INSTALLATION GUIDE

2017–20 FORD RAPTOR
PRO–PLUS CUT–FRAME FRONT BUMPER
F110552070103



TOOLS REQUIRED
- 8mm, 10mm, 13mm,15mm, 21mm Socket
- 9/16", 3/4", 1-1/8" Socket
- E6 External Torx Socket
- 9/16, 3/4", 1-1/8" Wrench
- 7/32" Allen
- Tape Measure, Sharpie, Straight Edge, Cutting Tool, Panel Trim Removal Tool, Zip Ties

SKILL LEVEL
- Intermediate

TIME REQUIRED
- Approximately 3 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: (480) 671-0820
Addictive Desert Designs 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/PARTS

A1.



3/8-16 X 1-1/4" BUTTON HEAD BOLT

QTY: 2

A2.



3/8-16 CARRIAGE BOLT

QTY: 2

A3.



3/8" FLAT WASHER

QTY: 4

A4.



3/8-16" NYLON LOCK NUT

QTY: 2

A5.



3/8-16 U-NUT CLIP

QTY: 2

B1.



1/2-13 X 1-1/2" HEX HEAD BOLT

QTY: 6

B2.



1/2" FLAT WASHER

QTY: 12

B3.



1/2-13 NYLON LOCK NUT

QTY: 6

C1.



3/4-10 X 5-1/2'' HEX HEAD BOLT

QTY: 2

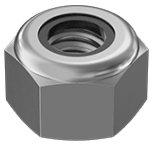
C2.



3/4" FLAT WASHER

QTY: 4

C3.



3/4-10'' NYLON LOCK NUT

QTY: 2

D1.



FRAME HORN MOUNT

QTY: 1

D2.



FRAME HORN MOUNT

QTY: 1

E1.



LIGHT MOUNT TAB

QTY: 1

E2.



LIGHT MOUNT TAB

QTY: 1

☐ STEP 1

Using a (13mm Socket), locate and remove the (4) upper skid plate mounting bolts indicated below.



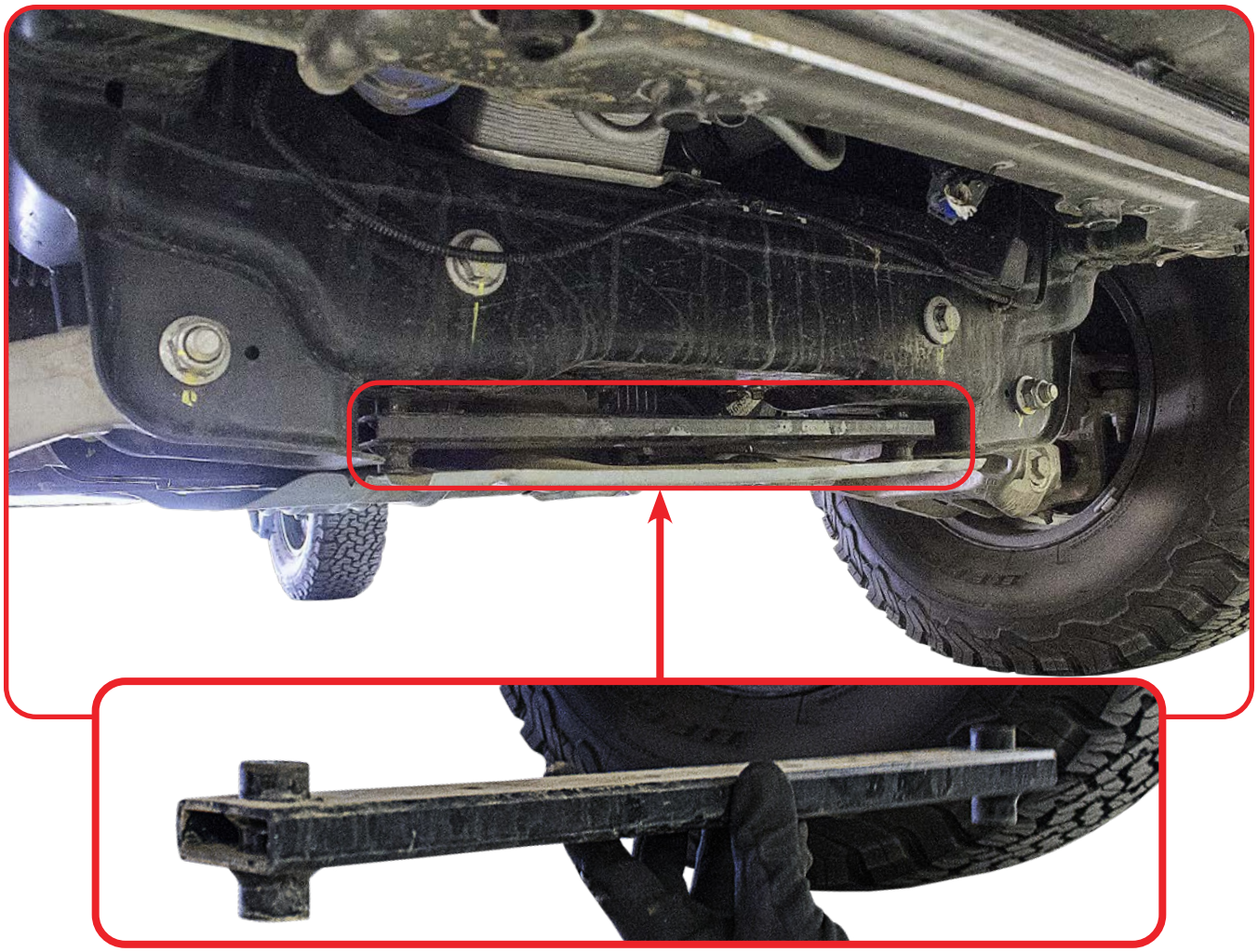
☐ STEP 2

Using a (15mm Socket), locate and remove the (2) lower skid plate mounting bolts indicated below, then remove the factory skid plate from the vehicle.



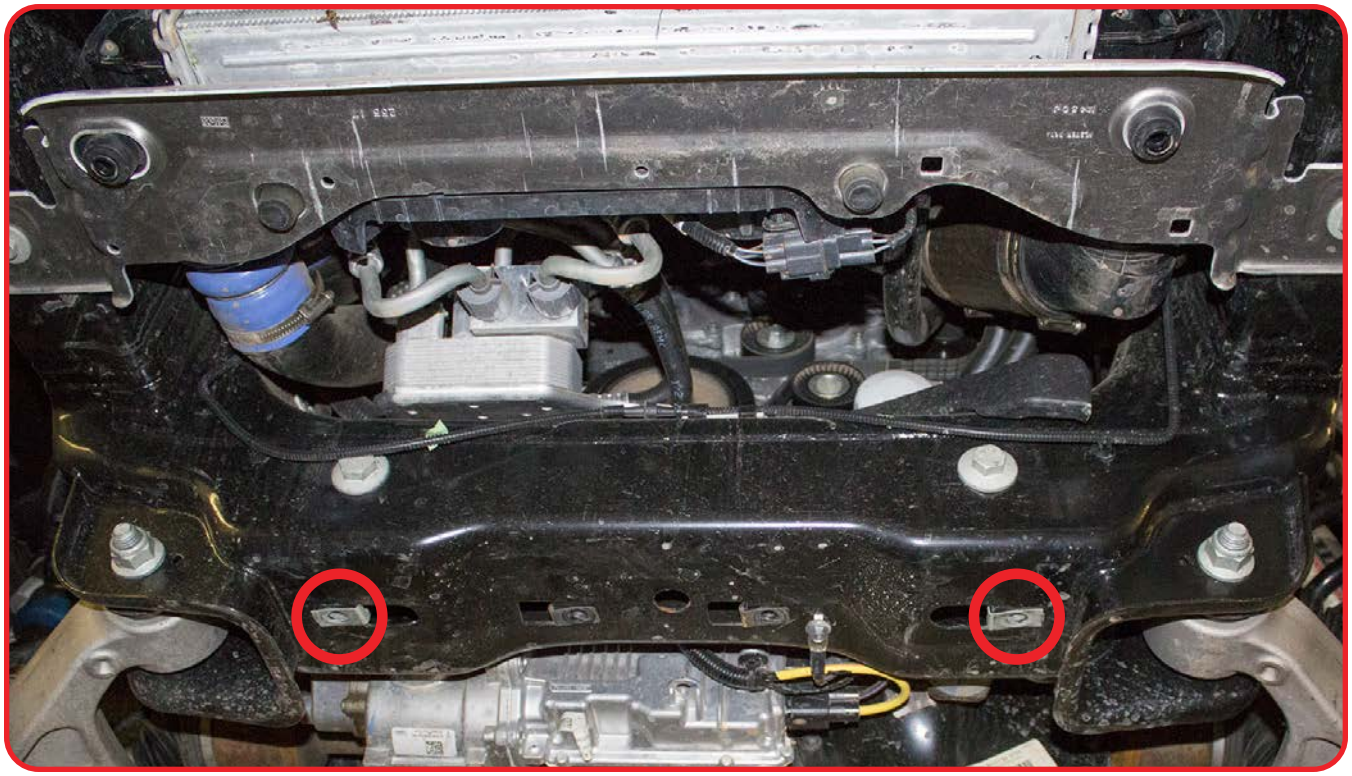
☐ STEP 3

Locate and remove the lower crossmember skid plate spacer indicated below.
(Set this aside for re-installation later on)



