pillar and partially remove the molding up to the top of the windshield. The clip at the lowest position usually does NOT require replacement.

If the lowest clip is damaged during molding removal, replace with P/N 75545–30150 (RH side) and 75546–30100 (LH side).

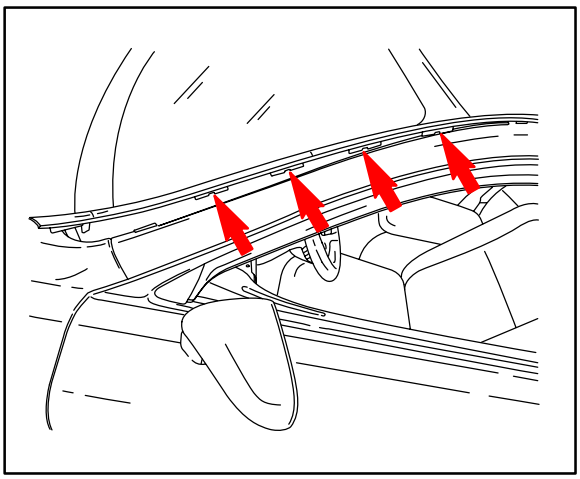


CAUTION:

- **Be careful when removing the molding.**
- **Protect the painted surfaces by applying masking tape during repair procedure.**
- **Move the bottom of the molding out from behind the fender and hood.**
- **Wrap the tip of the molding temporarily with a piece of cloth to protect the vehicle paint from damage.**

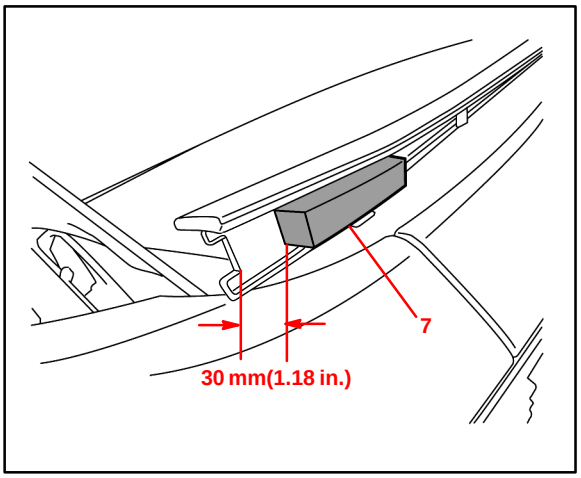


4. Remove the 4 white clips from the molding by pushing on the retaining clips on the molding to release the white clips (one-time use). Install 4 NEW clips to the A-pillar (NOT to the molding).



Repair Procedure: Part 1 (Continued)

5. Attach EPT foam (7) at the front of the roof drip side finish molding.

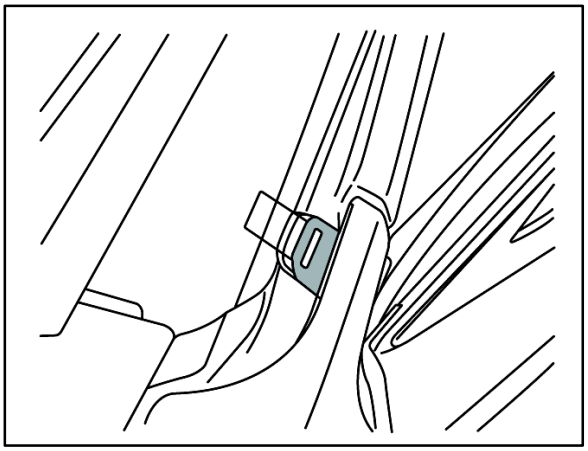


NOTE:

