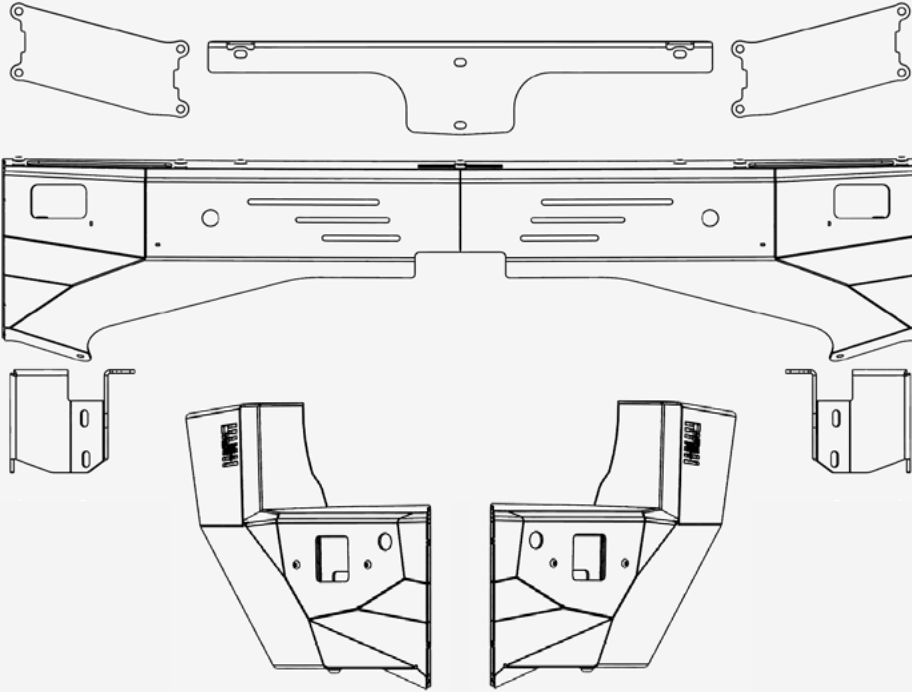


## FULL LENGTH REAR BUMPER 2024/TOYOTA LAND CRUISER R770235090103



### TOOLS REQUIRED

- 10mm, 12mm, 9/16, 7/16 sockets
- 10mm, 12mm, 9/16, 7/16 wrenches
- Pushpin Puller or Flathead Screwdriver
- 5/32, 7/32 Hex
- Plastic Pry Tool
- Cutting Tools
- Razor Blade
- Heat Gun
- Rivet Hand Tool

### SKILL LEVEL

- Skilled

### TIME REQUIRED

- Approximately 4.5 Hours

## WARNINGS/CAUTIONS BEFORE STARTING INSTALLATION

**-BEFORE YOU INSTALL THIS KIT-**

**Read and understand all instructions,** warnings, cautions, & notes contained in this installation instruction guide. Consult your vehicle owner's manual for proper disconnection of electrical and lifting of vehicle if required for installation of this product.

This install may require some technical skills and knowledge of basic mechanical work. If you do not feel that you are capable of performing this install please take this product to a trained professional.

After reading this guide please contact us with any questions or concerns before installing product.

Customer Service: 830-896-7571  
Rago Fabrication is **not** responsible for any bodily injury or harm to you or your vehicle as a result of an improper install.

Proper installation of this kit required knowledge of the factory recommended procedures for removal and installation of original equipment components.

We recommend that the factory shop manual and any special tools needed to service your vehicle be on hand during the installation. Installation of this kit without proper knowledge of the factory recommended procedures may affect the

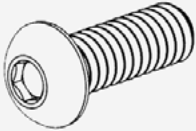
performance of these components and the safety of the vehicle. Inspect all contents of this package to make sure product is not damaged and all installation hardware has been included. If parts are missing from kit, please be prepared to provide the following information:

1. Name of purchase location
2. Bar Code on side of box
3. Date above bar code
4. Date inside box cover

**\*ALWAYS WEAR EYE PROTECTION  
WHEN OPERATING POWER TOOLS\***

## HARDWARE

**A.**



3/8-16 X 1" BUTTON HEAD BLACK

**QTY: 18**

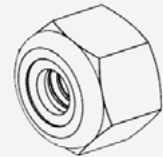
**A1.**



3/8" FLAT WASHER BLACK

**QTY: 20**

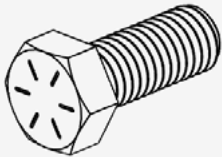
**A2.**



3/8-16" NYLON LOCK NUT BLACK

**QTY: 16**

**B.**



3/8-16 X 1 1/4" HEX HEAD BOLT GRADE 8

**QTY: 8**

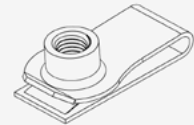
**B1.**



3/8" FLAT WASHER YELLOW ZINC

**QTY: 8**

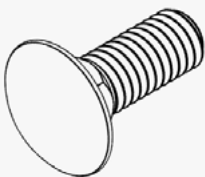
**B2.**



3/8-16" U-NUT

**QTY: 16**

**C.**



3/8-16 X 1" CARRIAGE BOLT

**QTY: 6**

**C1.**



3/8" RETAINING WASHER

**QTY: 6**

**D.**



3M DOUBLE SIDED TAPE 1X1

**QTY: 8**

Reference this page throughout the install



## HARDWARE

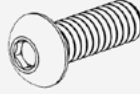
**E.**



1/4-20 X 3/4" BUTTON HEAD BOLT BLACK

**QTY: 4**

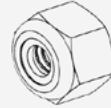
**E1.**



1/4-20 X 1 1/2" BUTTON HEAD BOLT BLACK

**QTY: 2**

**E2.**



1/4-20" NYLON LOCK NUT BLACK

**QTY: 4**

**E3.**



1/4" FLAT WASHER BLACK

**QTY: 4**

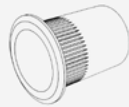
**F.**



M6 WASHER BLACK

**QTY: 6**

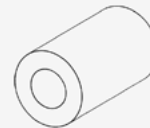
**G.**



1/4-20" RIVET NUT

**QTY: 2**

**H.**



1/4" X 1/2" LONG SPACER

**QTY: 2**

Reference this page throughout the install



## PARTS

**I.**



SPL0799

**QTY: 1**

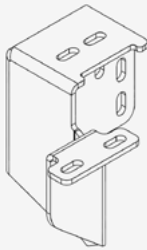
**J.**



SPL0823

**QTY: 2**

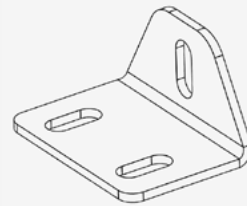
**K.**



SPL0800, SPL0800-M

**QTY: 2**

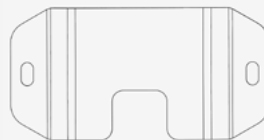
**L.**



SPL0805

**QTY: 2**

**M.**



SPL0807

**QTY: 2**

Reference this page throughout the install



## □ STEP 1

Remove the receiver cover by pulling. Next using a (fastener remover tool) or a (flathead screwdriver) remove the push pins shown below.



## □ STEP 2

Using a (plastic pry tool), remove the top plastic cover. Then, Unplug the wire harness both on driver and passenger side.



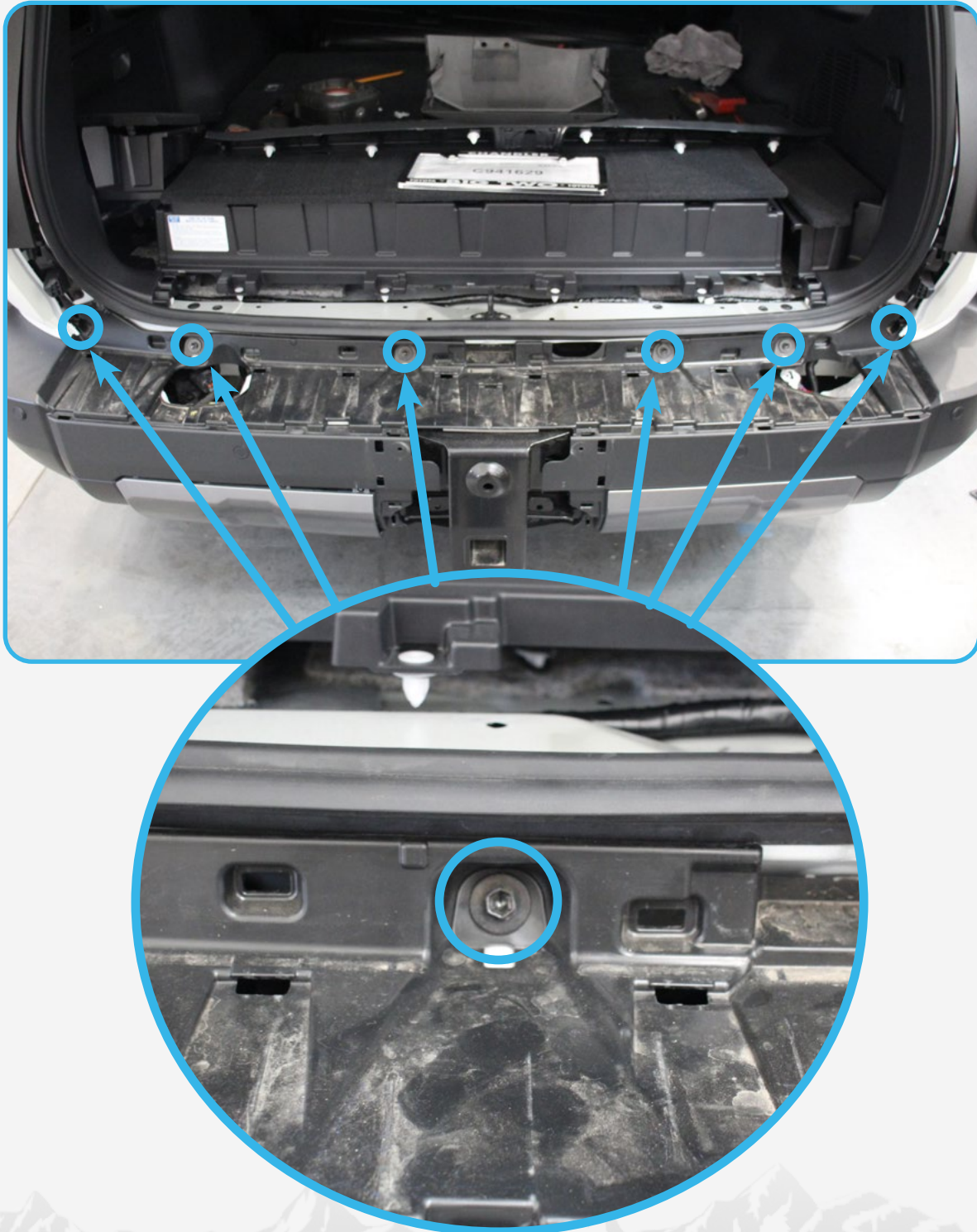
## □ STEP 3

Remove the plastic cover as shown below by pulling.



