

## Preparation:

- Disconnect the negative battery terminal. Park the vehicle on level ground and set the emergency brake.
- We recommend reading through the installation instructions in whole before performing the work.
- When button head bolts are being used, install the supplied washer on the nut side. Then, hold the bolt stationary and only turn the nut to tighten. Do not turn the bolt to tighten hardware assembly, unless otherwise noted.
- Estimated Installation Time: **2 Hours for OEM Removal/Bumper Installation**

**1 Additional Hour to Wire Center Lights**

**1 Additional Hour to Wire Side Lights**

*\*\*This installation requires 2 people for best results\*\**

*\*\*Labor Rates are based on a vehicle with no pre-existing damage. Wiring labor is based on a standard wiring procedure with light switches installed in an easily accessible location. Custom light triggering or switch mounting location will result in a greater labor charge.\*\**

## You will need the following tools:

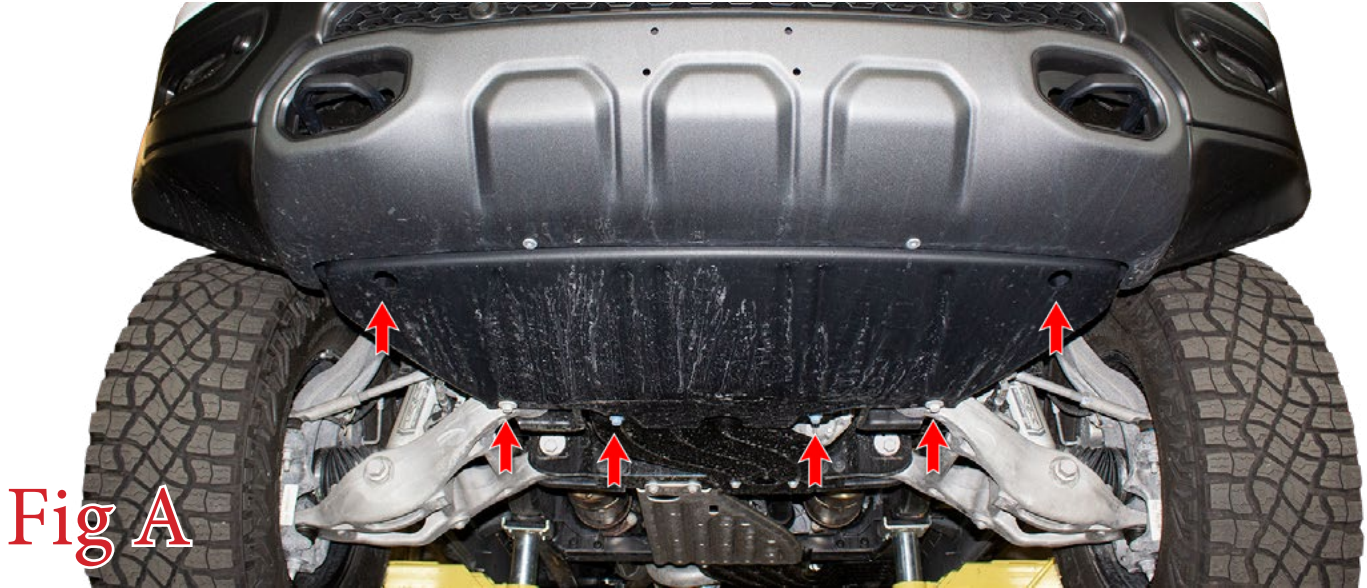
- |                                |                                |                           |
|--------------------------------|--------------------------------|---------------------------|
| - Ratchet                      | - 8mm Socket                   | - 10mm Socket             |
| - 13mm Socket                  | - 16mm Socket                  | - 17mm Socket             |
| - 18mm Socket                  | - 21mm Socket                  | - T40 Torx Socket         |
| - 3/32" Allen Wrench or Socket | - 5/16" Allen Wrench or Socket | - 11/32" Socket or Wrench |
| - 9/16" Socket                 | - 3/4" Socket or Wrench        | - Drill                   |
| - 1/2" Drill Bit               | - Cutoff Wheel                 | - Black Paint             |

## Included in Kit:

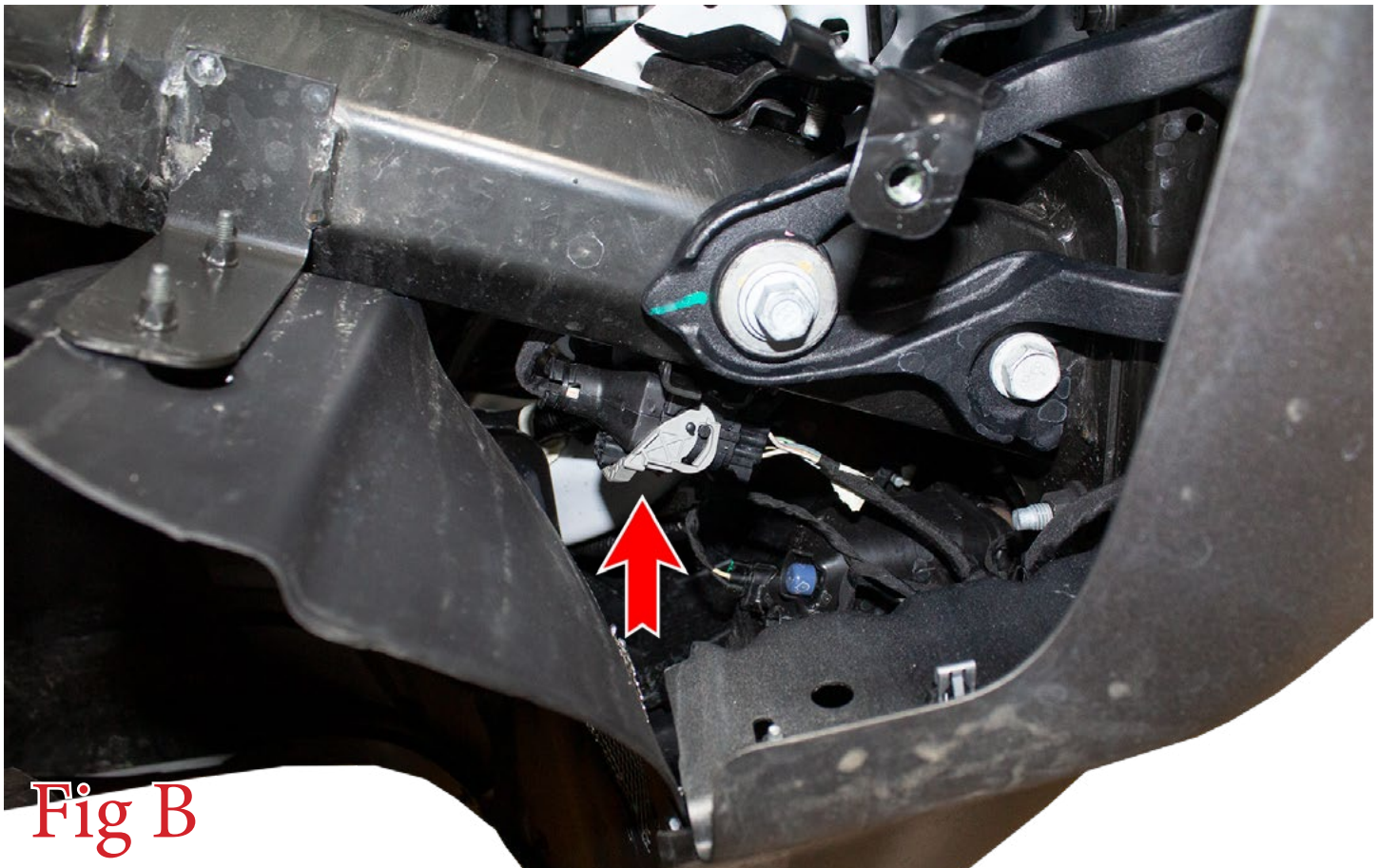
- |   |   |
|---|---|
| <b>4</b> - Hex Head Bolts (3/8"-16 x 1 1/4")      | <b>4</b> - Wide Washers (3/8")                |
| <b>4</b> - U-Nuts (3/8"-16)                       | <b>2</b> - Black Button Head Bolts (1/2"-13)  |
| <b>2</b> - Black Washers (1/2")                   | <b>2</b> - Black Lock Nuts (1/2"-13)          |
| <b>3</b> - Hex Head Bolts (M10-1.5 x 30mm)        | <b>3</b> - Flat Washers (M10)                 |
| <b>4</b> - Black Button Head Bolts (#8-32 x 3/4") | <b>4</b> - Flat Washers (#8)                  |
| <b>4</b> - Black Lock Nuts (#8-32)                | <b>1</b> - Universal Light Mount Kit          |
| <b>6</b> - Parking Sensor Cutout Plug             | <b>6</b> - Parking Sensor Cutout Plug Grommet |
| <b>1</b> - Parking Sensor Bezels (Set of 4)       |   |

