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June 30, 2021

TO: All U.S. Ford and Lincoln Dealers

SUBJECT: Customer Satisfaction Program 20M04
 Certain 2015-2019 Model Year F-150 and 2017-2019 Model Year F-250-F-550
 Vehicles - Power Door Lock Actuator Failure

PROGRAM TERMS

This program extends the warranty coverage of the power door lock actuators to 10 years of service or 150,000 miles from the warranty start date of the vehicle, whichever occurs first. If a vehicle has already exceeded either the time or mileage limits, this extended warranty coverage will last through December 31, 2021.

This program may be used multiple times as long as the vehicle is within time and mileage limits of the program. Once the program has expired, Service Part Warranty (SPW) and Extended Service Plan (ESP) may be eligible. Coverage is automatically transferred to subsequent owners.

VEHICLES COVERED BY THIS PROGRAM

Vehicle	Model Year	Assembly Plant	Build Dates
F-150	2015-2019	Dearborn	March 12, 2014 through February 26, 2019
		Kansas City	August 11, 2014 through March 4, 2019
F-250 - F-550	2017-2019	Kentucky	October 8, 2015 through March 5, 2019
		Ohio	February 5, 2016 through March 11, 2019

Affected vehicles are identified in OASIS.

REASON FOR PROVIDING EXTENDED WARRANTY COVERAGE

In some of the affected vehicles, moisture and water entering a power door lock actuator housing can cause the actuator motor to momentarily freeze in cold temperatures and may also cause actuator motor corrosion over time. Frozen water within a power door lock actuator housing or corrosion of the power door lock actuator motor could result in an inoperative power door lock function on the affected door.

NOTE: If a power door lock is inoperative due to an actuator failure, the customer will still be able to manually lock and unlock the vehicle using the door lock indicator located on the top of the door panel, or the door lock cylinder key.

SERVICE ACTION

NOTE: For vehicles outside new vehicle bumper-to-bumper warranty coverage, advise customer that the program focus is only on the power door lock actuators. Any other failure modes (fuse, wiring, door latch, etc.) are not covered by this program.

Service Action Continued on the Next Page

SERVICE ACTION (Continued)

If an affected vehicle exhibits the condition listed above, dealers must perform Workshop Manual (WSM) diagnostics to determine the root cause of the failure. If a power door lock actuator is found to be at fault, dealers are to reprogram the Body Control Module (BCM) software using Integrated Diagnostic Software (IDS) release 122.03 or higher and replace the affected power door lock actuator(s) using one of the three technical instructions (listed below as **Procedure A**, **Procedure B**, or **Procedure C**). The procedures have been developed based on vehicle build dates and Field Service Action (FSA) 18N03 repair status. This service must be performed at no charge to the vehicle owner.

Procedure A: Reference the table below to determine if the affected vehicle meets any of the criteria. Procedure A must be used for any vehicles that falls within the build date criteria in the table below.

Vehicle	Model Year	Assembly Plant	Build Dates
F-150	2018-2019	Dearborn	April 13, 2018 through February 26, 2019
		Kansas City	April 4, 2018 through March 4, 2019
F-250 - F-550		Kentucky	April 22, 2018 through March 5, 2019
		OHAP	April 18, 2018 through March 11, 2019

Procedure B: This procedure applies to vehicles that have had FSA **18N03 previously completed**, as shown in the vehicle warranty history.

Procedure C: This procedure applies to vehicles that have FSA **18N03 open** in the vehicle OASIS menu.

- **NOTE: Safety Recall 17S33 must be closed prior to completing Procedure C.**

OWNER NOTIFICATION MAILING SCHEDULE

Owner Letters are expected to be mailed the week of July 26, 2021. Dealers should repair any affected vehicles that experience issues with the power door lock actuators, whether or not the customer has received a letter.

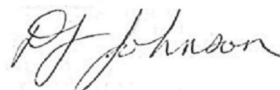
ATTACHMENTS

Attachment I: Administrative Information
Attachment II: Labor Allowances and Parts Ordering Information
Attachment III: Technical Information
Owner Notification Letters

QUESTIONS & ASSISTANCE

For questions and assistance, contact the Special Service Support Center (SSSC) via the SSSC Web Contact Site. The SSSC Web Contact Site can be accessed through the Professional Technician Society (PTS) website using the SSSC link listed at the bottom of the OASIS VIN report screen or listed under the SSSC tab.

Sincerely,



David J. Johnson

Customer Satisfaction Program 20M04
Certain 2015-2019 Model Year F-150 and 2017-2019 Model Year F-250-F-550 Vehicles
Power Door Lock Actuator Failure

OASIS ACTIVATION

OASIS will be activated on June 30, 2021.

You must use OASIS and Program Terms to determine if a vehicle is eligible for this program.

FSA VIN LISTS ACTIVATION

FSA VIN Lists will not be activated for this service action.

SOLD VEHICLES

- Only owners with affected vehicles that exhibit the covered condition will be directed to dealers for repairs.
- Dealers are to prioritize repairs of customer vehicles over repairs of new and used vehicle inventory.

STOCK VEHICLES

- Do not perform this program unless the affected vehicle exhibits the covered condition.

TITLE BRANDED / SALVAGED VEHICLES

Vehicles with cancelled warranties are not eligible for this service action.

OWNER REFUNDS

- Ford Motor Company is offering a refund for owner-paid repairs covered by this program if the repair was performed before the date of the Owner Notification Letter. This refund offer expires **December 31, 2021**.
- Dealers are also pre-approved to refund owner-paid emergency repairs that were performed away from an authorized servicing dealer after the date of the Owner Notification Letter. Non-covered repairs, or those judged by Ford to be excessive, will not be reimbursed.
- Refunds will only be provided for the cost associated with power door lock actuator failures.

RENTAL VEHICLES

The use of rental vehicles is not approved for this program.

ADDITIONAL REPAIR (LABOR TIME AND/OR PARTS)

Additional repairs identified as necessary to complete the FSA should be managed as follows:

- For related damage and access time requirements, refer to the Warranty and Policy Manual – Section 6 – Ford & Lincoln Program Policies / General Information & Special Circumstances for FSA's / Related Damage.
- For vehicles within new vehicle bumper-to-bumper warranty coverage, no SSSC approval is required, although related damage must be on a separate repair line with the Related Damage radio button checked.
 - Ford vehicles – 3 years or 36,000 miles
- For vehicles outside new vehicle bumper-to-bumper warranty coverage, submit an Approval Request to the SSSC Web Contact Site prior to completing the repair.

CLAIMS PREPARATION AND SUBMISSION

- **Note:** All repairs for this program should be claimed using the claim entry direction below regardless if the vehicle is still under the New Vehicle Limited Warranty.
 - SPW and/or Ford ESP eligible vehicles – Claim repairs to FSA 20M04 if vehicle is still within time and mileage limits.

Customer Satisfaction Program 20M04

Certain 2015-2019 Model Year F-150 and 2017-2019 Model Year F-250-F-550 Vehicles
Power Door Lock Actuator Failure

CLAIMS PREPARATION AND SUBMISSION (Continued)

- **Claim Entry:** Enter claims using Dealer Management System (DMS) or One Warranty Solution (OWS) online.
 - When entering claims:
 - Claim type 31: Field Service Action. The FSA number (20M04) is the sub code.
 - Customer Concern Code (CCC): L07 – Ext. Door Lock Controls-Power
 - Condition Code (CC): 69 – Frozen/Seized/Binding
 - Causal Part Number: 78218A42 or 78218A43 – Door Lock Actuator
 - Part Quantity: 0
 - For additional claims preparation and submission information, refer to the Recall and Customer Satisfaction Program (CSP) Repairs in the OWS User Guide.
- Pre-authorized diagnostic time MT20M04J (up to 1.0 hour) may be claimed on the same repair line that the FSA is claimed on (prior approval from SSSC is not required). If additional time is needed, contact SSSC.
- Pre-authorized diagnostic time MT20M04K (up to 1.0 hour) may be claimed when diagnosis leads to a root cause other than a power door lock actuator and should NOT be used with any other labor operation. If additional time is needed, contact SSSC.
NOTE: This labor operation is to be used only to diagnose customer reported symptoms specific to door locking/unlocking and can NOT be used/claimed with any door latch programs.
- **Related Damage/Additional labor and/or parts** (other than pre-approved diagnostic time MT20M04J) Must be claimed as Related Damage on a separate repair line from the FSA with same claim type and sub code as described in Claim Entry above.
IMPORTANT: Click the Related Damage Indicator radio button.
- **Provision for Locally Obtained Supplies:** Includes XG-11, XG-13, XG-16, TA-357, Cotton Swabs/Q-Tips®, Isopropyl Alcohol and brushes.
NOTE: The listed chemicals and locally obtained supplies can be used on multiple vehicles and the usage is dependent on vehicle build dates, FSA repair status and the affected vehicle door.
 - Program Code: **20M04**
 - Misc Expense: OTHER
 - Amount: Actual cost up to \$5.00
- **PROGRAM TERMS:** This program extends the warranty coverage of the power door lock actuators to 10 years of service or 150,000 miles from the warranty start date of the vehicle, whichever occurs first. If a vehicle has already exceeded either the time or mileage limits, this extended warranty coverage will last through December 31, 2021.
- **Refunds:** Submit refunds on a separate repair line.
 - Program Code: 20M04
 - Misc. Expense: ADMIN
 - Misc. Expense: REFUND
 - Misc. Expense: 0.2 Hrs.
 - Multiple refunds should be submitted on one repair line and the invoice details for each repair should be detailed in the comments section of the claim.

Customer Satisfaction Program 20M04

Certain 2015-2019 Model Year F-150 and 2017-2019 Model Year F-250-F-550 Vehicles
Power Door Lock Actuator Failure

LABOR ALLOWANCES

NOTE: The following table includes the labor times to perform diagnostics and repair.

NOTE: All applicable labor operations can be claimed on the same repair order line, **including a combination of labor operations for front door locations and rear door locations.**

Description	Door Location	Labor Operation	Labor Time
Procedure A Replace only the affected door lock actuator(s).	One (1) Front	20M04B (Not claimed with BB)	1.3 Hours
	Two (2) Front	20M04BB (Not claimed with B)	2.6 Hours
	One (1) Rear	20M04C (Not claimed with CC)	1.5 Hours
	Two (2) Rear	20M04CC (Not claimed with C)	3.0 Hours
Procedure B Replace only the affected door lock actuator(s).	One (1) Front	20M04D (Not claimed with DD)	1.5 Hours
	Two (2) Front	20M04DD (Not claimed with D)	2.9 Hours
	One (1) Rear	20M04E (Not claimed with EE)	1.7 Hours
	Two (2) Rear	20M04EE (Not claimed with E)	3.4 Hours
Procedure C Replace only the affected door lock actuator(s). NOTE: FSA 17S33 must be closed prior to completing Procedure C.	One (1) Front	20M04F (Not claimed with FF)	1.1 Hours
	Two (2) Front	20M04FF (Not claimed with F)	2.1 Hours
	One (1) Rear	20M04G (Not claimed with GG)	0.9 Hours
	Two (2) Rear	20M04GG (Not claimed with G)	1.7 Hours

Labor Allowances Continued on the Next Page

Customer Satisfaction Program 20M04
 Certain 2015-2019 Model Year F-150 and 2017-2019 Model Year F-250-F-550 Vehicles
 Power Door Lock Actuator Failure

LABOR ALLOWANCES (Continued)

Description	Labor Operation	Labor Time
<p>Reprogram the BCM using IDS release 122.03 or higher. NOTE: For vehicle that had 20M04 performed previously, the BCM does not have to be reprogrammed a second time. NOTE: This labor operation should only be used when performing Procedure A, B or C. This labor operation can only be claimed one time. If this labor operation has been previously claimed in the vehicle history, the 20M04H labor operation claim will be rejected.</p>	20M04H	0.2 Hours
<p><u>Diagnosis leads to door lock actuator replacement.</u> Diagnose power door lock/unlock symptom(s) using applicable WSM procedures – includes drive in/drive out, etc. NOTE: For vehicles outside new vehicle bumper-to-bumper warranty coverage, advise customer that the program focus is only on the power door lock actuators. Any other failure modes (fuse, wiring, door latch, etc.) are not covered by this program. NOTE: M-Time should only be claimed to support diagnostics for Procedure A, B or C.</p>	MT20M04J	*Actual time up to 1.0 Hours
<p><u>Diagnosis does NOT lead to door lock actuator replacement. (Diagnostics only; door lock actuator replacement not required)</u> Diagnose power door lock/unlock symptom(s) using applicable WSM procedures – includes drive in/drive out, etc. NOTE: For vehicles outside new vehicle bumper-to-bumper warranty coverage, advise customer that the program focus is only on the power door lock actuators. Any other failure modes (fuse, wiring, door latch, etc.) are not covered by this program. NOTE: This labor operation is to be used only to diagnose customer reported symptoms specific to door locking/unlocking and can NOT be used/claimed with any door latch programs.</p>	MT20M04K	*Actual time up to 1.0 Hours

* Dealers are authorized to claim up to 1.0 hour actual time without contacting the SSSC Web Contact Site for approval. Follow the Actual Time Usage Guidelines and Service Management Responsibilities as identified in the Warranty and Policy Manual. Claims for additional parts and/or labor over 1.0 hour should be submitted to the SSSC as Related Damage. If contacting SSSC, please provide the complete technician details and time stamps to support the request for the additional time.

Customer Satisfaction Program 20M04

Certain 2015-2019 Model Year F-150 and 2017-2019 Model Year F-250-F-550 Vehicles
Power Door Lock Actuator Failure

PARTS REQUIREMENTS / ORDERING INFORMATION

Part Number	Description	Order Quantity	Claim Quantity
6L2Z-78218A42-B	Right Hand Side Door Lock Actuator	As required	
6L2Z-78218A43-B	Left Hand Side Door Lock Actuator		
FL3Z-16308-L	Front Doors Foam Kit (F-150 Built Prior to December 2016*)		
FL3Z-16308-P	Front Doors Foam Kit (F-150 Built December 2016 or later and All F-Super Duty*)		
FL3Z-16308-Q	Rear Doors Foam Kit		
FL3Z-1626494-F	Rear Door Latch Shield Kit		
LL3Z-15264B28-A	Exterior Door Handle Cable Wiper Clip (One Piece per Package)		
XG-16	Motorcraft® Low Temperature Grease**	MISC. OTHER As required	
XG-13	Motorcraft® Door Latch Grease**		
XG-11	Motorcraft® High Temperature Grease**		
TA-357	Motorcraft® High Performance Engine RTV Silicone **		
Obtain Locally	Cotton Swabs/Q-Tips®**		
	Isopropyl Alcohol**		
	Brushes**		

* Front door foam kit build date usages are approximations.

** The listed chemicals and locally obtained supplies can be used on multiple vehicles and the usage is dependent on vehicle build dates, FSA repair status and the affected vehicle door.

Order your parts requirements through normal order processing channels. To guarantee the shortest delivery time, an emergency order for parts must be placed.

DEALER PRICE

For latest prices, refer to DOES II.

PARTS RETENTION, RETURN, & SCRAPPING

Follow the provisions of the Warranty and Policy Manual, Section 1 - WARRANTY PARTS RETENTION AND RETURN POLICIES. If a replaced part receives a scrap disposition, the part must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations.

EXCESS STOCK RETURN

Excess stock returned for credit must have been purchased from Ford Customer Service Division in accordance with Policy Procedure Bulletin 4000.

Customer Satisfaction Program 20M04

Certain 2015-2019 Model Year F-150 and 2017-2019 Model Year F-250-F-550 Vehicles
Power Door Lock Actuator Failure

REPLACED FSA PARTS INSPECTION AND SIGN OFF

Effective March 1st 2021 all parts replaced as part of an FSA repair with a repair order open date of March 1st 2021 or later must be inspected and signed off on the repair order by a member of your dealers fixed operations management team or an employee the task has been delegated to. If the task is to be delegated to a non-management employee, the employee needs to be someone other than the technician who completed the repair and needs to understand the importance of completing this task consistently and accurately.

- All parts replaced as part of an FSA repair should be returned to the parts department following the Warranty Parts Retention and Return Policies.
- Inspect the replaced parts to verify the FSA repair was completed.
- If the FSA repair is found to be complete, the designated employee signs the repair order line or parts return stamp area (electronic or hand signed) for the FSA repair indicating the parts were inspected and validated to have been replaced.
- After the parts have been inspected, they should be handled based on the guidance in the parts status report in the Online Warranty System (Hold, Return, CORE, Scrap, etc.).
- This process is subject to review during warranty audits for FSA repairs with a repair order open date of March 1st 2021 or later. Any eligible FSA claims requiring parts replacement, found not to have been inspected and signed off during a warranty audit will be subject to chargeback and consideration for enrollment into the Dealer Incomplete Recall Repair Process.

Note: Other approvals (electronic or handwritten) for add-on repair lines, dealer owned vehicle repairs, and repeat repairs do not qualify as FSA parts inspection approvals. The post repair FSA parts inspection process (electronic or handwritten) is independent from other warranty approval requirements. The approval by the designated employee implies that the FSA parts were found to be replaced and must be able to be clearly identified on the Repair Order. If multiple FSA's require approval on a single Repair Order, each applicable occurrence will require individual post repair approval by the designated employee.

CERTAIN 2015-2019 MODEL YEAR F-150 AND 2017-2019 MODEL YEAR F-250-F-550 VEHICLES — POWER DOOR LOCK ACTUATOR FAILURE

TECHNICAL INFORMATION - PROCEDURE A

IMPORTANT: Reference the table below to determine if the affected vehicle meets any of the criteria. Procedure A must be used for any vehicles that falls within the build date criteria in the table below.

Vehicle	Model Year	Assembly Plant	Build Dates
F-150	2018-2019	Dearborn	April 13, 2018 through February 26, 2019
		Kansas City	April 13, 2018 through February 26, 2019
F-250 - F-550		Kentucky	April 22, 2018 through March 5, 2019
		OHAP	April 18, 2018 through March 11, 2019

NOTE: For vehicles outside new vehicle bumper-to-bumper warranty coverage, advise customer that the program focus is only on the power door lock actuators. Any other failure modes (fuse, wiring, door latch, etc.) are not covered by this program.

1. Follow normal Workshop Manual (WSM) diagnostics for power door lock/unlock concern.

- Did normal diagnostics lead to a defective power door lock actuator?

Yes - Proceed to Step 2.

No - These technical instructions do not apply.

2. Is the power door lock and/or unlock concern on a front door?

Yes - Replace the affected Door Lock Actuator. Proceed to Front Door Lock Actuator Replacement on Page 2.

No - Replace the affected Door Lock Actuator. Proceed to Rear Door Lock Actuator Replacement on Page 23.



Front Door Lock Actuator Replacement

Complete Front Door Part Kit

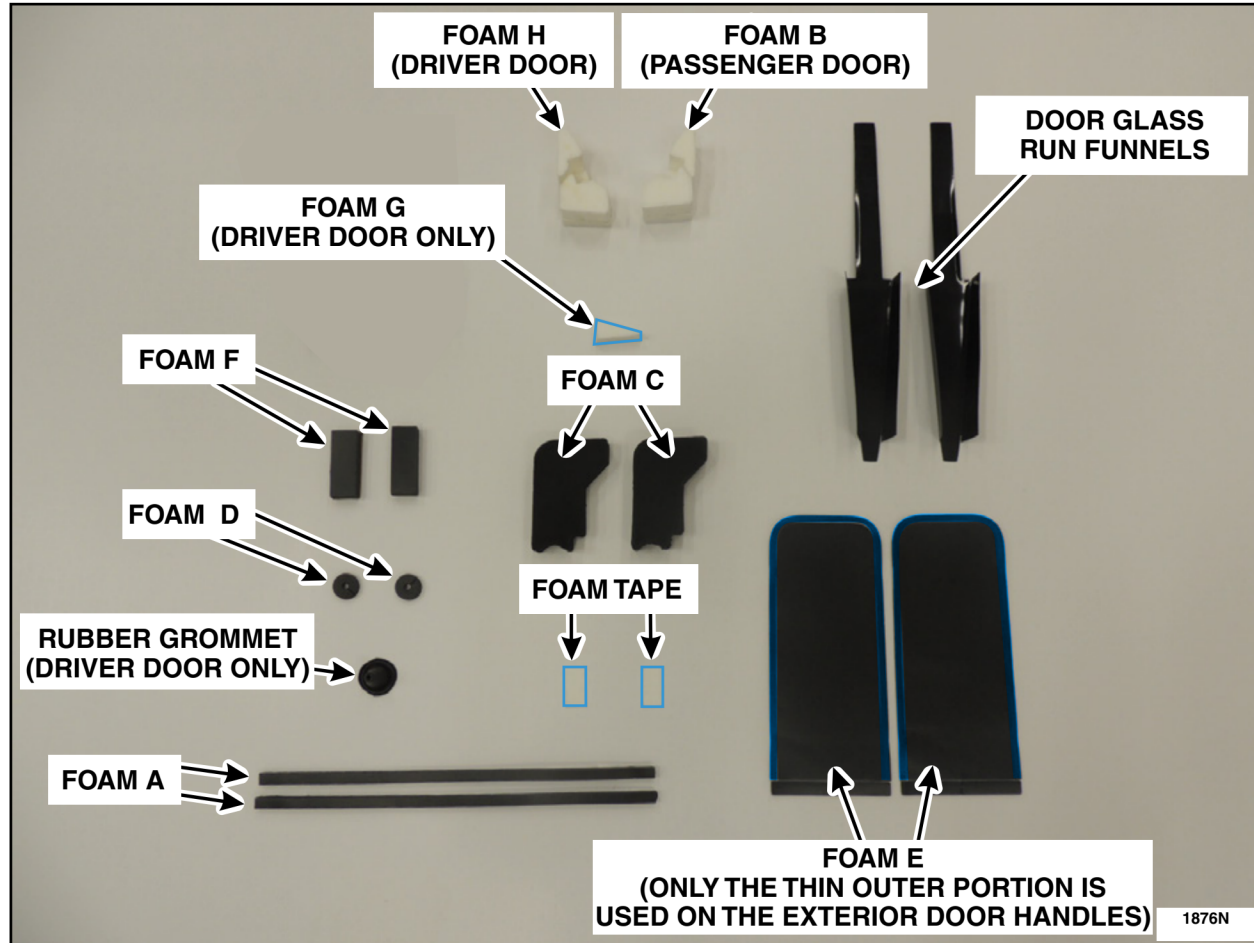


FIGURE 1

NOTE: The parts being installed in this procedure are not labeled. Refer to Figure 1 for component identification. All unused parts of the kit can be scrapped.



NOTE: The images used in this procedure may not reflect the actual images of the components being repaired. However, the differences are minor and will not hinder the actual repair process.

NOTICE: Do not allow the door trim panel or exterior door handle to hang by the door handle cables or damage to the cable and door may occur.

1. Remove the exterior front door handle from the affected door. Please follow the Workshop Manual (WSM) procedures in Section 501-14.

NOTE: On the driver side only, install the exterior door handle key lock rod into the shipping clip on the door glass run.

NOTE: The interior grab handle cover clips can be reused for this repair. Only replace if damaged.

2. If a cable wiper clip is present on the exterior door handle cable end, remove and discard the cable wiper clip. See Figure 2.

NOTE: Front exterior door handle shown, all exterior door handles similar.

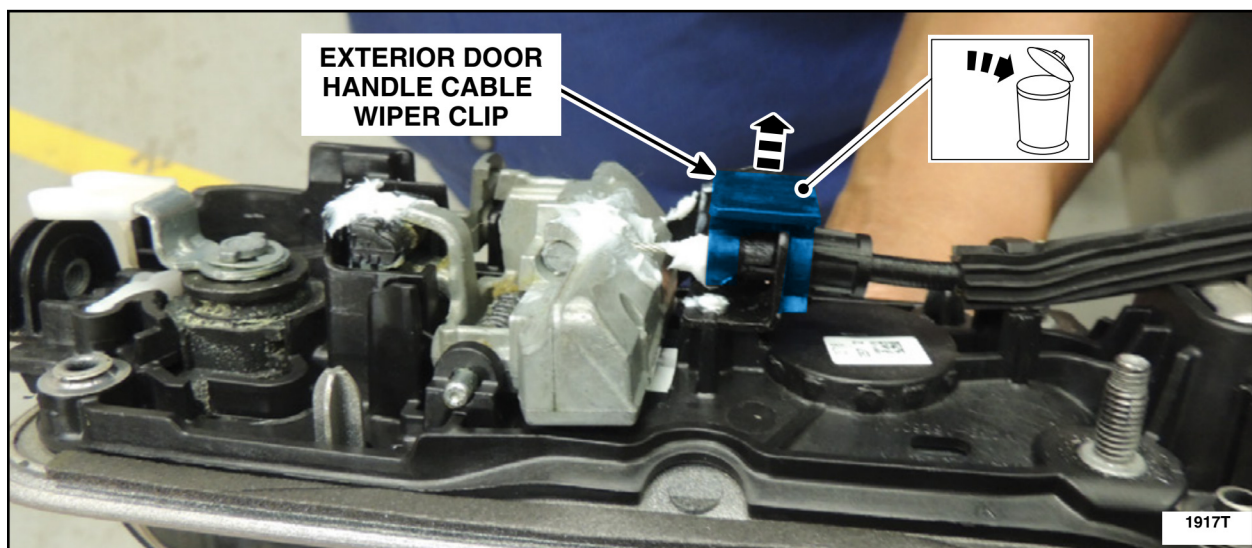


FIGURE 2



3. Position the window glass to the fully open (down) position.
4. Remove the door inner belt molding and position the latch side of the door glass top run aside.
See Figure 3.



FIGURE 3

5. If present, remove and discard the door glass run funnel and the foam tape, that holds the door glass run funnel to the door glass window run, from the door glass run channel. See Figure 4.

NOTE: A piece of foam tape holds the door glass run funnel to the door glass window run, if the foam tape is not removed with the door glass run funnel it will need to be removed and discarded once the door latch and window run are removed later in this procedure.



FIGURE 4



6. With the latch side of the front door glass top run still positioned aside, raise the front door window glass three quarters of the way up. See Figure 5.

NOTICE: Use care not to pinch the door glass top run or scratch the glass when raising the window glass.

7. Release the latch side front door window regulator retaining clip from front door window glass. See Figure 5.

- Release the retaining clip from the front door window glass. Use the General Equipment: Interior Trim Remover.
- Raise the front door window glass enough to release the front door window glass from the retaining clip.

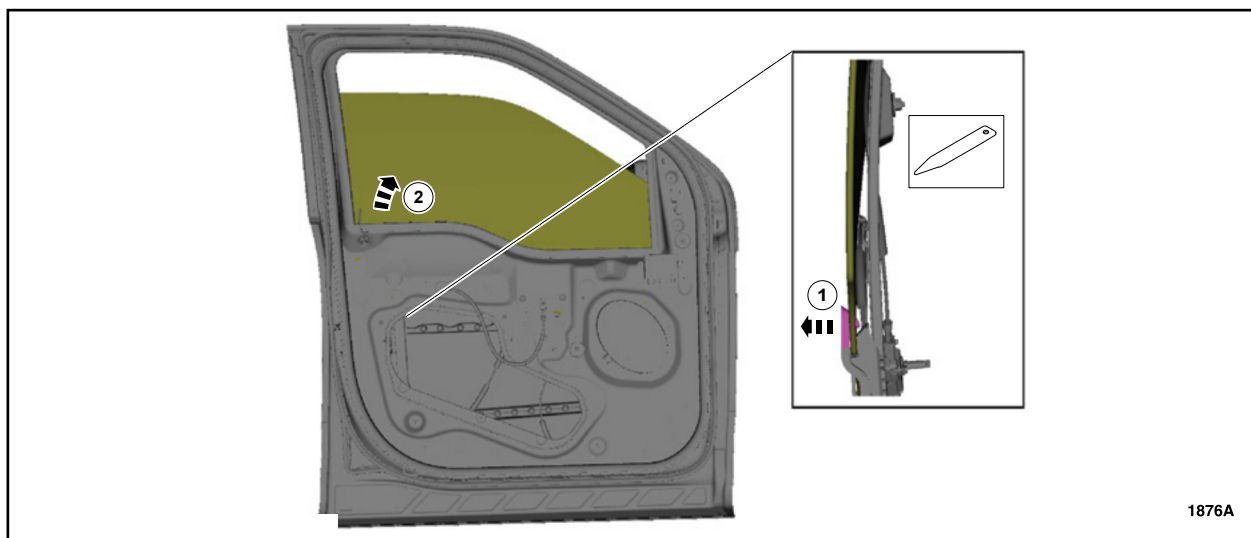


FIGURE 5



8. Remove the latch side front door window regulator nut adhesive cover and position the latch side front door window regulator aside. See Figure 6.

- Remove the latch side front door window regulator nuts.
Torque: 93 lb.in (10.5 Nm).
- Position the latch side front door window regulator aside.

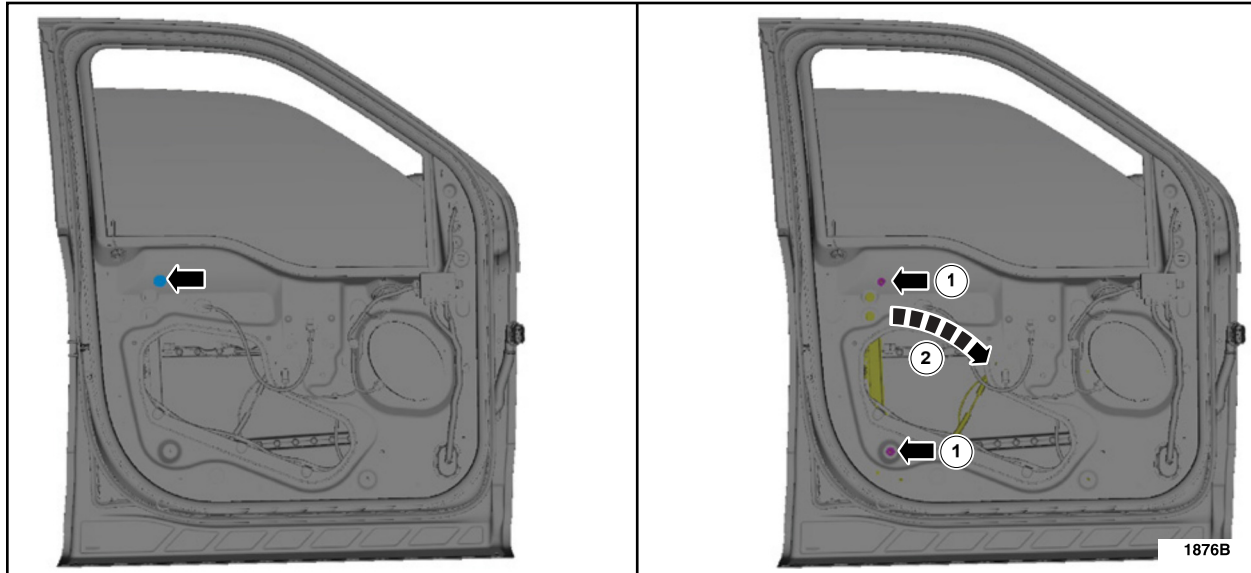


FIGURE 6

9. Remove the two front door window run bolts. See Figure 7.

- Torque: 71 lb.in (8 Nm).

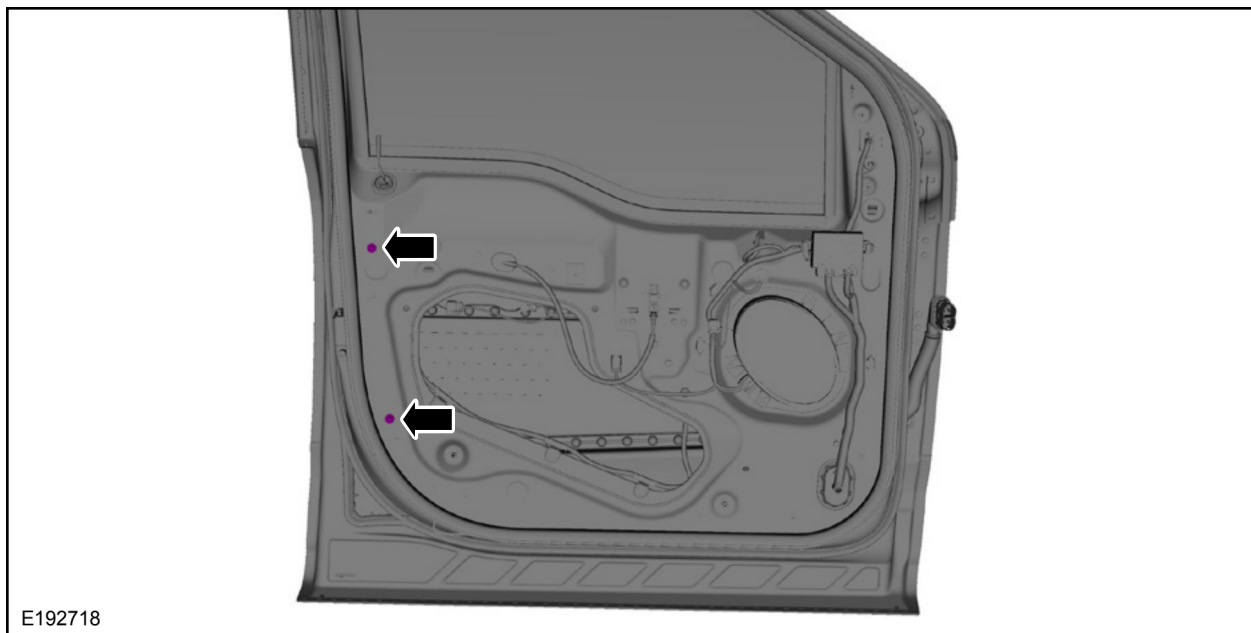


FIGURE 7



10. Holding on to the door latch, remove the 3 front door latch bolts. See Figure 8.

- Torque: 71 lb.in (8 Nm).



FIGURE 8



CAUTION: Use caution not to kink the cables during the removal and disassembly of the door latch.

11. Remove the front door latch. See Figure 9.

NOTE: When removing the door latch for power door lock actuator replacement, it is not necessary to remove the cables from the latch assembly.

NOTE: If equipped, disconnect the interior door handle cable retaining clips from the door sheet metal.

1. Route the interior front door handle cable and the lock rod through the inner door.
2. Disconnect the power door lock actuator electrical connector.
3. Disconnect the exterior front door handle cable routing clip(s).
4. Disconnect the door ajar switch electrical connector.
5. Holding on to both cables, remove the front door latch.

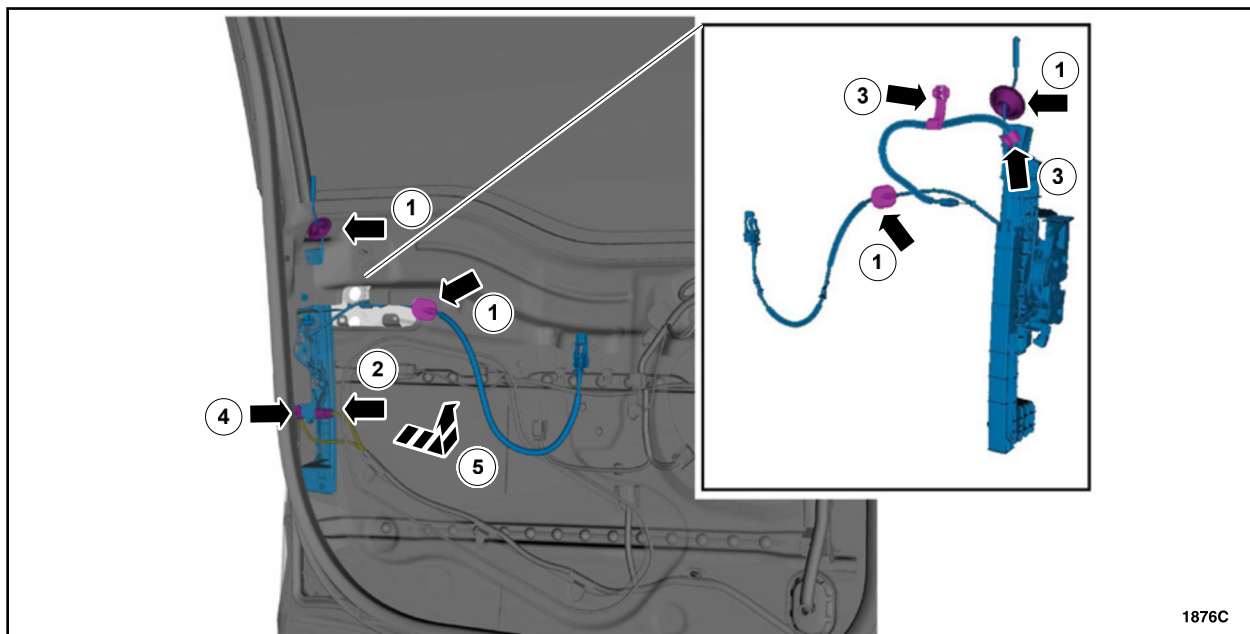


FIGURE 9

12. If not removed with the door glass run funnel, remove and discard the foam tape that secured the door glass run funnel to the door glass window run.



13. On the driver side door only, position the exterior door handle key lock rod out of the shipping clip. See Figure 10.
14. On the driver side door only, remove the exterior door handle key lock rod from the door latch key lock rod lever.
 - If present, remove and discard the rubber grommet and then clean the grease from the exterior door handle key lock rod and door latch key lock rod lever. See Figure 10.

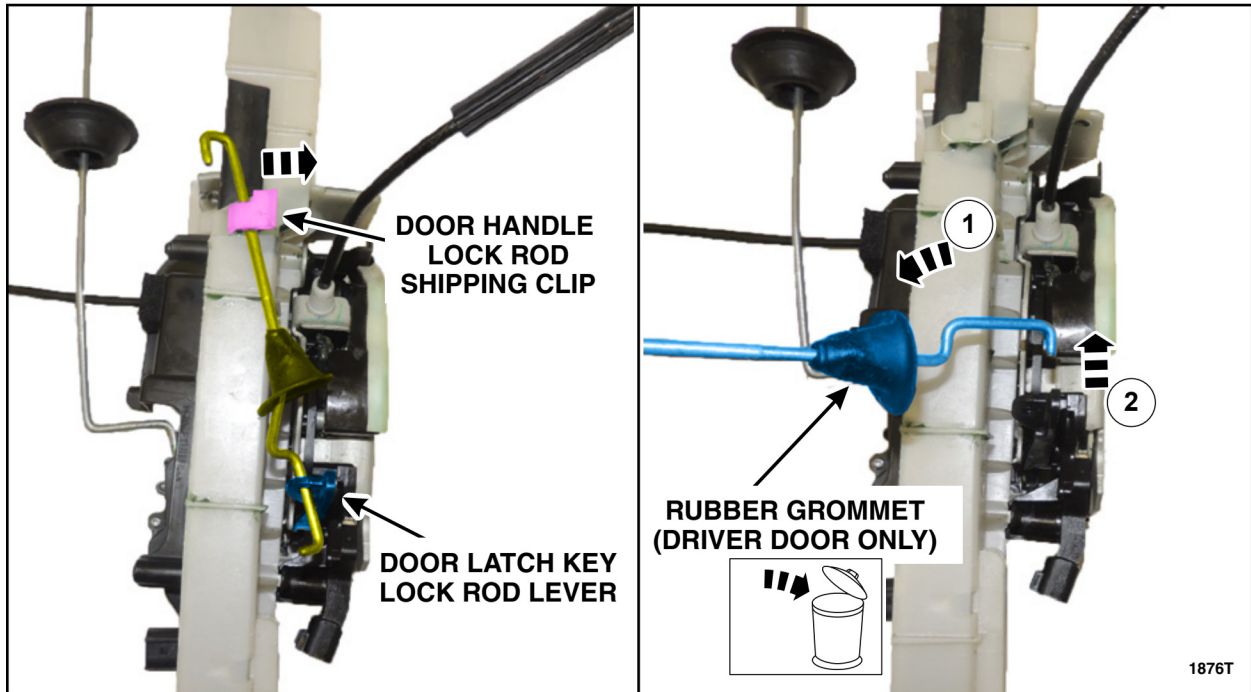


FIGURE 10



NOTE: The front door latches on some vehicles can be equipped with a small flexible plastic water shield, located over the exterior door handle cable attachment point. Note the water shield position and orientation for reassembly. See Figure 12.