## □ STEP 4

Using a (10mm socket), remove the OEM hardware as shown below. **\*\*KEEP HARDWARE\*\***





**STEP 5**

Remove the plastic covers shown below by pulling.



## □ STEP 6

Using a (10mm socket) remove the OEM hardware shown below. **\*\*KEEP HARDWARE\*\***



## □ STEP 7

Using a (10mm socket), remove the OEM hardware located underneath the bumper as shown below.



## □ STEP 8

Using a (10mm socket) remove the mud flap hardware as shown below.



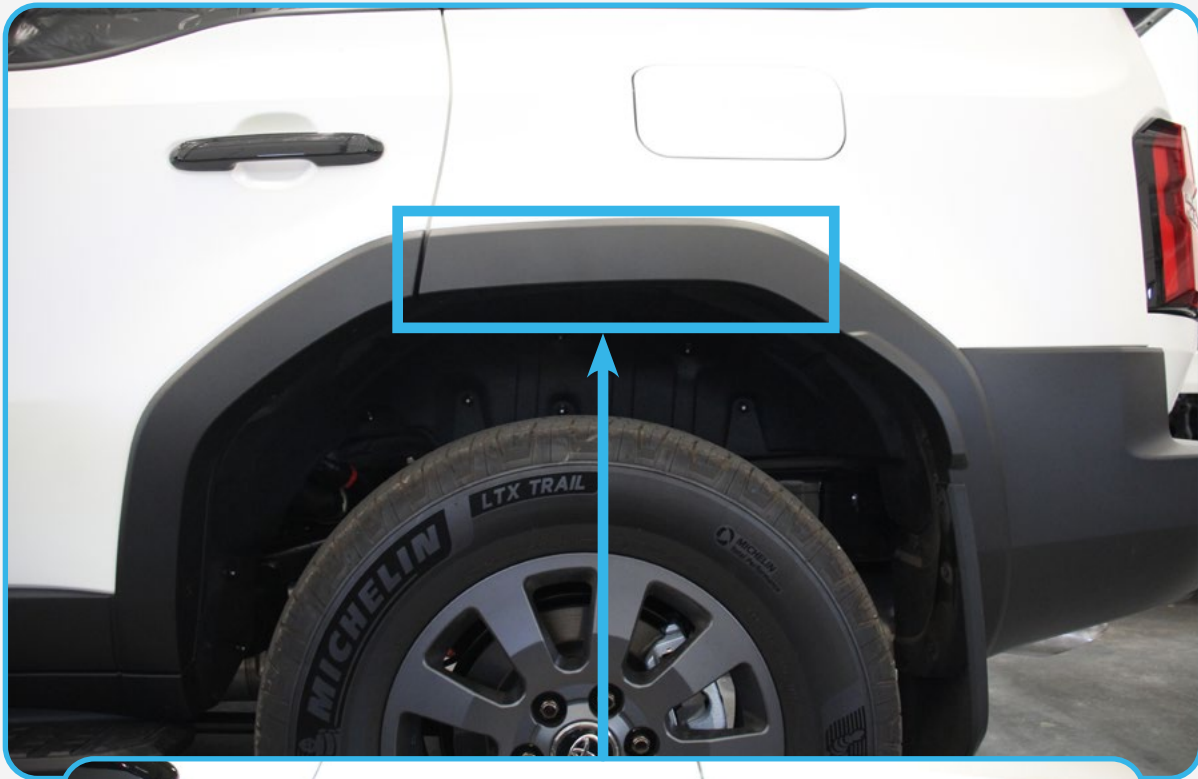
## □ STEP 9

Using a (10mm socket) remove the mud flap hardware located inside the wheel well as shown below.



## □ STEP 10

Using a (fastener removal tool), Remove the push pins located inside the wheel well as shown below. **\*\*KEEP HARDWARE\*\***



## □ STEP 11

Remove the fender flare by pulling. Set aside.



## □ STEP 12

Next, Remove the push pin as shown below using a (fastener removal tool).





## □ STEP 13

Located inside the bumper on the sides push in all four sides of the clips and push out.



## □ STEP 14

Pull the sides out as shown below.



## STEP 15

You can now remove the rear bumper.



## □ STEP 16

Remove the foam located on top of the hitch.



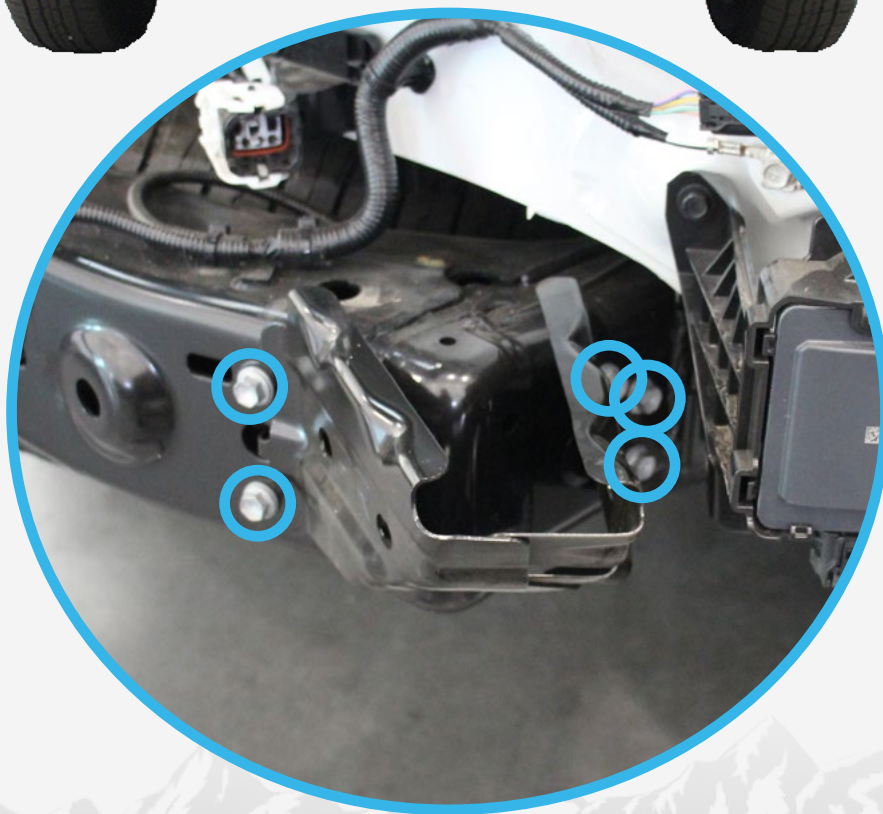
## □ STEP 17

Remove the plastic located on the sides as shown below using a (fastener removal tool).



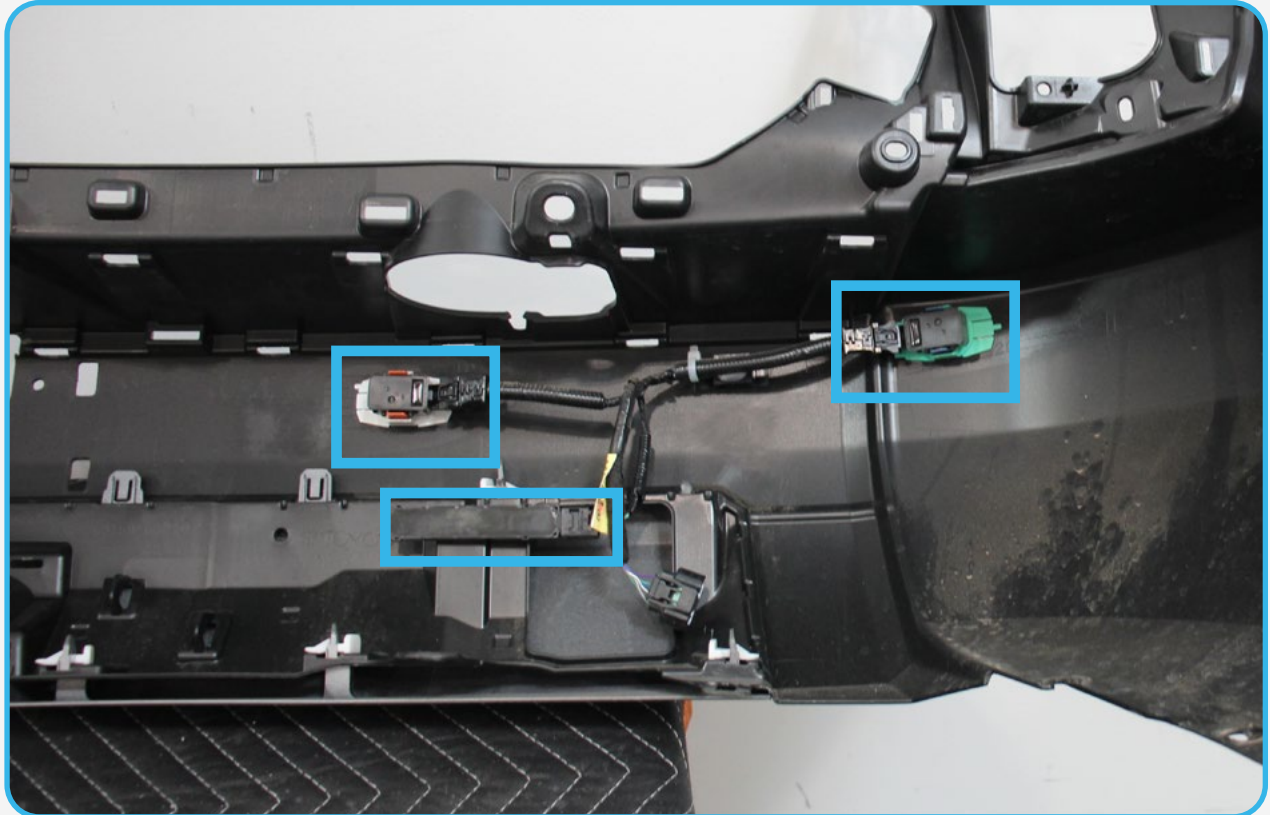
## □ STEP 18

Using a (12mm socket), remove the crash supports located on the hitch. **\*\*KEEP HARDWARE\*\***