**Removal:**

1. Using a 16mm Socket, remove the skid plate mounting bolts (x6). Then, remove the skid plate from the vehicle. (Fig A)



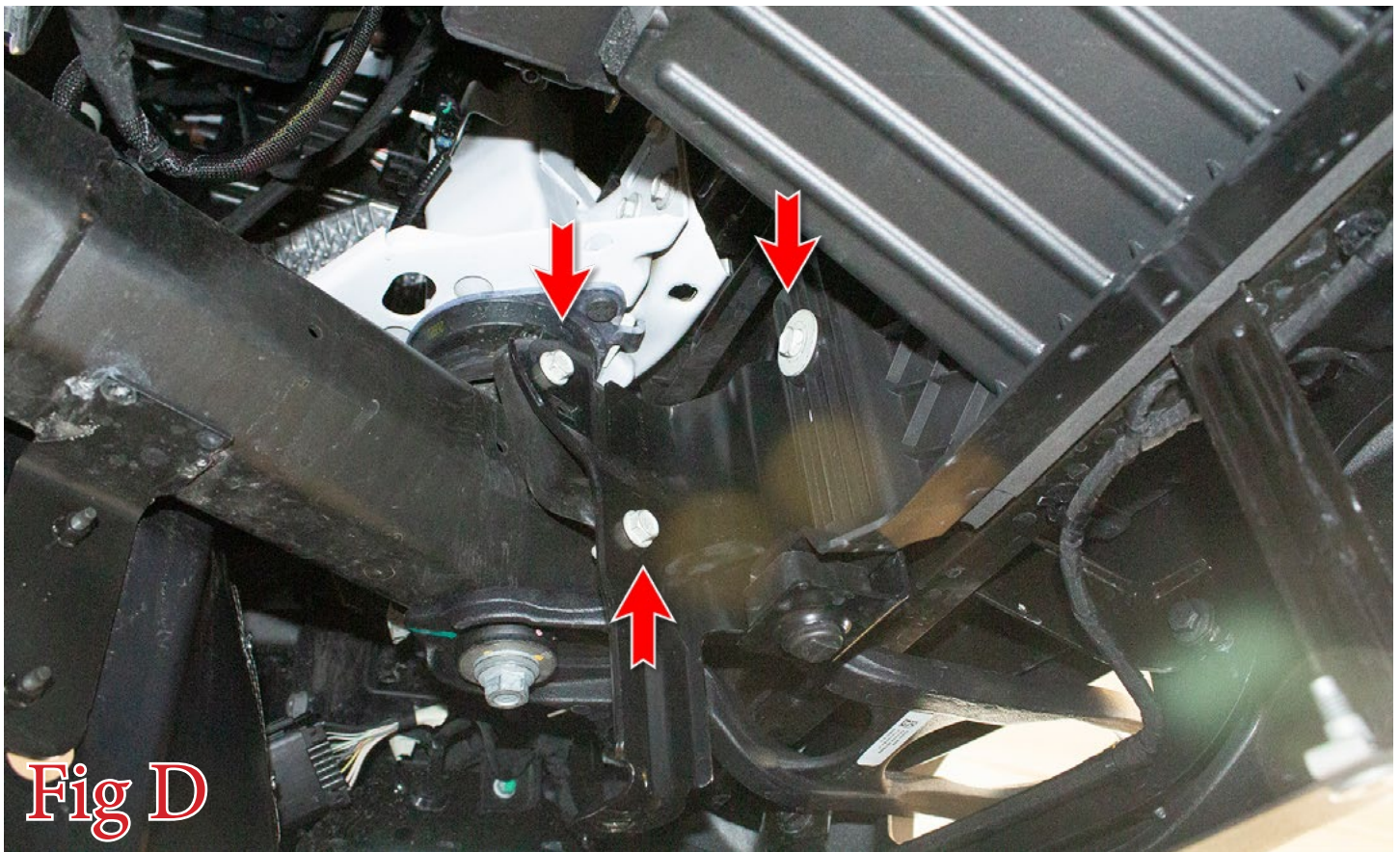
2. From underneath the vehicle, unplug the main bumper harness connector located on the driver side of the vehicle along the frame rail. (Fig B)



3. Using an 8mm Socket, remove the two bolts (per side) along the front portion of each front wheel well. (Fig C)



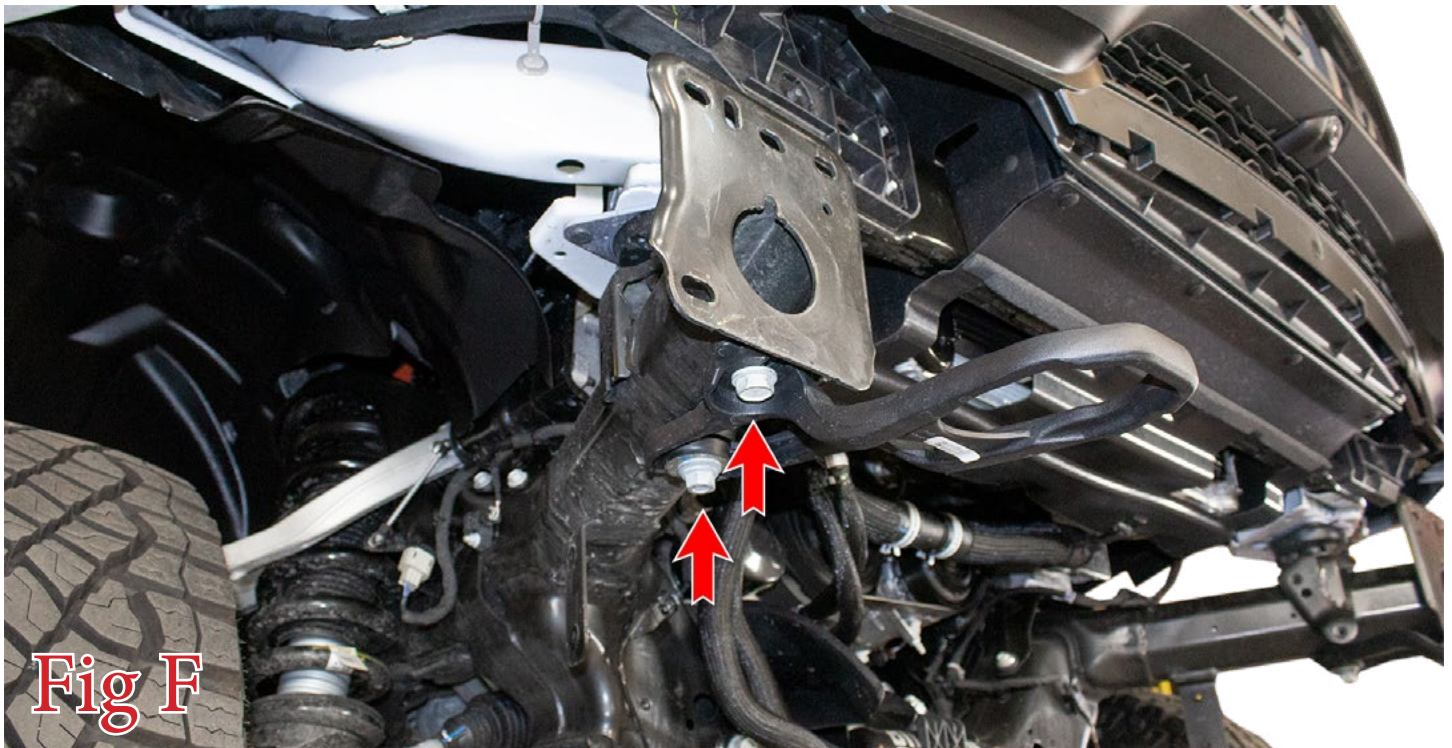
4. Using a 13mm Socket, remove the three bolts (per side) that hold the oil cooler to the vehicle. Then, zip tie the cooler out of the way for the time being. (Fig D)



