



## 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             |

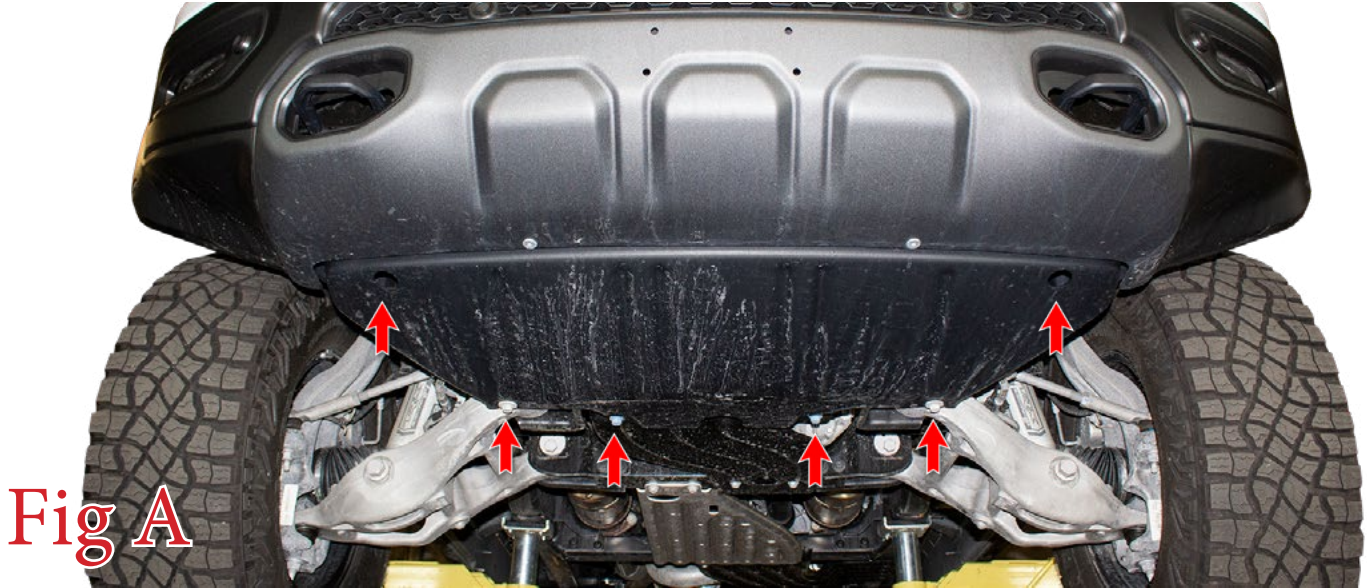
## Included in Kit:

- |   |   |
|---|---|
| <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)       | <b>1</b> - Oil Cooler Relocation Bracket 1    |
| <b>1</b> - Oil Cooler Relocation Bracket 2        | <b>4</b> - Spacers                            |
| <b>2</b> - Hex Head Bolt (5/16"-18 x 1")          | <b>2</b> - SAE Flat Washer (5/16")            |
| <b>2</b> - Nylon Lock Nut (5/16"-18)              |   |

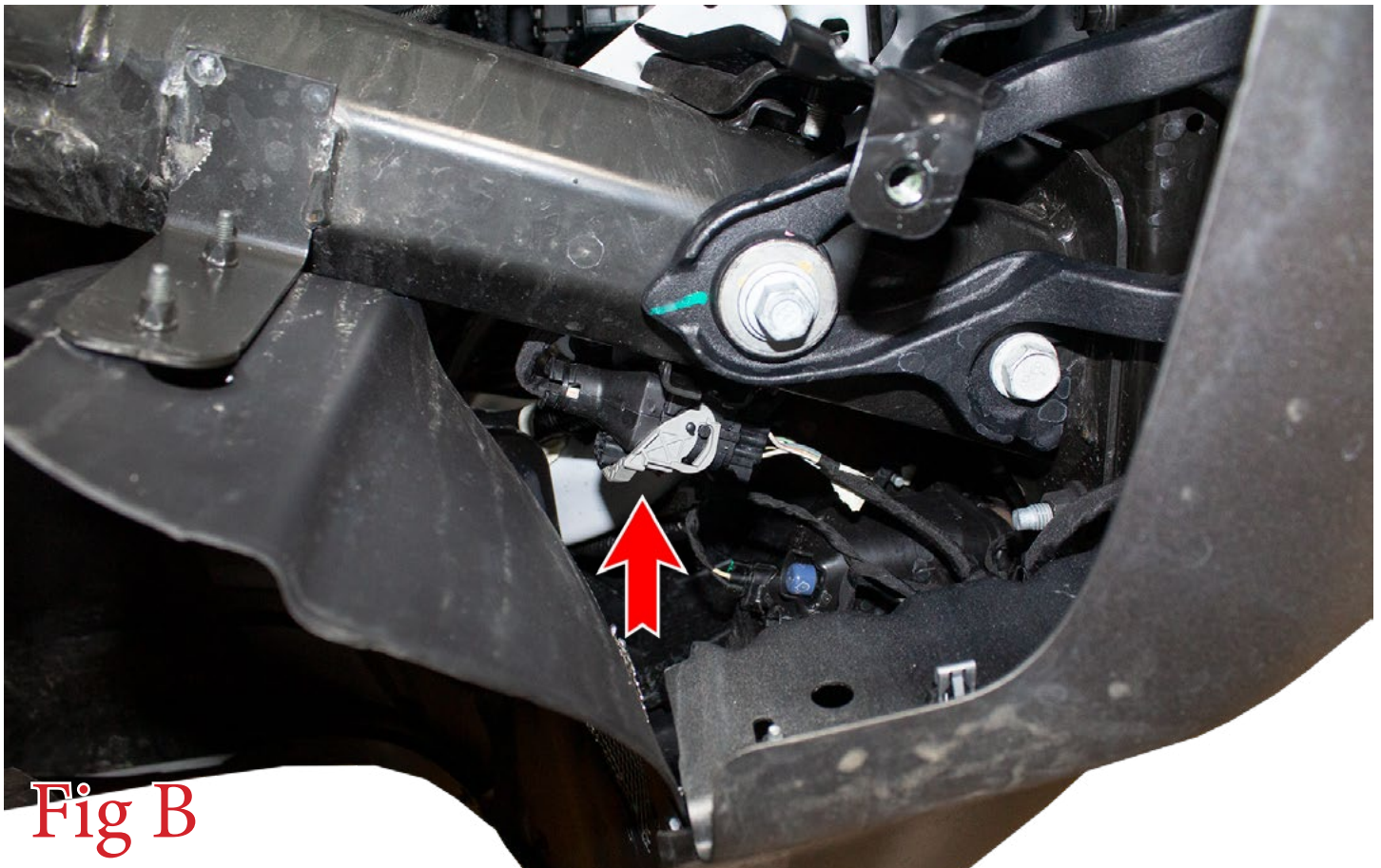


### Removal:

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)



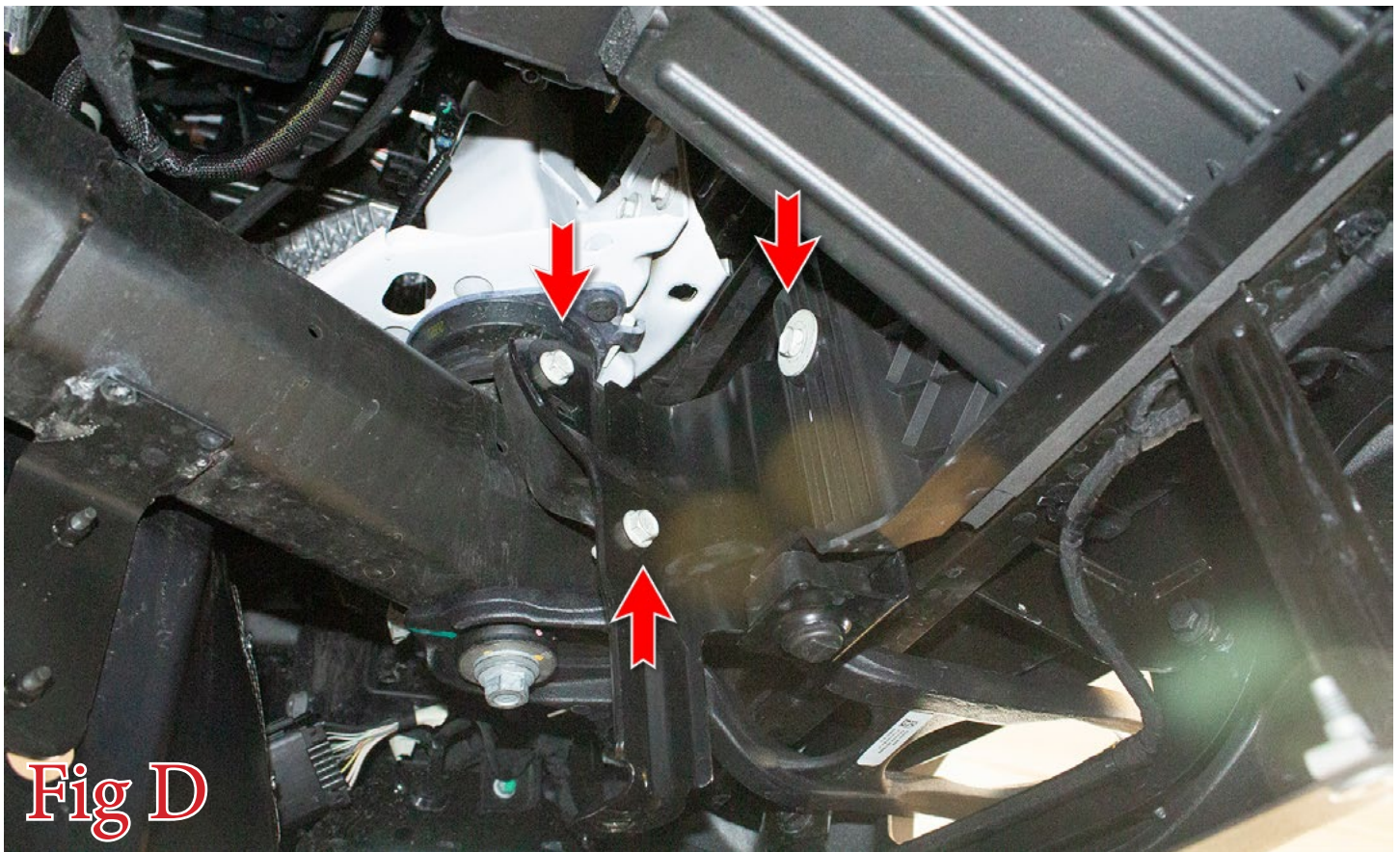




- Using an 8mm Socket, remove the two bolts (per side) along the front portion of each front wheel well. (Fig C)