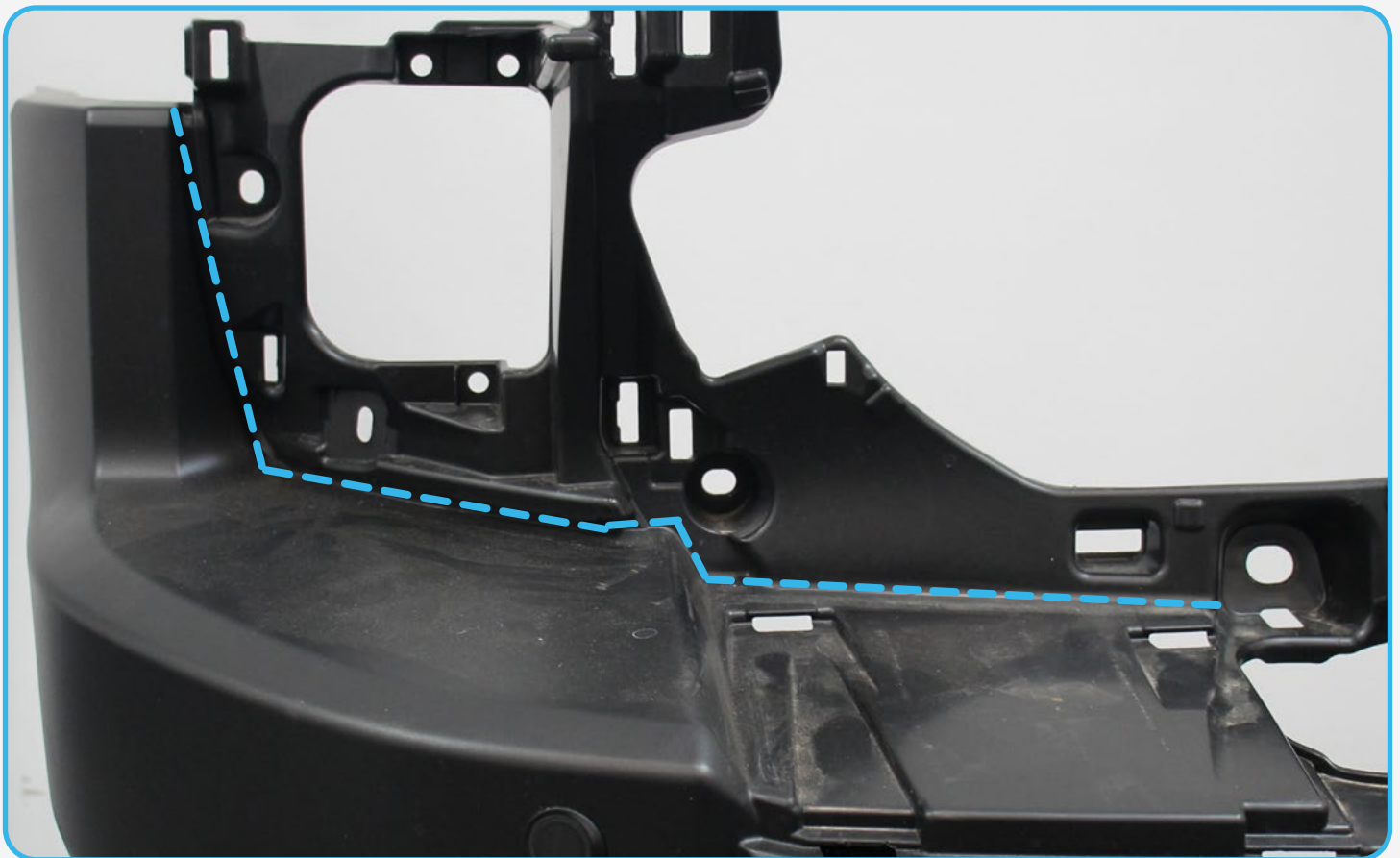
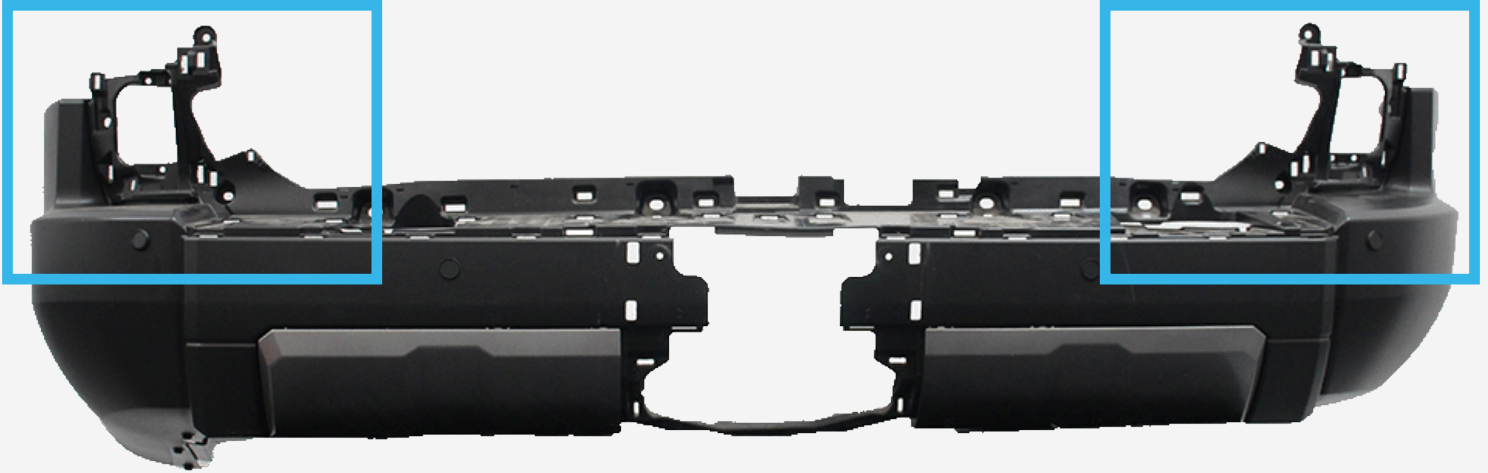
## □ STEP 19

Remove the parking sensors from the bezels by prying outwards on the tabs. **\*\*CAUTION: TABS ARE FRAGILE, PRY GENTLY\*\***



## □ STEP 20

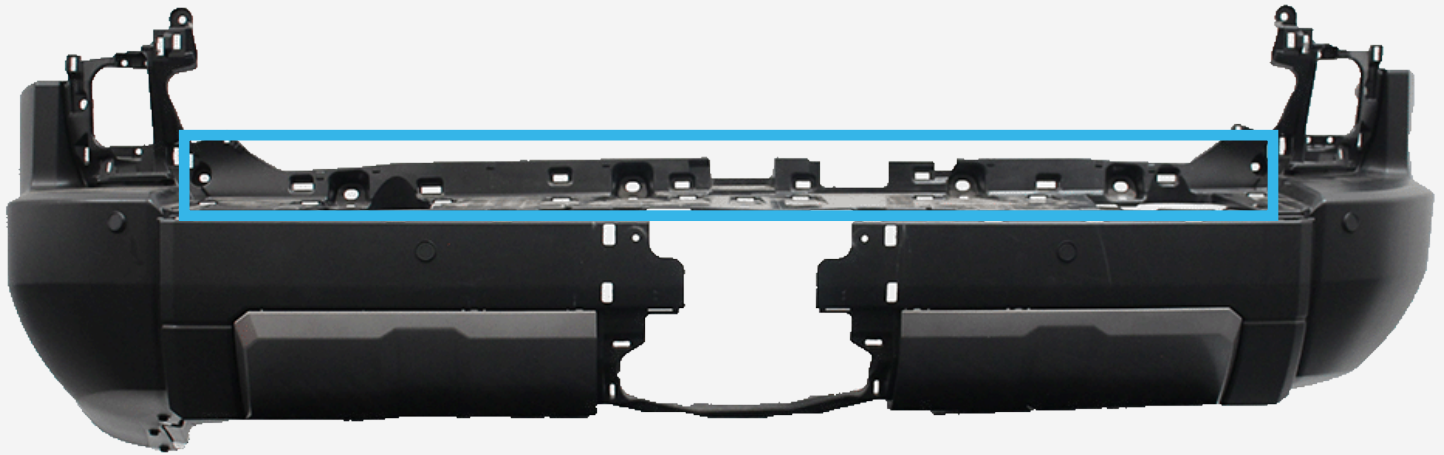
Using your choice of cutting tools, cut along the line highlighted below.





## □ STEP 21

Using your choice of cutting tools, cut along the line highlighted below. **\*\*Ensure to cut below the mounting holes as shown below\*\***



## □ STEP 22

Install the provided **(K)** mounting plate with the OEM hardware removed from **step 18** using a **(12mm socket)**. Next, install the provided **(B2)** nut clips on top of the mounting plate as shown below.



## □ STEP 23

Now would be a good time to install the OEM plastic bumper with the hardware removed from step 4.



## □ STEP 24

After you fine tune your cut, remove the bumper and install the plastic trim removed from **step 3**.



