

# **TECHNICAL INSTRUCTIONS**

**FOR**

**SAFETY RECALL 20TA07**

**BACKUP LAMPS MAY BECOME INOPERATIVE**

**CERTAIN 2020 COROLLA HATCHBACK**

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair performed correctly; technicians performing this recall repair are required to currently hold at least one of the following certification levels:

- Expert (any specialty)
- Master
- Master Diagnostic Technician

It is the dealership’s responsibility to select technicians with the above certification level or greater to perform this recall repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.

# CRITICAL MESSAGE

Replacing the Corolla Hatchback rear door wire harness can be a challenging procedure. There are many ribs and braces inside the rear hatch that catch on the harness as it's being pushed through. If done incorrectly, installation could fail and damage to the *NEW* wire harness could result.

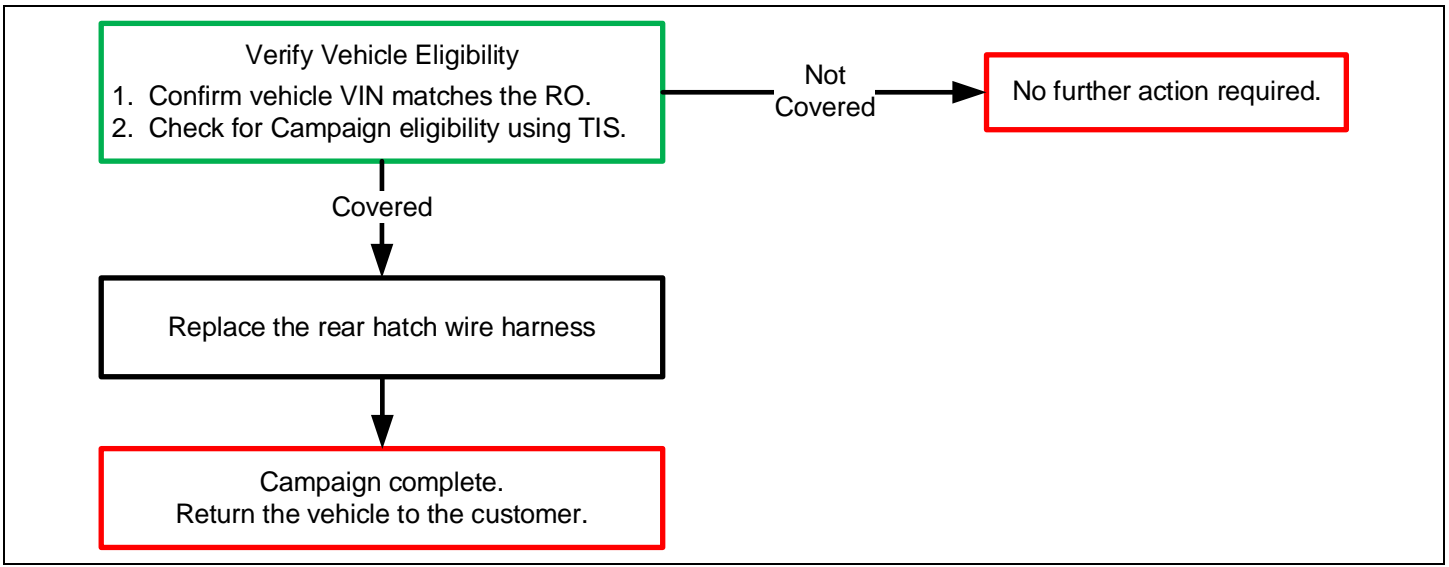
Many different methods were tested to develop the following procedure. If these instructions are followed accurately, replacing the harness will be successful. However, if these instructions are not followed accurately, you will experience significant difficulty.

Take your time when performing this repair and follow the instructions closely. Read these instructions from start to finish before beginning, to familiarize yourself with the repair. Attention to detail is critical to being successful with this installation.

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**DO NOT** close the rear hatch while the battery is disconnected or any of the electrical connectors are removed. The rear hatch release is electric only, and it cannot be re-opened easily if power is not available to the hatch release motor and switch.

## I. OPERATION FLOW CHART



## II. IDENTIFICATION OF AFFECTED VEHICLES

### 1. CHECK VEHICLE FOR CAMPAIGN ELIGIBILITY

- a. Compare the vehicles VIN to the VIN listed on the Repair Order to ensure they match.
- b. Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Campaign, and that it has not already been completed.

Note: TMNA warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were previously completed, even by another dealer.

## III. PREPARATION

### A. PARTS

Part Number	Part Description	Qty
04000-02312	Wire, Back Door, No. 2	1

### B. TOOLS & EQUIPMENT

#### TOOLS, SUPPLIES & EQUIPMENT

- Standard Hand Tools
- Techstream 2.0 / Techstream Lite

#### MATERIALS

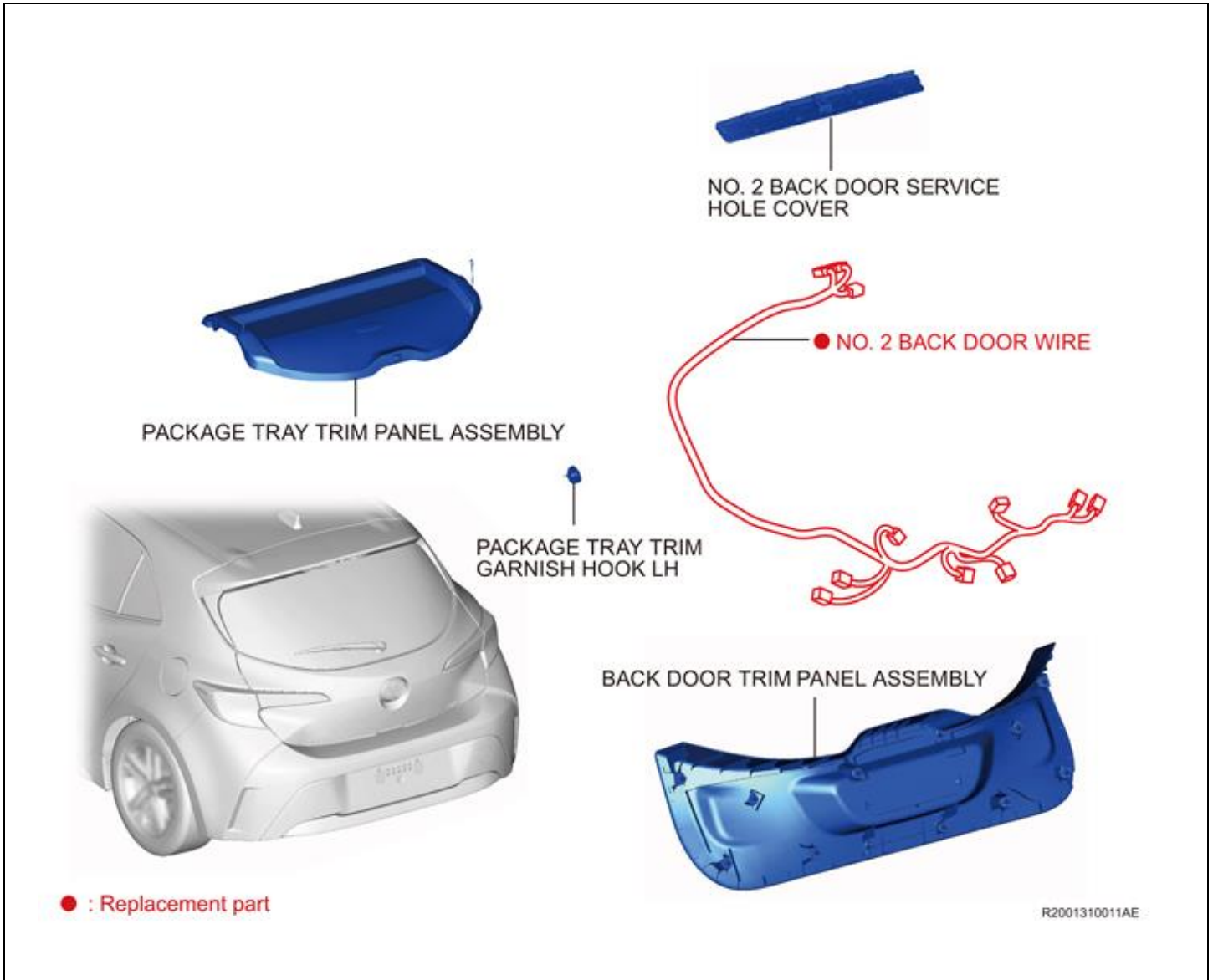
- Braided Sleeve (20TA07SLEEVE)
- Electrical Tape

At the launch of this campaign, each dealership is being sent an amount of the Braided Sleeves to cover stop sale inventory and any vehicles recently sold or serviced by your dealership. Only order additional Sleeves if needed. They can be ordered from the Material Distribution Center (MDC) using material # 20TA07SLEEVE.

