

# ADDICTIVE DESERT DESIGNS

## 2017 – Current Ford Raptor ADD Pro Front Bumper Installation Instructions

### PREPARATION

1. Disconnect the negative terminal on the battery. Park the vehicle on level ground and set the emergency brake.
2. We recommend reading through the installation instructions in whole before performing the work.
3. Estimated Installation Time: **2 Hours**
4. You will need the following tools:
  - a. Ratchet
  - b. 3/4" Socket and Wrench
  - c. 9/16" Socket
  - d. E6 External Torx Socket
  - e. 8mm Socket
  - f. 11mm Socket
  - g. 13mm Socket
  - h. 15mm Socket
  - i. 21mm Socket
  - j. Cutting Tool (We recommend a Sawzall)
  - k. Grinder
  - l. Black Paint

*Note: this installation requires 2 people for best results*

5. Included in Kit:
  - 2** - Hex Head Bolts – 3/4"-10 x 5 1/2"
  - 4** - Washers – 3/4"
  - 2** - Nylon Lock Nuts – 3/4"-10
  - 6** - Hex Head Bolts – 1/2"-13 x 1 1/2"
  - 12** - Washers – 1/2"
  - 6** - Nylon Lock Nuts – 1/2"-13
  - 2** - Hex Head Bolts – 3/8"-16 x 1 1/2"
  - 2** - Washers – 3/8"
  - 2** - U-Nuts – 3/8"-16

**\*\*You will need to install an Intercooler Kit in order to install this bumper.**

**Follow this bumper guide to remove your OEM Bumper.**

**Then, follow the Intercooler Kit Install Guide through Step 13.**

**After completing the First 13 Steps of the Intercooler Kit Guide, Follow Removal Step 12 through Installation Step 3 in this guide to cut your frame and mount the new frame horns/intercooler support beam.**

**Finish the Intercooler Kit Install.**

**Finally, Finish your Bumper Install.**

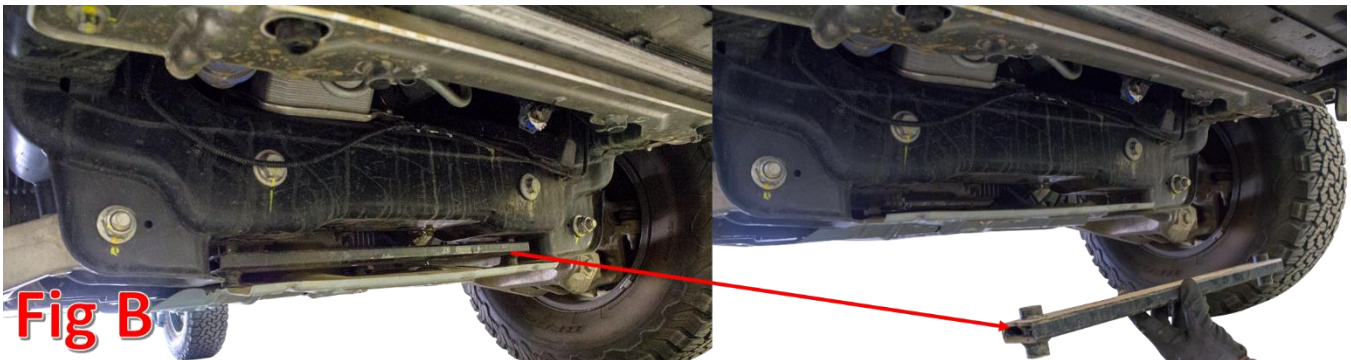
## REMOVAL

1. Use 13mm and 15mm Sockets to remove the skid plate bolts (x6), then remove the skid plate from the truck. (Fig A)



**Fig A**

2. Remove the metal spacer that the bottom two skid plate bolts go through. Then, remove the two factory U-nuts that the bottom two skid plate bolts threaded into. (Fig B)