15. Remove the retainers and separate the door latch components to gain access to the actuator. Note the components position and orientation for reassembly. See Figure 11.

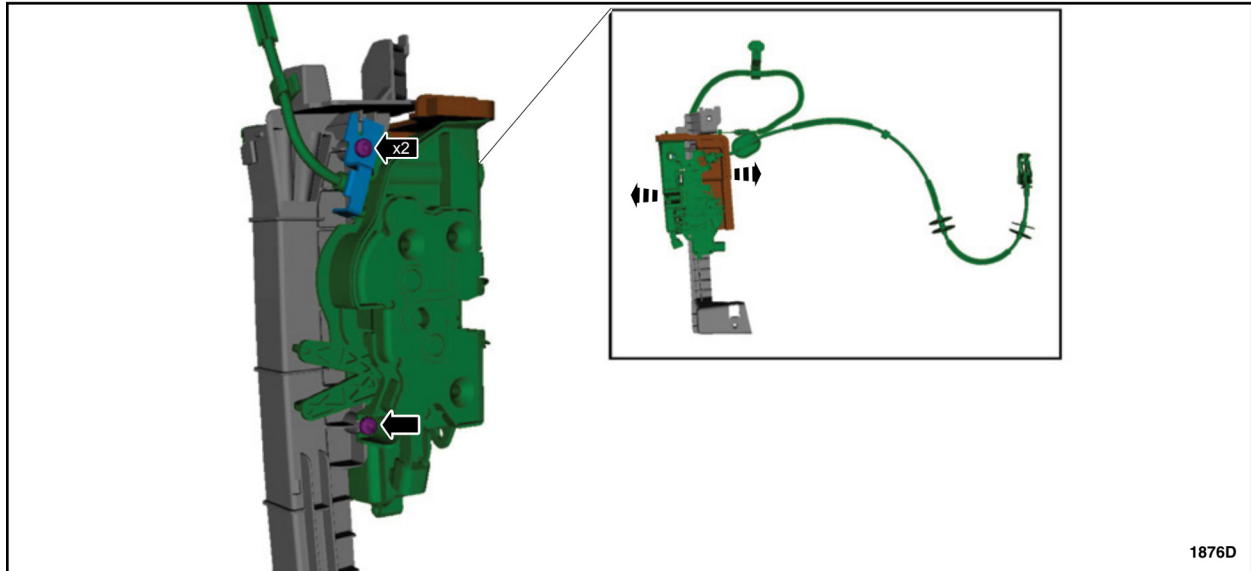


FIGURE 11

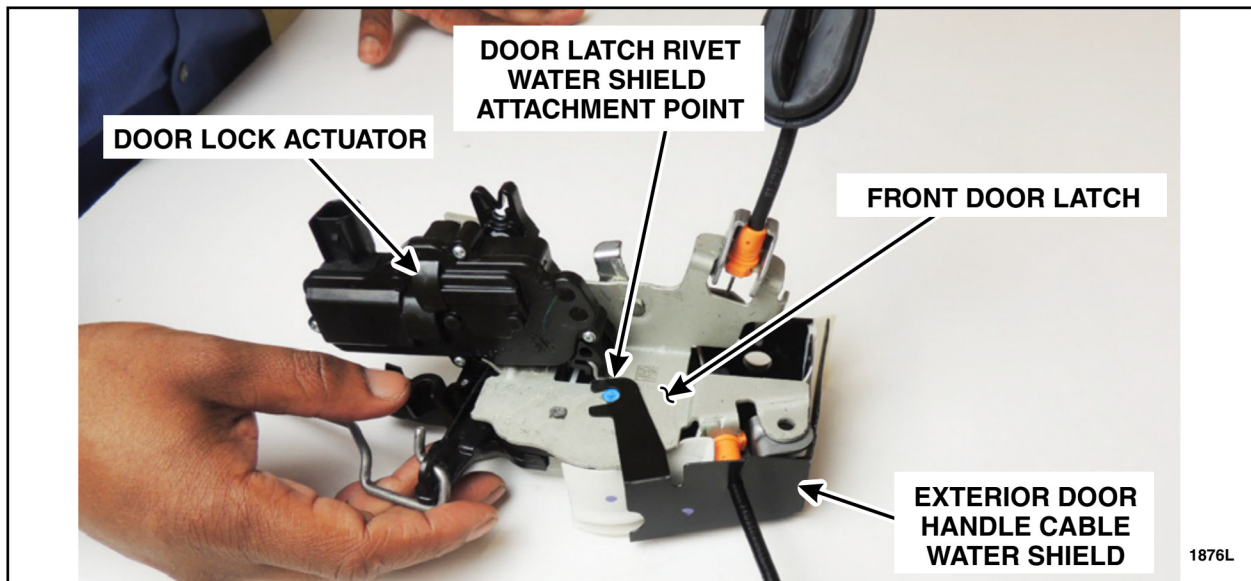


FIGURE 12



16. Remove the door lock actuator by using a flat blade screwdriver. Release the retention tab, on the actuator, from the notch on the door latch while wiggling the actuator off of the door latch alignment brackets. See Figures 13 and 14.

NOTE: Door lock actuator removed for clarity.

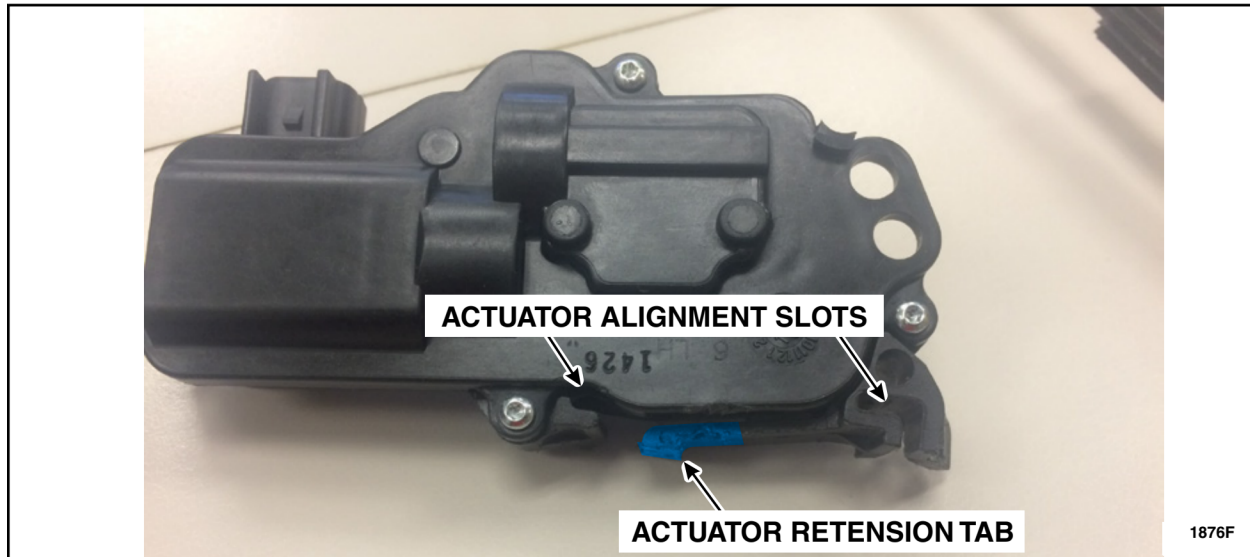


FIGURE 13

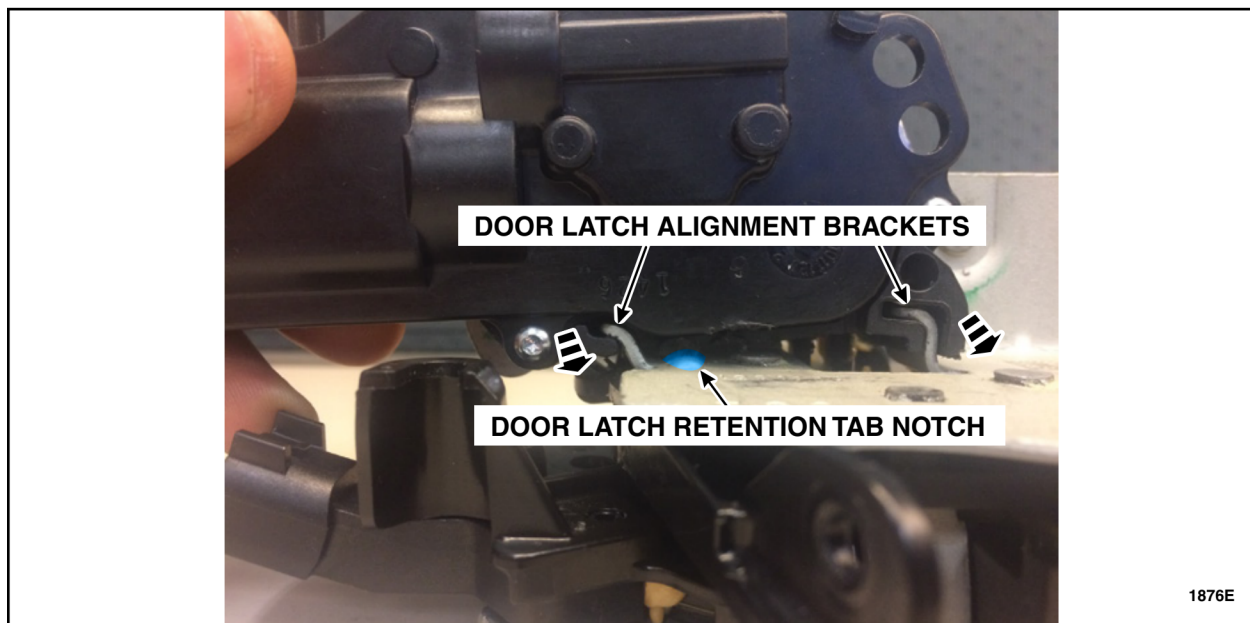


FIGURE 14



17. Using a clean shop towel and isopropyl alcohol, clean then dry all of the previously separated door latch components.
18. Install a *new* door lock actuator by aligning the actuator alignment slots with the door latch alignment brackets. Slide the actuator onto the brackets while aligning the actuator arm pin into the door latch lock lever. An audible click can be heard as the door lock actuator retention tab seats behind the door latch retention tab notch. See Figures 13, 15 and 16.

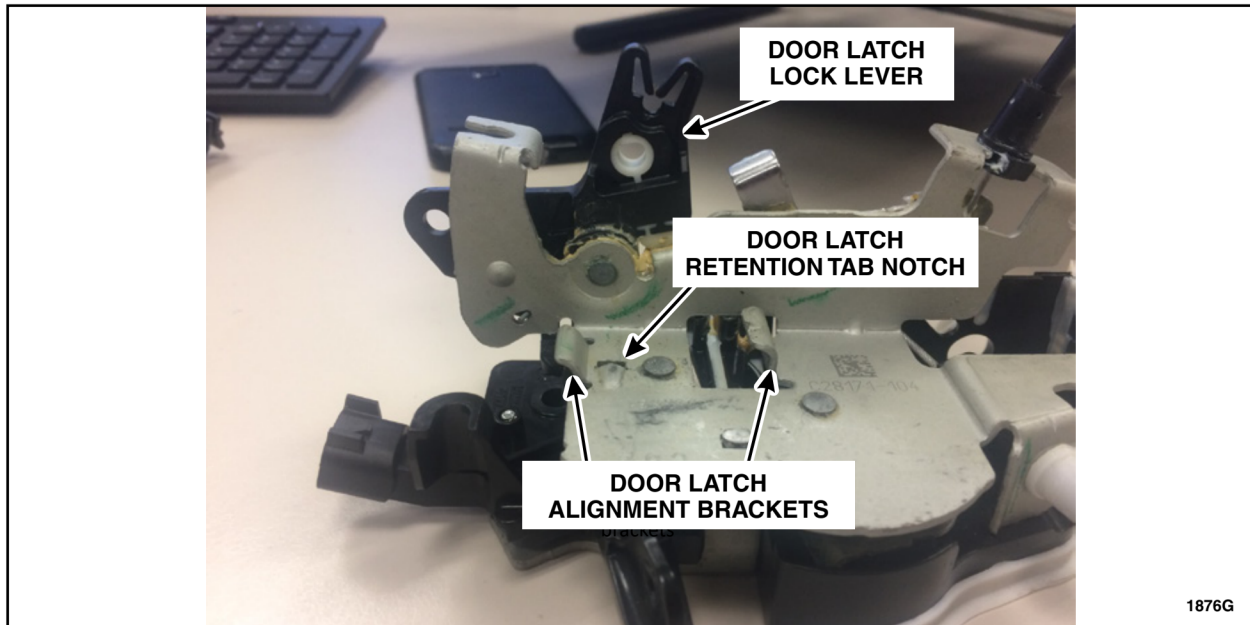


FIGURE 15

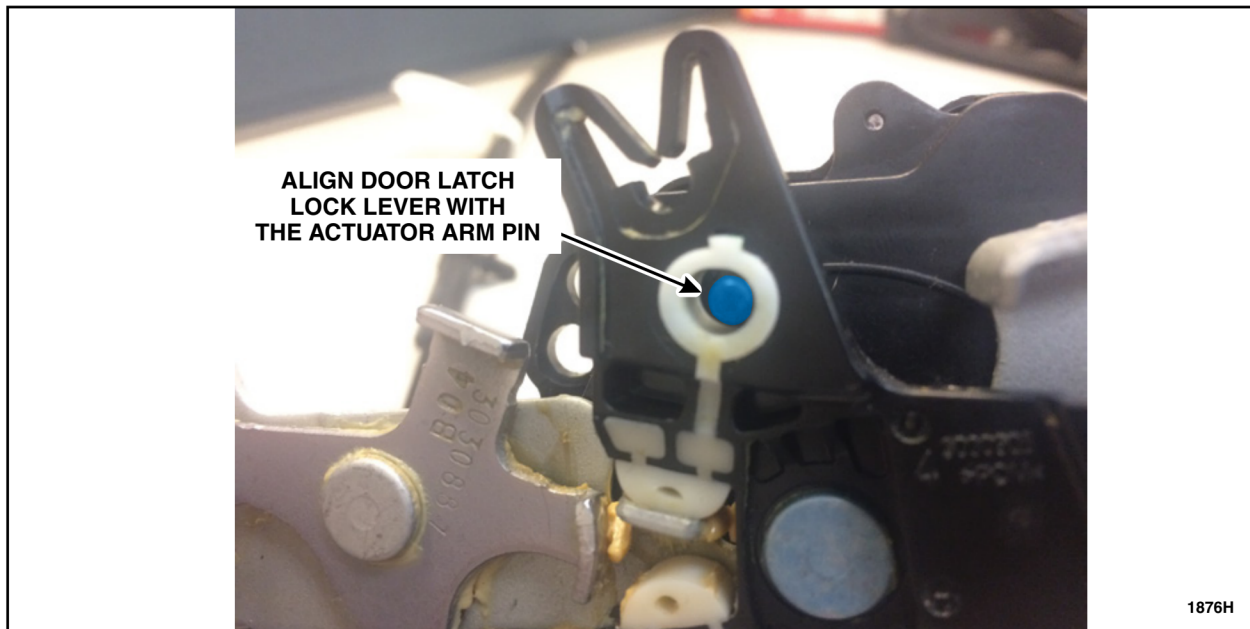


FIGURE 16



19. Ensure that the door lock actuator is fully seated, by attempting to pull the actuator off of the latch, and that the actuator arm pin is positioned in the door latch lock lever.

20. Reassemble the latch components and then install the retainers. See Figures 11 and 12.

NOTE: On the driver door only, install the exterior door handle key lock rod in the door latch key lock rod lever then in the shipping clip.

21. Make sure the interior of the door is clean and dry prior to the door latch installation.

CAUTION: Use caution not to kink the cables during the installation of the door latch.

22. Install the front door latch. See Figure 9.

1. Holding on to both cables install the front door latch.
 2. Route the lock rod and the interior front door handle cable through the inner door.
- NOTE:** If equipped, reconnect the interior door handle cable retaining clips to the door sheet metal.
3. Route the exterior front door handle cable through the opening and connect the routing clip(s).
 4. Connect the door ajar switch electrical connector.
 5. Connect the power door lock actuator electrical connector.

23. Install the 3 front door latch bolts. See Figure 8.

- Torque: 71 lb.in (8 Nm).

24. Install the two front door window run bolts. See Figure 7.

- Torque: 71 lb.in (8 Nm).

25. Position back the latch side front door window regulator and reinstall front door window regulator nut adhesive cover, then attach the window glass retaining clip by reversing Steps 7 and 8. See Figures 5 and 6.

26. Lower the window glass to the fully open (down) position.



27. Install a *new* door glass run funnel, ensuring that the lower tab is situated in the door glass run and the funnel sides sit at a 90° angle above the door glass run. See Figure 17.

NOTE: Ensure the funnel sides are at a 90° angle upon installation. It may be necessary to bend the sides of the funnel back to a 90° angle before installation.

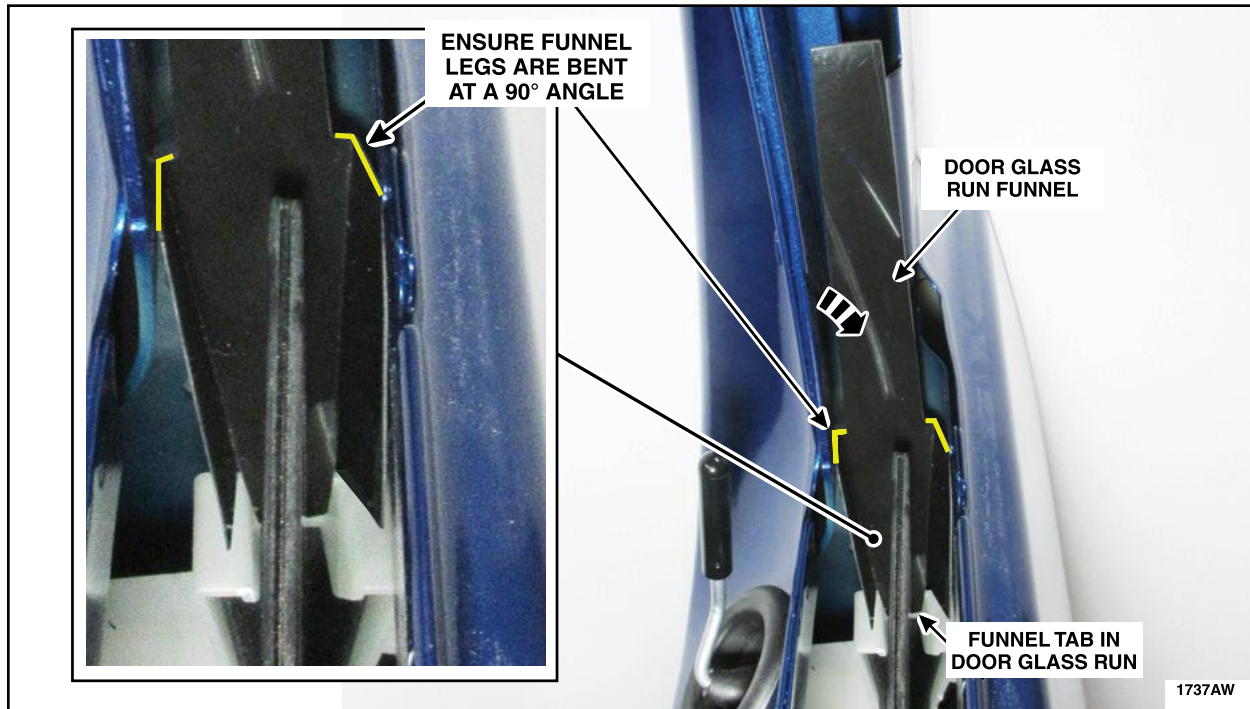


FIGURE 17

28. Reinstall the latch side door glass top run and the door inner belt moulding. See Figure 3.

NOTICE: It will be necessary to hold the upper portion of the funnel when installing the door glass top run. Care must be taken not to bend or damage the door glass run funnel. Check through the exterior door handle opening to verify that the funnel is positioned correctly.

29. Raise the front door window glass to the fully closed (up) position.



30. Using a clean shop towel and isopropyl alcohol clean the area where a *new* foam tape will be applied, from any dirt, dust or debris. Then, install a *new* foam tape in the location shown, from through the exterior door handle opening, to hold the funnel in place. See Figure 18.

NOTE: Driver door shown, passenger door similar. Exterior door handle key lock rod not located in the door glass run shipping clip for clarity.

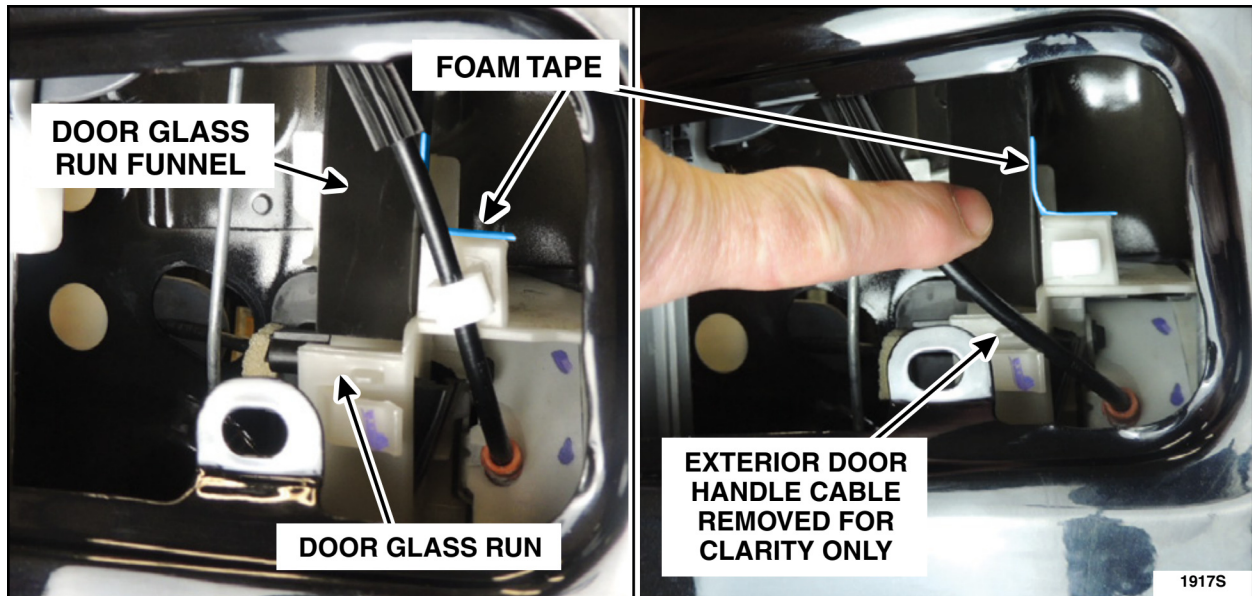


FIGURE 18



31. On the driver side door only, apply Motorcraft® XG-13 door latch grease to the area where the key lock rod attaches to the key lock rod lever. See Figure 19.
32. On the driver side door only, install a *new* rubber grommet onto the key lock rod over the key lock rod lever. Position the rubber grommet as shown in Figure 19. The rubber grommet will sit sideways when properly installed. See Figure 19.

NOTE: Door latch assembly shown out of vehicle for clarity.

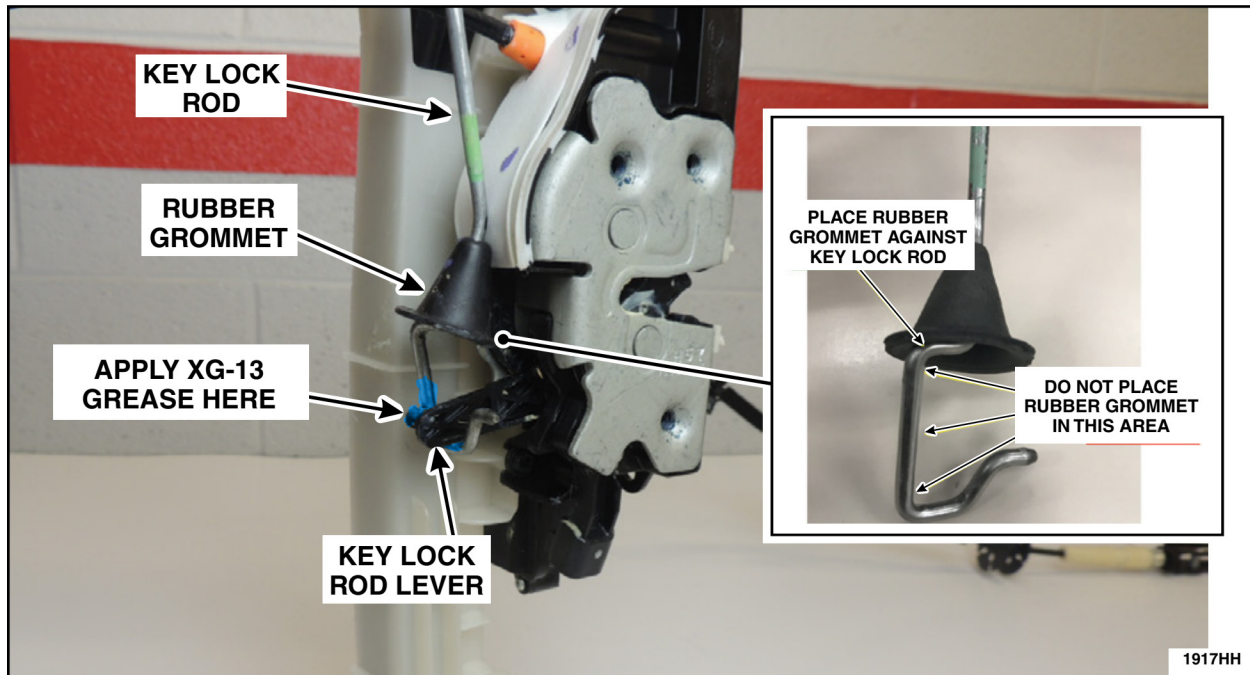


FIGURE 19



33. If present, thoroughly remove the foam gasket located around the perimeter of the exterior front door handle and the silicone from the latch side area of the exterior front door handle. See Figure 20.
34. Using a clean shop towel and isopropyl alcohol, clean the highlighted mating surface area of the exterior front door handle. See Figure 20.

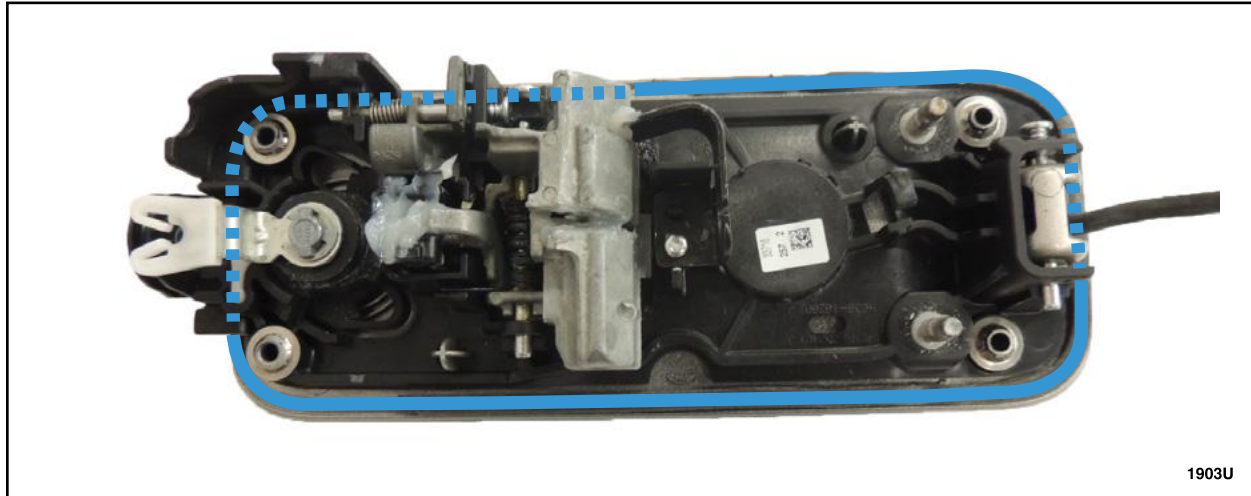


FIGURE 20

35. Using a clean shop towel and isopropyl alcohol, thoroughly clean inside the dotted lines on the mating surface area of the exterior front door handle opening. See Figure 21.

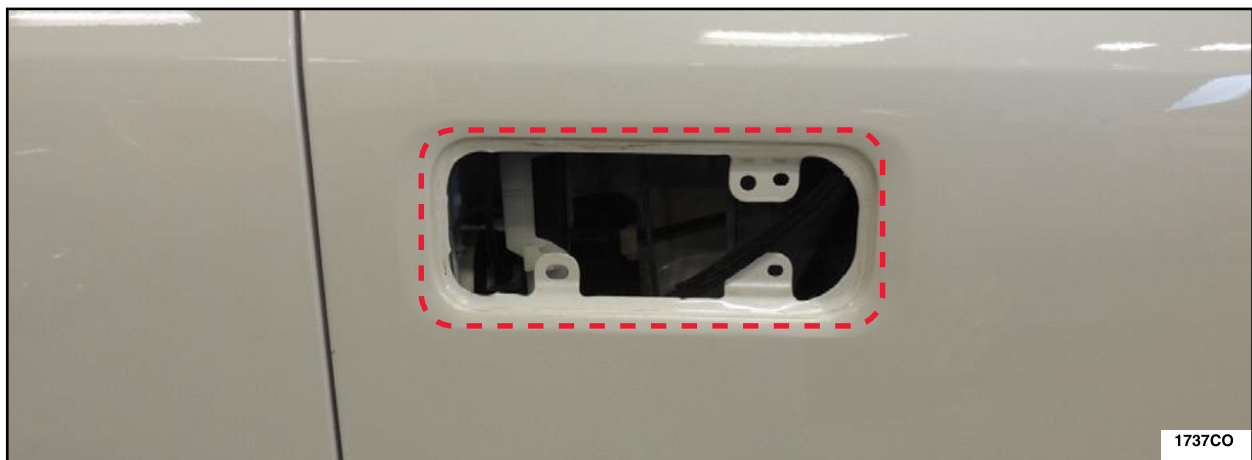


FIGURE 21



36. Install a *new* foam E around the perimeter of the exterior door handle.

NOTE: Foam E will not wrap around the entire perimeter of the exterior door handle.

NOTE: Proper placement of foam E is crucial for proper sealing and to avoid appearance concerns.

- A. Lay out foam E on the exterior door handle and mark center as shown in Figure 22.
- B. Remove foam E from the door handle and remove the back center portion of the adhesive backing then cut the protective backing in half. See Figure 22.
- C. Align the marks made on the foam E and exterior door handle and adhere the back center portion to the exterior door handle as shown in Figure 23.
- D. Lay one side of foam E down on the exterior door handle and without stretching the foam pull off the adhesive backing as you adhere foam E to the exterior door handle as shown in Figure 23.
- E. Remove the protective backing from the other side of foam E as shown in Figure 23.
- F. Without stretching the foam adhere it to the exterior door handle ensuring that both sides of foam E are of equal length once secured. See Figure 24.

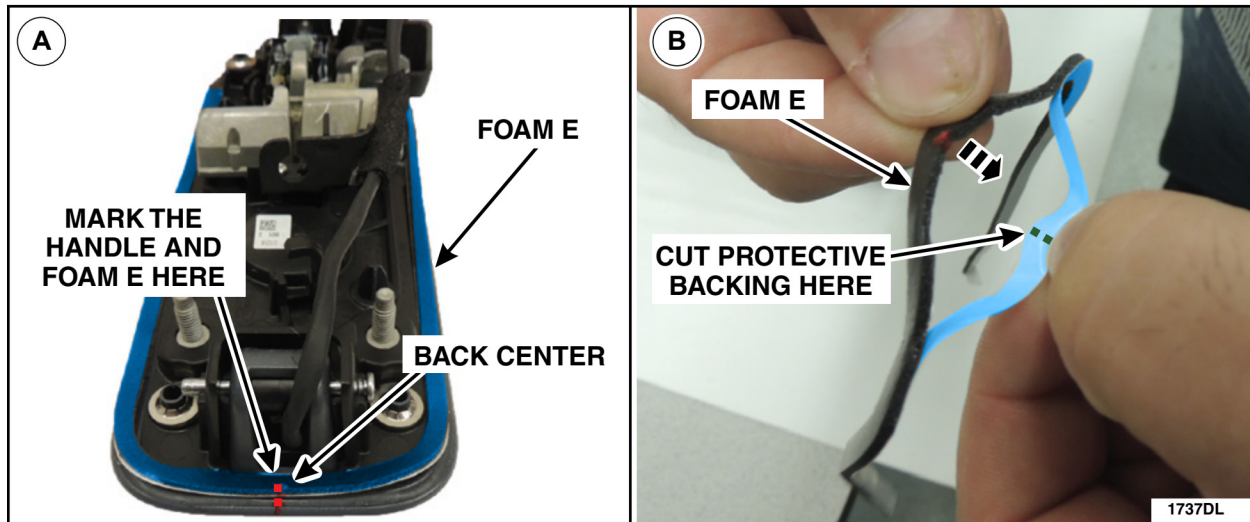


FIGURE 22



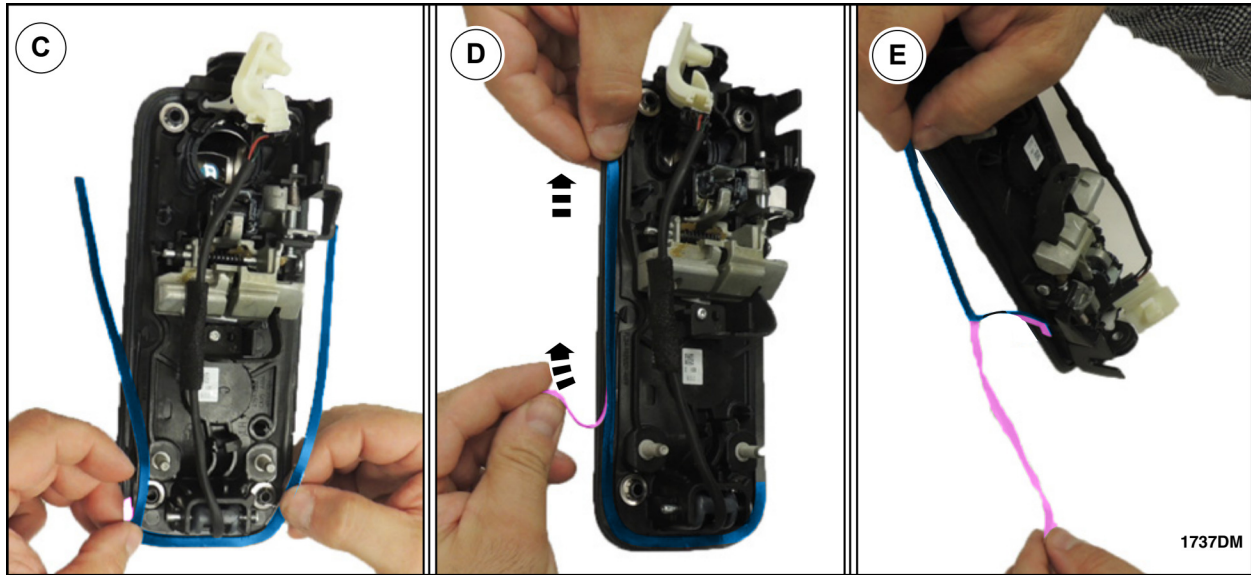


FIGURE 23

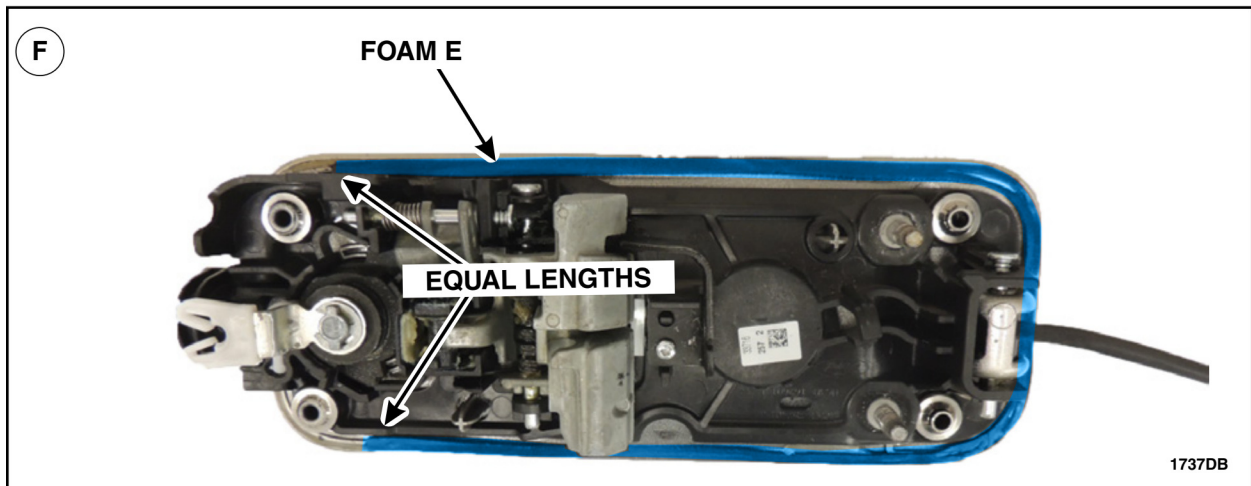


FIGURE 24



37. Using a clean shop towel and isopropyl alcohol, clean the handle plunger then, using a brush, apply a light film of Motorcraft® XG-16 low temperature grease to all four sides of the exterior door handle plunger and to the mechanisms in the areas shown in Figures 25 and 26.