## IV. BACKGROUND

A connector in the rear hatch of the subject vehicles may have been damaged during production. As a result, the backup lamps may become inoperative over time. If backup lamps do not illuminate when the vehicle is operated in reverse, there can be an increased risk of a crash.

## V. COMPONENTS



## VI. DISASSEMBLY



### 1. CHECK FOR DTC'S

- a. Using a Techstream, perform a Health Check.

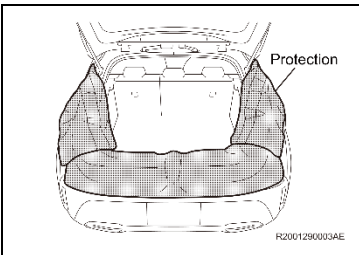
**Note:** This Safety Recall covers only the diagnosis and/or replacement of the rear hatch wire harness, as detailed in these instructions. It does not cover the diagnosis or replacement of any other parts on the vehicle.

### 2. OPEN REAR HATCH

- a. Open the rear hatch (don't close it until the entire repair procedure is complete).

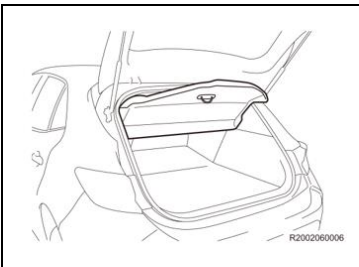
### 3. DISCONNECT THE NEGATIVE BATTERY CABLE

- a. Remove the negative cable from the 12v battery.



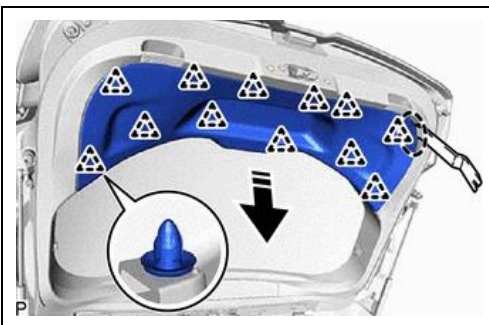
### 4. PROTECT THE VEHICLE BODY

- a. Place fender covers or other protective blankets over the painted surfaces of the affected area.



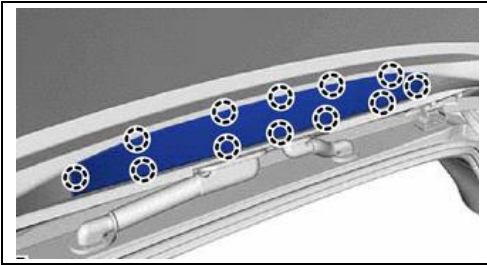
### 5. REMOVE PACKAGE TRAY COVER

- a. Remove the Package Tray Cover.



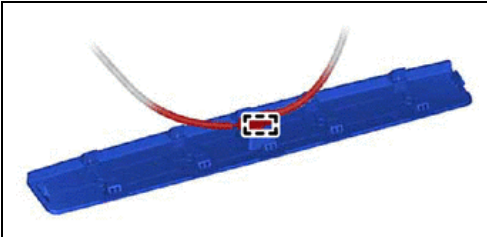
### 6. REMOVE BACK DOOR TRIM PANEL

- a. Disengage the 12 clips using a trim panel tool.

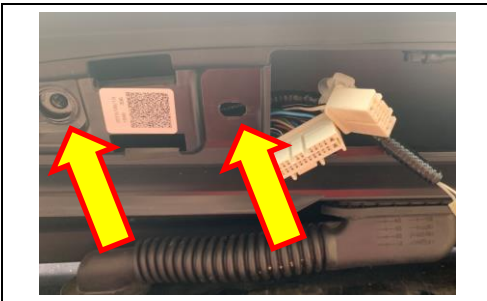


**7. REMOVE SERVICE HOLE PANEL**

a. Disengage the 12 claws.

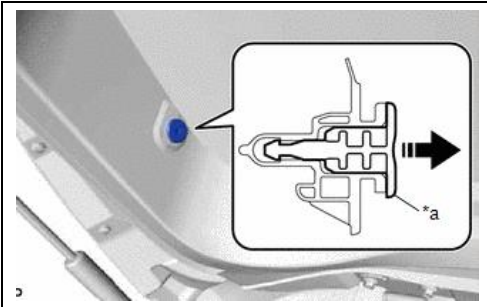


b. Disengage the clamp to separate the wire harness.



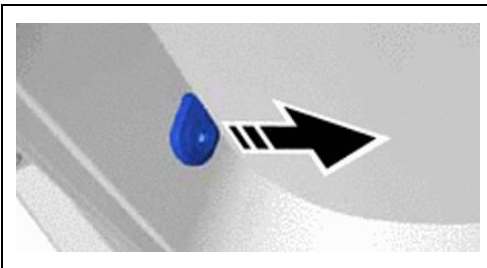
**8. REMOVE BOLT AND CLAMP**

a. Remove the bolt behind the Service Hold Panel Cover.  
b. Remove wire harness clamp.

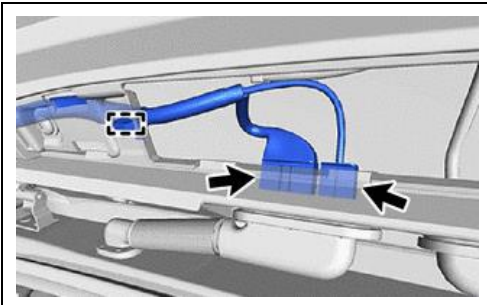


**9. REMOVE PACKAGE TRAY TRIM GARNISH LH**

a. Disengage the inner section of the Trim Garnish LH as shown.



