

- ATTENTION:**
- GENERAL MANAGER
 - PARTS MANAGER
 - CLAIMS PERSONNEL
 - SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2015-16MY Legacy and Outback Models
SUBJECT: Service Procedure to Address a Wind Rushing Sound from the Front Door Sash Area

NUMBER: 12-176-14R
DATE: 12/05/14
REVISED: 10/28/15

INTRODUCTION

This bulletin provides a service procedure to address customer concerns of a wind rushing-type sound which seems to come from the front door glass sash area. Customers may report a concern with one or both front doors. It is only necessary to address the side with the confirmed condition. The door glass sash separates the main door glass from the small partition glass on each door. The procedure involves replacement of the front door glass run channel (weatherstrip), partition glass/weatherstrip, sash and both the inner and outer door glass weatherstrips (sweeps). In addition, two pre-cut pieces of self-adhesive EPT foam, 1 piece of non-woven tape (will be cut into 3 pieces) and a **320mm section** of butyl (adhesive rubber) sealing material will be added in specific locations. **To address a customer concern of a fluttering-type sound coming from the B-pillar area at highway speeds, see TSB 12-185-15 for installation of the 320mm section of butyl tape only.**

PRODUCTION CHANGE INFORMATION

The latest changes in production were implemented during September, 2015 starting with the following VINs: **G3014581** (LEGACY) and **G3230683** (OUTBACK).

PART NAME	PART NUMBER
REPAIR KIT LEG/OBK F RH	61099AL00A
REPAIR KIT LEG/OBK F LH	61099AL01A
320MM SECTION OF BUTYL TAPE	SOA635138**
**included with all kits with a Pack Date after May 1, 2015	

PART INFORMATION

The parts kit will consist of the following components: (p.n. 61099AL00A (Right Front Kit is shown))

ID	DESCRIPTION	QUANTITY
A	Weatherstrip Inner	1
B	Glass Assy.	1
C	Sash	1
D	Glass Run Channel	1
E	Weatherstrip Outer	1

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CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

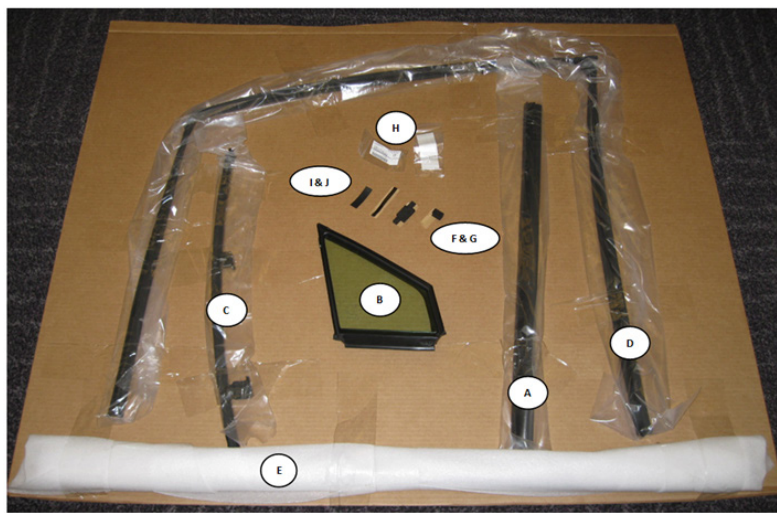
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ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

ID	DESCRIPTION	QUANTITY
F	EPT Foam Piece #1	1
G	EPT Foam Piece #2	1
H	Rivets	3
I	Non-Woven Tape	1
J	Butyl Tape	1

NOTE: If you have in stock or receive a repair kit with an 80mm section of butyl tape included (item “J” in the photo below), a much longer, **(320mm)** section, p.n. **SOA635138** must be ordered to properly complete these repairs. All repair kits with a Pack Date after May 1st, 2015 will include the longer **320mm section** of butyl tape. The repair kit part numbers will remain unchanged.

VERY IMPORTANT - Always verify the customer’s concern **and** read through this procedure completely **BEFORE** proceeding with any repairs.

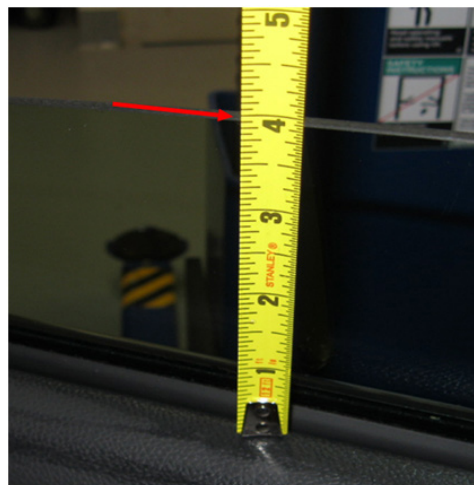


SERVICE PROCEDURE / INFORMATION

STEP 1 - Disassembly

IMPORTANT: Always take proper precautions to protect the outside paint finish and the door panel interior trim surfaces from becoming scratched / damaged throughout this procedure.

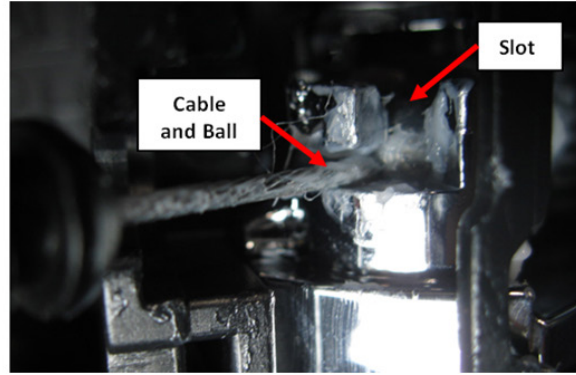
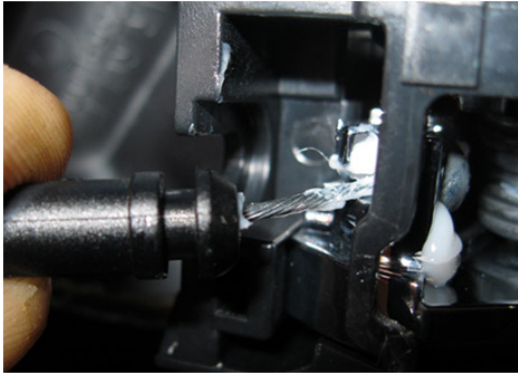
- Position the door glass 4” up from the top edge of the door trim panel.



- Disconnect the battery ground (-) cable from the battery sensor.

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- **CAREFULLY** remove the affected door trim panel following the procedure outlined in the applicable Service Manual. Release the control cables from the inner door handle as shown in the photos below. Align the cable with the slot then lift up and out of the lever to disengage it.

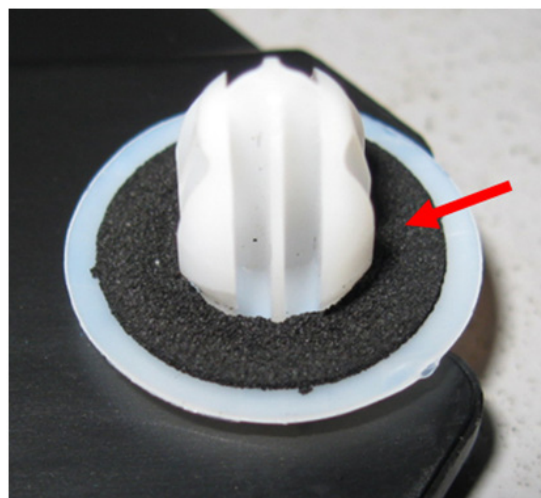


TIP: After disconnecting the control cables from the door handle, rotate the door panel 90 degrees clockwise as shown below. This will allow for much easier access to disconnect the door lock and power window switch harness connectors.