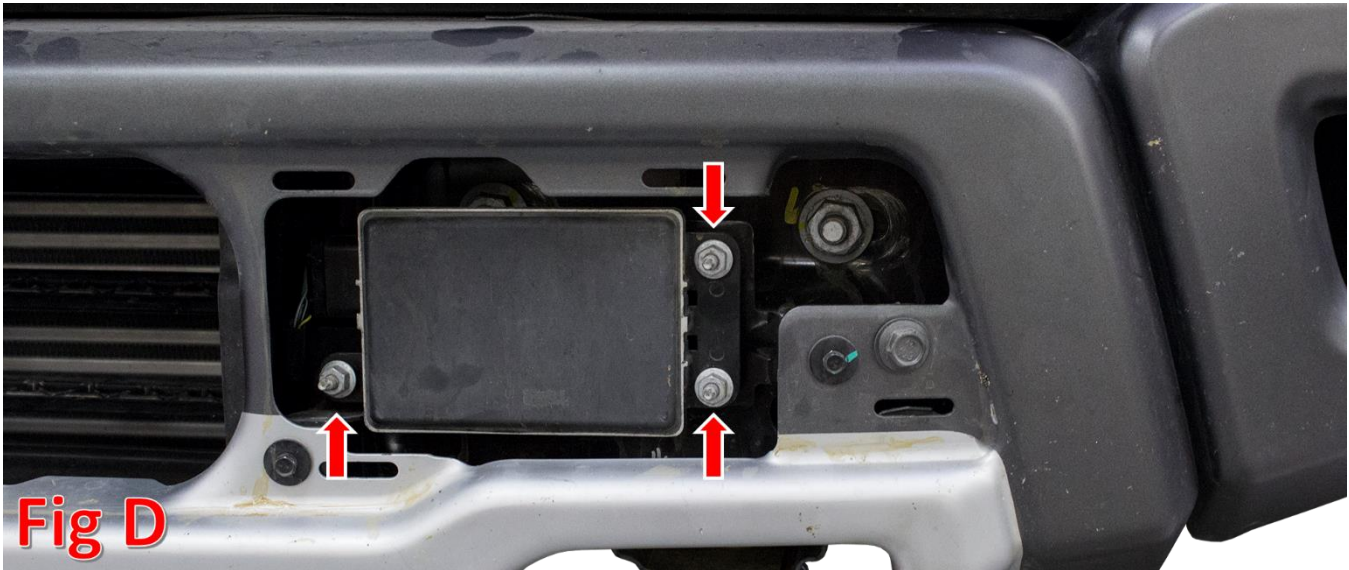
**Fig B**

3. Carefully pull the front plastic piece off of the bumper. There are no tools required for this step, it pulls off by hand. (Fig C)