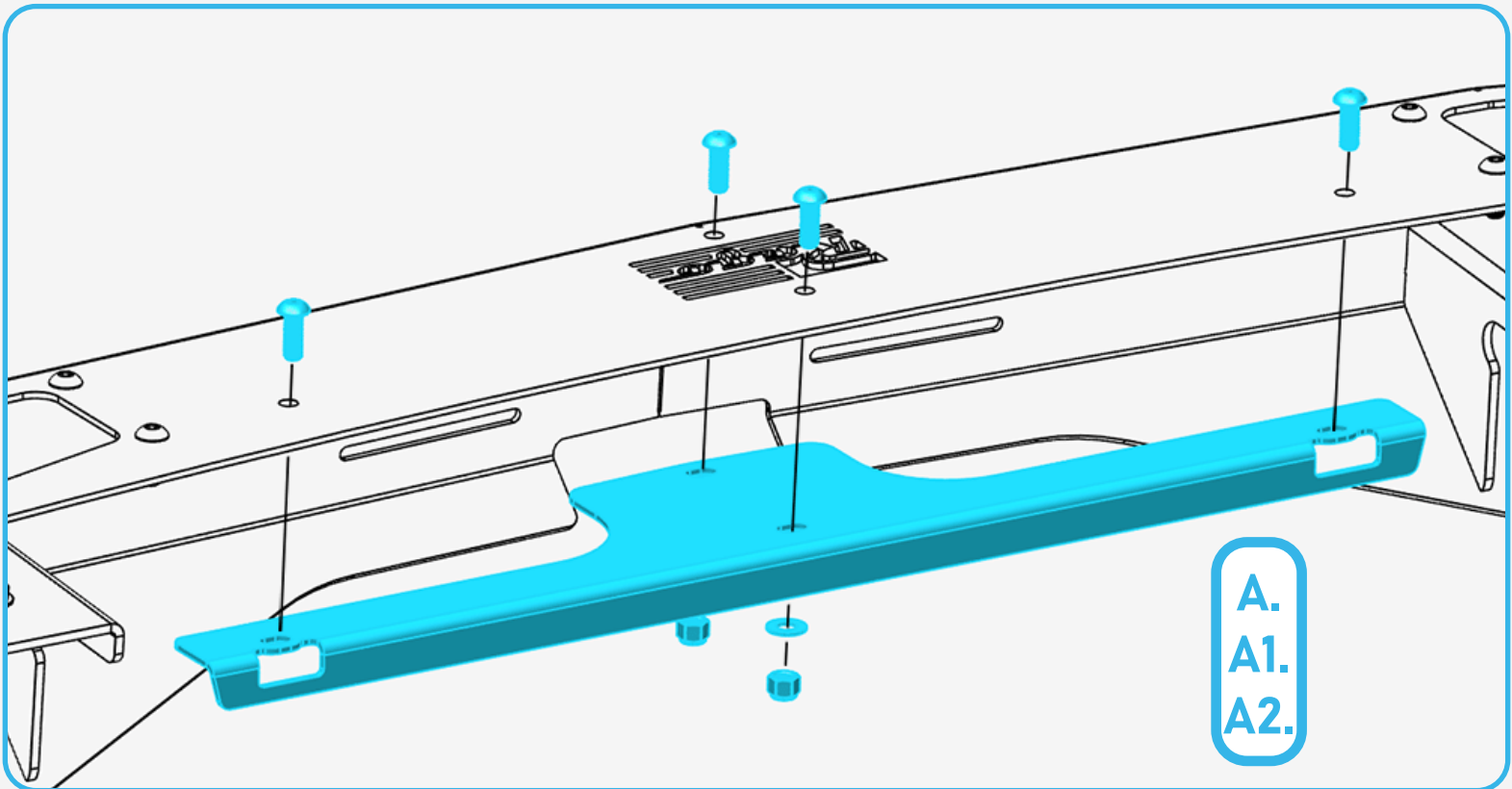
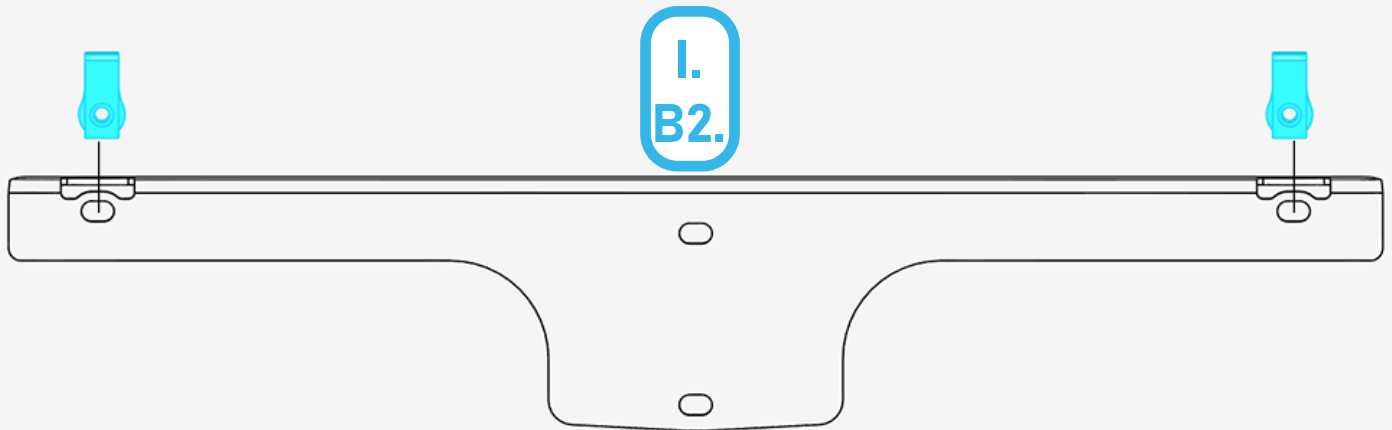
## □ STEP 25

Using a (10mm socket), Install the OEM hardware shown below and re-install the plastic cover.



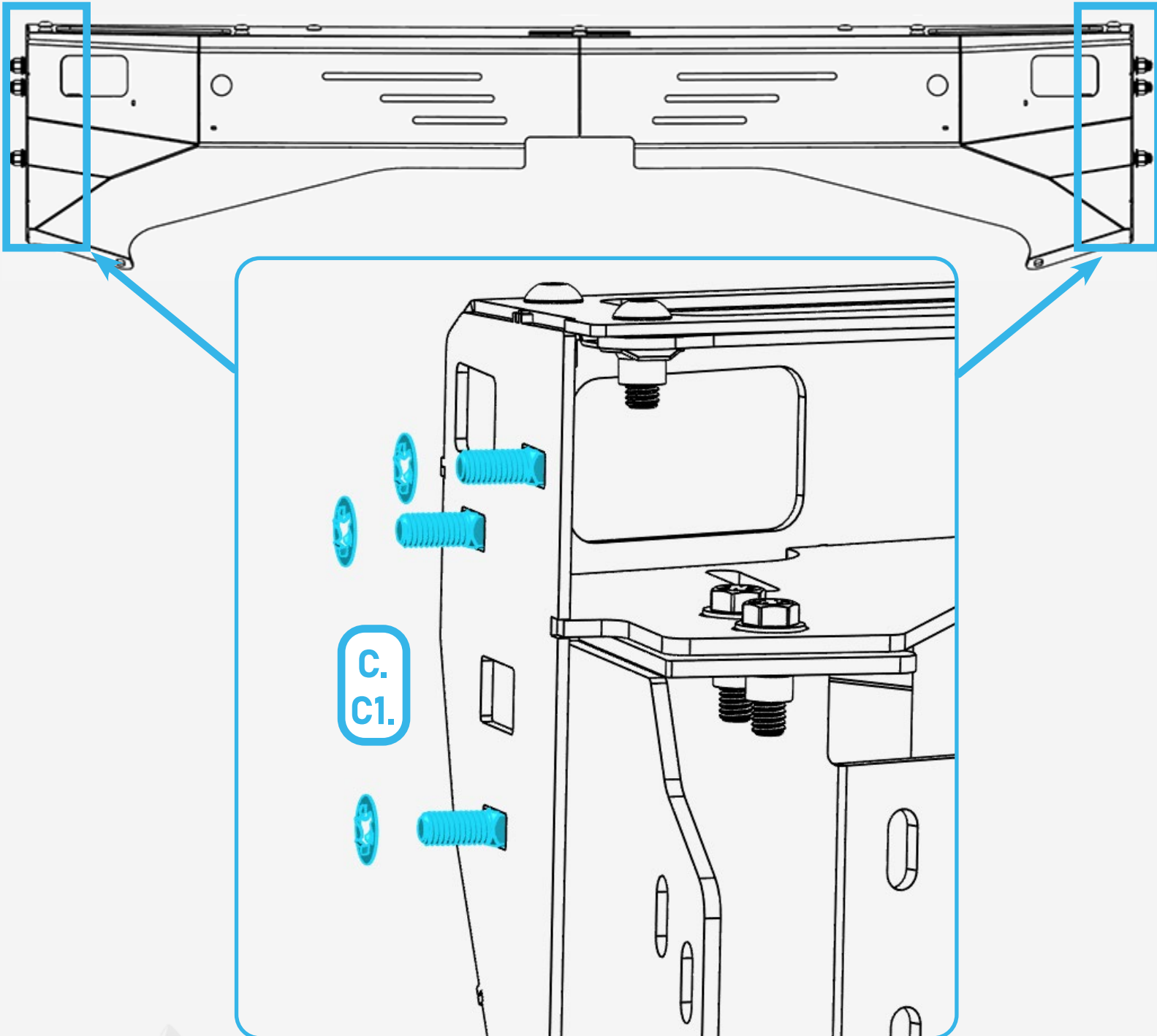
## □ STEP 26

Install the provided (B2) nut clips onto the (I) support bracket. Next, Using a (7/32 allen) and a (9/16 wrench), install the (I) support bracket on the bumper as shown below with the provided (A, A1, A2) 3/8" hardware.