- After disconnecting the wiring harness connections for the power window and door lock switches, armrest pocket lamp, courtesy foot lamp and the speaker, put the trim panel in a safe place to protect it until needed.

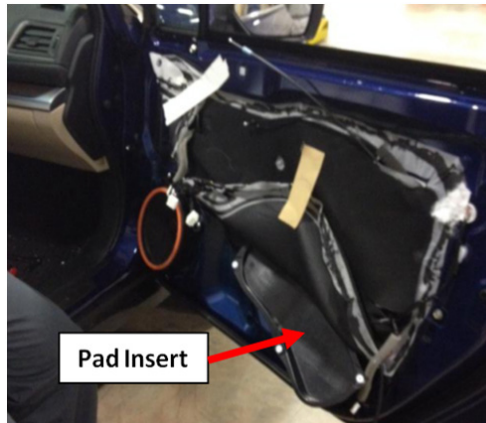
NOTE: Pay close attention to the small sealing gaskets used on the door trim and pad insert retaining clips. All of these gaskets must be in place as shown below before reassembly to properly seal their respective component and further reduce the chance of a rattling or wind rushing sound.



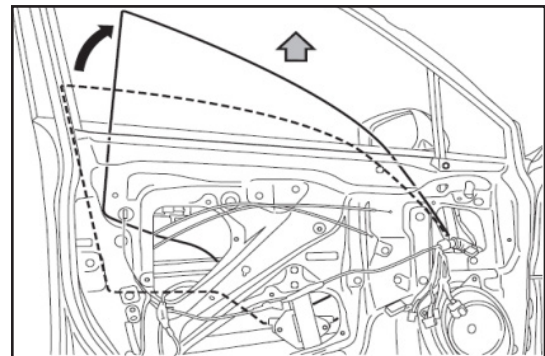
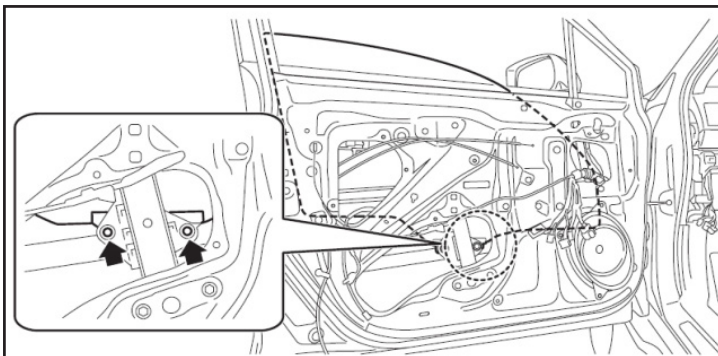
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- **CAREFULLY** release the vapor barrier from the bottom **only as much as is required** to remove the pad insert, access the window glass and sash retaining bolts and the wiring harness connections the inside door. Tape the vapor barrier to the undisturbed top portion to keep it out of the way. Using a trim clip removal tool, release the retaining clips and remove the plastic pad insert. Use a Philips screwdriver to remove the door speaker.

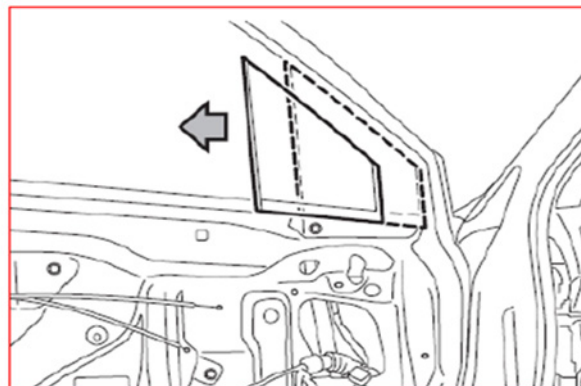
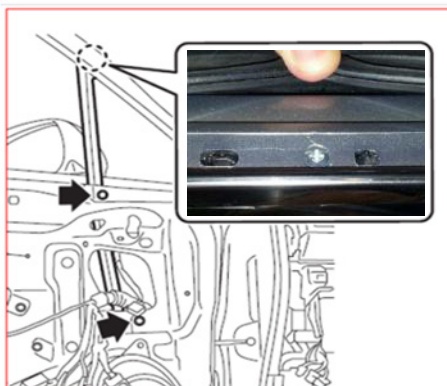
IMPORTANT: If the vapor barrier and / or pad insert become damaged, they must be replaced.



- As shown in the illustrations below, remove the 2- 10mm hex bolts securing the door glass to the window regulator. **CAREFULLY** tilt the glass toward the front as shown then lift to remove. Set the door glass aside in a safe place. Do not remove the window regulator assembly.
- After removing the door glass, completely remove the rubber glass run channel.



- Remove the #2 Philips screw securing the partition glass sash to the door frame. The screw is accessed by partially removing the outer door seal directly above where the sash meets the door frame. Remove the 2- 10mm hex bolts securing the sash to the inner door structure then remove the sash, partition glass and the run channel as shown in the illustrations below.



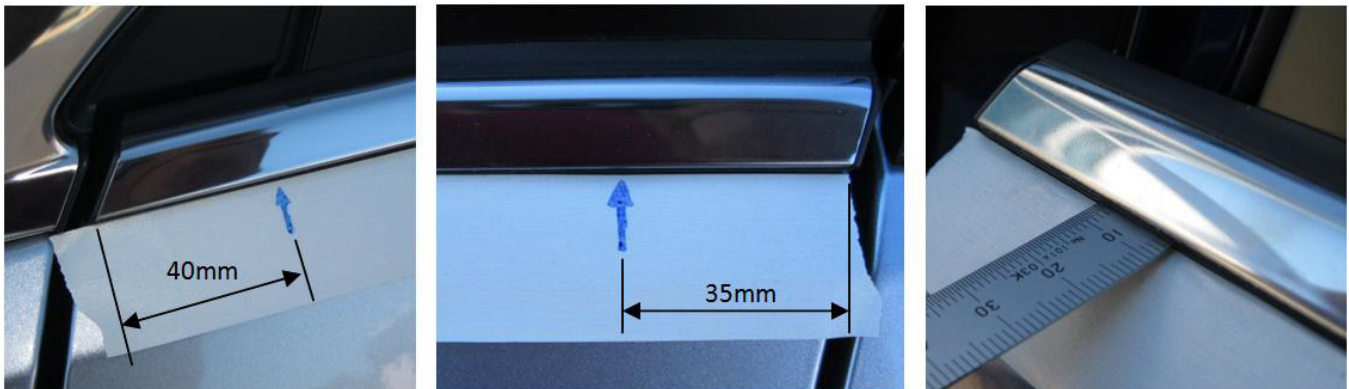
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NOTE: If the vehicle is equipped with the Genuine Subaru accessory Side Window Deflectors, (p.n. F0010AL500 - Outback or F0010AL900 - Legacy), the 2-sided tape securing the front leading edge of the front door deflector must be **CAREFULLY** cut in order to remove the sash from the door. A thin, sharp utility knife or box cutter used in the photo below works well for this purpose. Once the sash is removed, remove the residual adhesive from the inside of the deflector using your fingers to “roll” it off then clean any remainder with a mild solvent on a clean shop cloth.