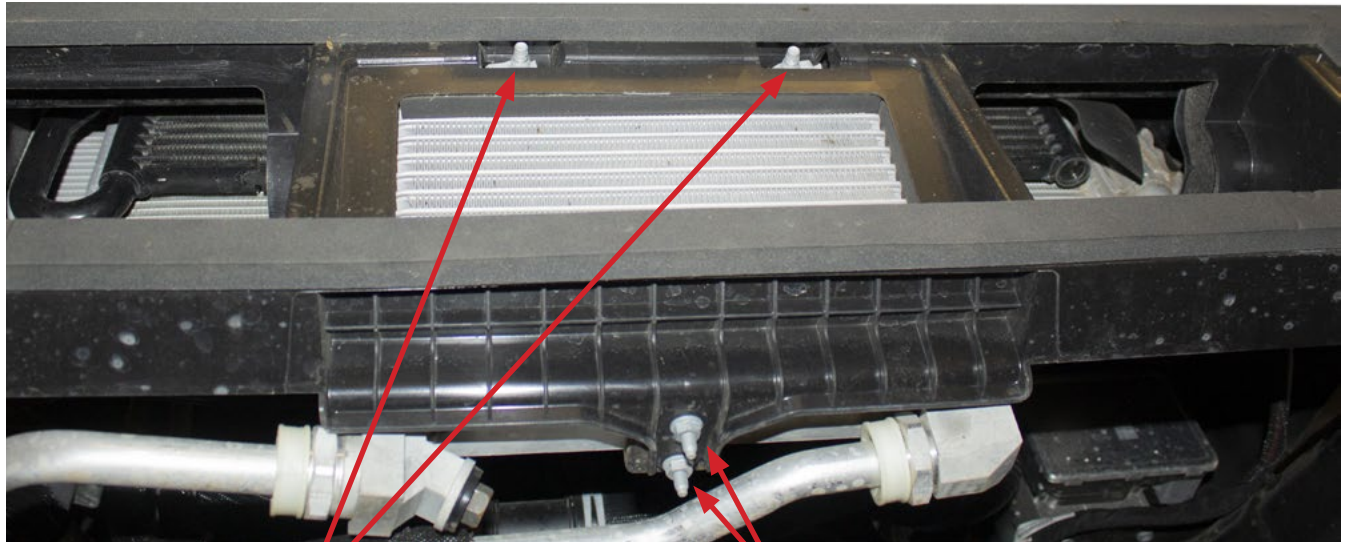
- Using a 13mm Socket, remove the three bolts (per side) that hold the oil cooler to the vehicle. Then, zip tie the cooler to support it well removing the oil cooler from the plastic guard in the next step. (Fig D)







5. Once the Oil cooler guard has been separated from the bracket, you will gain access to the 2 top bolts (13mm) that hold the oil cooler in the guard. The last thing that holds the oil cooler in place are the 2 (10mm) bolts that need to be removed. (Fig E)



13mm bolts

10mm bolts

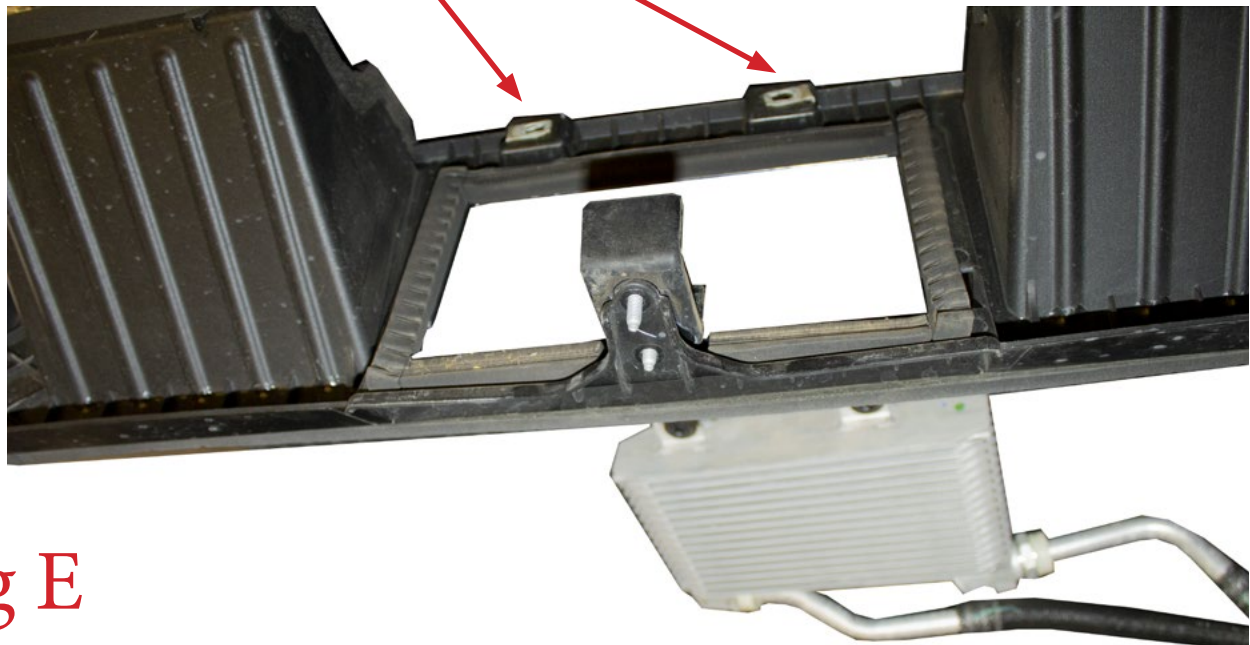
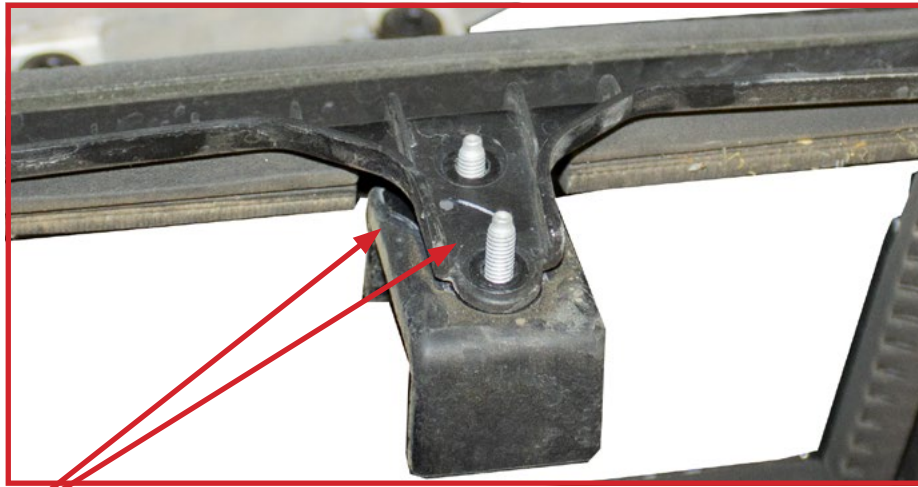