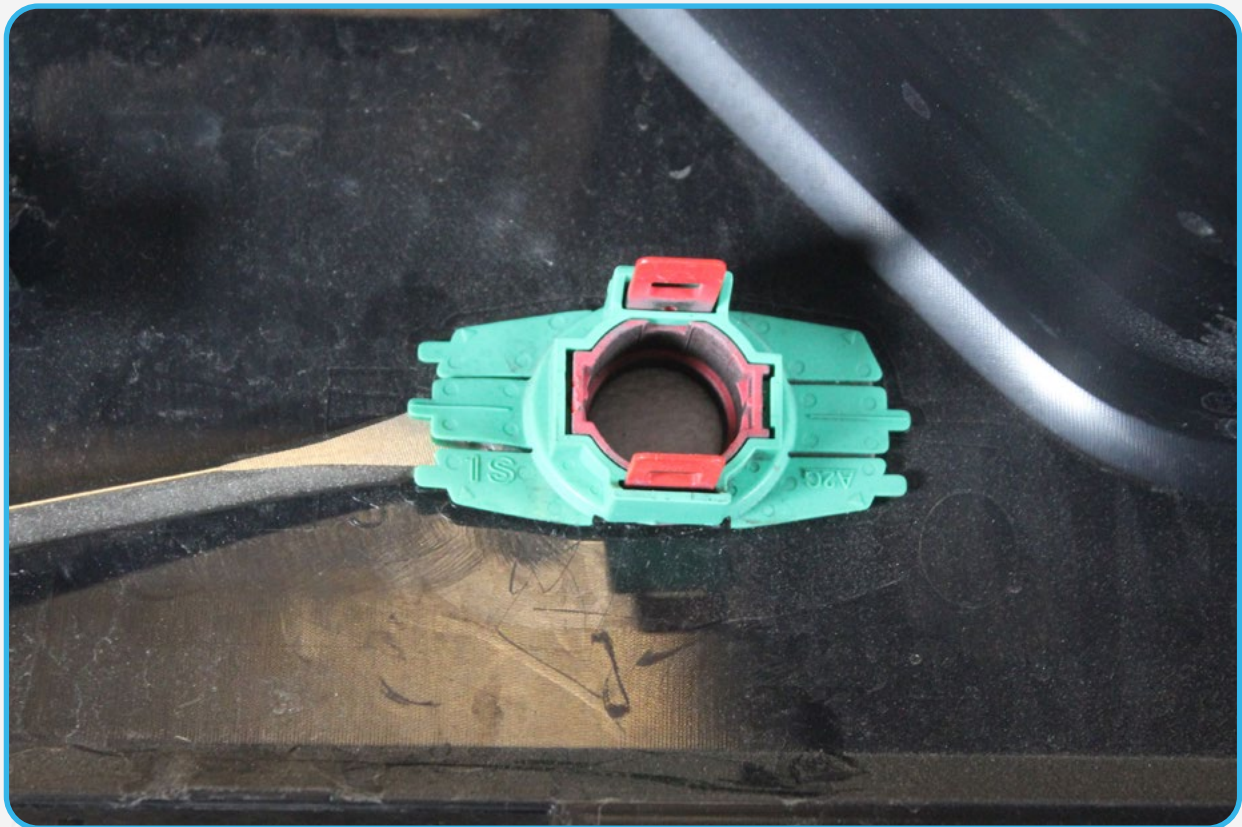
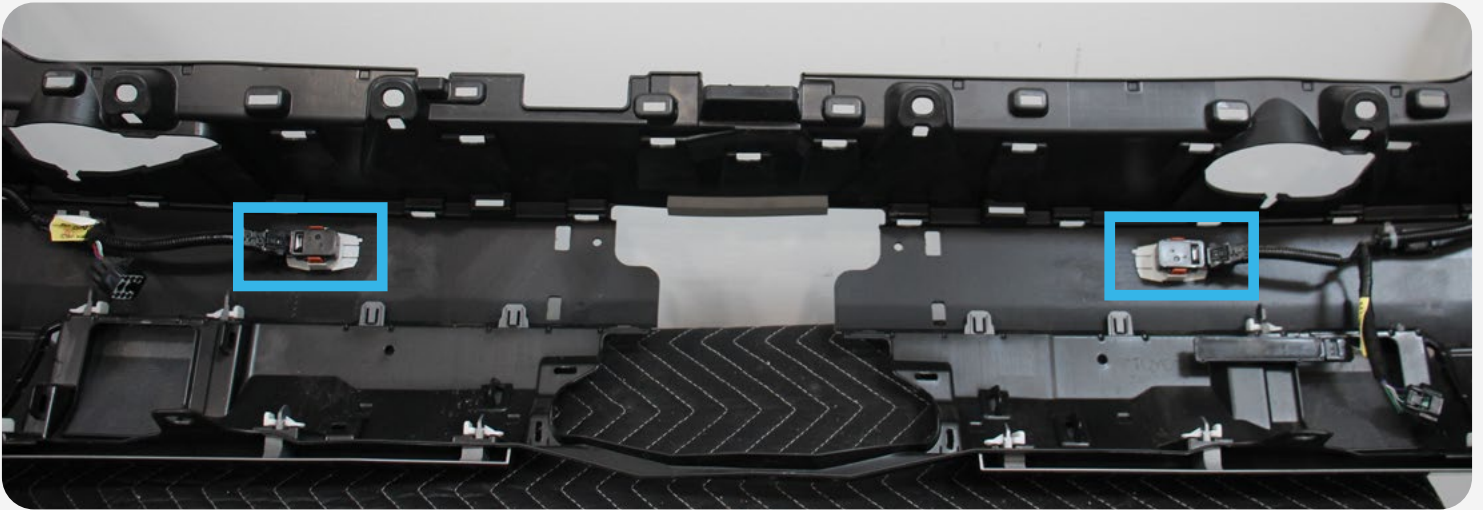
## □ STEP 27

Install the provided **(C, C1)** 3/8" carriage bolts and retaining washers into the side of the bumper pointing outwards as shown below.



## □ STEP 28

Use a (heat gun) to soften adhesive and use (flathead screwdriver) remove the inner sensor bezels from the OEM bumper. **\*\*Keep for install\*\***

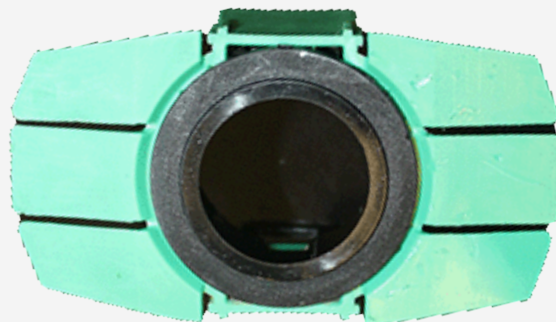




## □ STEP 29

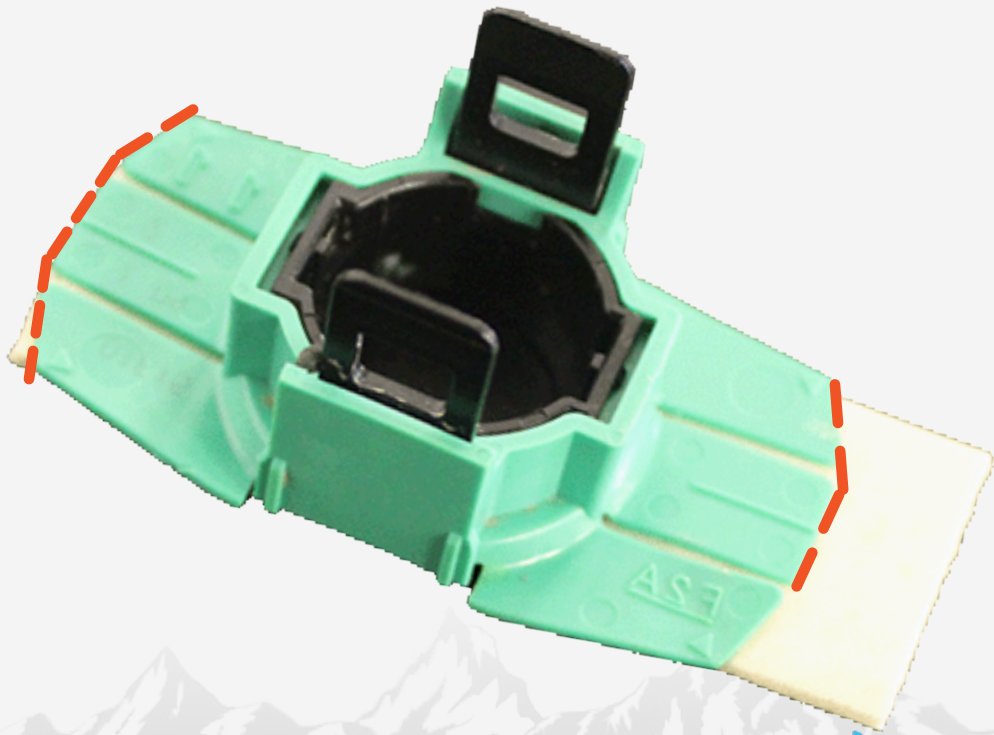
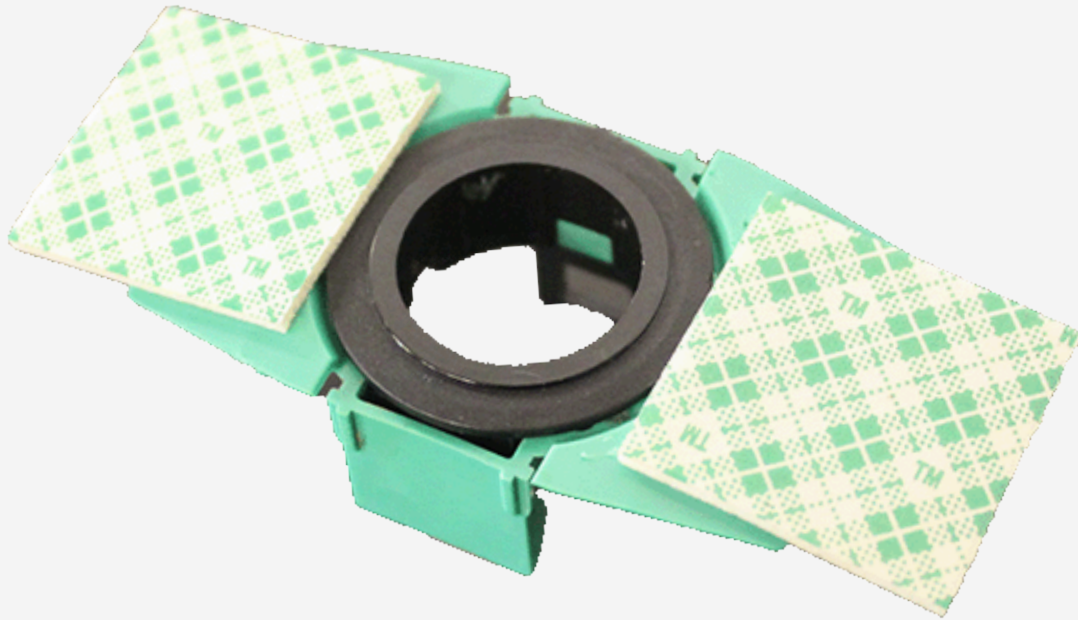
Remove double sided tape from the bezel until the surface is clear of residue.

Tec tip: Use a razor blade or brake clean to remove adhesive.