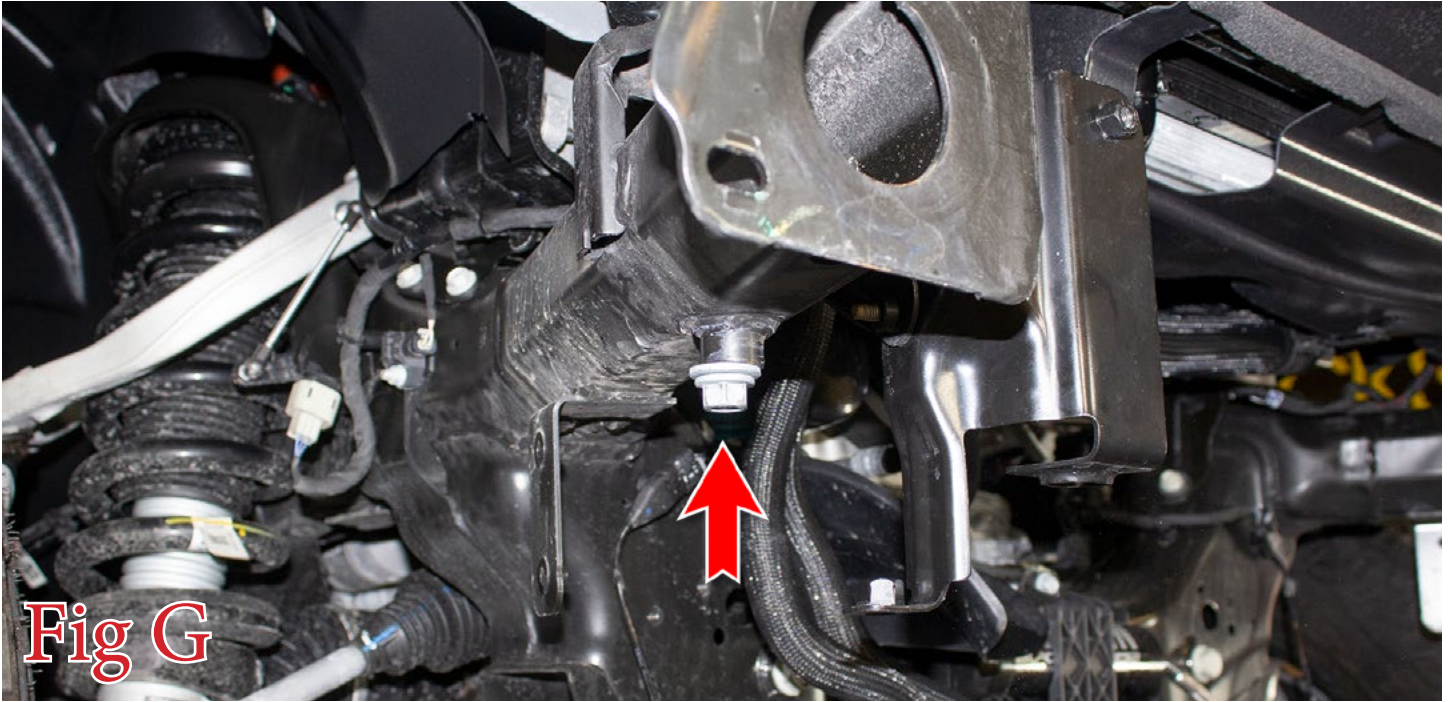
5. Using an 18mm Socket, remove the three mounting nuts (per side) that hold the bumper to the vehicle. Then, remove the bumper from the vehicle. (Fig E)



6. Use an 18mm and 21mm Socket to remove the two tow hook mounting bolts (per hook). Then remove the tow hooks from the vehicle. (Fig F)