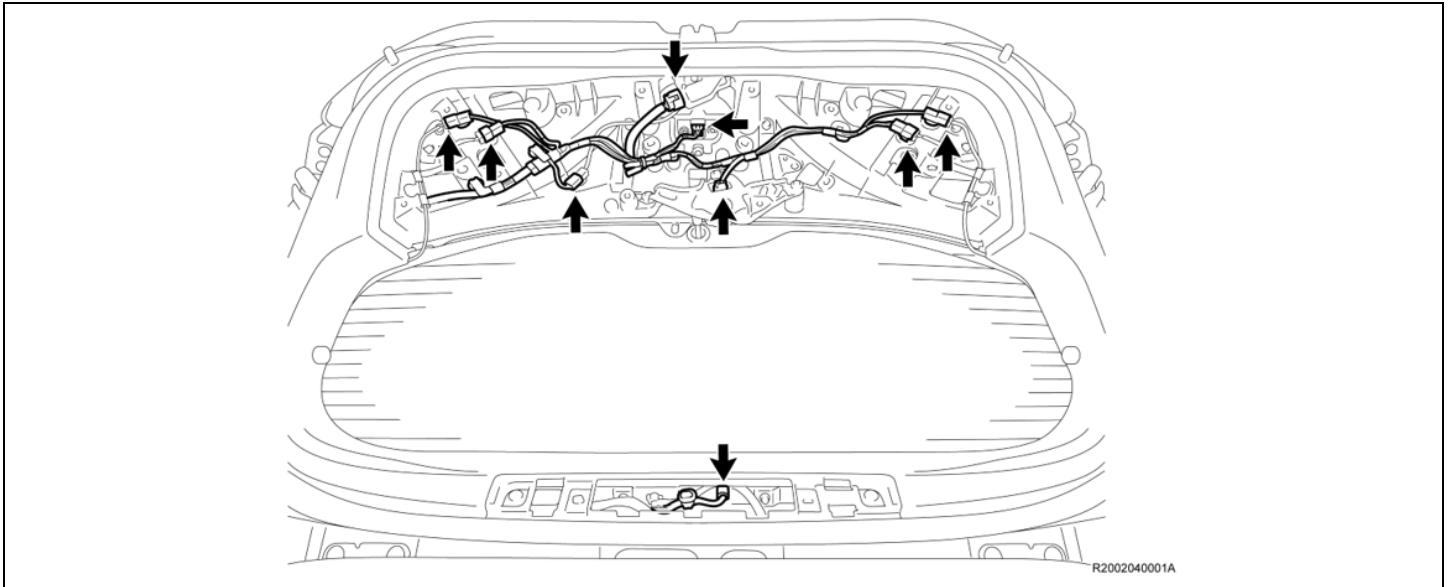
b. Remove the outer section of the Trim Garnish LH by pulling outward.



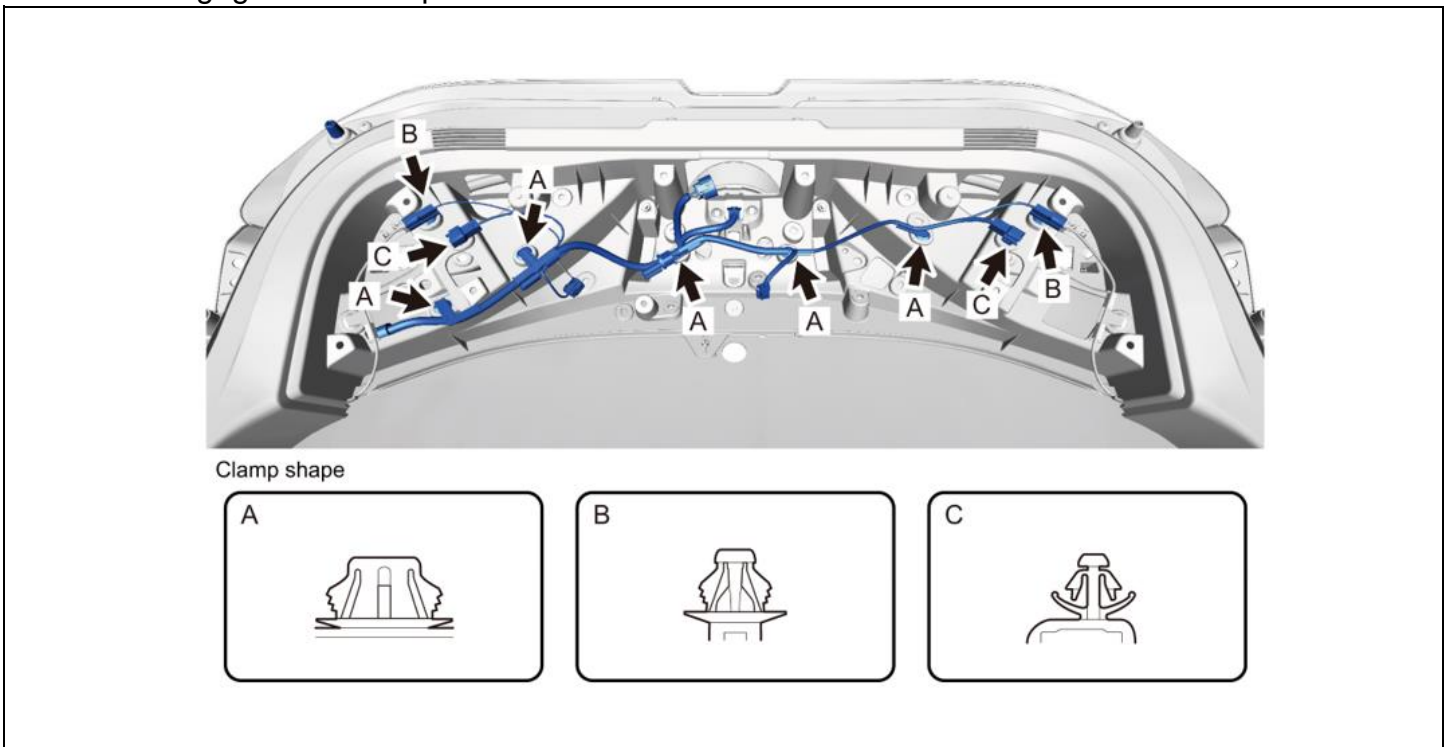
**10. DISCONNECT No. 2 BACK DOOR WIRE HARNESS**

a. Disconnect the 2 connectors  
b. Disengage the clamp

c. Disconnect the 9 connectors as shown in the illustration



d. Disengage each clamp as indicated.