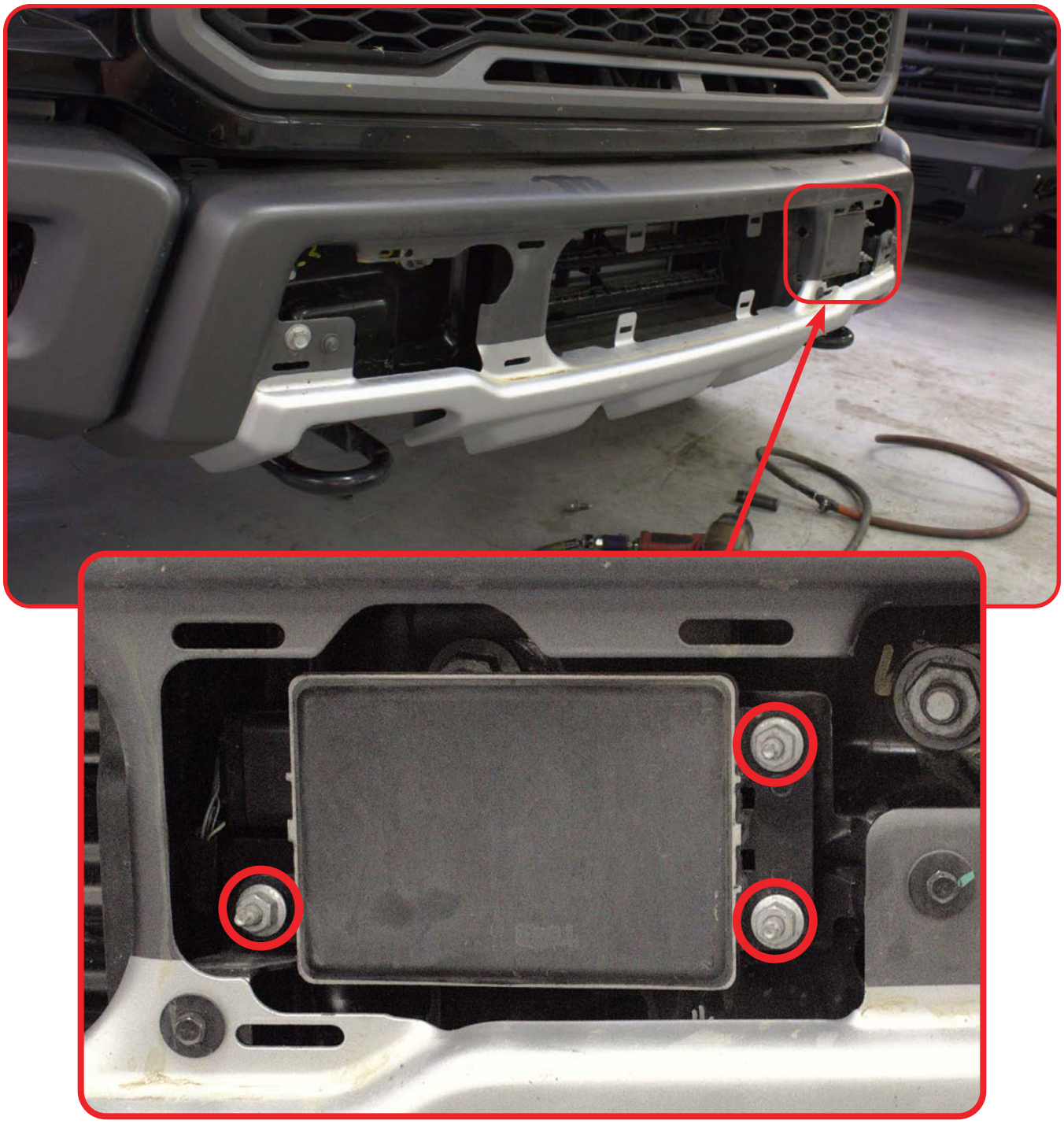
☐ STEP 4

With the lower crossmember skid plate spacer removed, remove and replace the (2) factory nut clips indicated below with the supplied hardware (A5).



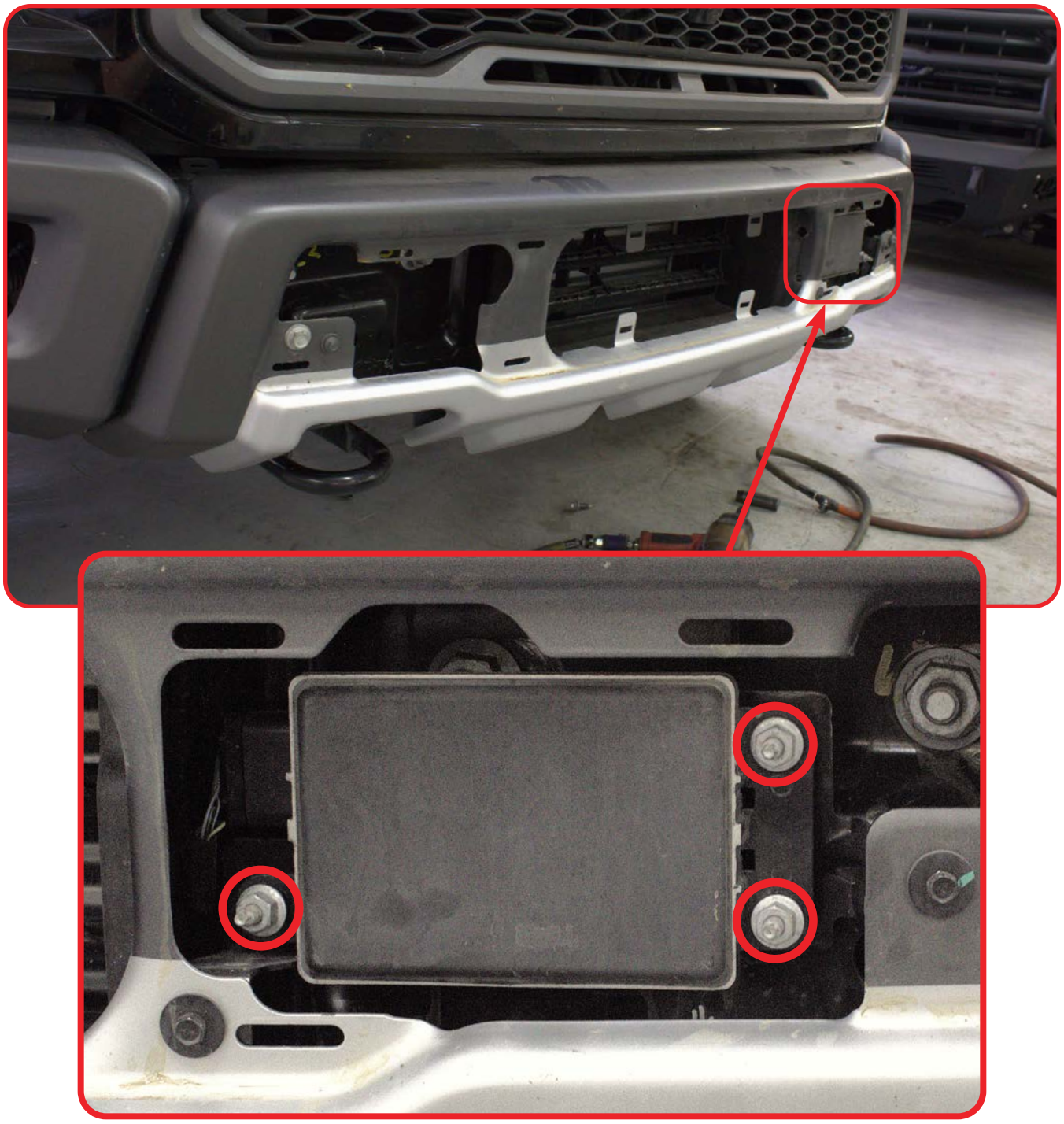
☐ STEP 5

Locate the Adaptive Cruise Control Sensor Module in front of the Driver side frame horn, then using an (11mm Socket) remove the (3) indicated retaining nuts from the mounting posts.



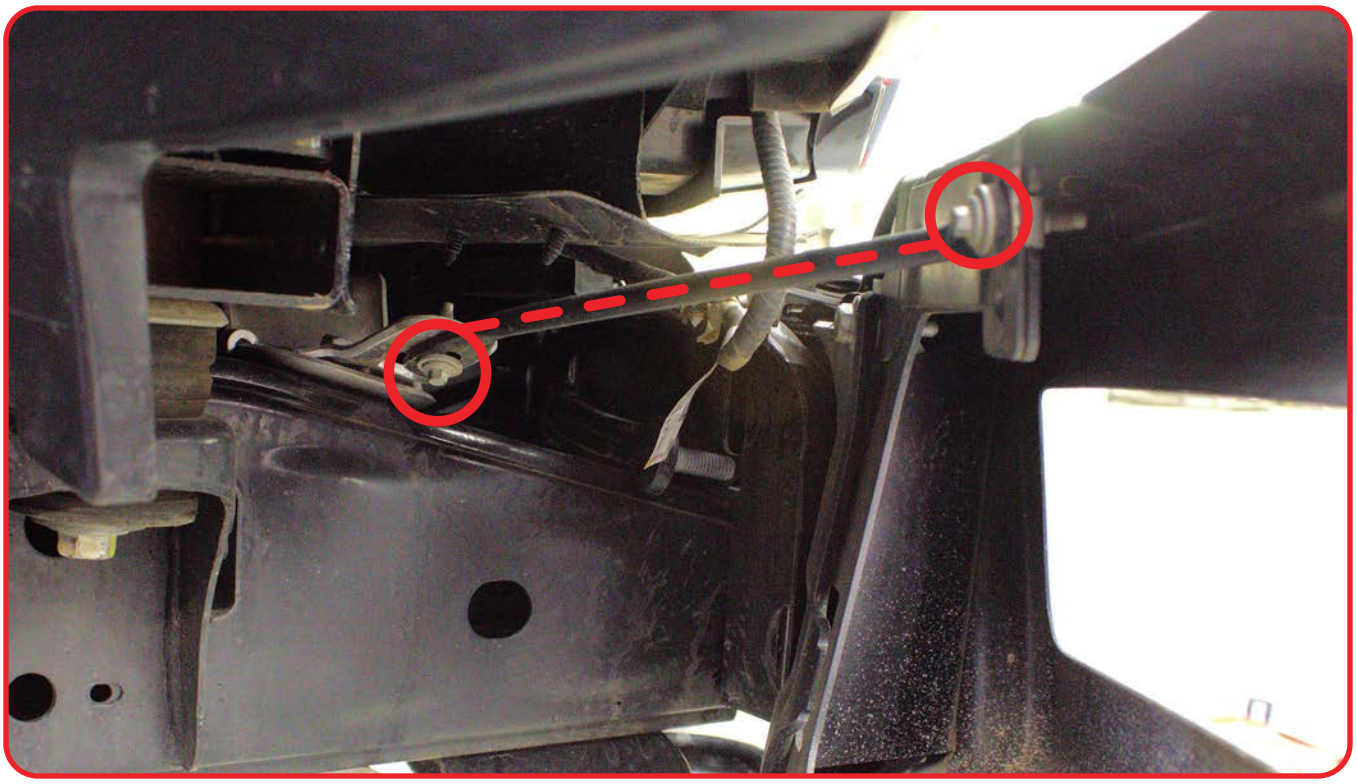
☐ STEP 6

With the ACC retaining nuts removed, use an (E6 External Torx Socket) to gradually and evenly loosen and remove the (3) indicated mounting posts with sensor from the bumper (these will remain fastened to the sensor housing at this time). Once the sensor is free, disconnect the harness connection and remove the sensor from the vehicle.