Fig E



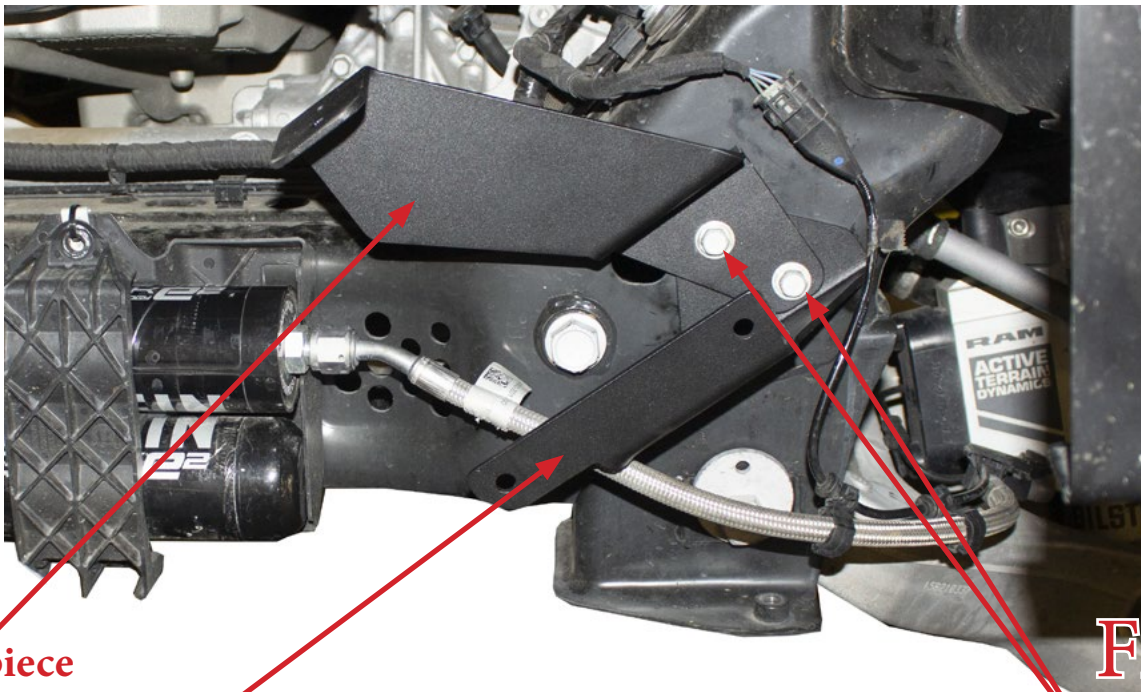
6. After the oil-cooler has been removed from the guard you will separate the rubber clamp that was held in by the 2 (10mm) bolts as this part will be used on the new relocation bracket. (Fig F)



Separate the rubber clamp from bracket

Fig F

7. Install relocation bracket on the TRX using the bolts set aside from step 4 (**leave loose**). As shown below there are 2 pieces used to create this relocation bracket, the (bottom piece) is first put in place, then the (top piece) goes over the bottom. (Fig G) (**When installing leave bolts loose to get the oil cooler in place.**)



Top piece

Bottom piece

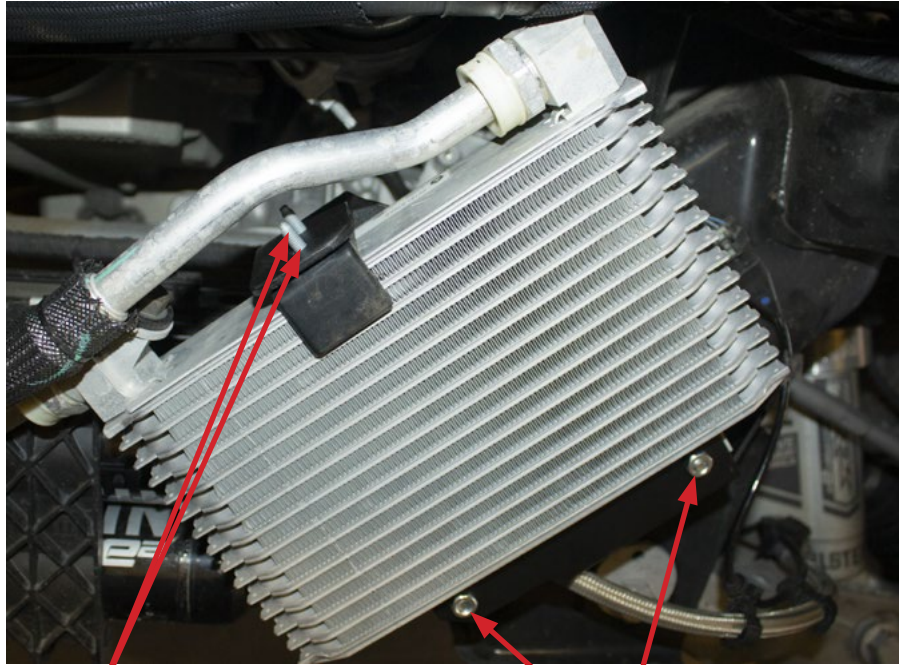
Reuse the bolts from step 4

Fig G





8. Well the bolts that hold the bracket are loose set the oil-cooler in place as shown below. Use the provided hardware to mount the bottom of the oil-cooler to the bracket. Then you will use the rubber clamp from step 6 to mount the oil-cooler to the bracket then re-install the 2 (10mm) bolts. (Fig H) (After the oil-cooler has been tightened down on the bracket, tighten the bracket to the frame)

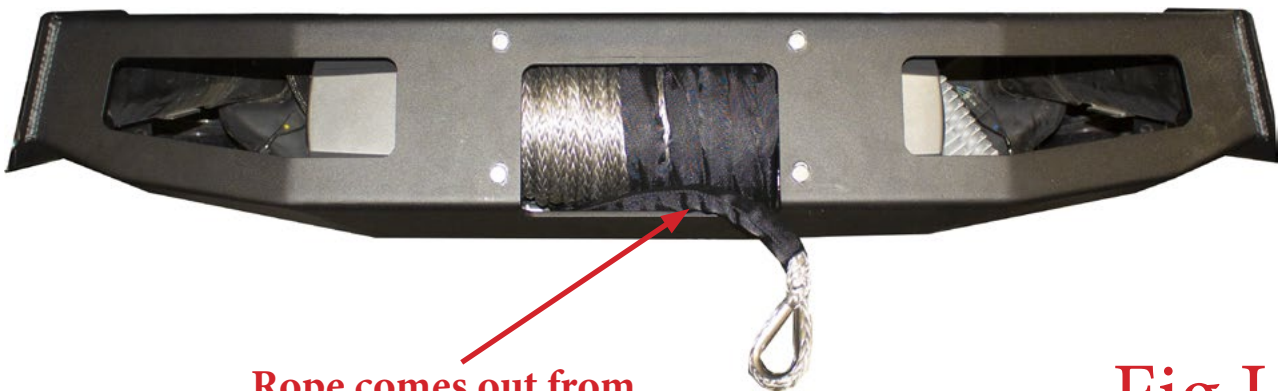


**Re-install 2 (10mm) bolts**

**Provided (5/16's) hardware**

**Fig H**

9. Set winch in plate. (Fig I) (Make sure the winch is faced in the orientation as shown below where the rope comes from the bottom out)