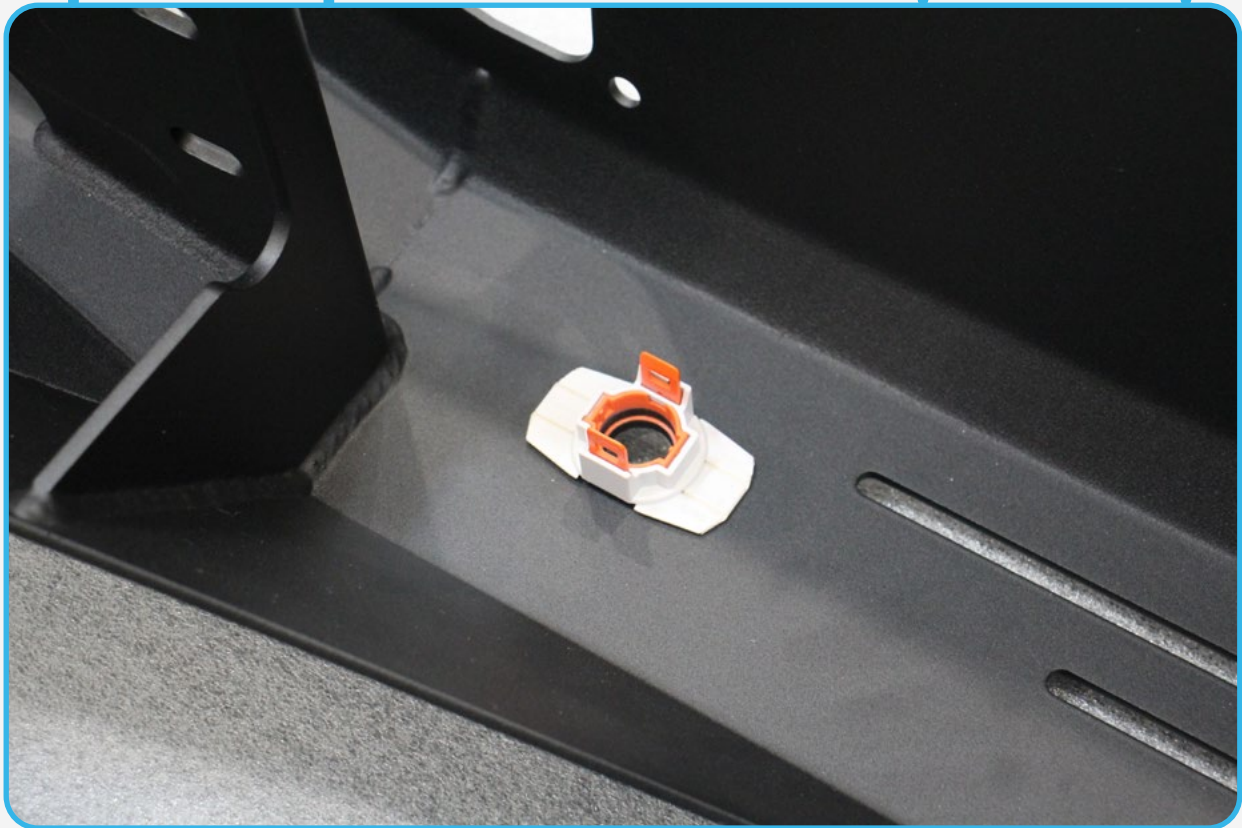
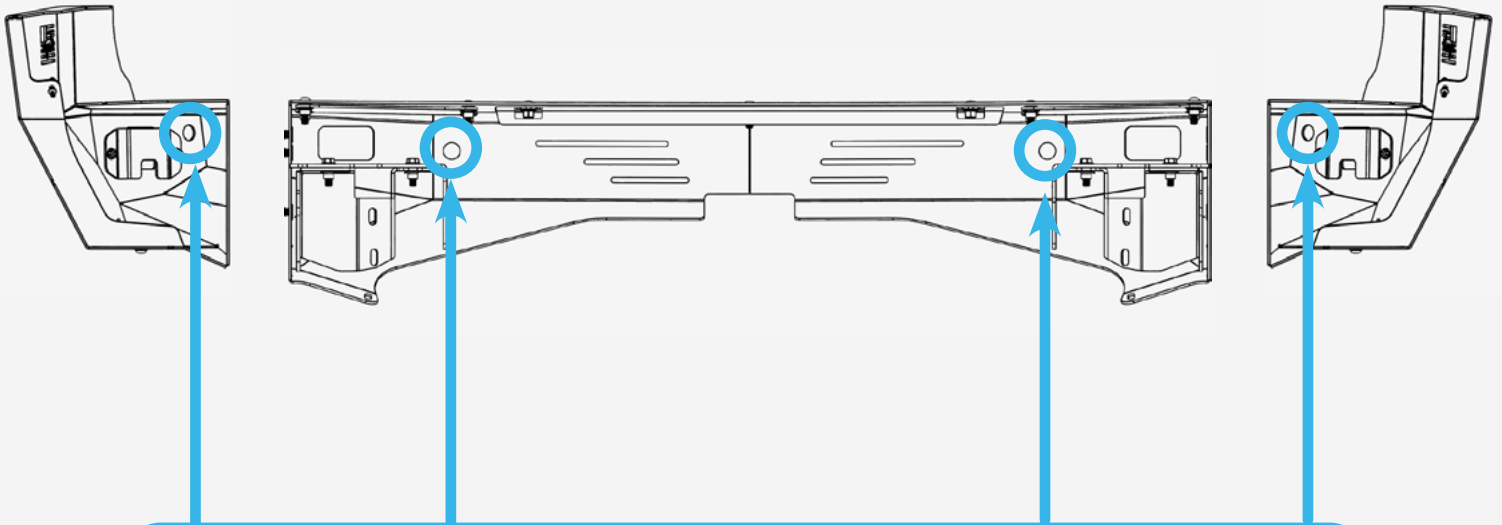
## □ STEP 30

Install the provided (D) 3m double sided tape to each side of the bezel wings and trim excess with a (razor blade).



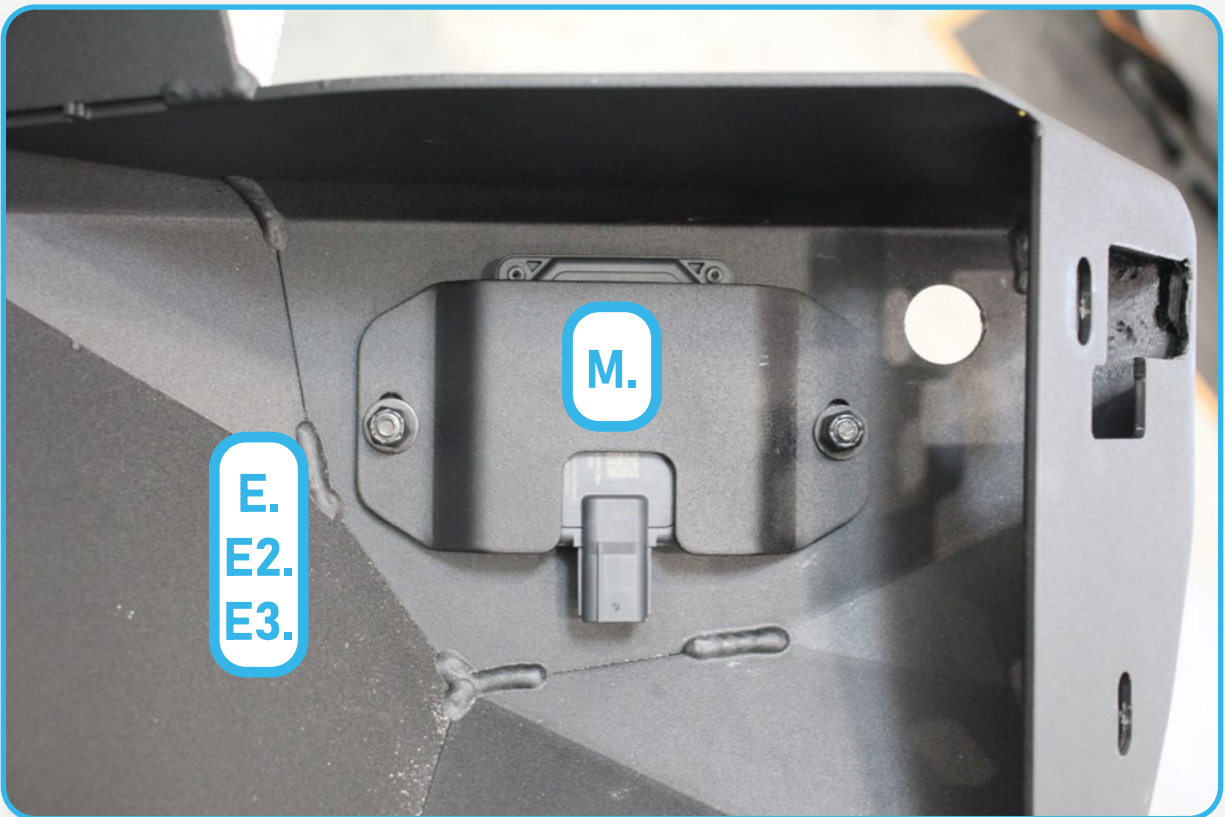
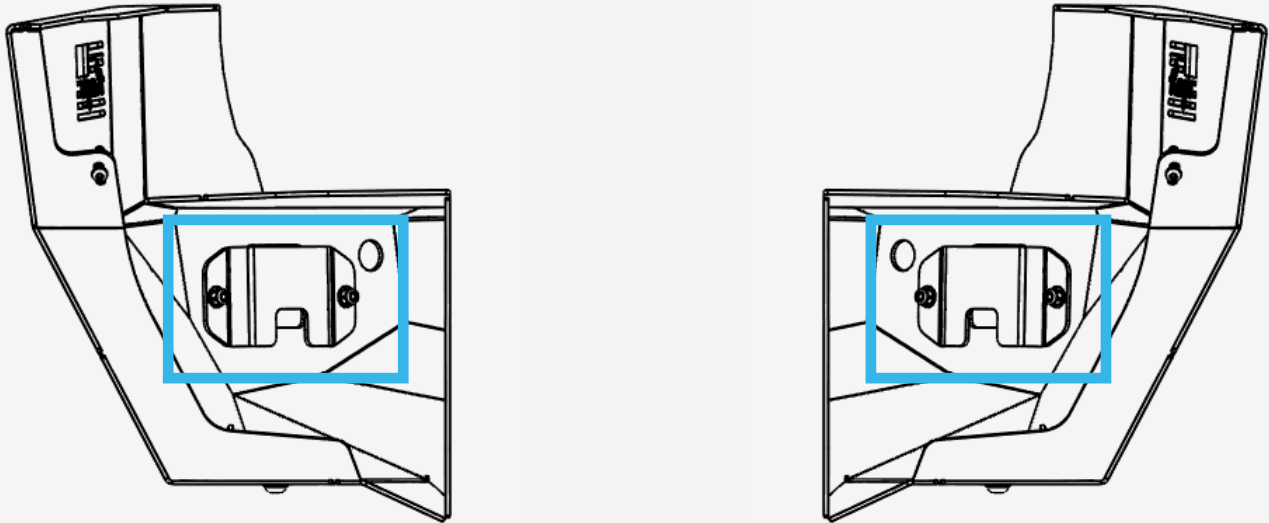
## □ STEP 31

Install the sensor bezels in the orientation shown below. **\*\*CAUTION: DOUBLE SIDED TAPE TAKES UP TO 72 HOURS TO CURE FULLY. ENSURE TO CLEAN THE SURFACE FOR BEST RESULTS\*\***