☐ STEP 7

Using an (8mm Socket) locate and remove the side bumper support brace indicated below. (Repeat on other side)



☐ STEP 8

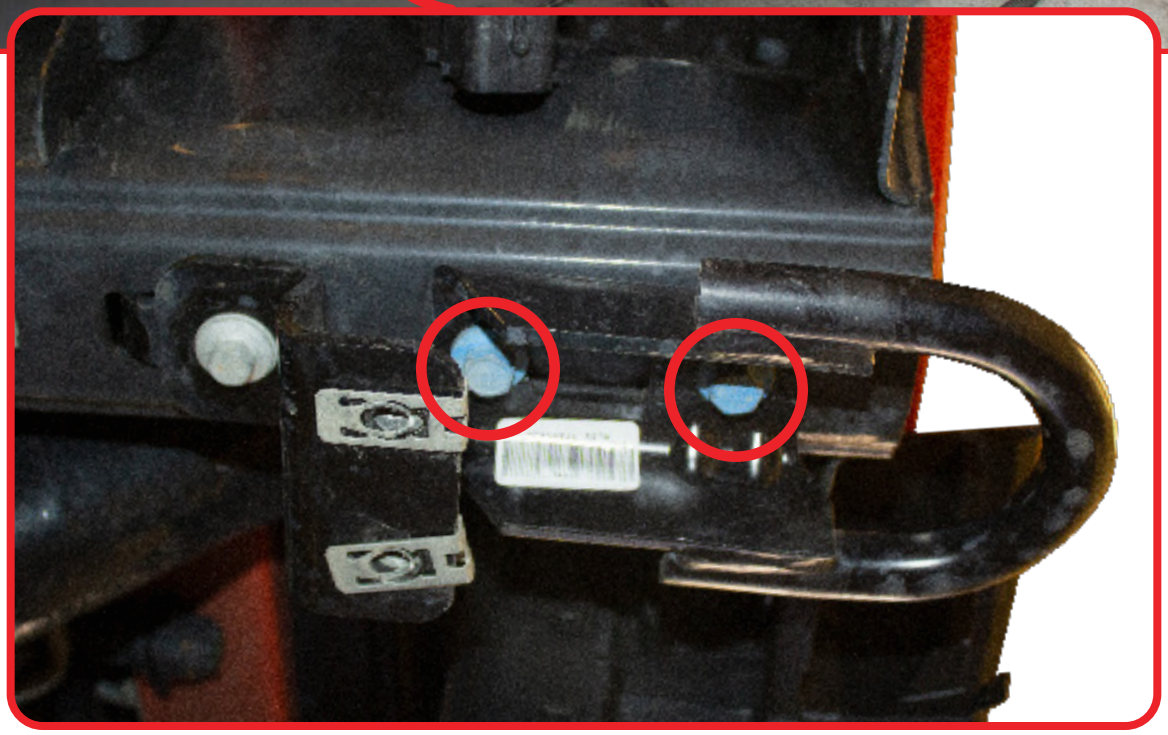
Using a (13mm Socket) remove the upper factory skid plate mounting bolt and mounting bracket from the vehicle.
(Save these bolts for reuse later on. Repeat on other side)



STEP 9

Using a (15mm Socket) remove the factory recovery point mounting bolts and D-Ring from the vehicle. (Repeat on other side)





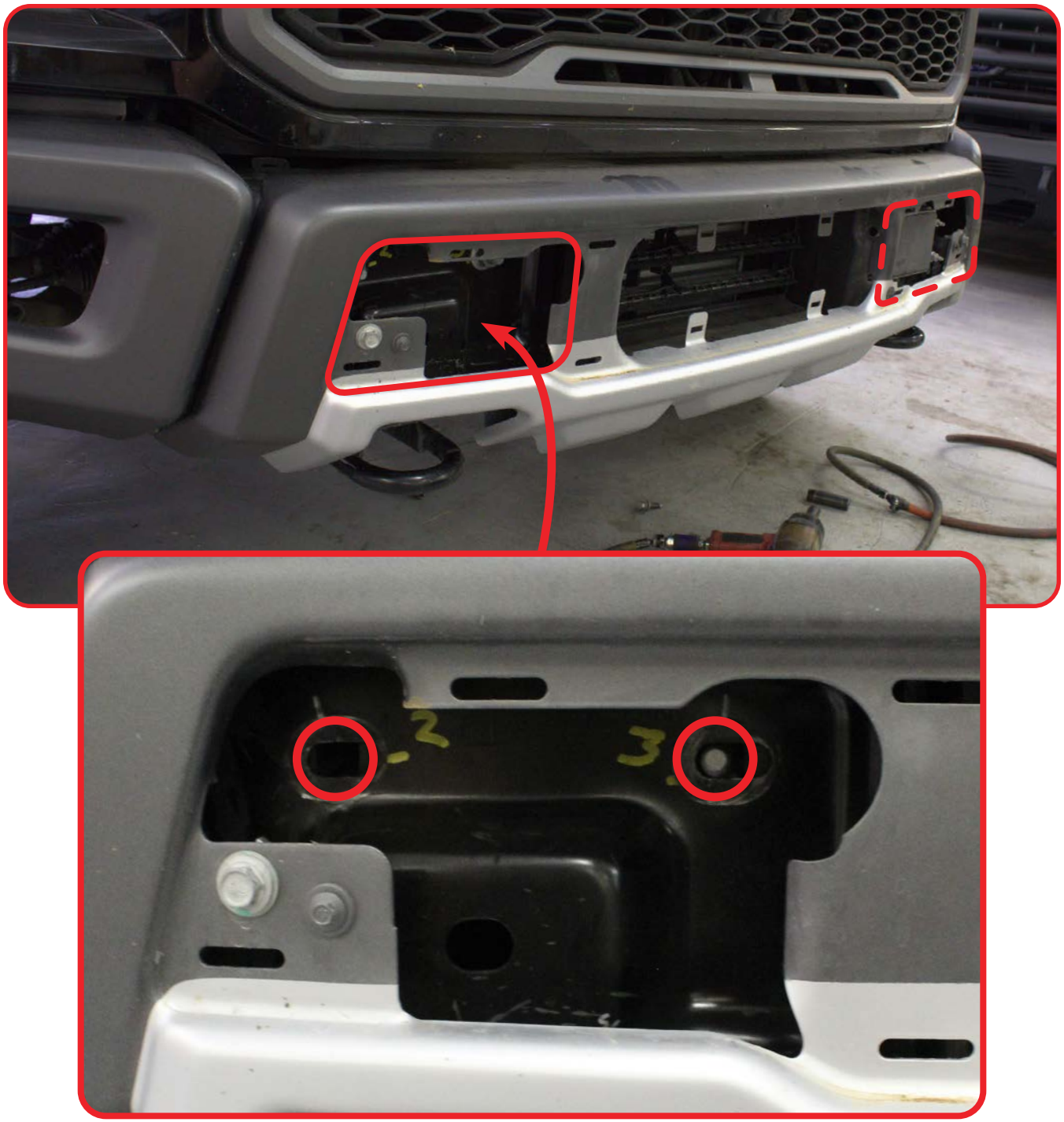
☐ STEP 10

Using a (21mm Socket) locate and remove the bottom outer bumper mounting nut indicated below. (Repeat on other side)



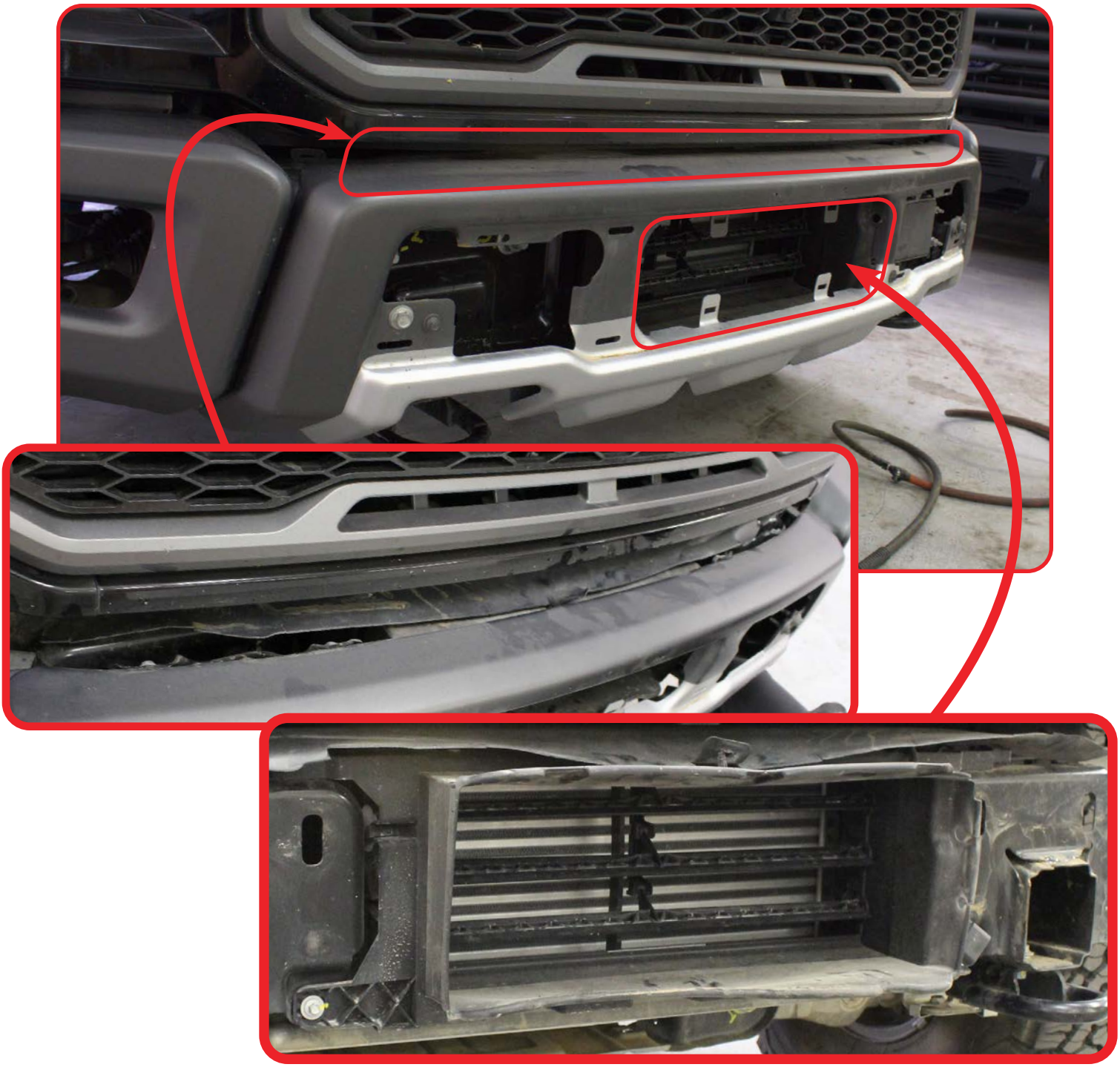
☐ STEP 11

Using a (21mm Socket) locate and loosen the upper bumper mounting nuts indicated below.
(Do **NOT** fully remove at this time. Repeat on other side)