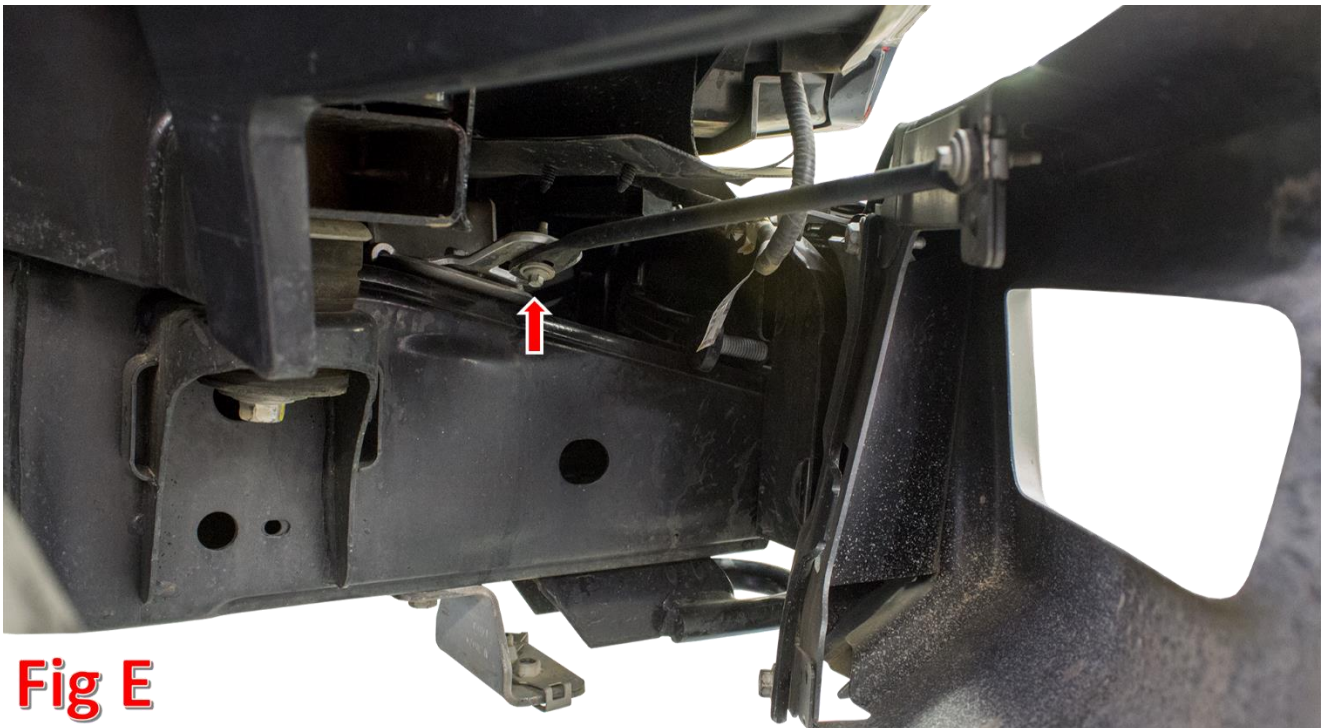


**Fig C**

4. Remove your Adaptive Cruise Control Module. (Fig D)
  - a. Using an 11mm Socket, remove the three nuts holding the Module on.
  - b. Using an E6 External Torx Socket, remove the three studs holding the Module on.
  - c. Remove the Module.



5. Remove the 8mm Bolt that holds on the bumper side support bar. Repeat this step on the other side. (Fig E)

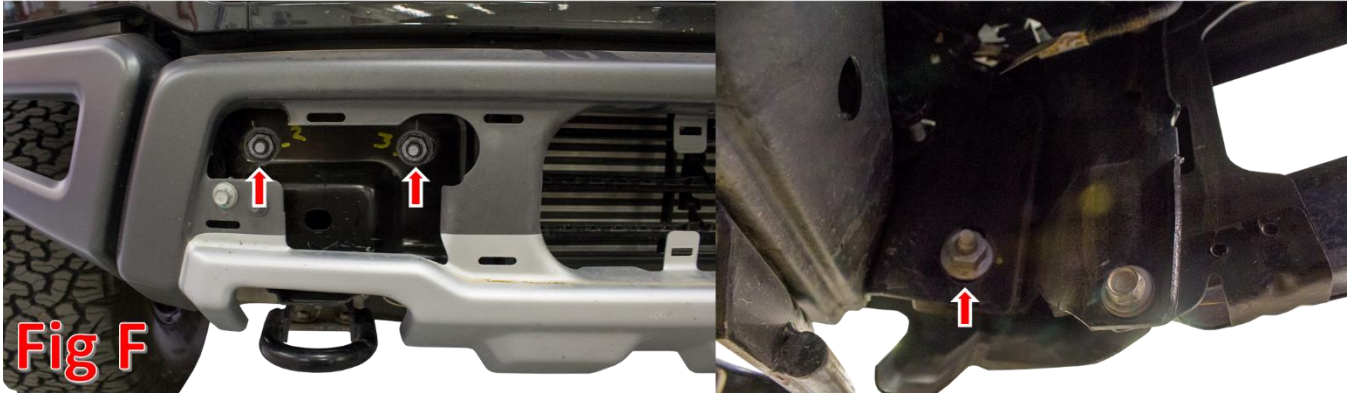


6. Remove the 21mm Nuts that hold on the bumper. There are three per side. Two of the nuts (per side) face the front (they were hidden behind the plastic piece you removed in Removal Step 3). One of the nuts (per side) faces the rear of the vehicle and is accessible from underneath the truck. (Fig F)