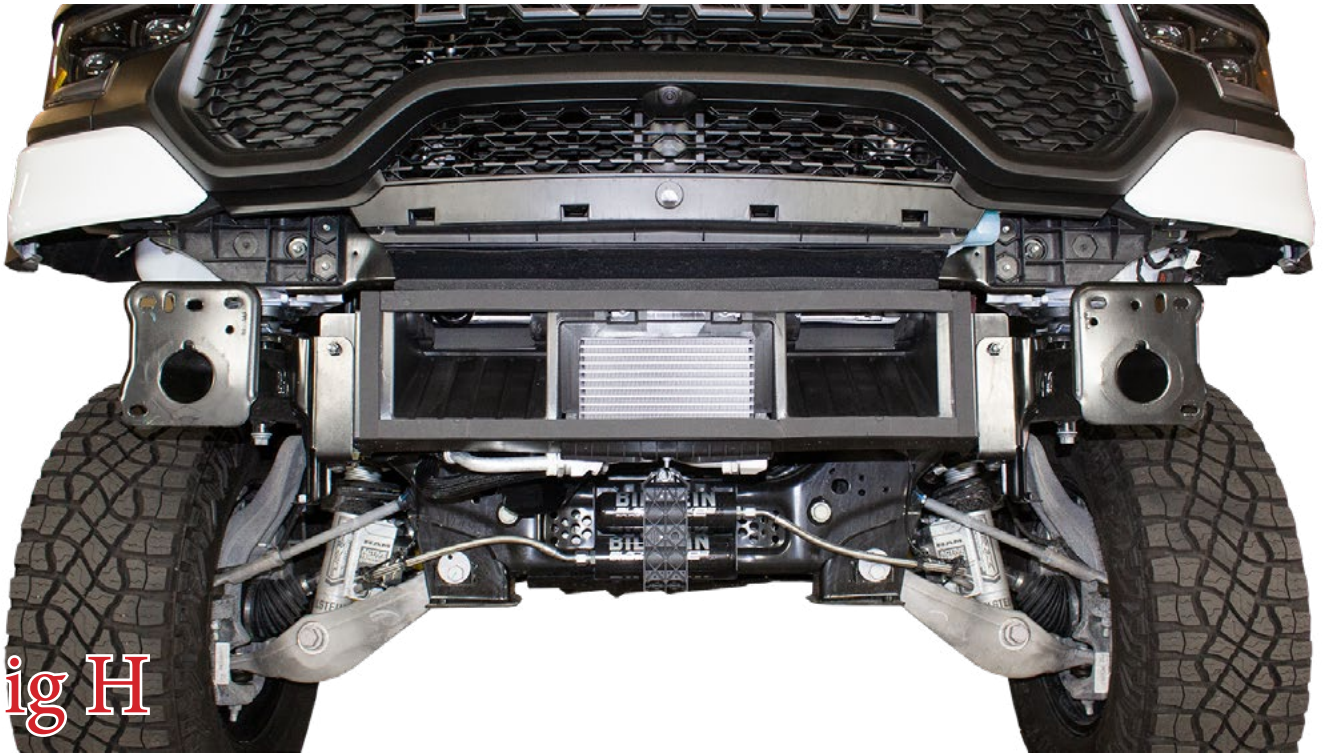


7. Reinstall the 18mm Bolt from Step 6. (Fig G)



**Fig G**

8. Reinstall the oil cooler by reinstalling the bolts that were removed in Step 4. (Fig H)

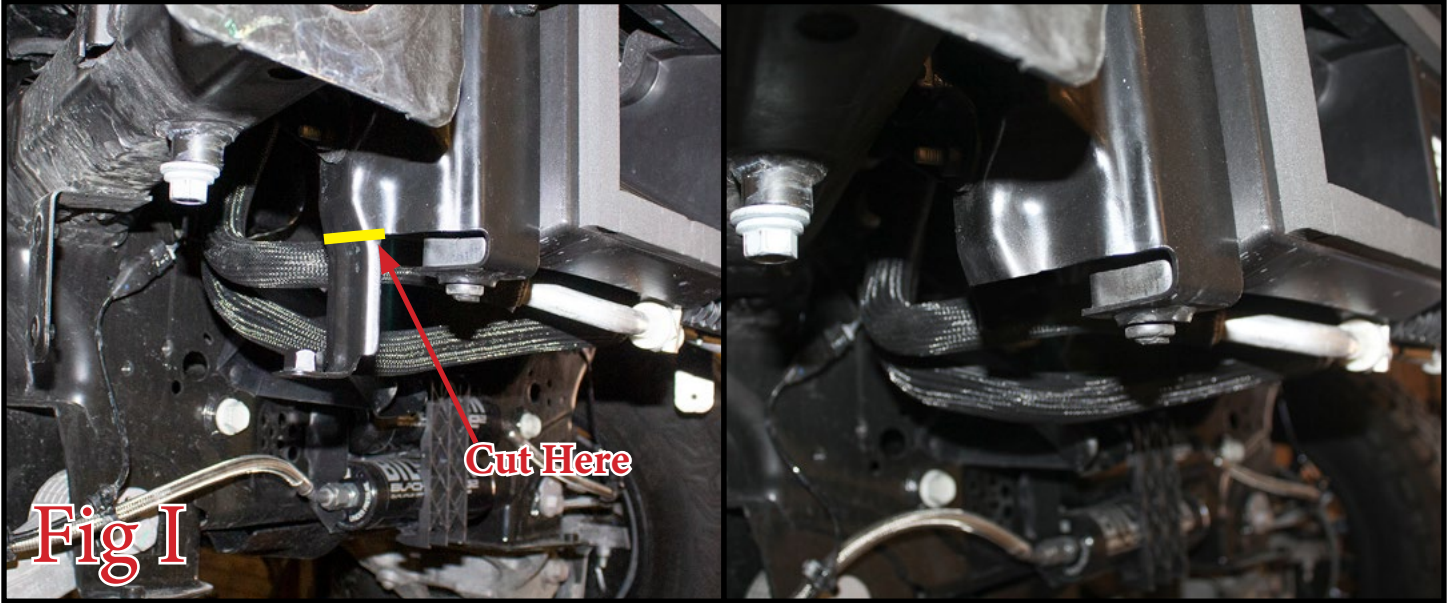


**Fig H**

9. This step is optional and is done for aesthetics. Use a cutoff wheel or something similar to trim the skid plate mounting bracket as shown in (Fig I). Make sure to paint over any bare metal.

**Before**

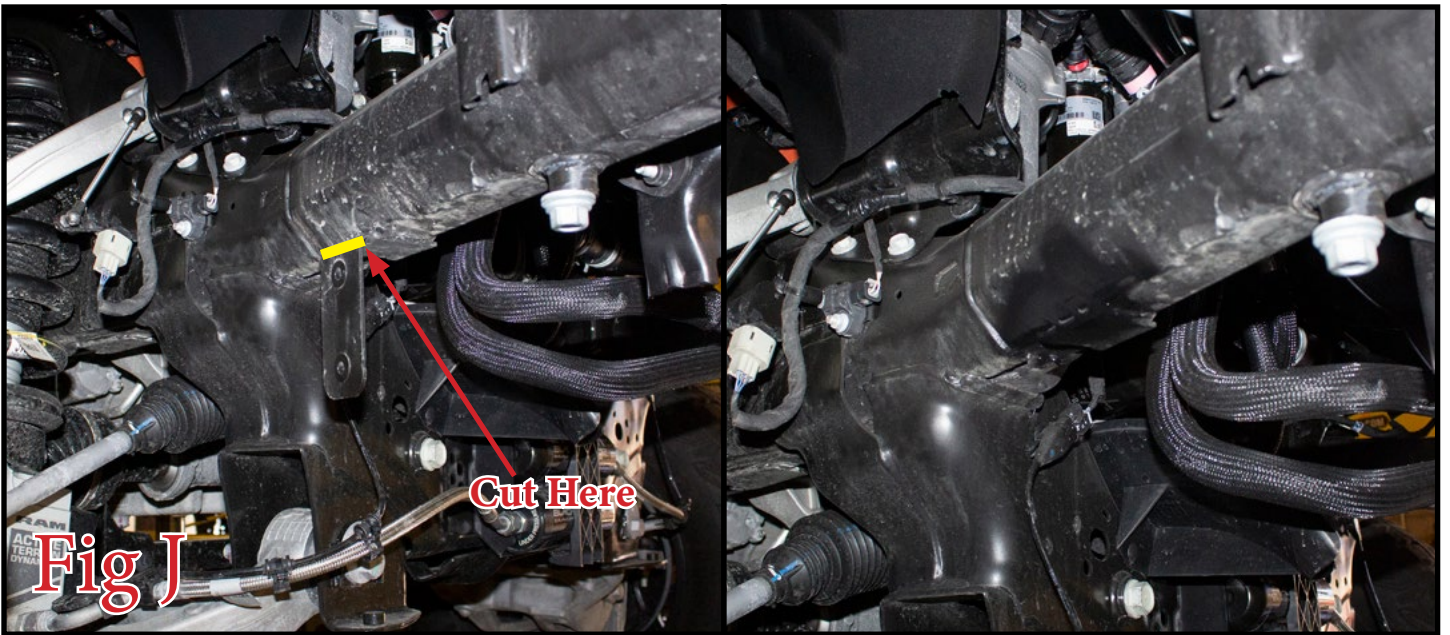
**After**



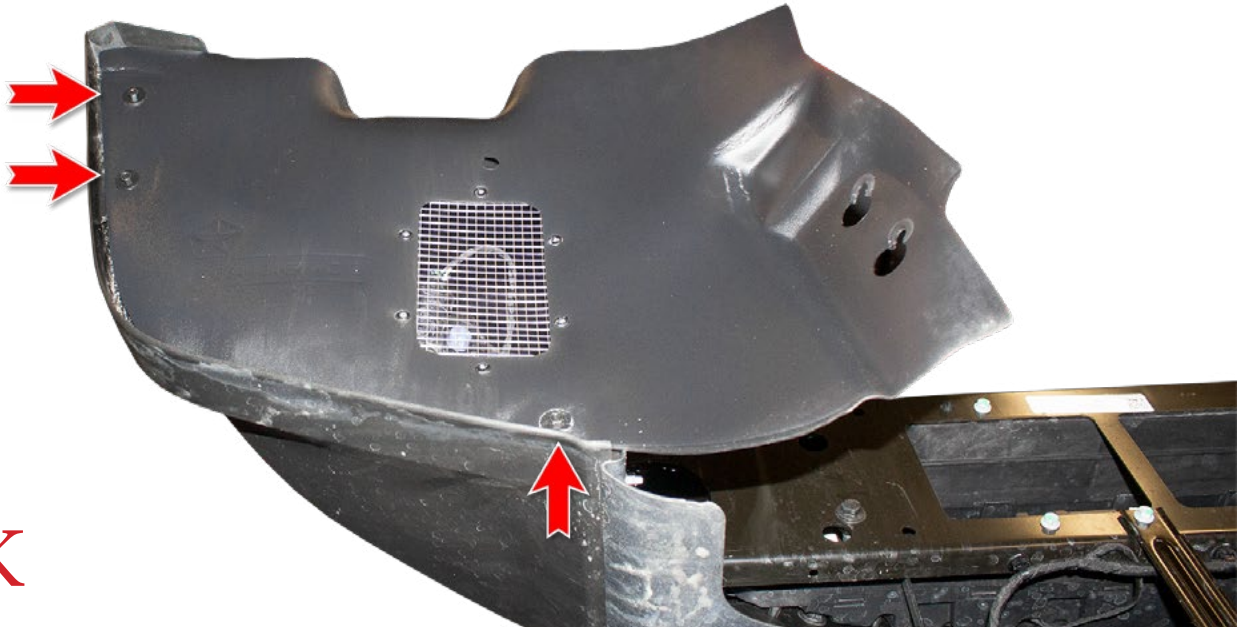
10. This step is optional and is done for aesthetics. Use a cutoff wheel or something similar to trim the inner fender mounting bracket as shown in (Fig J). Make sure to paint over any bare metal.