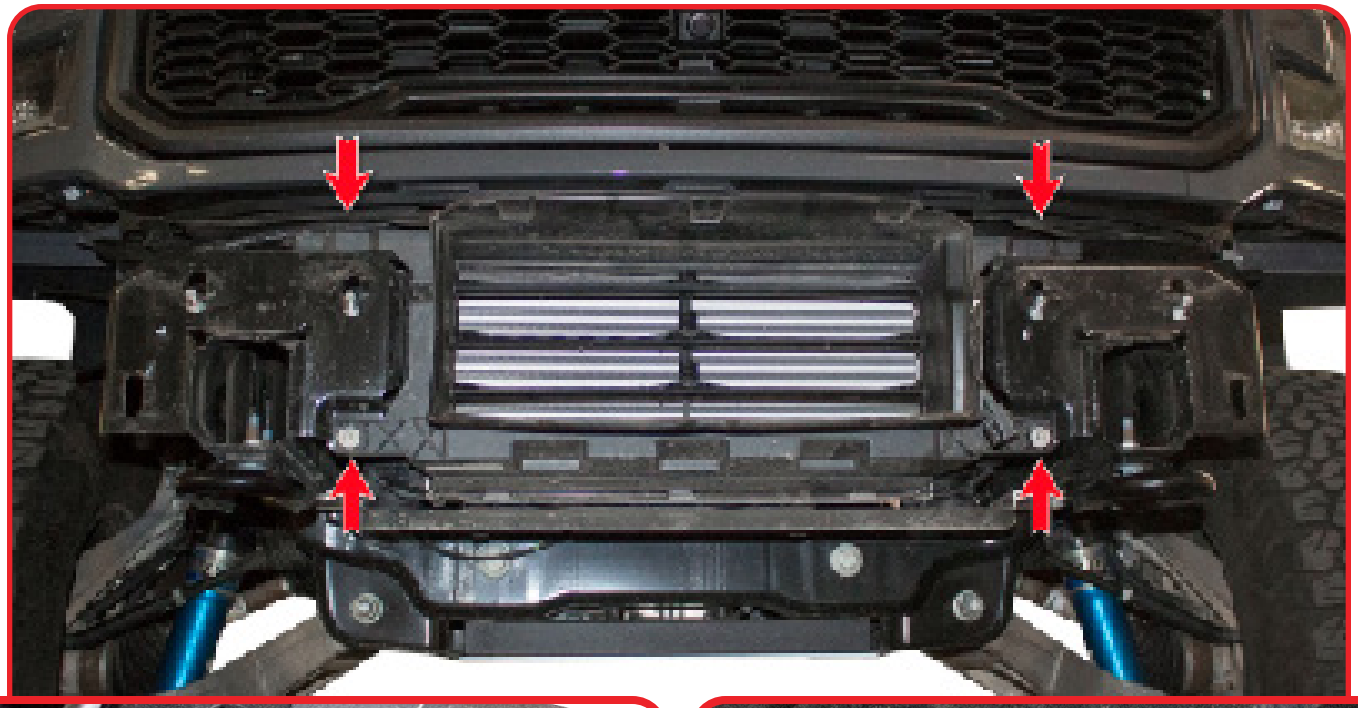
STEP 12

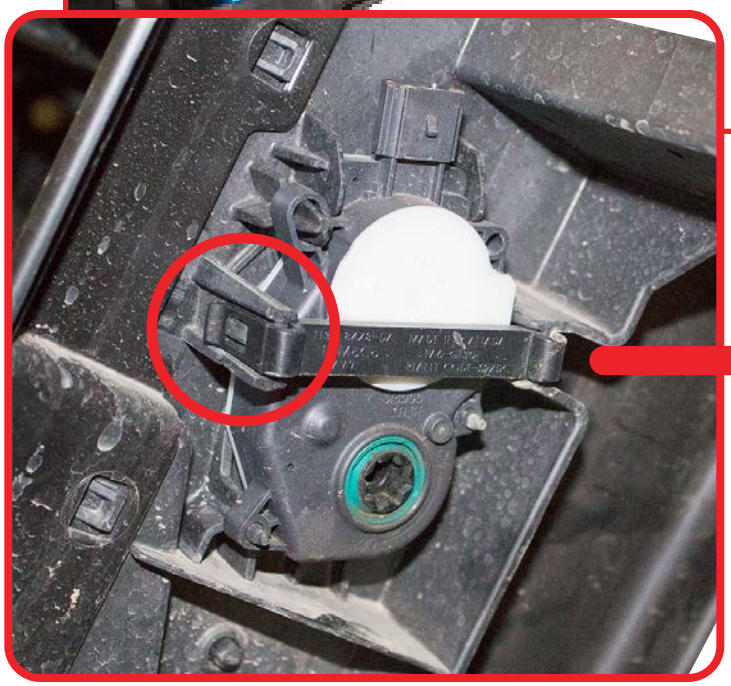
With the bumper loose, but still supported, use a (Panel Trim Removal Tool) to locate and release each of the retaining clips connecting the radiator and Intercooler shrouds to the bumper. Once free, use a helping hand to finish removing the loosened bumper retaining bolts then remove the bumper from the vehicle.

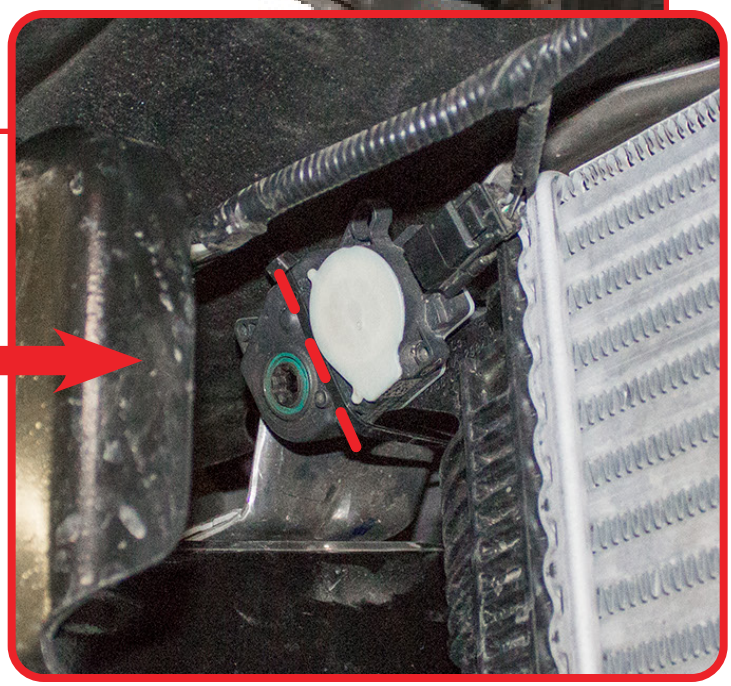


☐ STEP 13

Using an (8mm Socket) remove the (4) mounting bolts indicated below, then carefully begin removing the intercooler shutter assembly from the vehicle. While removing, locate and disconnect the indicated shutter motor retaining tab to release it from the assembly, then zip tie it out of the way to the harness where it won't get damaged or impede installation.
(Do **NOT** zip tie through the splined hole. This need to rotate freely for proper function)

