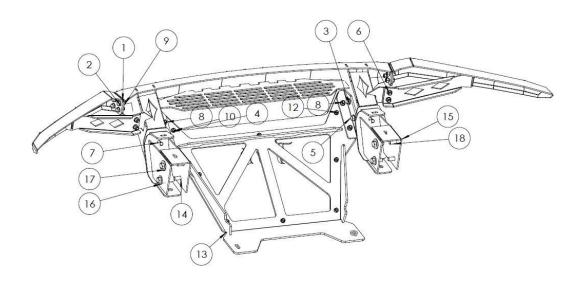
## KHC Offroad Frame Cut Front Bumper Installation Instructions

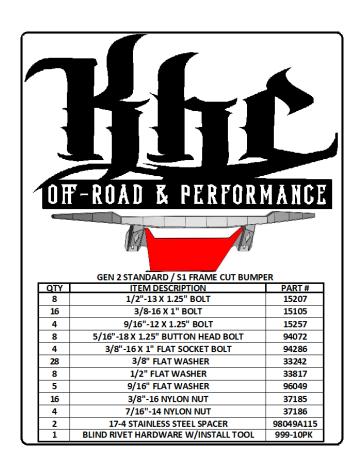
Tools Required:

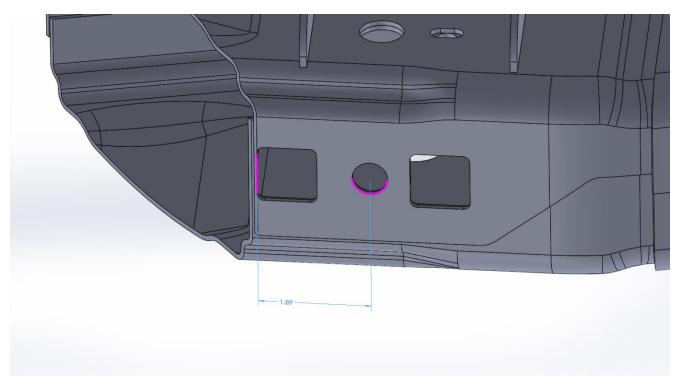
- Saw saw or cutting wheel
  - Grinder
- 13mm, ½, 9/16, 5/8, ¾, 13/16 sockets and wrenches
  - 7/32 Allen
  - T25 Torx

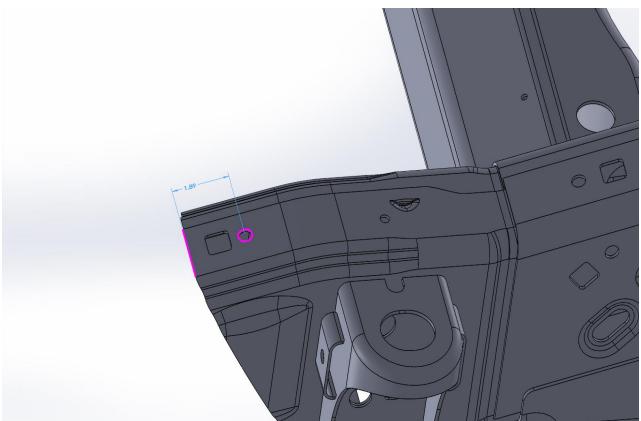
Note: Installation of this bumper requires the factory intercooler to be relocated into the grill and if the truck is equipped with adaptive cruise control the sensor must also be relocated.











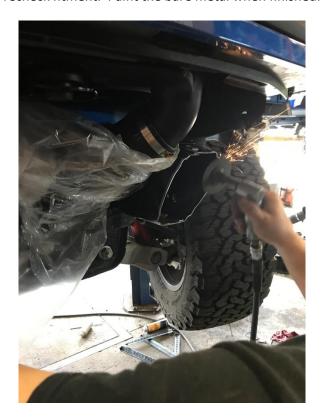
Once you have removed the factory front bumper and factory intercooler you are ready to mark the frame according to the supplied diagram for cutting.



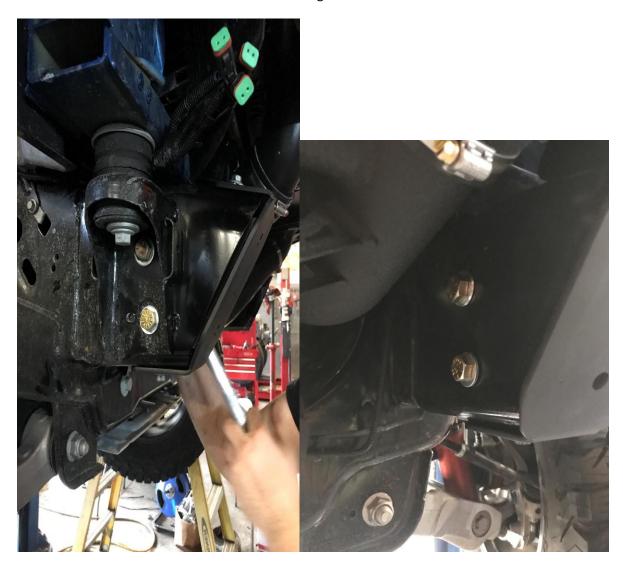
Cut the frame using the cutting tool of your choice. We always use a saw saw to keep the sparks to a minimum



Using a grinder dress and straighten the cuts. Now check the frame insert fitment making sure the frame doesn't contact the front of the insert when installed. If it does grind or cut further back and recheck fitment. Paint the bare metal when finished.



Once you have a good fit with clearance as shown in the pic install the inserts in their correct sides with  $\frac{1}{2}$  in and  $\frac{9}{16}$  bolts on each side through the frame holes. Only snug the bolts. Reuse the factory upper and lower bolts. Snug on the lower bolt.