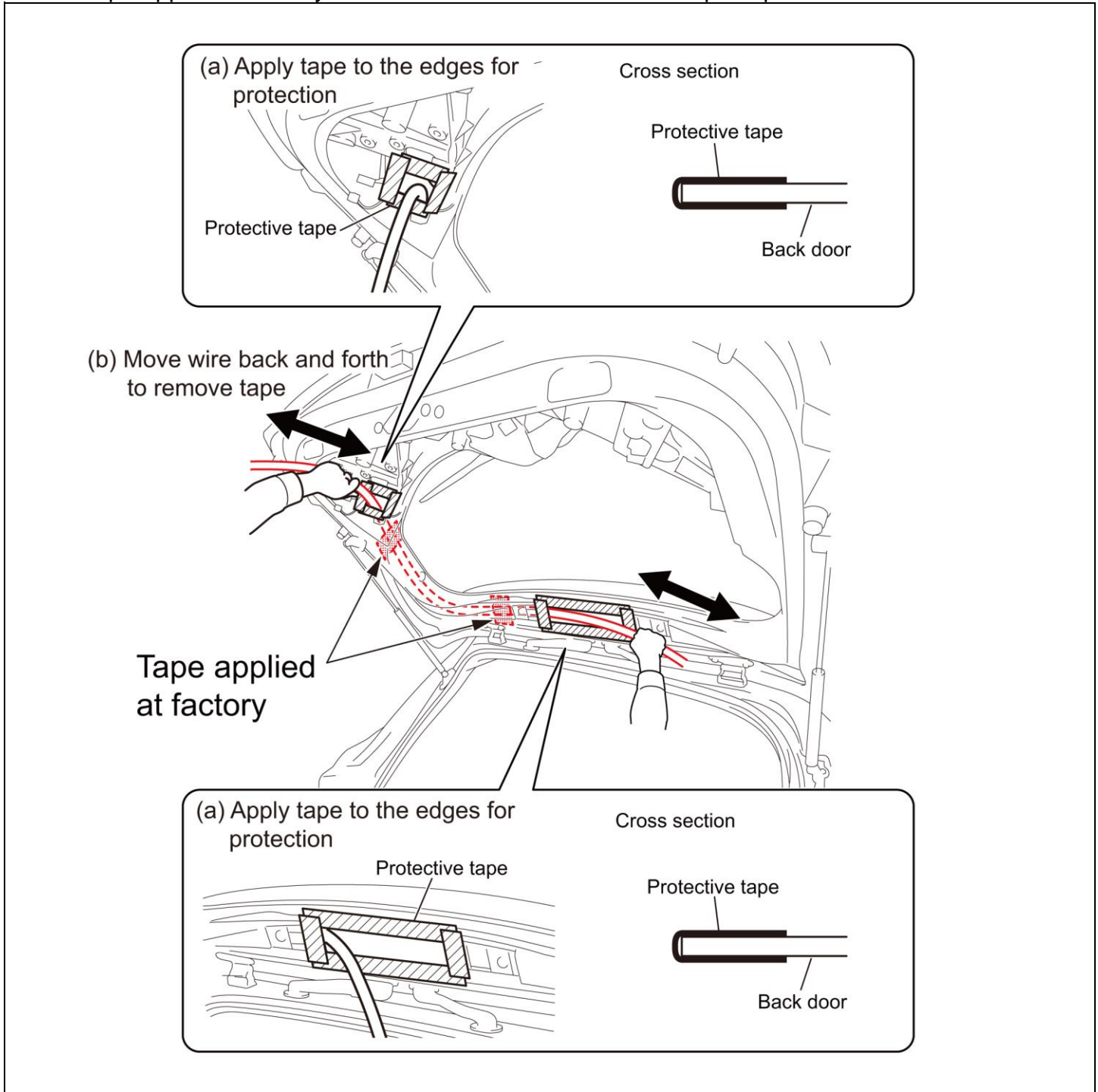




## 11. REMOVE THE HARNESS RETENTION TAPE

During production, the No.2 back door wire harness is held to the inside of the door panel with tape before attaching the inner and outer door panels. It will be necessary to separate the tape from the wire harness before the installation of the new harness begins.

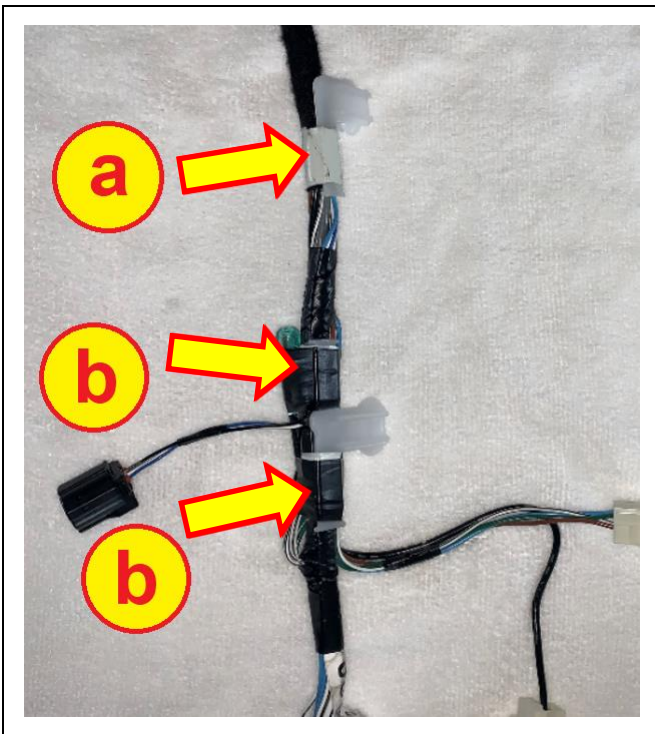
- a. Apply protective tape to the edges of the service hole for protection.
- b. **Move the No.2 back door wire forward and back about 4"-5"** in order to separate the tape applied at factory. You should be able to hear the tape separate.





## VII. PREPARE ORIGINAL HARNESS

The following images are shown with the original harness removed from the vehicle for clarity. You will be performing these steps with the harness installed in the vehicle.



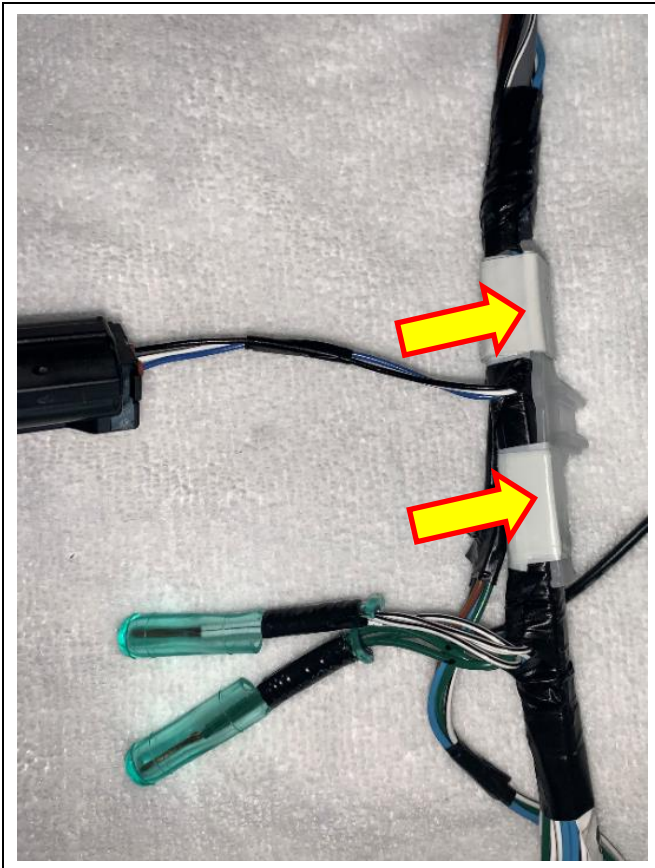
### 1. PREPARE THE ORIGINAL HARNESS

The following procedure will be performed with the original wire harness still installed in the vehicle. The images shown in these steps show the harness removed from the vehicle. This has been done to improve the image quality for better understanding.

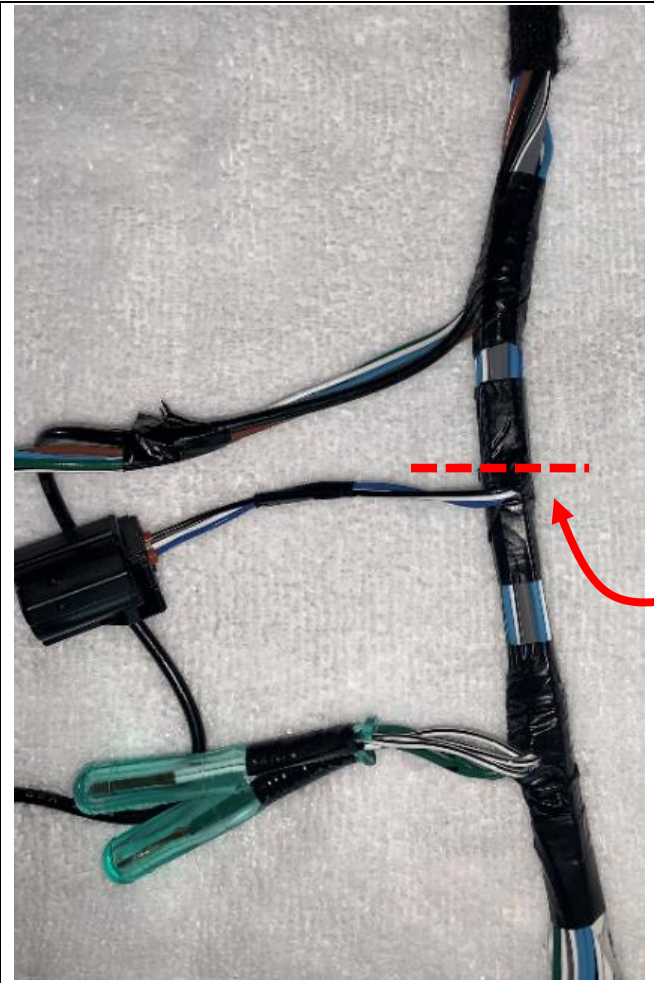


**DO NOT PERFORM THE NEXT STEPS ON THE NEW WIRE HARNESS. Only perform the next steps on the Original wire harness installed in the vehicle.**

- Cut the white tape on the upper wire harness clamp and remove the clamp.
- Cut the 2 pieces of black tape and remove the tape.
- Cut the two pieces of white tape and remove the clamp.



d. Cut the original harness just above the white, blue and black wires that protrude from the harness.