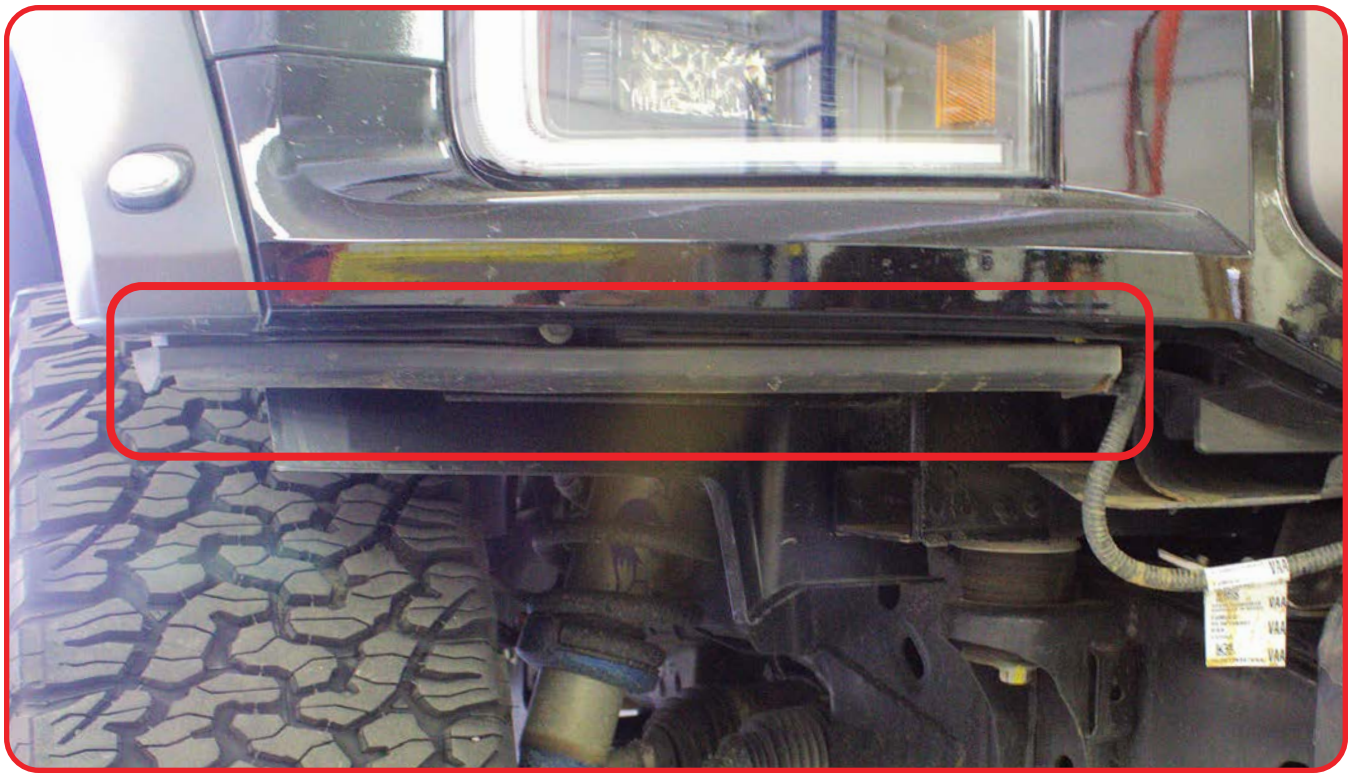






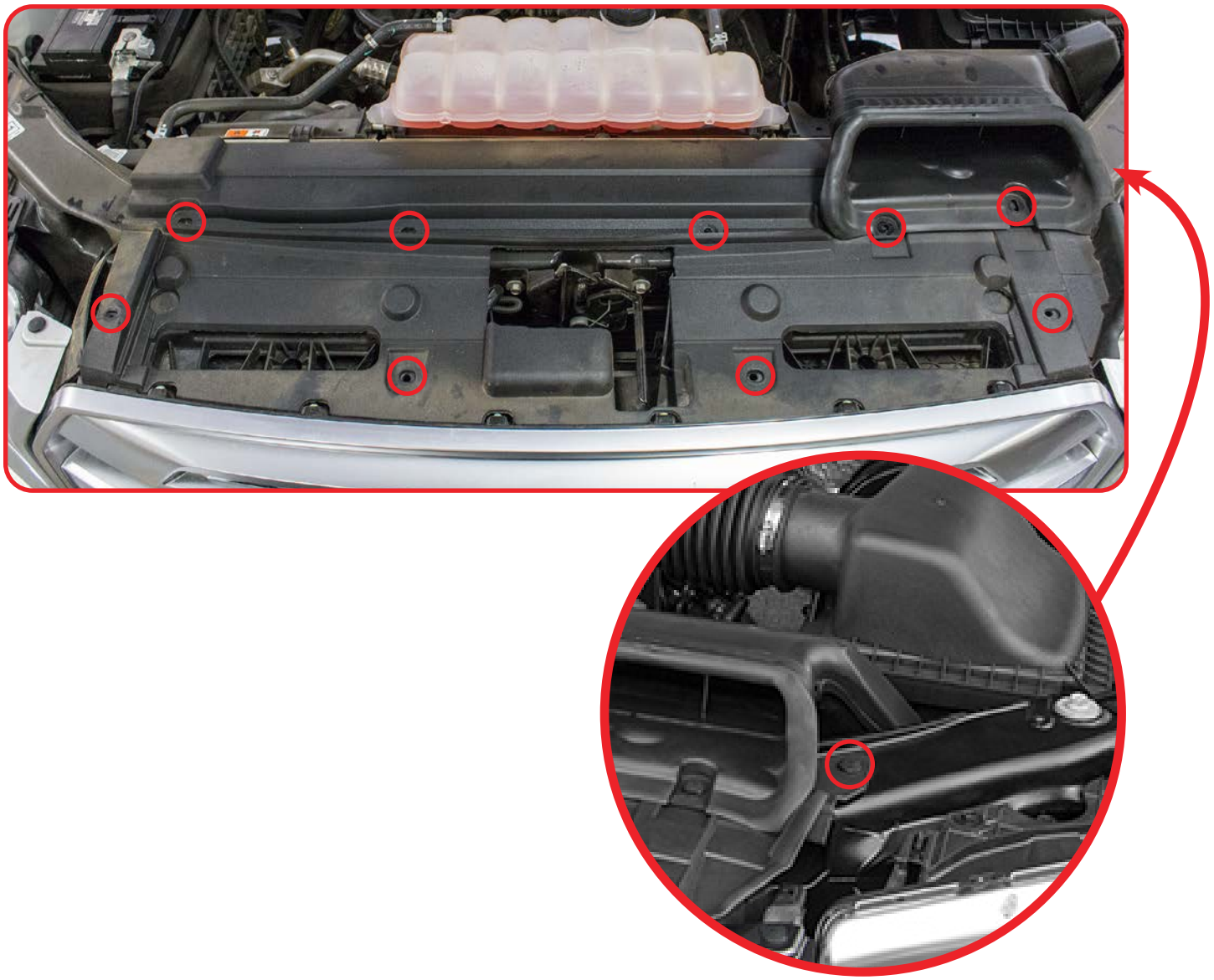
☐ STEP 14

Using a (Panel Trim Removal Tool) locate and remove the side valance trim from under the headlights.
(Repeat on other side)



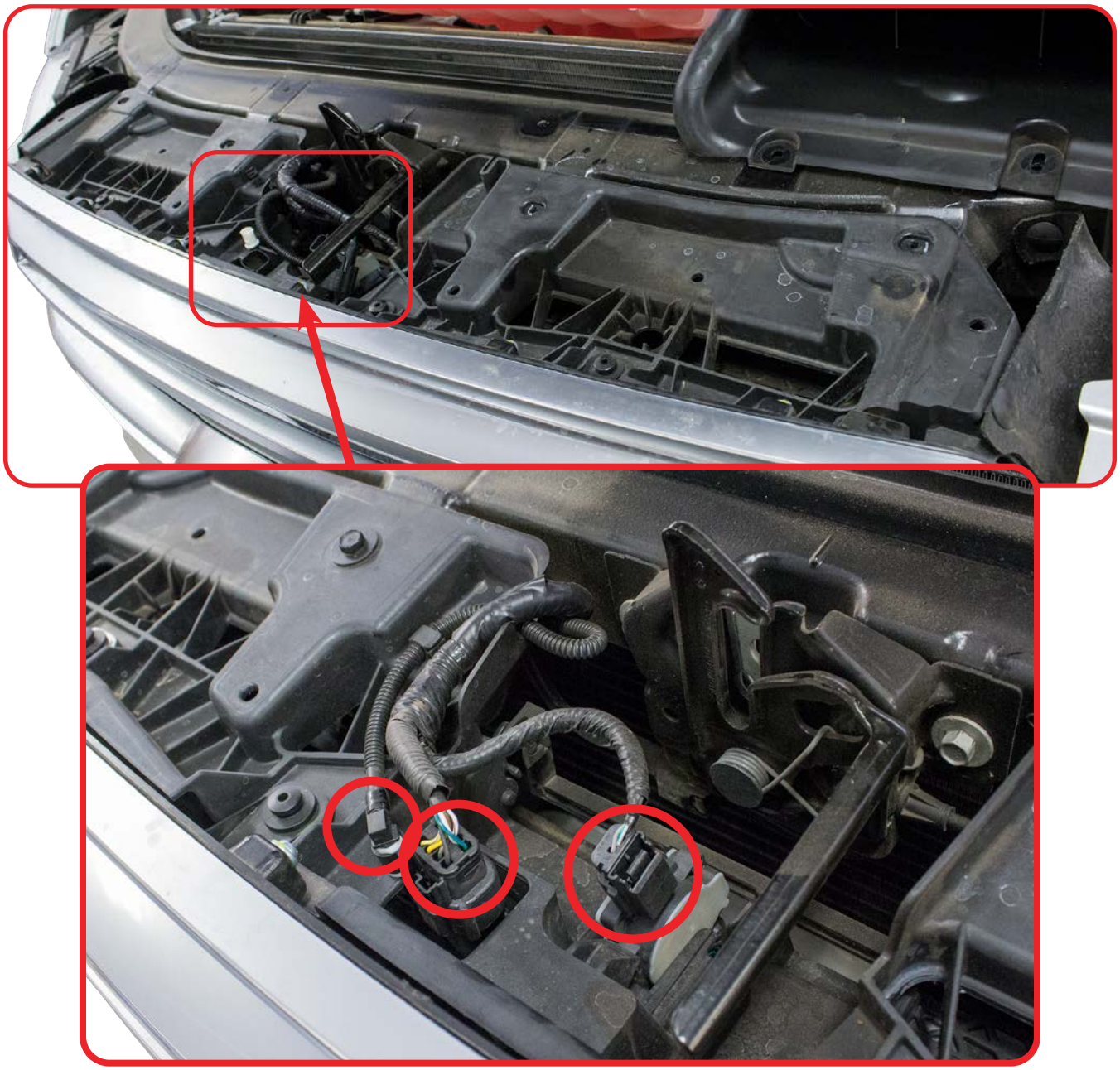
☐ STEP 15

Using a (Panel Trim Removal Tool) locate and remove the (10) indicated panel clips for the intake inlet and core support cover panel, then remove the core support cover from the vehicle. (Set these aside for re-installation later on)



☐ STEP 16

Locate and disconnect the (1) washer fluid line, and the (2) harness connections indicated below.



STEP 17

Using a (Panel Trim Removal Tool) locate and remove the (1) indicated panel clip retaining the harness to the upper grille support.



☐ STEP 18

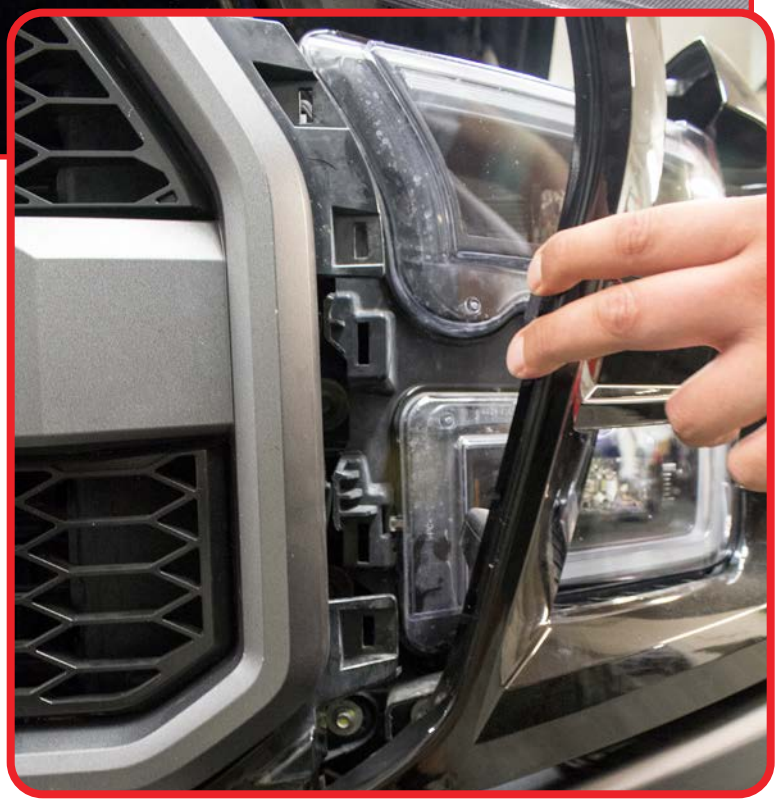
Using a (10mm Socket) locate and remove the (4) indicated upper grille support mounting bolts.



☐ STEP 19

Using a (Panel Trim Removal Tool) locate and remove the indicated retaining clip, then working from the inside out, pull firmly to release and remove the headlight trim from the vehicle. (Set these aside for re-installation later on. Repeat on other side)





☐ STEP 20

Using a (10mm Socket) locate and remove the lower grill mounting bolt indicated below.
(Set aside for re-installation later on. Repeat on other side)



☐ STEP 21

Using a (Panel Trim Removal Tool) locate and remove the (3) indicated retaining clips.
(Set these aside for re-installation later on. Repeat on other side)