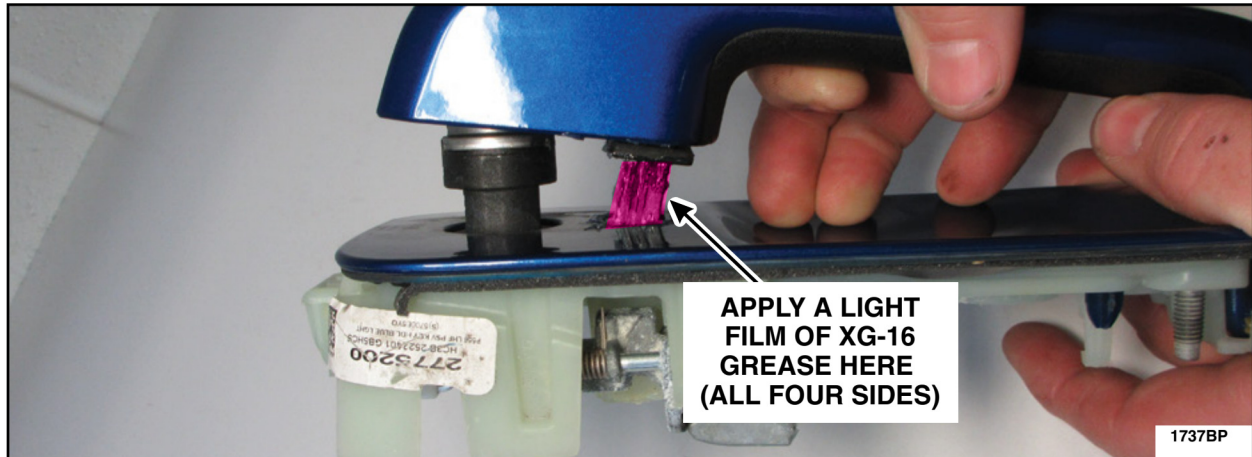


FIGURE 25

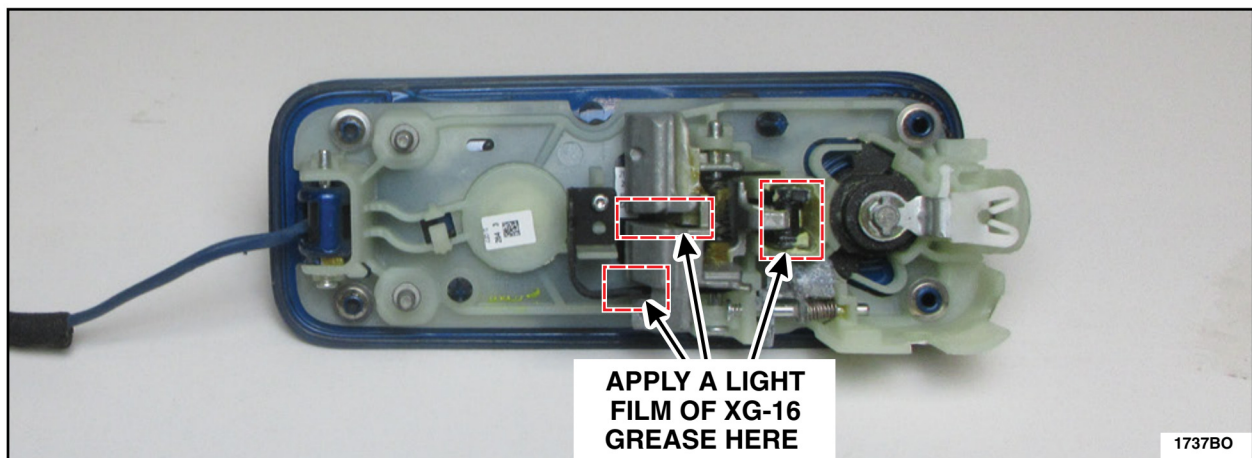


FIGURE 26



38. Apply a bead of Motorcraft® TA-357 High Performance Engine RTV silicone to the latch side area of the front door exterior handle opening metal surface. Make sure that the silicone overlaps with the foam E on the exterior door handle. See Figure 27.

NOTE: Proper placement of the Motorcraft® TA-357 High Performance Engine RTV silicone is crucial for proper sealing and to avoid appearance concerns.

NOTE: Driver door shown, passenger door similar.

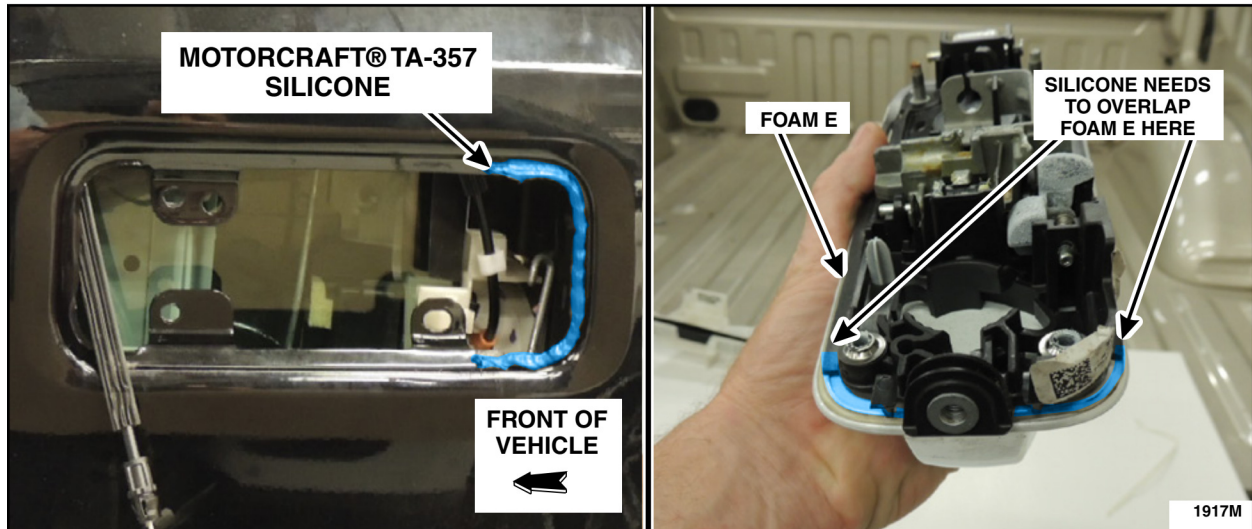


FIGURE 27

39. Reconnect the exterior door handle cable to the door handle and lubricate the door handle cable end with Motorcraft® XG-16 low temperature grease, as shown in Figure 28.

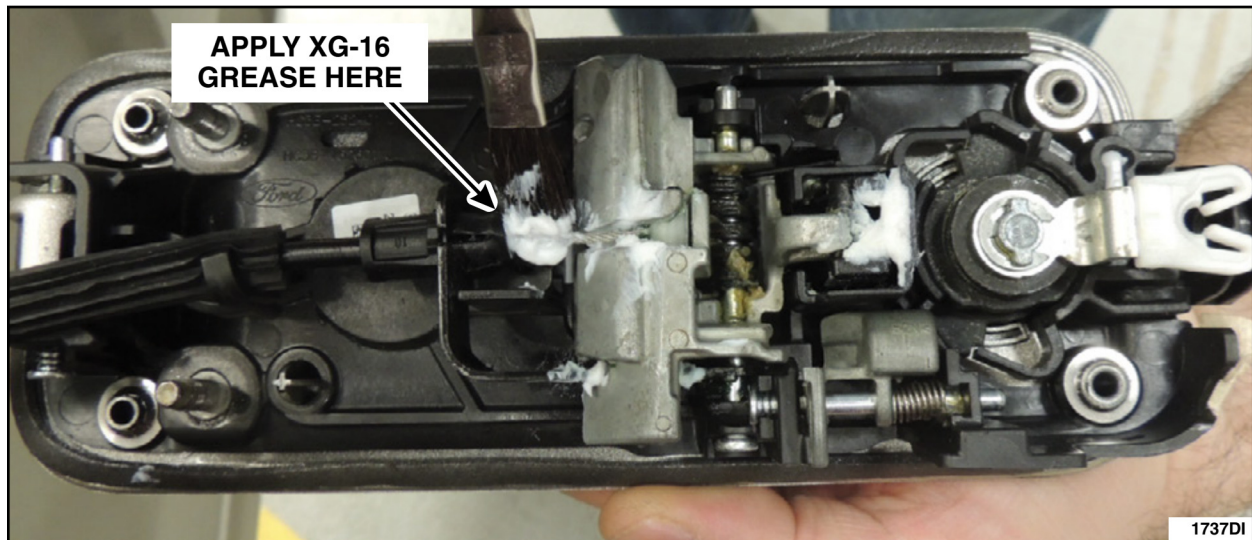


FIGURE 28



40. Install a *new* handle cable wiper clip on the exterior door handle cable end. See Figure 29.

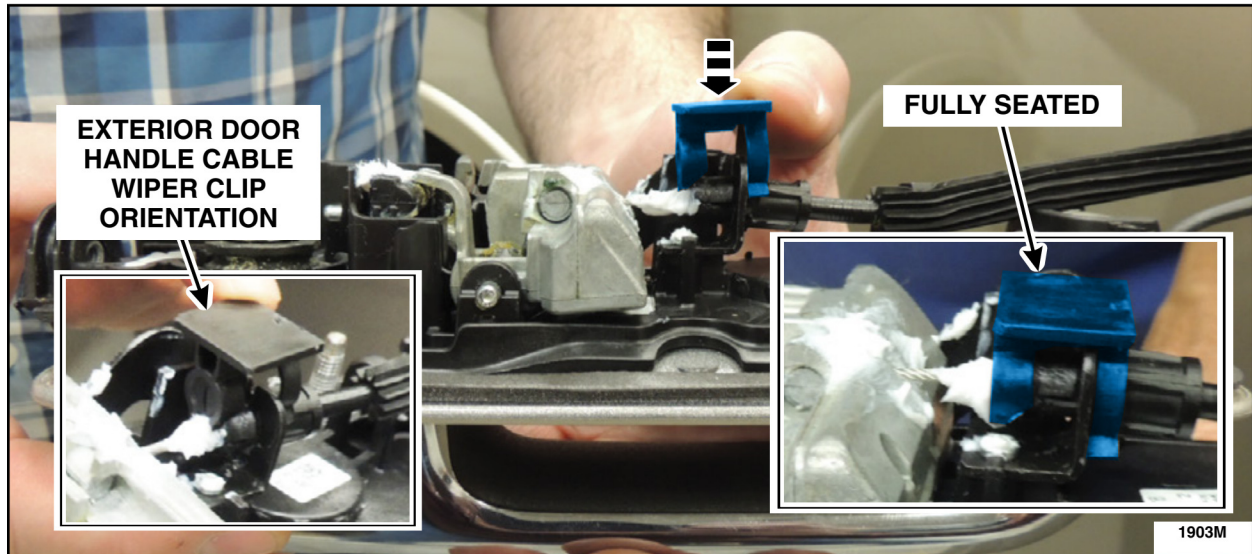


FIGURE 29

41. Reinstall the front exterior door handle. Please follow the WSM procedures in Section 501-14.

NOTICE: Reinstall the exterior door handle cable and retaining clips in the original factory position.

42. Clean any excessive silicone around the exterior door handle perimeter with isopropyl alcohol, cotton swabs and a clean shop towel to avoid appearance concerns.

43. Has labor operation 20M04H been claimed in the vehicle warranty history?

Yes - The Body Control Module (BCM) has already been reprogrammed to the latest software level. Repair is complete.

No - Reprogram the BCM using Integrated Diagnostic Software (IDS) release 122.03 or higher. See BCM Module Reprogramming Steps on Page 43.

IMPORTANT NOTE: Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall. Unless a part is requested to be returned to Ford, all parts replaced under this FSA must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Refer to the Parts Retention, Return, & Scrapping section of the FSA dealer bulletin for further information.



Rear Door Lock Actuator Replacement

Complete Rear Door Part Kit

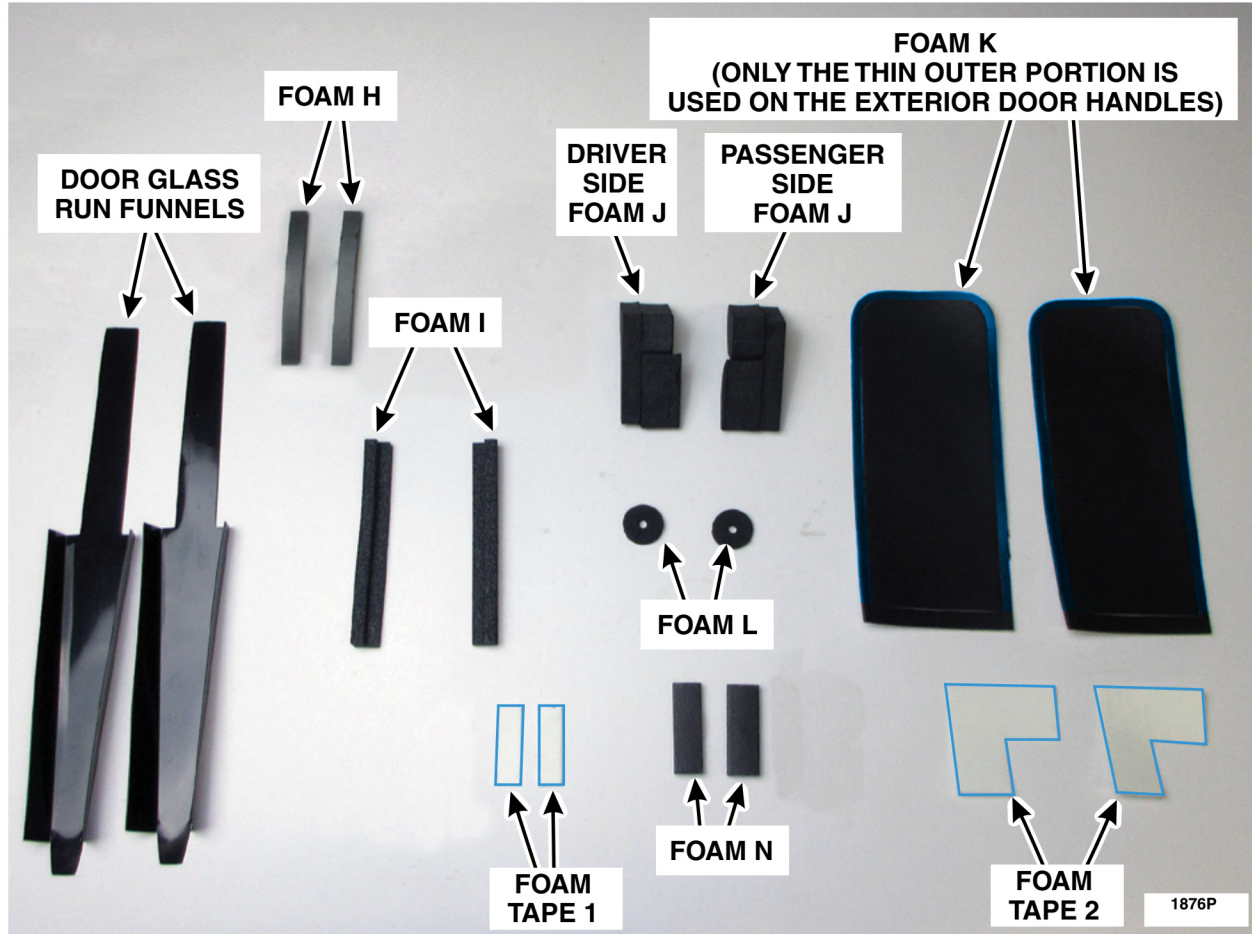


FIGURE 30

NOTE: The parts being installed in this procedure are not labeled. Refer to Figure 30 for component identification. All unused parts of the kit can be scrapped.



NOTE: The images used in this procedure may not reflect the actual images of the components being repaired. However, the differences are minor and will not hinder the actual repair process.

NOTICE: Do not allow the door trim panel or exterior door handle to hang by the door handle cables or damage to the cable and door may occur.

1. Remove the exterior rear door handle from the affected door. Please follow the Workshop Manual (WSM) procedures in Section 501-14.

NOTE: The interior grab handle cover clips can be reused for this repair. Only replace if damaged.

2. If a cable wiper clip is present on the exterior door handle cable end, remove and discard the cable wiper clip. See Figure 31.

NOTE: Front exterior door handle shown, all exterior door handles similar.

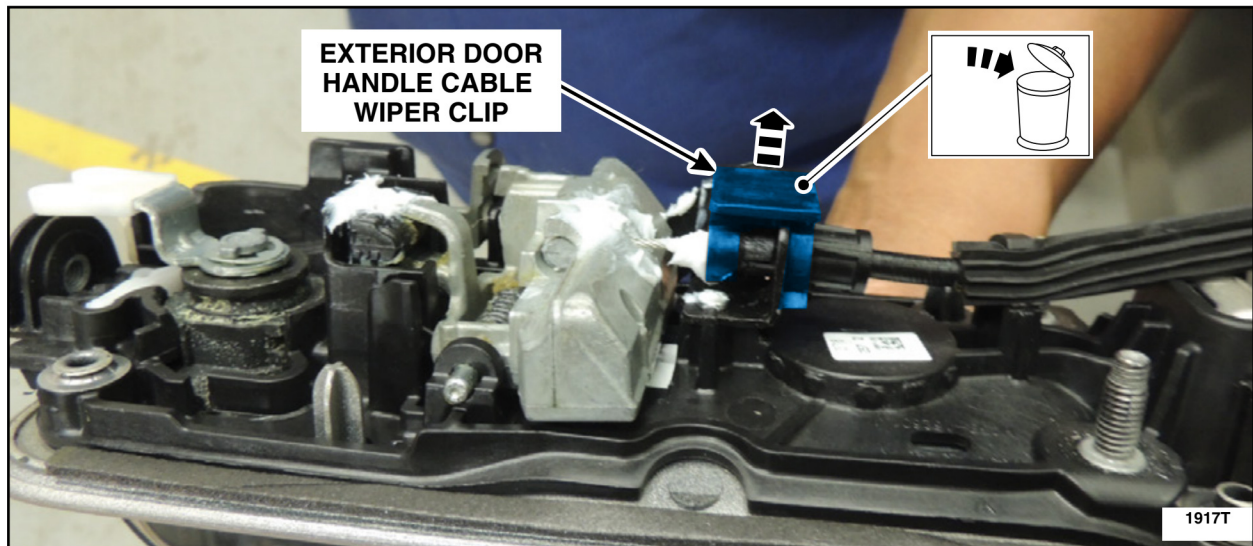


FIGURE 31



3. Position the window glass to the fully open (down) position.
4. Remove the door inner belt moulding and position the latch side of the door glass top run aside.
See Figure 32.

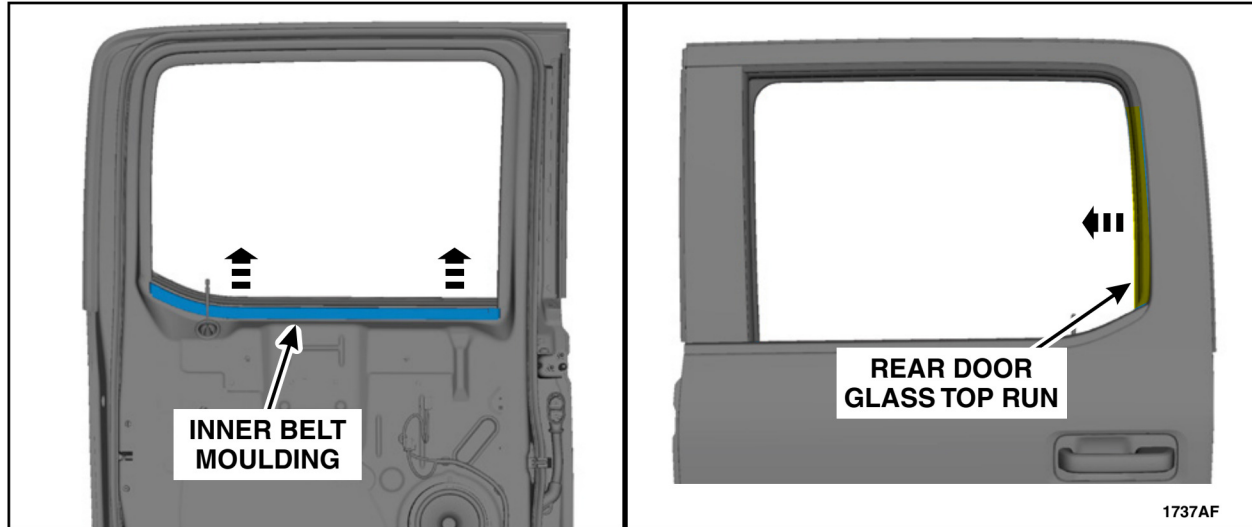


FIGURE 32

5. If present, remove and discard the door glass run funnel and the foam tape, that holds the door glass run funnel to the door latch water shield, from the door glass run channel on the latch side.
See Figure 33.

NOTE: A piece of foam tape holds the door glass run funnel to the door latch water shield, if the foam tape is not removed with the door glass run funnel it will need to be removed and discarded once the door latch and the door latch water shield are removed later in this procedure.



FIGURE 33



6. With the latch side of the rear door glass top run still positioned aside, raise the rear door window glass three quarters of the way up. See Figure 34.

NOTICE: Use care not to pinch the door glass top run or scratch the glass when raising the window glass.

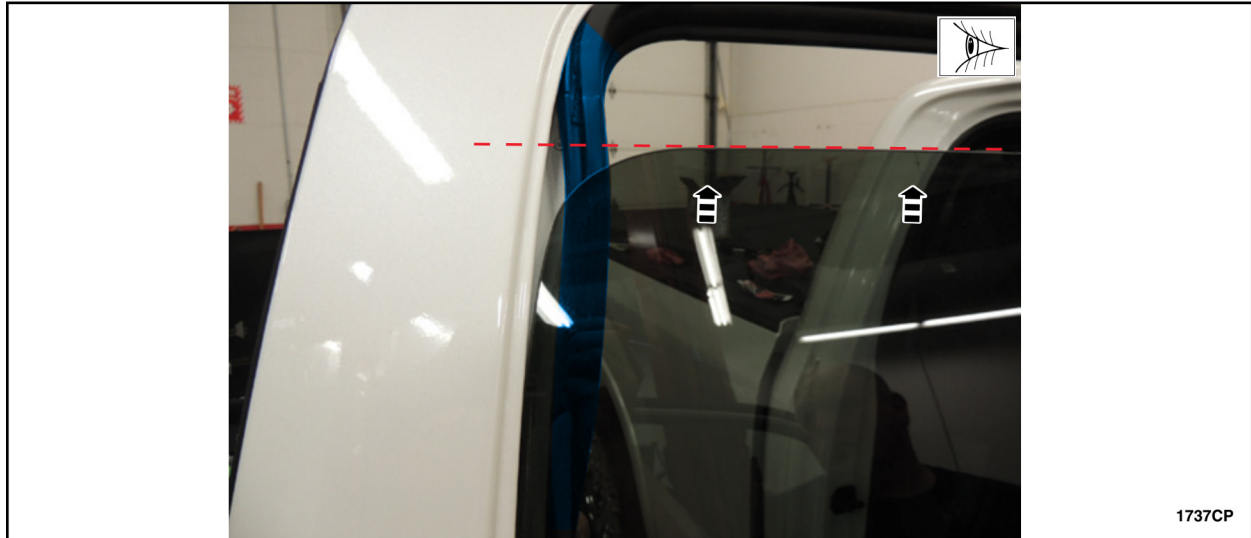


FIGURE 34

7. If the silicone shown in Figure 35 is present, using a flat bladed trim tool or equivalent, separate the rear door latch water shield from the inner door panel by pushing the trim tool between the silicone and the inner door panel. See Figure 35.

NOTE: Make sure to use some shop towels or equivalent, cradled inside the door panel, to catch the silicone debris, to prevent clogging the door drain holes.

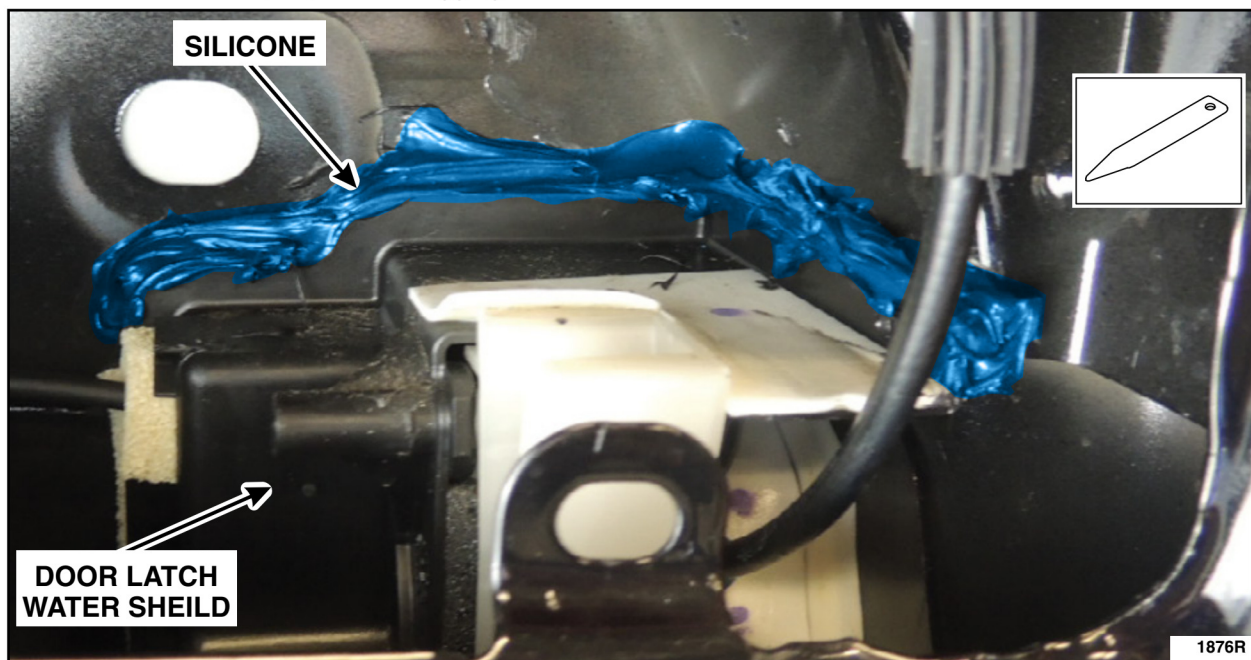


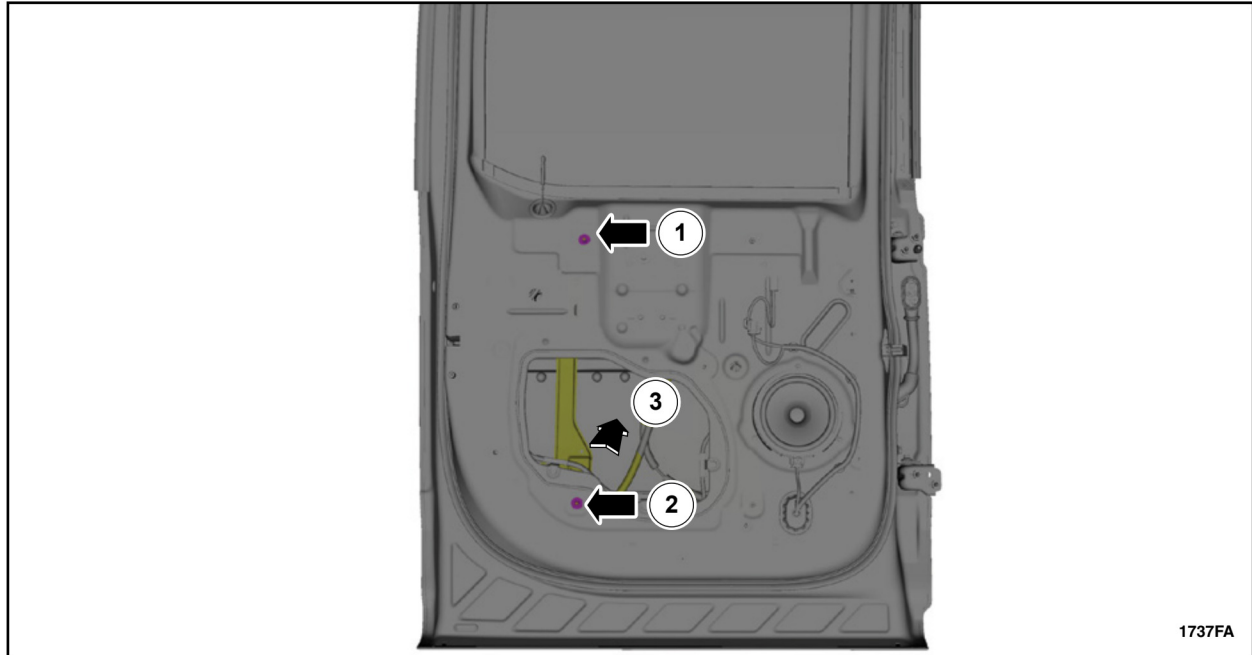
FIGURE 35



8. Position the lower end of the latch side door window regulator aside. See Figure 36.

1. Loosen the upper latch side rear door window regulator retainer 3 turns.
2. Remove the lower latch side rear door window regulator retainer.
3. Position the lower latch side rear door window regulator stud out of the inner door panel and position towards the outer door panel.

⚠ WARNING: The window regulator must only be positioned toward the outer door panel and not side to side or damage to the window regulator or window glass could occur.



1737FA

FIGURE 36



9. Remove the rear door window run retainer. See Figure 37.

- Torque: 71 lb.in (8 Nm).

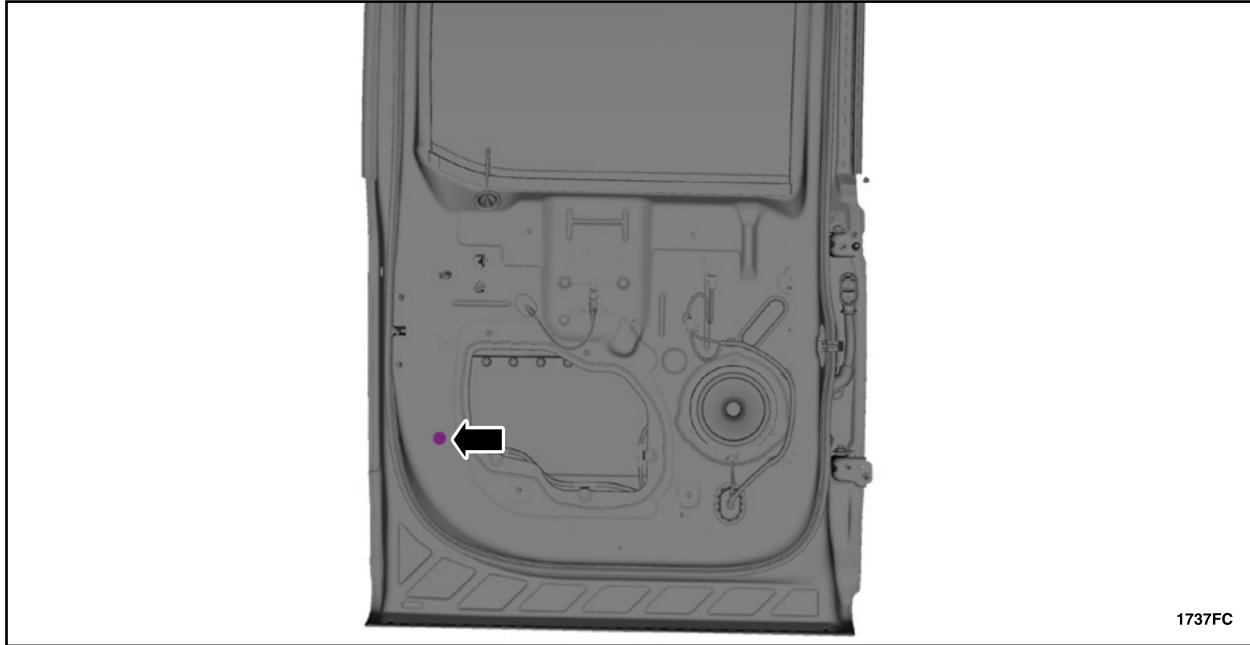


FIGURE 37

10. Remove the rear door latch retainers. See Figure 38.

- Torque: 71 lb.in (8 Nm).

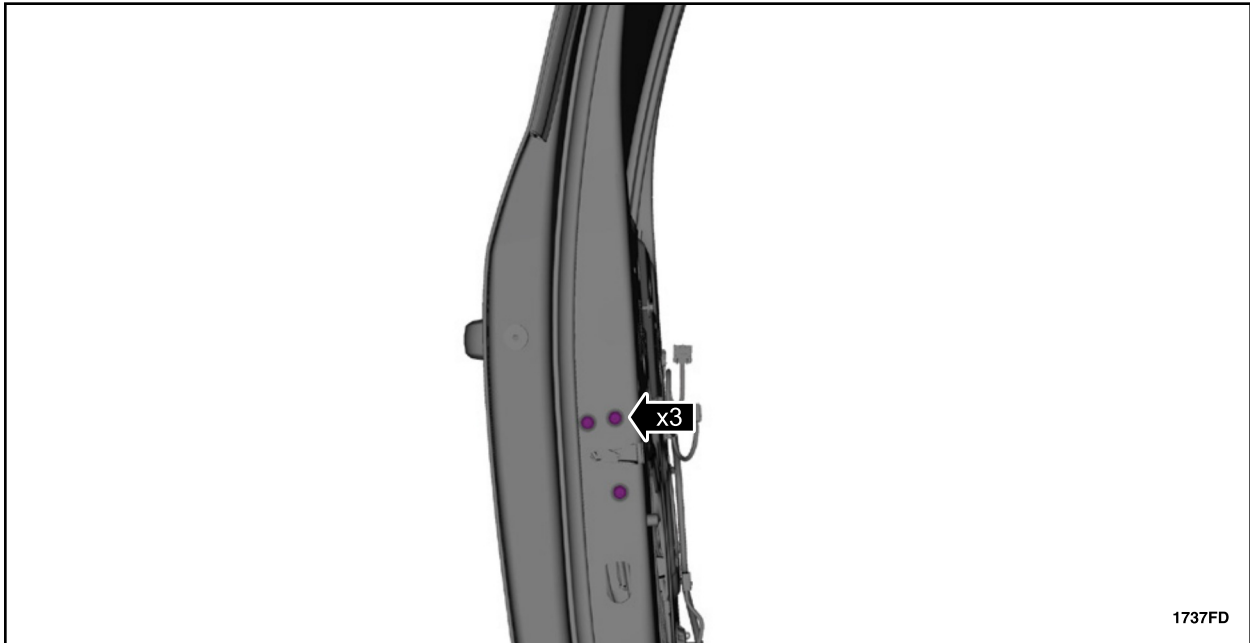


FIGURE 38



CAUTION: Use caution not to kink the cables during the removal and disassembly of the door latch.

11. Remove the rear door latch. See Figure 39.

NOTE: When removing the door latch for power door lock actuator replacement, it is not necessary to remove the cables from the latch assembly.

1. Disconnect the interior and exterior door handle cable clips and route both cables through the inner door.
2. Disconnect the power door lock electrical connector.
3. Route the lock rod through the inner door.
4. Disconnect the door ajar switch.
5. As needed, finish releasing any residual silicone from between the door latch water shield and the outer door panel.
6. Holding on to both cables, position the lower latch side window regulator toward the outer door panel reinforcement and remove the rear door latch.

WARNING: The window regulator must only be positioned toward the outer door panel and not side to side or damage to the window regulator or window glass could occur.

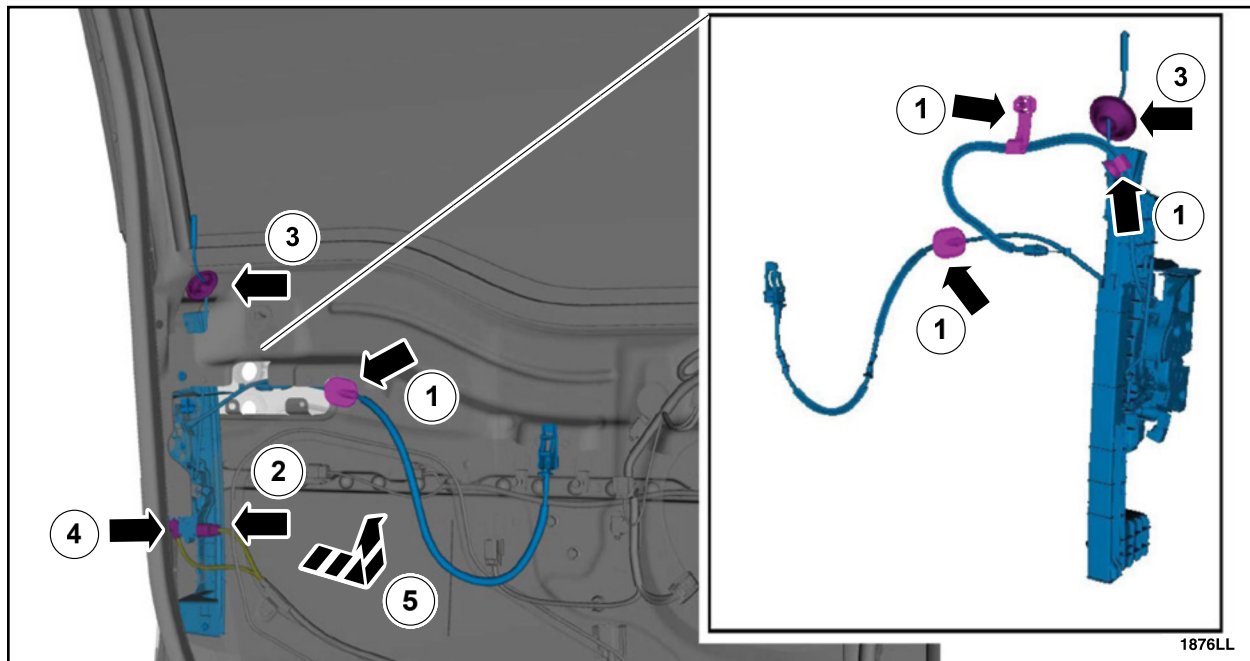


FIGURE 39



12. If not removed with the door glass run funnel, remove and discard the foam tape that secured the door glass run funnel to the door latch water shield and window run.
13. If the silicone shown in Figure 35 was present, remove any residual silicone and clean the inner door panel at the water shield area. Then, remove the shop towels containing the debris from inside the door panel.
14. Remove the retainers and separate the door latch components to gain access to the actuator. Note the components position and orientation for reassembly. Discard the door latch water shield. See Figure 40.

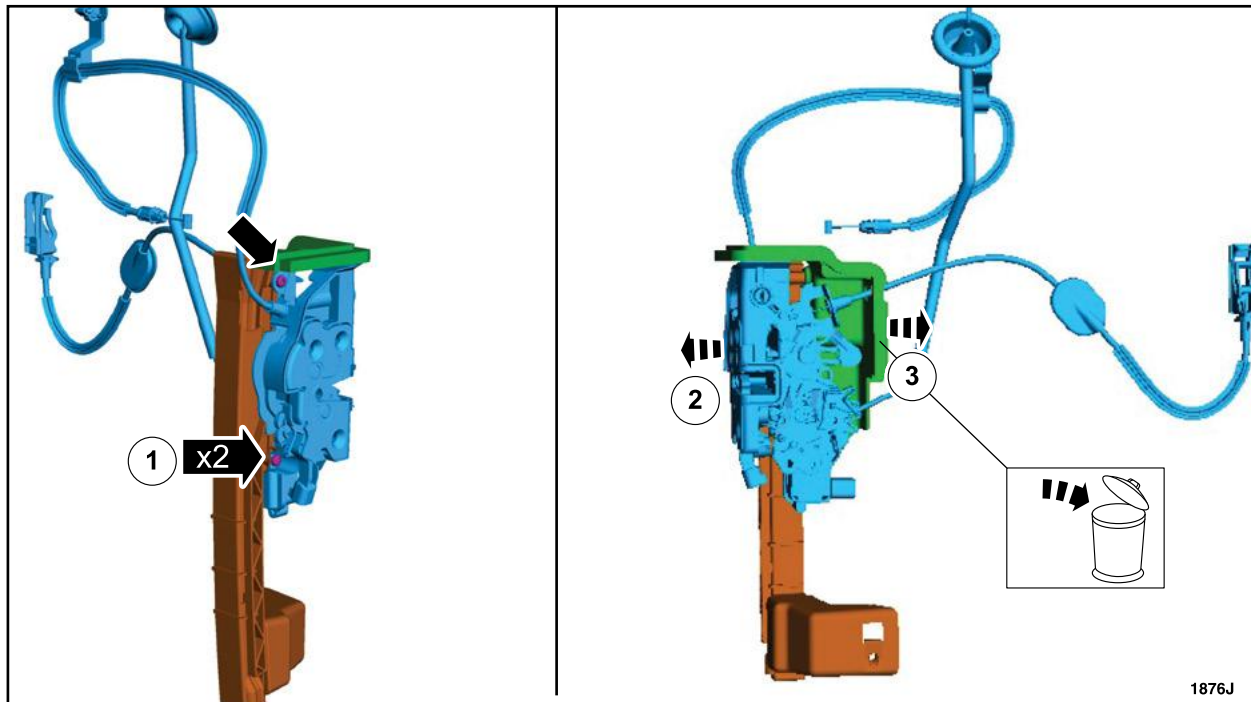


FIGURE 40



15. Remove the door lock actuator by using a flat blade screwdriver. Release the retention tab, on the actuator, from the notch on the door latch while wiggling the actuator off of the door latch alignment brackets. See Figures 41 and 42.