**View From the Front**

**View From the Rear**

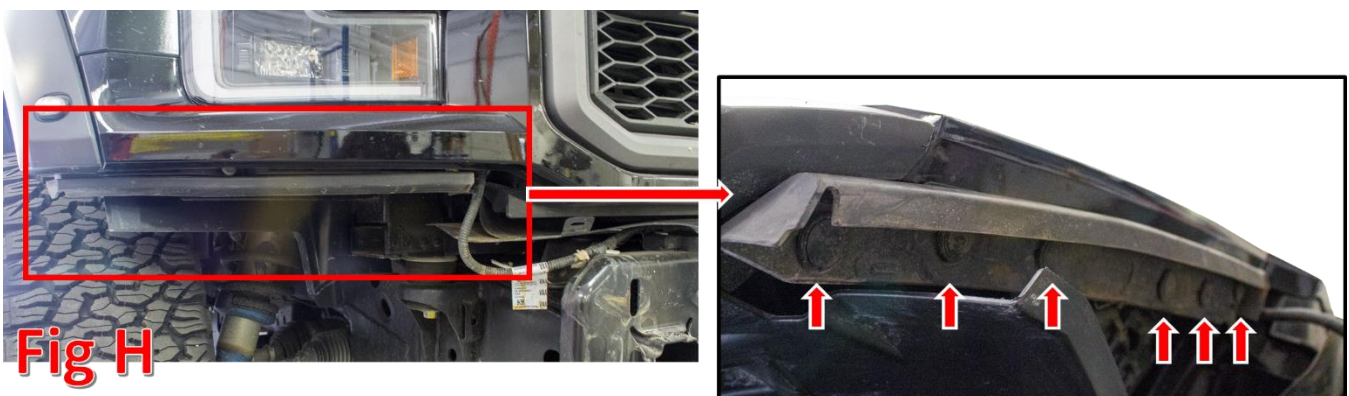


7. Remove the bumper from the truck. As you are removing the bumper, be sure to pull the rubber shroud from the plastic clips that attach it to the bumper. (Fig G)



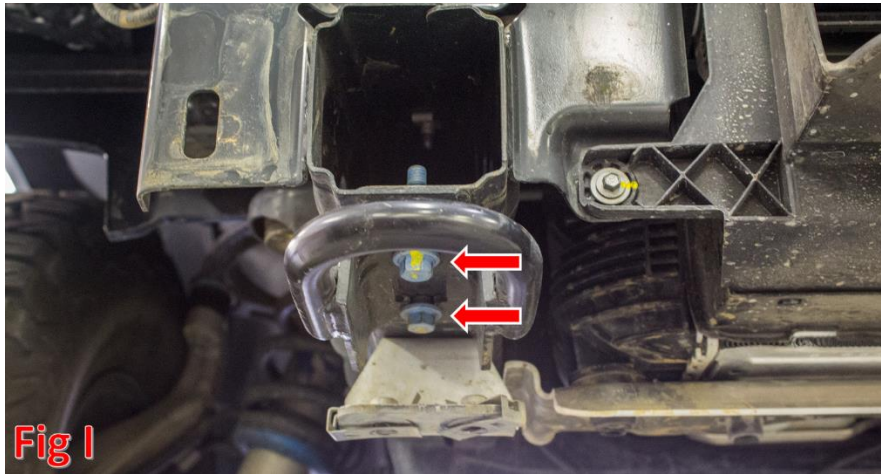
**Fig G**

8. Remove the rubber piece that runs along the bottom/front section of headlight bezel. There are six plastic clips holding this on. Repeat this step on the other side of the truck. (Fig H)



**Fig H**

9. Remove the tow hooks by removing the two 15mm bolts that hold each of them on. (Fig I)



10. Remove each of the Skid Plate Brackets by removing the 13mm bolt that holds each of them on. There is one bolt per side. (Fig J)

