4070 – 2013-PRESENT, FORD TRANSIT, FRONT RECEIVER HITCH

Version 1.0

General Notes

- For the most up to date and current instructions, please visit our website at www.vancompass.com
- Please read all instructions thoroughly before starting installing Van Compass products.
- This is a bolt on front receiver hitch that can be installed with simple hand tools and some basic metal cutting tools.
- Removal and trimming of the plastic front bumper cover is required for installation.
- The receiver has a maximum vertical static load capacity of 300lbs.
- The front license plate can be retained with the front receiver if desired; the factory license plate mount will need to be offset to one side of the receiver if desired.
- The following instructions documents the installation on a 2020 Ford Transit AWD 148" WB. Some aspects of installation will vary depending on year, chassis / engine configuration / options.
- Note, if the vehicle is equipped with front parking sensors, anything mounted in the front receiver will trigger the parking sensors. They will need to be turned off when the front receiver has something mounted in place.

Parts List

4070 – 2013-PRESENT, FORD TRANSIT, FRONT RECEIVER HITCH

- (1) 407001 FORD TRANSIT, FRONT WINCH MOUNT
- (6) PP-M08-14 PUSH PIN FENDER CLIP, 8MM HOLE X 14MM LONG
- (8) NSM10-1.50 STOVER NUT, M10-1.50
- (8) WF-M10 FLAT WASHER, M10

Tools Needed

- Measuring tape
- Combination Square / ruler
- Torque wrench
- Floor jack
- Metal cutting tool
    - 4-1/2" angle grinder with metal cutting disc and sanding disc.
    - 3" pneumatic cut off tool.
- Automotive trim removal tools
- Simple hand tools:
    - Basic wrench and socket set:
        - Metric Sizes: 8mm, 10mm, 13mm, 17mm

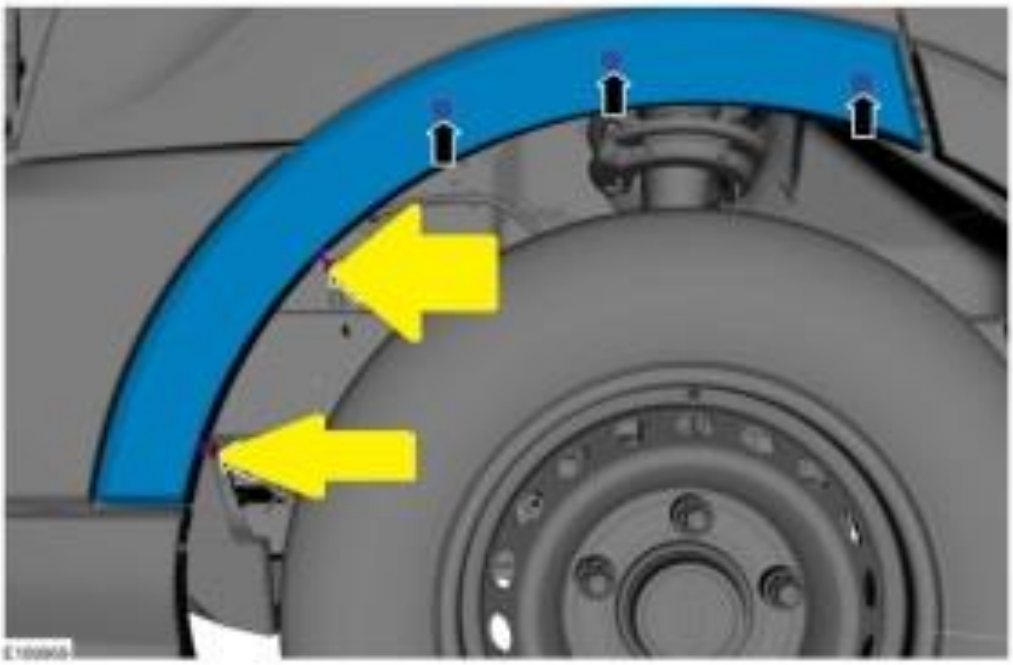
- Torx sizes: T-20, T-25, T-30

Approximate Installation Time

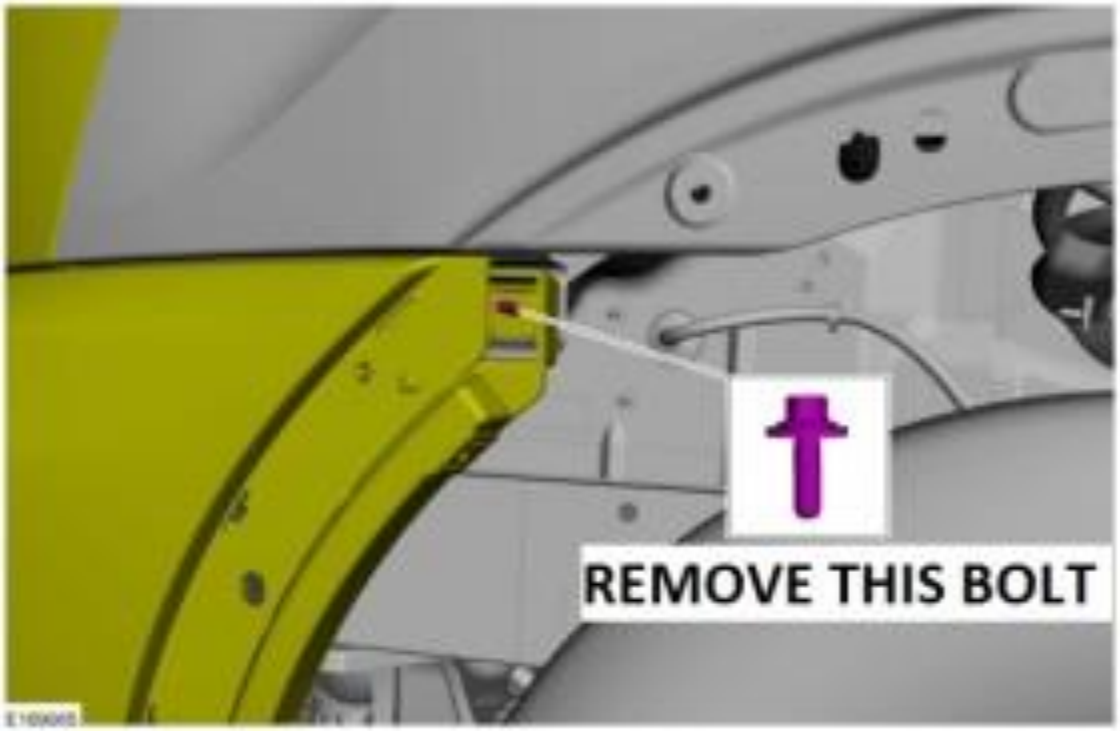
- 4-6 hours for installation.

Installation

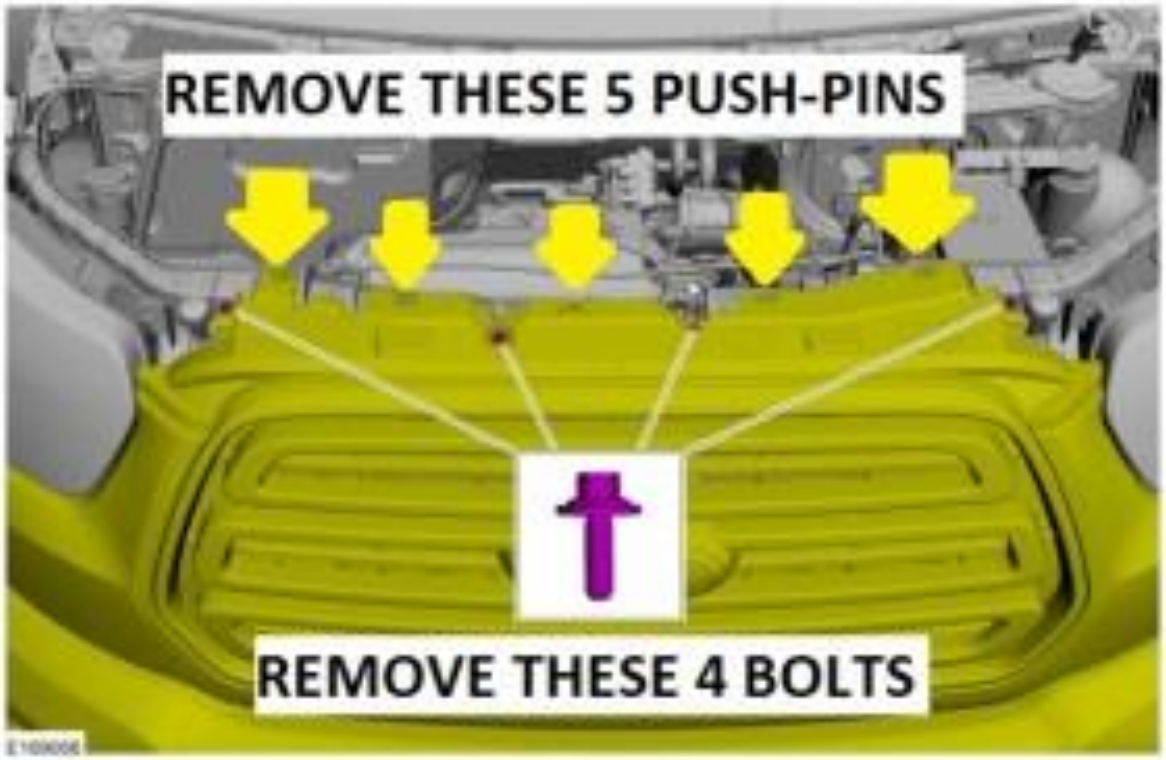
1) Note; retain all OEM hardware removed as it will be re-installed during re-assembly.
2) Begin by removing the front fender trim piece on both sides of the vehicle. Remove the two pull pins towards the front of the wheel well using an automotive trim removal tool under the head of the pin. Denoted by the yellow arrows in the image below.