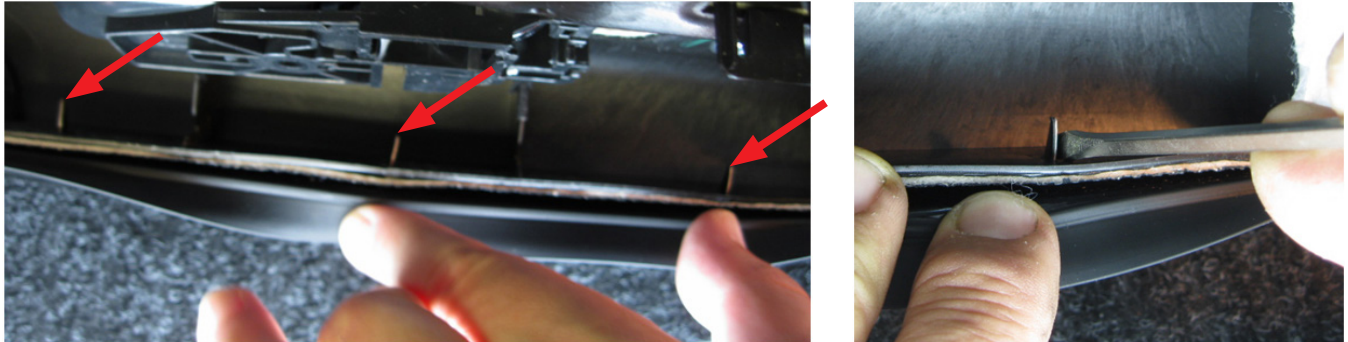
STEP 2 - Remove the outer door glass weatherstrip / chrome trim:

- Apply masking tape to protect the paint finish and mark it 40mm back from the front edge and 35mm forward of the rear edge as shown below.
- **CAREFULLY** slide a small metal straight edge (or equivalent) under the edge of the outer door glass weatherstrip / chrome trim at the marks to press on and release the 2 retaining clips. Hold the straight edge at the angle shown in the photo below for best results.

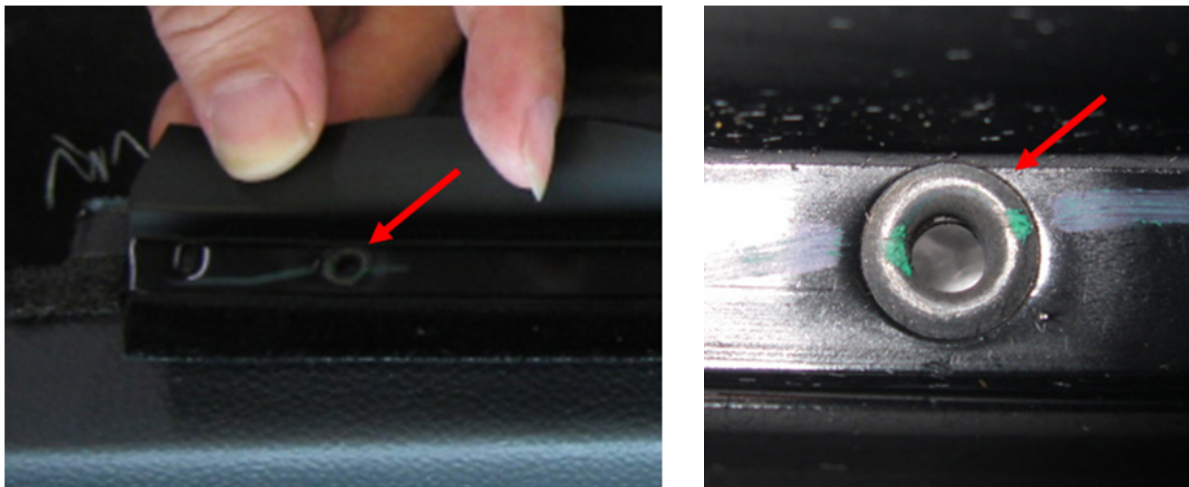


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STEP 3 - Place the door trim panel on a clean surface (e.g. a blanket or cloth fender cover) and access the inner weatherstrip mounting claws. Use a small flat-blade screw driver to lift and straighten the retaining claws which along with “pop” rivets, secure it to the door trim panel. Note the direction of the metal retaining claws as the claws on the replacement part must be folded in the same direction as the originals. For example: on the front door, the 3 claws ahead of the center retaining rivet point toward the rear while the 3 claws behind the center rivet point toward the front.



Using an electric drill with a 5/32” drill bit turning at **LOW SPEED**, **CAREFULLY** drill out the retaining rivets found between the “flaps” of the weatherstrip.

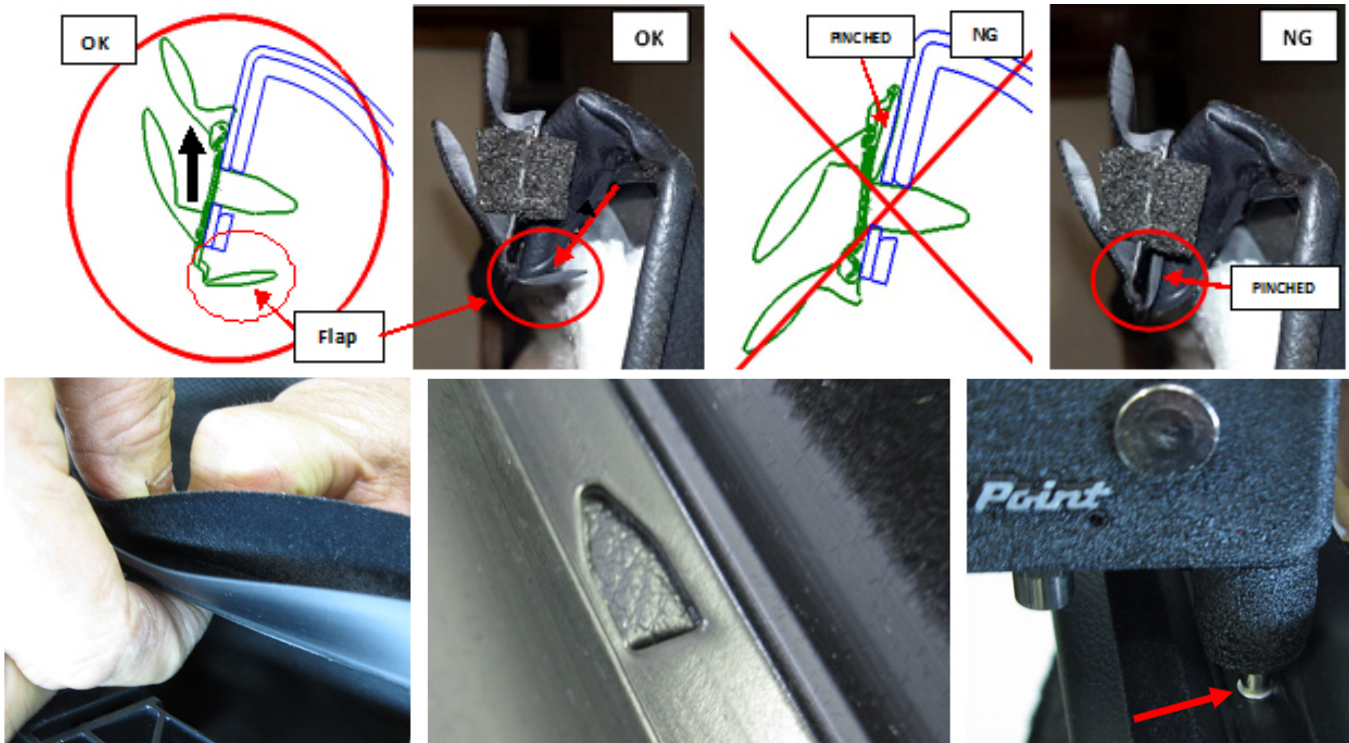


The photo below shows the drill being held at an angle to minimize the tendency for the rivet to spin. A ¼” drive, 5mm deep-well socket was used as a drill stop and an additional “grip” to provide extra control of the drill bit while drilling out the rivets. Always make sure to vacuum away any remaining metal chips after drilling is complete.