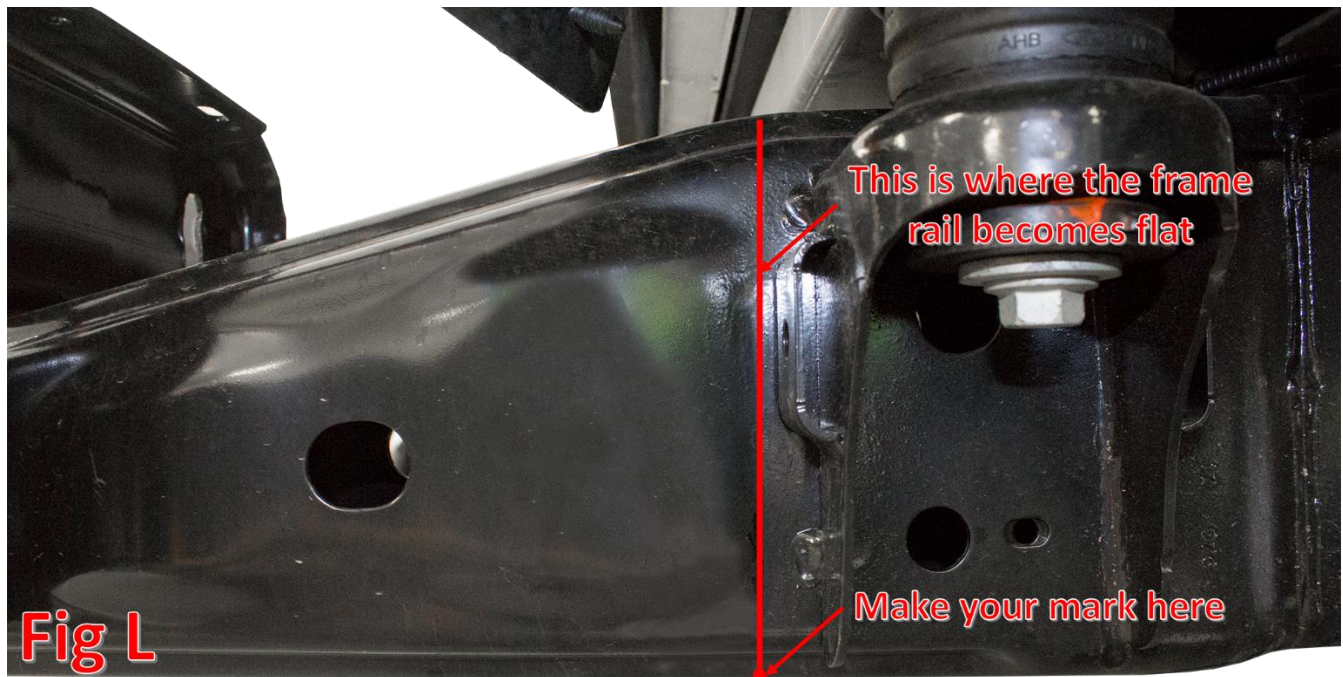


11. Remove your OEM intercooler and surrounding parts. This procedure is outlined in the first 13 Steps of the Intercooler Kit Installation Guide.
12. Cut your frame horns.
  - a. Remove the OEM nut clip from the top of the frame rail right behind the frame horn. Then, mark a straight line across the frame rail that lines directly up with the top of the square hole that you took the nut clip out of. (Fig K)





- b. Look at the side of the frame rail directly behind the frame horn. Before the frame rail hits the first body mount, it becomes flat. Follow the line in which the frame becomes flat down to the bottom of the rail and make a mark. (Fig L)



- c. Connect the straight line on the top of the frame rail the mark you made at the very bottom of the side of the frame rail. (Fig M)



- d. Cut your frame horn along the line you just made in Step 12c. (Fig N)





**Fig N**

- e. Reinstall the nut clip you removed in Step 12a.
- f. Paint any bare metal.

13. Prepare to install your new ADD Pro Bumper.

## INSTALLATION

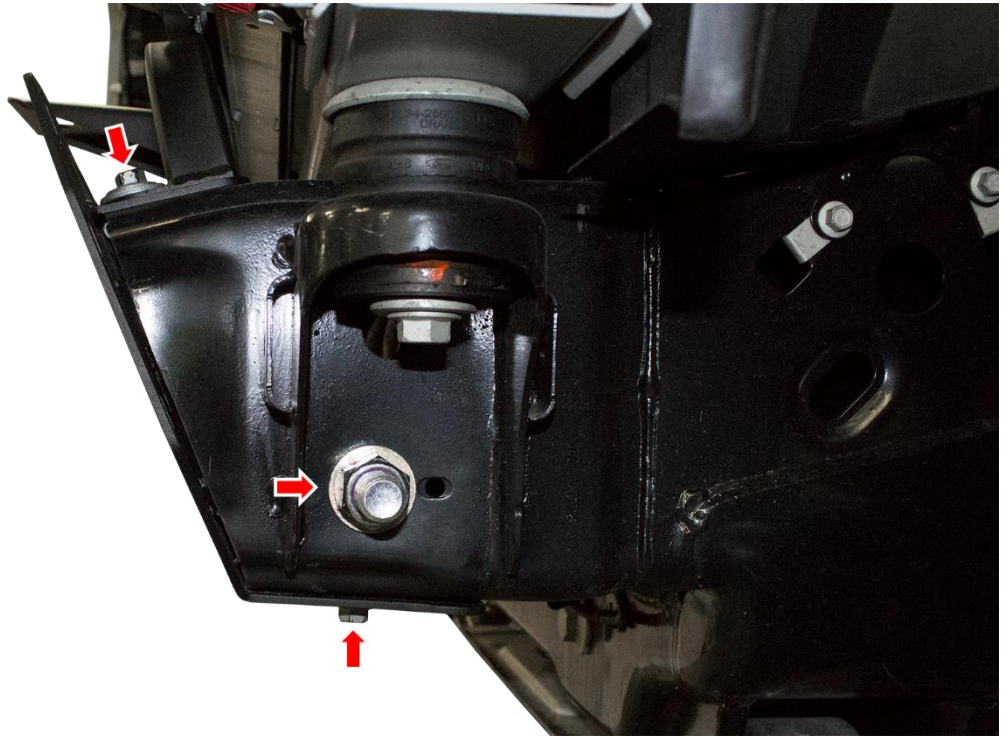
1. If you have any lights to install on your bumper, now would be a good time to do so. For light installation information, please follow the light manufacturer's mounting and wiring information.
2. Install the supplied 3/8" U-Nuts (x2) into the holes in the cross member that lined up with the two rear skid plate bolt holes (You removed these bolts and the factory U-nuts in Removal Steps 1 & 2). (Fig O)