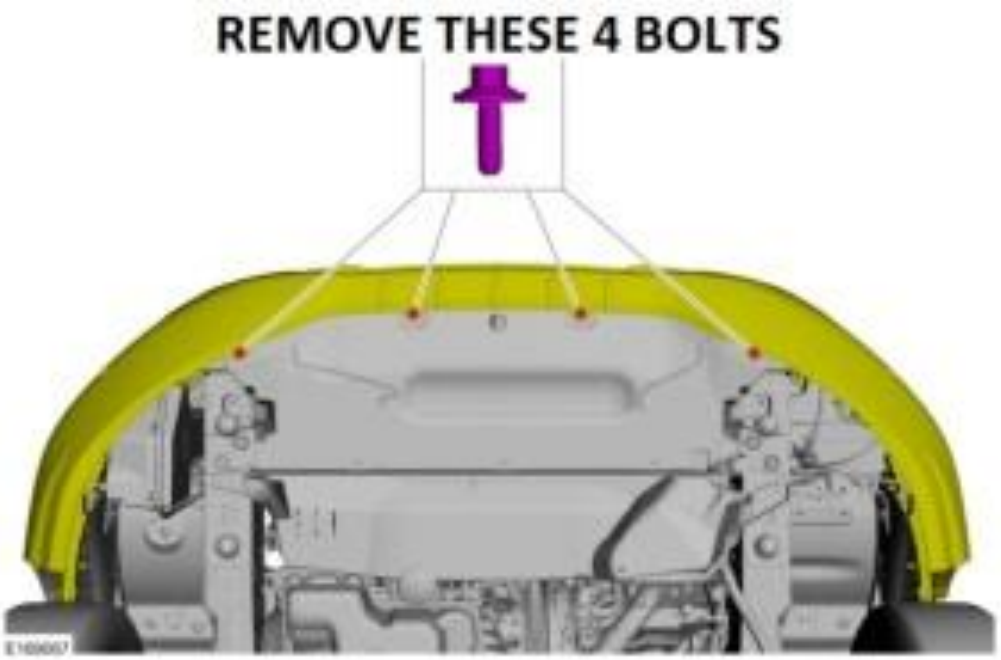
3) Using the above image as a reference, try to locate and pry free the three remaining push pins securing the fender trim to the fender denoted by the black arrows above.
    a. Note, these pins will likely break. Included in your tow point kit are replacement pins if needed.
4) Begin removing the front bumper cover by locating the two screws at the inside of the fender well where the fender and bumper meet. Use a 10mm socket / wrench for removal. Remove the bolt on both sides of the vehicle.



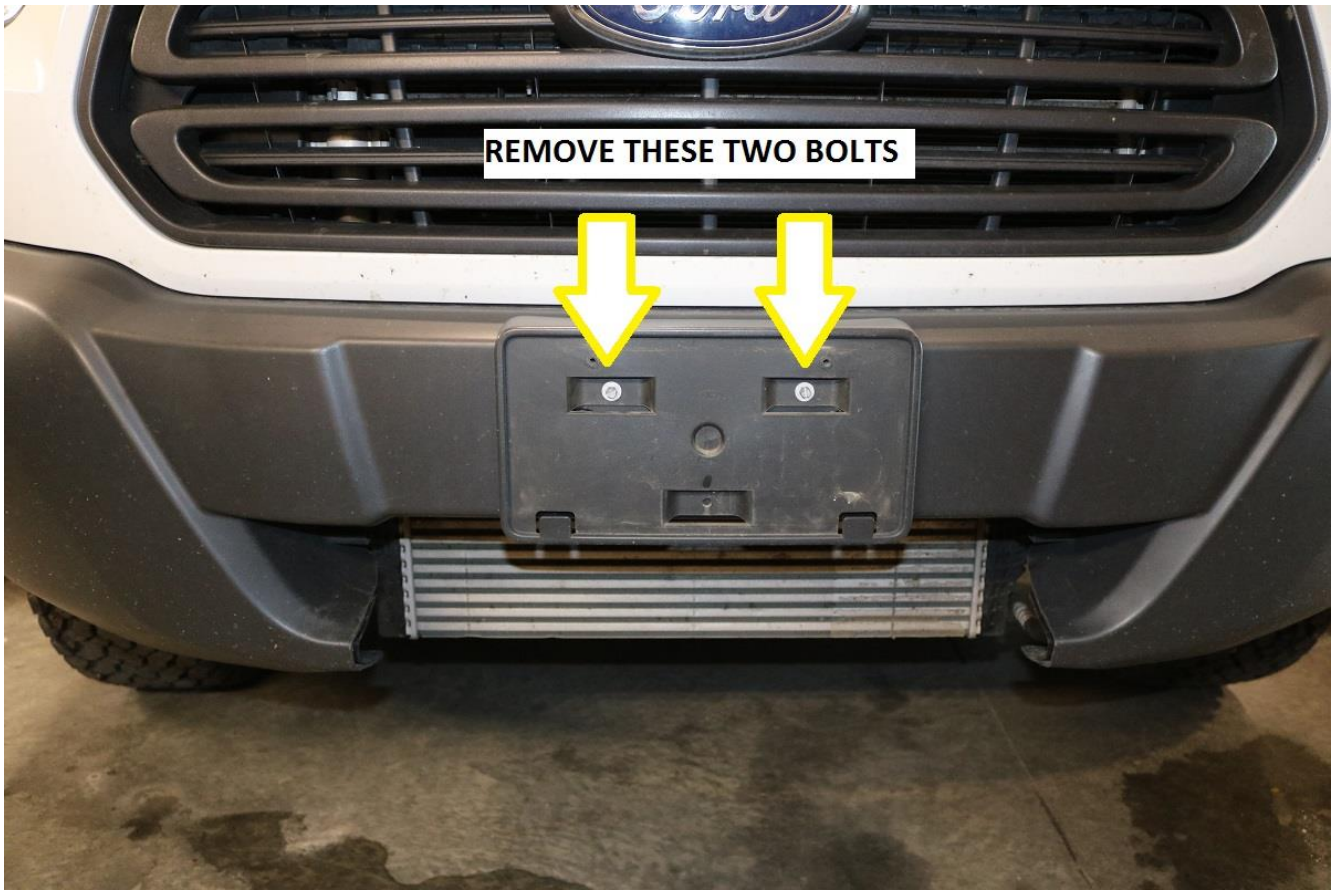
5) Open the hood of the vehicle and locate the 4 bolts securing the top portion of the grill to the core support of the vehicle. Remove all 4 bolts using a 10mm socket / wrench.
    a. Once all 4 bolts have been removed, locate and remove the 5 push-pin fasteners securing the grill to the core support using an automotive trim removal tool.



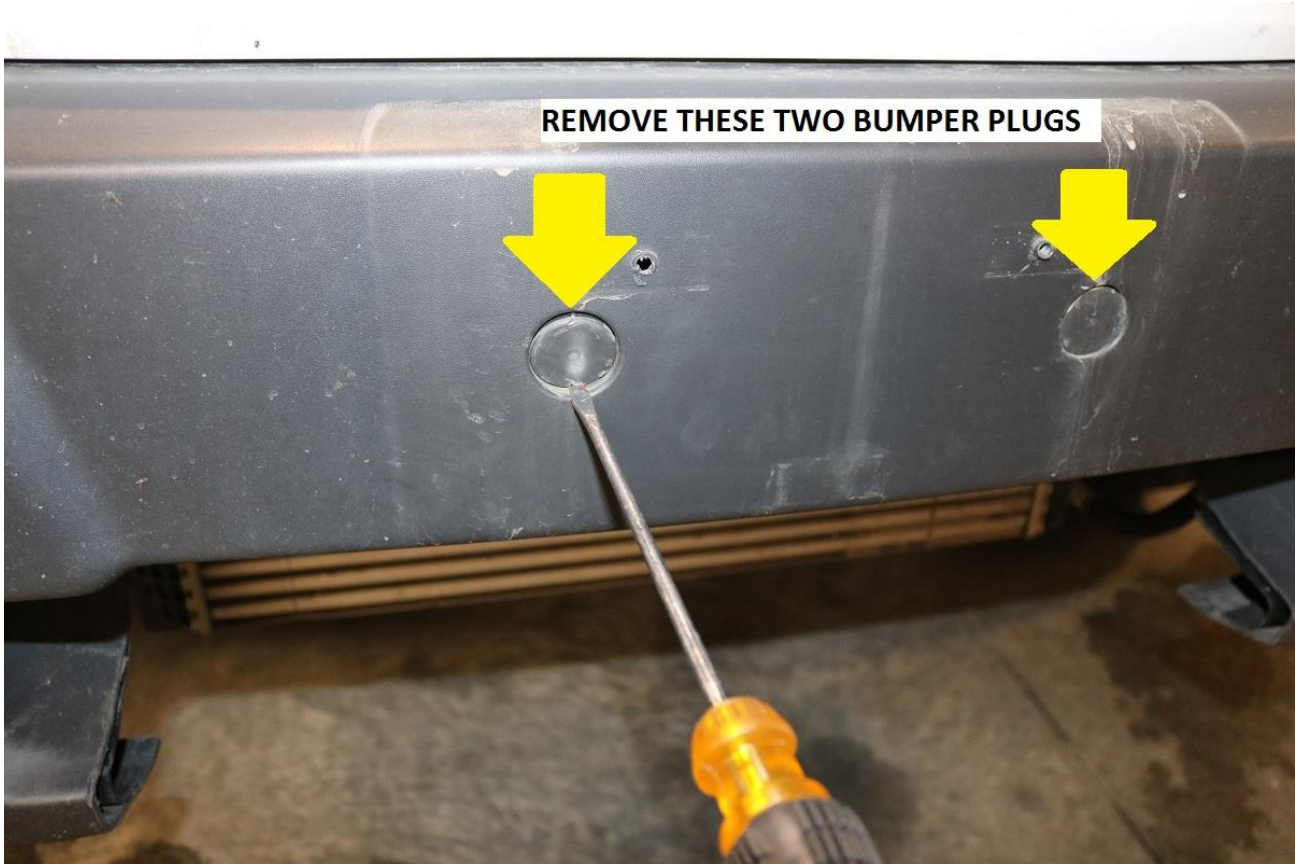
6) On the underside of the bumper, locate the 4 bolts securing the front bumper cover to the lower air damn. Remove these 4 bolts using a 10mm socket / wrench.