**CUT HERE**

e. Remove remaining black electrical tape from the lower section of the harness.





- f. Cut the 2 remaining wires to the same length as the remaining harness.

**CUT HERE**

**VIII. CONNECT *NEW* HARNESS WITH ORIGINAL HARNESS**

Multiple color tapes are being used in the following photos to provide visual separation of the parts involved. Any color electrical tape will be acceptable for the actual repair.

	<p>Although the following detail may seem unnecessary, these steps are critical to keeping the overall diameter of the harness as small as possible to insure it can be pushed through the rear hatch successfully. Be sure to follow these steps exactly as detailed.</p>
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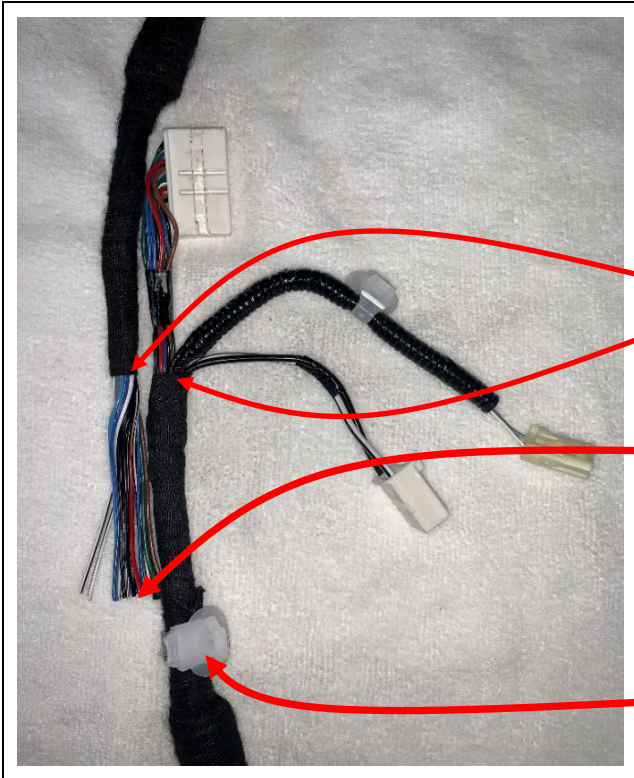
- 1. **INSTALL BRAIDED SLEEVE**
  - a. Slide the Braided Sleeve over the *NEW* harness at the end with the 3 connectors.

**Note:** Braided Sleeves have been provided to each dealership for this repair. Contact your Service Manager for their location. If additional Braided Sleeves are needed, they can be ordered from the Material Distribution Center using material # 20TA07SLEEVE.

**NEW HARNESS**

**BRAIDED SLEEVE**



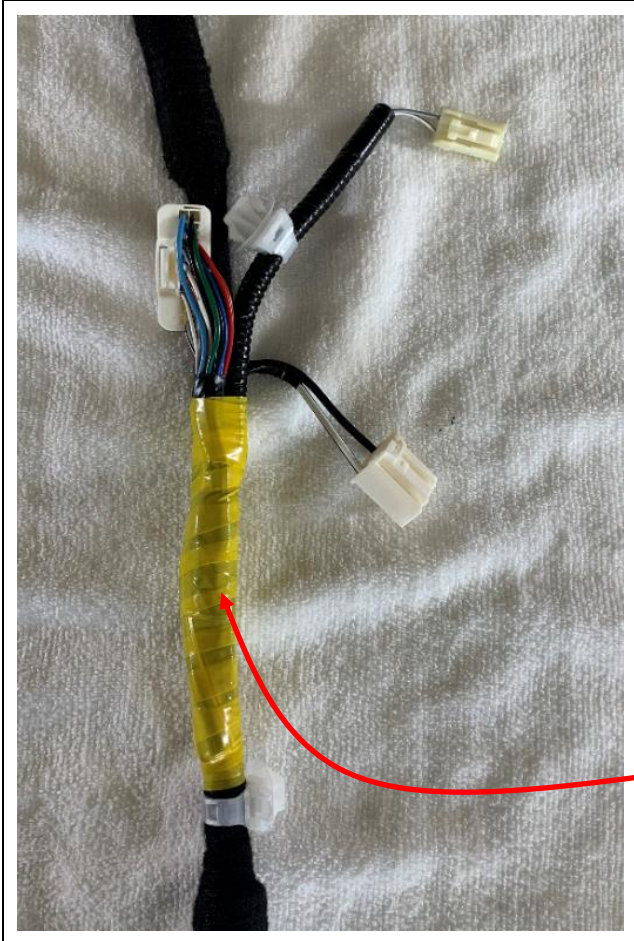


b. Line up the **NEW** harness with the original harness to tape them together. Overlap the **NEW** harness and the original harness as shown in the diagram.

**Harness wrap from each harness lines up with each other**

**END OF ORIGINAL HARNESS**

**WIRE HARNESS CLAMP ON NEW HARNESS**

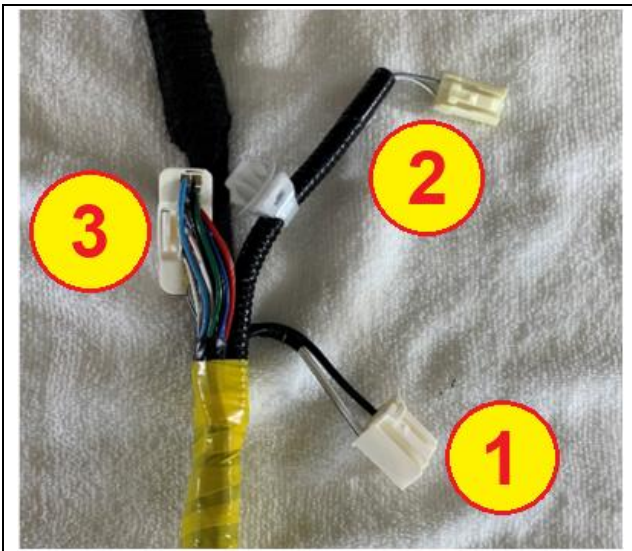


c. Using electrical tape, wrap the section between the connectors and the wire harness clamp. **Overlap the previous row by about 25%.** Using too much tape will reduce the flexibility of the harness and make it more difficult to pull the harness through the rear hatch.

*Note: **Yellow tape** was used to show the wrapped area. Any color electrical tape is acceptable to use.*

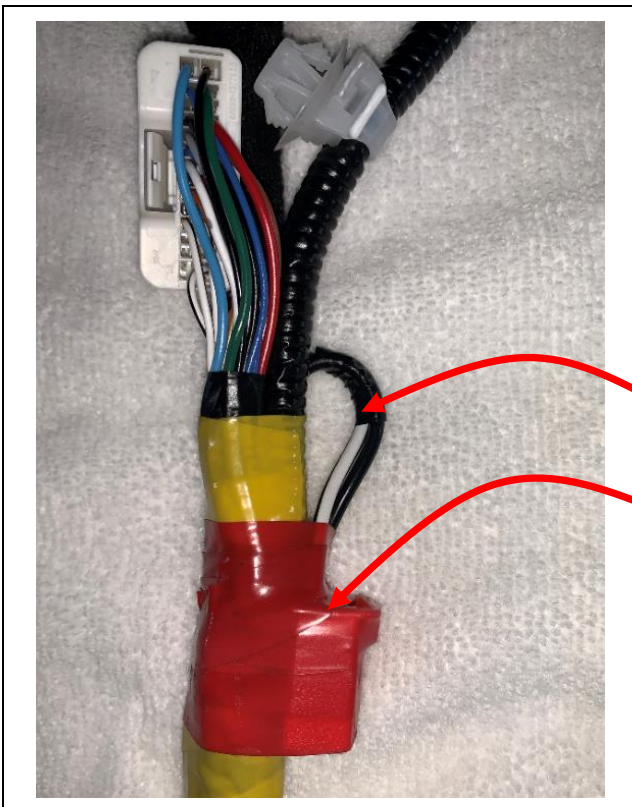
**BE SURE TO WRAP THE HARNEESES TOGETHER TIGHTLY AS THIS IS A CRITIAL CONNECTION THAT MUST NOT FAIL WHEN PUSHING THE HARNESS THROUGH THE REAR HATCH.**

**Overlap the previous row by about 25%**



### CONNECTOR #'s:

NOTE: The three connectors shown will be attached to harness assembly in the following steps. The numbers shown on this diagram will indicate the order of operations.