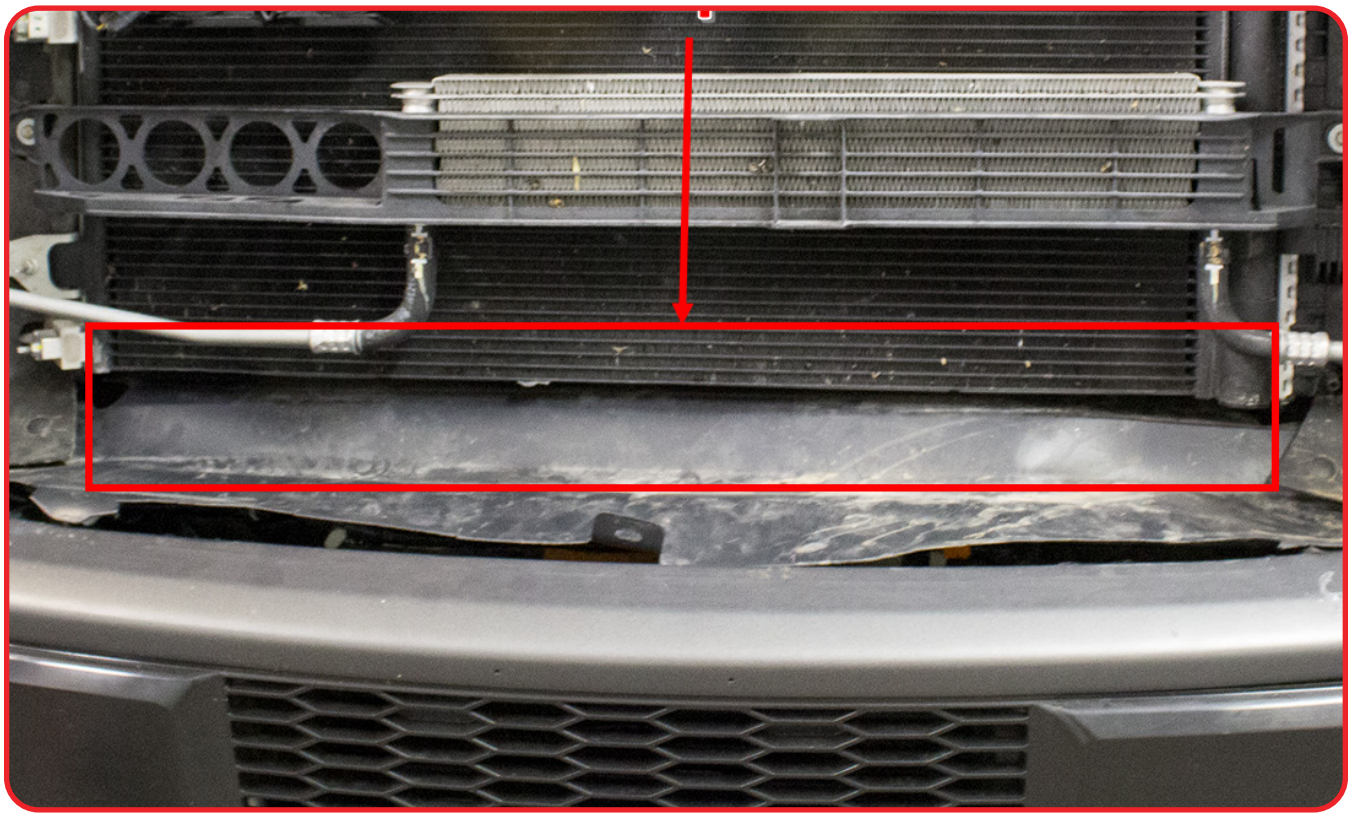
☐ STEP 22

Lift the grille assembly to release it from the vehicle, then using a (Panel Trim Removal Tool) locate and release each of the harness retaining clips from the backside of the grille to remove to remove it from the vehicle
(Set these aside for re-installation later on)



☐ STEP 23

Using a (Panel Trim Removal Tool) locate and release each of the (3) retaining clips from under the coolers, along with the (4) side clips retaining the bottom shroud, then remove and discard the lower shroud.



If you've purchased the ADD High Mount Intercooler Kit with ACC Relocation Bracket, reference the installation guide for that product at the link below and proceed with that portion of the install at this time.

*****PAUSE AT THE INSTALLATION OF THE COOLER UNTIL DIRECTED LATER IN THE INSTALL*****

https://www.addictivedesertdesigns.com/collections/2017-ford-raptor-exterior-accessories/products/ford-raptor-add-intercooler-upgrade-kit



☐ STEP 24

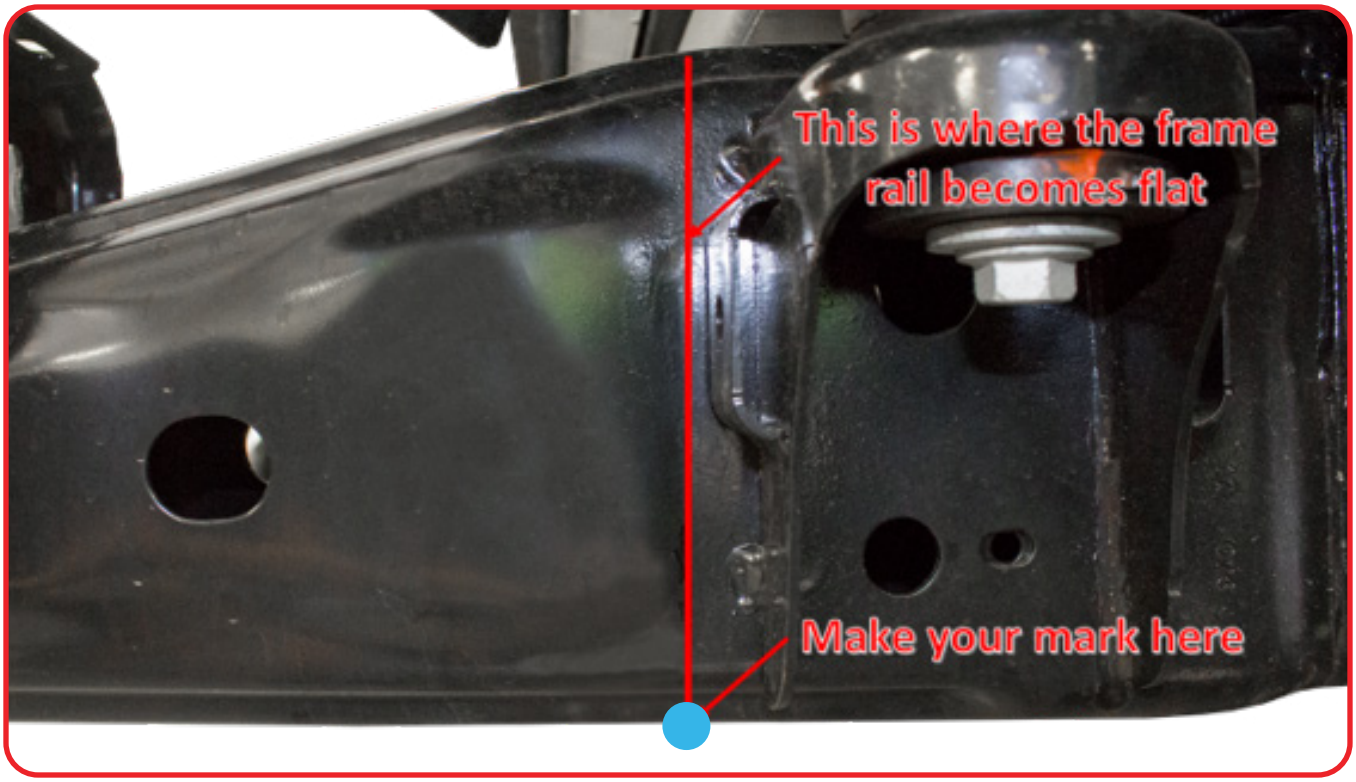
Remove the (2) intercooler mounting bracket nut clips from the top of the frame rails, then use a (Straight Edge) to line up the rear edge of the square openings and mark the line across the top of both frame rails with a (Sharpie).



☐ STEP 25

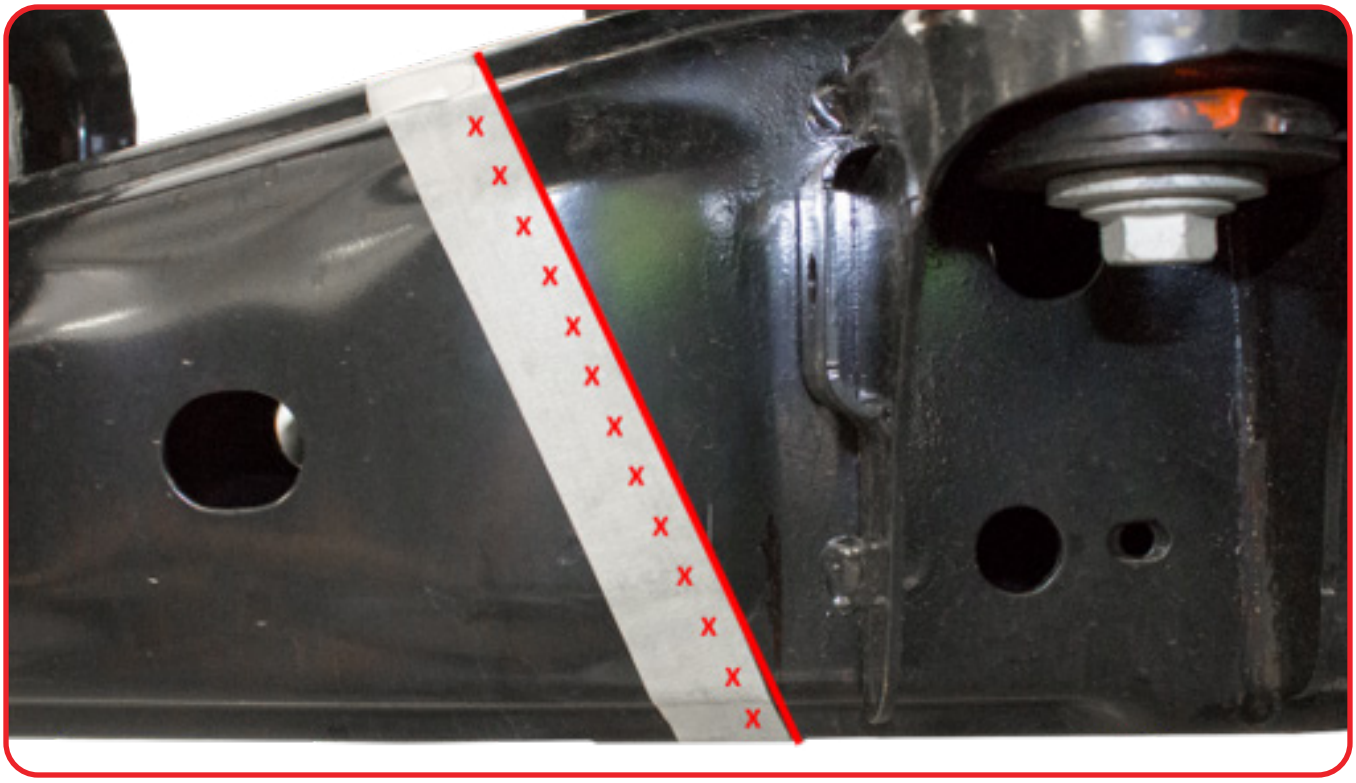
Find the point on the outside each frame rails, in front of the core support mounts, where the bulged portion of the frame transitions to a flat surface; then use a (Straight Edge) and a (Sharpie) to mark where the transition line intersects the bottom side of each frame rail.

Next, use your (Straight Edge) on the bottom side of both frame rails to connect the points and use a (Sharpie) to mark a straight line connecting them on the bottom side of the frame.



☐ STEP 26

Using a (Straight Edge) and a (Sharpie) mark a straight line on both the inside and outside of each frame rail where the top an bottom lines cross.