7) Next, remove the front license plate mount if equipped. On this vehicle, the license plate mount was secured with two 5/16” bolts.

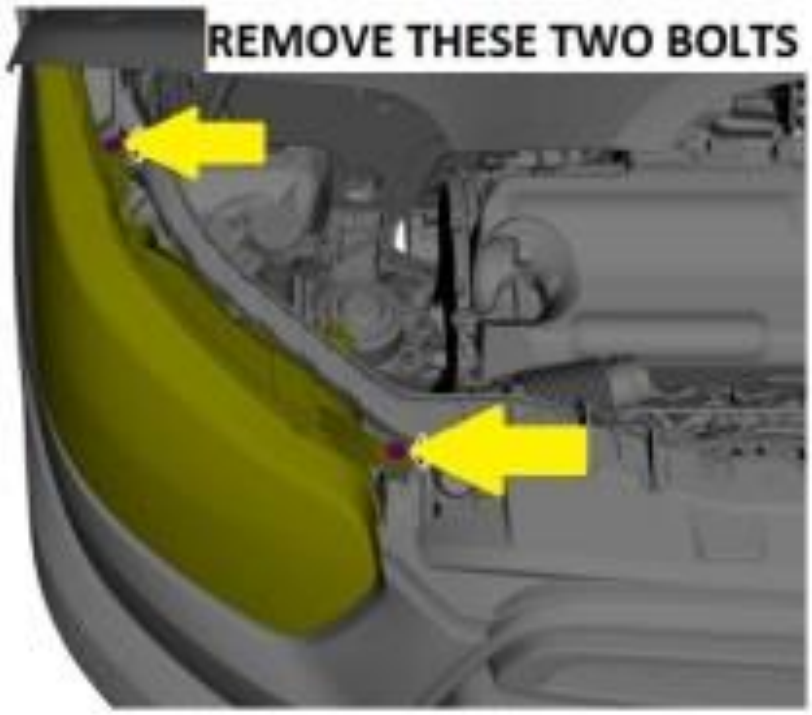


8) Remove the two bumper plugs if equipped using a small flat blade screwdriver.

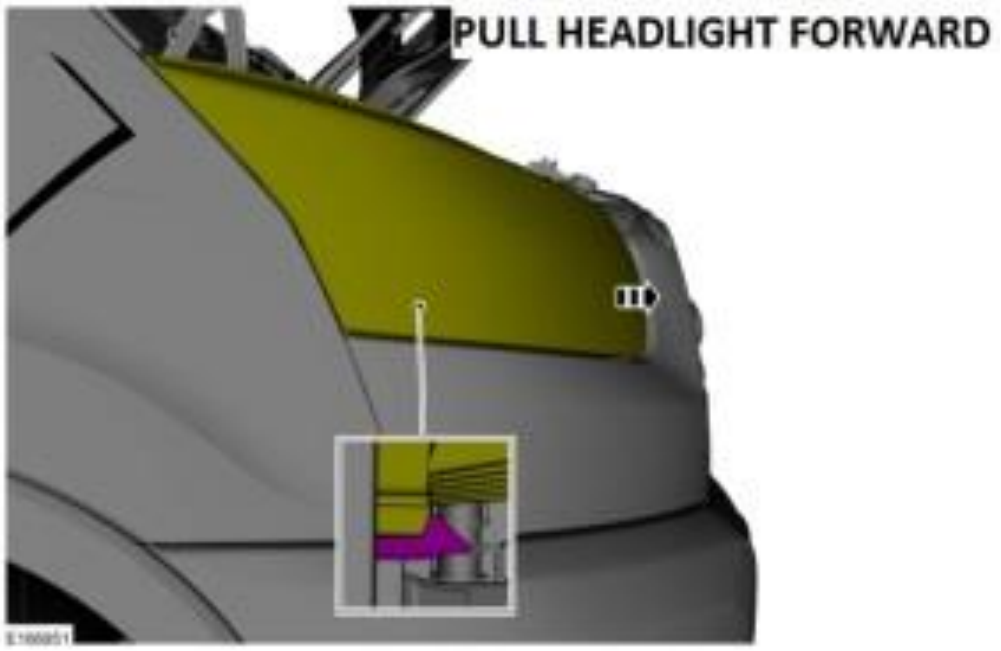


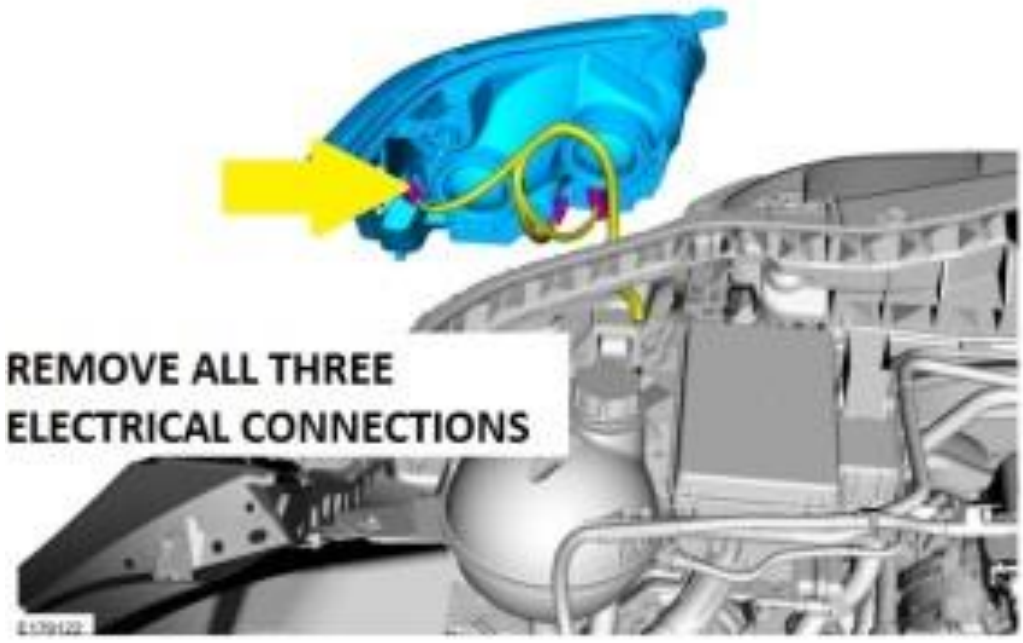
9) Remove the two bolts behind the bumper plugs. Use a 13mm socket / wrench for removal.

10) In the engine compartment, locate the two torx bolts securing the headlight housings to the vehicle. Use a T-30 torx bit for removal.