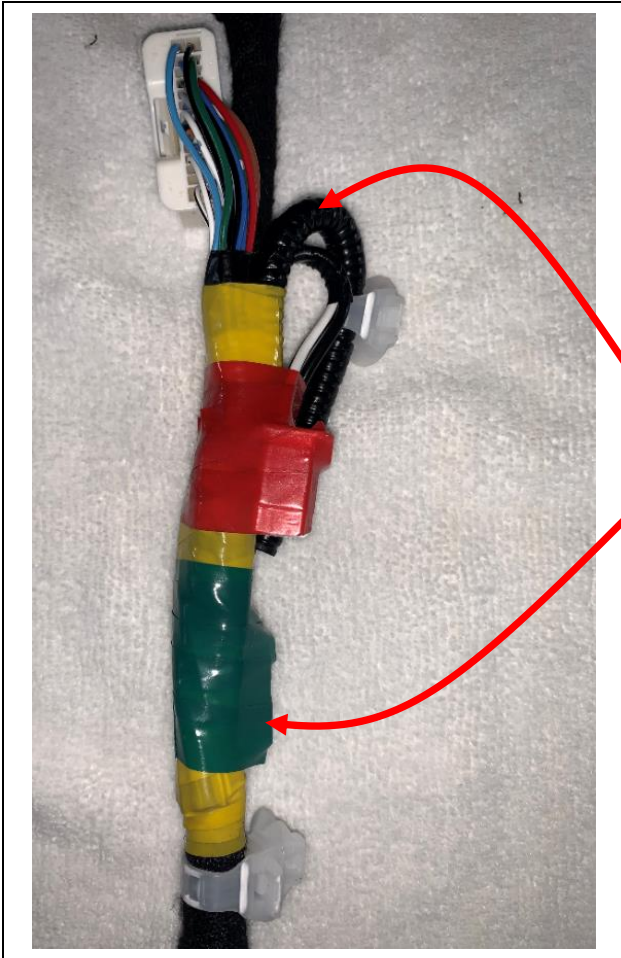


- d. Fold connector #1 backwards onto the main harness, leaving a loop at the top.
- e. Wrap connector #1 in electrical tape to retain it to the main harness. **It is not necessary to wrap it more than three or four times, as too much tape will reduce the flexibility of the harness and make it more difficult to pull through the rear hatch.**

**CREATE A LOOP WITH THE WIRES**

**TAPE CONNECTOR #1 TO THE HARNESS**

**Note: Red tape was used in this step to show the wrapped area.**



- f. Fold connector #2 backwards onto the main harness, leaving a loop at the top.
- g. Wrap the connector in electrical tape to retain it to the main harness. **It is not necessary to wrap it more than three or four times, as too much tape will reduce the flexibility of the harness and make it more difficult to pull through the rear hatch.**

**CREATE A LOOP WITH THE WIRES**

**TAPE CONNECTOR #2 TO THE HARNESS**

**Note: Green tape was used in this step to show the wrapped area.**



- h. Position the wires for connector #2 under connector #1 to reduce the overall diameter of the assembly.
- i. Place a piece of tape around the wire to hold it in position.

**Connector #1**

**Position the wire for connector #2 under connector #1**

**Apply tape to hold the wire into position.**





- j. Wrap connector #3 in electrical tape to secure it to the main harness. Do not fold it backward like the other 2 connectors. **It is not necessary to wrap it more than three or four times, as too much tape will reduce the flexibility of the harness and make it more difficult to pull through the rear hatch.**

**TAPE CONNECTOR #3 TO THE HARNESS**

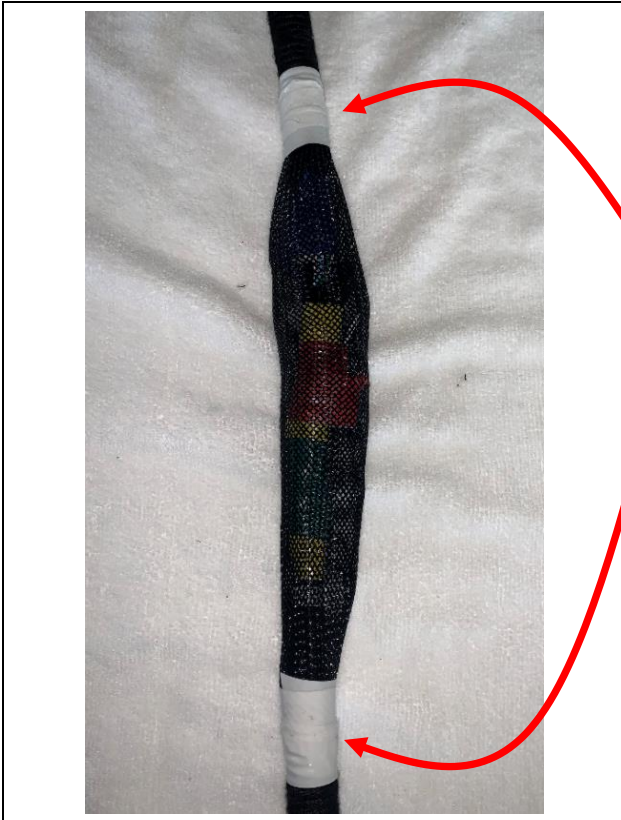
**Note: Blue tape was used in this step to show the wrapped area.**



- k. Slide the braided sleeve over the connections and space it evenly at both ends.

**SLIDE THE BRAIDED SLEEVE OVER THE CONNECTIONS**





- l. Tape one end of the braided sleeve to securely attach it to the main harness.
- m. Pull the sleeve downward to remove the slack and tighten the sleeve against the harness.
- n. Tape the other end of the sleeve to securely attach it to the main harness.

**TAPE THE BRAIDED SLEEVE TO THE MAIN HARNESS**

**Note: White tape was used in this step to show the wrapped area.**



- o. Inspect the harness to insure it's no more than 1¼" (32mm) at its widest point. If you find an area that is too wide, it will be necessary re-position the connectors and wires to reduce the overall diameter.