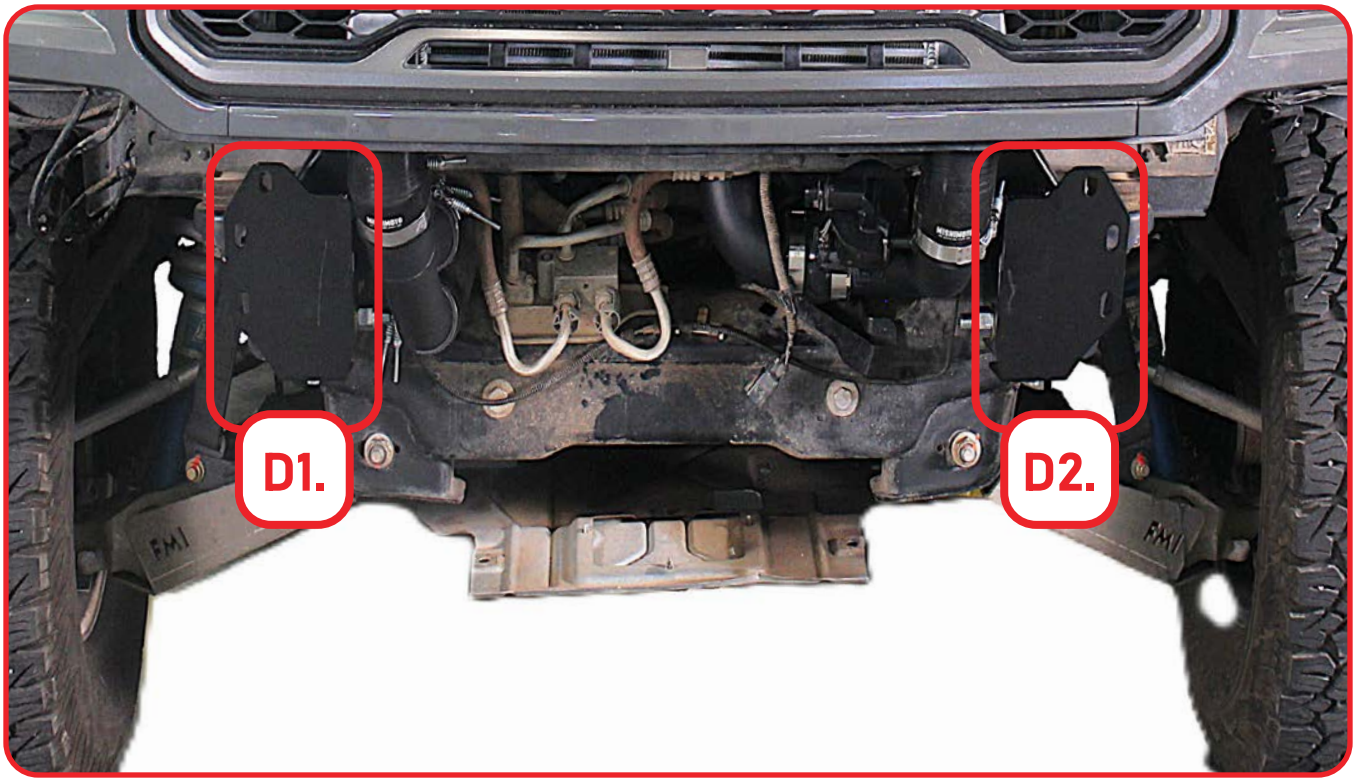
☐ STEP 27

Using a (Cutting Tool) of your choice to cut along each of the lines laid out in previous steps removing the frame horn mounts from the vehicle.
(Paint the raw metal edges of the frame to prevent rusting)



☐ STEP 28

Re-install the factory nut clips back into their original location on top of the frame, then slide the supplied mounting brackets (D1, D2) into the end of the frame rails until the holes line up.



If you've purchased the ADD High Mount Intercooler Kit with ACC Relocation Bracket, reference the installation guide for that product at the link below and proceed with that portion of the install at this time.

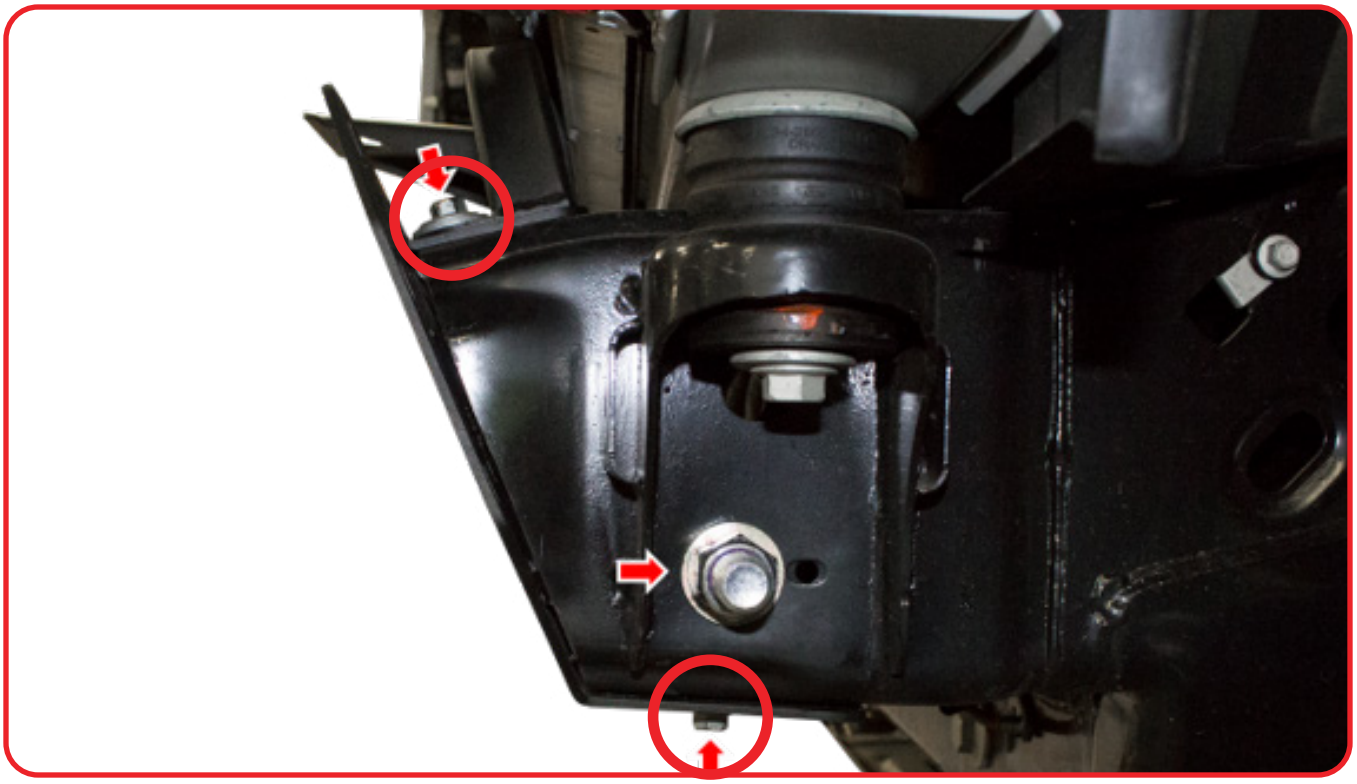
*****Proceed With The Final Steps Of Installing The Intercooler And ACC At This Time*****

https://www.addictivedesertdesigns.com/collections/2017-ford-raptor-exterior-accessories/products/ford-raptor-add-intercooler-upgrade-kit



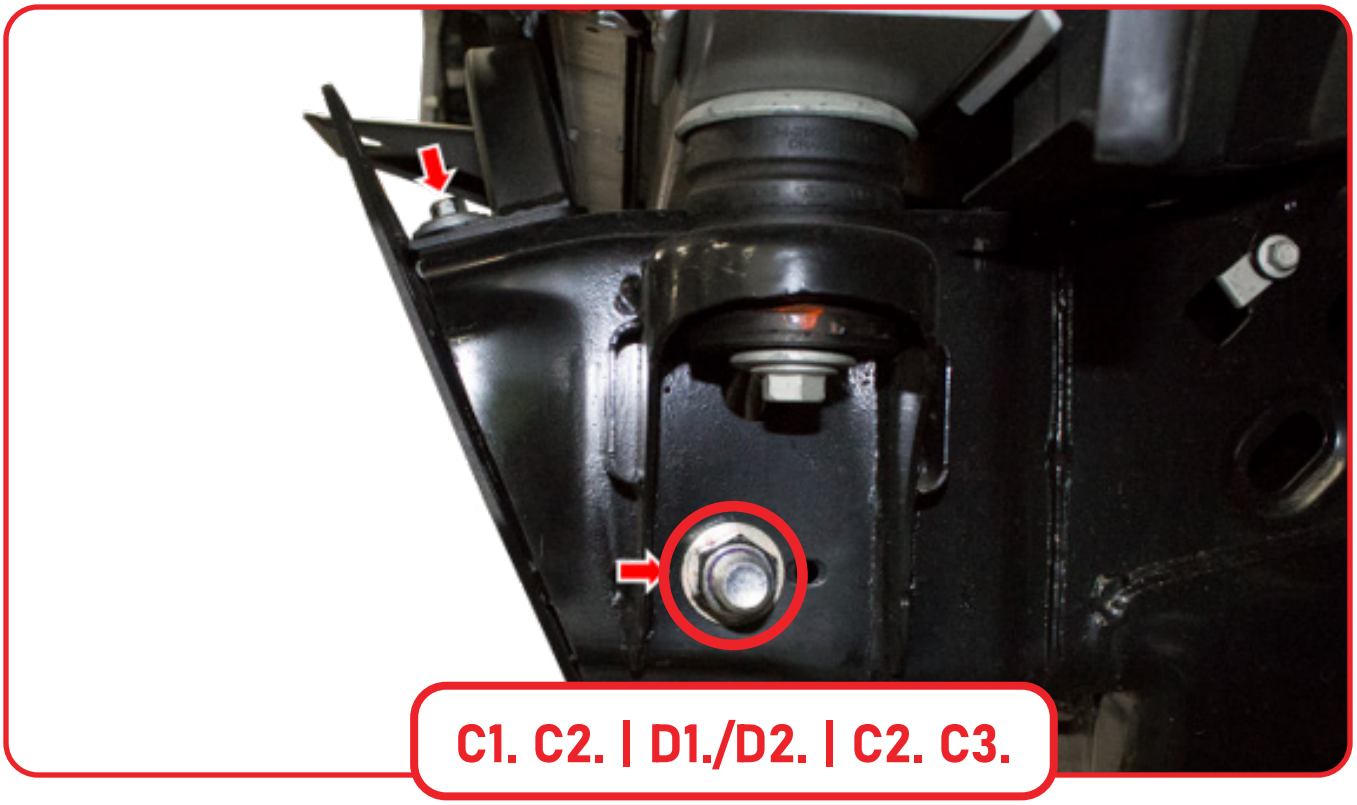
☐ STEP 29

Using a (13mm socket) reinstall the (2) original factory intercooler mounting bolts and the (2) factory skid plate mounting bracket bolts, securing the supplied mount adapters (D1, D2) to the frame. (Leave loose at this time)