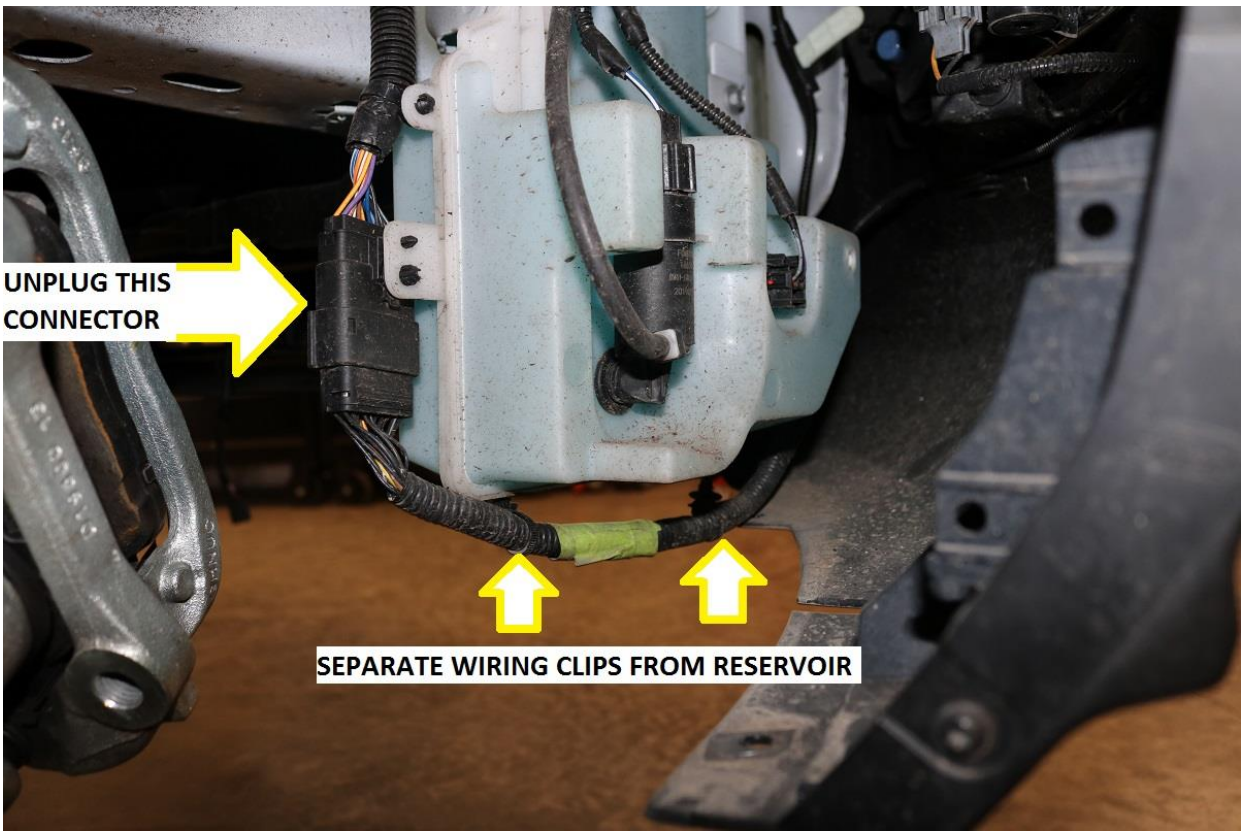
11) Pull the headlight forward and free it from the clips securing it to the vehicle. Once the headlight is free from its mounting clips, undo the three electrical connectors and completely remove the headlight housing from the vehicle.



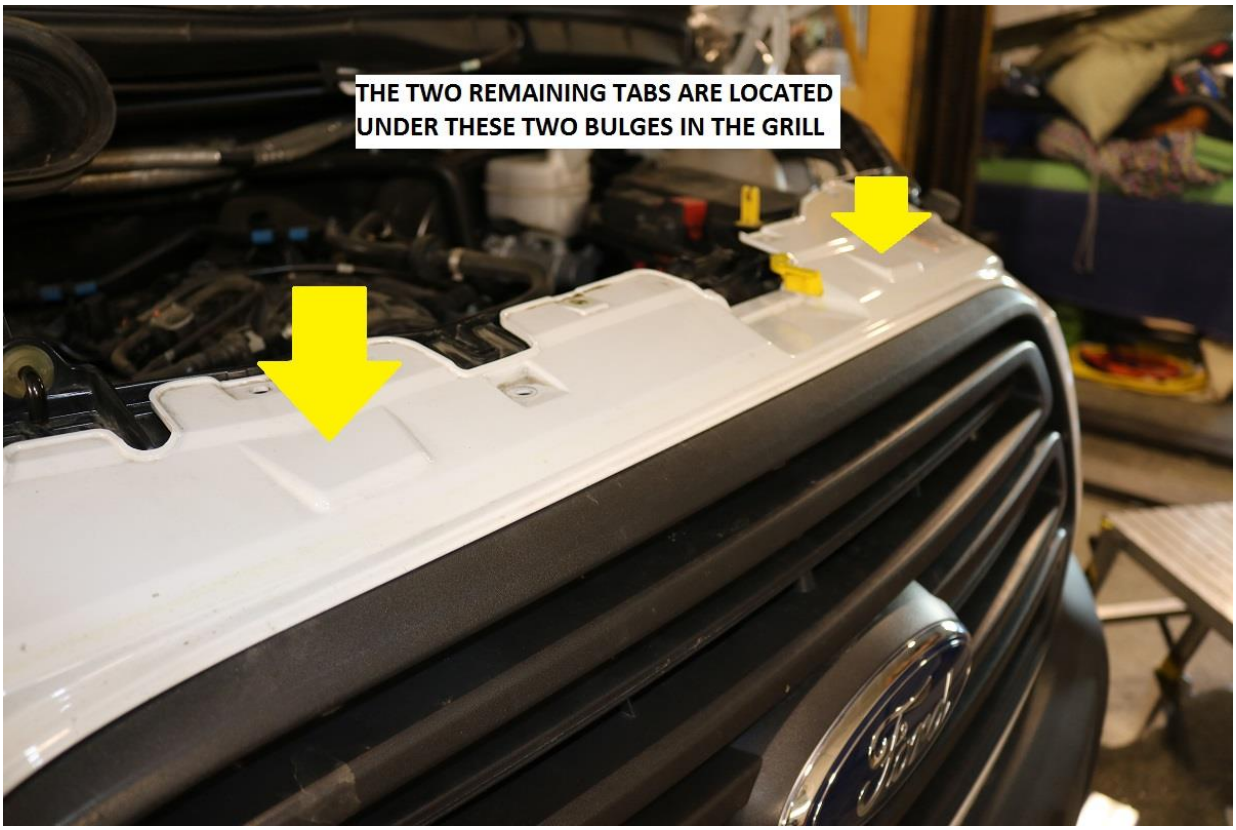


12) Locate the two T-25 torx screws under the headlight housing mounting location where the front bumper cover meets the fender. Remove both screws on each side of the vehicle.
    a. Once the torx screws are removed, pull the black plastic clip brackets which sandwich the bumper cover to the front fenders.
    b. Pull the front bumper corners outwards to separate the retention clips securing the sides of the bumper cover to the fenders.
    c. See image below for reference.

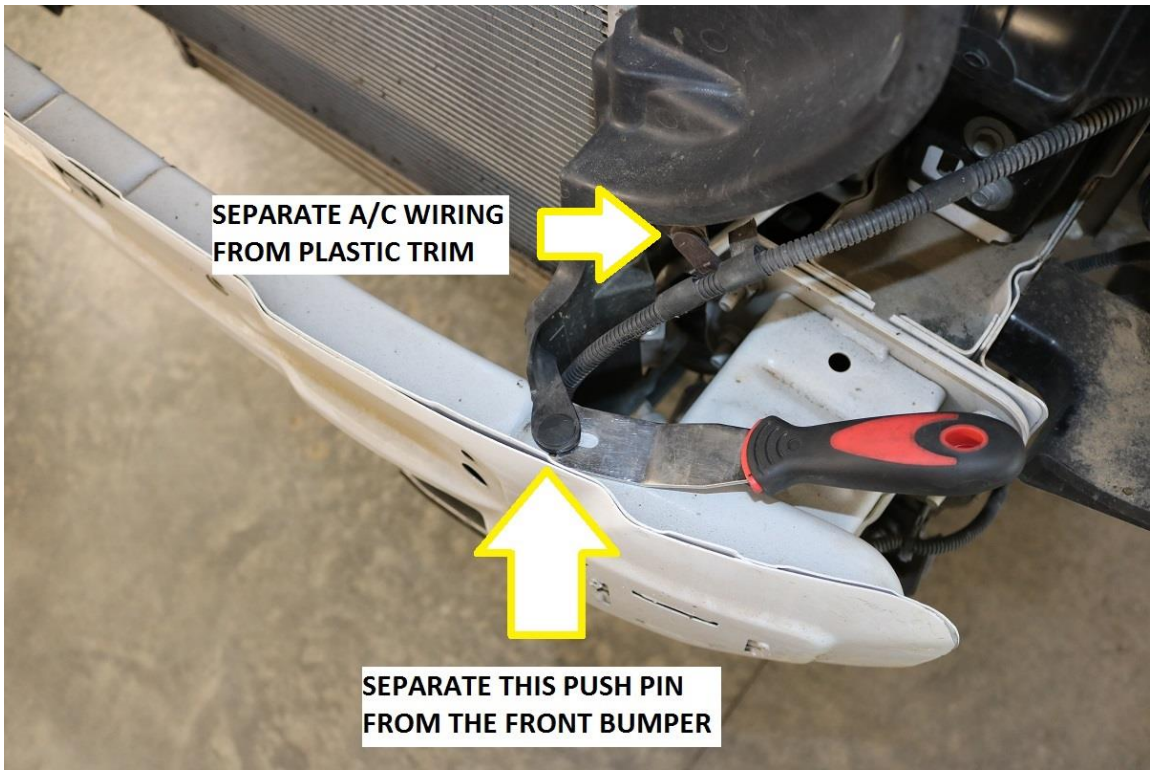
13) On newer models equipped with brake assist and / or front parking sensors, unplug and separate the bumper wiring in the front of the passenger wheel well near the windshield washer reservoir.