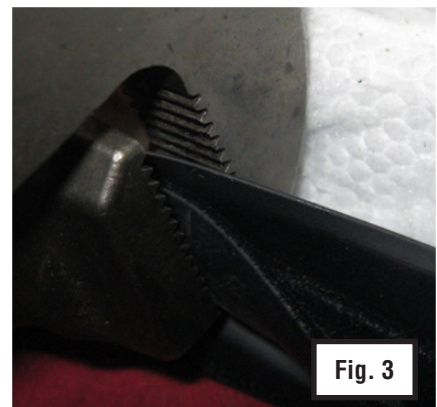
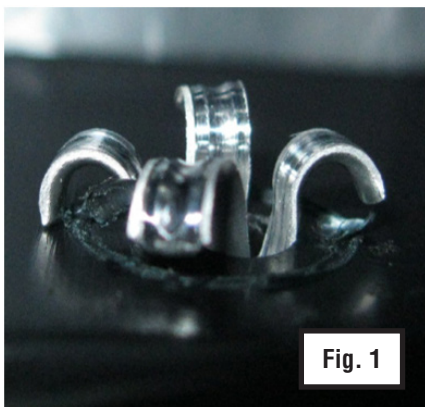
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Fit the replacement inner weatherstrip to the trim panel. After confirming the new weatherstrip is fitted properly as shown in the illustrations below, left (sweeps pointing upward and the “flap” portion NOT pinched in between the weatherstrip and the trim panel), proceed with “clamping” it to the door trim panel. Using your thumbs and fingers as shown below, bend the retaining claws over **in the same direction as the originals** (referenced earlier in this step) using your forefinger. The metal used for the backing and retaining claws is relatively pliable and easily bent into position.

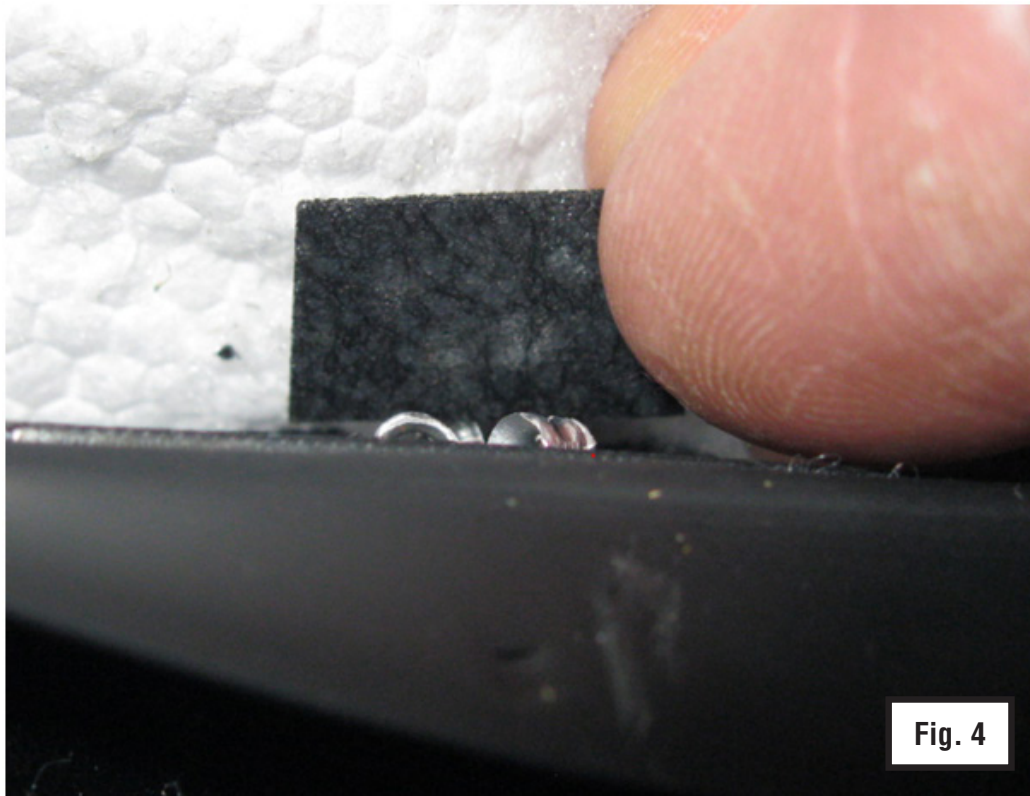


Once all the new claws are bent over and holding the weatherstrip tight against the door panel, install the new retaining rivets using a pop rivet installation tool.

After installation, the back side of each new rivet will mushroom or “bloom” as shown below (Fig. 1). Pinch the inside flap of the weatherstrip and the lower glass-side flap together (Fig. 2). Using a pair of slip-joint pliers, **CAREFULLY** crush the bloom, one part at a time. The rivet material is aluminum so, only a small amount of clamping force is needed to achieve the desired result (Figs. 3 and 4). **They do not need to be crushed flat.** Maximum height is 3mm. Using the supplied piece of non-woven tape, cut it into thirds (3 pieces) and apply one piece over each rivet bloom (Fig. 4). Smooth the tape for proper adhesion.