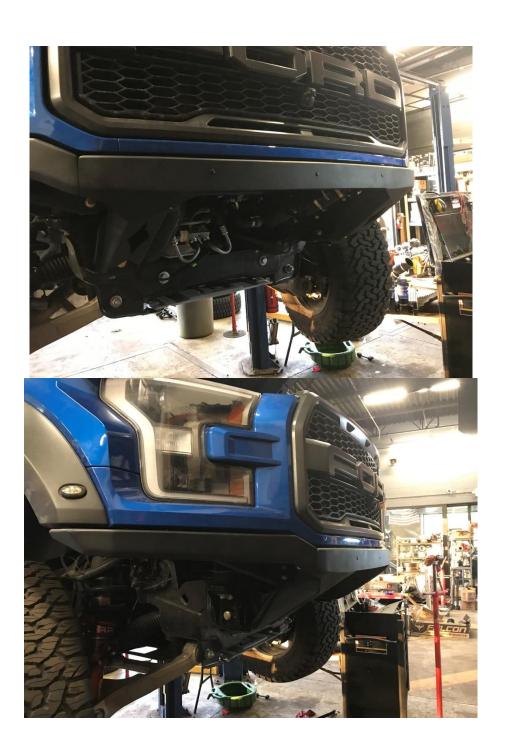


Now install the bumper center section with supplied ½ bolts leaving the bolts loose. Then install the 2 side bumper pieces with supplied 3/8 hardware. Line up the outer parts to the main bumper section so they match perfect and tighten the 4 3/8 bolts. Leave the 2 3/8 bolts loose on the support for now.

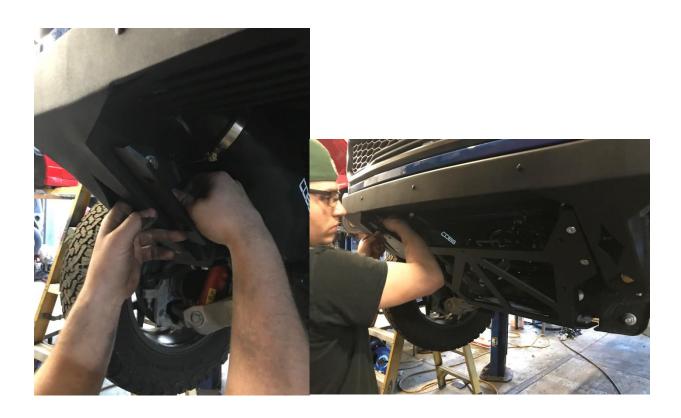


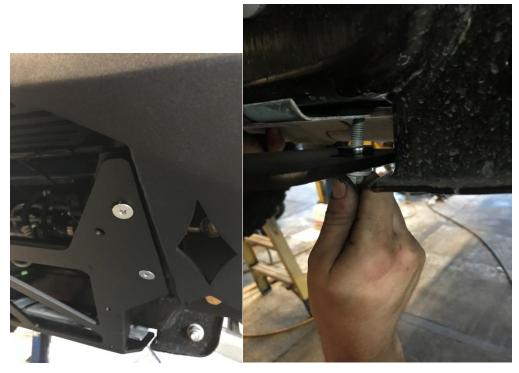
Start lining the bumper up to the truck. The frame inserts allow for some adjustment along with the slotted holes on the bumper main sections. Once you are happy with the alignment tighten the frame inserts completely and the main bumper section.

Note: Make sure to leave enough room between the body and bumper for body movement during off-road use. Generally 3/8 to ½ inch of space. If you do not leave this space the body will contact the bumper during off-road use.



Now install the bumper main brace brackets to the inside slotted holes on the bumper with supplied 7/16 hardware. Do not tighten yet. Install the center brace with supplied 3/8 flat head bolts along with factory skid plate bolt with supplied 3/16 spacer between them. Snug the lower bolts along with the flat head bolts while making sure the brace is centered. Now tighten these bolts along with the 7/16 side bolts.

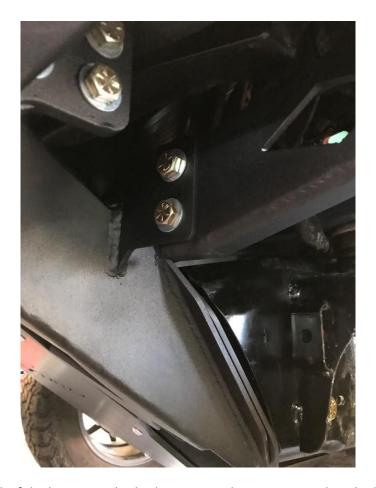




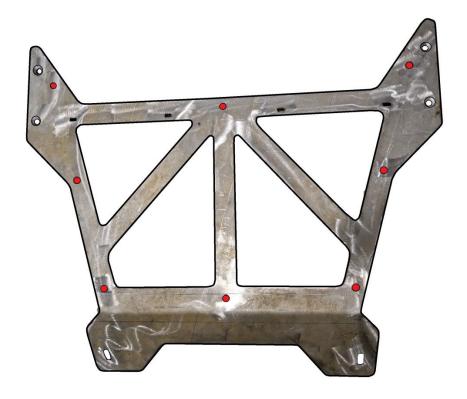


Install the skid plate with supplied 5/16 pan head bolts and tighten (see last page for full skid plate instructions)

Lastly the outer bumper wings can be adjusted if needed. Adjust them into position and tighten the 3/8 support bolts.



Do a final check of the bumper to body alignment making sure everything looks good. Make adjustments if necessary. Installation is complete.



For the Skid Plate installation, you will not be able to access the back of the brace to tighten the supplied 5/16 pan head bolts and nut. Use Supplied blind fastener kit.