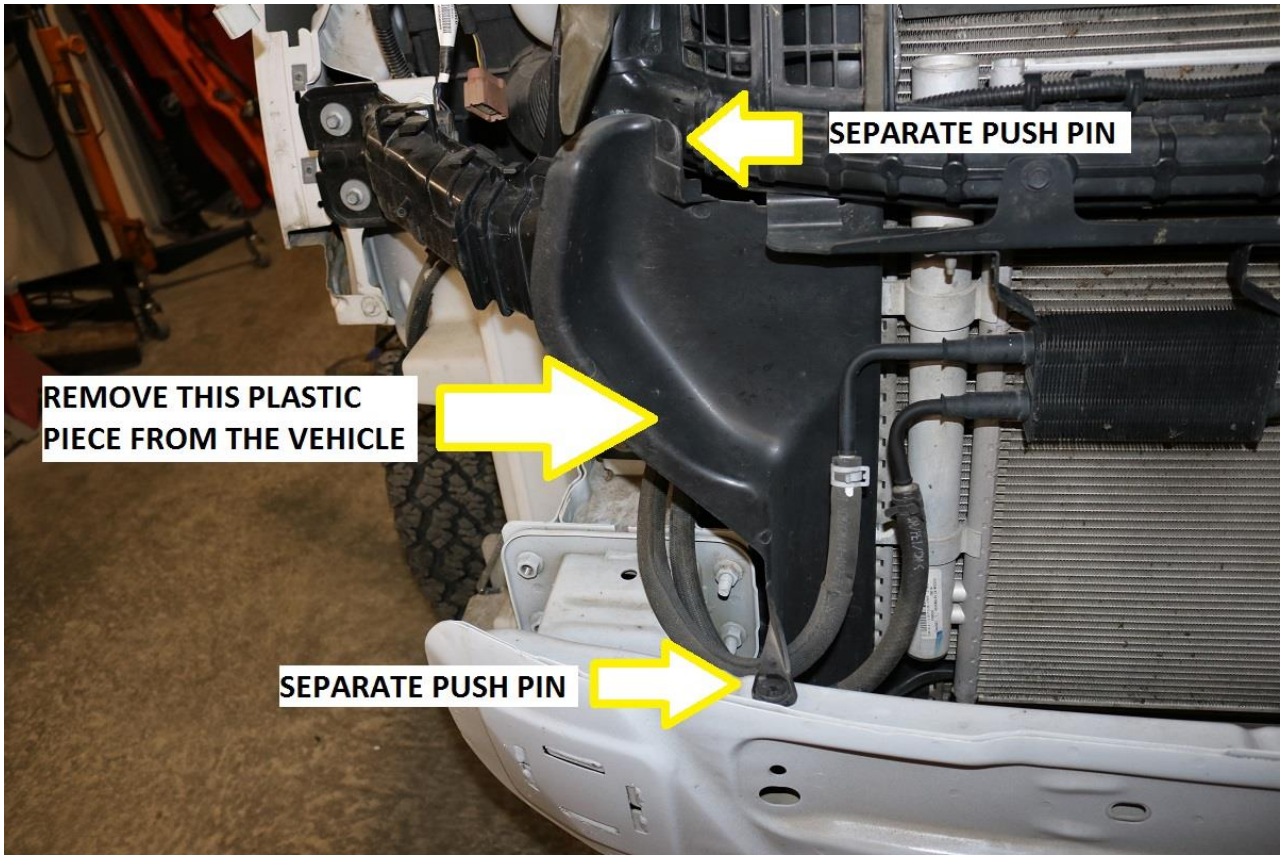


14) The last step in front bumper cover removal is to locate the 2 tabs along the top of the grill which secure the bumper cover / grill assembly to the core support. Use a large flat blade screw driver to pry the tabs free from the core support.
    a. Note the two bulges in the top of the grill; this is where the tabs are located.
    b. Reference the photo below for the locations of the 2 tabs.

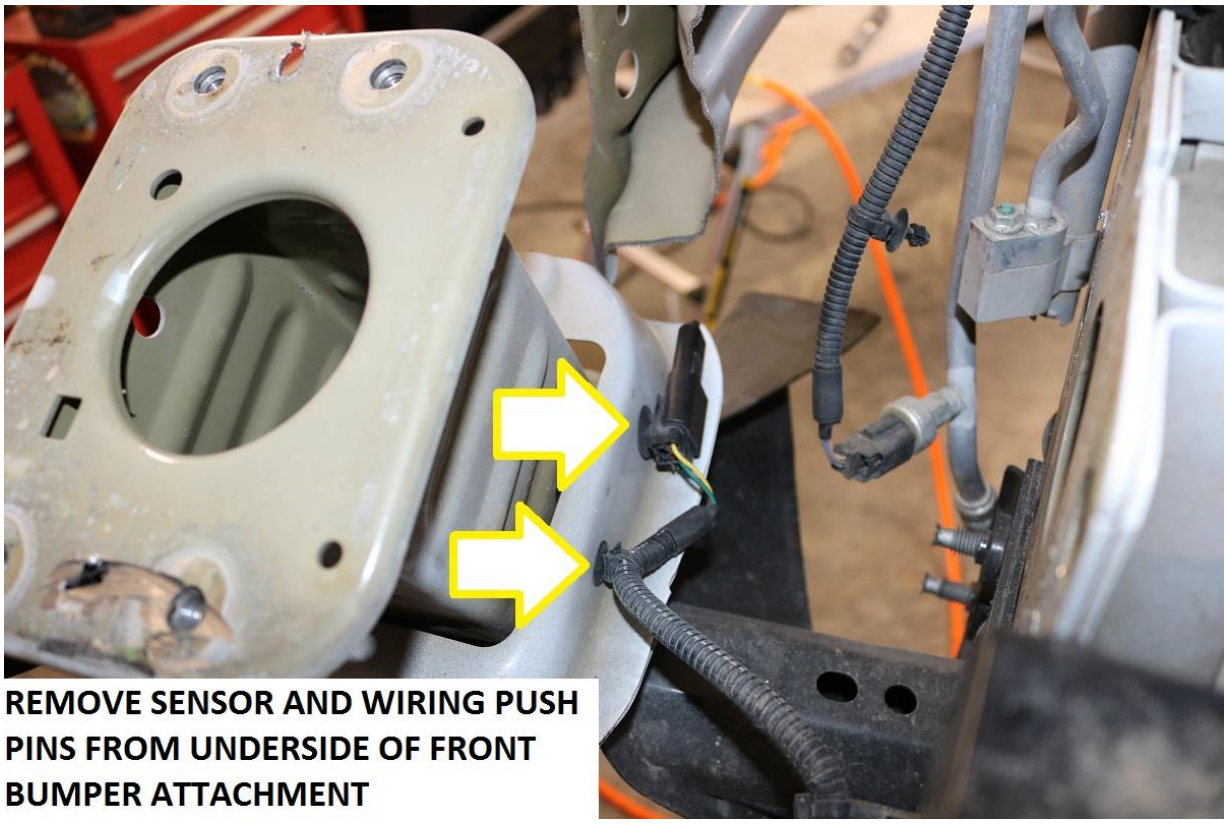


15) Remove the front bumper / grill assembly from the vehicle.
16) Separate the push pin clips securing the plastic front trim connected to the front bumper and core support using an automotive trim removal tool as shown below.
    a. Note, remove this push pin on both the driver and passenger side of the vehicle.
    b. Separate the A/C wiring from the plastic trim on the driver side and remove the plastic pieces from the vehicle.