NOTE: Door lock actuator removed for clarity.

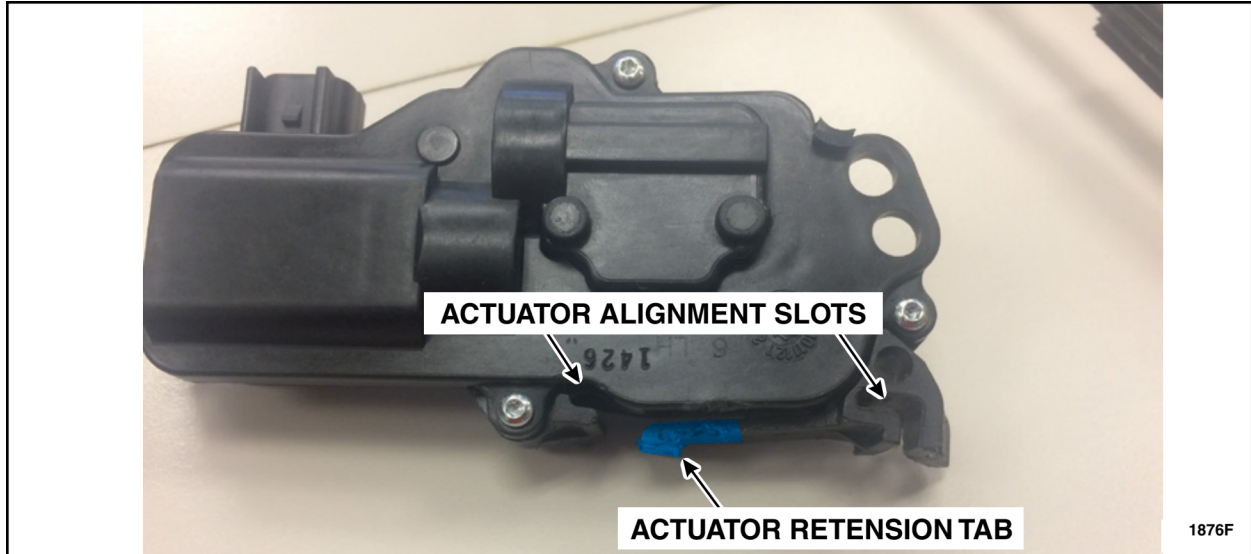


FIGURE 41

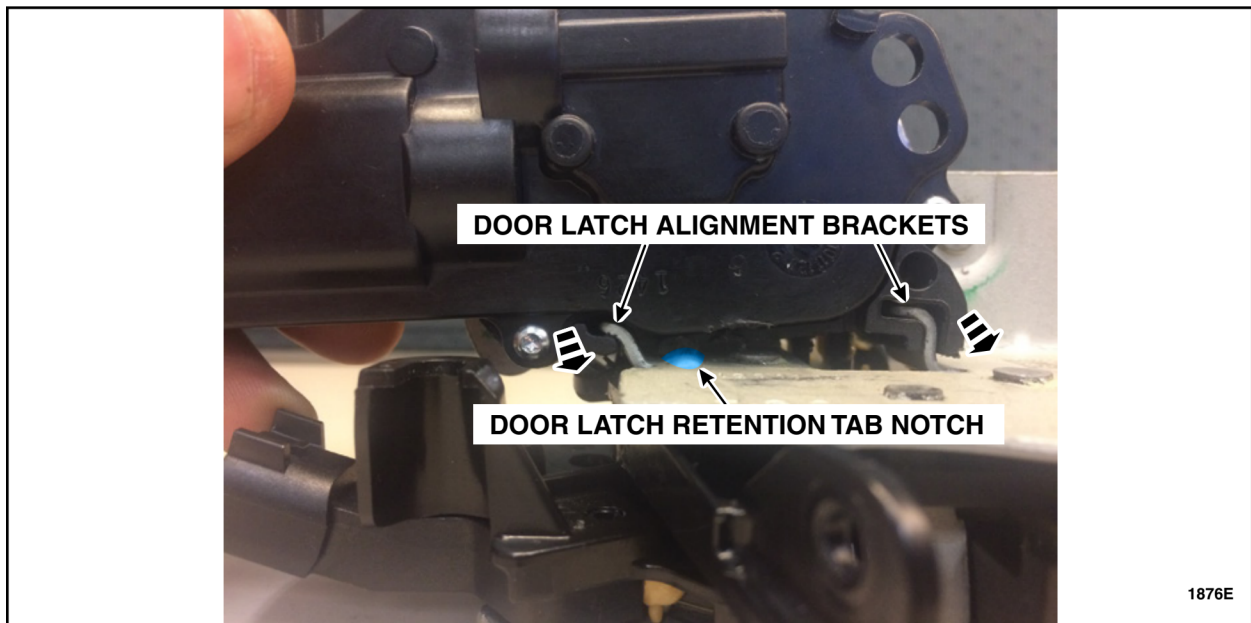


FIGURE 42



16. Using a clean shop towel and isopropyl alcohol, clean then dry all of the previously separated door latch components.
17. Install a *new* door lock actuator by aligning the actuator alignment slots with the door latch alignment brackets. Slide the actuator onto the brackets while aligning the actuator arm pin into the door latch lock lever. An audible click can be heard as the door lock actuator retention tab seats behind the door latch retention tab notch. See Figures 41, 43 and 44.

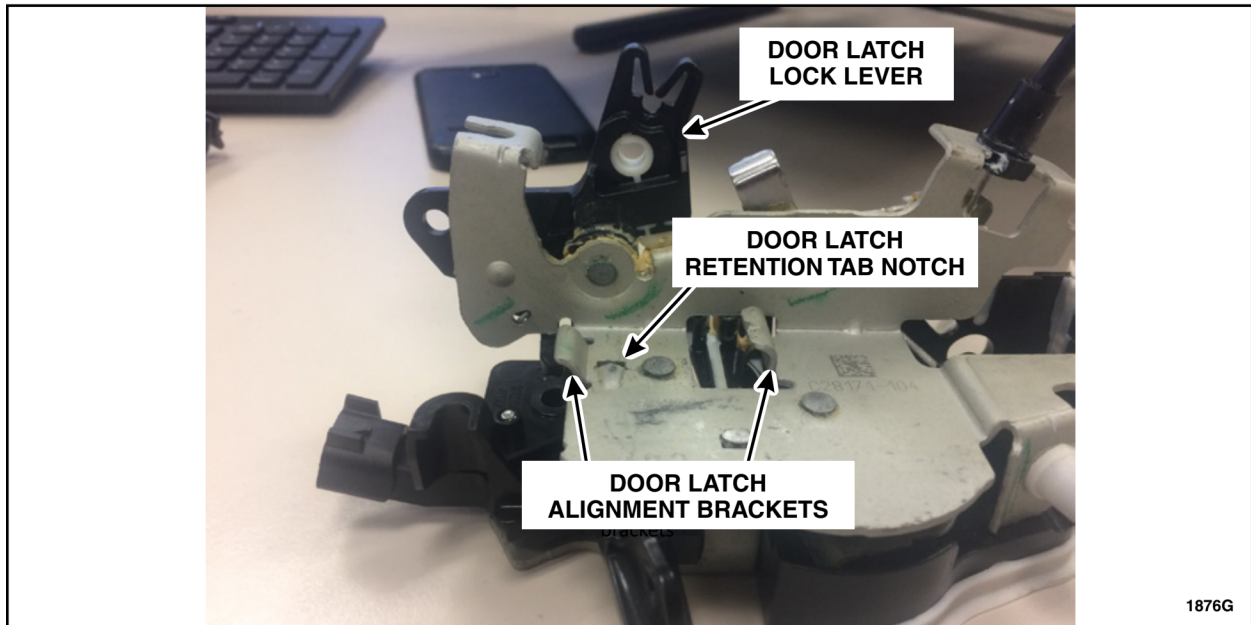


FIGURE 43

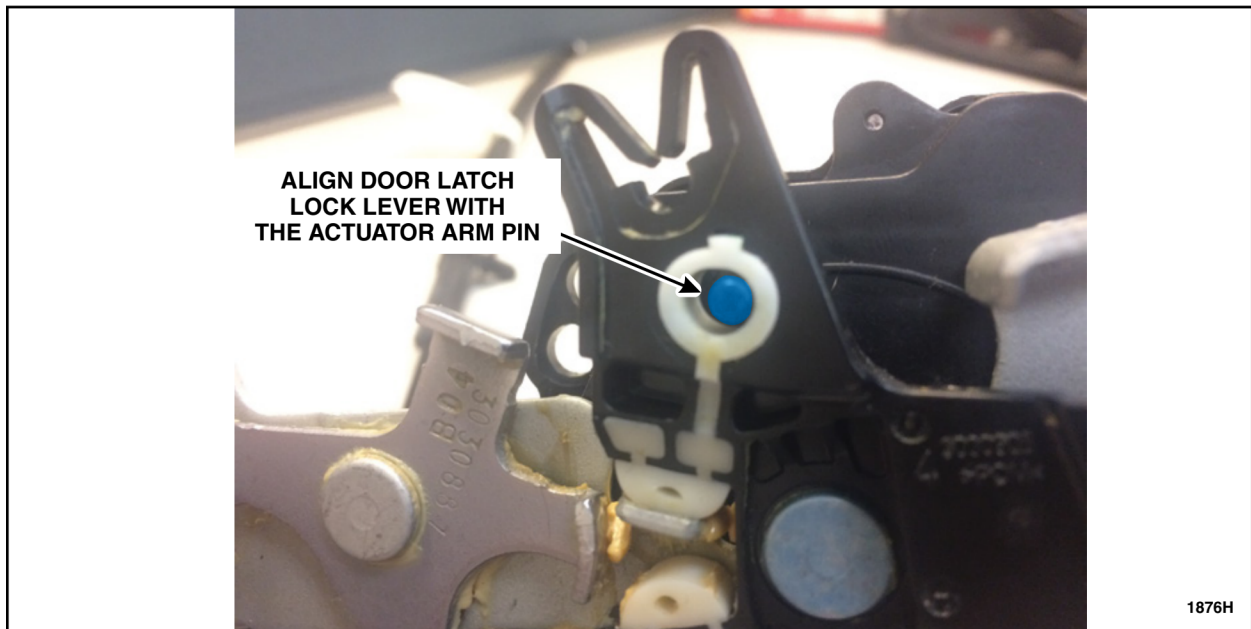


FIGURE 44



18. Ensure that the door lock actuator is fully seated, by attempting to pull the actuator off of the latch, and that the actuator arm pin is positioned in the door latch lock lever.
19. Reassemble the latch components, including a *new* water shield, and then install the retainers. See Figure 40.
20. Make sure the interior of the door is clean and dry prior to the door latch installation.

CAUTION: Use caution not to kink the cables during the installation of the door latch.

21. Install the rear door latch. See Figure 39.
 1. Holding on to both cables, position the lower latch side window regulator toward the outer door panel reinforcement and install the rear door latch.
 2. Connect the door ajar switch.
 3. Route the lock rod through the inner door.
 4. Connect the power door lock electrical connector.
 5. Connect the interior and exterior door handle cable clips and route both cables through the inner door.
22. Install the rear door latch retainers. See Figure 38.
 - Torque: 71 lb.in (8 Nm).
23. Install the rear door window run retainer. See Figure 37.
 - Torque: 71 lb.in (8 Nm).
24. Position back the lower end of the latch side door window regulator by reversing Step 8. See Figure 36.
25. Clean the highlighted area on top of the *new* door latch water shield with isopropyl alcohol and a clean shop towel where the foam tape 2 will be installed. See Figure 45.

NOTE: Driver door latch shown, passenger door latch similar. Right image shown out of the vehicle for clarity.

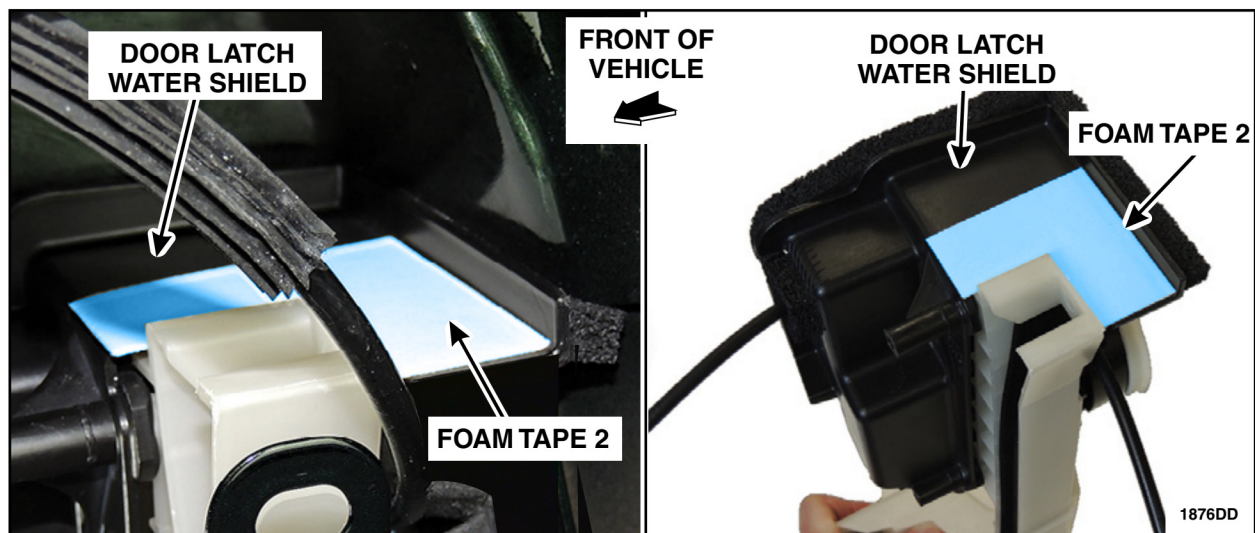


FIGURE 45



26. Install foam tape 2 on top of the rear door latch water shield. See Figures 46.

- Make sure that foam tape 2 attaches to the water shield and to the door glass run.

NOTE: Driver door latch shown, passenger door latch similar. Images shown out of the vehicle for clarity.



FIGURE 46

27. Apply Motorcraft® TA-357 High Performance Engine RTV silicone in and over the mating area of the water shield to the door inner panel from the front to the outboard corner. Using light finger pressure, smooth the bead of silicone. See Figure 47.

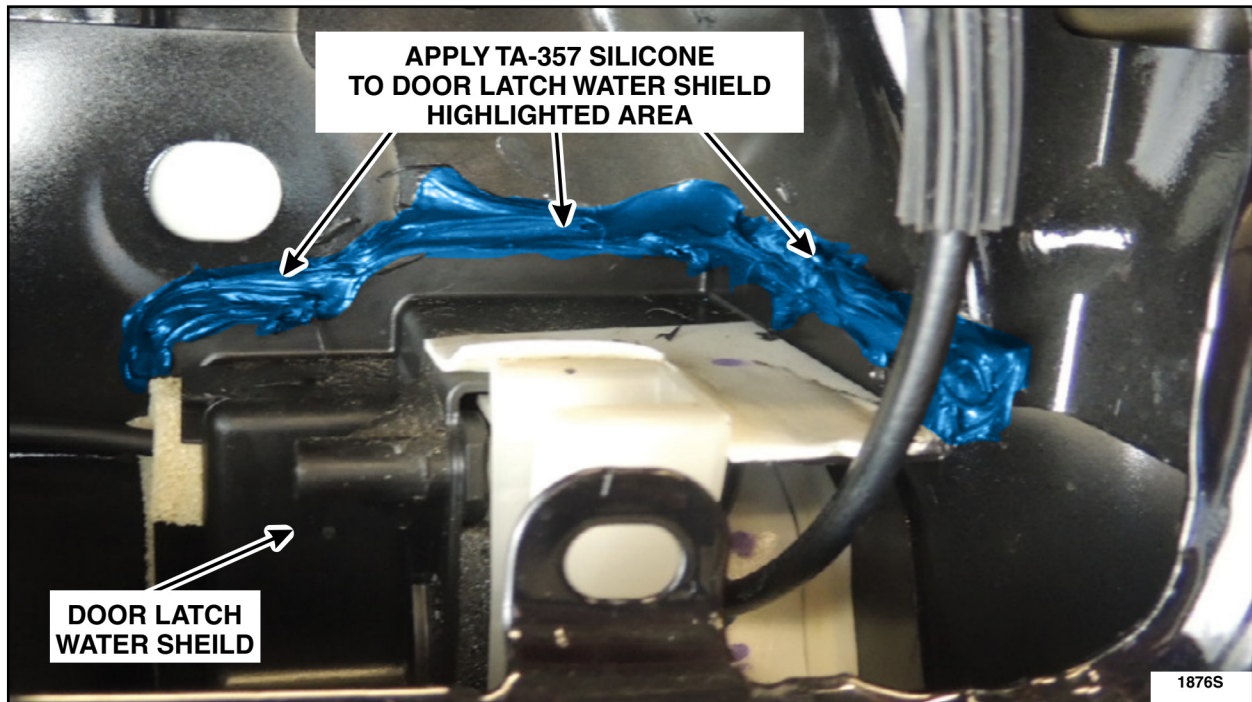


FIGURE 47



28. Lower the window glass to the fully open (down) position.

29. Install a *new* door glass run funnel, **ensuring that the lower tab is situated in the door glass run and the funnel sides sit at a 90° angle above the door glass run.** See Figure 48.

NOTE: Ensure the funnel sides are at a 90° angle upon installation. It may be necessary to bend the sides of the funnel back to a 90° angle before installation.

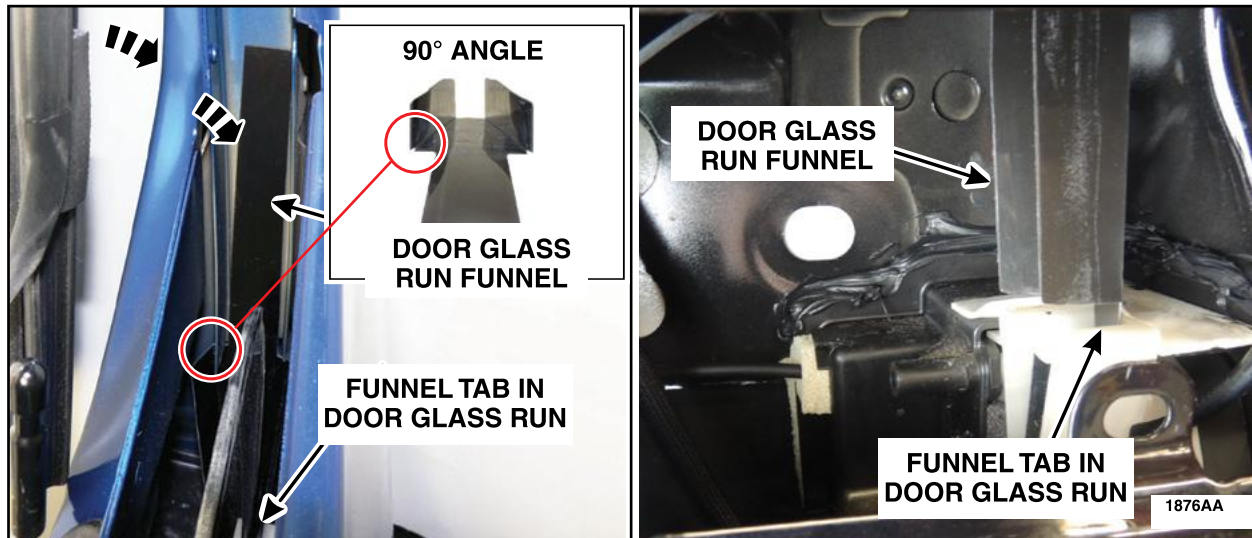


FIGURE 48



30. Reinstall the latch side door glass top run and door inner belt moulding. See Figure 32.

NOTICE: It will be necessary to hold the upper portion of the funnel when installing the door glass top run. Care must be taken not to bend or damage the door glass run funnel. Check through the exterior door handle opening to verify that the funnel is positioned correctly.

31. Raise the rear door window glass to the fully closed (up) position.

32. Using a clean shop towel and isopropyl alcohol clean the area where the *new* foam tape 1 will be applied, from any dirt, dust or debris. Then, install the *new* foam tape 1 in the location shown, from though the exterior door handle opening, to hold the funnel in place. See Figure 49.

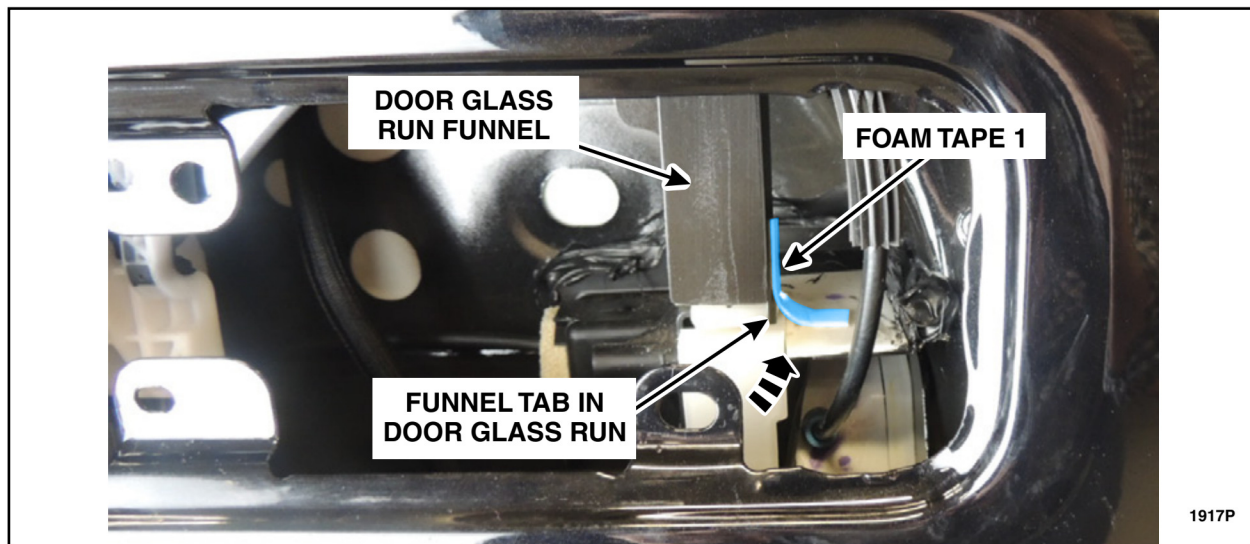


FIGURE 49



33. If present, thoroughly remove the foam gasket located around the perimeter of the exterior rear door handle and the silicone from the latch side area of the exterior rear door handle.
34. Using a clean shop towel and isopropyl alcohol, clean the highlighted mating surface area of the exterior rear door handle. See Figure 50.

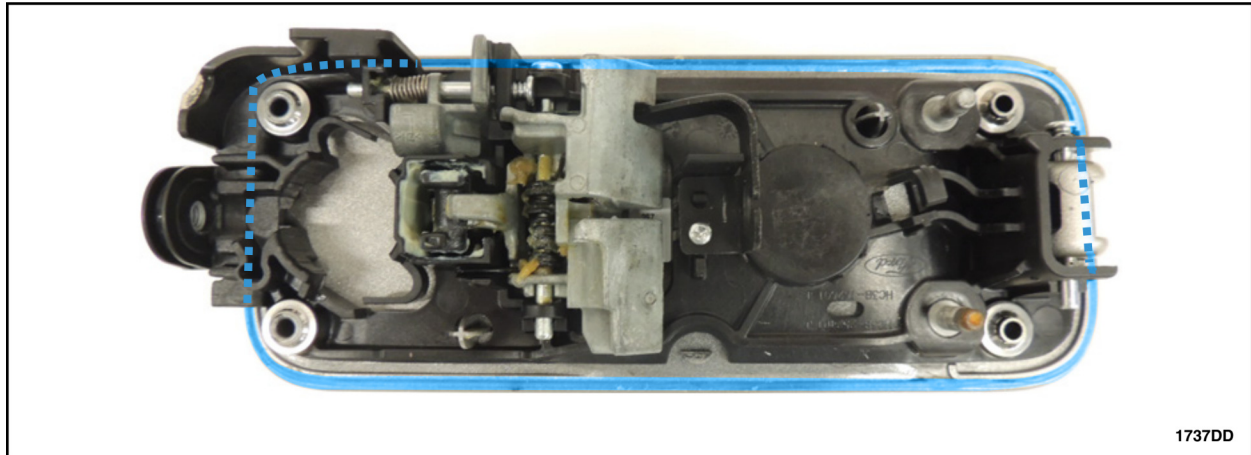


FIGURE 50

35. Using a clean shop towel and isopropyl alcohol, thoroughly clean inside the dotted lines on the mating surface area of the exterior rear door handle opening. See Figure 51.

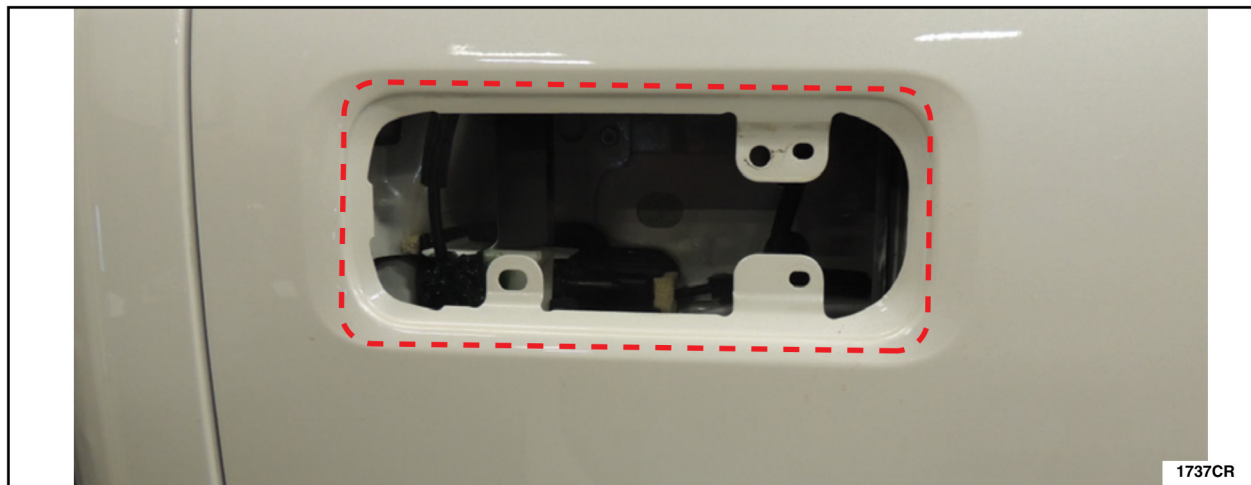


FIGURE 51



36. Install a *new* foam K around the perimeter of the exterior door handle.

NOTE: Foam K will not wrap around the entire perimeter of the exterior door handle.

NOTE: Proper placement of foam K is crucial for proper sealing and to avoid appearance concerns.

- A. Lay out foam K on the exterior door handle and mark center as shown in Figure 52.
- B. Remove foam K from the door handle and remove the back center portion of the adhesive backing then cut the protective backing in half. See Figure 52.
- C. Align the marks made on the foam K and exterior door handle and adhere the back center portion to the exterior door handle as shown in Figure 53.
- D. Lay one side of foam K down on the exterior door handle and without stretching the foam pull off the adhesive backing as you adhere foam K to the exterior door handle as shown in Figure 53.
- E. Remove the protective backing from the other side leg of foam K as shown in Figure 53.
- F. Without stretching the foam adhere it to the exterior door handle ensuring that both sides of foam K are of equal length once secured. See Figure 54.

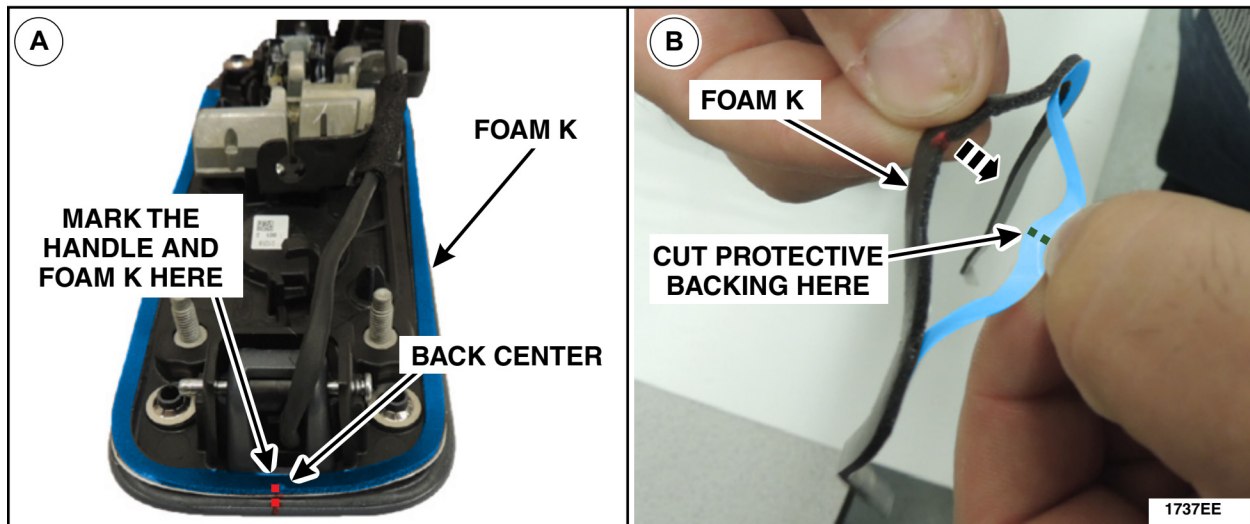


FIGURE 52



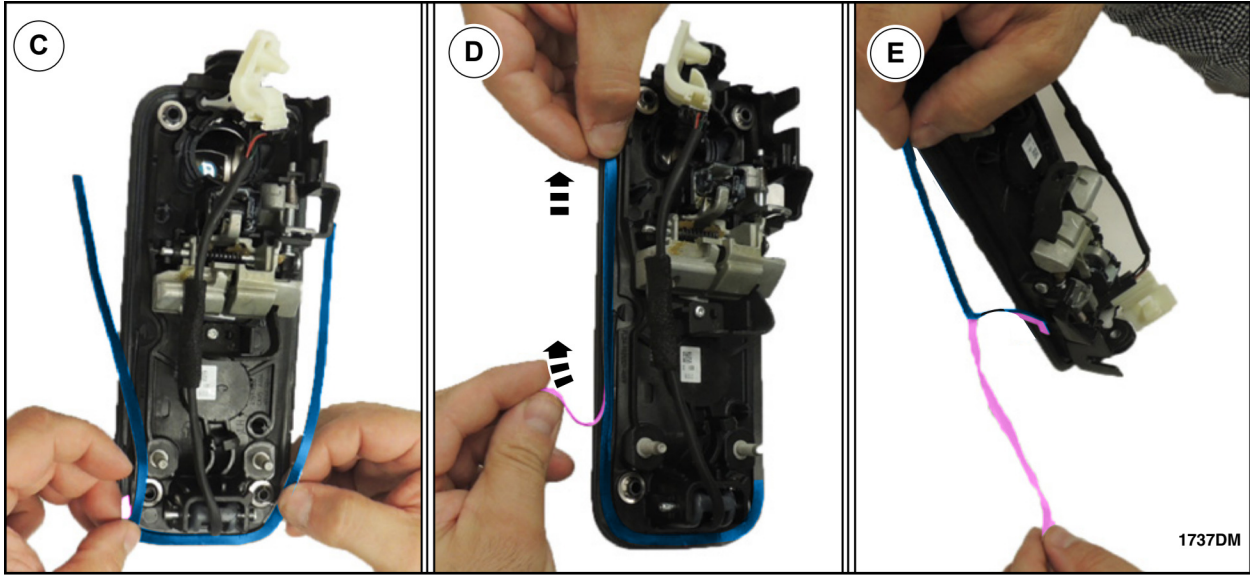


FIGURE 53

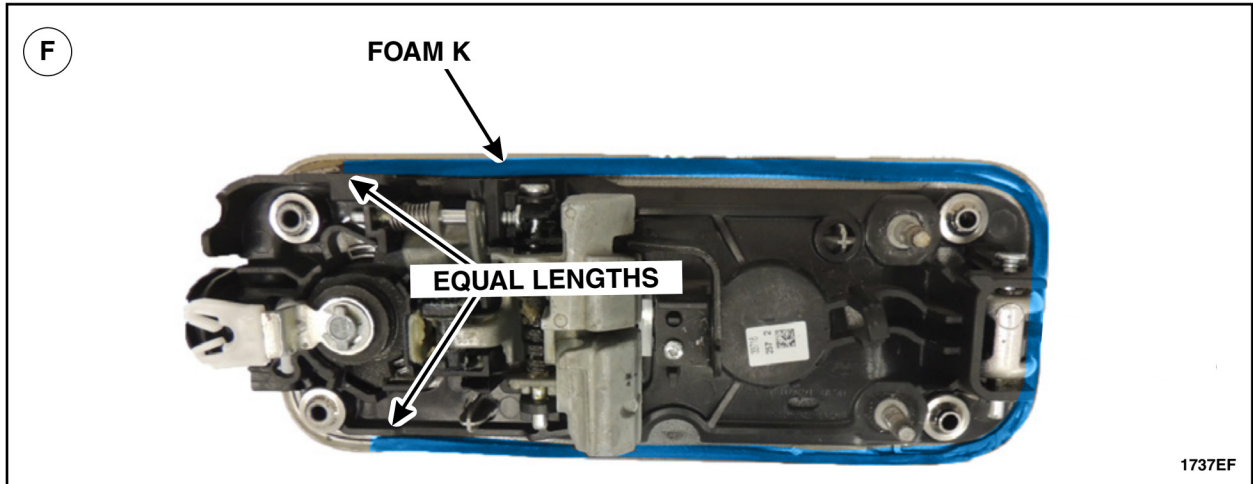


FIGURE 54



37. Using a clean shop towel and isopropyl alcohol, clean the handle plunger then, using a brush, apply a light film of Motorcraft® XG-16 low temperature grease to all four sides of the exterior door handle plunger and to the mechanisms in the areas shown in Figures 55 and 56.

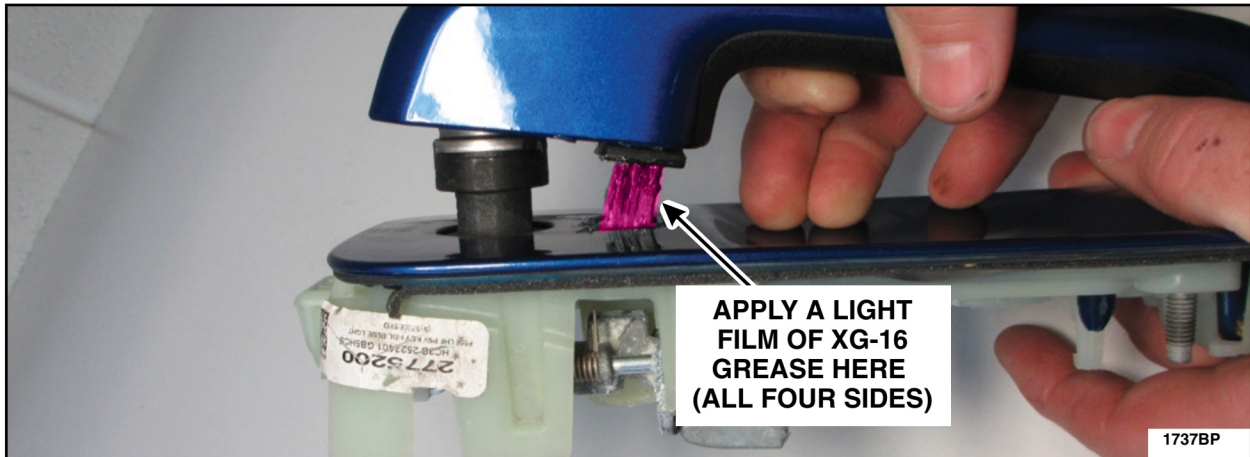


FIGURE 55

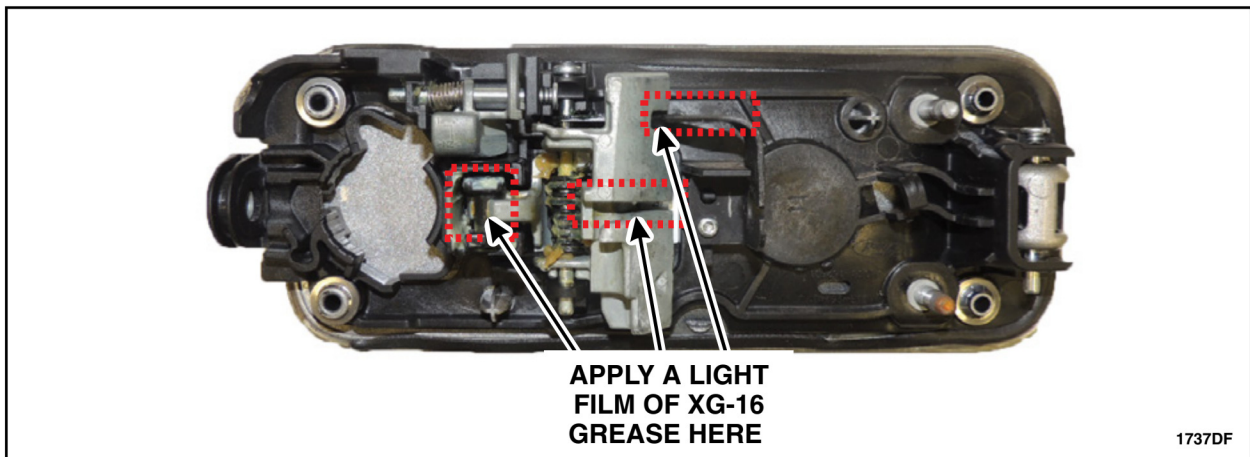


FIGURE 56



38. Apply a bead of Motorcraft® TA-357 High Performance Engine RTV silicone to the latch side area of the rear door exterior handle opening metal surface. Make sure that the silicone will overlap with the foam K on the exterior door handle. See Figure 57.

NOTE: Proper placement of the Motorcraft® TA-357 High Performance Engine RTV silicone is crucial to ensure proper sealing and avoid appearance concerns.

NOTE: Driver door shown, passenger door similar.

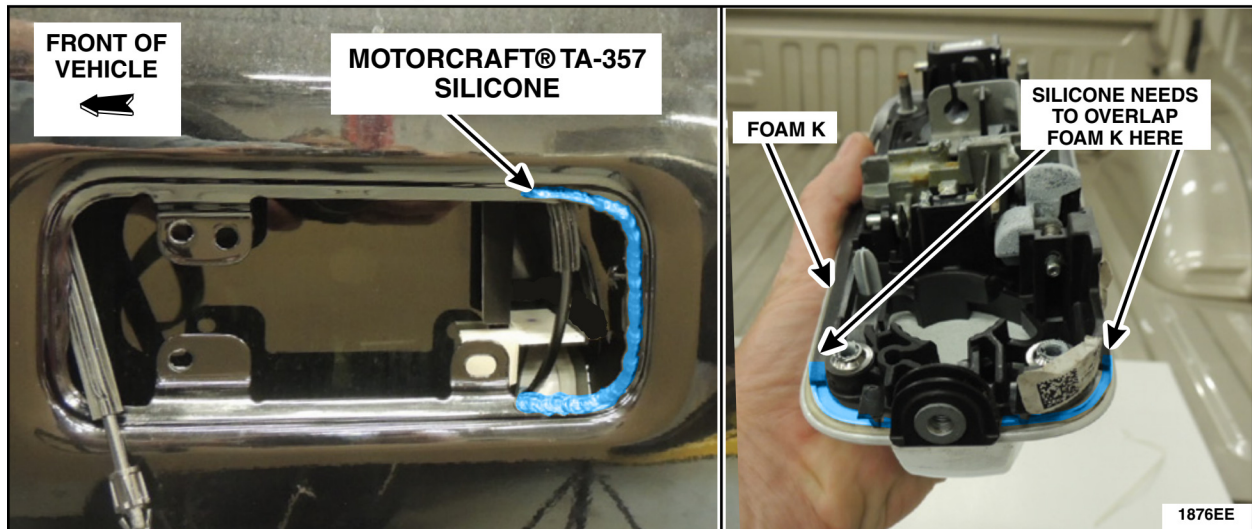


FIGURE 57

39. Reconnect the exterior door handle cable to the door handle and lubricate the door handle cable end with Motorcraft® XG-16 low temperature grease, as shown in Figure 58.