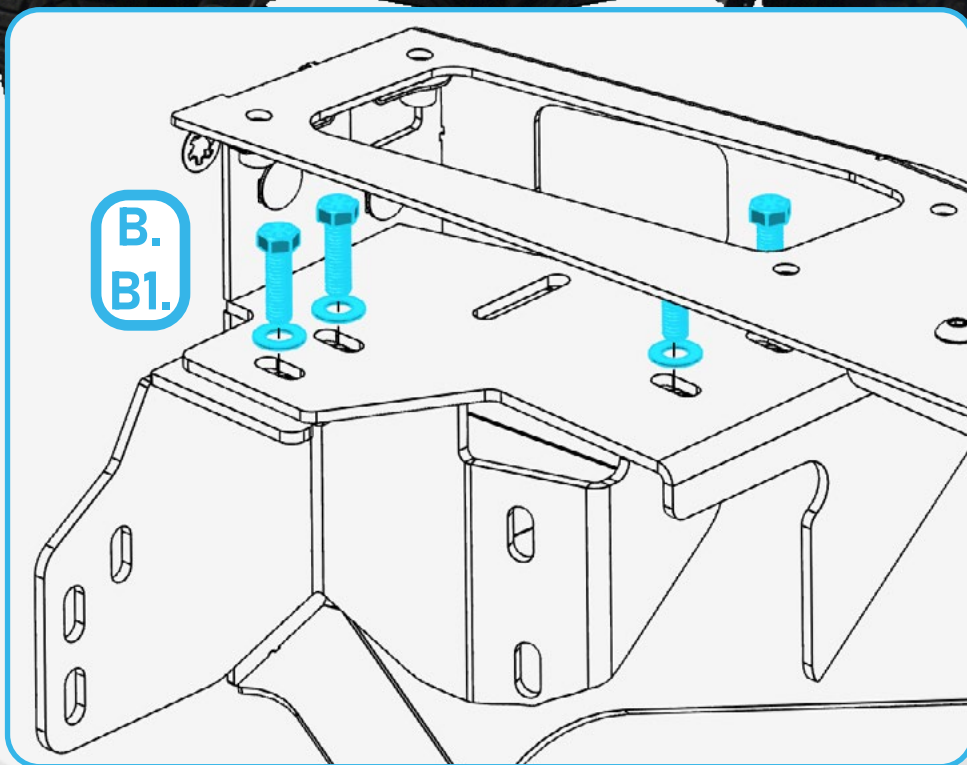
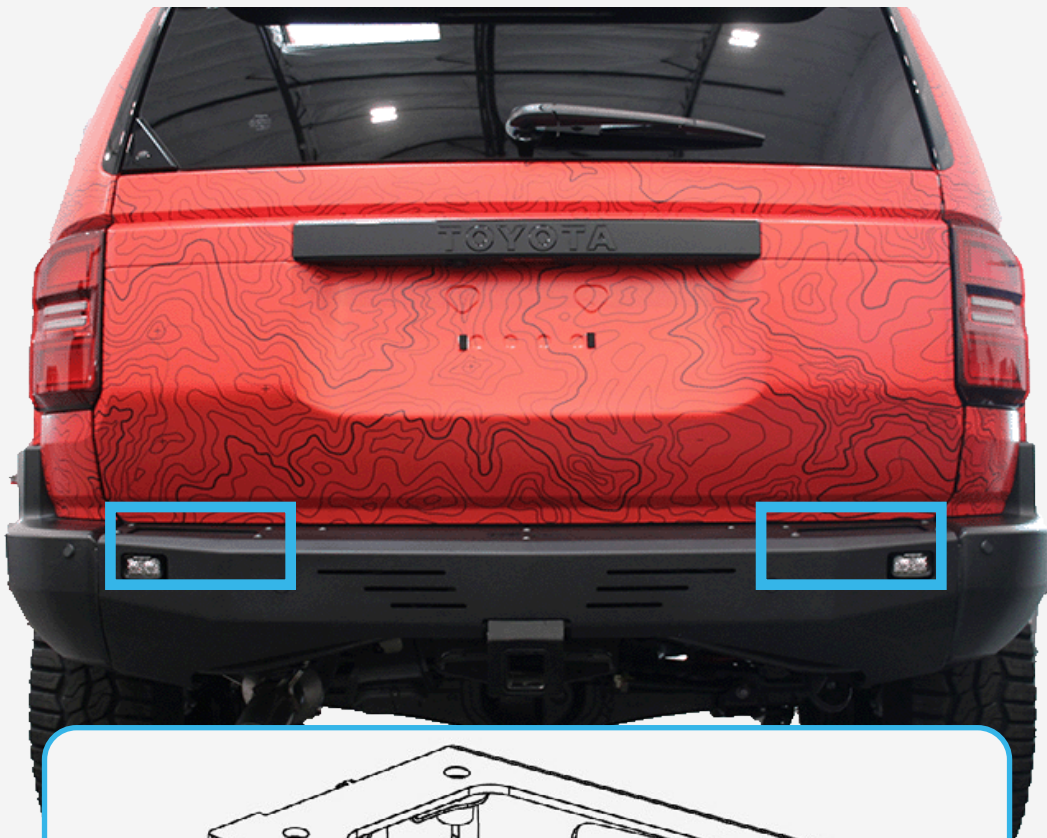
## □ STEP 32

Install the blind spot sensors with the provided (M) bracket and the provided (E, E2, E3) 1/4 Hardware using a (5/32 allen) and a (7/16 Wrench).



## □ STEP 33

You can now install the bumper with the provided (B, B1) 3/8" hardware using a (9/16 socket).



## □ STEP 34

Install the provided (L) bracket into the hole underneath the vent as shown below with the provided (A, A1, A2) 3/8 hardware using a (7/32 allen) and a (9/16 wrench).



## □ STEP 35

Bend the tab next to the bracket installed in **step 34** in or out as shown below.



## □ STEP 36

Install the side pods with the provided (A1, A2) 3/8 hardware using a (9/16 wrench) into the hardware installed on **step 27**.





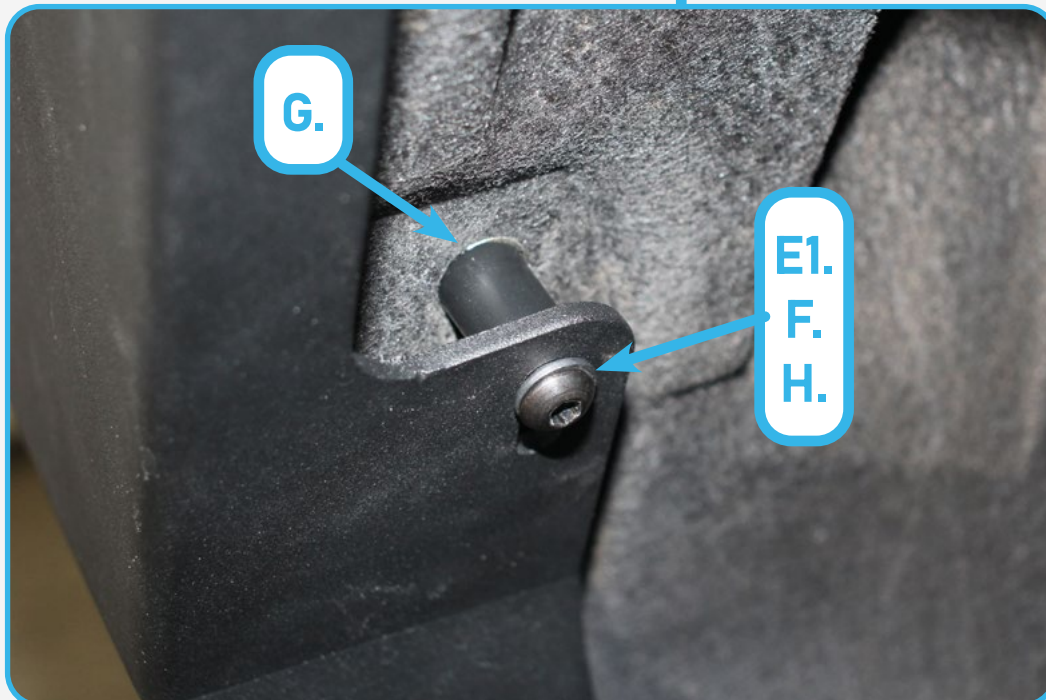
## □ STEP 37

Install the provided (A, A1, A2) 3/8 hardware to the bracket installed on step 34 using a (7/32 allen) and a (9/16 wrench).



## □ STEP 38

Install the provided **(G)** 1/4 rivet nut and **(E1, F, H)** 1/4 hardware and spacer inside the wheel well as shown below using a **(rivet nut hand tool)** and a **(5/32 allen)**.



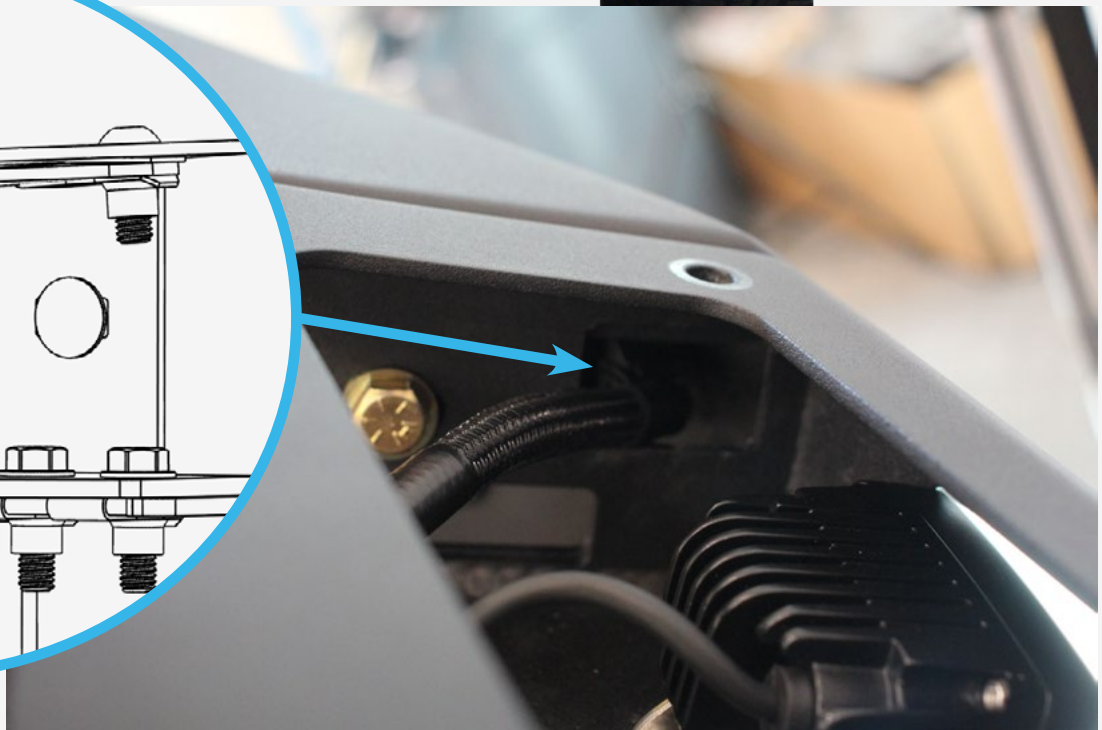
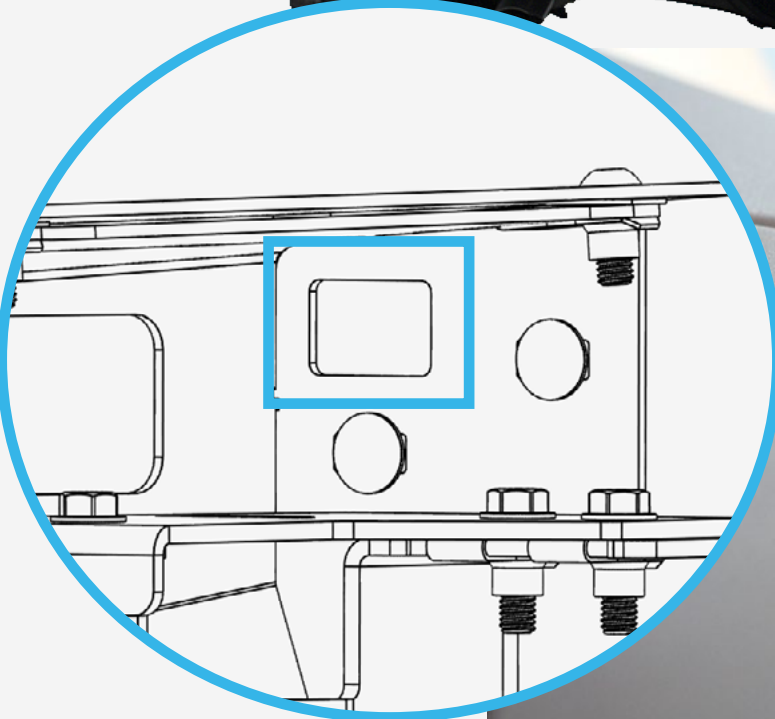
## □ STEP 39