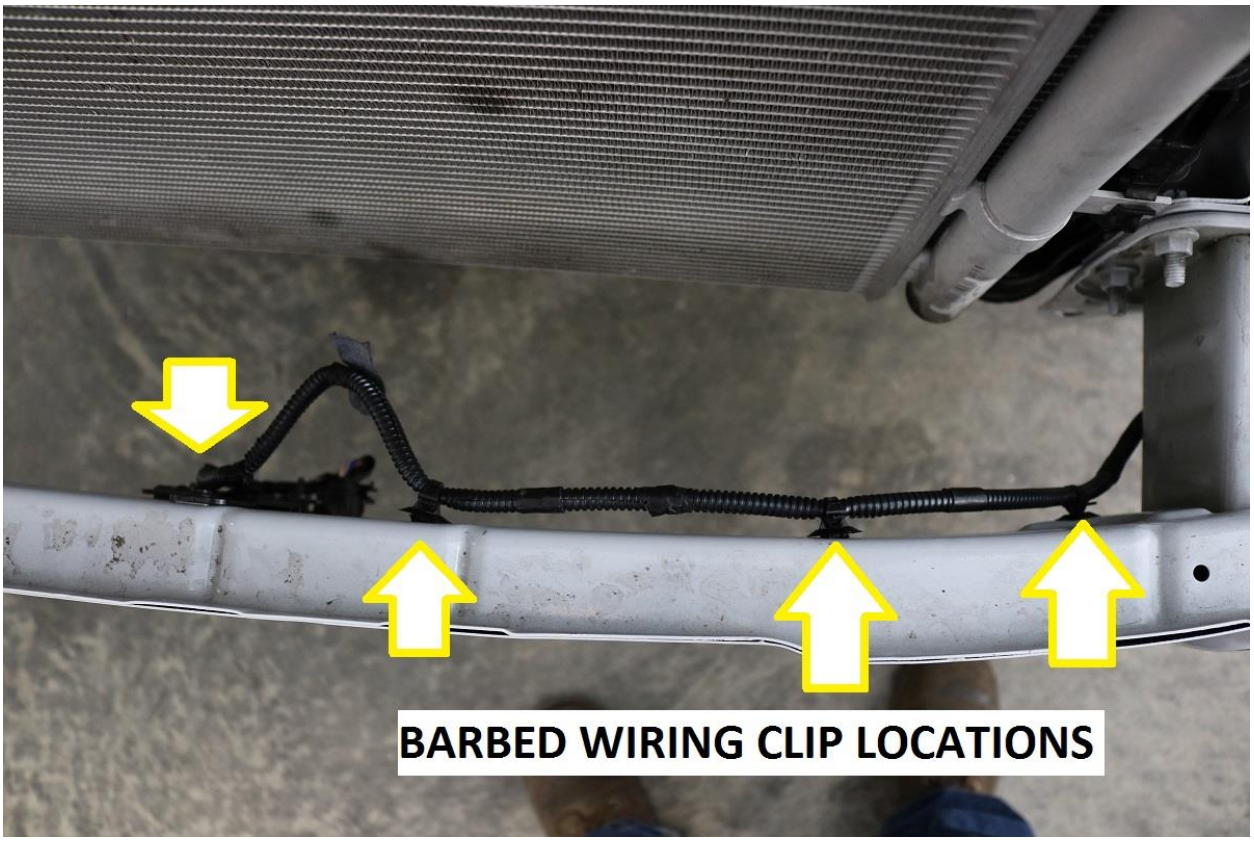


17) Note, on the underside of the driver side bumper attachment point is the outside ambient air temperature sensor.
    a. Separate the sensor and wiring from the bumper's attachment point using an automotive trim removal tool.



REMOVE SENSOR AND WIRING PUSH PINS FROM UNDERSIDE OF FRONT BUMPER ATTACHMENT

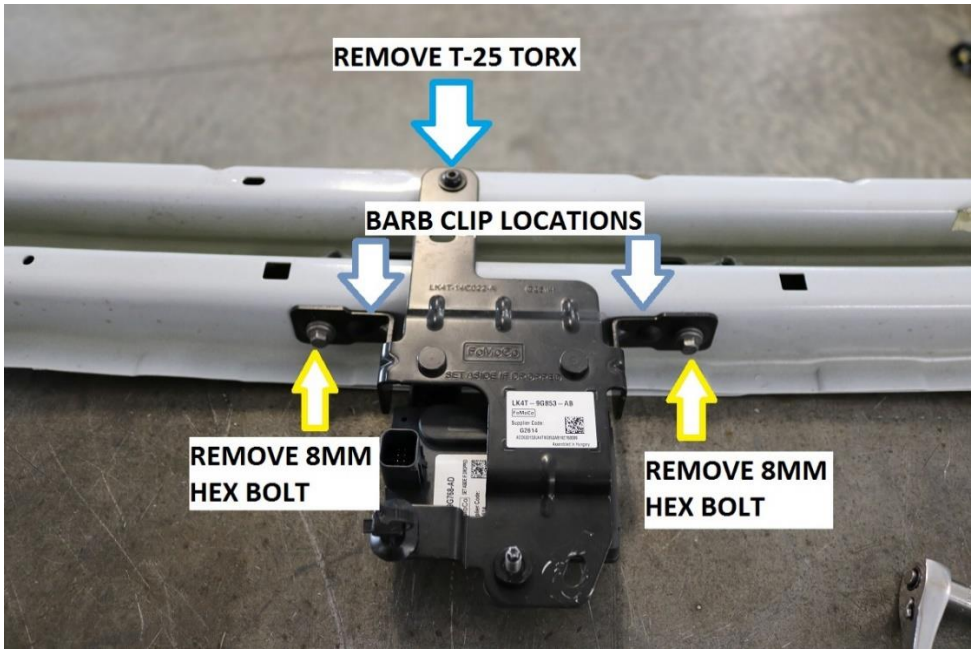
18) On newer vans equipped with active braking or adaptive cruise control, there is a radar sensor located behind the factory bumper.
    a. Remove the barbed clips securing the wiring to the back of the bumper. There are three clips that run along the back of the bumper and one on the mounting bracket itself. Use an automotive trim removal tool to separate the clips.



BARBED WIRING CLIP LOCATIONS

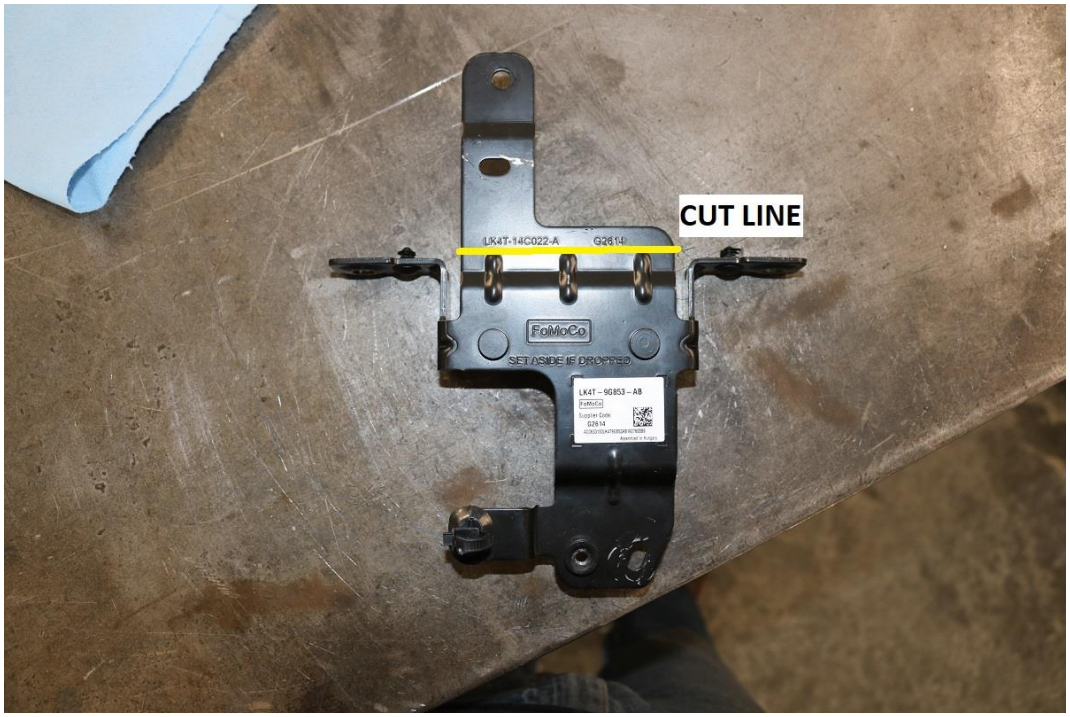
19) Un-plug the sensor and remove the sensor bracket from the backside of the bumper.

a. Be careful not to drop or hit the sensor as they are sensitive units.
b. Un bolt the sensor bracket by removing the two 8mm hex head bolts and the upper T-25 Torx bolt.
c. Once the hardware is removed, use an automotive trim removal tool to free the barbed fittings securing the bracket to the bumper.

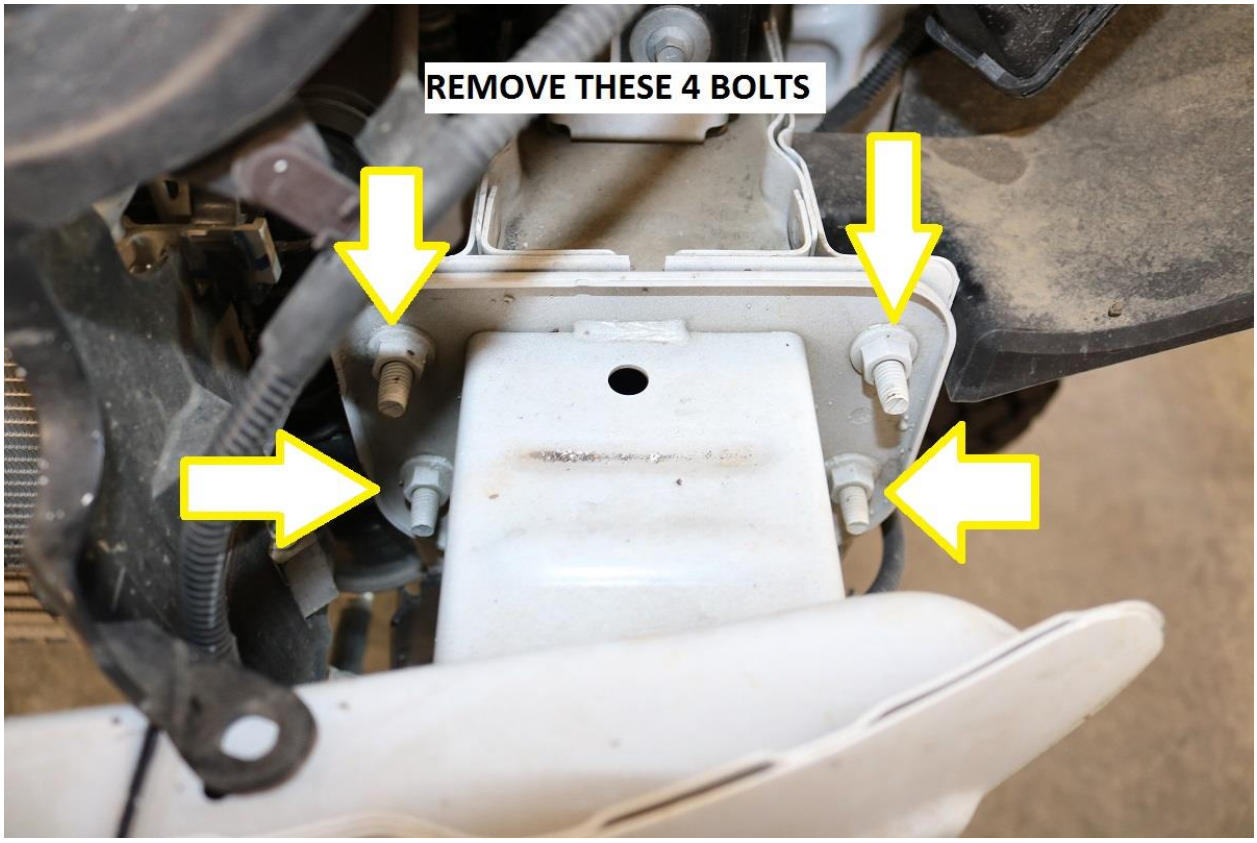


20) Trim the radar sensor bracket as shown below, being careful not to damage or hit the sensor.