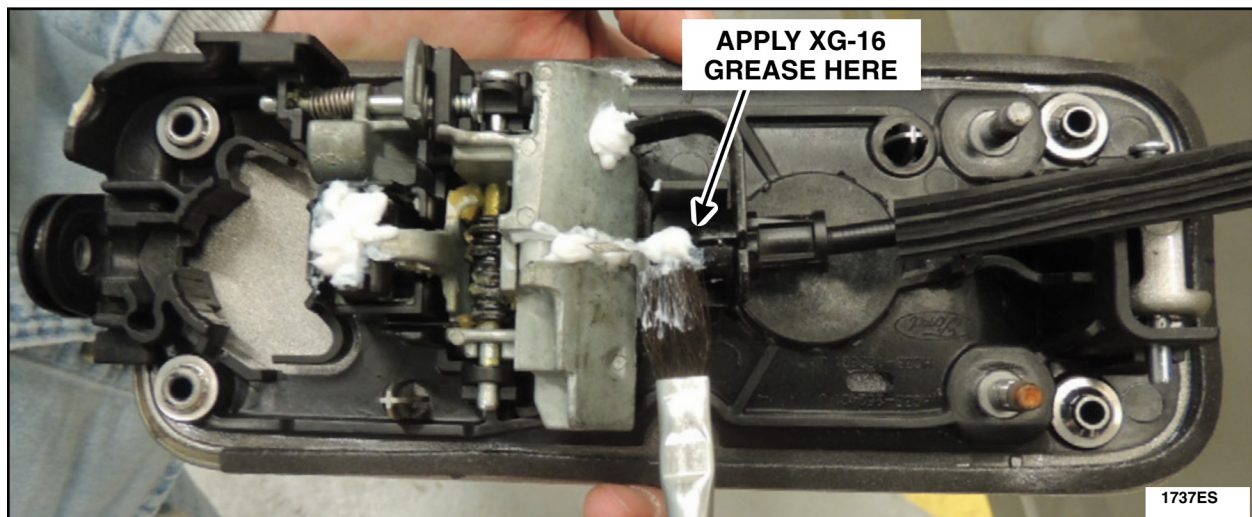


FIGURE 58



40. Install a *new* handle cable wiper clip on the exterior door handle cable end. See Figure 59.

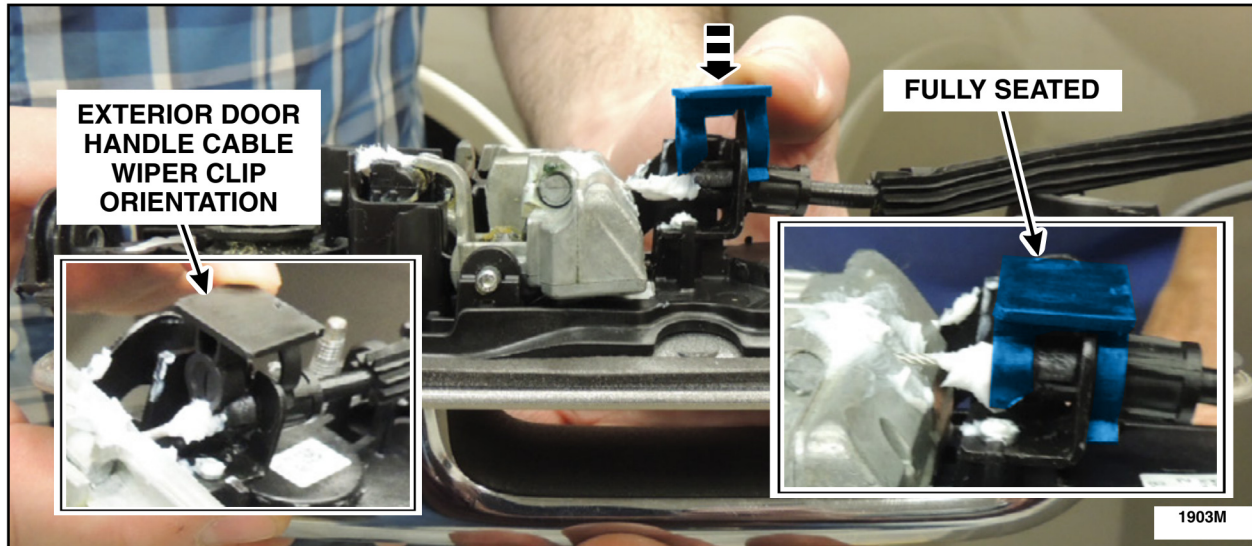


FIGURE 59

41. Reinstall the exterior rear door handle. Please follow the WSM procedures in Section 501-14.

NOTICE: Reinstall the exterior door handle cable and retaining clips in the original factory position.

42. Clean any excessive silicone around the exterior door handle perimeter with isopropyl alcohol, cotton swabs and a clean shop towel to avoid appearance concerns.

43. Has labor operation 20M04H been claimed in the vehicle warranty history?

Yes - The Body Control Module (BCM) has already been reprogrammed to the latest software level. Repair is complete

No - Reprogram the BCM using Integrated Diagnostic Software (IDS) release 122.03 or higher. See BCM Module Reprogramming Steps on Page 43.

IMPORTANT NOTE: Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall. Unless a part is requested to be returned to Ford, all parts replaced under this FSA must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Refer to the Parts Retention, Return, & Scrapping section of the FSA dealer bulletin for further information.



BCM Module Reprogramming

NOTE: Reprogram appropriate vehicle modules before performing diagnostics and clear all Diagnostic Trouble Codes (DTC's) after programming. For DTC's generated after reprogramming, follow normal diagnostic service procedures.

1. Connect a battery charger to the 12V battery.

NOTE: Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.

NOTE: Make sure the diagnostic scan tool does not enter sleep mode during programming.

2. Reprogram the BCM using IDS release 122.03 or higher. Make sure you are connected to the Internet prior to reprogramming.

NOTE: Calibration files may also be obtained at www.motorcraftservice.com.

NOTE: Follow the IDS on-screen instructions to complete the reprogramming procedure.

3. Disconnect the battery charger from the 12V battery once the reprogramming has completed.



Important Information for Module Programming

NOTE: When programming or reprogramming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the 12V battery is fully charged before carrying out the programming steps and connect the diagnostic scan tool to a power source.
- Inspect Vehicle Communication Module (VCM) and cables for any damage. Make sure the diagnostic scan tool connections are not interrupted during programming.
- A hardwired connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, headlamps, interior lamps, HVAC system, etc.) and close doors.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- Follow all the diagnostic scan tool on-screen instructions carefully.
- Disable the diagnostic scan tool sleep mode, screensaver, hibernation modes.
- Create all sessions Key On Engine Off (KOEO). Starting the vehicle before creating a session will cause errors within the programming inhale process.

Recovering a module when programming has resulted in a blank module: **NEVER DELETE THE ORIGINAL SESSION!**

- a. Obtain the original diagnostic scan tool that was used when the programming error occurred during Module Reprogramming (MR) or Programmable Module Installation (PMI).
- b. Disconnect the VCM from the Data Link Connector (DLC) and the diagnostic scan tool.
- c. Reconnect the VCM to the diagnostic scan tool and then connect to the DLC. Once reconnected, the VCM icon should appear in the corner of the diagnostic scan tool screen. If it does not, troubleshoot the diagnostic scan tool to VCM connection.
- d. Locate the original vehicle session when programming failed. This should be the last session used in most cases. If not, use the session created on the date that the programming failed.

NOTE: If the original session is not listed in the previous session list, click the Recycle Bin icon at the lower right of the previous session screen. This loads any deleted sessions and allows you to look through them. Double-click the session to restore it.

- e. Once the session is loaded, the failed process should resume automatically.
- f. If programming does not resume automatically, proceed to the Module Programming menu and select the previously attempted process, PMI or MR.
- g. Follow all on-screen prompts/instructions.
- h. The last screen on the diagnostic scan tool may list additional steps required to complete the programming process. Make sure all applicable steps listed on the screen are followed in order.



CERTAIN 2015-2019 MODEL YEAR F-150 AND 2017-2019 MODEL YEAR F-250-F-550 VEHICLES — POWER DOOR LOCK ACTUATOR FAILURE

TECHNICAL INFORMATION - PROCEDURE A

IMPORTANT: Reference the table below to determine if the affected vehicle meets any of the criteria. Procedure A must be used for any vehicles that falls within the build date criteria in the table below.

Vehicle	Model Year	Assembly Plant	Build Dates
F-150	2018-2019	Dearborn	April 13, 2018 through February 26, 2019
		Kansas City	April 13, 2018 through February 26, 2019
F-250 - F-550		Kentucky	April 22, 2018 through March 5, 2019
		OHAP	April 18, 2018 through March 11, 2019

NOTE: For vehicles outside new vehicle bumper-to-bumper warranty coverage, advise customer that the program focus is only on the power door lock actuators. Any other failure modes (fuse, wiring, door latch, etc.) are not covered by this program.

1. Follow normal Workshop Manual (WSM) diagnostics for power door lock/unlock concern.

- Did normal diagnostics lead to a defective power door lock actuator?

Yes - Proceed to Step 2.

No - These technical instructions do not apply.

2. Is the power door lock and/or unlock concern on a front door?

Yes - Replace the affected Door Lock Actuator. Proceed to Front Door Lock Actuator Replacement on Page 2.

No - Replace the affected Door Lock Actuator. Proceed to Rear Door Lock Actuator Replacement on Page 23.



Front Door Lock Actuator Replacement

Complete Front Door Part Kit

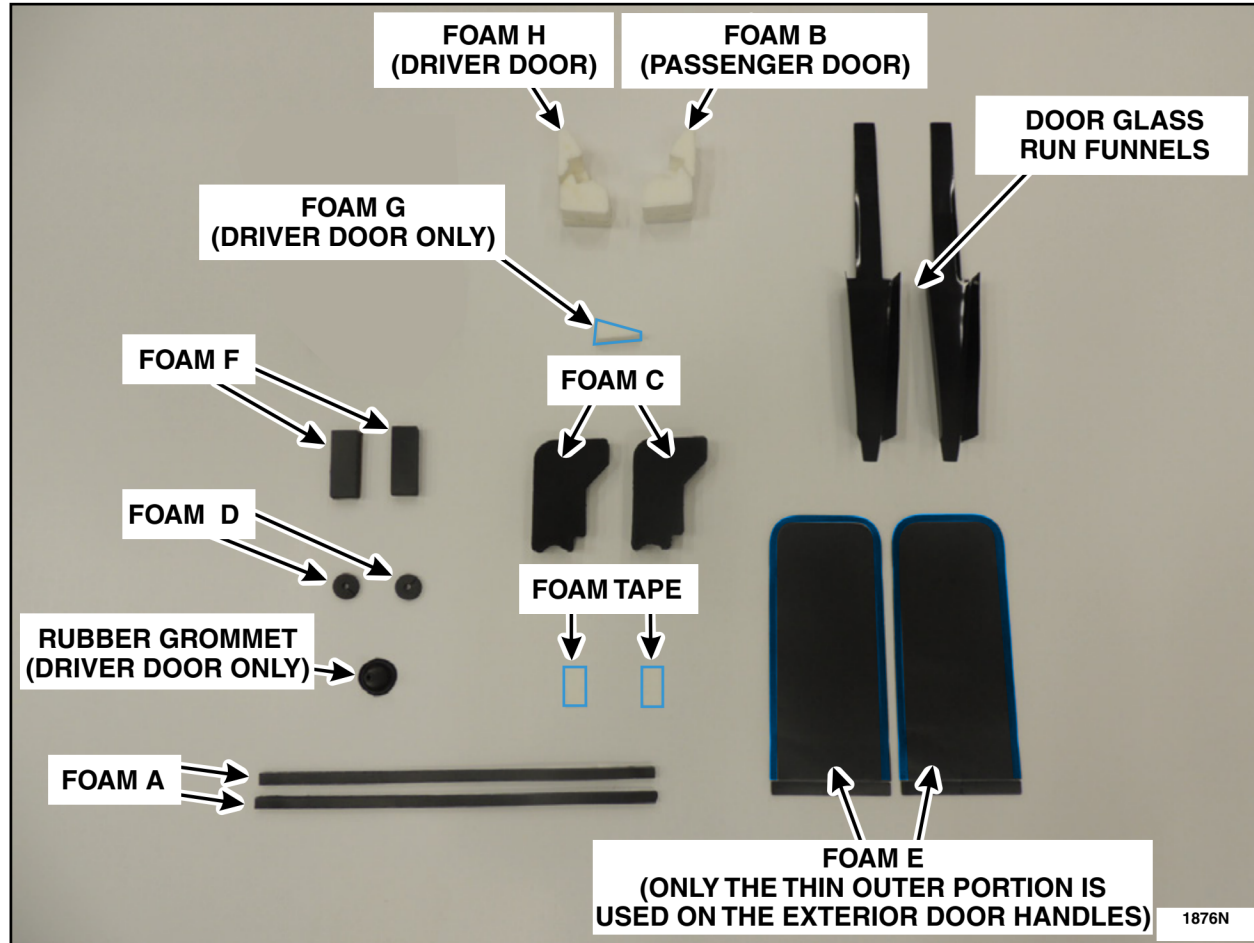


FIGURE 1

NOTE: The parts being installed in this procedure are not labeled. Refer to Figure 1 for component identification. All unused parts of the kit can be scrapped.



NOTE: The images used in this procedure may not reflect the actual images of the components being repaired. However, the differences are minor and will not hinder the actual repair process.

NOTICE: Do not allow the door trim panel or exterior door handle to hang by the door handle cables or damage to the cable and door may occur.

1. Remove the exterior front door handle from the affected door. Please follow the Workshop Manual (WSM) procedures in Section 501-14.

NOTE: On the driver side only, install the exterior door handle key lock rod into the shipping clip on the door glass run.

NOTE: The interior grab handle cover clips can be reused for this repair. Only replace if damaged.

2. If a cable wiper clip is present on the exterior door handle cable end, remove and discard the cable wiper clip. See Figure 2.

NOTE: Front exterior door handle shown, all exterior door handles similar.

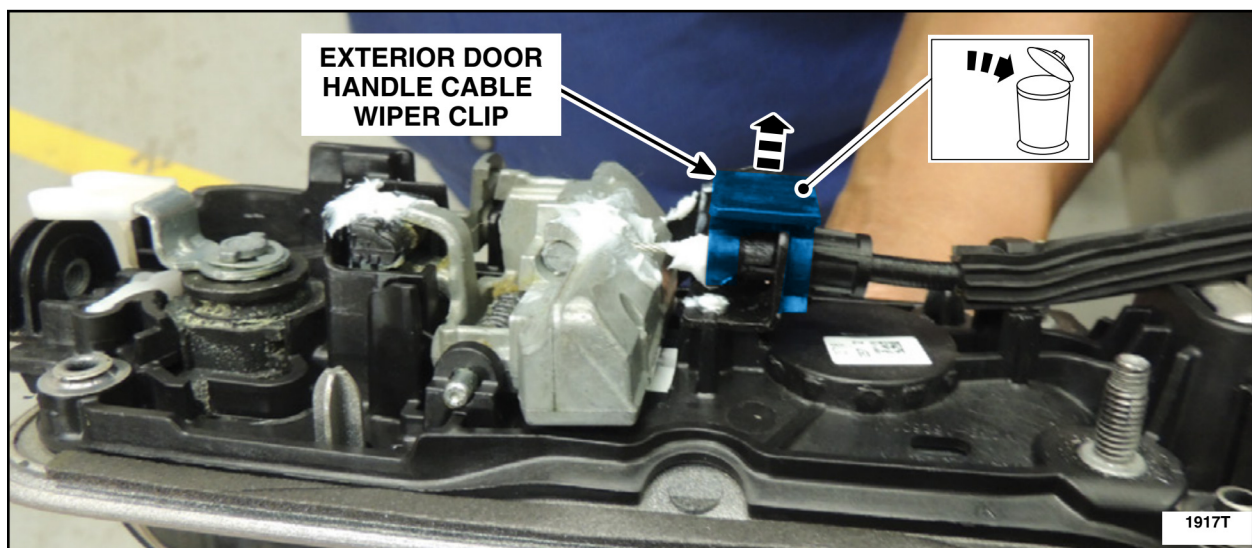


FIGURE 2



3. Position the window glass to the fully open (down) position.
4. Remove the door inner belt molding and position the latch side of the door glass top run aside.
See Figure 3.



FIGURE 3

5. If present, remove and discard the door glass run funnel and the foam tape, that holds the door glass run funnel to the door glass window run, from the door glass run channel. See Figure 4.

NOTE: A piece of foam tape holds the door glass run funnel to the door glass window run, if the foam tape is not removed with the door glass run funnel it will need to be removed and discarded once the door latch and window run are removed later in this procedure.



FIGURE 4



6. With the latch side of the front door glass top run still positioned aside, raise the front door window glass three quarters of the way up. See Figure 5.

NOTICE: Use care not to pinch the door glass top run or scratch the glass when raising the window glass.

7. Release the latch side front door window regulator retaining clip from front door window glass. See Figure 5.

- Release the retaining clip from the front door window glass. Use the General Equipment: Interior Trim Remover.
- Raise the front door window glass enough to release the front door window glass from the retaining clip.

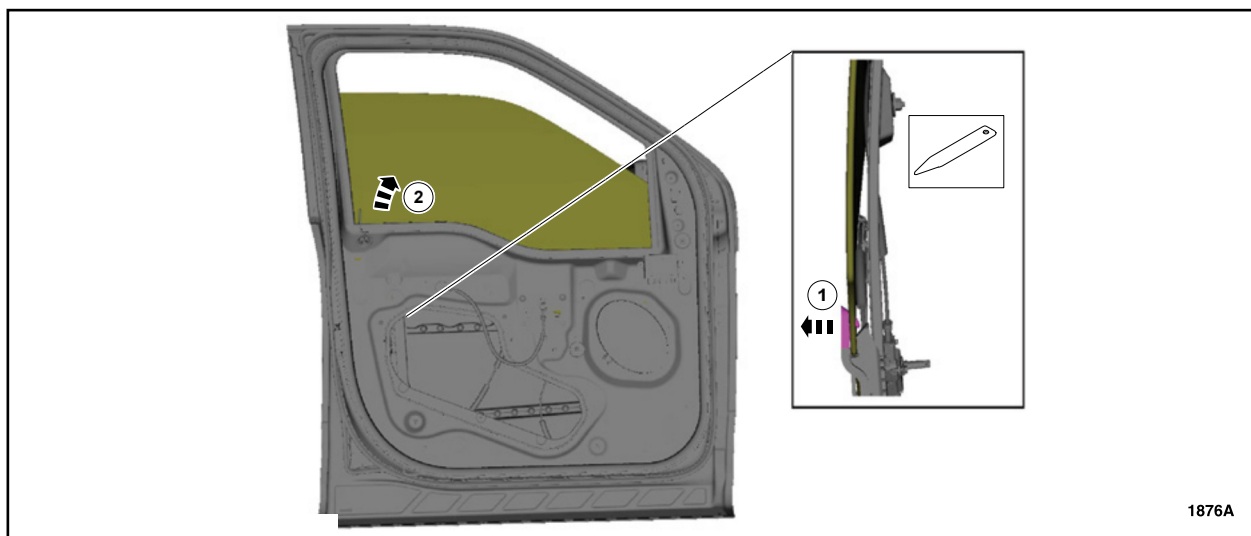


FIGURE 5



8. Remove the latch side front door window regulator nut adhesive cover and position the latch side front door window regulator aside. See Figure 6.

- Remove the latch side front door window regulator nuts.
Torque: 93 lb.in (10.5 Nm).
- Position the latch side front door window regulator aside.

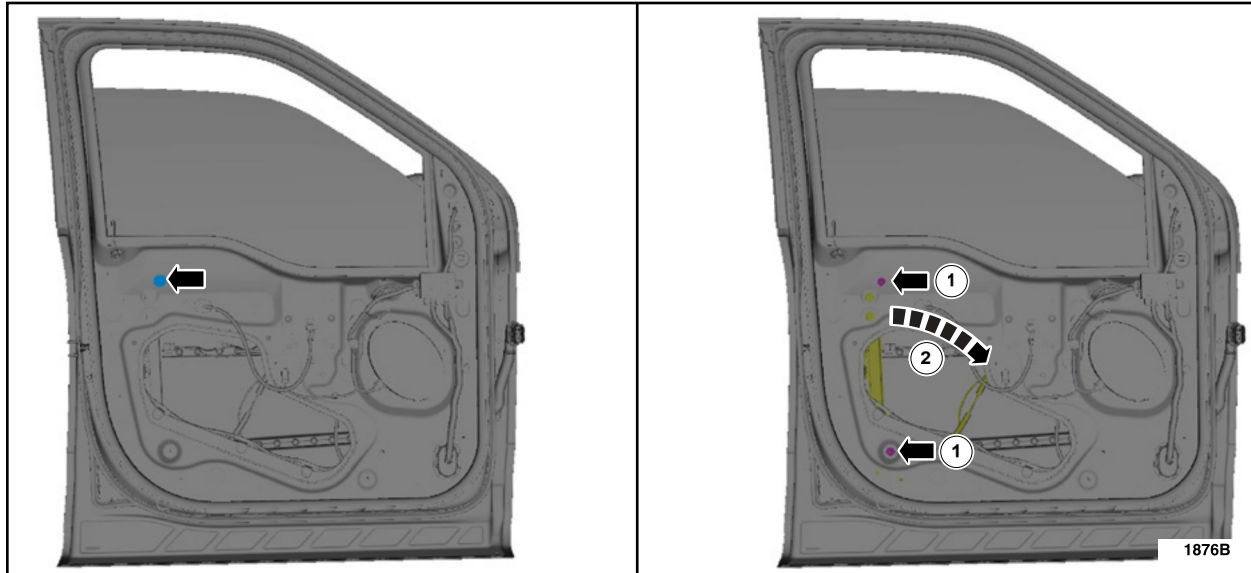


FIGURE 6

9. Remove the two front door window run bolts. See Figure 7.

- Torque: 71 lb.in (8 Nm).

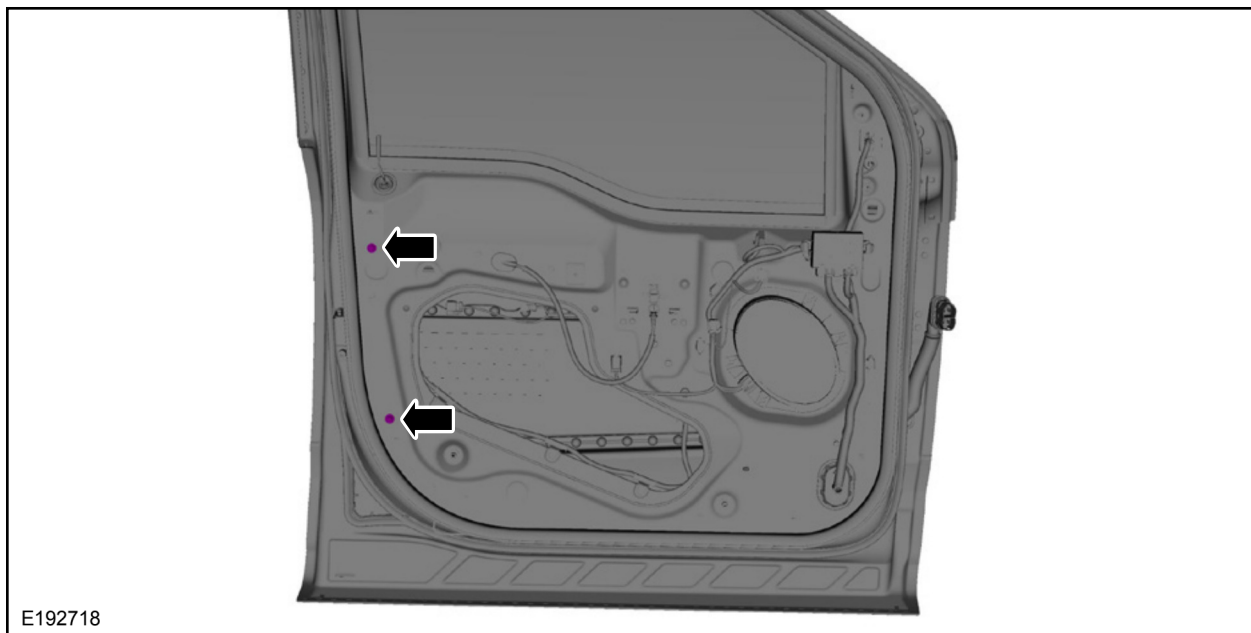


FIGURE 7



10. Holding on to the door latch, remove the 3 front door latch bolts. See Figure 8.

- Torque: 71 lb.in (8 Nm).



FIGURE 8



CAUTION: Use caution not to kink the cables during the removal and disassembly of the door latch.

11. Remove the front door latch. See Figure 9.

NOTE: When removing the door latch for power door lock actuator replacement, it is not necessary to remove the cables from the latch assembly.

NOTE: If equipped, disconnect the interior door handle cable retaining clips from the door sheet metal.

1. Route the interior front door handle cable and the lock rod through the inner door.
2. Disconnect the power door lock actuator electrical connector.
3. Disconnect the exterior front door handle cable routing clip(s).
4. Disconnect the door ajar switch electrical connector.
5. Holding on to both cables, remove the front door latch.

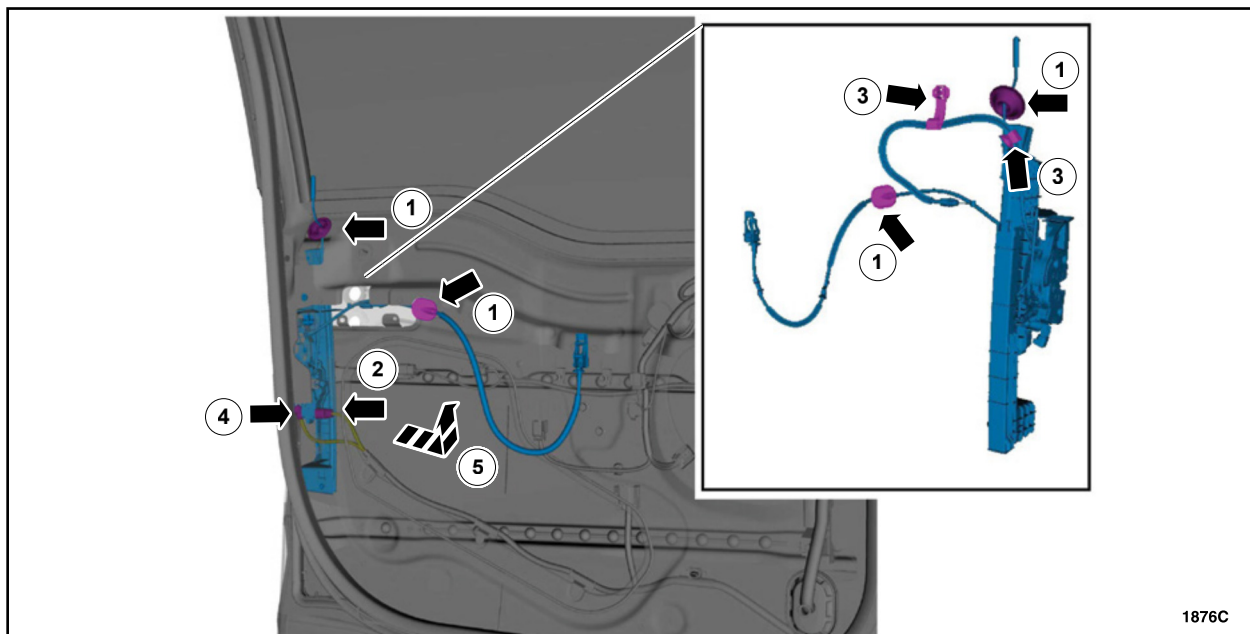


FIGURE 9

12. If not removed with the door glass run funnel, remove and discard the foam tape that secured the door glass run funnel to the door glass window run.



13. On the driver side door only, position the exterior door handle key lock rod out of the shipping clip.
See Figure 10.

14. On the driver side door only, remove the exterior door handle key lock rod from the door latch key lock rod lever.

- If present, remove and discard the rubber grommet and then clean the grease from the exterior door handle key lock rod and door latch key lock rod lever. See Figure 10.

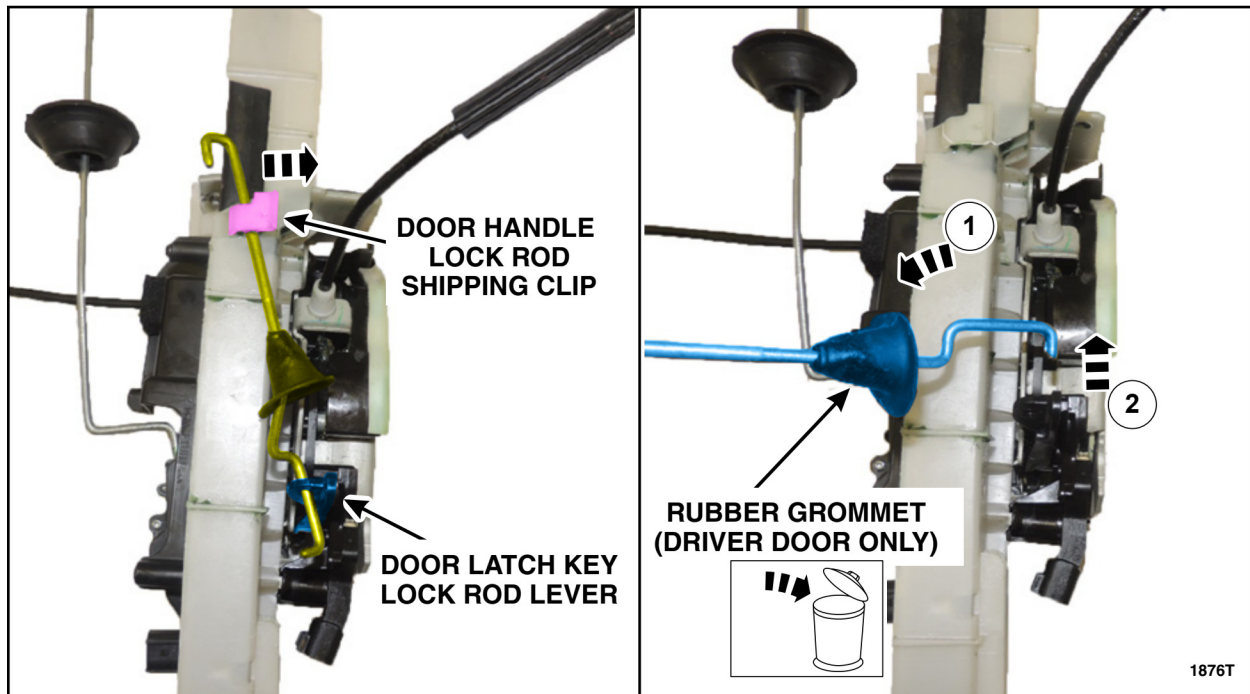


FIGURE 10



NOTE: The front door latches on some vehicles can be equipped with a small flexible plastic water shield, located over the exterior door handle cable attachment point. Note the water shield position and orientation for reassembly. See Figure 12.

15. Remove the retainers and separate the door latch components to gain access to the actuator. Note the components position and orientation for reassembly. See Figure 11.

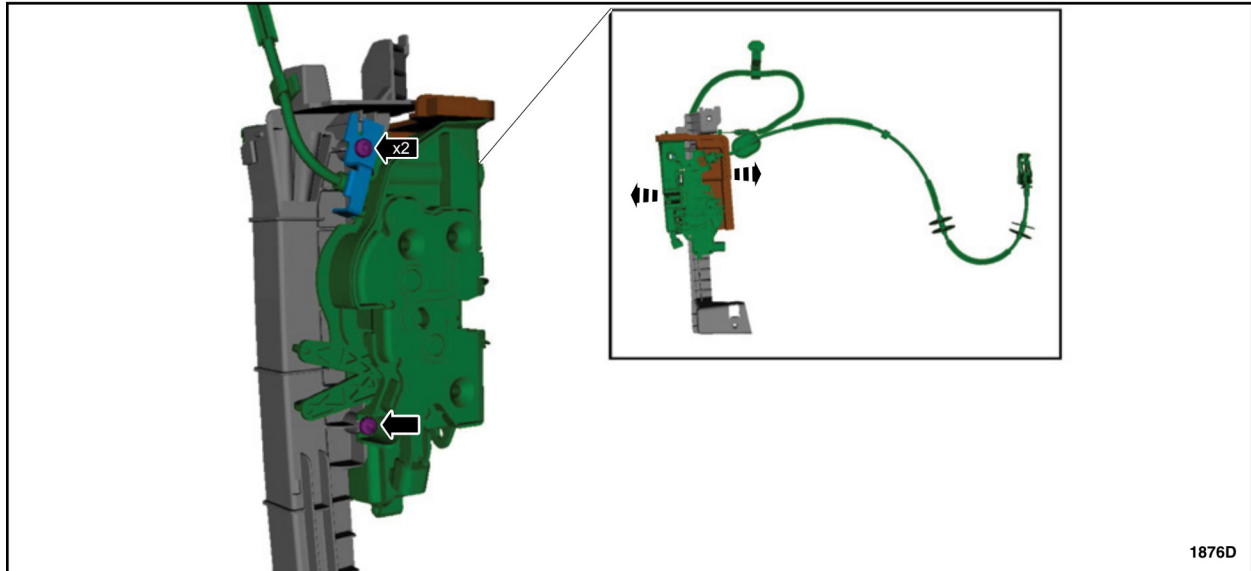


FIGURE 11

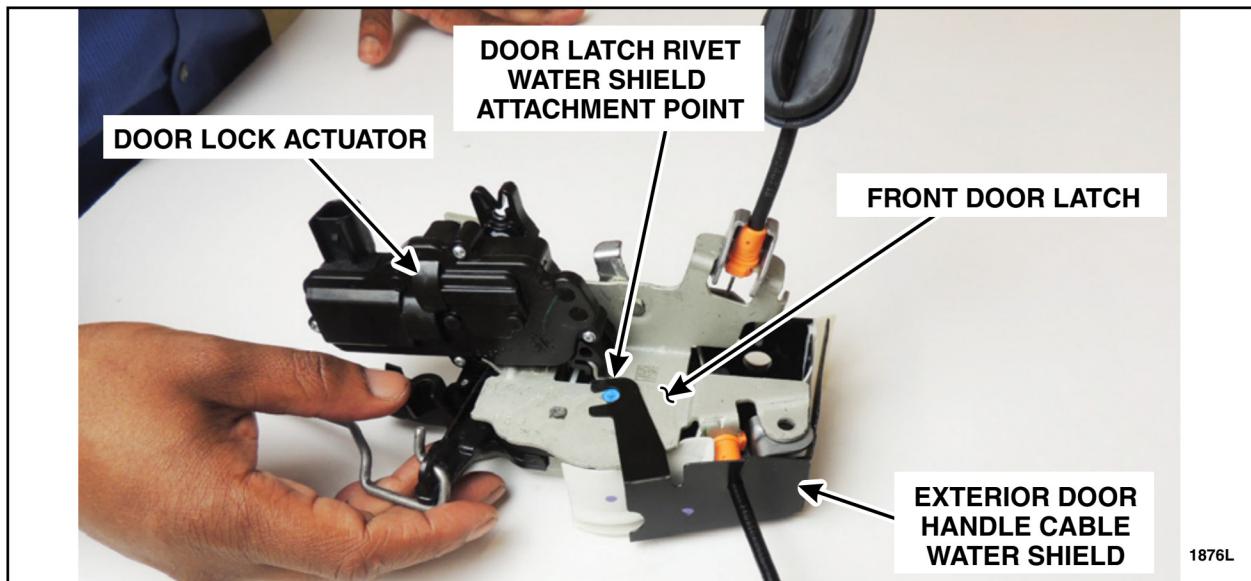


FIGURE 12



16. Remove the door lock actuator by using a flat blade screwdriver. Release the retention tab, on the actuator, from the notch on the door latch while wiggling the actuator off of the door latch alignment brackets. See Figures 13 and 14.

NOTE: Door lock actuator removed for clarity.

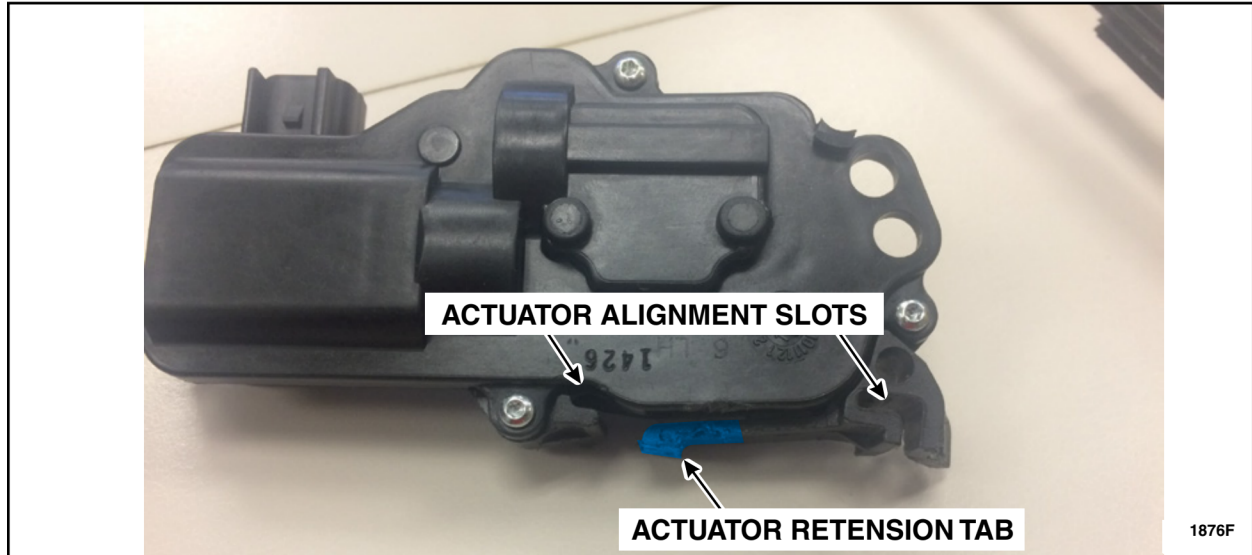


FIGURE 13

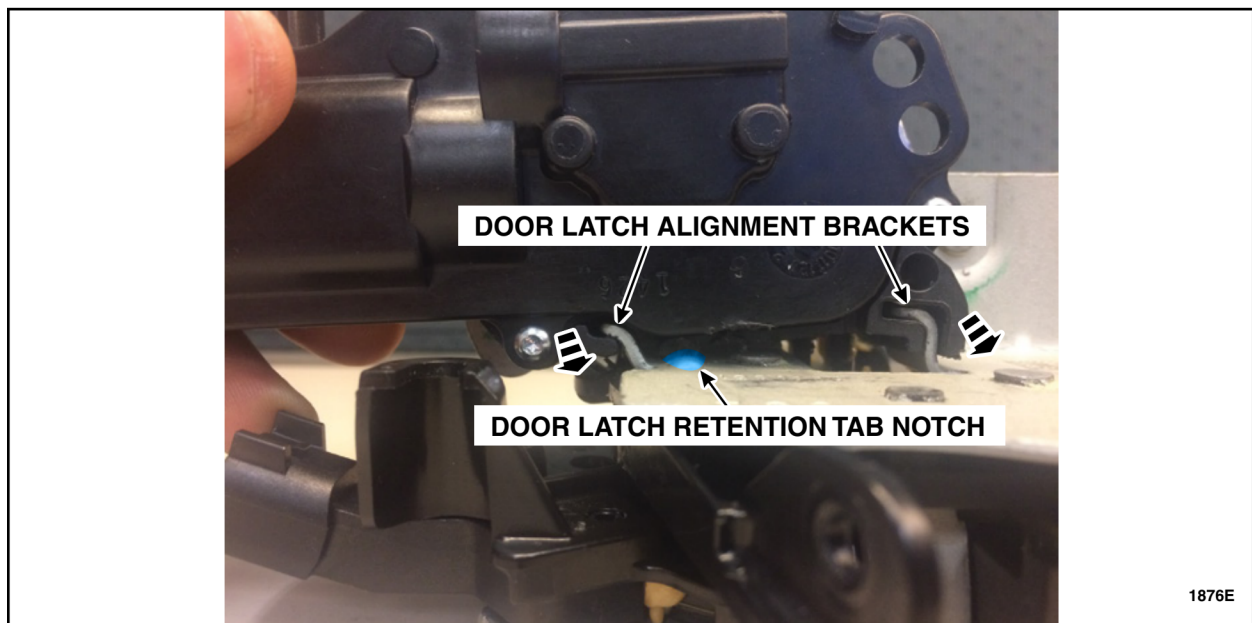


FIGURE 14



17. Using a clean shop towel and isopropyl alcohol, clean then dry all of the previously separated door latch components.
18. Install a *new* door lock actuator by aligning the actuator alignment slots with the door latch alignment brackets. Slide the actuator onto the brackets while aligning the actuator arm pin into the door latch lock lever. An audible click can be heard as the door lock actuator retention tab seats behind the door latch retention tab notch. See Figures 13, 15 and 16.