**Fig O**

3. Install the supplied bumper mounting plates. (Fig P)
  - a. Slide them into the frame horns until the bolt holes line up.
  - b. Install one of the OEM skid plate bolts in the bottom hole.

- c. Install the supplied 3/4" Bolt, 3/4" Washers (x2), and 3/4" Nut in the center hole.
- d. Install the supplied intercooler beam by setting it in place on top of the frame rail and using the OEM bolts to secure it and the new bumper mounting plates in place.
- e. Torque the OEM bolts to OEM torque spec. Torque the 3/4" Bolts to 180 foot pounds.



**Fig P**

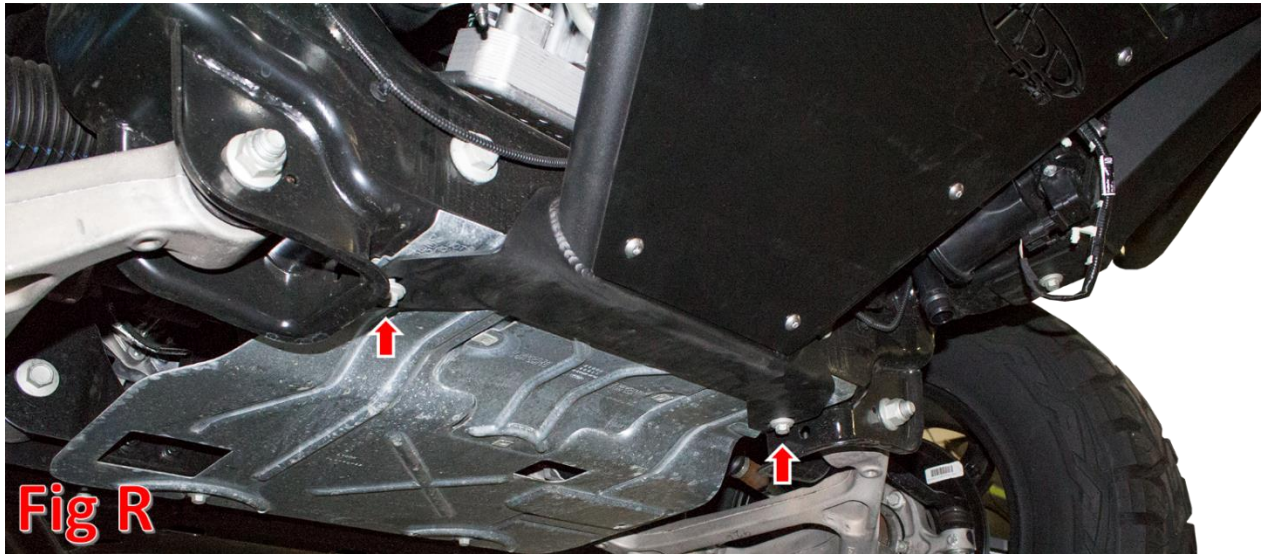
4. Finish your Intercooler Installation.
5. Mount your new Bumper to the Bumper Mounting Plates. Line the six mounting holes on the bumper up with the six mounting holes on the bumper mounting plates. Use the supplied 1/2" Bolts (x6), 1/2" Washers (x12) and 1/2" Nuts (x6) to hold the bumper loosely in place. (Fig Q)



**Fig Q**

6. Line the bottom mounting holes on the skid plate portion of the front bumper up with the U-nuts you installed in Installation Step 1. Loosely install the supplied 3/8" Hex Head Bolts (x2) and 3/8" Washers (x2). (Fig R)





7. Align the bumper so that it sits straight in relation to the grille/headlight bezels.
8. Torque the supplied 1/2" bolts to 70 foot pounds. Torque the OEM Hardware to OEM torque specifications. Torque the supplied 3/8" Hex Head Bolts to 20 foot pounds.
9. Stand back and enjoy your new ADD Pro Front Bumper.
10. Check and re-tighten if needed, all mounting bolts after 100 miles and periodically thereafter.