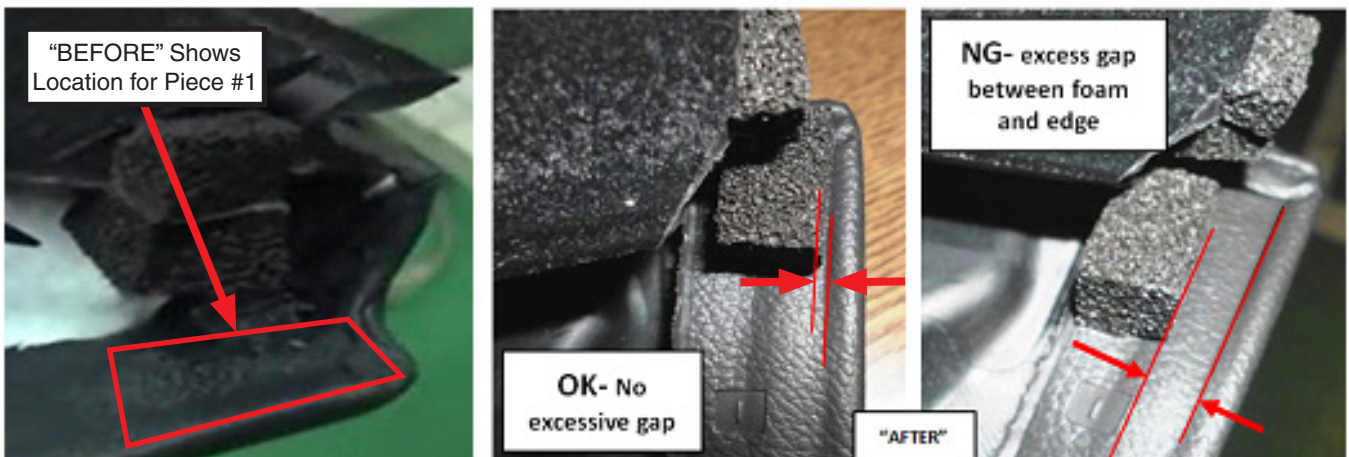


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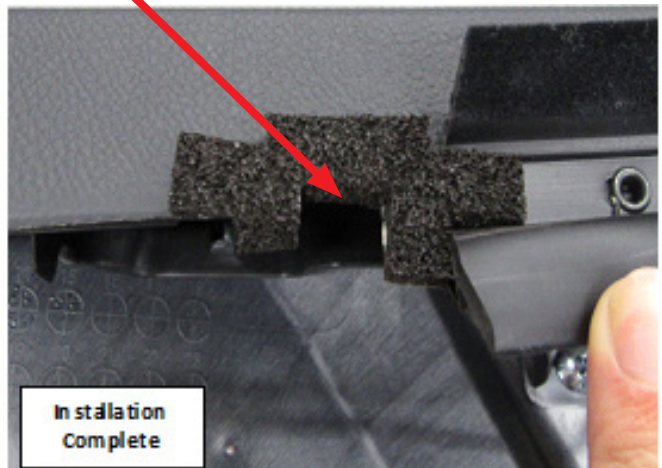
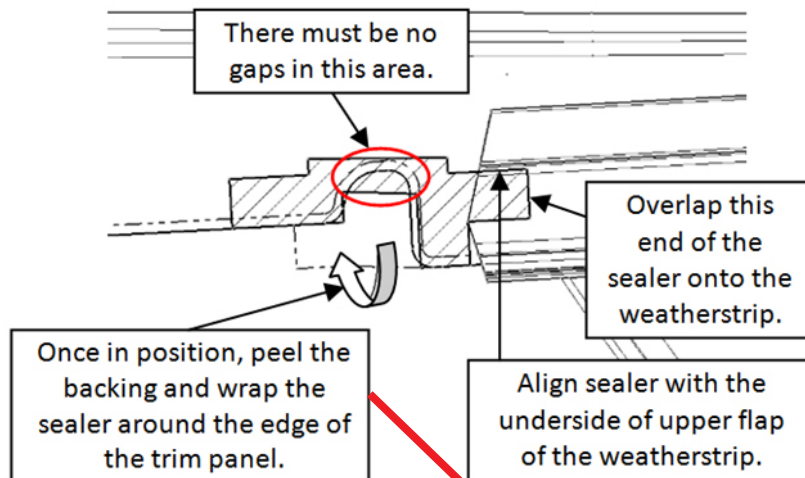
STEP 4 - Application of the EPT Foam Sealing Material

- **EPT Foam Piece #1** is applied to top **REAR** inside corner of the door trim panel where the trim material wraps around the back edge as shown in the “Before” and both the proper and improper installation “After” photos below. The NG photo shows an excessive gap between the foam and edge of the trim panel.



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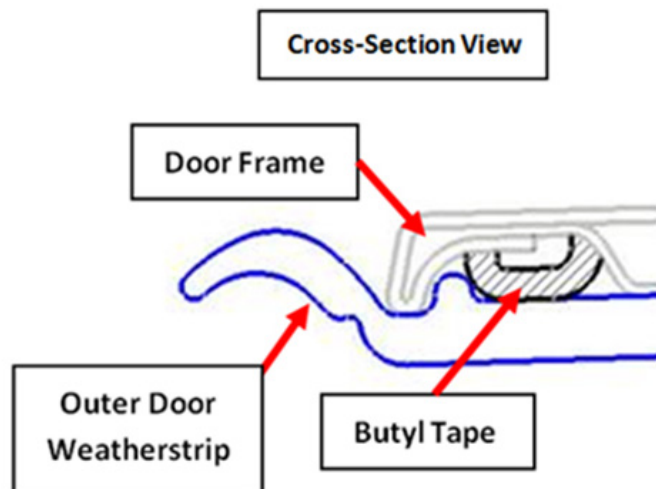
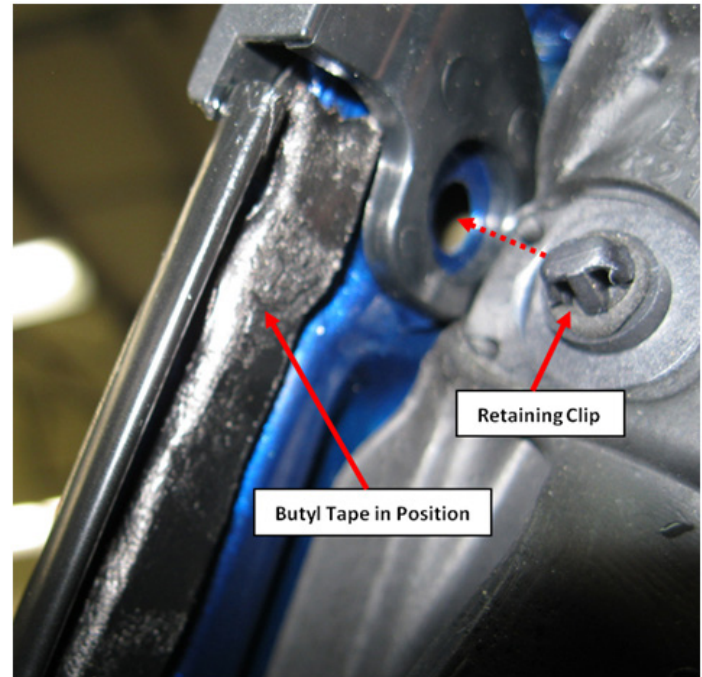
- **EPT Foam Piece #2** is applied to the top front of the door trim panel at the front edge of the inner door glass inner weatherstrip. This piece seals the inside face of the sash and has been pre-cut so it can be properly folded into position as shown in the illustration and photos below.