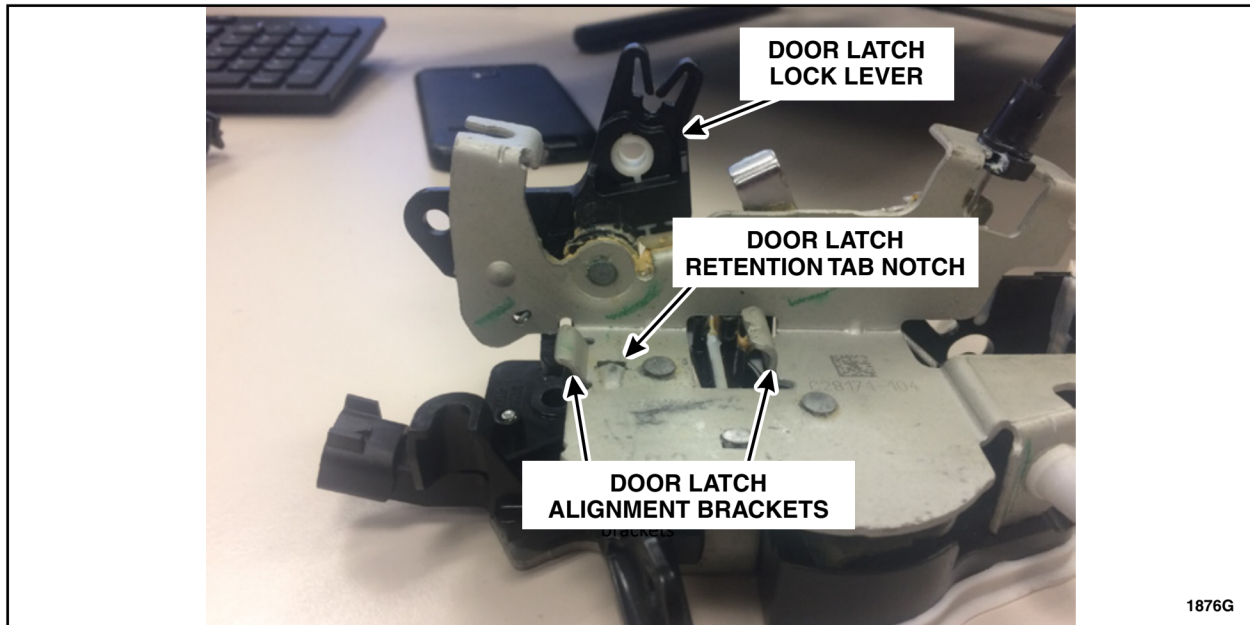


FIGURE 15

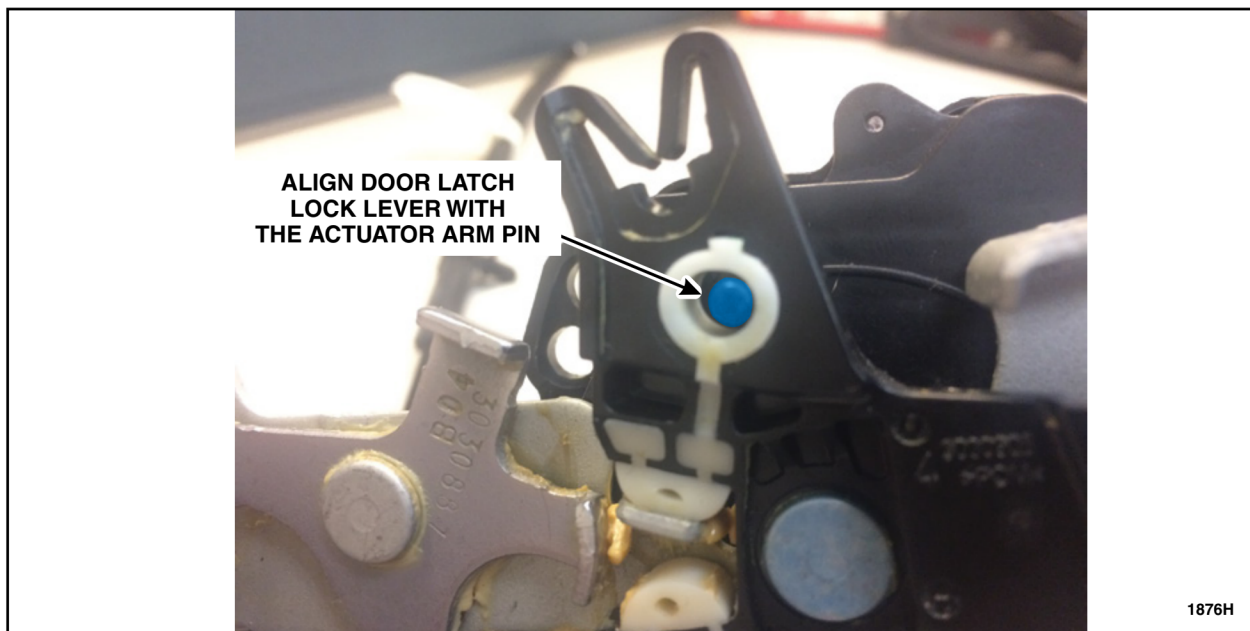


FIGURE 16



19. Ensure that the door lock actuator is fully seated, by attempting to pull the actuator off of the latch, and that the actuator arm pin is positioned in the door latch lock lever.

20. Reassemble the latch components and then install the retainers. See Figures 11 and 12.

NOTE: On the driver door only, install the exterior door handle key lock rod in the door latch key lock rod lever then in the shipping clip.

21. Make sure the interior of the door is clean and dry prior to the door latch installation.

CAUTION: Use caution not to kink the cables during the installation of the door latch.

22. Install the front door latch. See Figure 9.

1. Holding on to both cables install the front door latch.
 2. Route the lock rod and the interior front door handle cable through the inner door.
- NOTE:** If equipped, reconnect the interior door handle cable retaining clips to the door sheet metal.
3. Route the exterior front door handle cable through the opening and connect the routing clip(s).
 4. Connect the door ajar switch electrical connector.
 5. Connect the power door lock actuator electrical connector.

23. Install the 3 front door latch bolts. See Figure 8.

- Torque: 71 lb.in (8 Nm).

24. Install the two front door window run bolts. See Figure 7.

- Torque: 71 lb.in (8 Nm).

25. Position back the latch side front door window regulator and reinstall front door window regulator nut adhesive cover, then attach the window glass retaining clip by reversing Steps 7 and 8. See Figures 5 and 6.

26. Lower the window glass to the fully open (down) position.



27. Install a *new* door glass run funnel, ensuring that the lower tab is situated in the door glass run and the funnel sides sit at a 90° angle above the door glass run. See Figure 17.

NOTE: Ensure the funnel sides are at a 90° angle upon installation. It may be necessary to bend the sides of the funnel back to a 90° angle before installation.

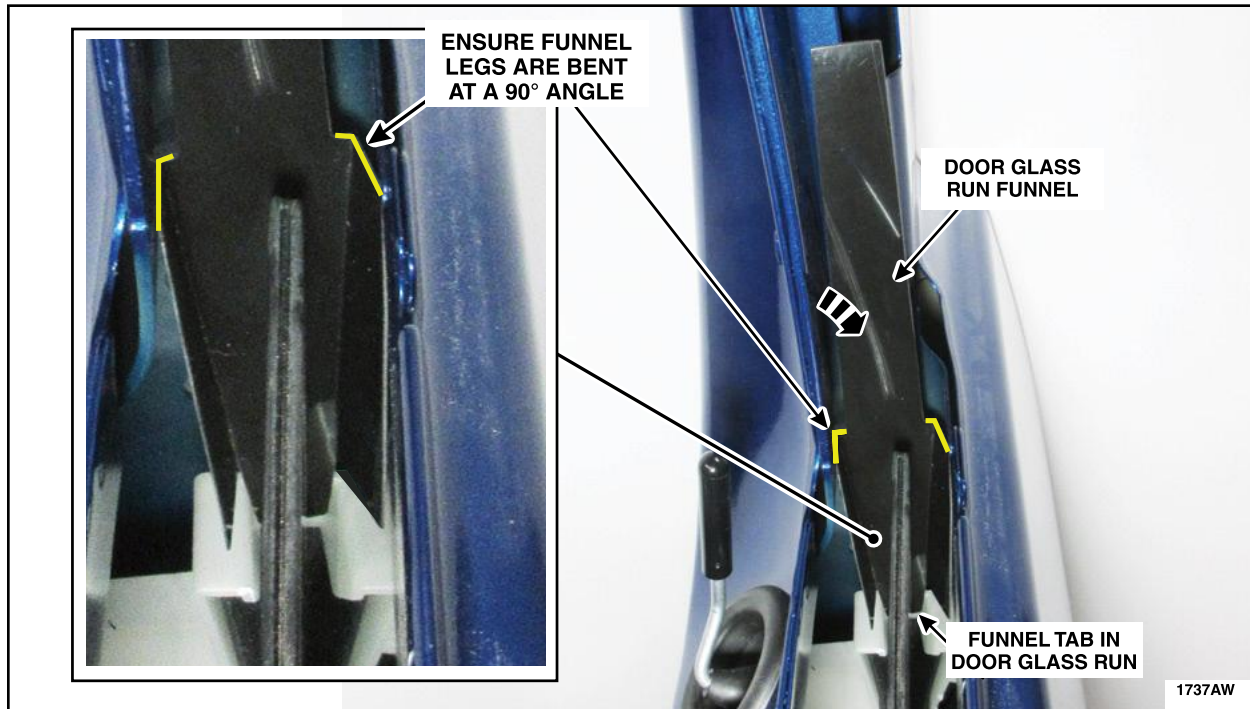


FIGURE 17

28. Reinstall the latch side door glass top run and the door inner belt moulding. See Figure 3.

NOTICE: It will be necessary to hold the upper portion of the funnel when installing the door glass top run. Care must be taken not to bend or damage the door glass run funnel. Check through the exterior door handle opening to verify that the funnel is positioned correctly.

29. Raise the front door window glass to the fully closed (up) position.



30. Using a clean shop towel and isopropyl alcohol clean the area where a *new* foam tape will be applied, from any dirt, dust or debris. Then, install a *new* foam tape in the location shown, from through the exterior door handle opening, to hold the funnel in place. See Figure 18.

NOTE: Driver door shown, passenger door similar. Exterior door handle key lock rod not located in the door glass run shipping clip for clarity.

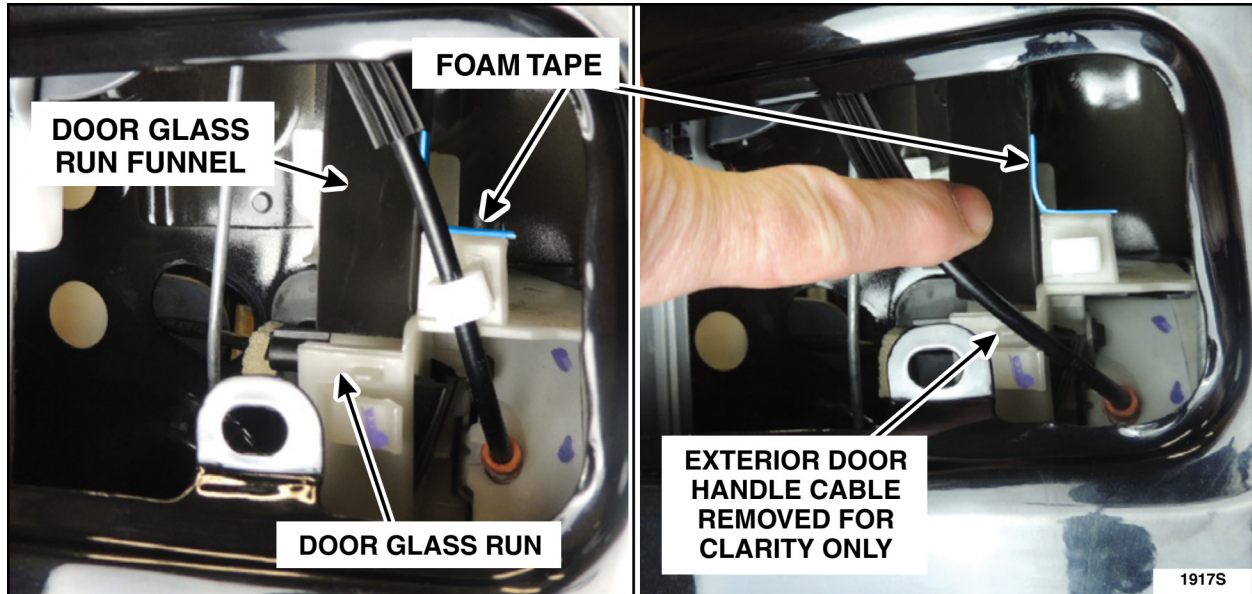


FIGURE 18



31. On the driver side door only, apply Motorcraft® XG-13 door latch grease to the area where the key lock rod attaches to the key lock rod lever. See Figure 19.
32. On the driver side door only, install a *new* rubber grommet onto the key lock rod over the key lock rod lever. Position the rubber grommet as shown in Figure 19. The rubber grommet will sit sideways when properly installed. See Figure 19.

NOTE: Door latch assembly shown out of vehicle for clarity.

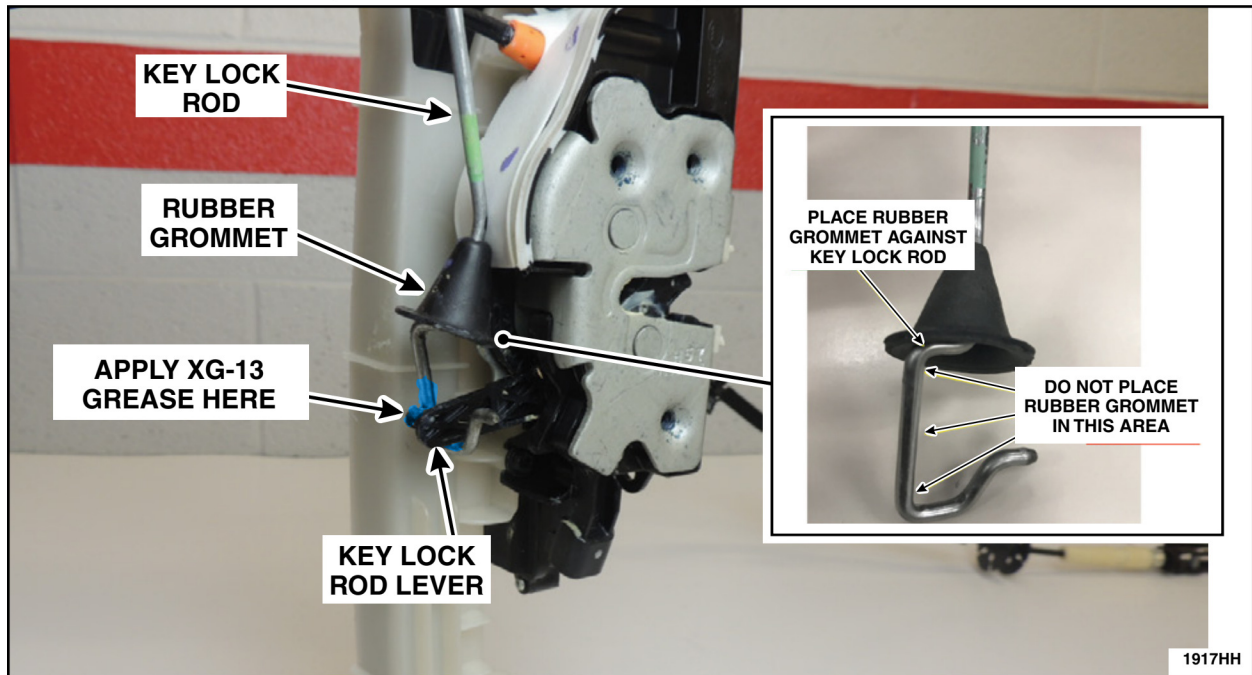


FIGURE 19



33. If present, thoroughly remove the foam gasket located around the perimeter of the exterior front door handle and the silicone from the latch side area of the exterior front door handle. See Figure 20.
34. Using a clean shop towel and isopropyl alcohol, clean the highlighted mating surface area of the exterior front door handle. See Figure 20.

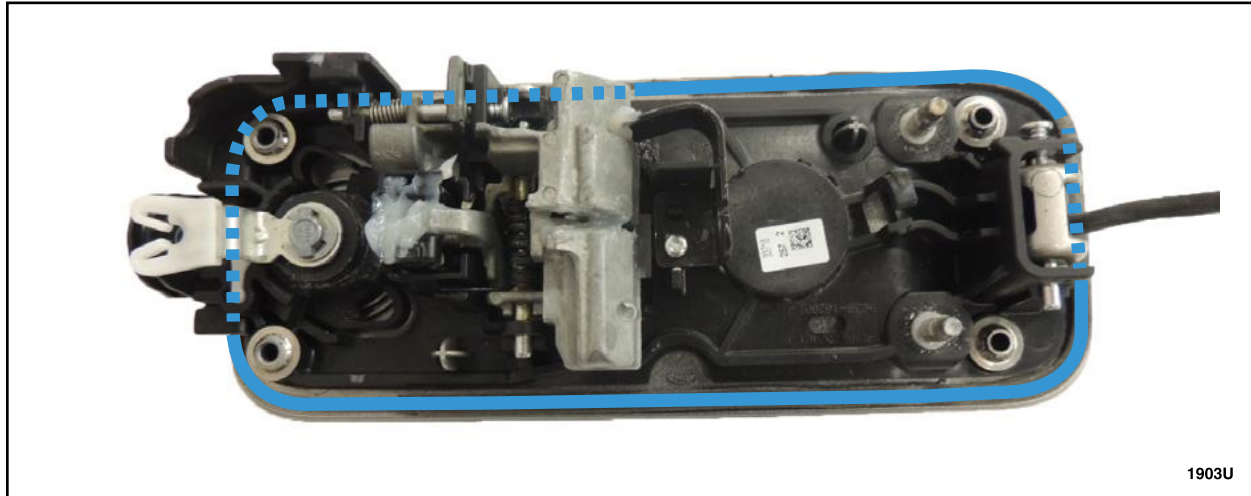


FIGURE 20

35. Using a clean shop towel and isopropyl alcohol, thoroughly clean inside the dotted lines on the mating surface area of the exterior front door handle opening. See Figure 21.

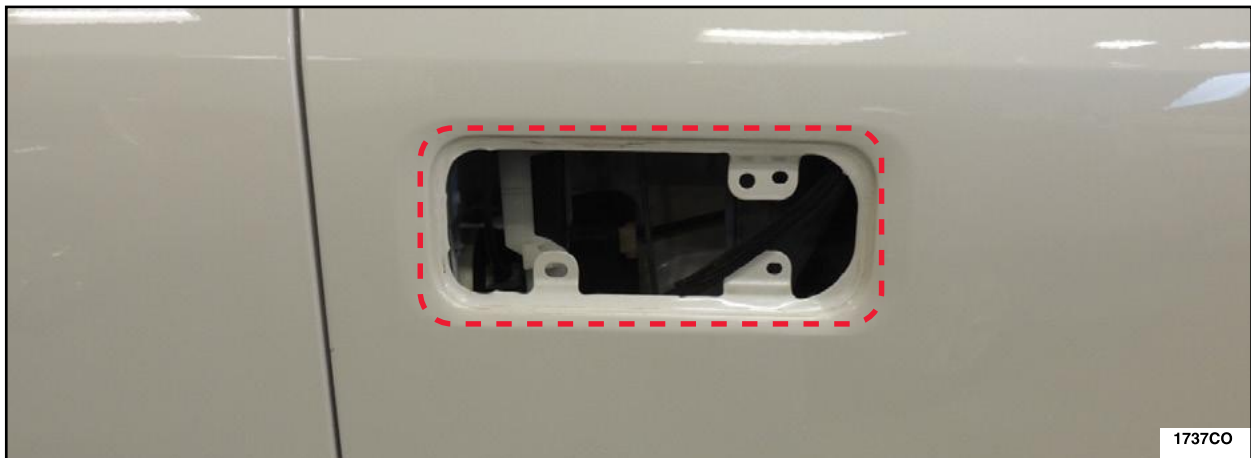


FIGURE 21



36. Install a *new* foam E around the perimeter of the exterior door handle.

NOTE: Foam E will not wrap around the entire perimeter of the exterior door handle.

NOTE: Proper placement of foam E is crucial for proper sealing and to avoid appearance concerns.

- A. Lay out foam E on the exterior door handle and mark center as shown in Figure 22.
- B. Remove foam E from the door handle and remove the back center portion of the adhesive backing then cut the protective backing in half. See Figure 22.
- C. Align the marks made on the foam E and exterior door handle and adhere the back center portion to the exterior door handle as shown in Figure 23.
- D. Lay one side of foam E down on the exterior door handle and without stretching the foam pull off the adhesive backing as you adhere foam E to the exterior door handle as shown in Figure 23.
- E. Remove the protective backing from the other side of foam E as shown in Figure 23.
- F. Without stretching the foam adhere it to the exterior door handle ensuring that both sides of foam E are of equal length once secured. See Figure 24.

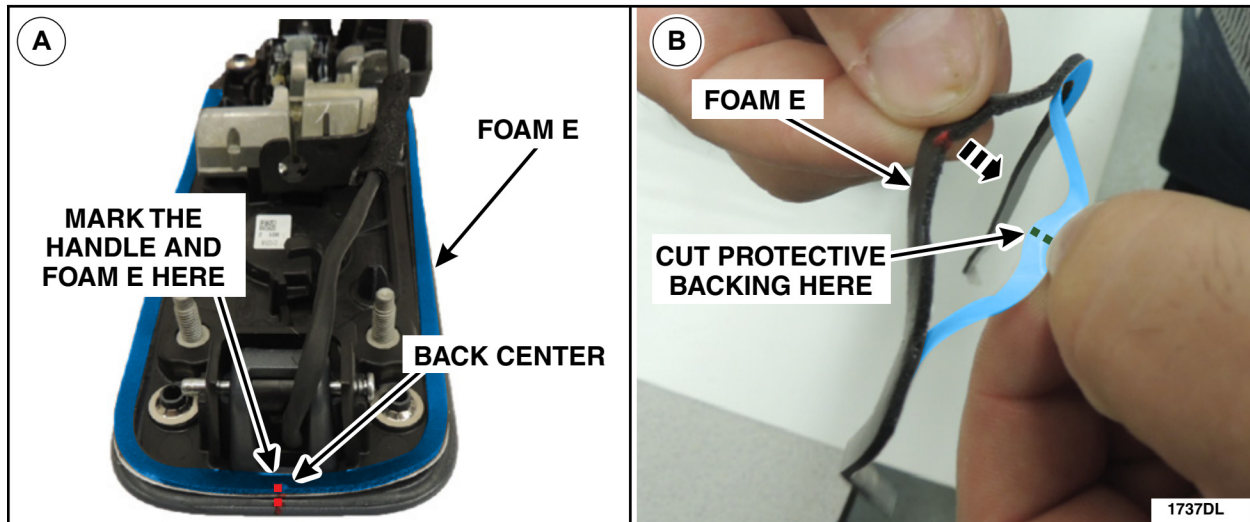


FIGURE 22



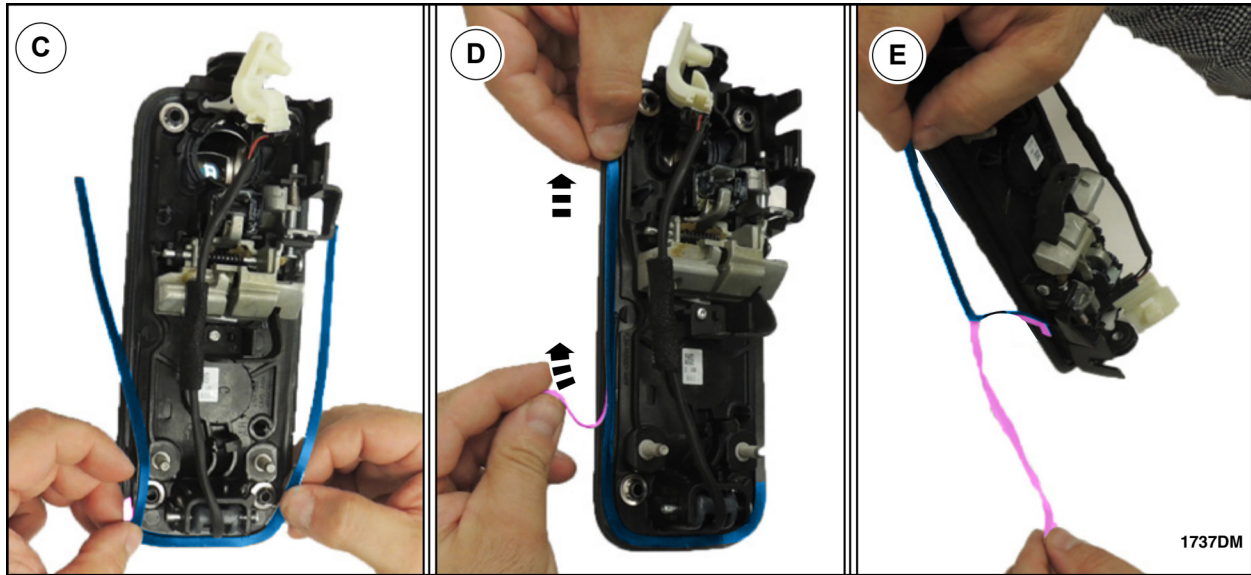


FIGURE 23

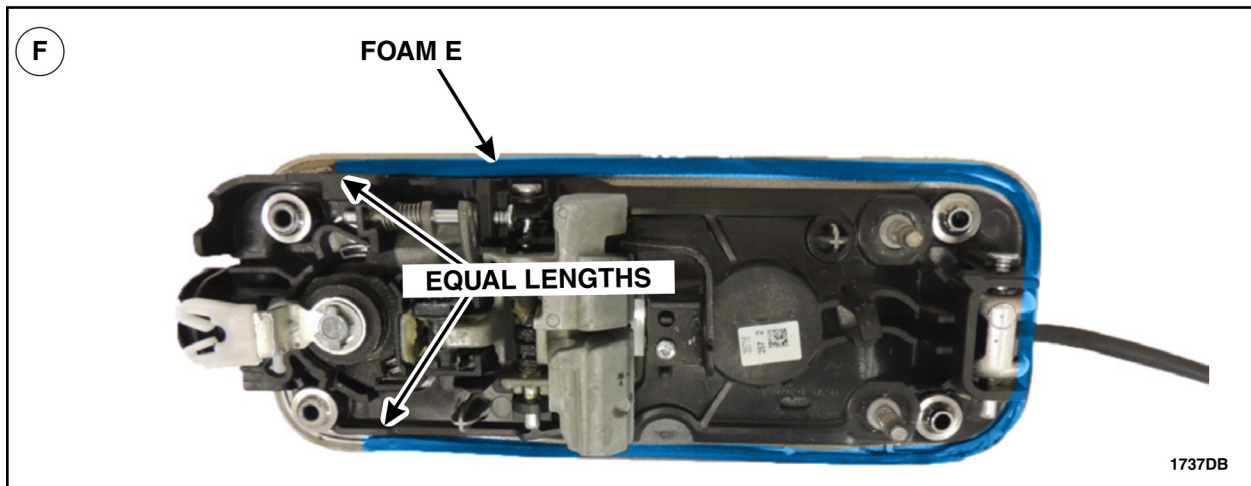


FIGURE 24



37. Using a clean shop towel and isopropyl alcohol, clean the handle plunger then, using a brush, apply a light film of Motorcraft® XG-16 low temperature grease to all four sides of the exterior door handle plunger and to the mechanisms in the areas shown in Figures 25 and 26.

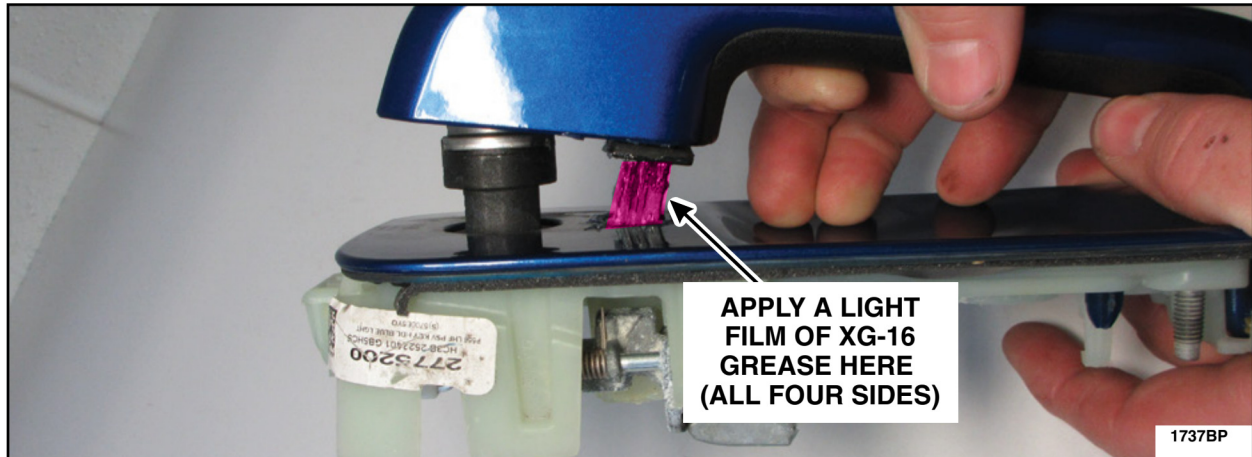


FIGURE 25

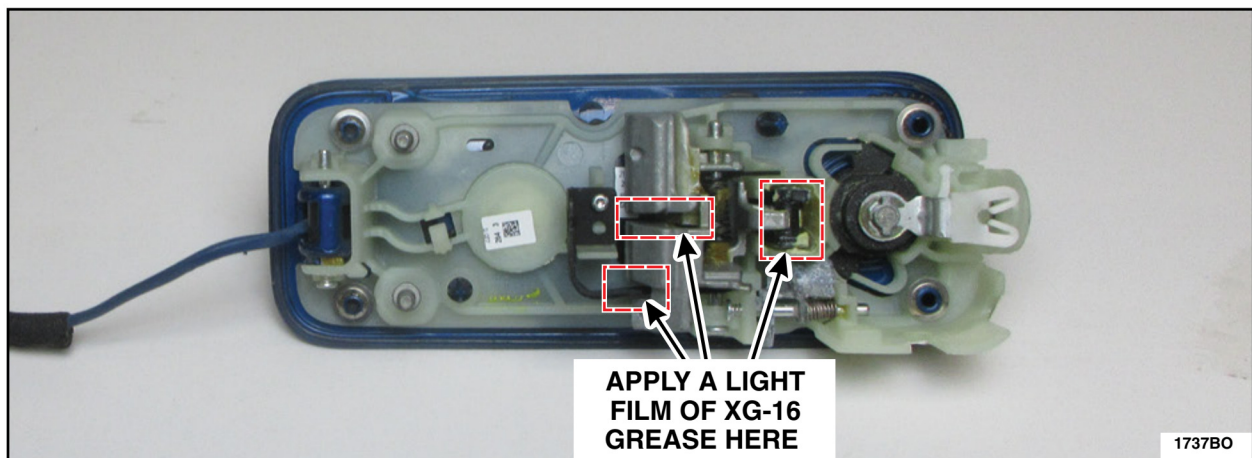


FIGURE 26



38. Apply a bead of Motorcraft® TA-357 High Performance Engine RTV silicone to the latch side area of the front door exterior handle opening metal surface. Make sure that the silicone overlaps with the foam E on the exterior door handle. See Figure 27.

NOTE: Proper placement of the Motorcraft® TA-357 High Performance Engine RTV silicone is crucial for proper sealing and to avoid appearance concerns.

NOTE: Driver door shown, passenger door similar.

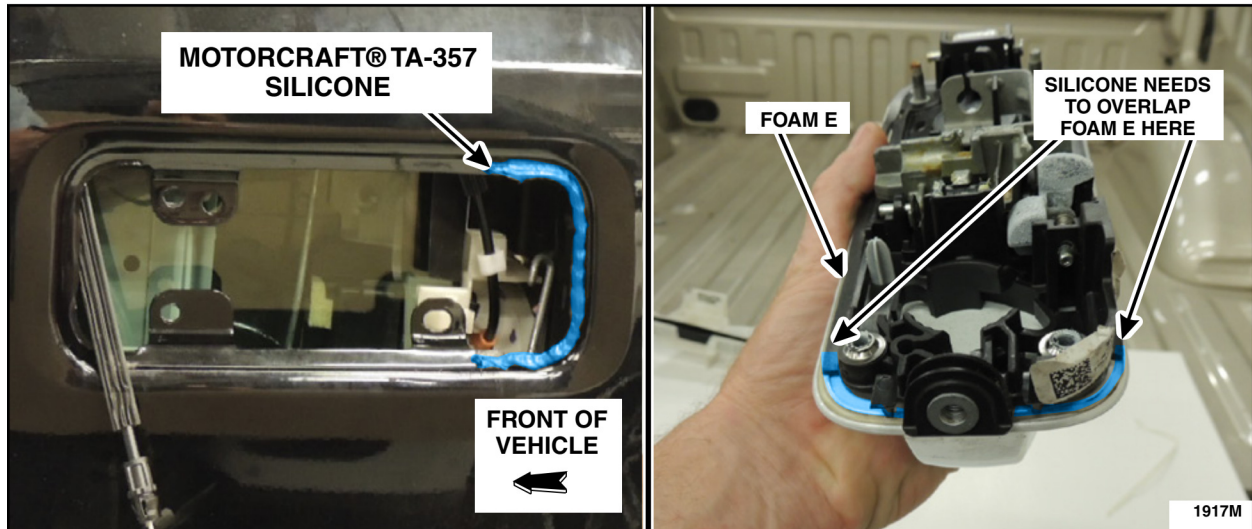


FIGURE 27

39. Reconnect the exterior door handle cable to the door handle and lubricate the door handle cable end with Motorcraft® XG-16 low temperature grease, as shown in Figure 28.

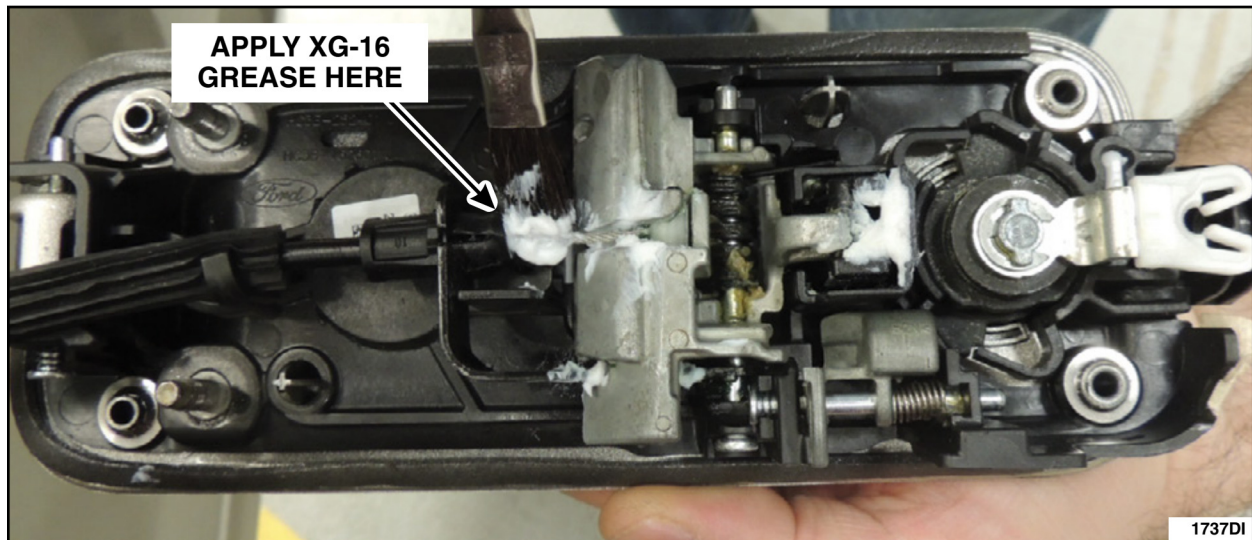


FIGURE 28



40. Install a *new* handle cable wiper clip on the exterior door handle cable end. See Figure 29.

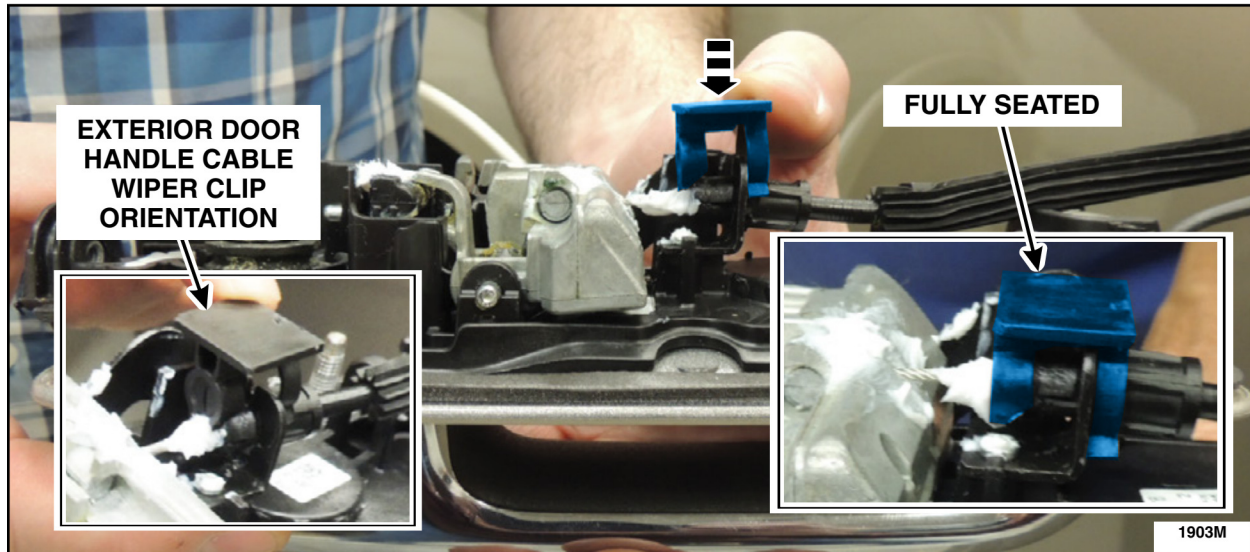


FIGURE 29

41. Reinstall the front exterior door handle. Please follow the WSM procedures in Section 501-14.

NOTICE: Reinstall the exterior door handle cable and retaining clips in the original factory position.