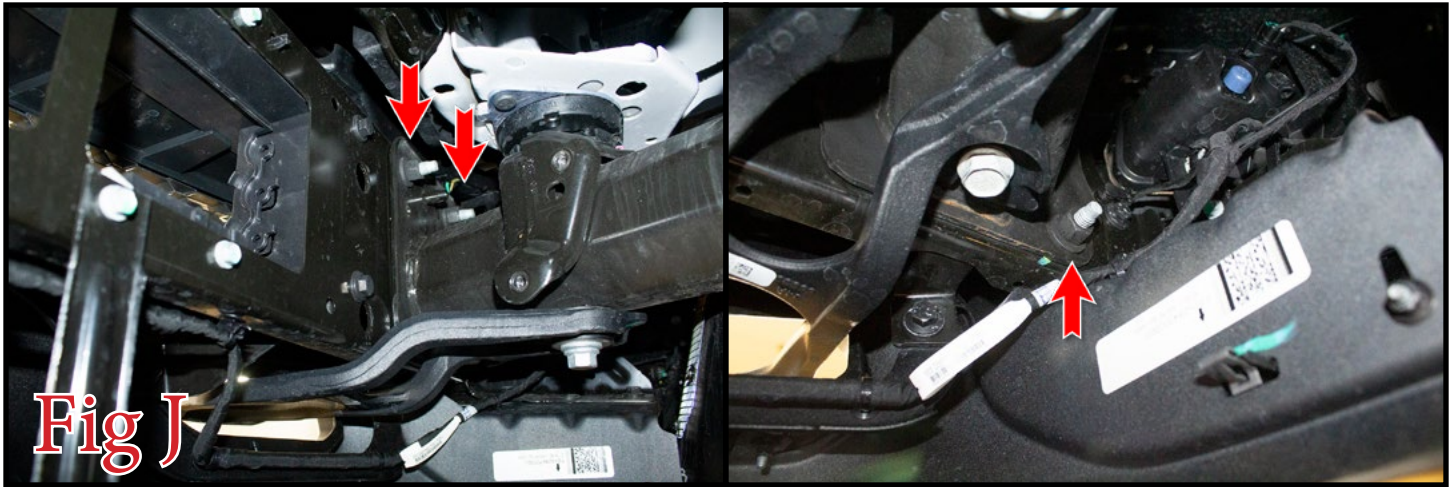


**Rope comes out from the bottom**

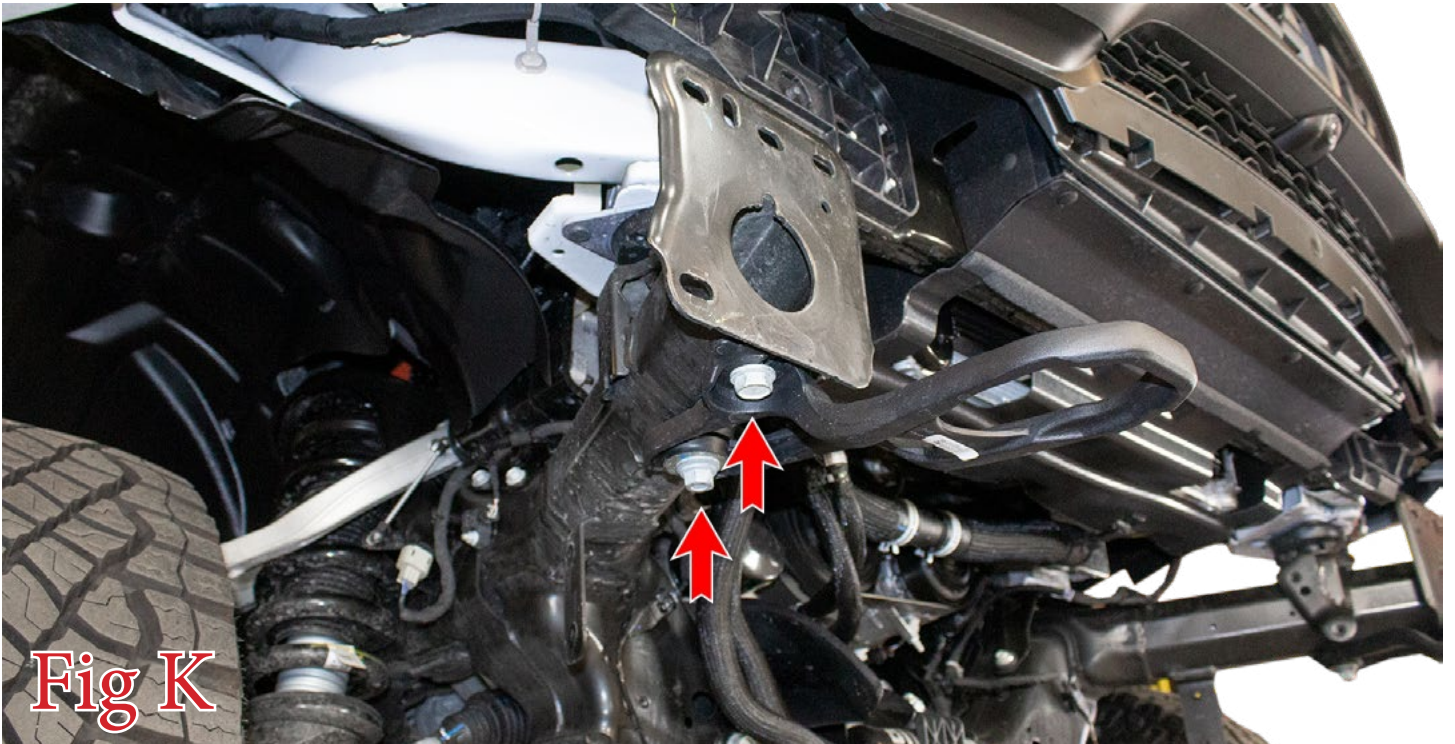
**Fig I**



10. 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 J)



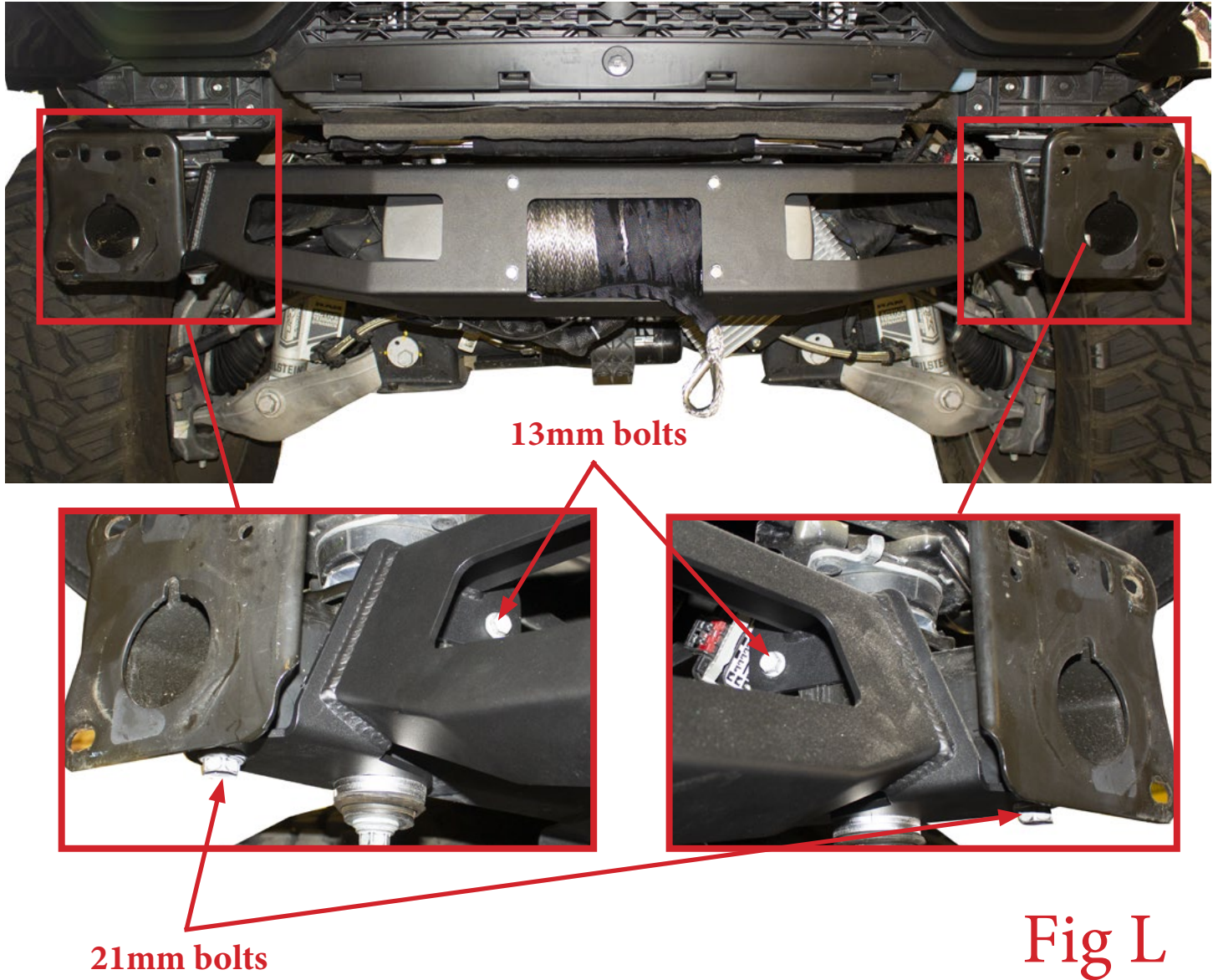
11. Use an 18mm and 21mm Socket to remove the two tow hook mounting bolts (per hook). Then remove the tow hooks from the vehicle. (Fig K)







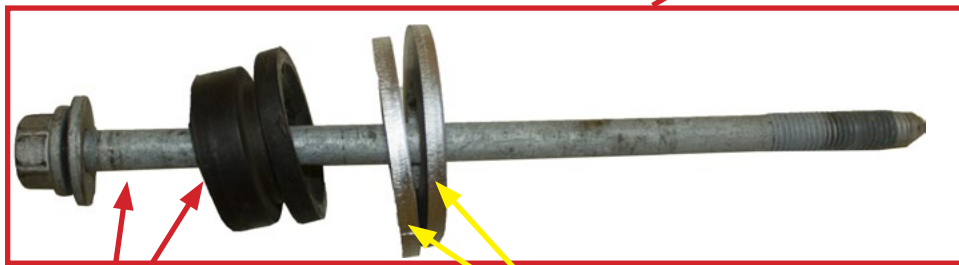
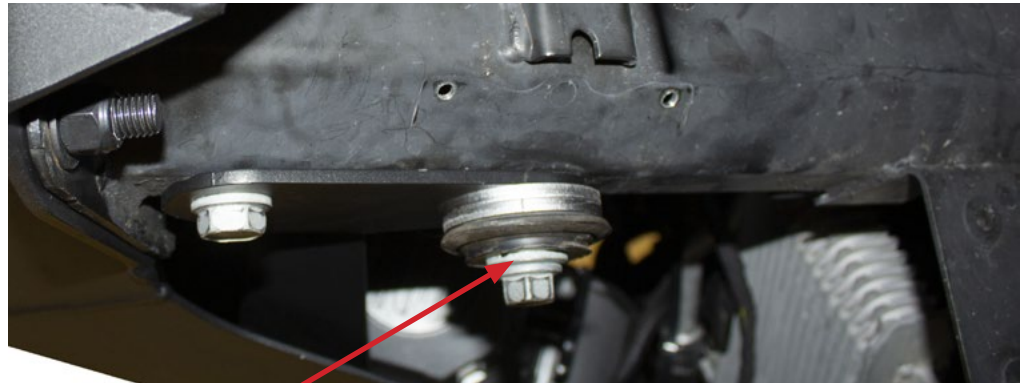
12. Set winch plate in between the frame horns as shown below, you will use the OEM 21mm bolts from step 11 to bolt the winch plate to the bottom of the frame, then use the 4 OEM (13mm) bolts from step 4 to bolt the winch plate to the sides of the frame. (Fig L)







13. There are 4 provided spacers that will go on the (18mm) body mount bolts from step 11 that will be re-installed. Each body mount bolt will use 2 spacers as shown below. (Fig M)