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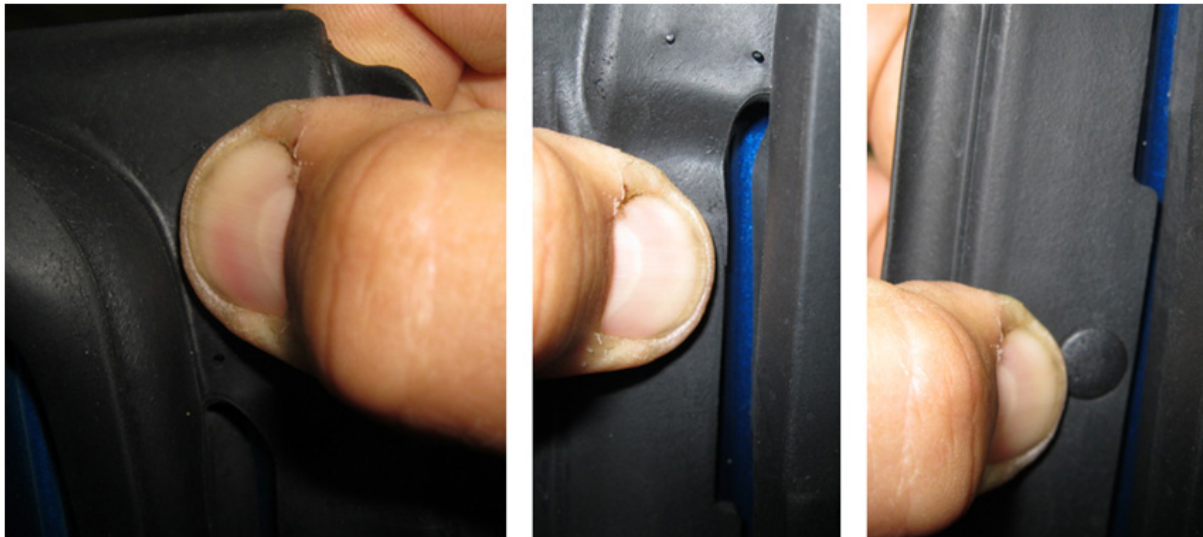
STEP 5 - Application of Butyl Tape

- To better secure the **upper front corner of the REAR DOOR frame weatherstrip** to the door frame, release the plastic retaining clip and pull back the weatherstripping to access the area where the **320mm section of butyl tape** will be applied. Be sure to clean the area where the butyl tape will be applied with a mild solvent on a clean shop cloth. After drying the area completely, apply the butyl tape to the door frame where indicated in the illustrations and completed installation photo below.

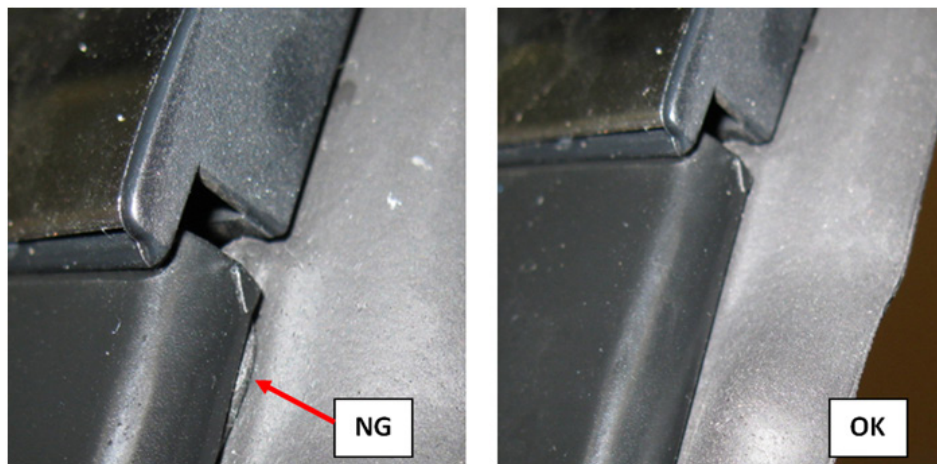


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After the butyl tape is applied, refit the weatherstrip and make sure the retaining clip “clips” back into the hole as shown to properly secure and position it. Work the weatherstrip onto the butyl tape with your thumbs making sure it is smooth and any bumps or high spots have been worked out.

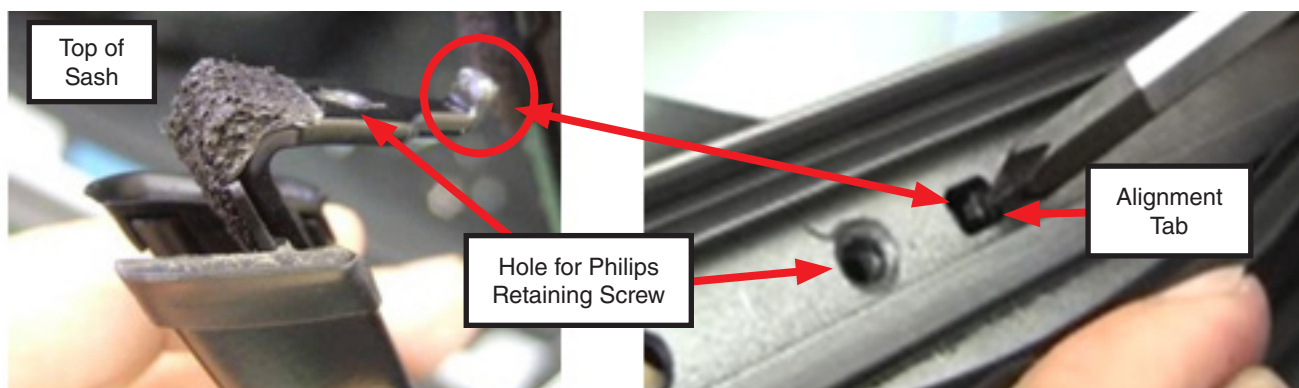


To complete this step, make sure the front of the weatherstrip is properly tucked in behind the chrome outer molding as shown below.



STEP 6 - Reassembly

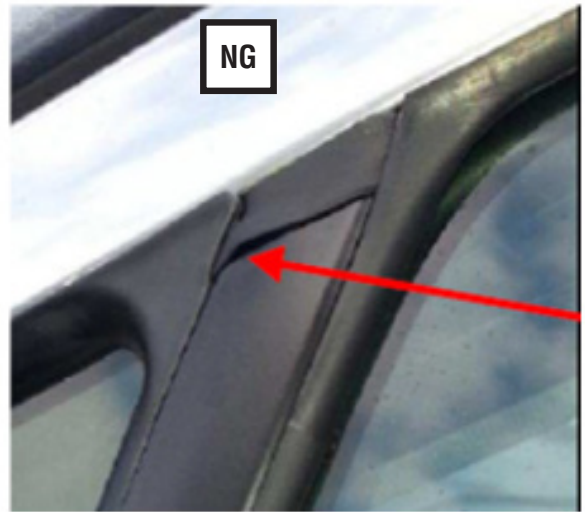
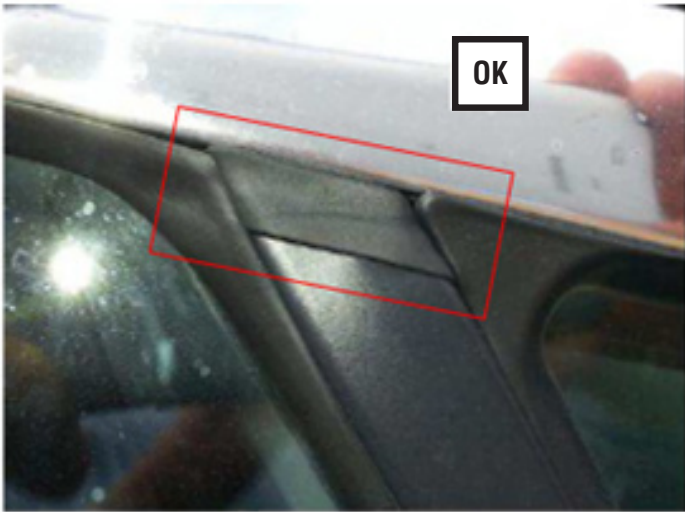
- Install the new partition glass assembly, sash and glass run channel into the door frame in reverse order of removal. The rubber edges (lips) of all components must be smooth and flat.
- Confirm the alignment tab on the top of the sash is properly located in the hole in the door frame as shown below before installing the Philips retaining screw.