Trim the fender flairs using your choice of cutting tools and install.



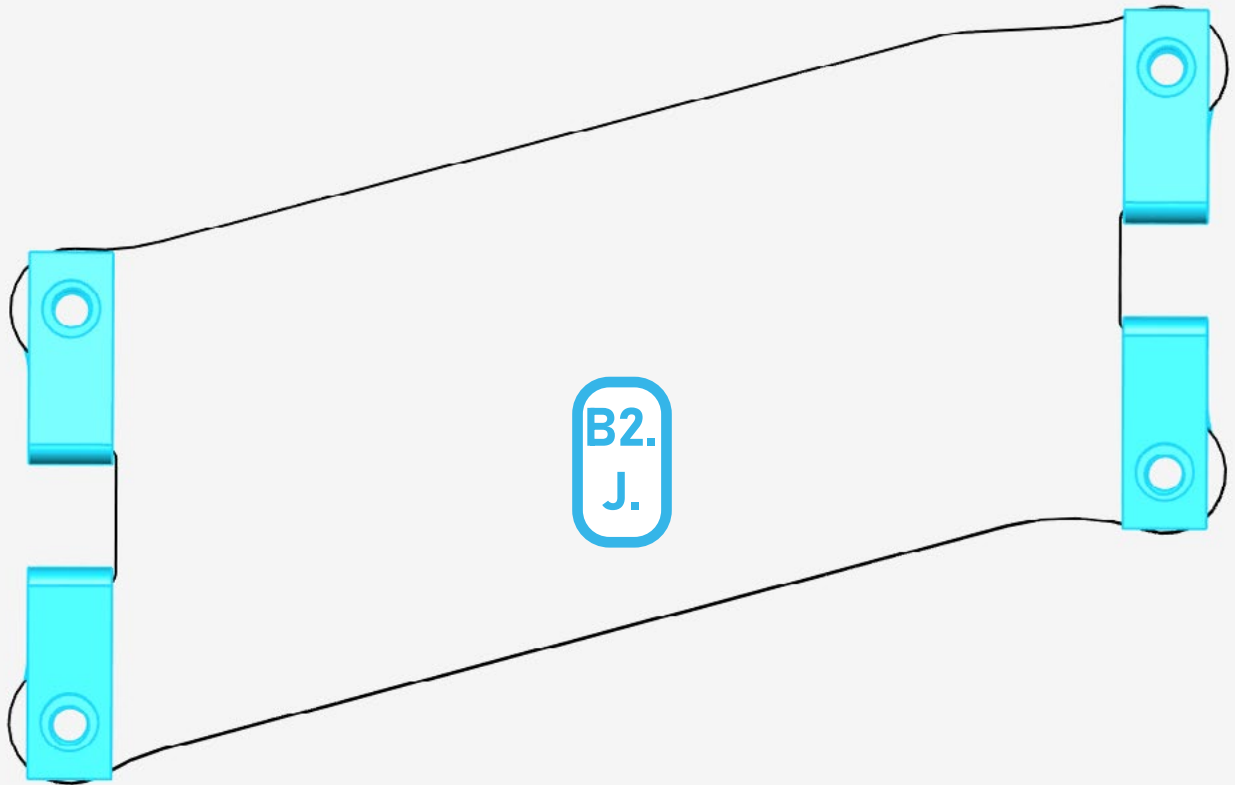
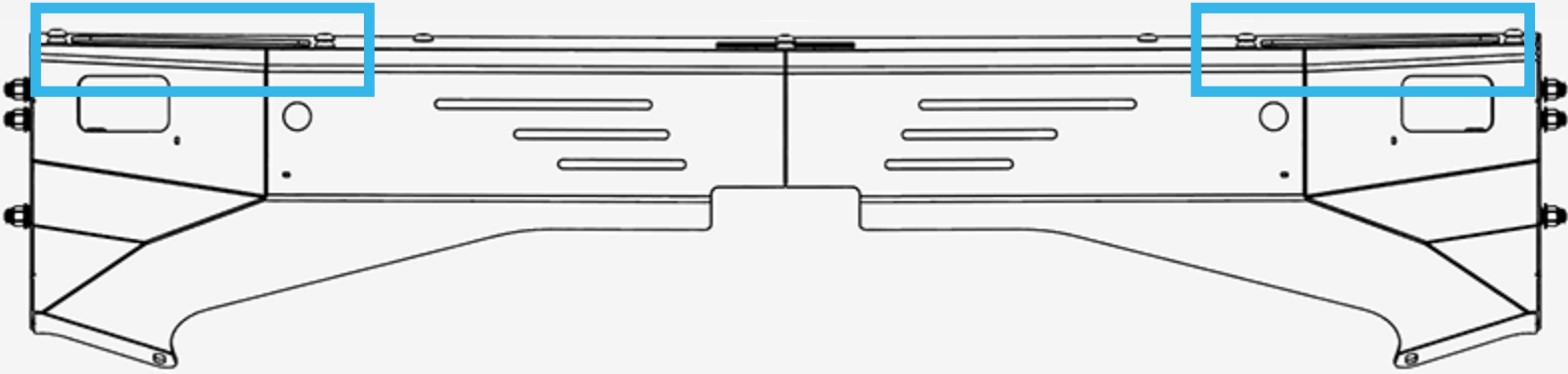
## □ STEP 40

Install your sensors into the bezels. For installing the outer sensors and blind spots, insert into the window cutout located on the side of the bumper as shown below.



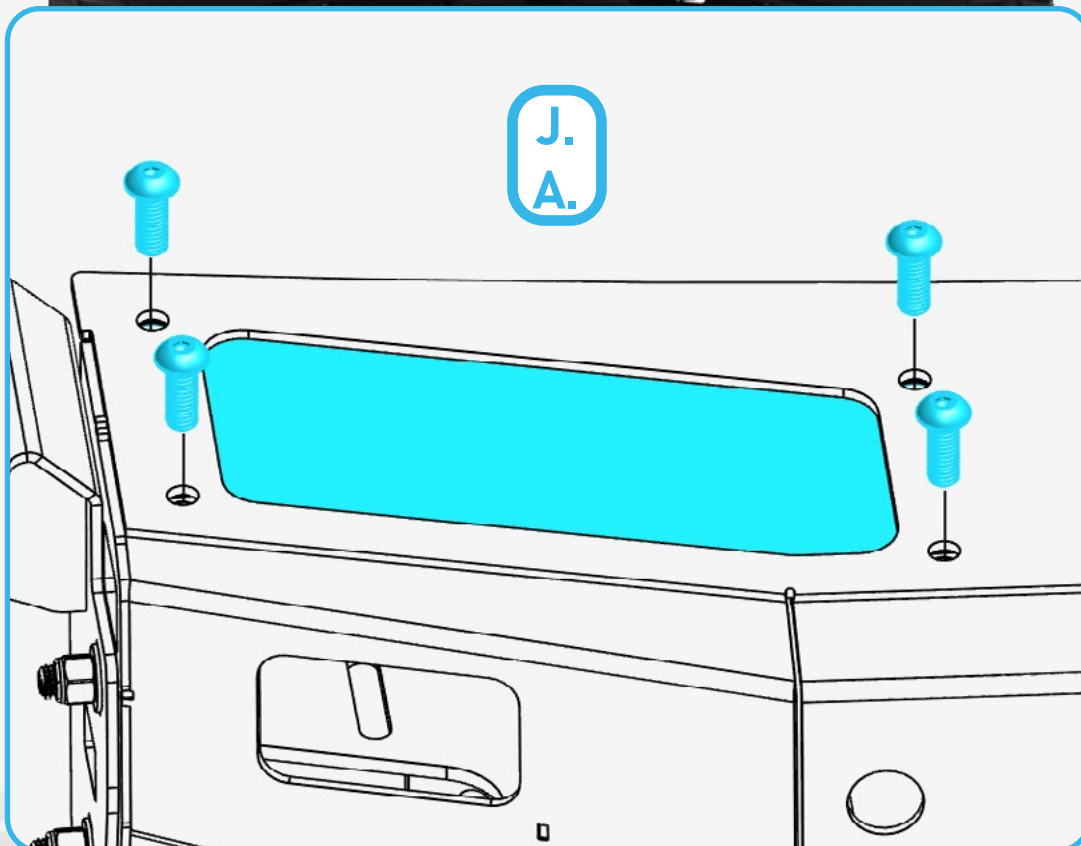
## STEP 41

Install the provided (B2) nut clips onto the provided (J) cover plate as shown below.



## □ STEP 42

Next, Install the provided (J) cover plate on top of the bumper and using a (7/32 allen), install the provided (A) 3/8" hardware.



## STEP 43

Stand back and enjoy your new RAGO Full Length Rear Bumper.

Check and re-tighten all mounting bolts after 100 miles and periodically thereafter.