42. Clean any excessive silicone around the exterior door handle perimeter with isopropyl alcohol, cotton swabs and a clean shop towel to avoid appearance concerns.

43. Has labor operation 20M04H been claimed in the vehicle warranty history?

Yes - The Body Control Module (BCM) has already been reprogrammed to the latest software level. Repair is complete.

No - Reprogram the BCM using Integrated Diagnostic Software (IDS) release 122.03 or higher. See BCM Module Reprogramming Steps on Page 43.

IMPORTANT NOTE: Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall. Unless a part is requested to be returned to Ford, all parts replaced under this FSA must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Refer to the Parts Retention, Return, & Scrapping section of the FSA dealer bulletin for further information.



Rear Door Lock Actuator Replacement

Complete Rear Door Part Kit

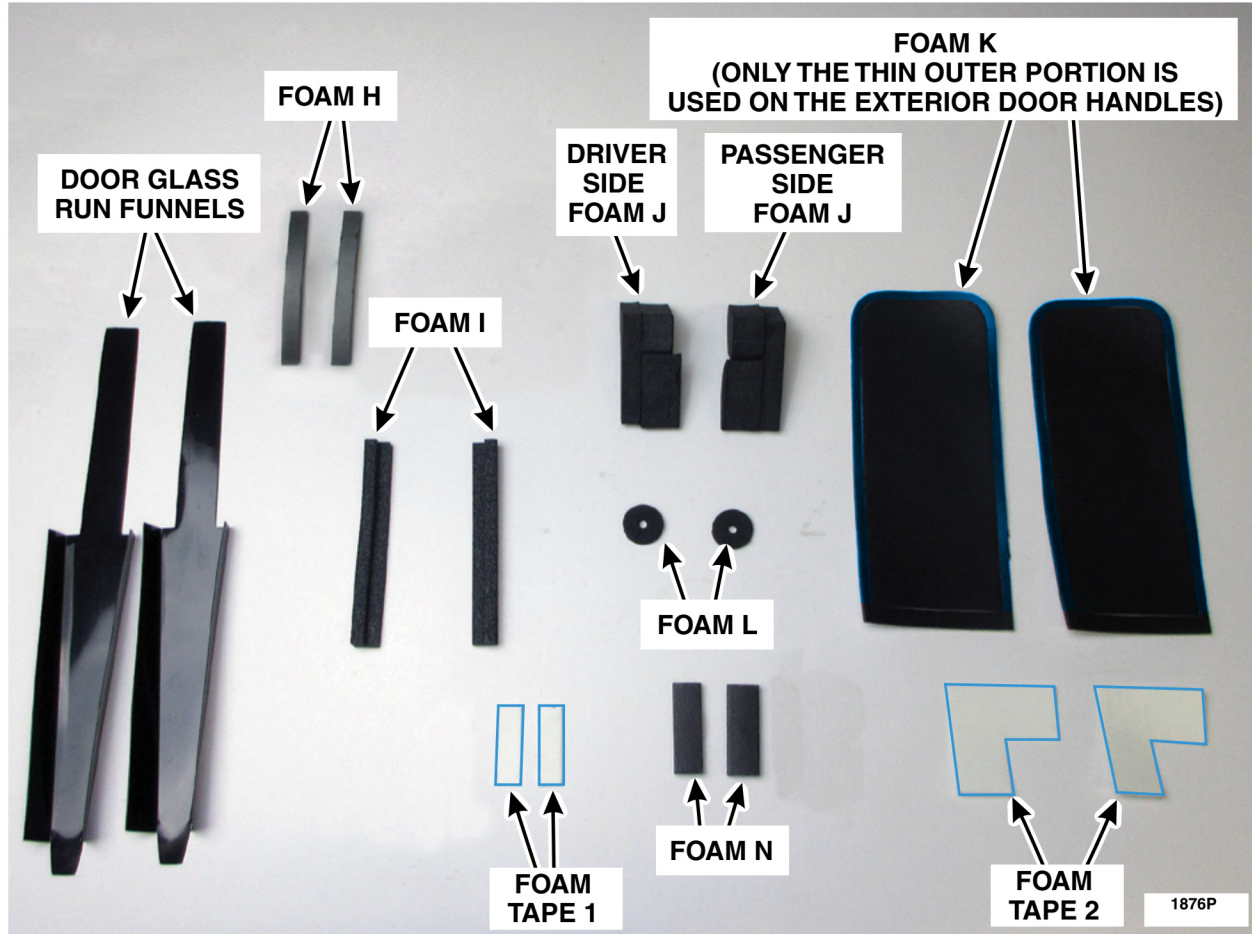


FIGURE 30

NOTE: The parts being installed in this procedure are not labeled. Refer to Figure 30 for component identification. All unused parts of the kit can be scrapped.



NOTE: The images used in this procedure may not reflect the actual images of the components being repaired. However, the differences are minor and will not hinder the actual repair process.

NOTICE: Do not allow the door trim panel or exterior door handle to hang by the door handle cables or damage to the cable and door may occur.

1. Remove the exterior rear door handle from the affected door. Please follow the Workshop Manual (WSM) procedures in Section 501-14.

NOTE: The interior grab handle cover clips can be reused for this repair. Only replace if damaged.

2. If a cable wiper clip is present on the exterior door handle cable end, remove and discard the cable wiper clip. See Figure 31.

NOTE: Front exterior door handle shown, all exterior door handles similar.

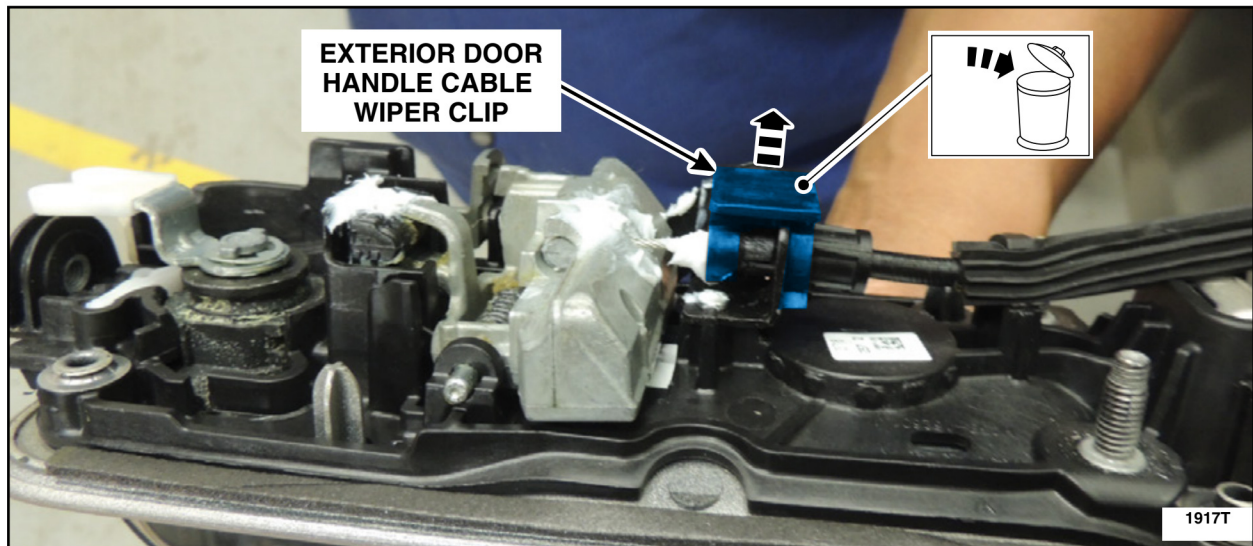


FIGURE 31



3. Position the window glass to the fully open (down) position.
4. Remove the door inner belt moulding and position the latch side of the door glass top run aside.
See Figure 32.

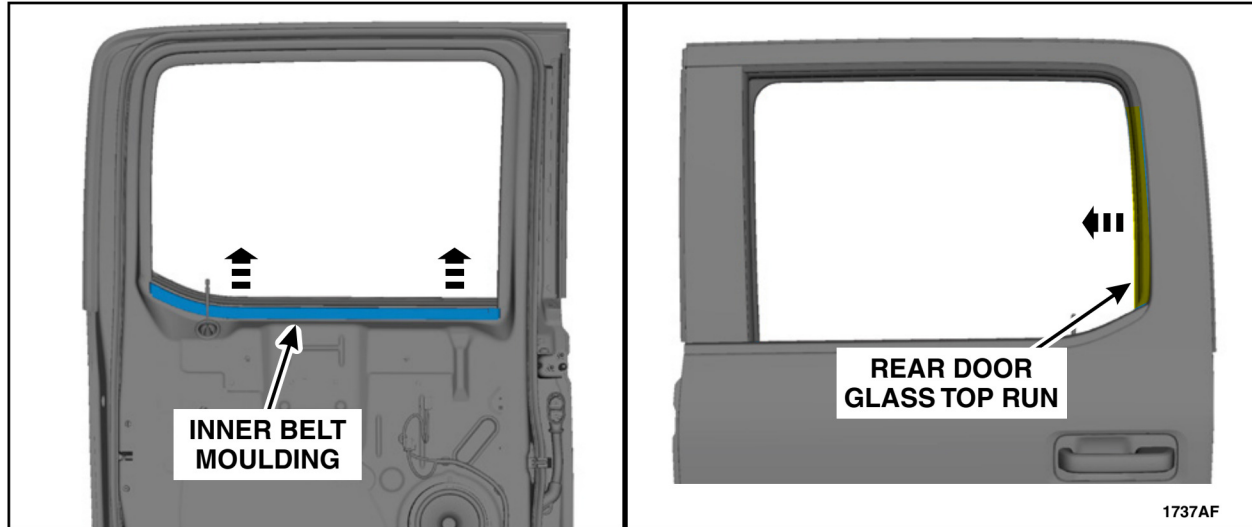


FIGURE 32

5. If present, remove and discard the door glass run funnel and the foam tape, that holds the door glass run funnel to the door latch water shield, from the door glass run channel on the latch side.
See Figure 33.

NOTE: A piece of foam tape holds the door glass run funnel to the door latch water shield, if the foam tape is not removed with the door glass run funnel it will need to be removed and discarded once the door latch and the door latch water shield are removed later in this procedure.



FIGURE 33



6. With the latch side of the rear door glass top run still positioned aside, raise the rear door window glass three quarters of the way up. See Figure 34.

NOTICE: Use care not to pinch the door glass top run or scratch the glass when raising the window glass.

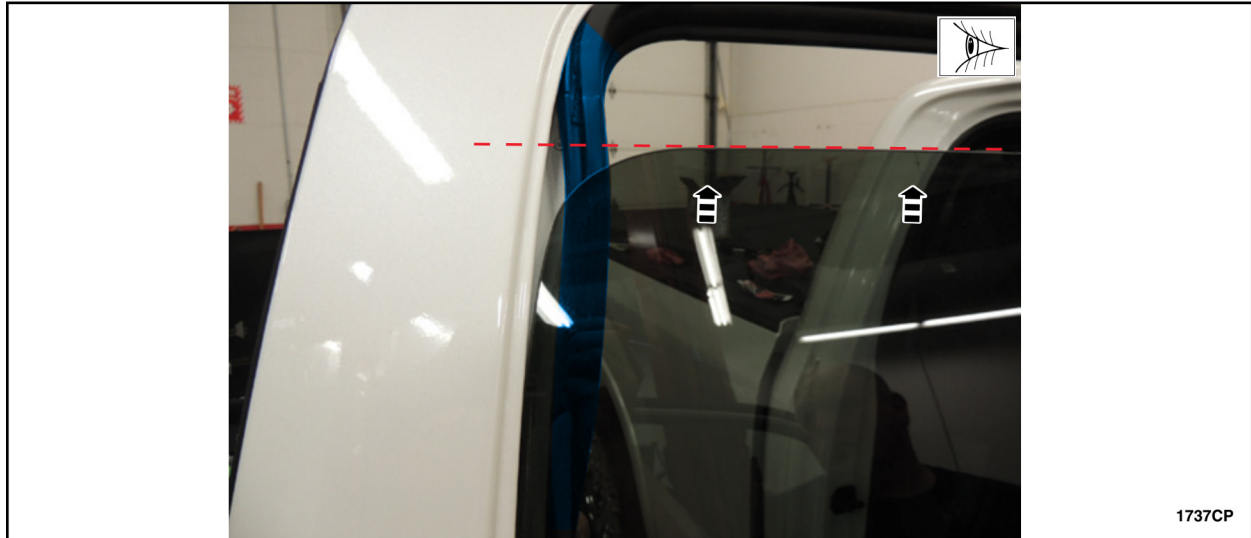


FIGURE 34

7. If the silicone shown in Figure 35 is present, using a flat bladed trim tool or equivalent, separate the rear door latch water shield from the inner door panel by pushing the trim tool between the silicone and the inner door panel. See Figure 35.

NOTE: Make sure to use some shop towels or equivalent, cradled inside the door panel, to catch the silicone debris, to prevent clogging the door drain holes.

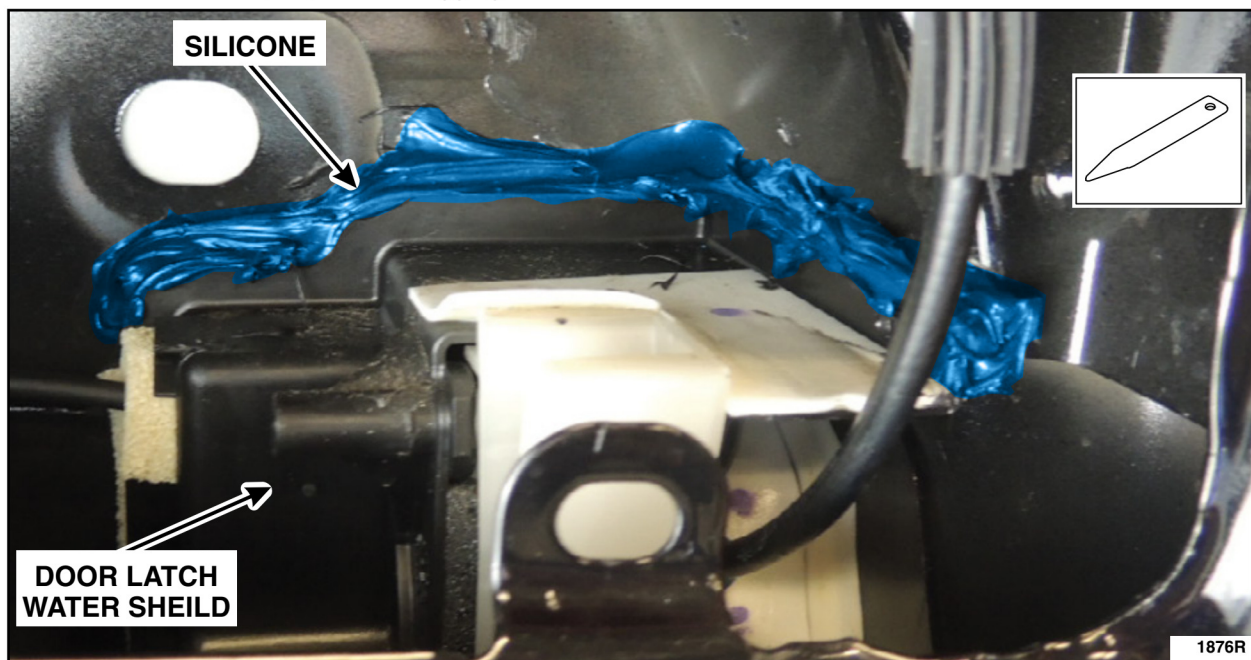


FIGURE 35



8. Position the lower end of the latch side door window regulator aside. See Figure 36.

1. Loosen the upper latch side rear door window regulator retainer 3 turns.
2. Remove the lower latch side rear door window regulator retainer.
3. Position the lower latch side rear door window regulator stud out of the inner door panel and position towards the outer door panel.

⚠ WARNING: The window regulator must only be positioned toward the outer door panel and not side to side or damage to the window regulator or window glass could occur.

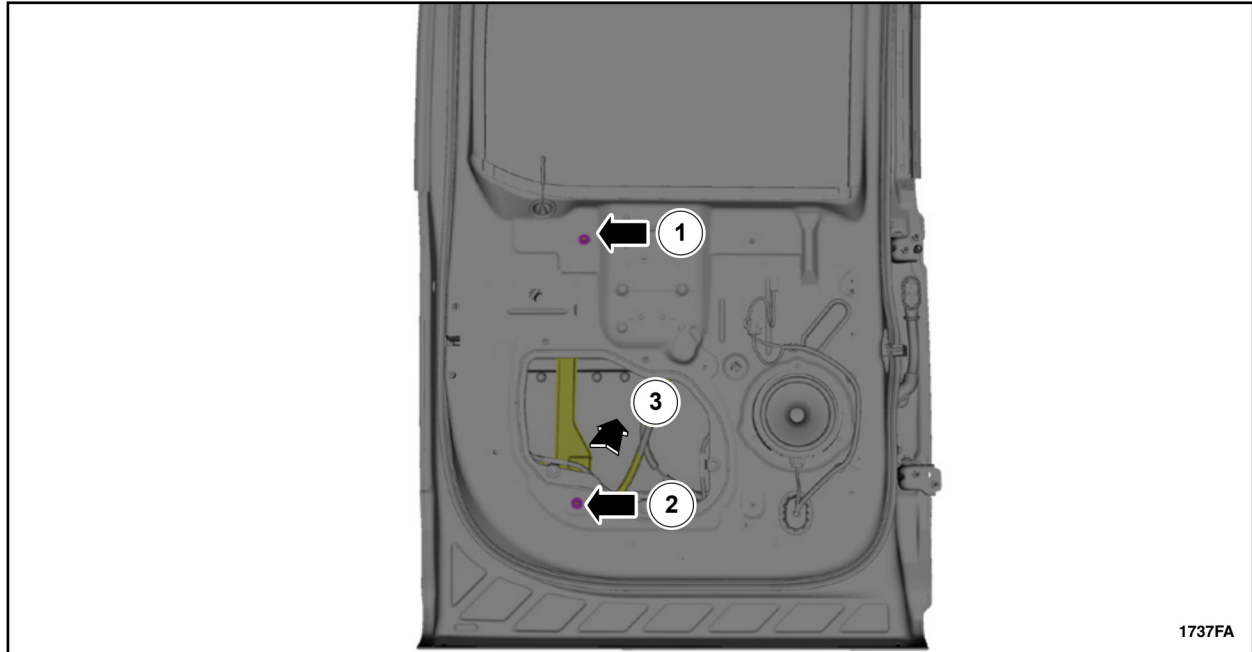


FIGURE 36



9. Remove the rear door window run retainer. See Figure 37.

- Torque: 71 lb.in (8 Nm).

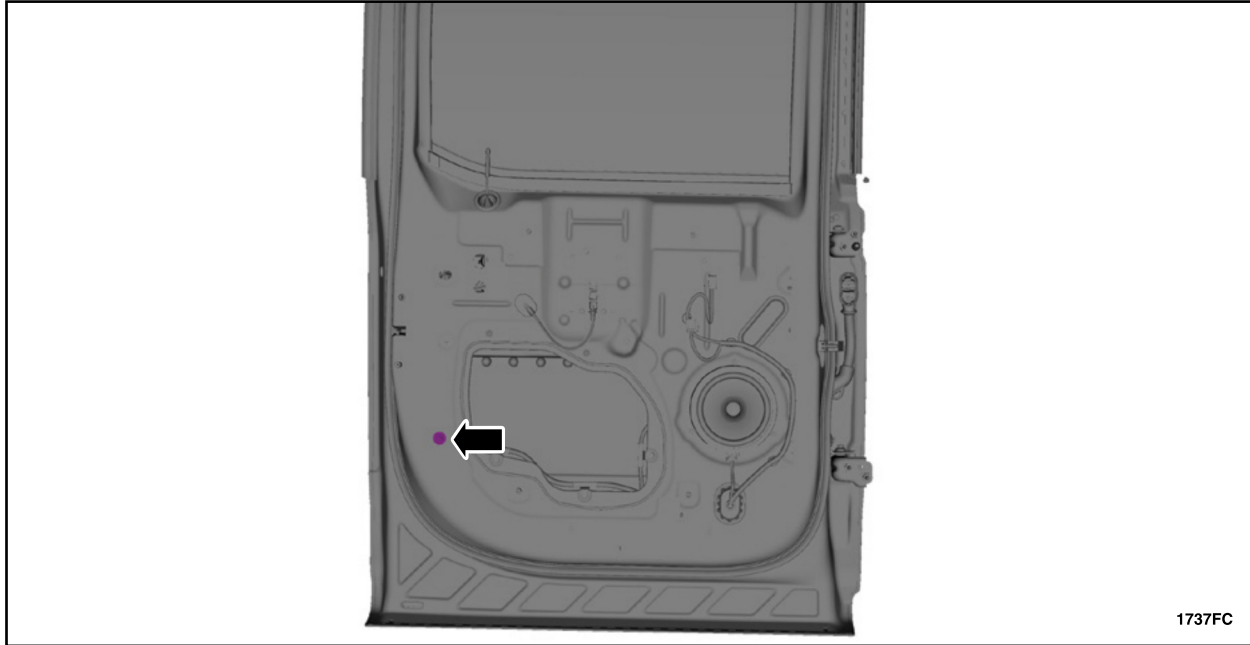


FIGURE 37

10. Remove the rear door latch retainers. See Figure 38.

- Torque: 71 lb.in (8 Nm).

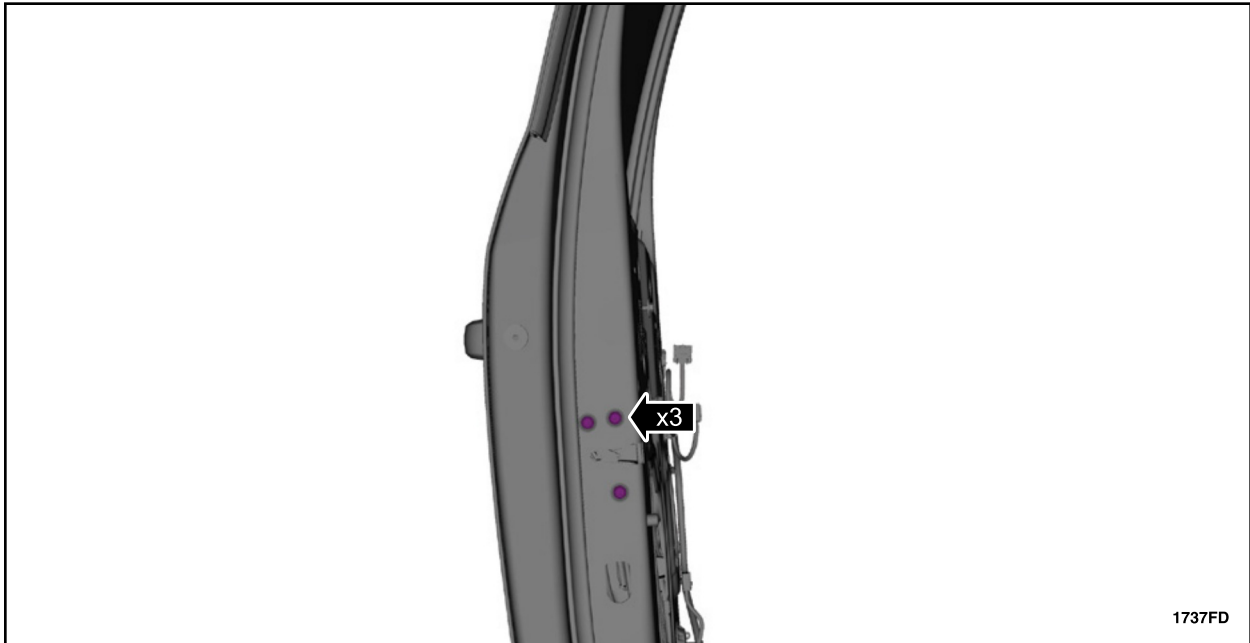


FIGURE 38



CAUTION: Use caution not to kink the cables during the removal and disassembly of the door latch.

11. Remove the rear door latch. See Figure 39.

NOTE: When removing the door latch for power door lock actuator replacement, it is not necessary to remove the cables from the latch assembly.

1. Disconnect the interior and exterior door handle cable clips and route both cables through the inner door.
2. Disconnect the power door lock electrical connector.
3. Route the lock rod through the inner door.
4. Disconnect the door ajar switch.
5. As needed, finish releasing any residual silicone from between the door latch water shield and the outer door panel.
6. Holding on to both cables, position the lower latch side window regulator toward the outer door panel reinforcement and remove the rear door latch.

WARNING: The window regulator must only be positioned toward the outer door panel and not side to side or damage to the window regulator or window glass could occur.

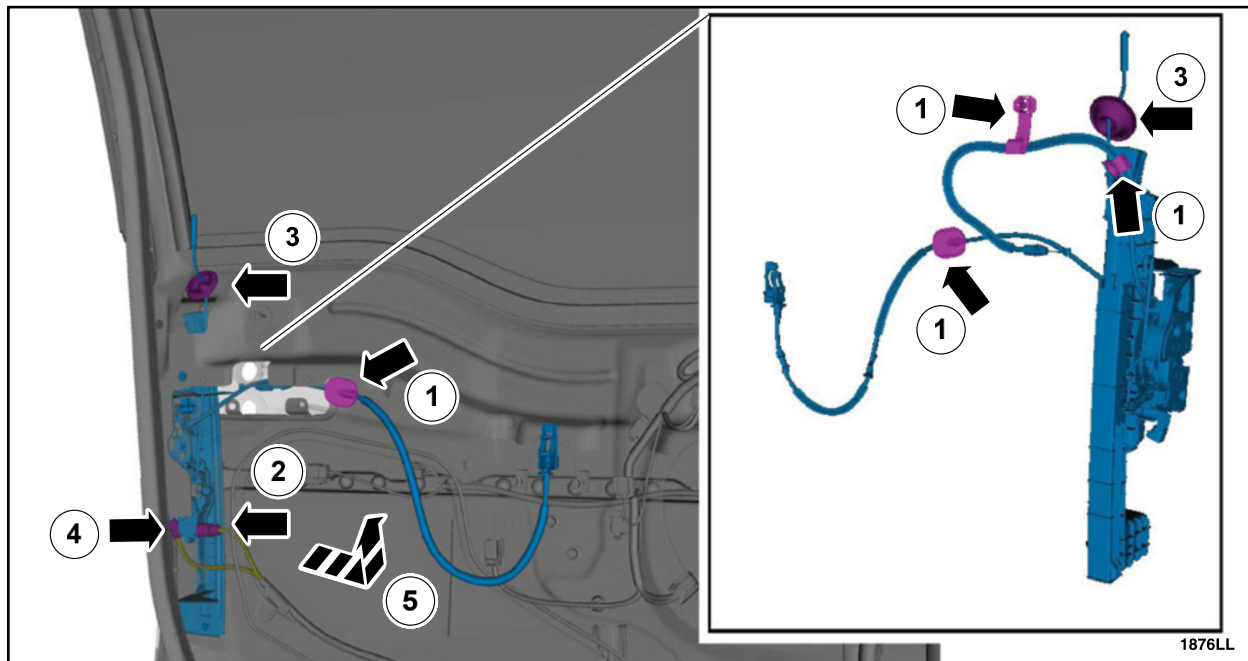


FIGURE 39



12. If not removed with the door glass run funnel, remove and discard the foam tape that secured the door glass run funnel to the door latch water shield and window run.
13. If the silicone shown in Figure 35 was present, remove any residual silicone and clean the inner door panel at the water shield area. Then, remove the shop towels containing the debris from inside the door panel.
14. Remove the retainers and separate the door latch components to gain access to the actuator. Note the components position and orientation for reassembly. Discard the door latch water shield. See Figure 40.

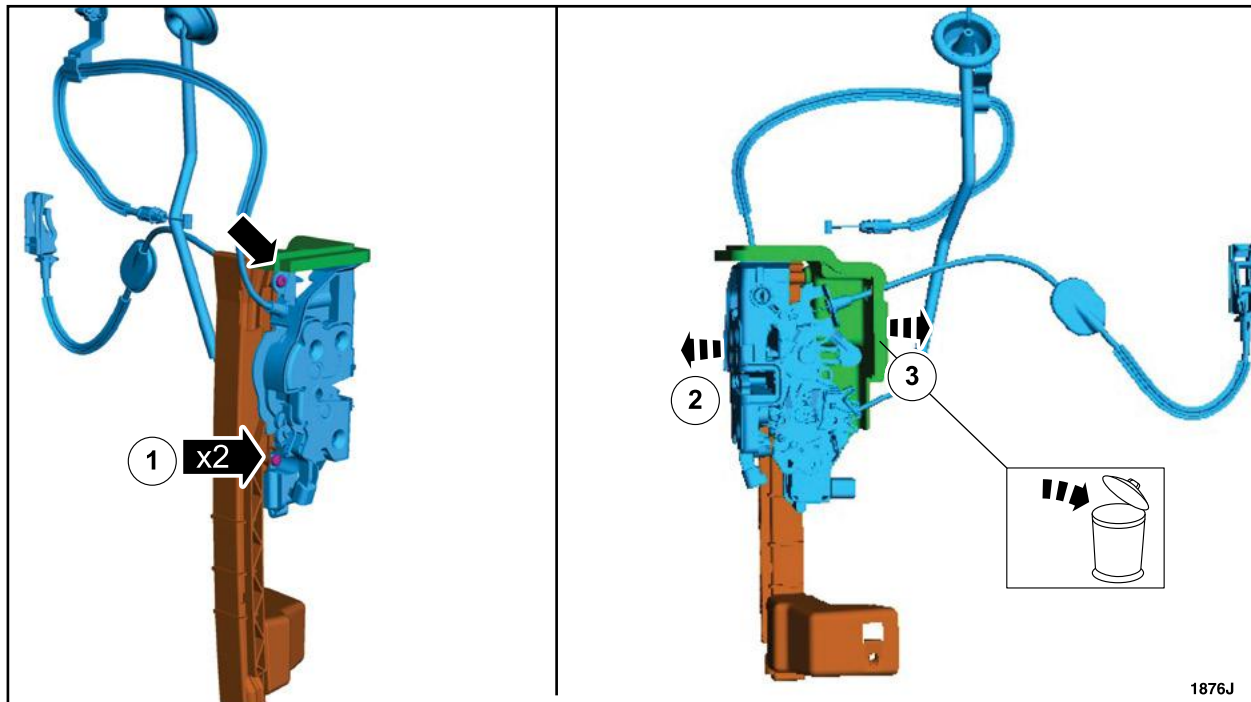


FIGURE 40



15. Remove the door lock actuator by using a flat blade screwdriver. Release the retention tab, on the actuator, from the notch on the door latch while wiggling the actuator off of the door latch alignment brackets. See Figures 41 and 42.

NOTE: Door lock actuator removed for clarity.

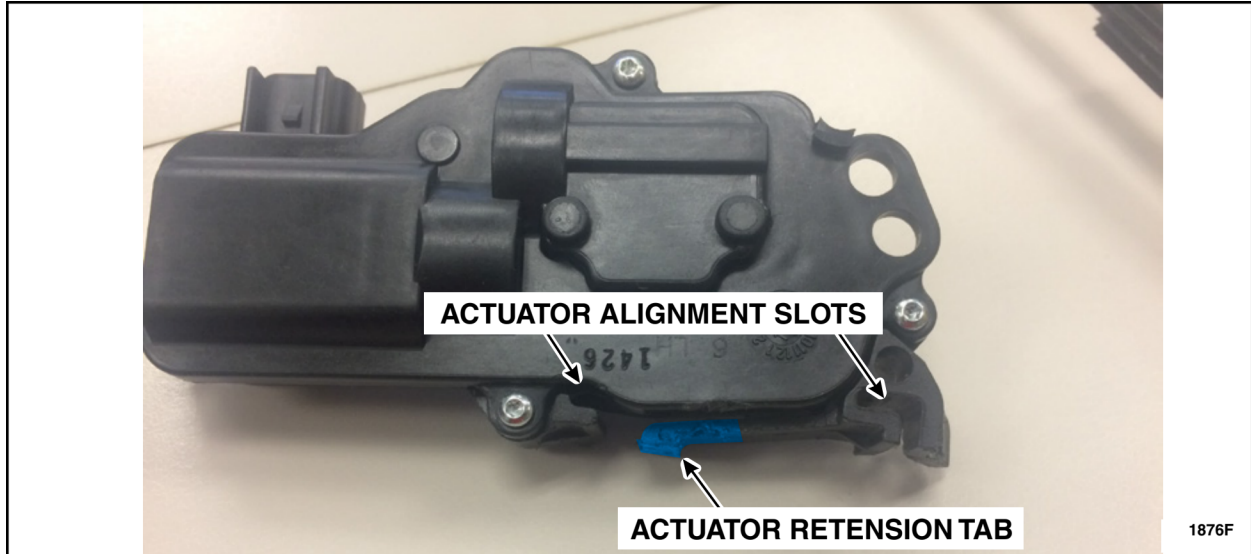


FIGURE 41

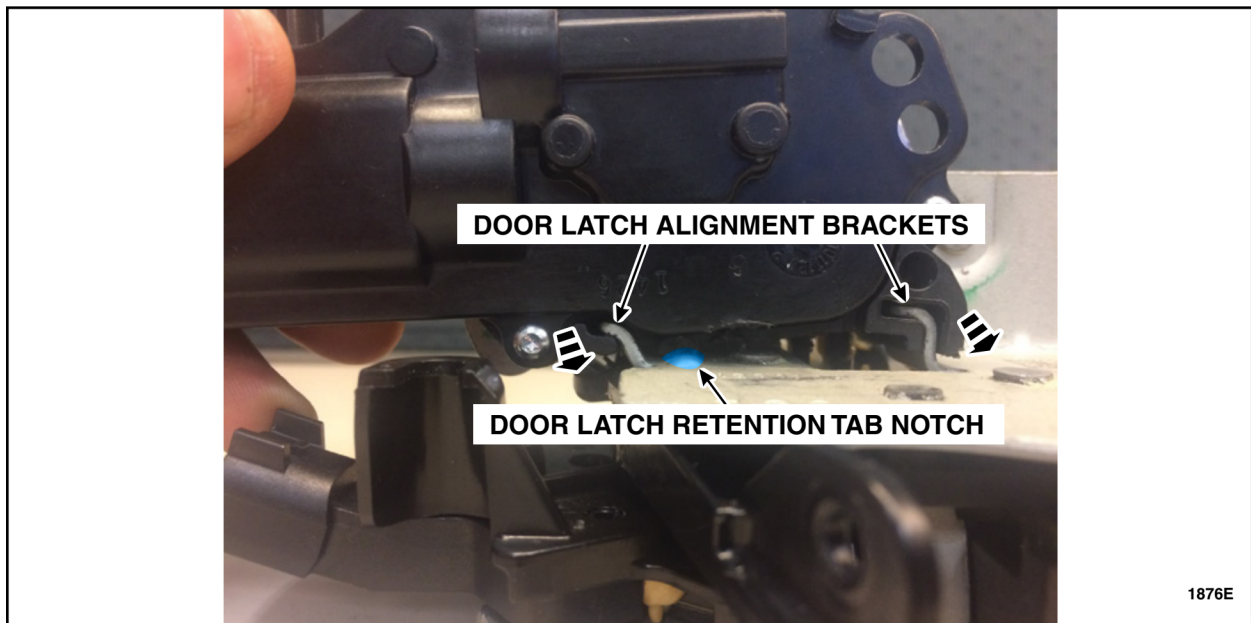


FIGURE 42



16. Using a clean shop towel and isopropyl alcohol, clean then dry all of the previously separated door latch components.
17. Install a *new* door lock actuator by aligning the actuator alignment slots with the door latch alignment brackets. Slide the actuator onto the brackets while aligning the actuator arm pin into the door latch lock lever. An audible click can be heard as the door lock actuator retention tab seats behind the door latch retention tab notch. See Figures 41, 43 and 44.

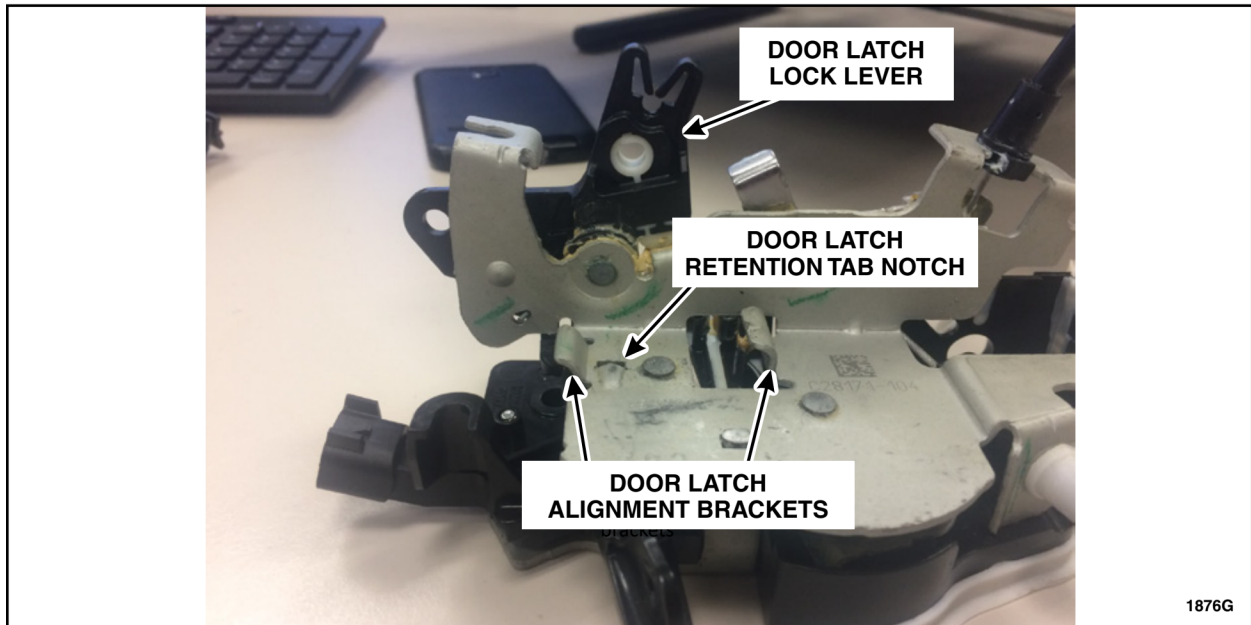


FIGURE 43

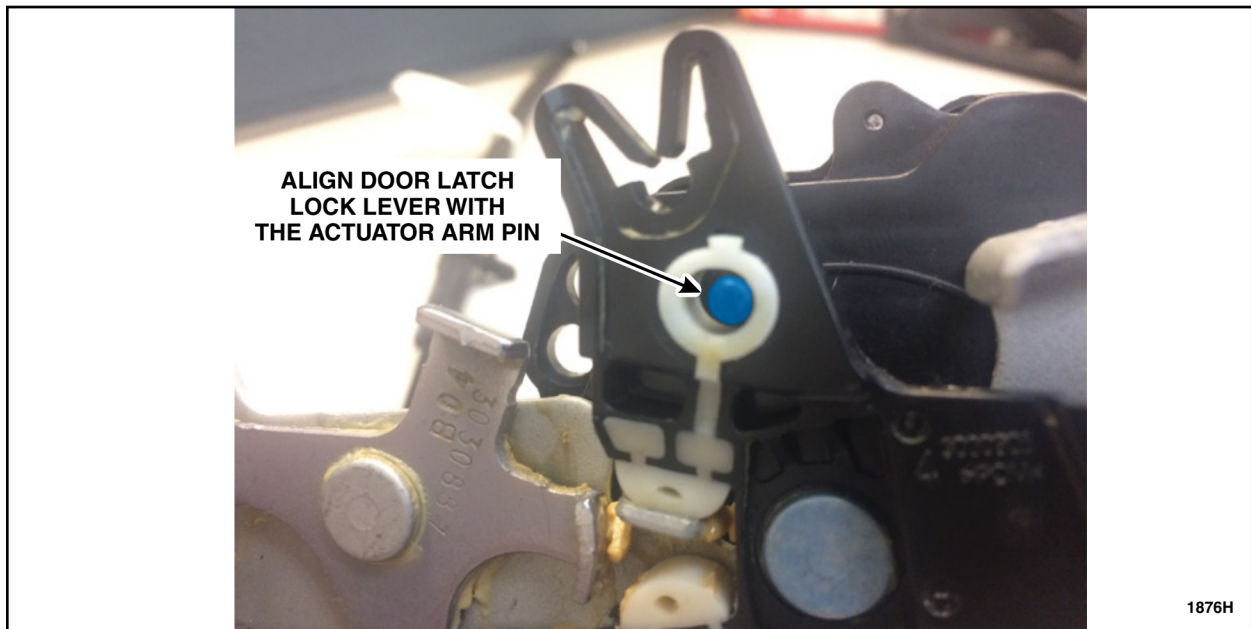


FIGURE 44



18. Ensure that the door lock actuator is fully seated, by attempting to pull the actuator off of the latch, and that the actuator arm pin is positioned in the door latch lock lever.
19. Reassemble the latch components, including a *new* water shield, and then install the retainers. See Figure 40.
20. Make sure the interior of the door is clean and dry prior to the door latch installation.