OEM bolt and rubber

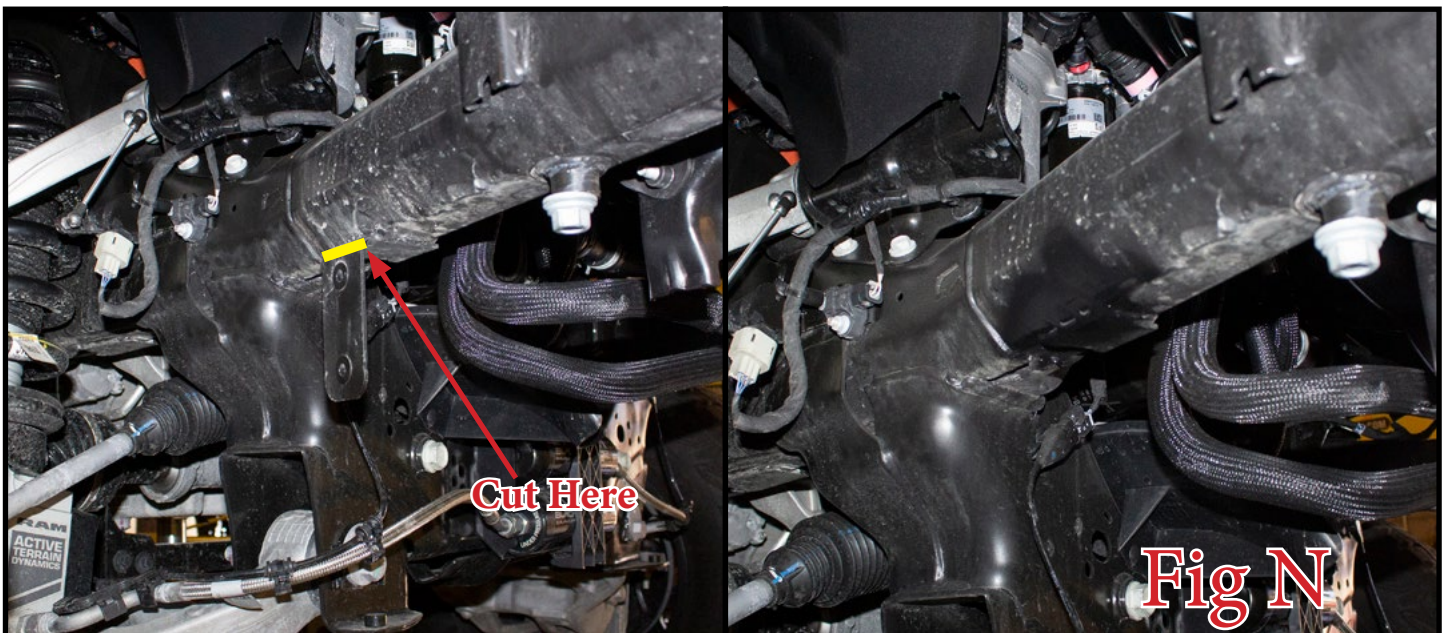
2 provided spacers

Fig M

14. 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 N). Make sure to paint over any bare metal.

Before

After





15. 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 O)

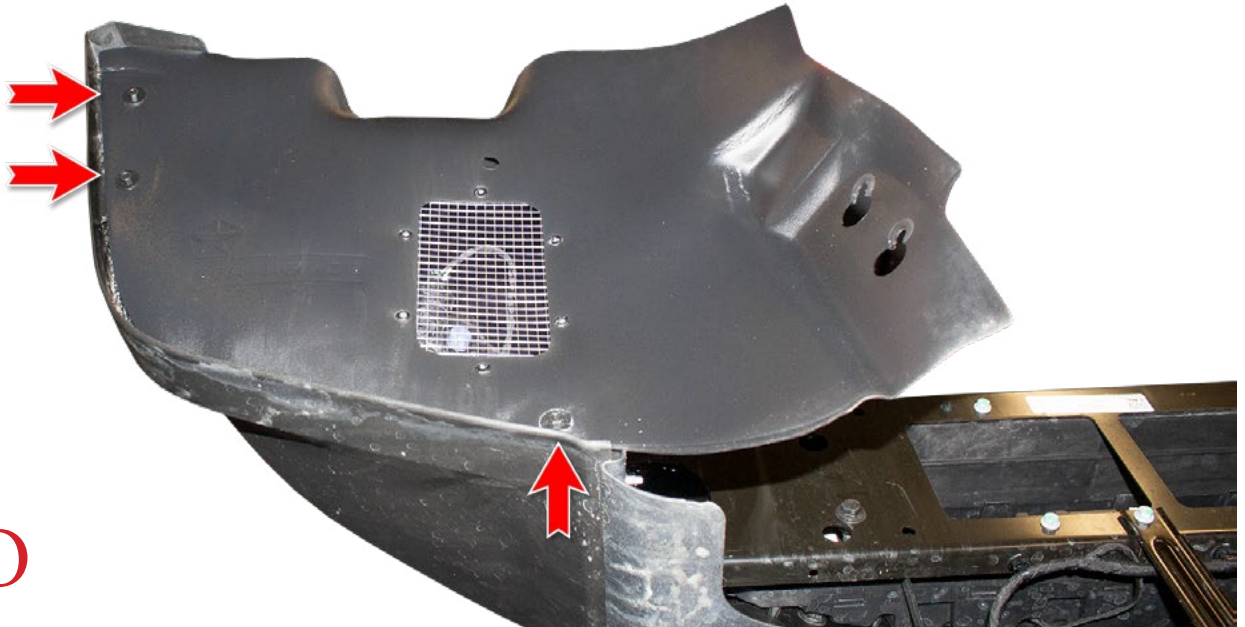


Fig O

16. 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 P)

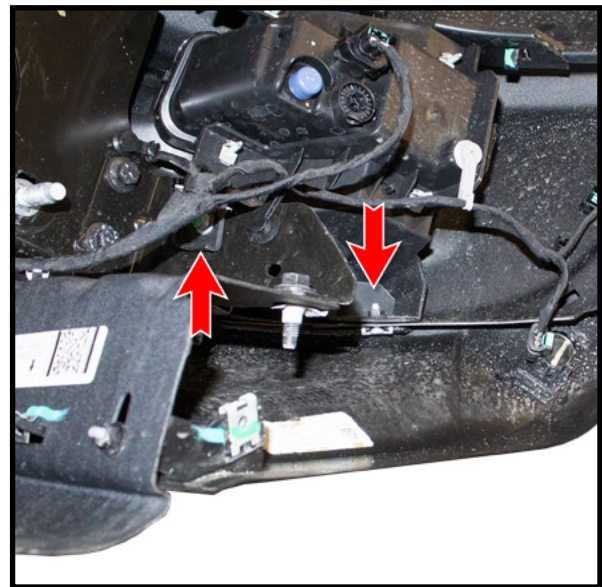
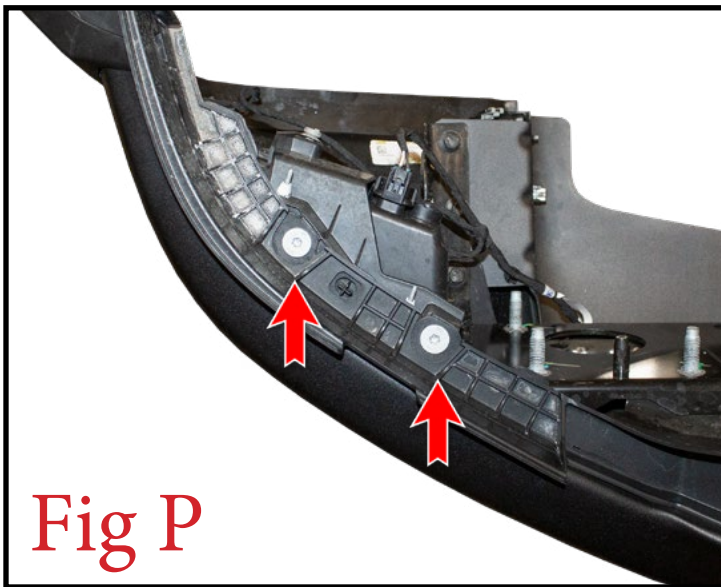
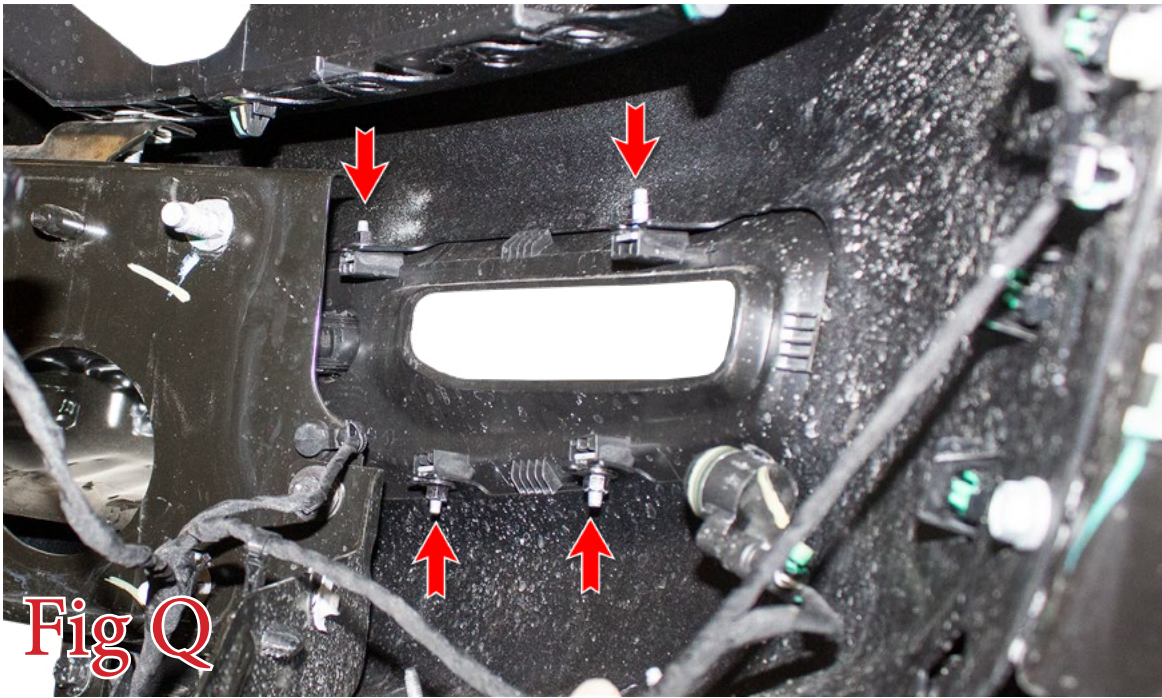