a. Clamp the bracket carefully as to secure it for trimming.
b. Use a 4-1/2” angle grinder with metal cut off wheel to cut along the top of the three protrusions on the back side of the bracket.
c. Deburr any sharp edges and touch up any exposed areas of metal with paint to prevent corrosion.



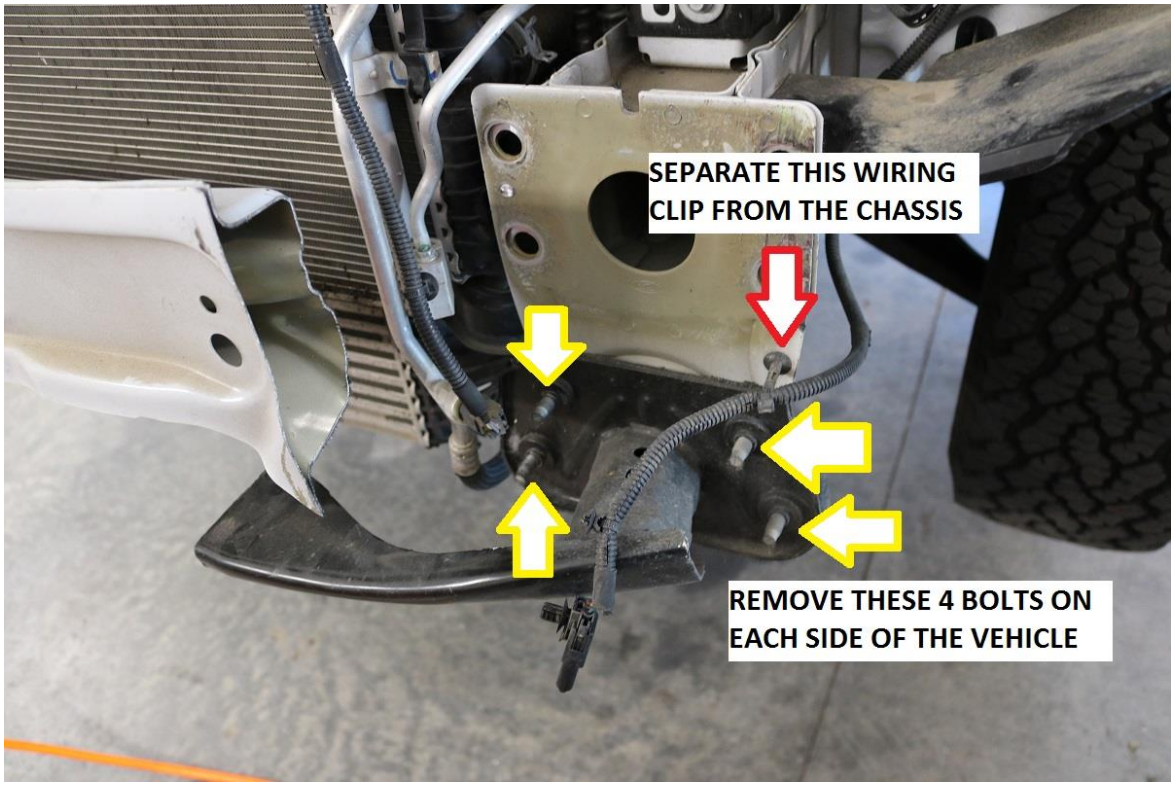
21) Use a 13mm socket / wrench and remove the 4 bolts on each side of the vehicle which secure the front bumper to the chassis.
    a. Note, a long extension (9-12”) is helpful in reaching the inner bolts.
    b. Retain these mounting bolts as they will be re-used with the front winch / hitch mount.



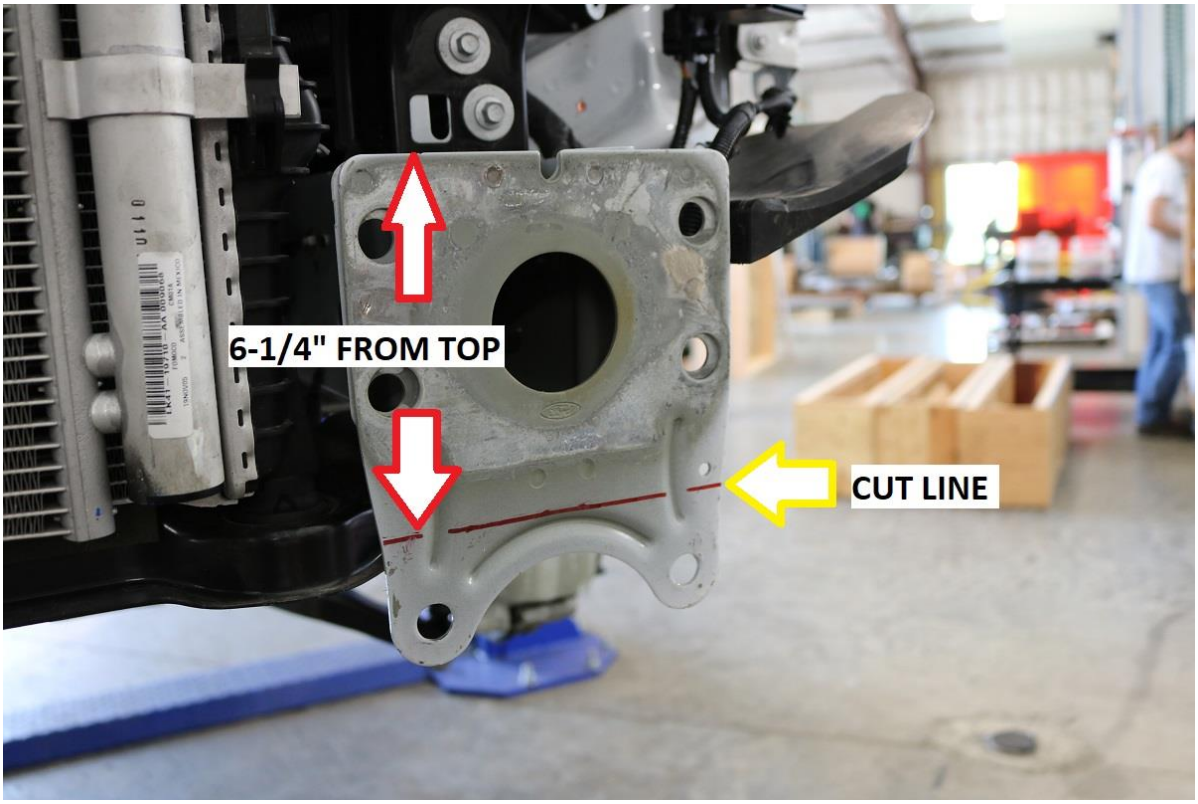
22) With the bolts removed, locate the two spot welds securing the front bumper to the chassis. These spot welds can be a little difficult to see but they are located on center, directly between the two nuts on each side of the bumper attachment point. See image below for reference.

23) Once the spot welds have been located, grind / cut them out.
    a. When cutting out the spot welds, try to only cut / grind through the front bumper. Try not to cut too deep and start cutting into the chassis.
    b. Once the spot welds have been cut or ground down a good amount, use a chisel or large flat blade screwdriver to separate the front bumper from the chassis. See image below for reference.