CAUTION: Use caution not to kink the cables during the installation of the door latch.

21. Install the rear door latch. See Figure 39.
 1. Holding on to both cables, position the lower latch side window regulator toward the outer door panel reinforcement and install the rear door latch.
 2. Connect the door ajar switch.
 3. Route the lock rod through the inner door.
 4. Connect the power door lock electrical connector.
 5. Connect the interior and exterior door handle cable clips and route both cables through the inner door.
22. Install the rear door latch retainers. See Figure 38.
 - Torque: 71 lb.in (8 Nm).
23. Install the rear door window run retainer. See Figure 37.
 - Torque: 71 lb.in (8 Nm).
24. Position back the lower end of the latch side door window regulator by reversing Step 8. See Figure 36.
25. Clean the highlighted area on top of the *new* door latch water shield with isopropyl alcohol and a clean shop towel where the foam tape 2 will be installed. See Figure 45.

NOTE: Driver door latch shown, passenger door latch similar. Right image shown out of the vehicle for clarity.

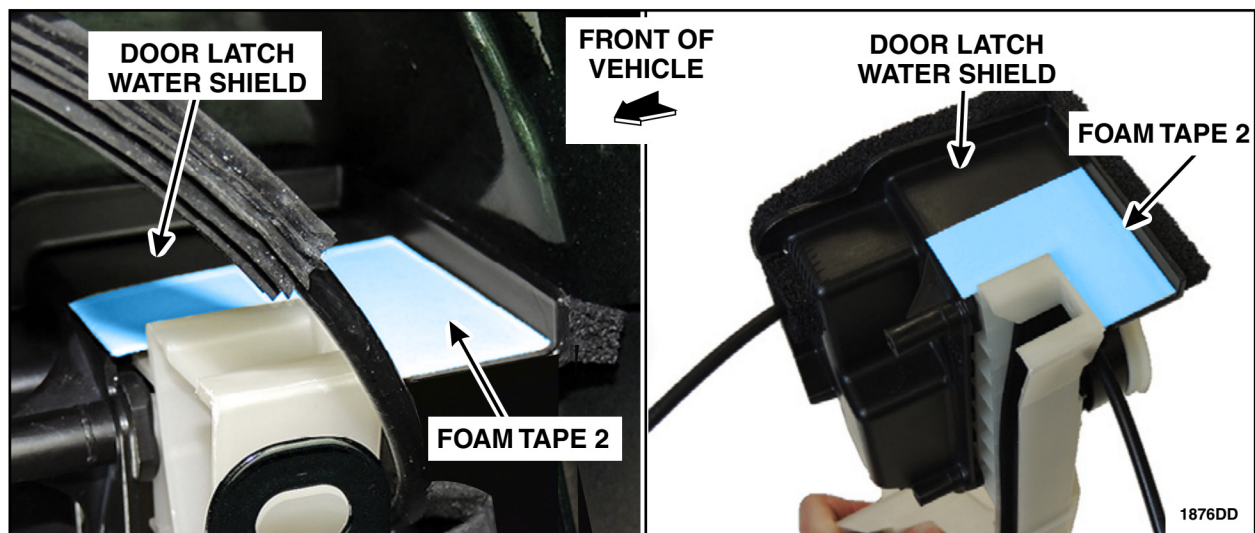


FIGURE 45



26. Install foam tape 2 on top of the rear door latch water shield. See Figures 46.

- Make sure that foam tape 2 attaches to the water shield and to the door glass run.

NOTE: Driver door latch shown, passenger door latch similar. Images shown out of the vehicle for clarity.



FIGURE 46

27. Apply Motorcraft® TA-357 High Performance Engine RTV silicone in and over the mating area of the water shield to the door inner panel from the front to the outboard corner. Using light finger pressure, smooth the bead of silicone. See Figure 47.

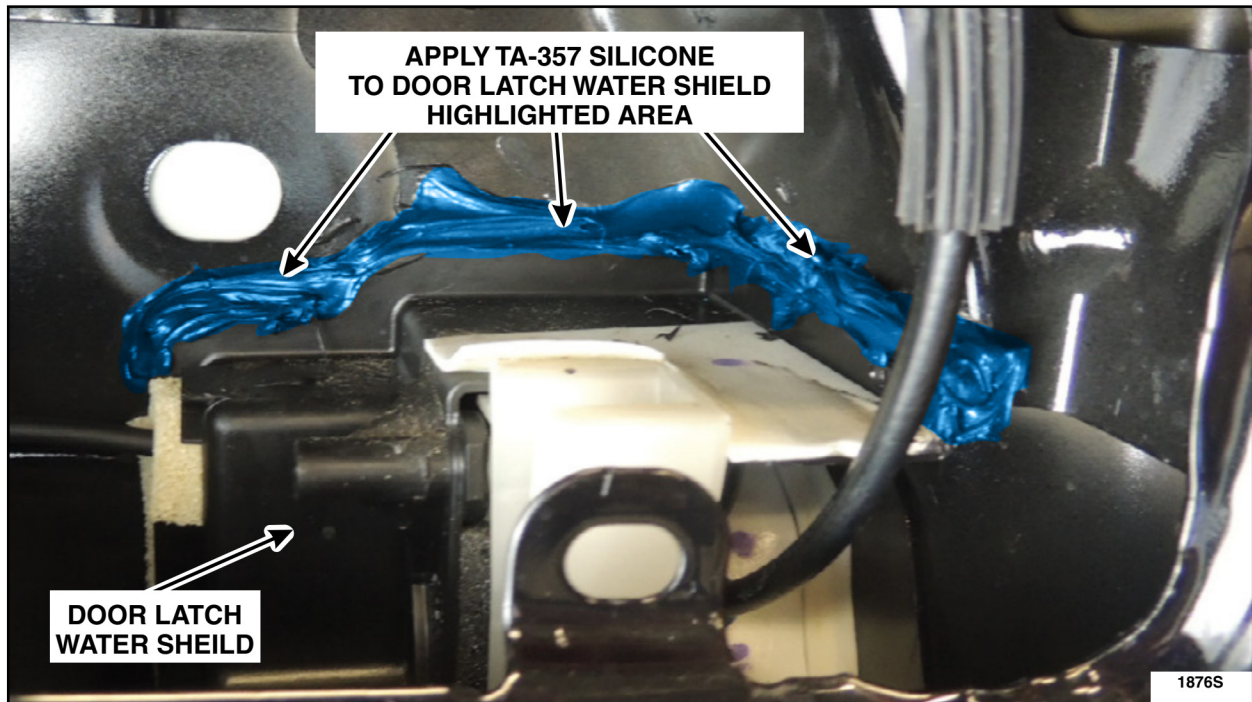


FIGURE 47



28. Lower the window glass to the fully open (down) position.

29. Install a *new* door glass run funnel, **ensuring that the lower tab is situated in the door glass run and the funnel sides sit at a 90° angle above the door glass run.** See Figure 48.

NOTE: Ensure the funnel sides are at a 90° angle upon installation. It may be necessary to bend the sides of the funnel back to a 90° angle before installation.

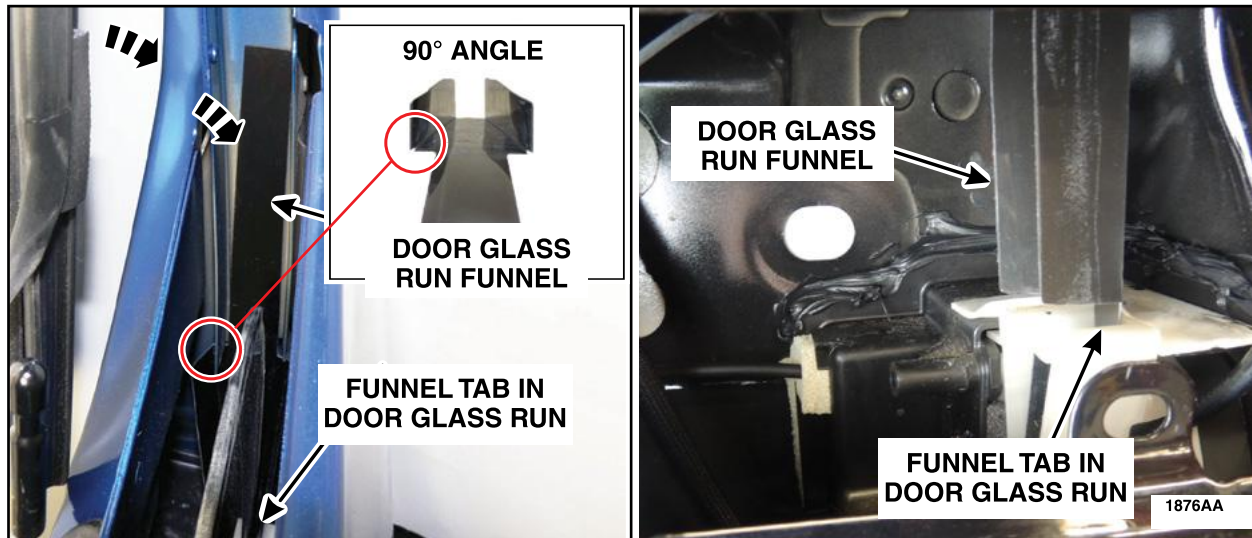


FIGURE 48



30. Reinstall the latch side door glass top run and door inner belt moulding. See Figure 32.

NOTICE: It will be necessary to hold the upper portion of the funnel when installing the door glass top run. Care must be taken not to bend or damage the door glass run funnel. Check through the exterior door handle opening to verify that the funnel is positioned correctly.

31. Raise the rear door window glass to the fully closed (up) position.

32. Using a clean shop towel and isopropyl alcohol clean the area where the *new* foam tape 1 will be applied, from any dirt, dust or debris. Then, install the *new* foam tape 1 in the location shown, from though the exterior door handle opening, to hold the funnel in place. See Figure 49.

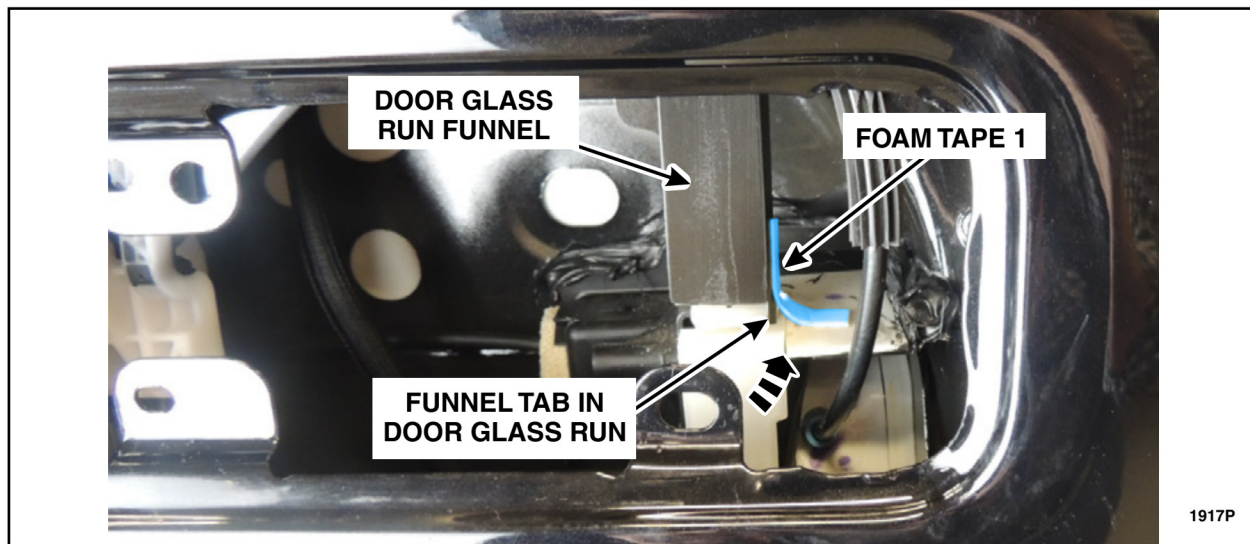


FIGURE 49



33. If present, thoroughly remove the foam gasket located around the perimeter of the exterior rear door handle and the silicone from the latch side area of the exterior rear door handle.
34. Using a clean shop towel and isopropyl alcohol, clean the highlighted mating surface area of the exterior rear door handle. See Figure 50.

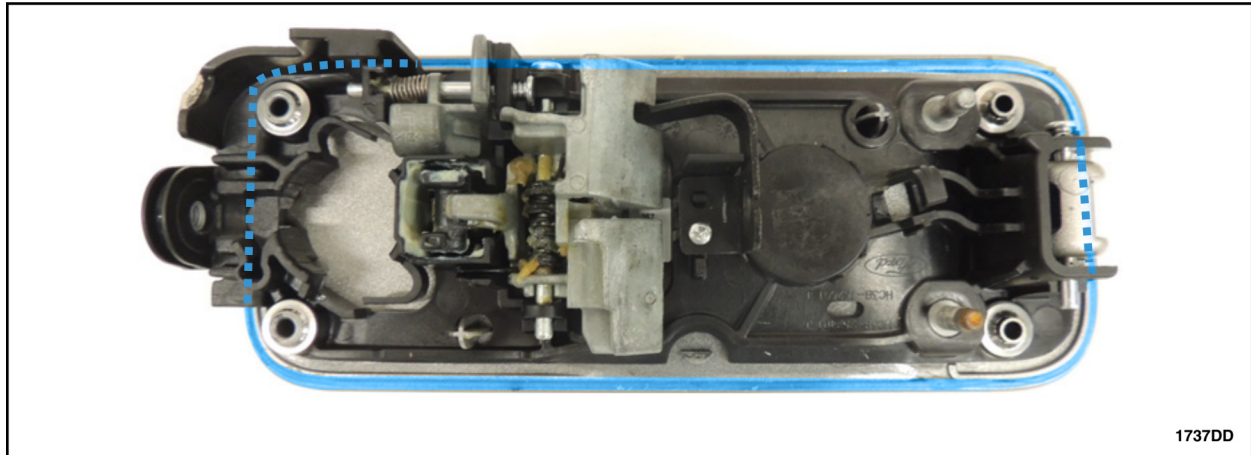


FIGURE 50

35. Using a clean shop towel and isopropyl alcohol, thoroughly clean inside the dotted lines on the mating surface area of the exterior rear door handle opening. See Figure 51.

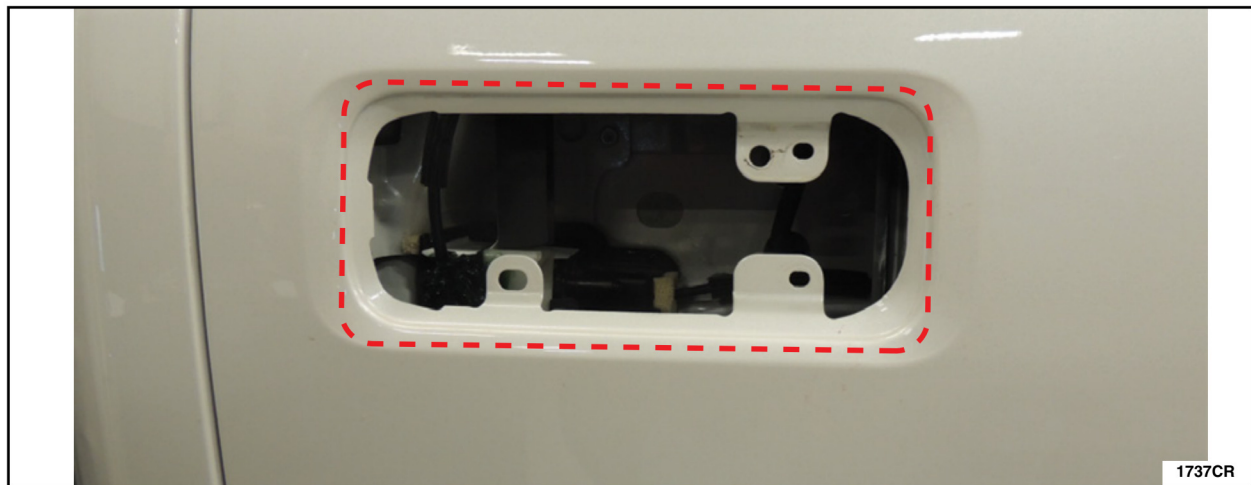


FIGURE 51



36. Install a *new* foam K around the perimeter of the exterior door handle.

NOTE: Foam K will not wrap around the entire perimeter of the exterior door handle.

NOTE: Proper placement of foam K is crucial for proper sealing and to avoid appearance concerns.

- A. Lay out foam K on the exterior door handle and mark center as shown in Figure 52.
- B. Remove foam K from the door handle and remove the back center portion of the adhesive backing then cut the protective backing in half. See Figure 52.
- C. Align the marks made on the foam K and exterior door handle and adhere the back center portion to the exterior door handle as shown in Figure 53.
- D. Lay one side of foam K down on the exterior door handle and without stretching the foam pull off the adhesive backing as you adhere foam K to the exterior door handle as shown in Figure 53.
- E. Remove the protective backing from the other side leg of foam K as shown in Figure 53.
- F. Without stretching the foam adhere it to the exterior door handle ensuring that both sides of foam K are of equal length once secured. See Figure 54.

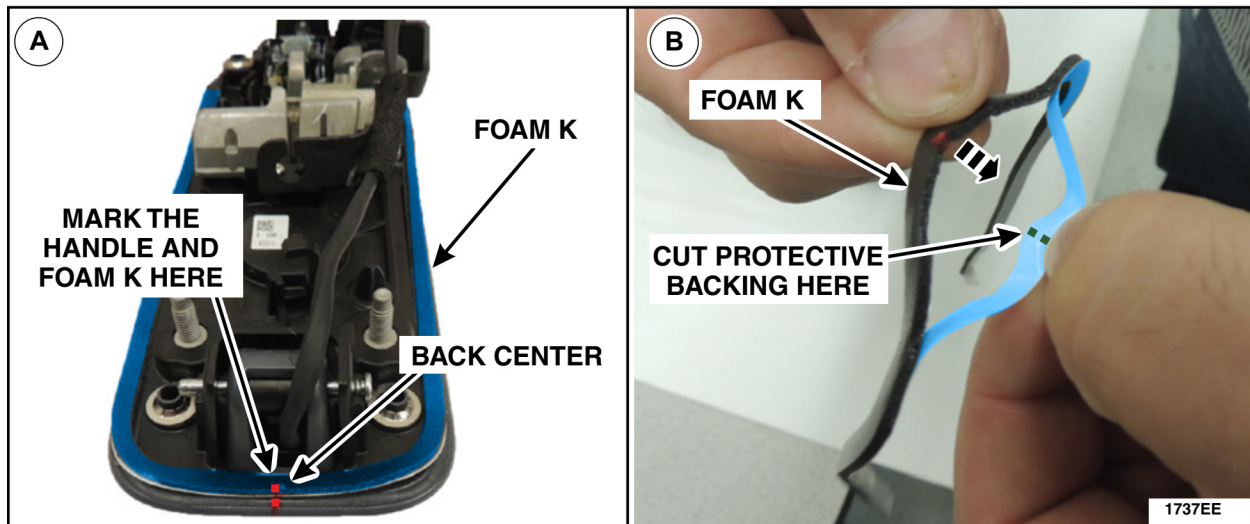


FIGURE 52



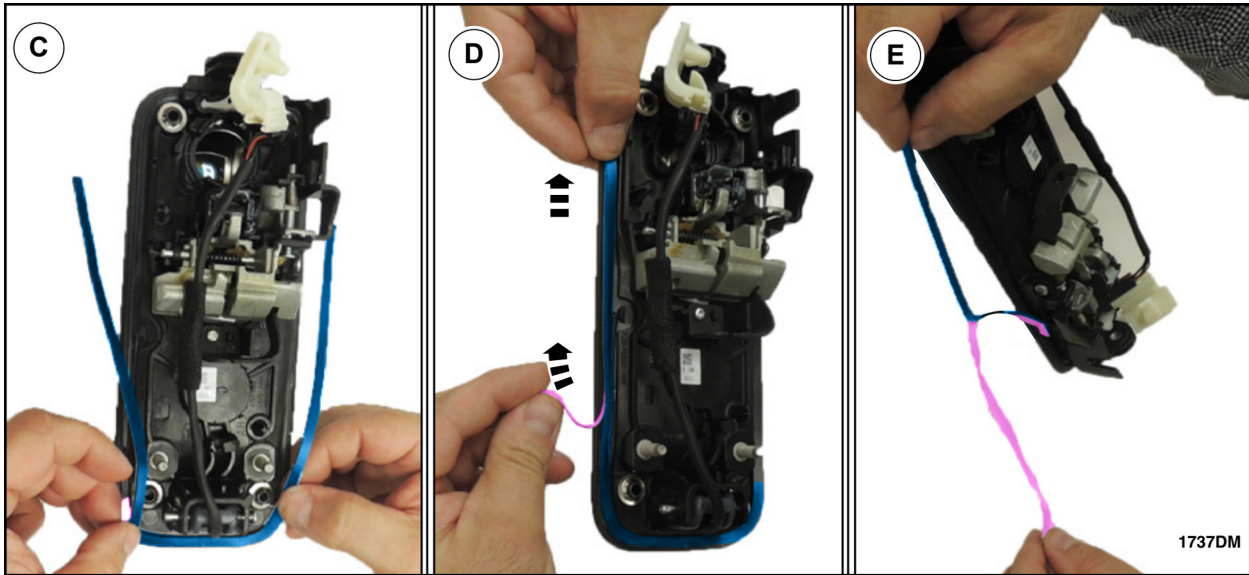


FIGURE 53

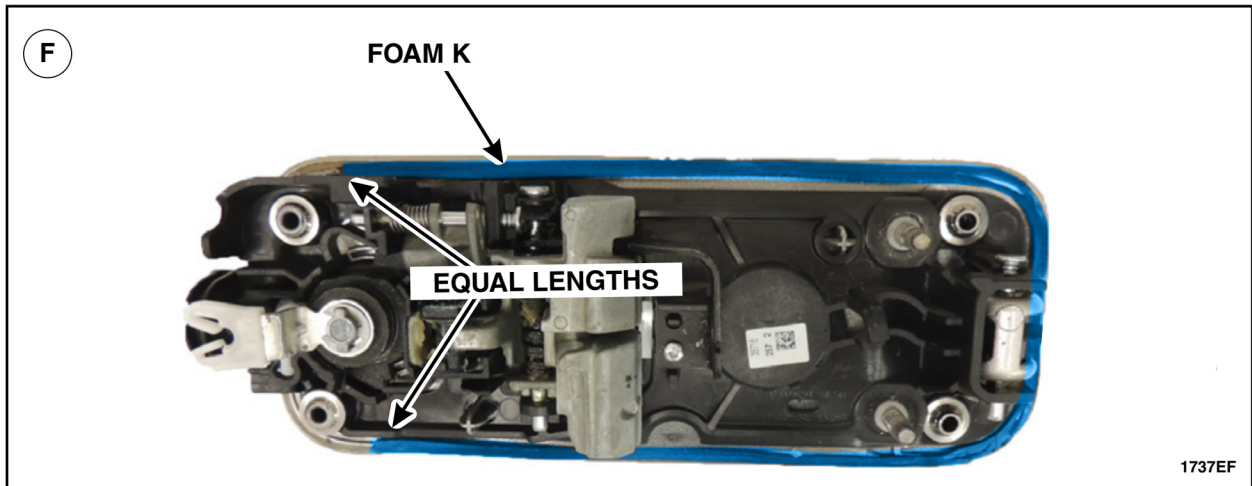


FIGURE 54



37. Using a clean shop towel and isopropyl alcohol, clean the handle plunger then, using a brush, apply a light film of Motorcraft® XG-16 low temperature grease to all four sides of the exterior door handle plunger and to the mechanisms in the areas shown in Figures 55 and 56.

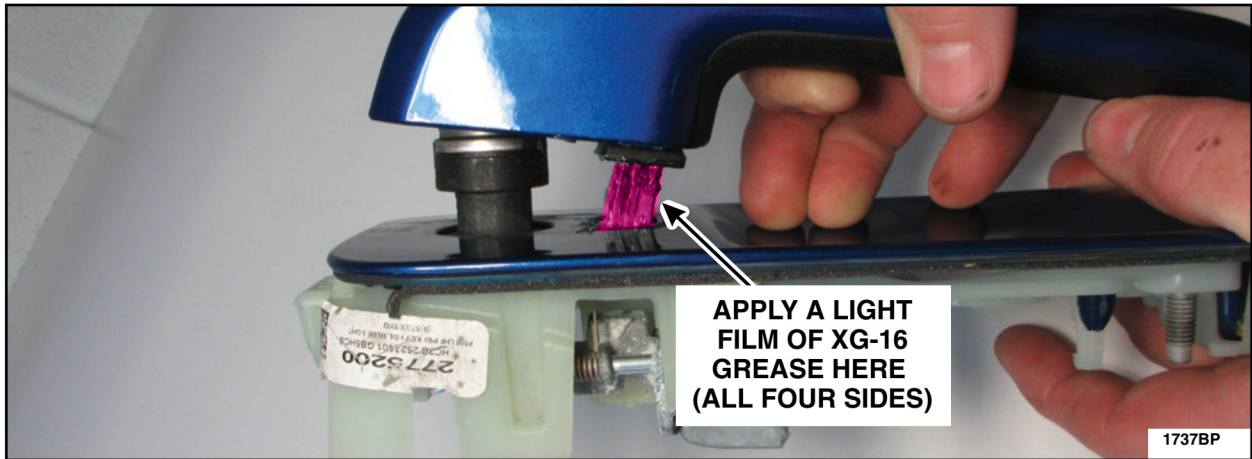


FIGURE 55

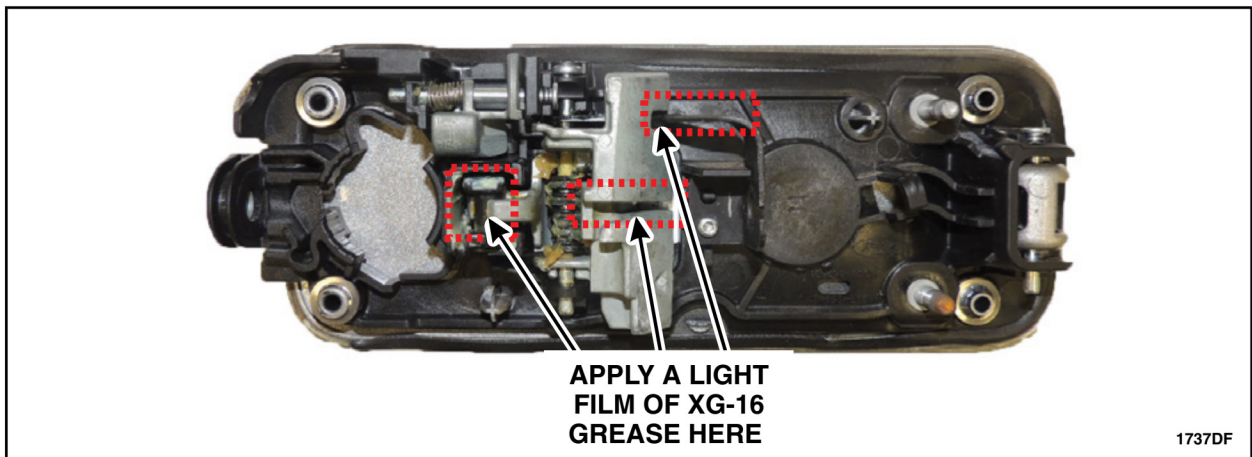


FIGURE 56



38. Apply a bead of Motorcraft® TA-357 High Performance Engine RTV silicone to the latch side area of the rear door exterior handle opening metal surface. Make sure that the silicone will overlap with the foam K on the exterior door handle. See Figure 57.

NOTE: Proper placement of the Motorcraft® TA-357 High Performance Engine RTV silicone is crucial to ensure proper sealing and avoid appearance concerns.

NOTE: Driver door shown, passenger door similar.

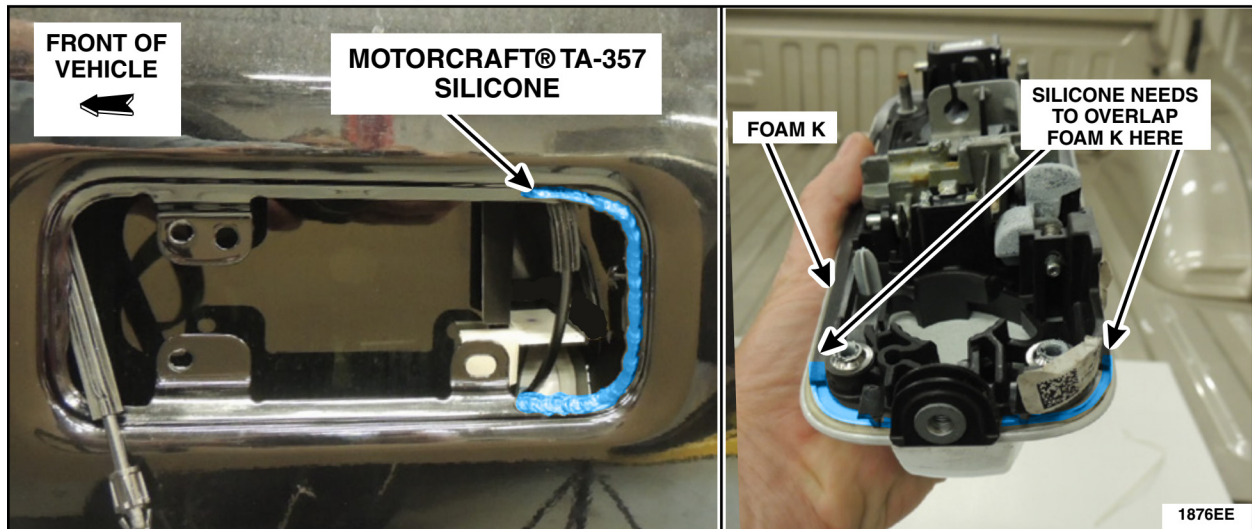


FIGURE 57

39. Reconnect the exterior door handle cable to the door handle and lubricate the door handle cable end with Motorcraft® XG-16 low temperature grease, as shown in Figure 58.

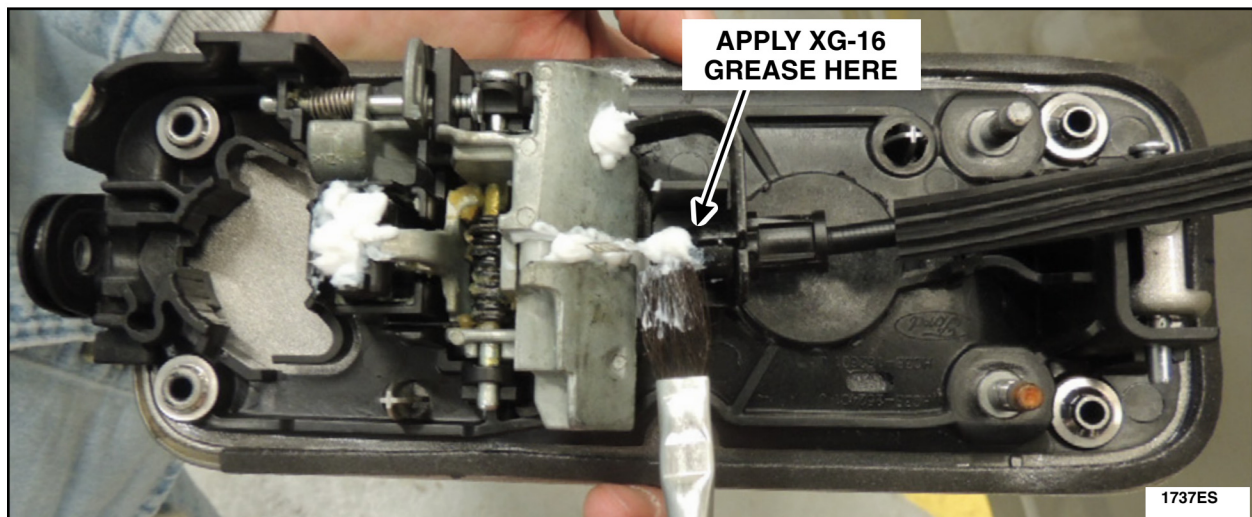


FIGURE 58



40. Install a *new* handle cable wiper clip on the exterior door handle cable end. See Figure 59.

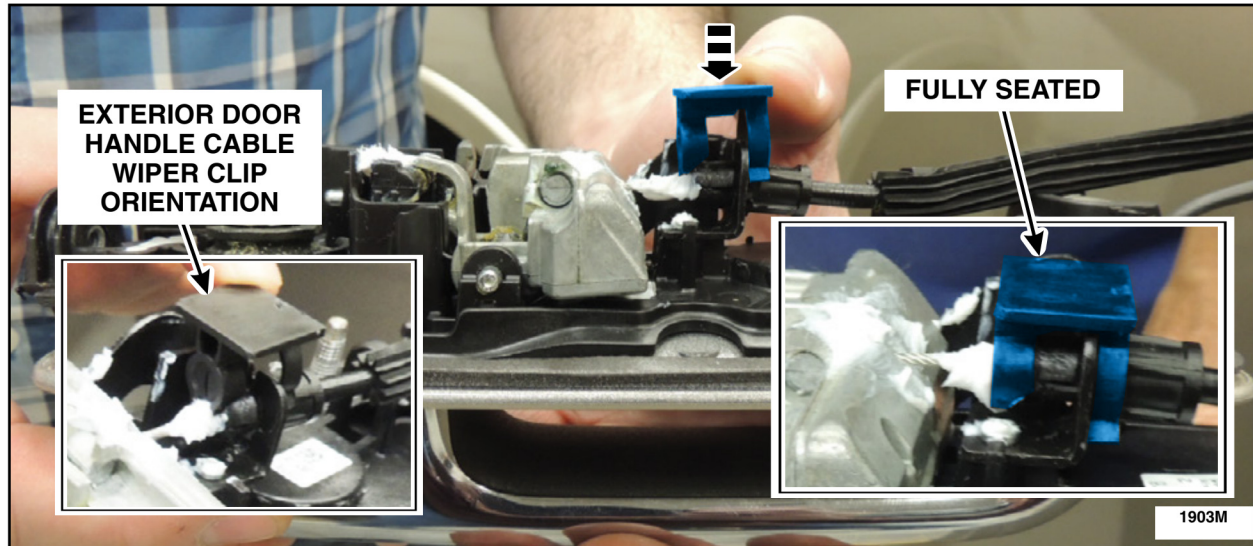


FIGURE 59

41. Reinstall the exterior rear door handle. Please follow the WSM procedures in Section 501-14.

NOTICE: Reinstall the exterior door handle cable and retaining clips in the original factory position.

42. Clean any excessive silicone around the exterior door handle perimeter with isopropyl alcohol, cotton swabs and a clean shop towel to avoid appearance concerns.

43. Has labor operation 20M04H been claimed in the vehicle warranty history?

Yes - The Body Control Module (BCM) has already been reprogrammed to the latest software level. Repair is complete

No - Reprogram the BCM using Integrated Diagnostic Software (IDS) release 122.03 or higher. See BCM Module Reprogramming Steps on Page 43.

IMPORTANT NOTE: Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall. Unless a part is requested to be returned to Ford, all parts replaced under this FSA must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Refer to the Parts Retention, Return, & Scrapping section of the FSA dealer bulletin for further information.



BCM Module Reprogramming

NOTE: Reprogram appropriate vehicle modules before performing diagnostics and clear all Diagnostic Trouble Codes (DTC's) after programming. For DTC's generated after reprogramming, follow normal diagnostic service procedures.

1. Connect a battery charger to the 12V battery.

NOTE: Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.

NOTE: Make sure the diagnostic scan tool does not enter sleep mode during programming.

2. Reprogram the BCM using IDS release 122.03 or higher. Make sure you are connected to the Internet prior to reprogramming.

NOTE: Calibration files may also be obtained at www.motorcraftservice.com.

NOTE: Follow the IDS on-screen instructions to complete the reprogramming procedure.

3. Disconnect the battery charger from the 12V battery once the reprogramming has completed.



Important Information for Module Programming

NOTE: When programming or reprogramming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the 12V battery is fully charged before carrying out the programming steps and connect the diagnostic scan tool to a power source.
- Inspect Vehicle Communication Module (VCM) and cables for any damage. Make sure the diagnostic scan tool connections are not interrupted during programming.
- A hardwired connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, headlamps, interior lamps, HVAC system, etc.) and close doors.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- Follow all the diagnostic scan tool on-screen instructions carefully.
- Disable the diagnostic scan tool sleep mode, screensaver, hibernation modes.
- Create all sessions Key On Engine Off (KOEO). Starting the vehicle before creating a session will cause errors within the programming inhale process.

Recovering a module when programming has resulted in a blank module: **NEVER DELETE THE ORIGINAL SESSION!**

- a. Obtain the original diagnostic scan tool that was used when the programming error occurred during Module Reprogramming (MR) or Programmable Module Installation (PMI).
- b. Disconnect the VCM from the Data Link Connector (DLC) and the diagnostic scan tool.
- c. Reconnect the VCM to the diagnostic scan tool and then connect to the DLC. Once reconnected, the VCM icon should appear in the corner of the diagnostic scan tool screen. If it does not, troubleshoot the diagnostic scan tool to VCM connection.
- d. Locate the original vehicle session when programming failed. This should be the last session used in most cases. If not, use the session created on the date that the programming failed.

NOTE: If the original session is not listed in the previous session list, click the Recycle Bin icon at the lower right of the previous session screen. This loads any deleted sessions and allows you to look through them. Double-click the session to restore it.

- e. Once the session is loaded, the failed process should resume automatically.
- f. If programming does not resume automatically, proceed to the Module Programming menu and select the previously attempted process, PMI or MR.
- g. Follow all on-screen prompts/instructions.
- h. The last screen on the diagnostic scan tool may list additional steps required to complete the programming process. Make sure all applicable steps listed on the screen are followed in order.