Fig P

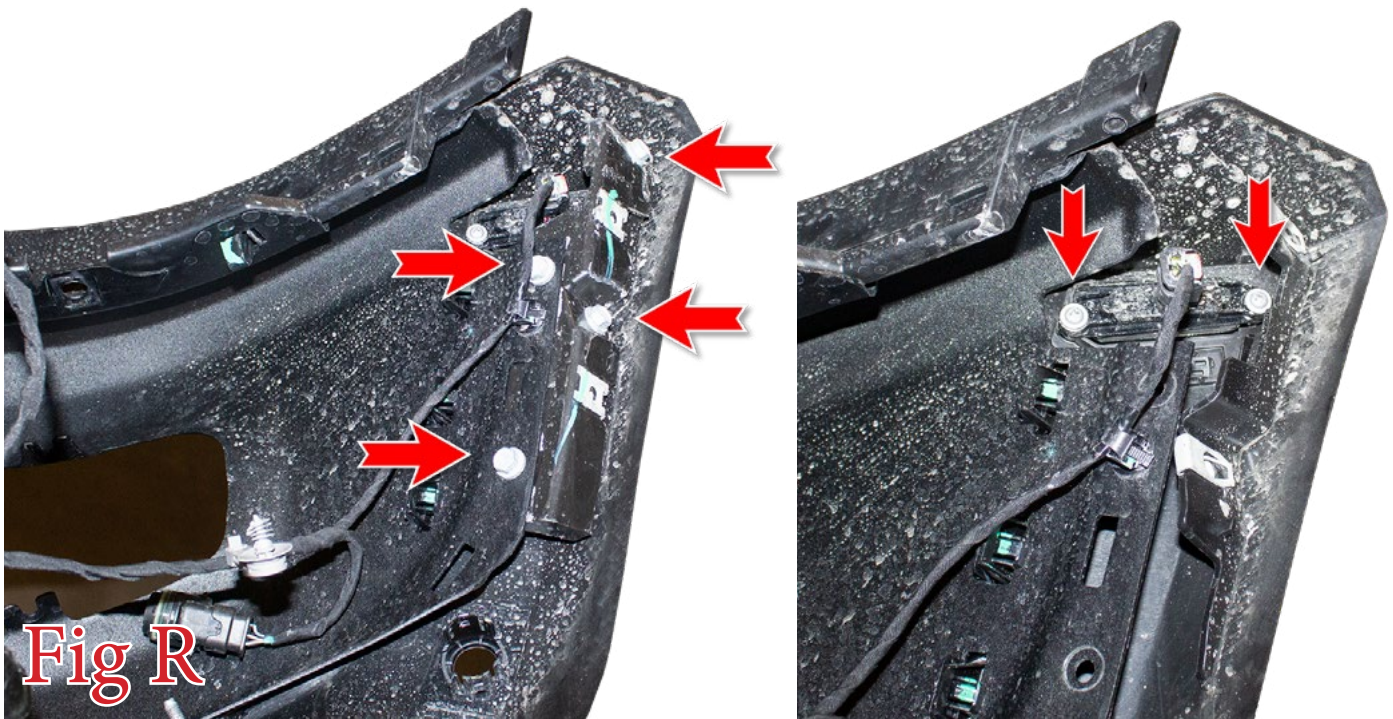




17. Use an 8mm Socket to remove the mounting nuts that hold the fog light trim piece onto the bumper. Then, remove that piece from the bumper. (Fig Q)



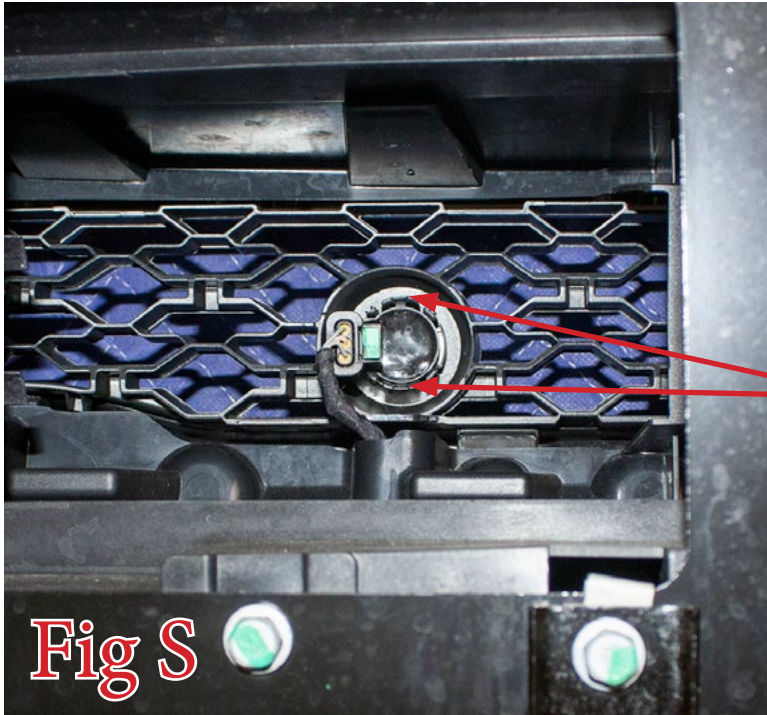
18. Use a 10mm Socket to remove the four bolts that hold the plastic trim piece to the edge of the OEM bumper. Then, remove that piece and use a Phillip's Head Screwdriver to remove the two marker light mounting screws. Remove the marker lights from the bumper. (Fig R)





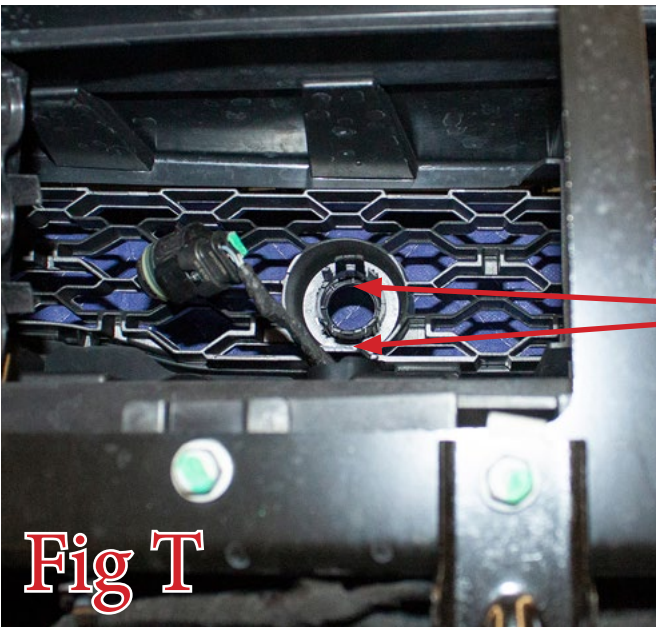


19. Remove the parking sensors from their mounting rings. To do this, spread the tabs on the back side of the rings and push the sensors out the back side. **Make sure to keep track of the position/orientation they come off your OEM bumper so you can reinstall them in the same position/orientation on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



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

20. 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 T) You do not need to remove the outer two sensor bezels.



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





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



Fig U

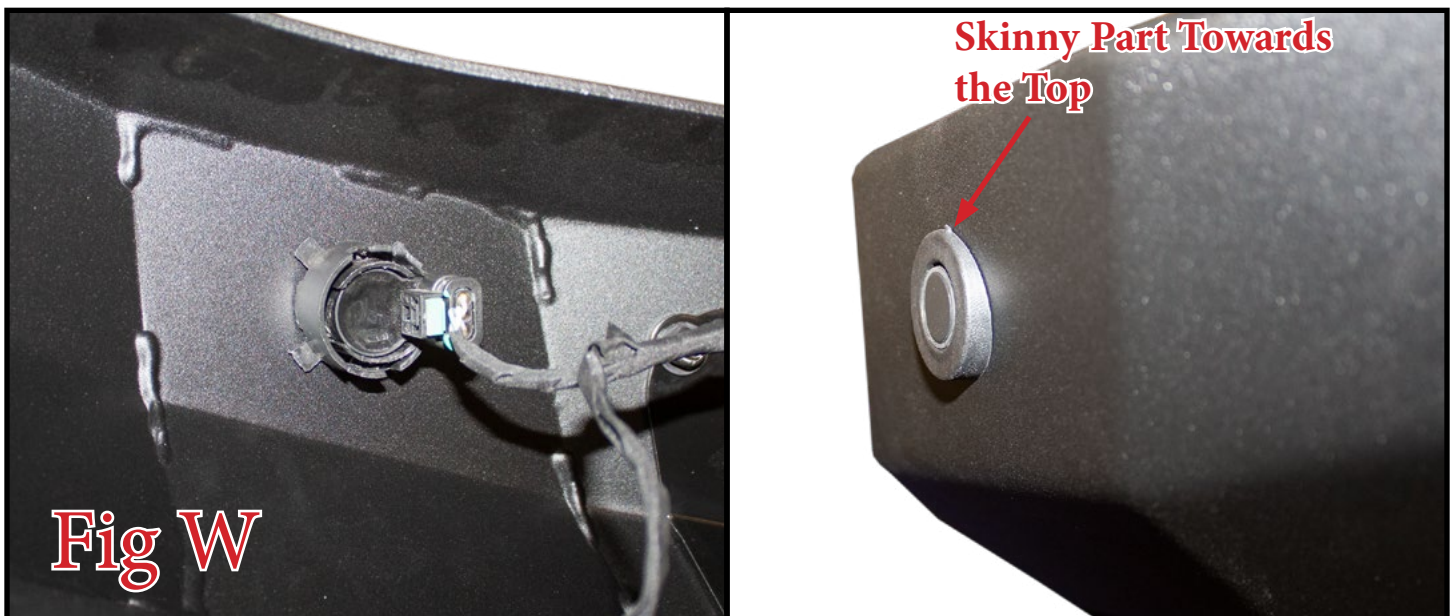


## Installation:

22. 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 V)



23. On the two outer sensor locations install the sensors in the provided bezels with the skinny side facing up. You will notice that one side will be oriented the same as factory and the driver side will be 180 degrees opposite. **\*\*Also note that the sensor plug needs to be 90 degrees to the ground\*\*** If your sensor bezel is loose in the bumper and can easily be rotated we recommend applying a small dab of silicone or epoxy to the back side to prevent them from rotating.