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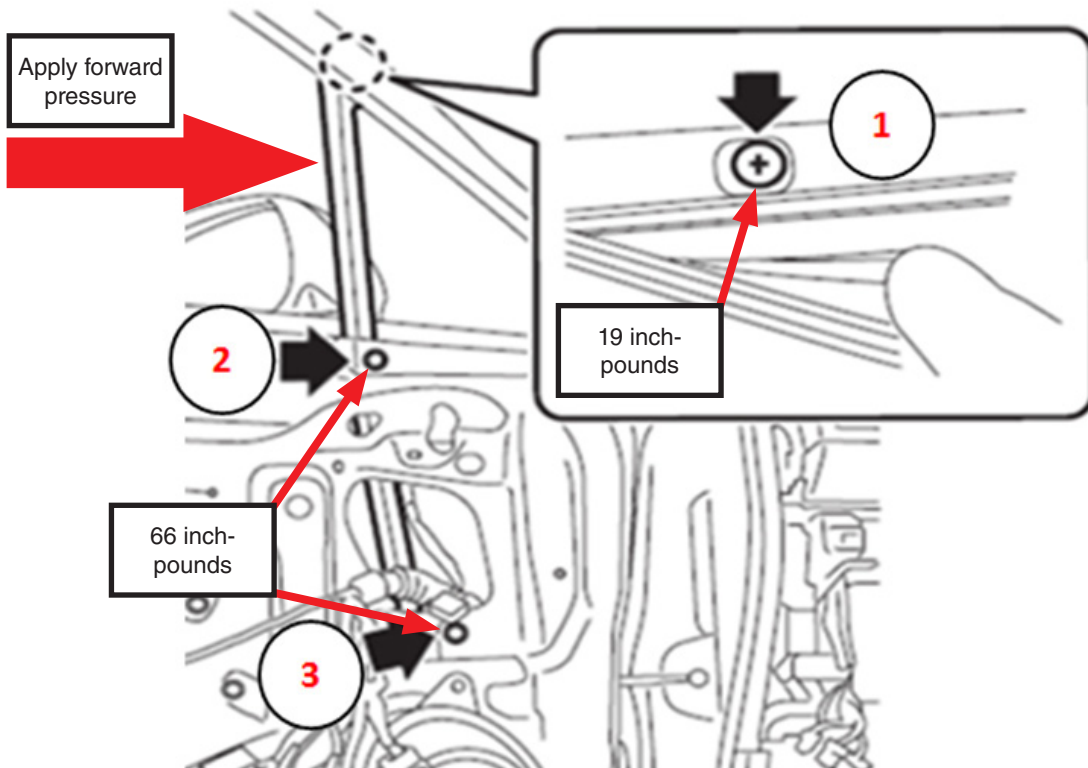
IMPORTANT:

- Before torquing the sash hardware, inspect the partition glass weatherstrip / seal closely for proper fit with no gaps or bunching up of the seal outer lip. An example of a proper and an improper fit are shown below.



- Always follow the torque sequence shown below when tightening the sash hardware.

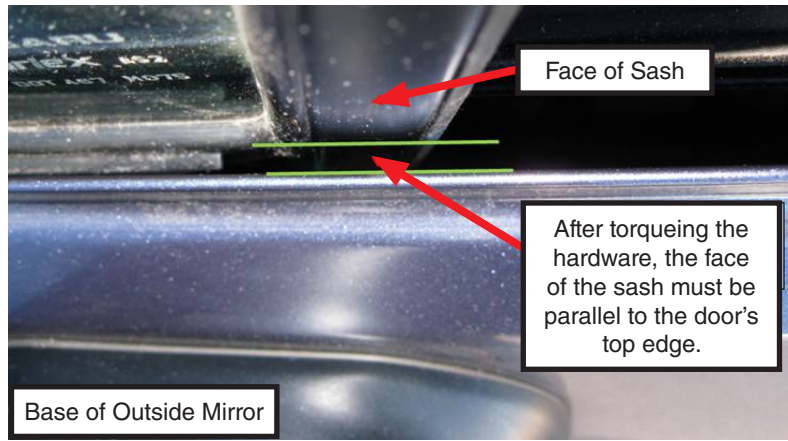
While applying substantial forward pressure on the sash against the partition glass, fully torque the top Philips retaining screw to 19 inch-pounds (1.6 ft. lbs.) then torque the 10 mm hex sash retaining bolt #2 to 66 inch-pounds (5.5 ft. lbs). While keeping forward pressure on the bottom of the sash, tighten and torque the 10mm hex sash bolt #3 to 66 inch-pounds (5.5 ft. lbs). Do not snug the hardware then go back and final torque it. The initial tightening must be right up to the specified torque.



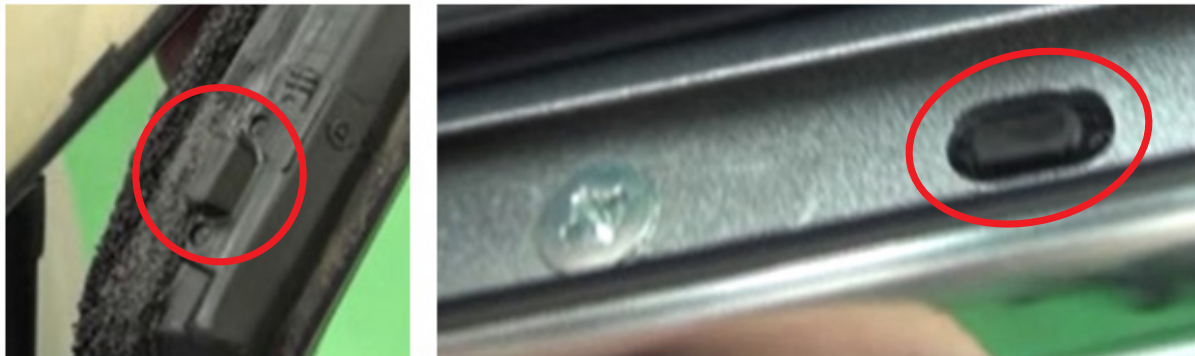
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IMPORTANT: After the sash hardware has been torqued, make sure the face of the sash is parallel to the top edge of the door as shown in the photo on the right.