**Before**

**After**

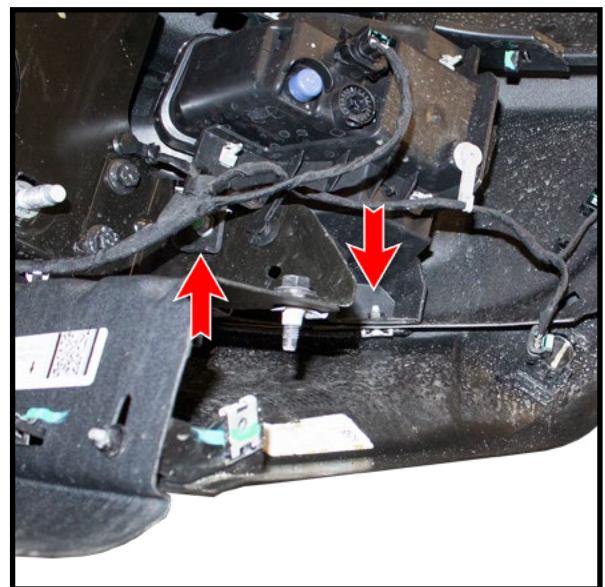
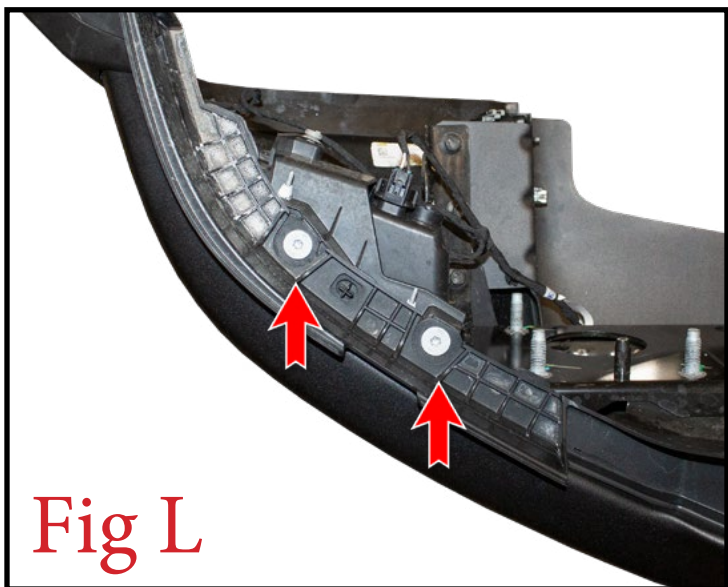


11. Set the OEM bumper on work bench. Use an 8mm Socket to remove the three mounting bolts (per side) that hold the inner liner to the bumper. Remove the inner liners from the bumper. (Fig K)



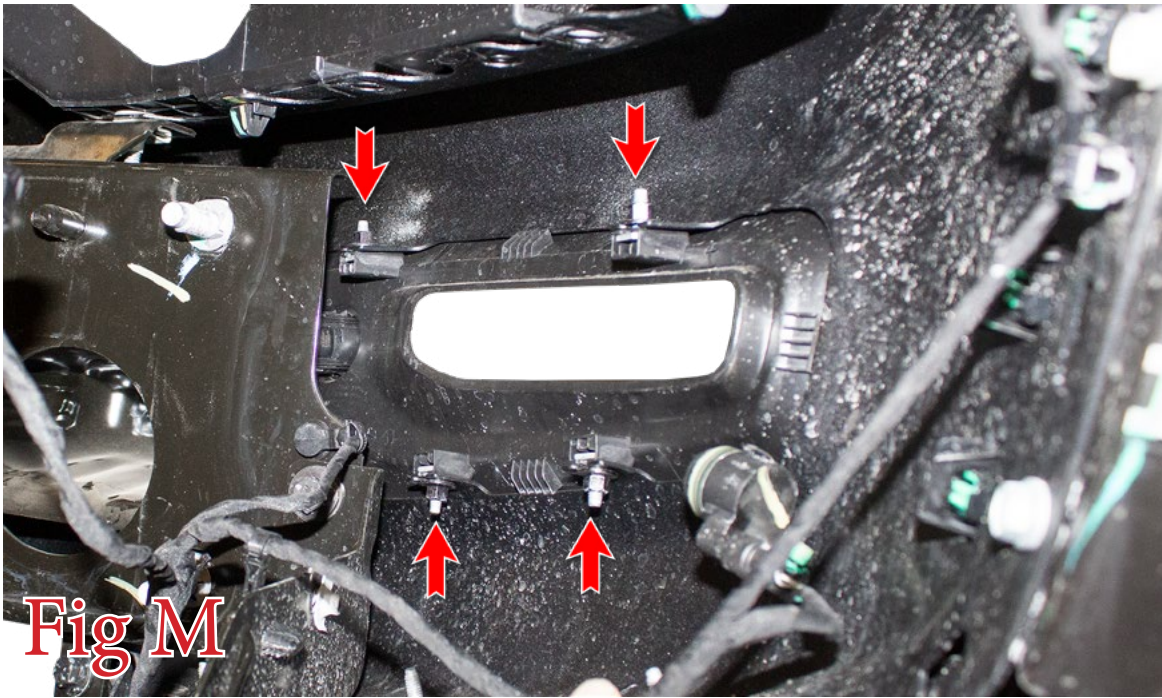
**Fig K**

12. Remove the fog lights from the OEM bumper. To do this, remove the two vertical facing bolts (T40 Torx Socket) along the top side of the fog light. Then, remove the 10mm bolt and nut along the bottom side of the fog light piece. Unplug the fog light and remove any plastic harness clips that need to be removed to get this piece off the bumper. (Fig L)

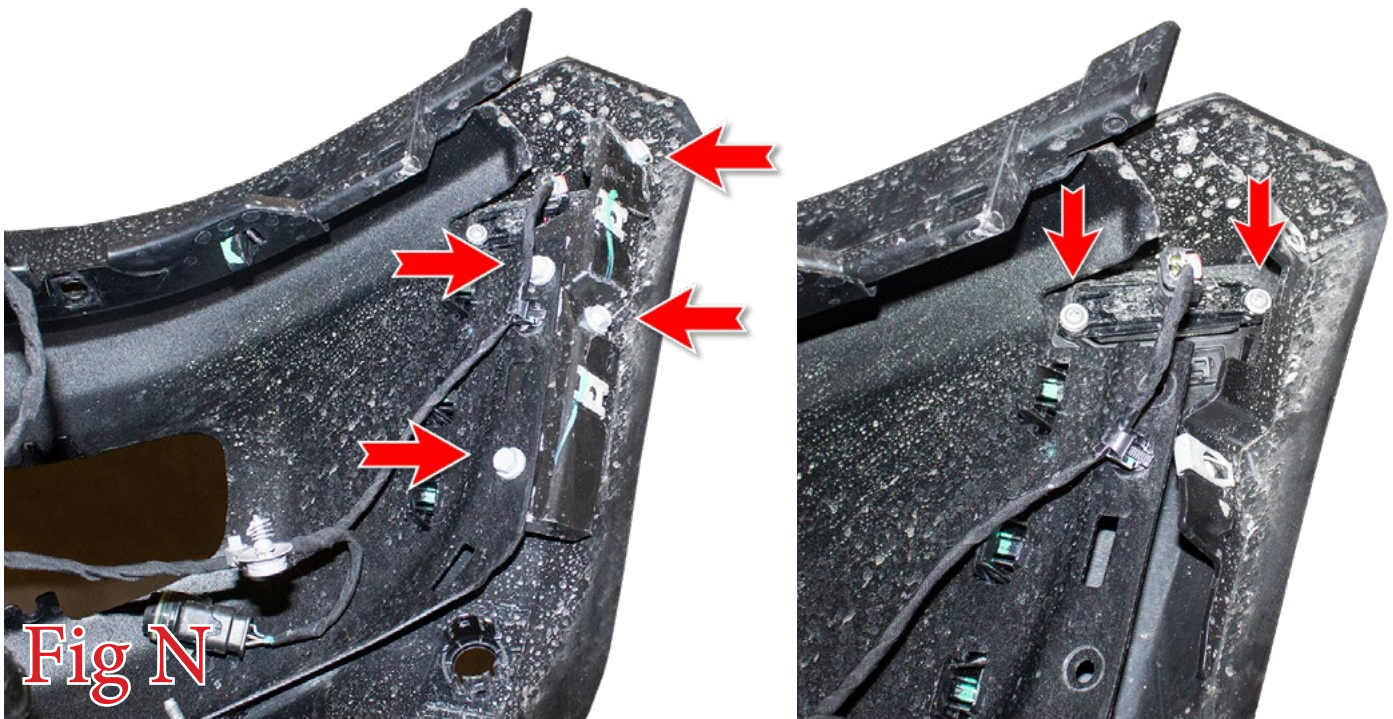


**Fig L**

13. Use an 8mm Socket to remove the mounting nuts that hold the fog light trim piece onto the bumper. Then, remove that piece from the bumper. (Fig M)