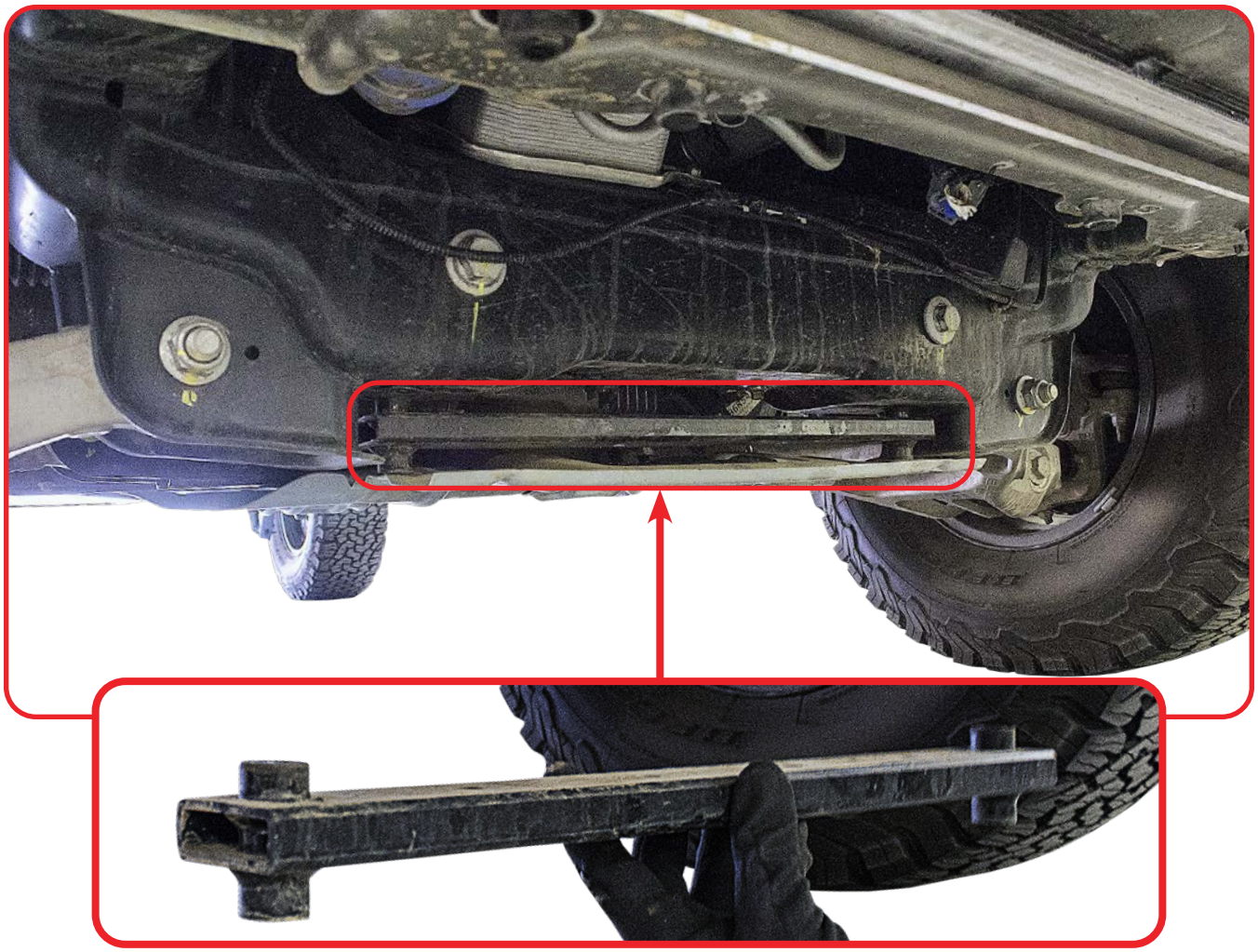
☐ STEP 30

Using an (1-1/8" Socket) and an (1-1/8" Wrench) install the supplied hardware (C1, C2, C3) through the frame rail securing the supplied mount adapters (D1, D2) in place.
(Repeat on other side. Leave loose at this time)



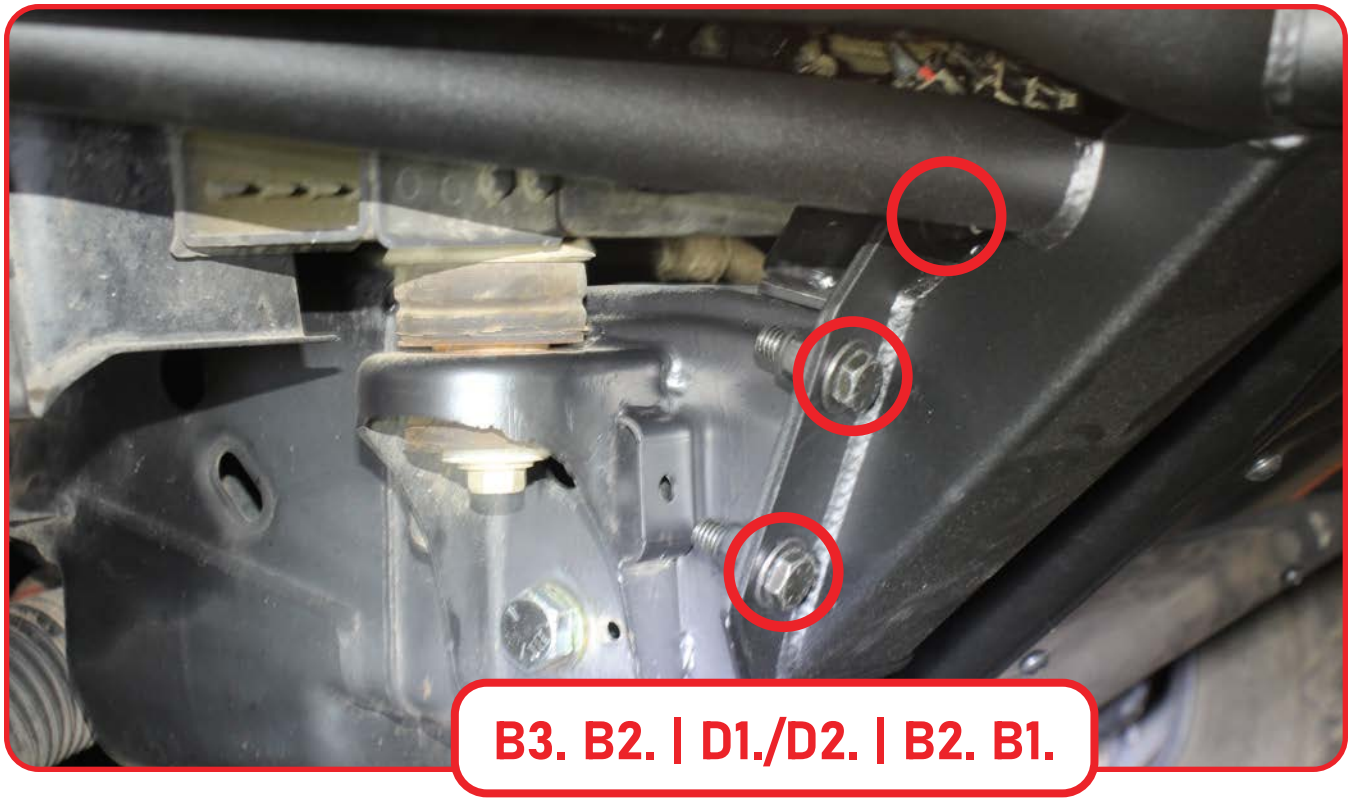
☐ STEP 31

Re-install the previously removed lower crossmember skid plate spacer in the original location.



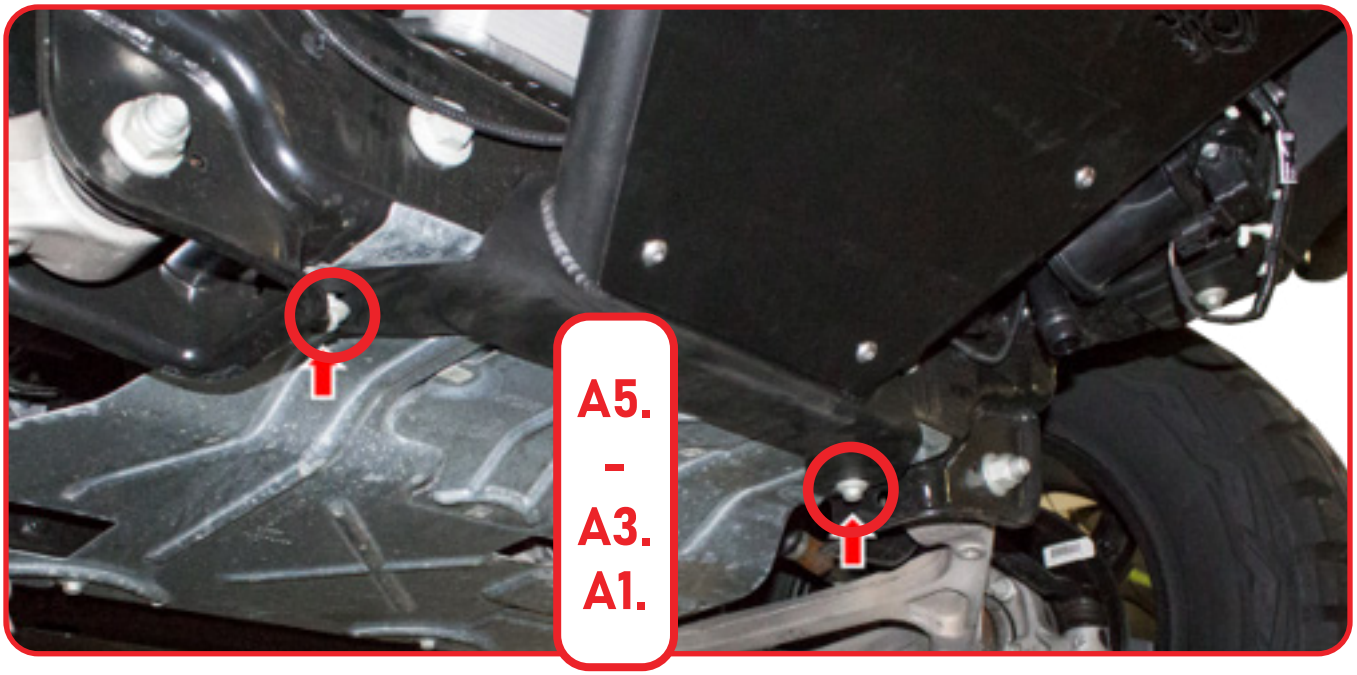
☐ STEP 32

With a helping hand, position the bumper to the previously installed mount adapters then use a (3/4" Socket) and a (3/4" Wrench) to install the supplied hardware (B1, B2, B3), securing the bumper to the mounts.
(Leave loose at this time. Repeat on both sides)



☐ STEP 33

Using a (7/32" Allen) install the supplied hardware (A1, A3) to securing the lower bumper mount to previously installed nut clips (A5) in the lower crossmember.
(Leave loose at this time. Repeat on both sides)



☐ STEP 34

With the bumper and mount adapters loosely installed, align the bumper to the vehicle, then proceed with fully tightening all hardware.
(Use Blue Loctite on all non-locking fasteners)

If you've purchased lights for your application, install those at this time. If needed, use a (9/16" Socket) along with he supplied hardware (A2, A3, A4) and mounting brackets (E1, E2) for a wide range of light bar mounting options.



Stand back and enjoy your new ADD Pro-Plus Front Bumper.

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

CHECK OUT OUR FULL LINE OF PRODUCTS AT

www.addictivedesertdesigns.com