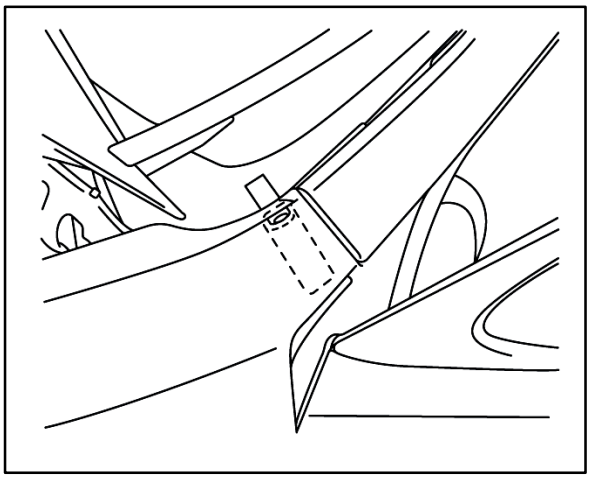
- **The front surface of the EPT foam MUST be aligned 30 mm (1.18 in.) from the cutout section in the molding.**
- **Align the foam so that the foam top surface is touching the bottom surface of the painted section of the molding.**

Part 1, Step (E):

1. Add I-shaped foam under the fender at the base of the A-pillar.



Start by installing the foam piece from the top of the fender as shown.



NOTE:

When fully installed, the top of the foam should be parallel with the edge of the windshield.

2. Pull the adhesive backing paper off after the foam is correctly positioned.

   This illustration shows the position of the foam after installation behind the fender.

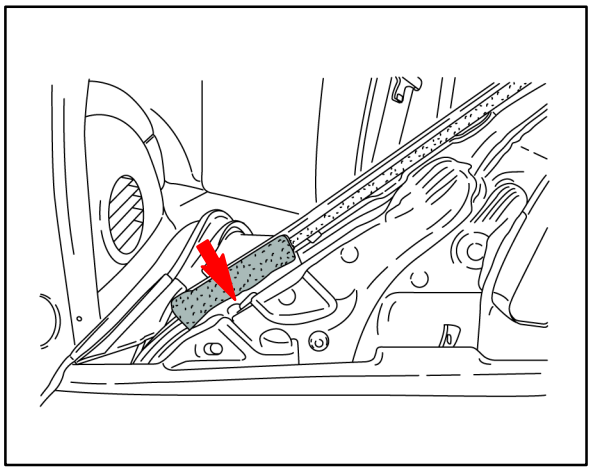
Repair Procedure: Part 1 (Continued)

Part 1, Step F:

Add EPT foam to outside door panel near base of A-pillar.

Foam Dimensions: 5 x 10 x 50 mm (0.20 x 0.40 x 1.97 in.)

1. Attach EPT foam to the door panel sheet metal. The location is at the front triangle area (behind where the chrome molding is normally located).
2. Align the center of the EPT foam with the location as shown in the illustration by the red arrow.



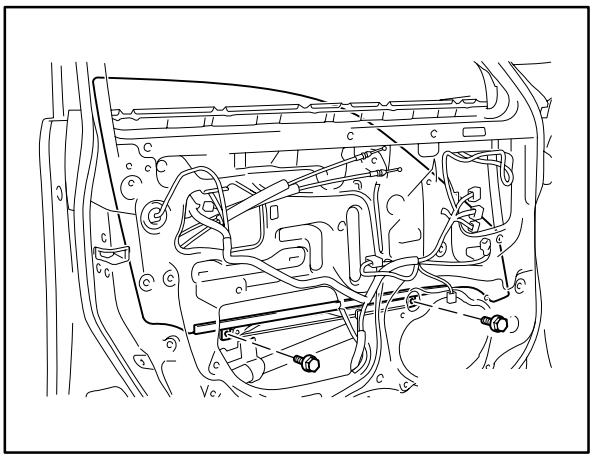
Repair Procedure: Part 2

Install laminated glass.

The laminated glass has two layers of glass with an acoustic layer in between.

NOTE:

Install the glass at the same step as removed in the disassembly procedure.