**Note: If the diameter exceeds 1¼" (32mm), it will not pass through the rear hatch.**

**Maximum diameter is 1¼" (32mm)**

## I. REPLACE REAR DOOR HARNESS

### 1. PUSH THE **NEW** HARNESS THROUGH THE REAR DOOR

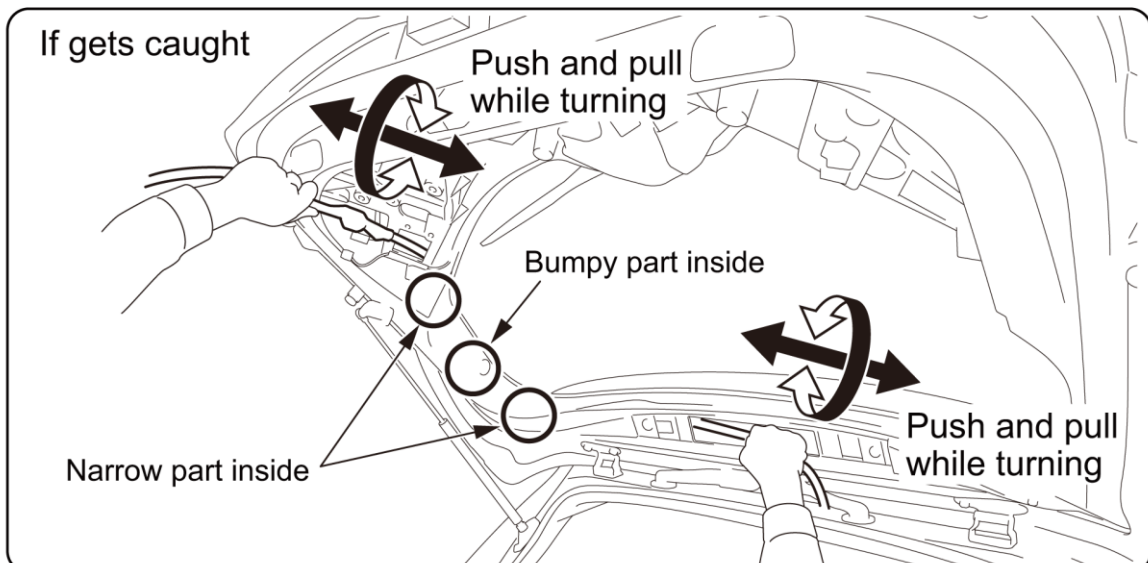
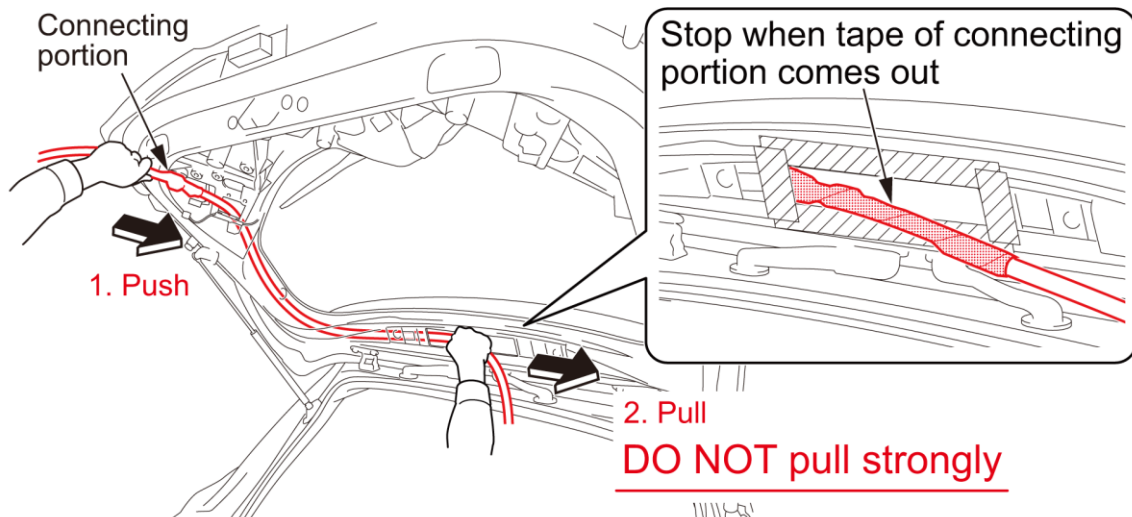
- Hold the wire harness with both hands as shown in the illustration.
- PUSH** the **NEW** harness into the back door. It should only move a few inches at a time.
- Lightly pull** the other end of the harness, but only to remove the slack that was created by pushing.
- Repeat these steps above until the overlapped section comes out of the service hole.



**DO NOT attempt to forcibly "pull" the harness through the hatch. It will catch internally on the ribs and braces of the hatch. It will work much better to "push" it though. Only pull the harness to remove the slack that was created from pushing.**

#### NOTE:

- **DO NOT pull strongly, or the connecting portion may become disconnected.**
- **If the harness gets caught, repeat pushing and pulling the wire while turning it. By turning, pushing and pulling, the harness will be released.**

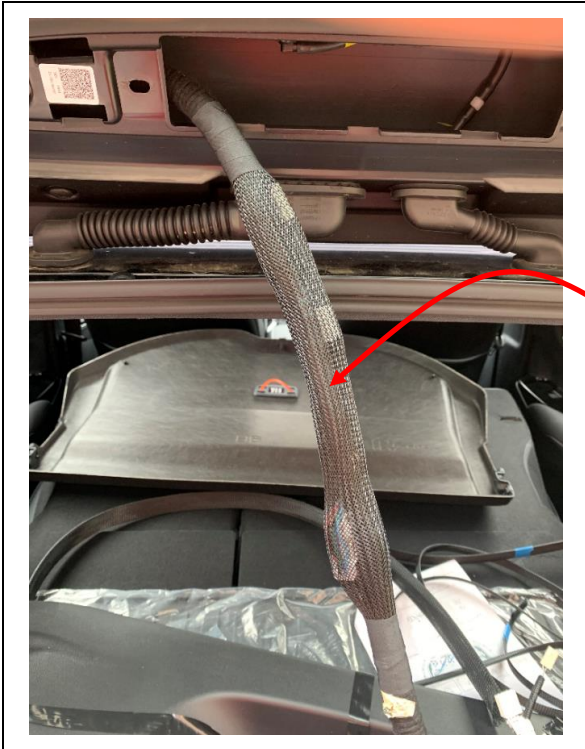


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## 2. DEMONSTRATION VIDEO

- a. Select the following link to view an example of pushing the wire harness through the rear hatch.

[Corolla Hatchback Rear Harness Replacement Video](#)



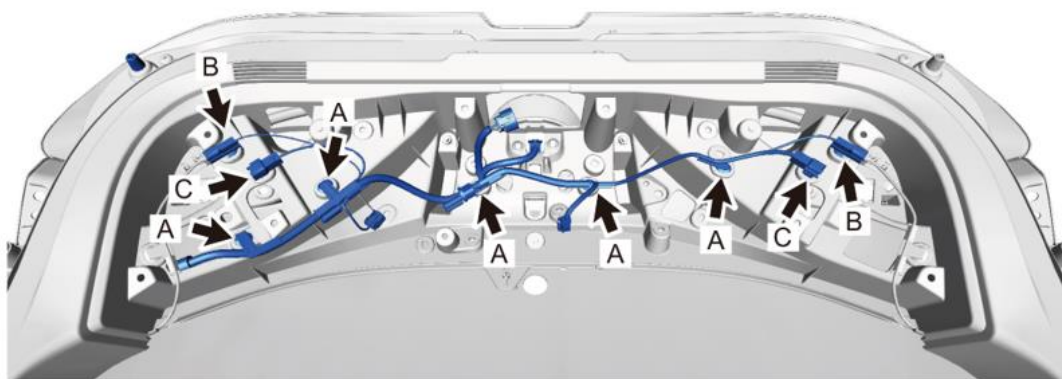
- b. Once the spliced section of the harness has been pushed through the upper service hole, remove the sleeve and separate the original harness from the **NEW** harness.

Remove the sleeve and separate the original harness from the **NEW** harness.