24. 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 X)



25. 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.



26. Switch out the Stealth Fighter plate to install the new winch plate. The plate is held in place by (10) button head bolts. "Fig Y" (Now is a good time to install the fairlead)

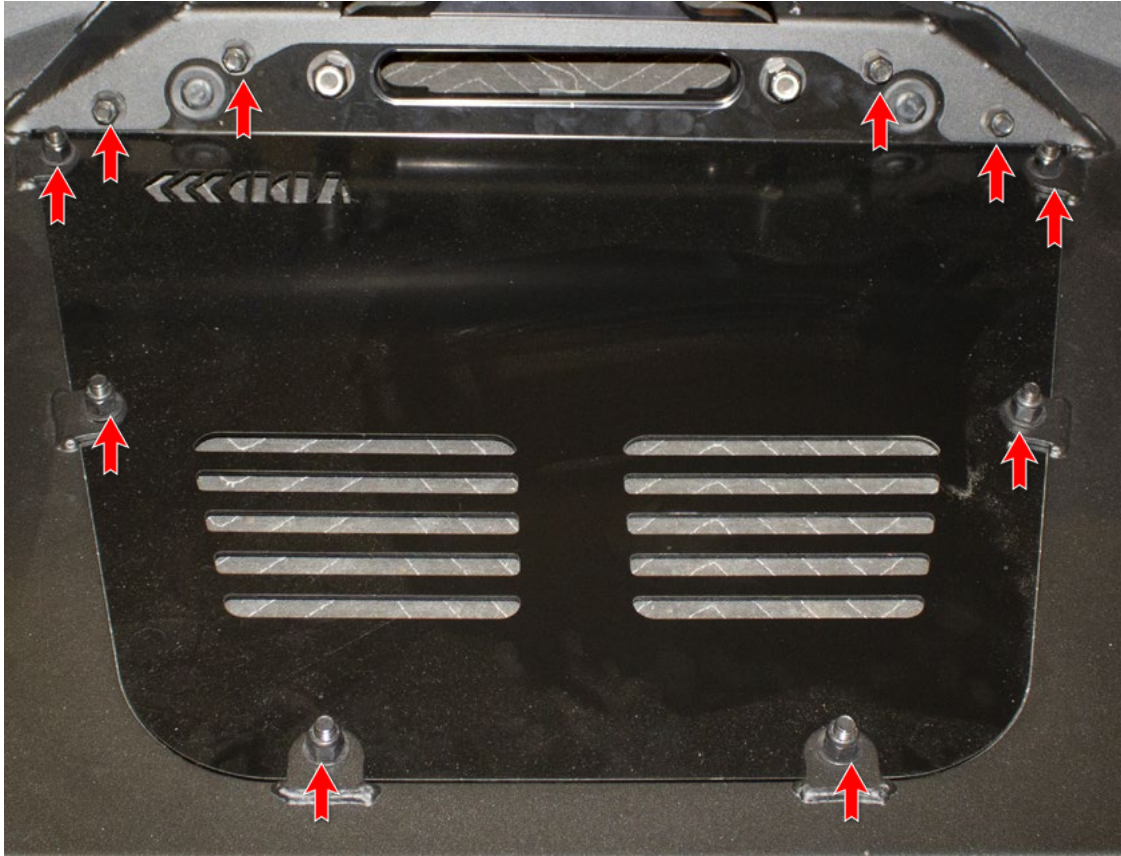
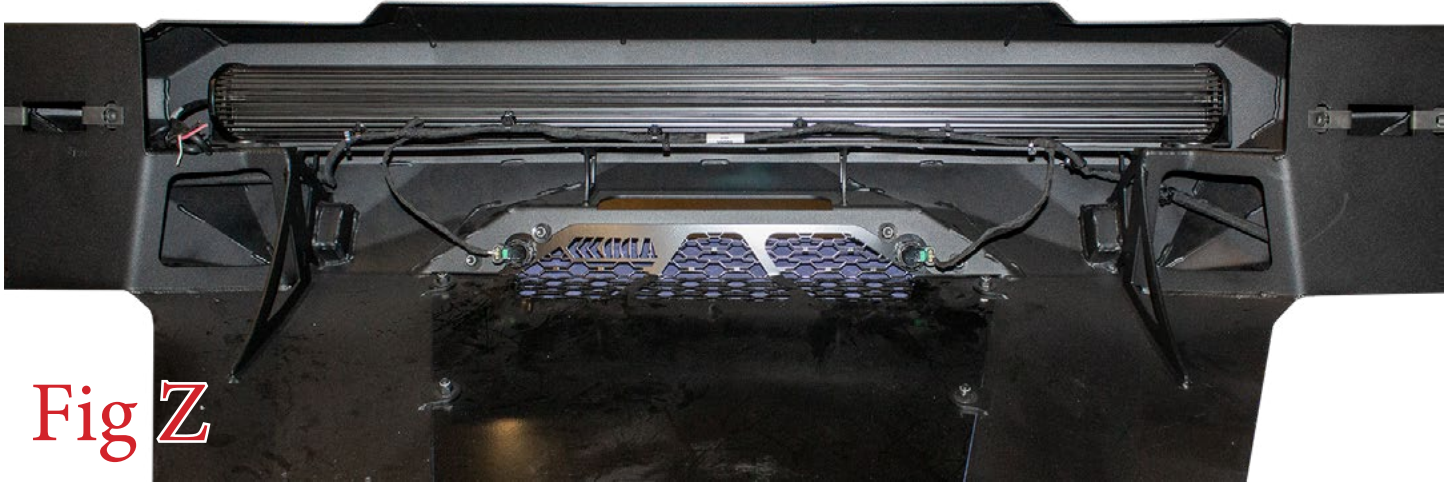


Fig Y



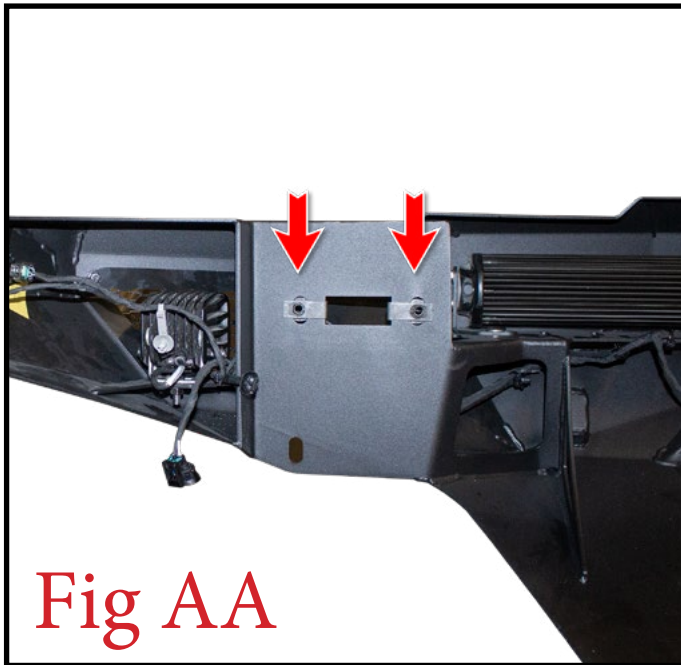


27. Carry over the harness and parking sensors from the OEM bumper. As you install the harness, install the parking sensors. Make sure to install them in the same position/orientation as they came off the OEM bumper. (Fig Z)