Reassembly

1. Reassemble in reverse order of disassembly (see some assembly hints on the following two pages.)

   For more information refer to TIS, 2007 model year LS 460 Repair Manual, *Vehicle Interior – Door/Hatch – "Front Door – Installation".*
2. Reset the radio presets and clock.
3. Test drive the vehicle to confirm that the noise is improved.

Repair Procedure Assembly Hints

NOTE:

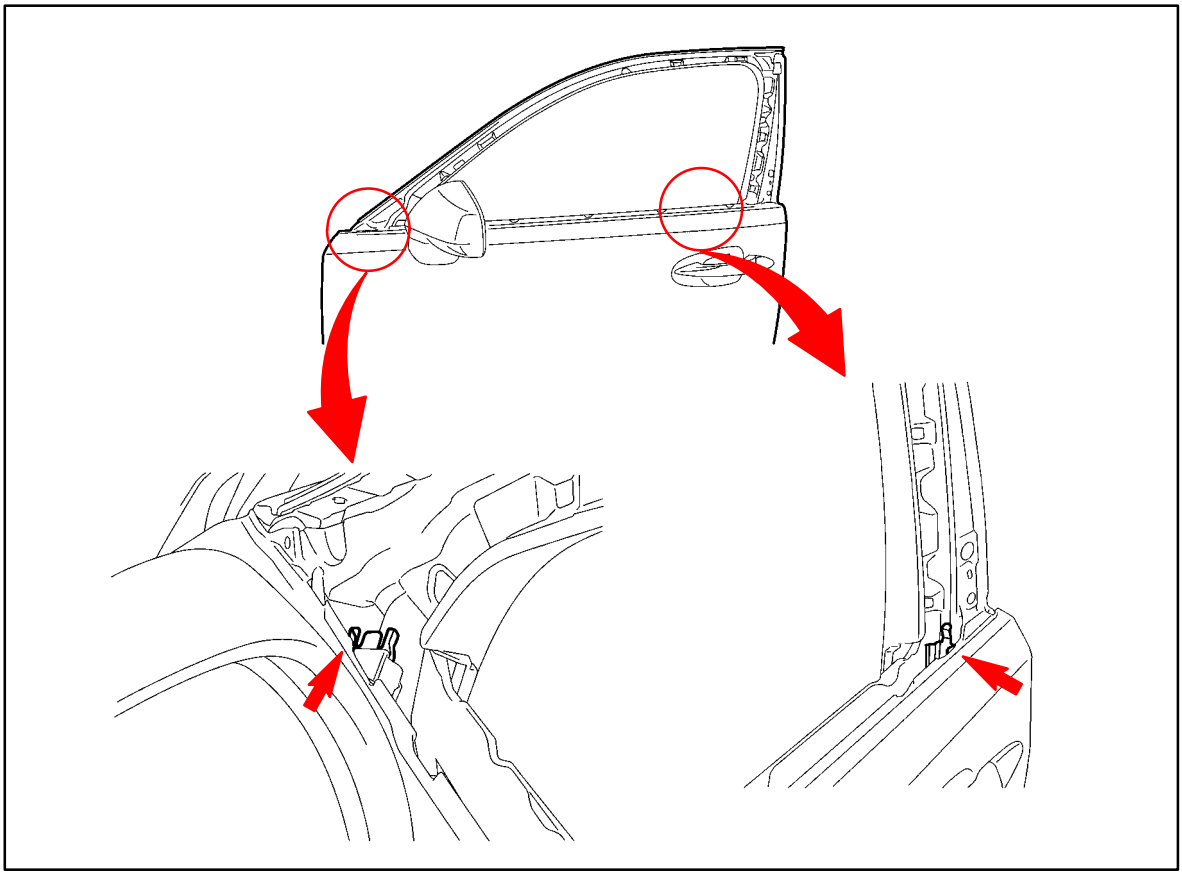
These hints only apply to vehicles that received the foam repairs (vehicles produced before the VIN break).

During assembly, be aware of the following areas where care MUST be taken.