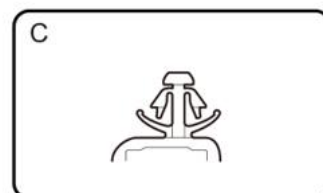
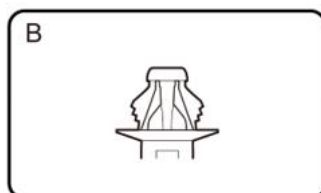
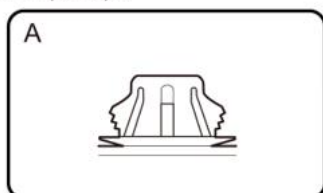
## II. CONNECT REAR DOOR HARNESS

### 1. INSTALL CLAMPS AND CONNECTORS

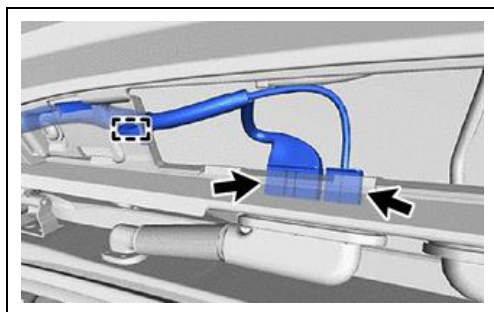
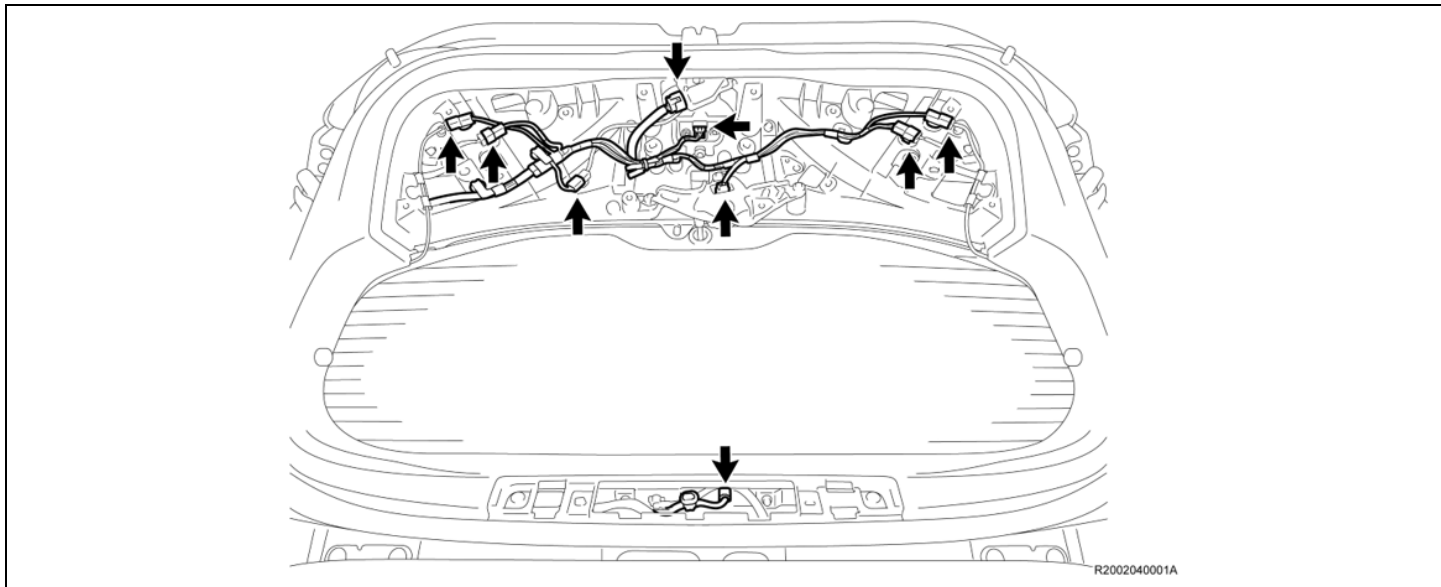
- a. Engage each clamp of the harness as indicated.



Clamp shape

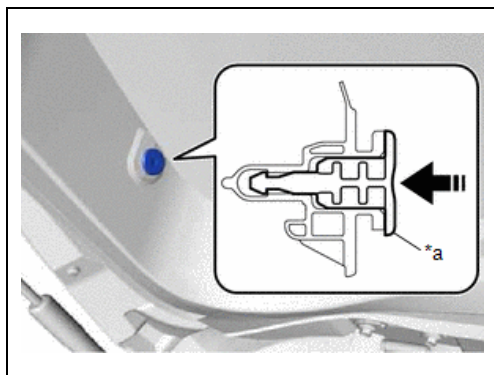


b. Connect the 9 connectors as shown in the illustration



**2. CONNECT No. 2 BACK DOOR WIRE HARNESS**

- a. Connect the 2 connectors
- b. Engage the clamp



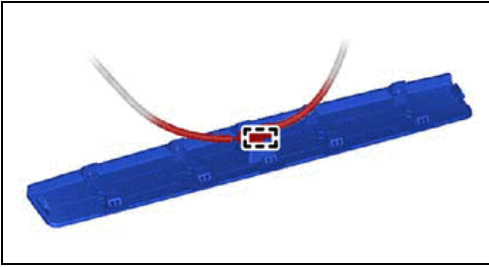
- c. Install the Trim Garnish LH first inserting the outer section, then the inner section.



**3. INSTALL BOLT AND CLAMP**

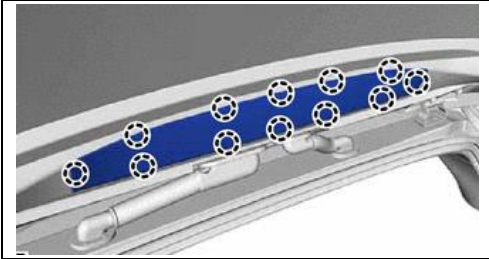
- a. Install the bolt behind the Service Hold Panel Cover.
- b. Install the wire harness clamp.



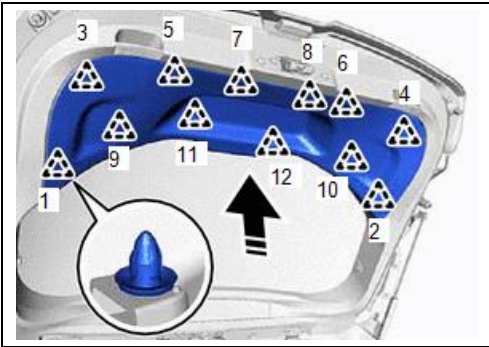


#### 4. INSTALL SERVICE HOLE PANEL

a. Engage the clamp to separate the wire harness.

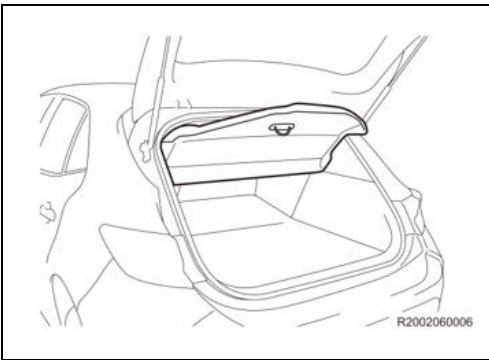


b. Engage the 12 claws.



#### 5. INSTALL BACK DOOR TRIM PANEL

a. Engage the 12 clips.



#### 6. INSTALL PACKAGE TRAY COVER

a. Install the Package Tray Cover.

#### 7. CONNECT THE NEGATIVE BATTERY CABLE

a. Connect the negative cable to the 12v battery.

**Torque: 5.4 N.m {55 kgf.cm, 48 in.lbs}**

### ◀ VERIFY REPAIR QUALITY ▶

- Confirm that all lights are functioning correctly in the rear of the vehicle.
- Check the operation of the electric hatch release.
- Check the operation of the rear widow wiper.

If you have any questions regarding this update, please contact your regional representative.

## IX. APPENDIX

### A. PARTS DISPOSAL

In accordance with Federal law, please make sure all recalled parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, ***unless requested for parts recovery return.***

### B. CAMPAIGN DESIGNATION DECORDER