**Fig Z**

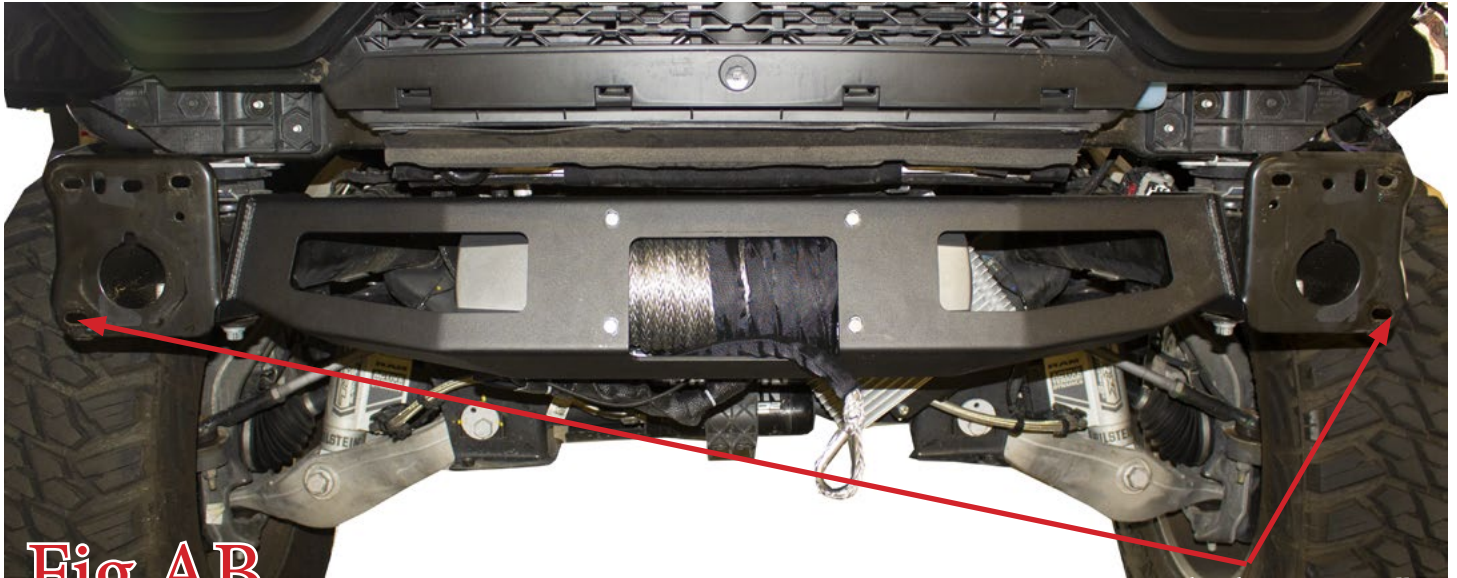
28. Install the supplied U-Nuts (2 per side) onto your new bumper as shown in (Fig AA).



**Fig AA**



29. 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 AB)



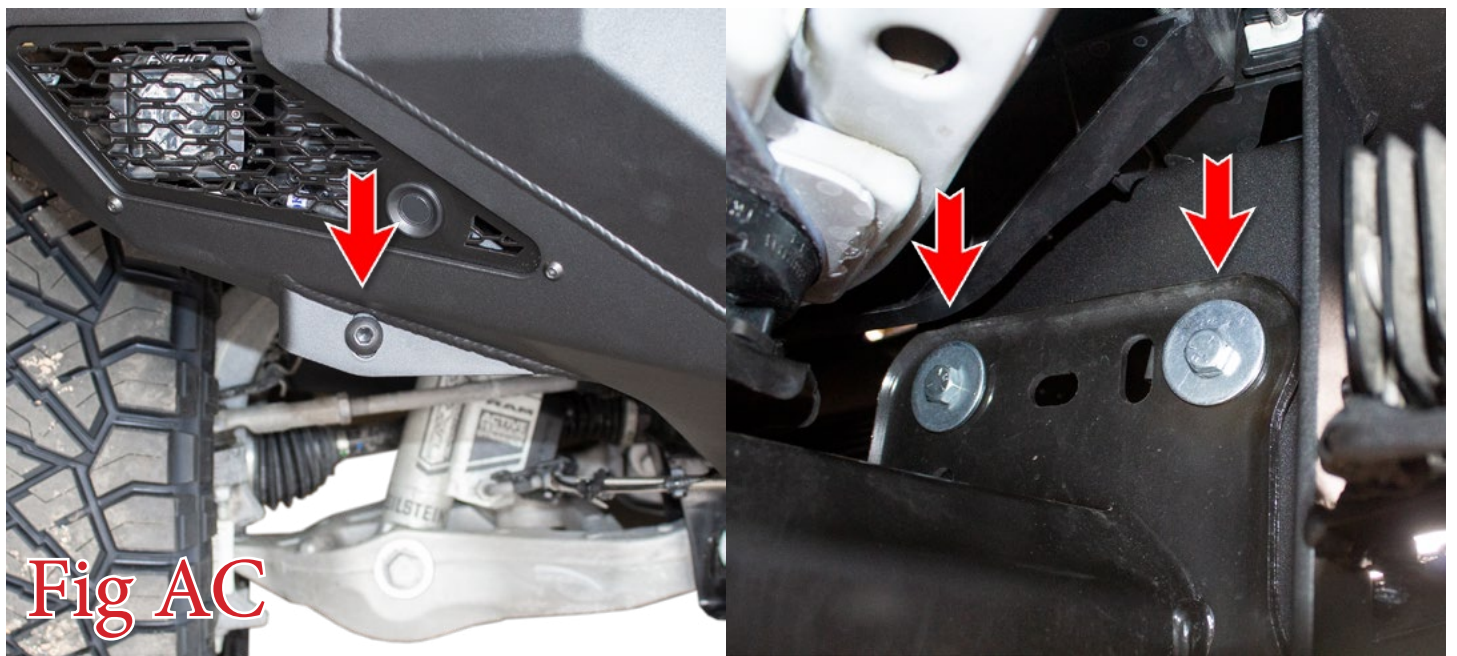
**Fig AB**

**Drill these holes to 1/2"**

30. 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 AC)

**View From Front**

**View From Rear**



**Fig AC**

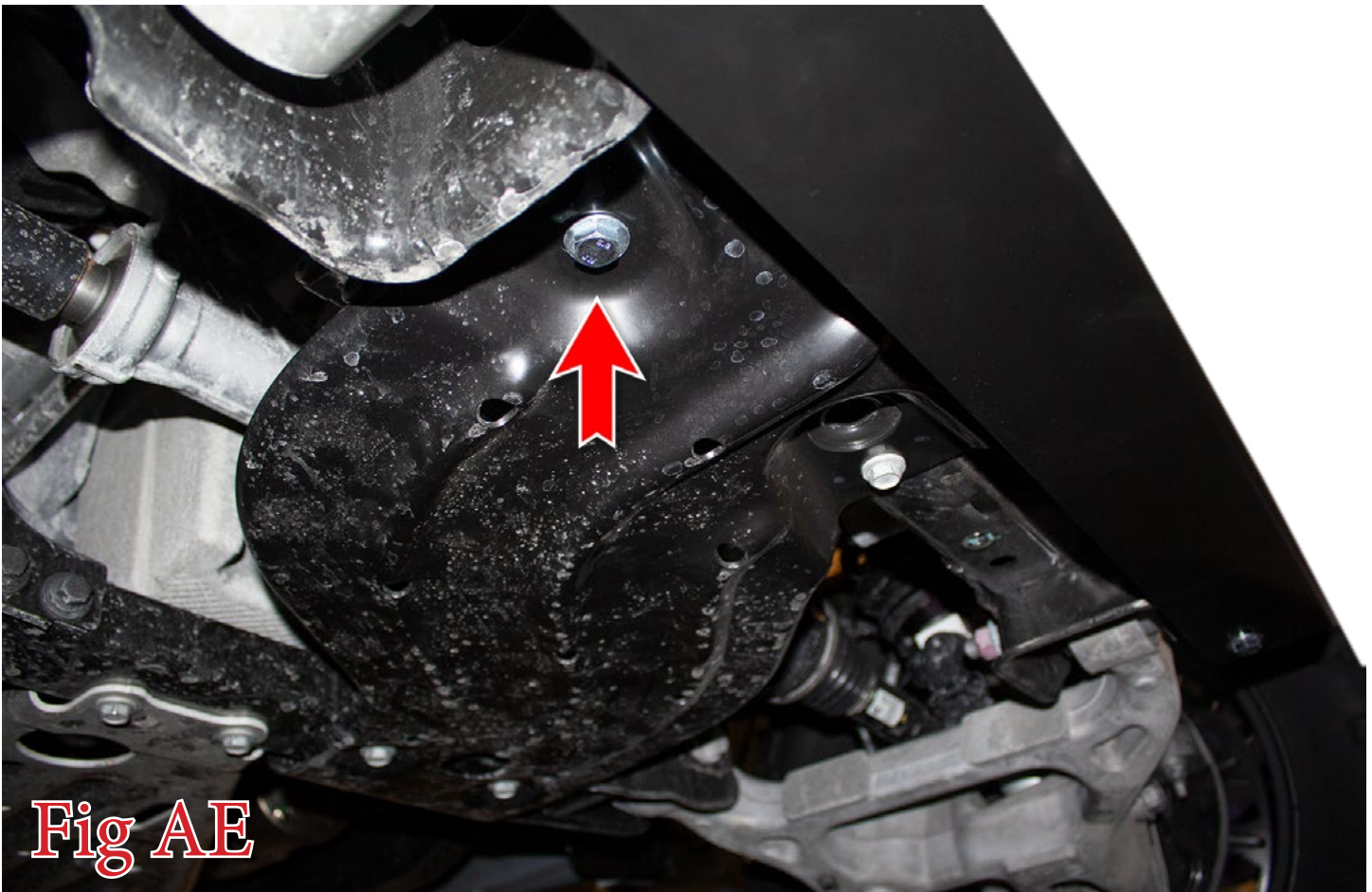




31. Install the lower skid plate mounting bolts. Use the supplied M10 Bolts (x2) and M10 Washers (x2). Leave these bolts loose for now. (Fig AD)



32. Install the remaining M10 Bolt/Washer into the hole referenced in (Fig AE).





33. 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.
34. Stand back and enjoy your new ADD Stealth Fighter™ Front Bumper.
35. Check and re-tighten, if needed, all mounting bolts after 100 miles and periodically thereafter.