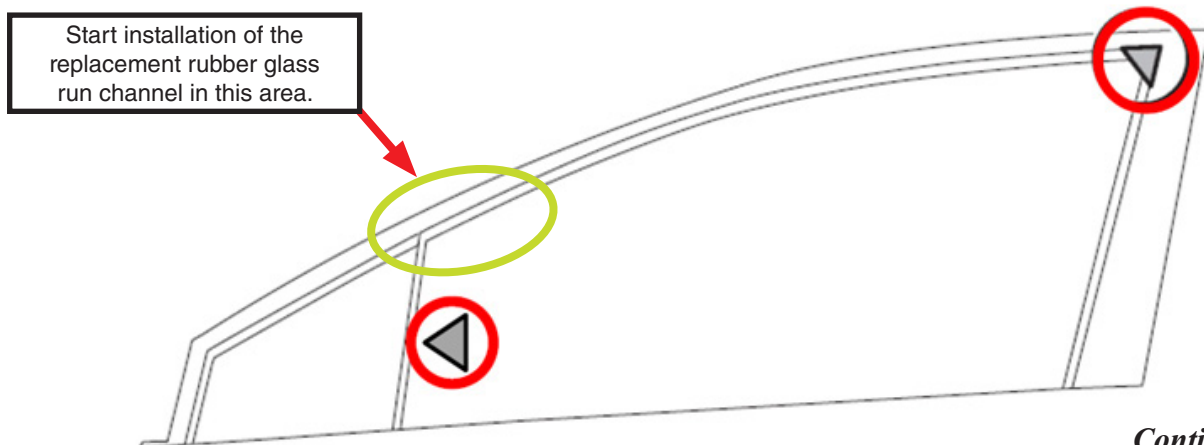
IMPORTANT NOTE: If the vehicle is equipped with the Genuine Subaru accessory Side Window Deflectors, apply a new piece of double-sided mounting tape to the inside front edge of the deflector to re-attach it to the sash **BEFORE** installing the new sash back into the door. A small piece (2" long x 3/8" wide) of 3M .030" thick, Automotive Attachment Tape Part # 06377 (available from any auto body supply jobber) is recommended for this purpose. Leave the adhesive backing in place on the sash-side of the tape until the sash has been reinstalled. Once the sash is in its final position and fasteners properly torqued, pull the deflector out enough to access the sash-side backing of the tape. Peel the backing and press the deflector onto the new sash securing it in place.



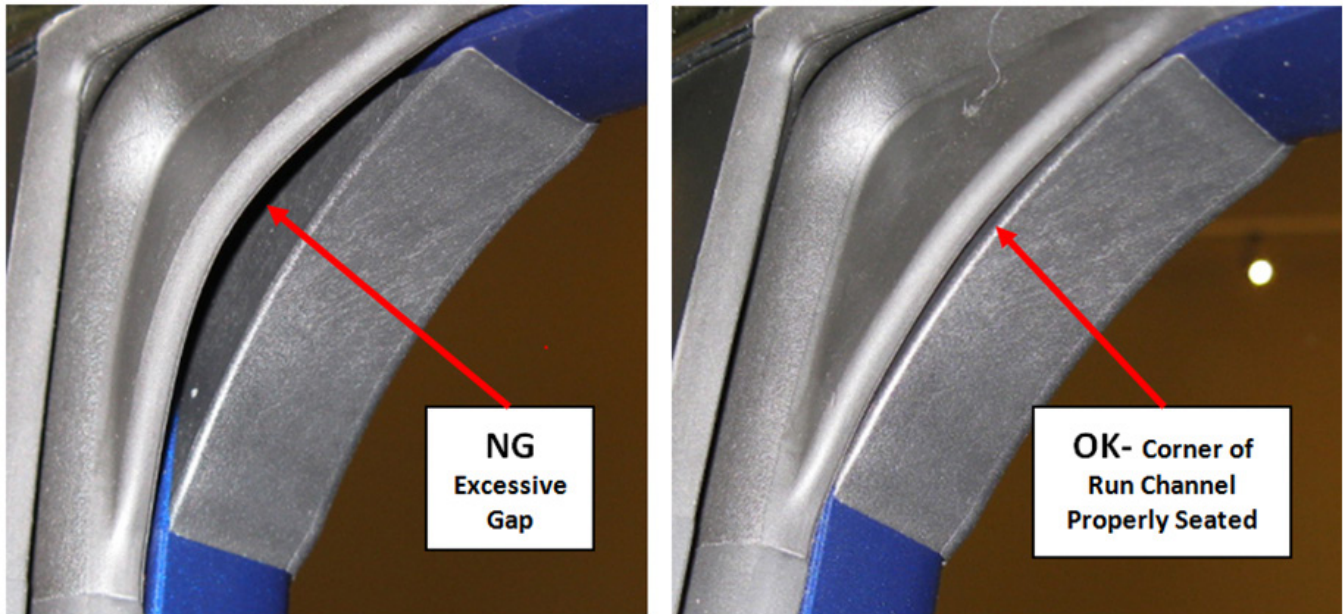
Install the new rubber glass run channel into the door frame starting at the top front "corner" area. Confirm the locating tab portion is seated in the hole just behind the Philips screw securing the top of the sash to the door frame as shown in the photos below. Continue to fit the run channel into the door frame and all the way to the bottom in both the new partition glass sash (front) and the channel for the rear edge of the glass.



Apply pressure in the direction of the arrows shown in the illustration below to make sure it is fully seated paying close attention to the upper rear corner. Use the photos below to confirm a proper fit in this area. Again, all the rubber component edges (lips) must be smooth and lay flat.



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- **CAREFULLY** reinstall the door glass into the new glass run channel and slide it down to meet the regulator. Reinstall the 2 mounting bolts and torque to 5.5 ft. lbs. (66 inch pounds).
- Reinstall the pad insert then refit the vapor barrier making sure it is completely resealed just as it was prior to the repair. Reinstall the door speaker.

REMINDER: If the vapor barrier and / or pad insert become damaged, they must be replaced.

- Install the new replacement outer door weatherstrip / chrome trim in reverse order of removal making sure it is fully seated onto the door and fully secured on both ends by the retaining clips.
- Reconnect the door lock and latch control cables and all removed wiring harness connectors.

IMPORTANT: When reinstalling the door lock and latch control cables, always confirm the outer casings are fully locked back into place in their respective retaining grooves.

- Always verify proper power window, power door lock, door latch, armrest pocket lamp, courtesy foot lamp and speaker operation **before** final installation of the door trim panel.
- Once proper operation is confirmed, verify all the retaining clip sealing gaskets are in place and reinstall the door trim panel in reverse order of removal.

IMPORTANT: When reinstalling the door trim panel, keep EPT Foam Piece #1 (located on the top REAR corner of the door trim panel) from binding or “bunching up”, by holding the lower portion of the door trim panel away from the door while sliding it down into position.

STEP 7 - Reconnect the negative battery cable and torque the 12mm nut to 7.5 Nm (5.5 ft. lbs).

- Reset the customer’s radio station presets and navigation system favorites.

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NOTE: For the power window Auto Up / Down feature to operate, the system will need to be re-initialized, regardless of which front door was repaired. Always confirm Auto Up / Down feature is working on **BOTH** front windows after reassembly. Follow the steps below to complete the re-initialization procedure:

1. Begin with the window fully closed. Push the switch down to open the window about halfway.
2. Pull the switch up to close the window fully in steps (it will only close about 2” each time the switch is operated).
3. Once the window is fully closed, pull up and hold the switch again for 1 second to complete the initialization procedure.

STEP 8 - Road test the vehicle to confirm the repair has been successful to complete the procedure.

WARRANTY / CLAIM INFORMATION

For vehicles within the Basic New Car Limited Warranty period, this repair may be claimed using the following information:

LABOR DESCRIPTION	LABOR OPERATION #	FAIL CODE	LABOR TIME
2015-16 Legacy and Outback Front Door Wind Rushing Sound Repair- 1 Side	B912-503	WAZ-48	1.1
2015-16 Legacy and Outback Front Door Wind Rushing Sound Repair- Both Sides	B912-504		1.7
Models With Side Window Air Deflectors (Add this labor operation ONE TIME for each side.)	C912-505		0.1

NOTE: Up to \$1.00 can be claimed in sublet to cover the cost of the 3M Attachment Tape where applicable.

IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.