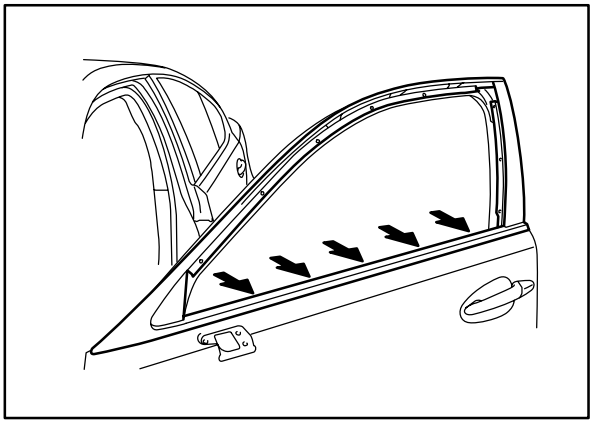
1. When installing the chrome belt molding assembly, be sure to engage the tabs at the front and rear lower glass runs correctly.

HINT:

Start by engaging the rear tab and then the front.



2. To reduce the gap between the front door belt molding sub–assembly and door panel, firmly press down on the front door belt molding sub–assembly while the 5 screws are tightened.



Repair Procedure Assembly Hints (Continued)

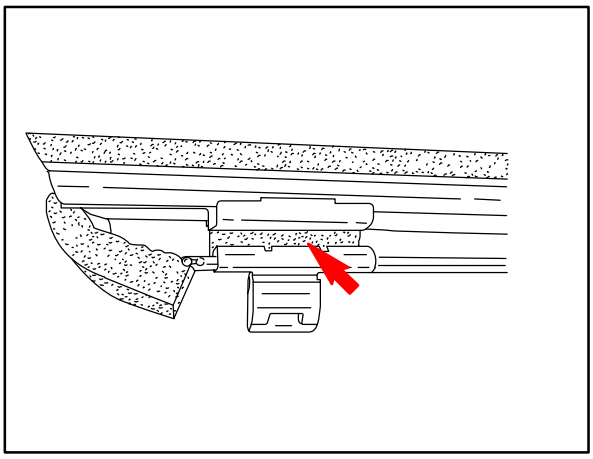
3. The door inner belt seal assembly has four metal clips that engage the metal flange of the door inner panel.

   At the top of the rear 3 of the 4 clips, a piece of foam is inserted to prevent noise from the metal to metal contact.

   These foam pieces are NOT glued in place so the foam pieces can fall out when the door inner trim panel is removed.

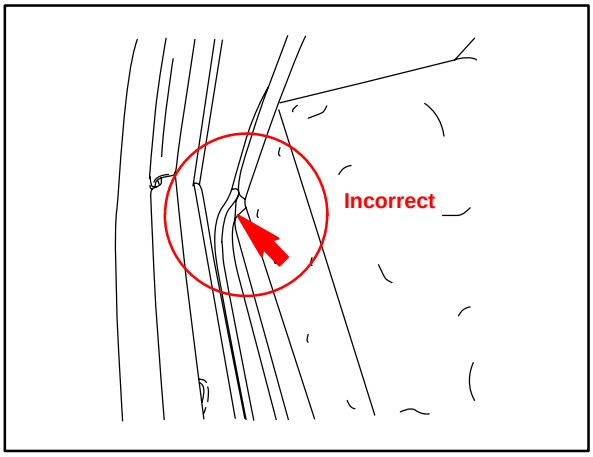
   When reassembling the door inner belt seal assembly to the door panel, check that the foam pieces are in place. If NOT, insert NEW pieces.

   Foam Dimensions:
   5 x 5 x 25 mm (0.20 x 0.20 x 0.98 in.)



   The door belt inner glass seal can be installed incorrectly causing a gap at the front end of the door glass run at the belt (near A-pillar).

   Make sure that the inner glass seal is sitting on the outside of the door glass run.



NOTE:
The illustration shows the glass seal installed incorrectly.