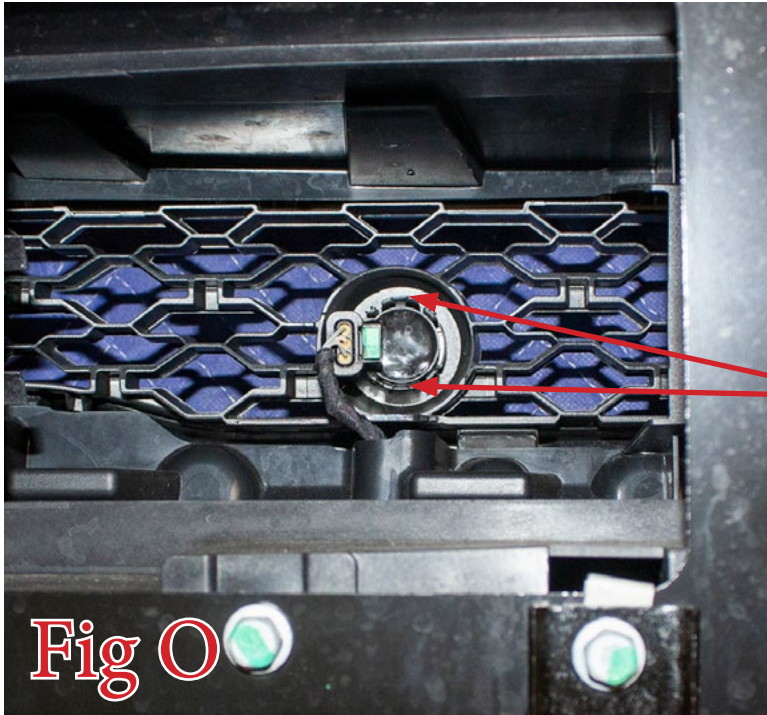


14. Use a 10mm Socket to remove the four bolts that hold the plastic trim piece to the edge of the OEM bumper. Then, remove that piece and use a Phillip's Head Screwdriver to remove the two marker light mounting screws. Remove the marker lights from the bumper. (Fig N)



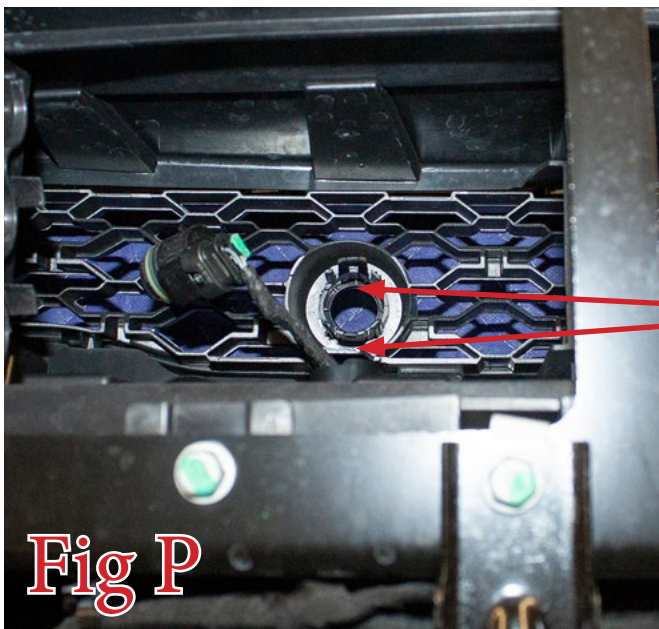


15. Remove the parking sensors from their mounting rings. To do this, spread the tabs on the back side of the rings and push the sensors out the back side. **Make sure to keep track of the position/orientation they come off your OEM bumper so you can reinstall them in the same position/orientation on your new bumper.** (Fig O)



**Spread these two tabs to release the parking sensor from its mounting ring**

16. Remove the inner four sensor rings. Do this by pressing in the tabs along the base of the sensor rings and pushing the rings out the front side of the bumper. **Make sure to keep track of the position/orientation they come off your OEM bumper so you can reinstall them in the same position/orientation on your new bumper.** (Fig P) **You do not need to remove the outer two sensor bezels.**



**Squeeze these two tabs to release the mounting rings from the bumper**

17. Release the series of plastic clips holding the OEM bumper harness to the OEM bumper. Then, remove the harness from the OEM bumper. (Fig Q)



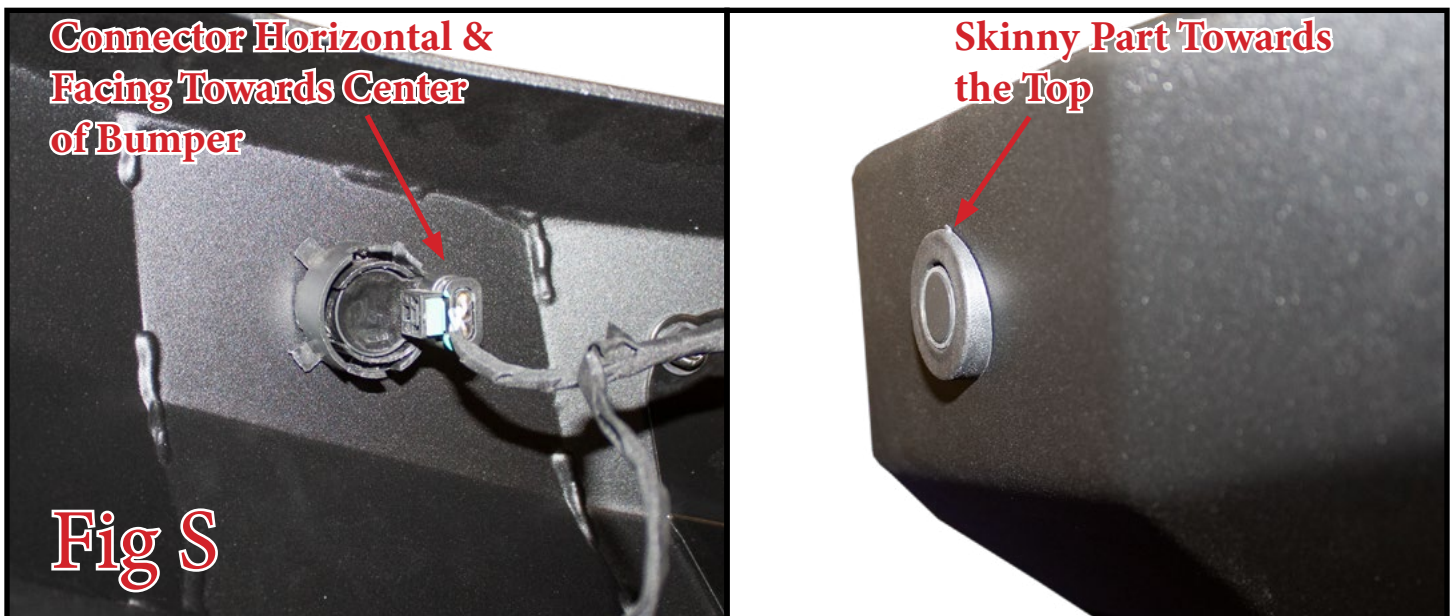
**Fig Q**

## Installation:

18. Install the inner four parking sensor mounting rings onto your new bumper. Do this by pressing them into their precut holes until they click into place. **Make sure to install them in the same position/orientation as they came off your OEM bumper.** (Fig R)



19. For the outer sensors, use 2 of the 4 supplied clip-on sensor bezels. Install these bezels with the skinnier part towards the top of the bumper. Put the face of the bezel in from the front side of the bumper, then clip the backer ring on from the back side. Finally, press the sensor in from the back side until it clicks into place. (Fig S) **Make sure to install the sensors in the same position/orientation as they came off your OEM bumper. The connector should be completely horizontal - facing the inside of the bumper.**

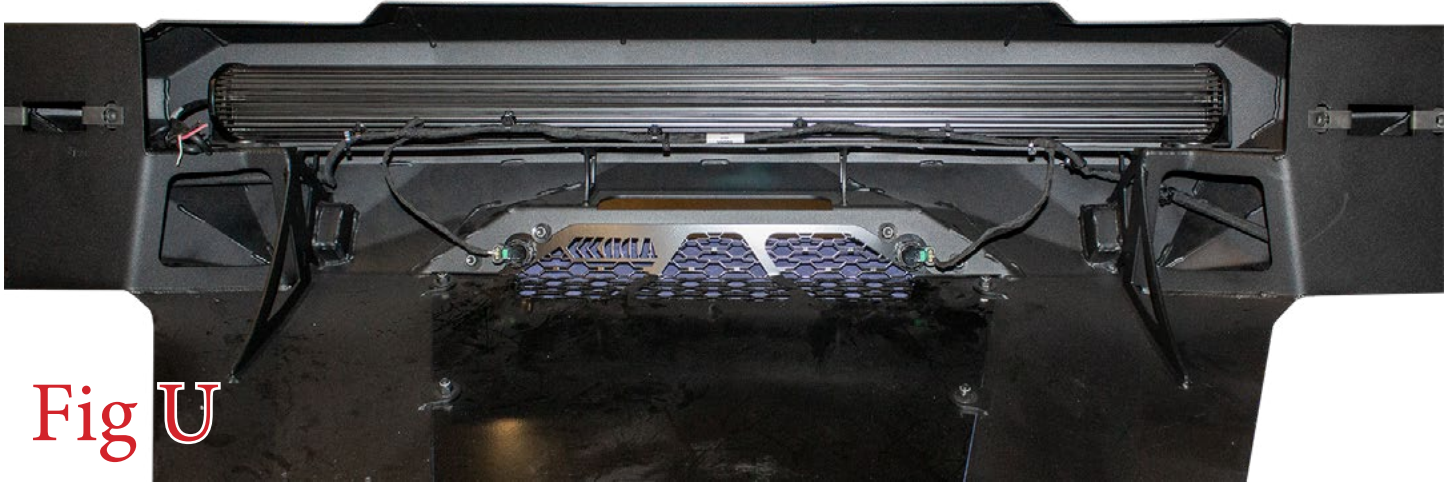


20. Install the OEM marker lights onto your new bumper. To do this, use the supplied #8 Bolts (2 per side), #8 Washers (2 per side) and #8 Lock Nuts (2 per side). **Do not overtighten these bolts or the plastic on the light will break.** (Fig U)

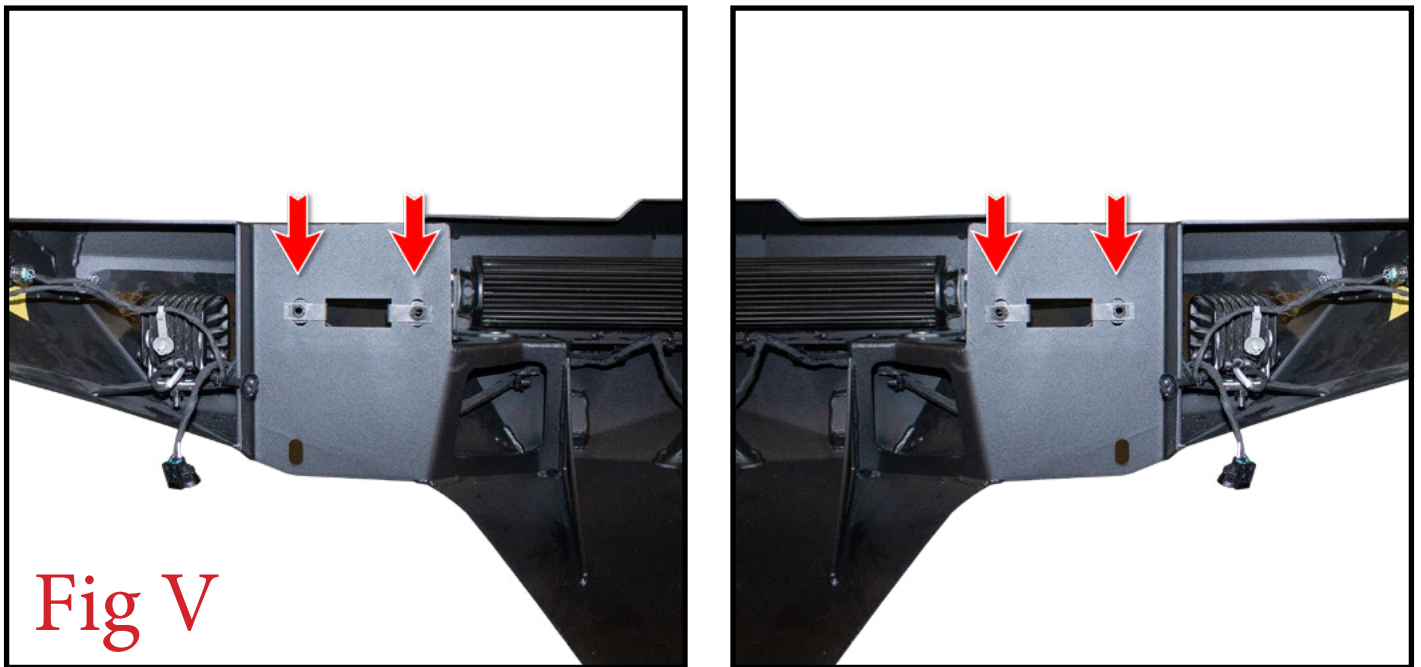


21. Install your light bar and cube lights now. For the light bar, use the supplied light mount kit. The installation instructions for that kit can be found here:  
<https://www.addictivedesertdesigns.com/files/install/ADD-Universal-Light-Mount-Kit-Installation-Instructions.pdf>  
For the cube lights, follow use the hardware supplied by the light manufacturer and follow their guide for mounting information.

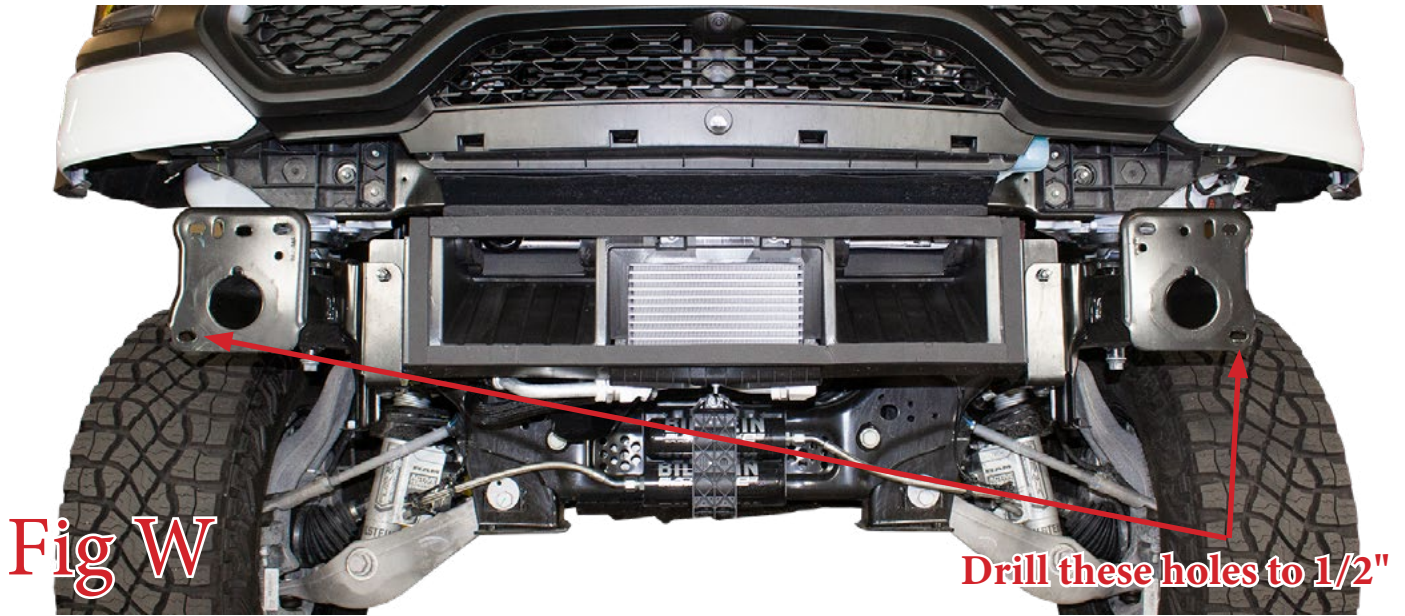
22. Carry over the harness and parking sensors from the OEM bumper. As you install the harness, install the parking sensors. Make sure to install them in the same position/orientation as they came off the OEM bumper. (Fig V)



23. Install the supplied U-Nuts (2 per side) onto your new bumper as shown in (Fig W).



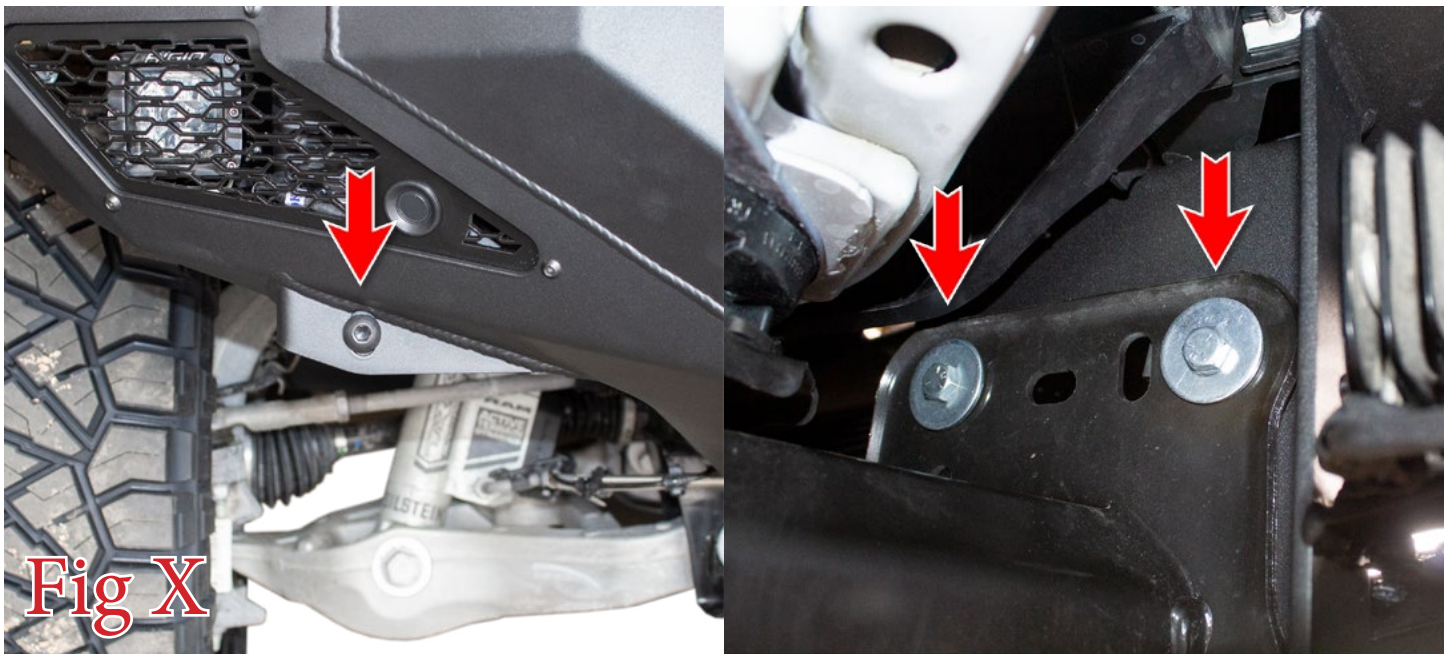
24. Use a Drill and a 1/2" Drill Bit to drill out the lower/outer mounting holes on each side of the frame horns. (Fig X)



25. Set the bumper in place on the vehicle. Use the supplied 3/8" Hex Head Bolts (2 per side) and 3/8" Washers (2 per side) in the upper mounting holes. In the holes that were drilled out in Step 25, use the supplied Black 1/2" Bolts (1 per side), Black 1/2" Washers (1 per side), and Black 1/2" Lock Nuts (1 per side). Leave these bolts loose for now. (Fig Y)

**View From Front**

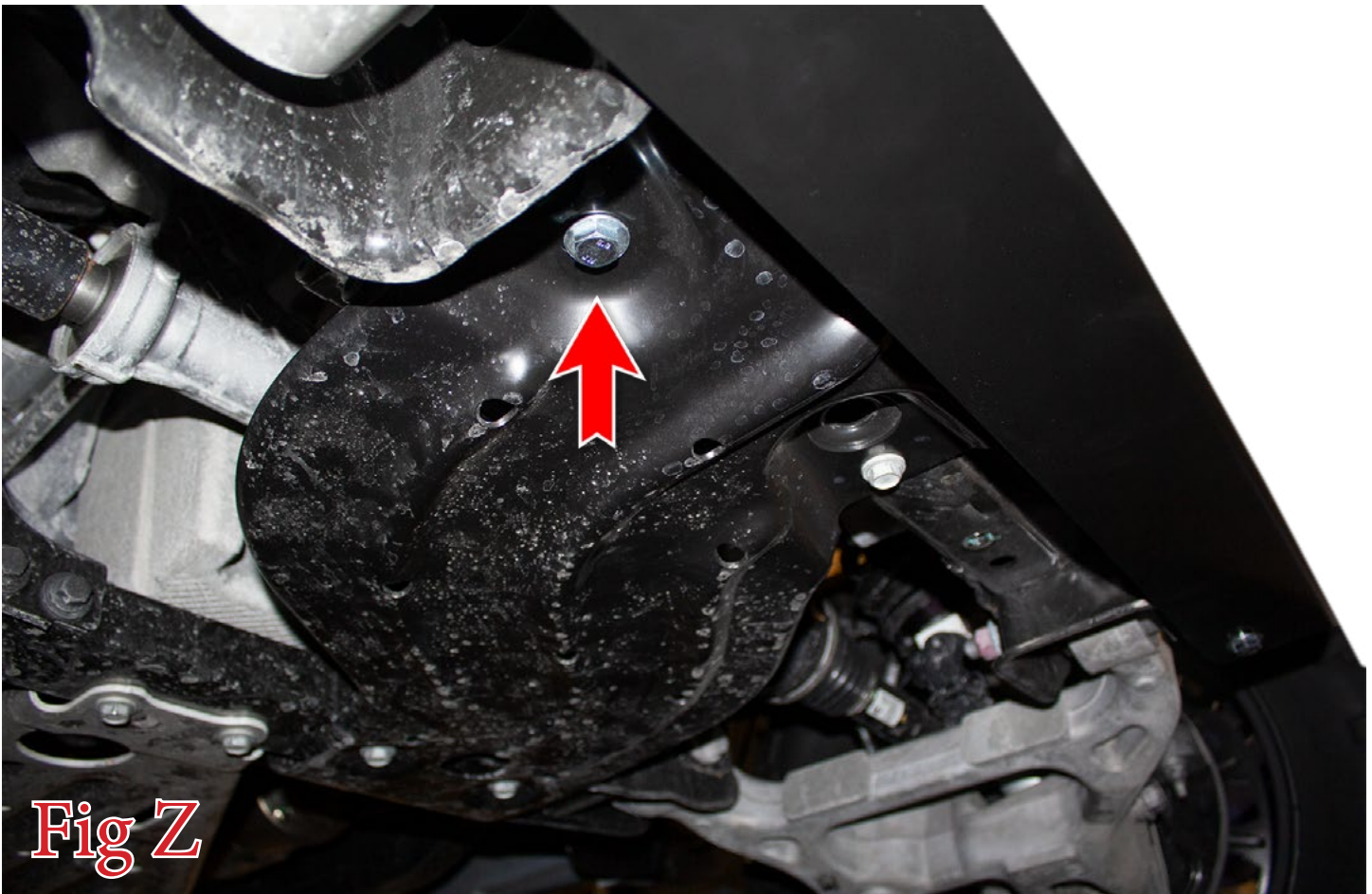
**View From Rear**



26. Install the lower skid plate mounting bolts. Use the supplied M10 Bolts (x2) and M10 Washers (x2). Leave these bolts loose for now. (Fig Z)



27. Install the remaining M10 Bolt/Washer into the hole referenced in (Fig AA).



28. Align your bumper so it is centered left to right and straight in relation to the grille/valance. Then, tighten the 1/2" mounting bolts to 70 foot pounds, the 3/8" mounting bolts to 30 foot pounds and the M10 mounting bolts to 40 foot pounds.
29. Stand back and enjoy your new ADD Stealth Fighter™ Front Bumper.
30. Check and re-tighten, if needed, all mounting bolts after 100 miles and periodically thereafter.