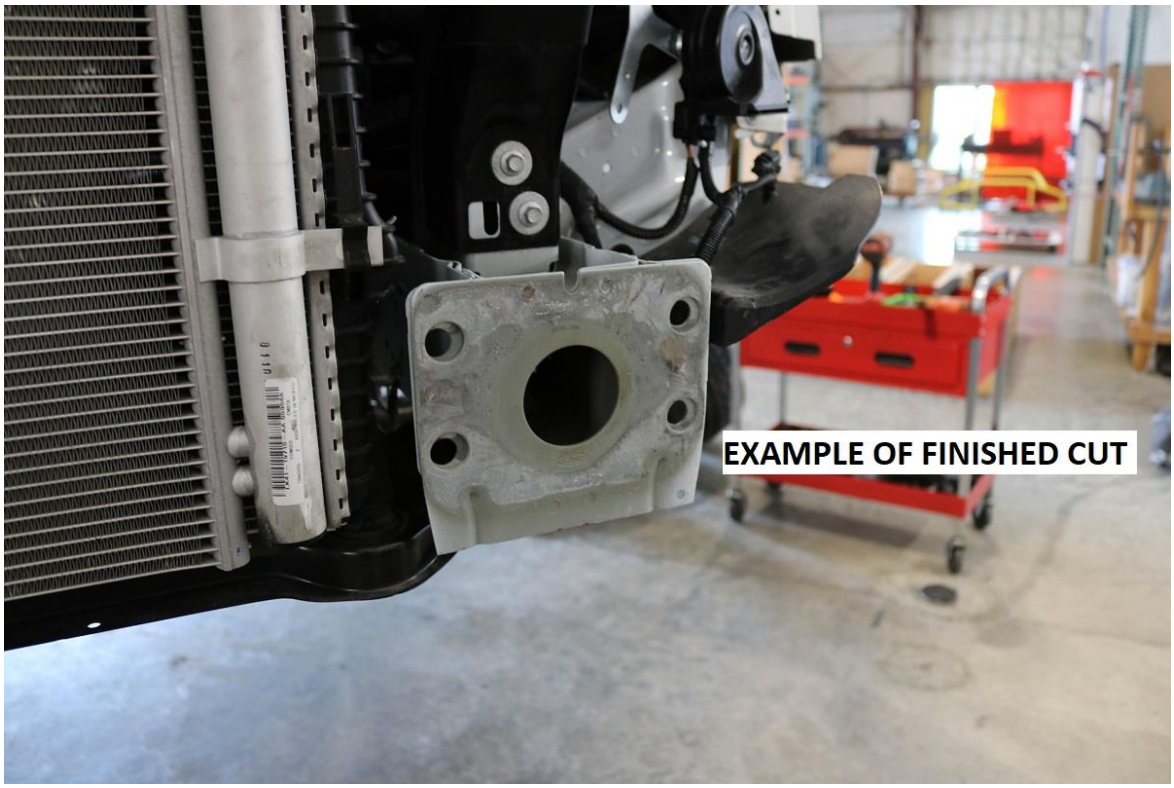
24) With the front bumper removed, remove the lower front bumper valence. Locate the four 13mm bolts on each side and remove.



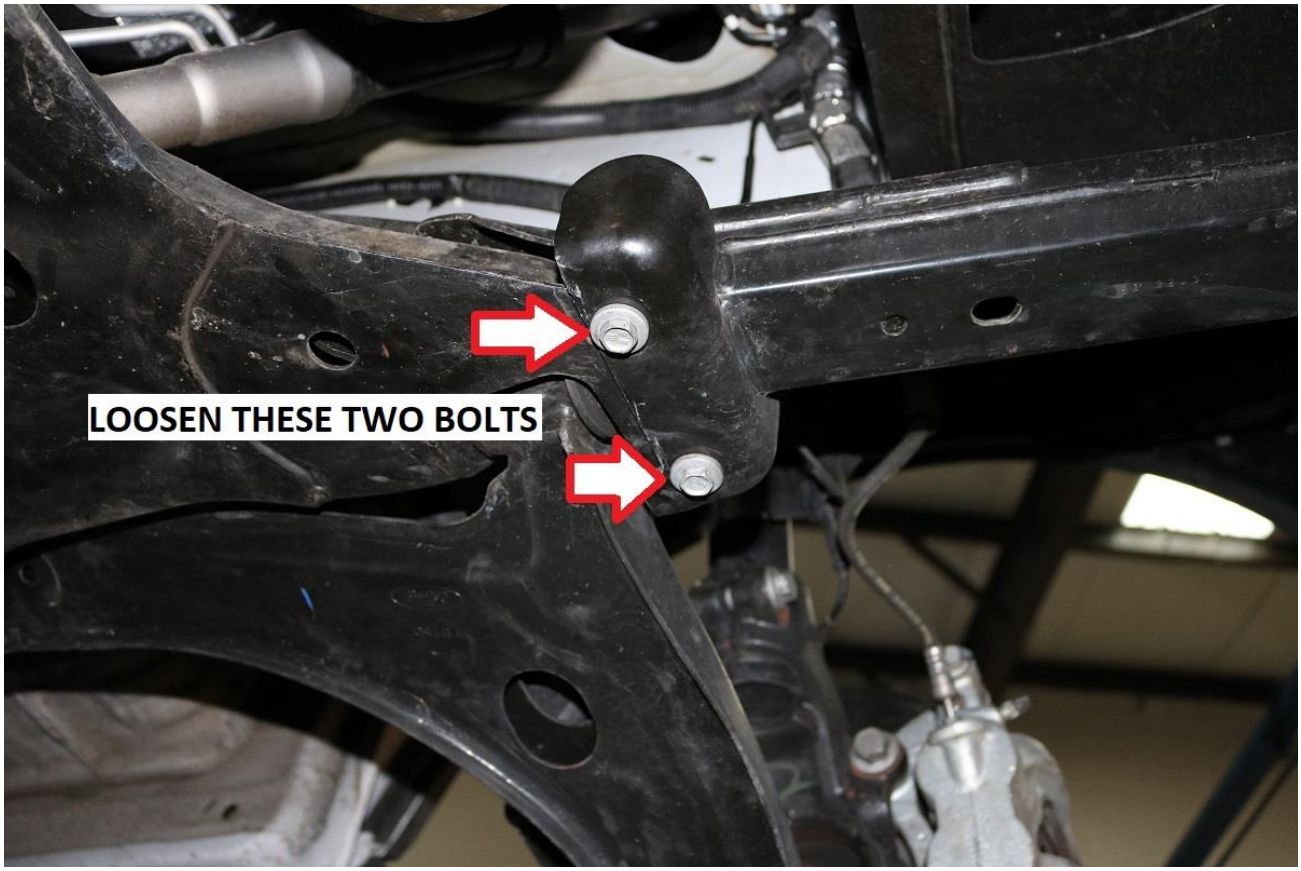
25) Mark a cut line on the chassis using a T-square or level. Measure cut line 6-1/4” (15.8 cm) from the top of the chassis. Note; Cut line should end up being tangent with the top edge of the bottom arc indentation.



26) Cut on this line using a 4-1/2” angle grinder and metal cutting wheel or similar cutting tool.
   a. Finished cut should appear as shown below.
   b. Complete cut on both driver and passenger sides.

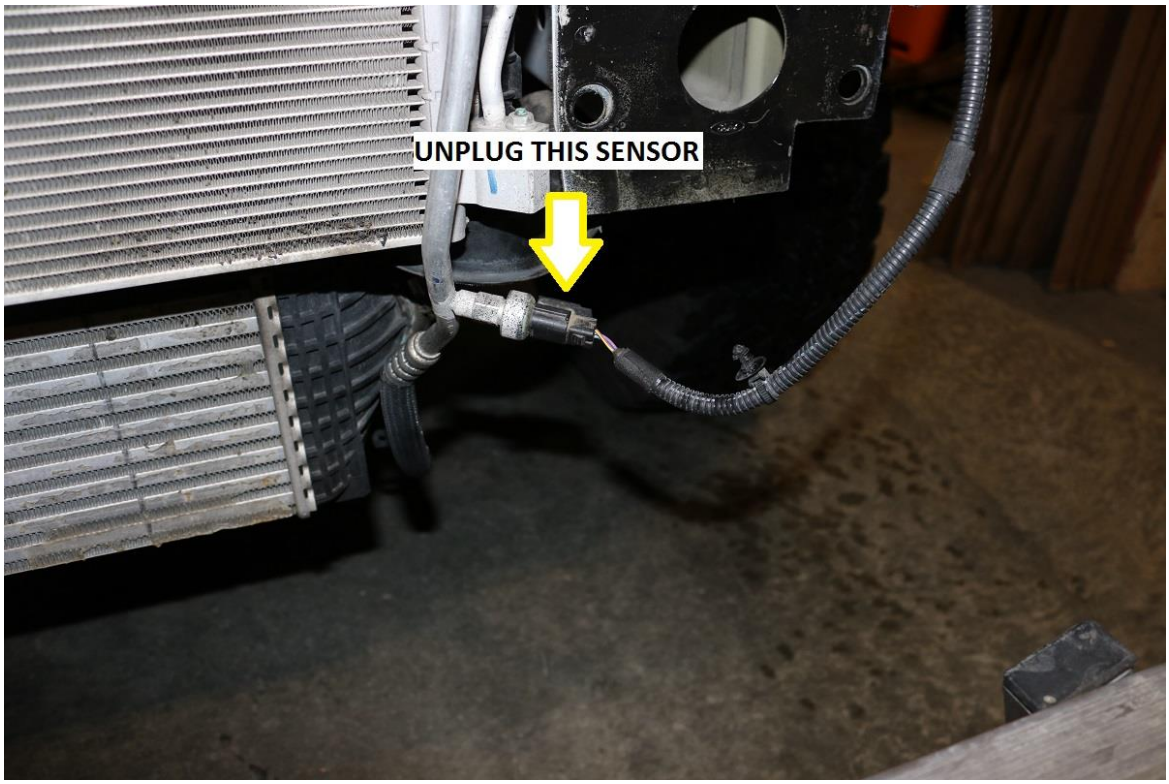


27) Next, loosen the bottom bolts for the bumper support bars. Use a 13mm socket / wrench to loosen the two bolts securing the bars to the suspension sub frame.

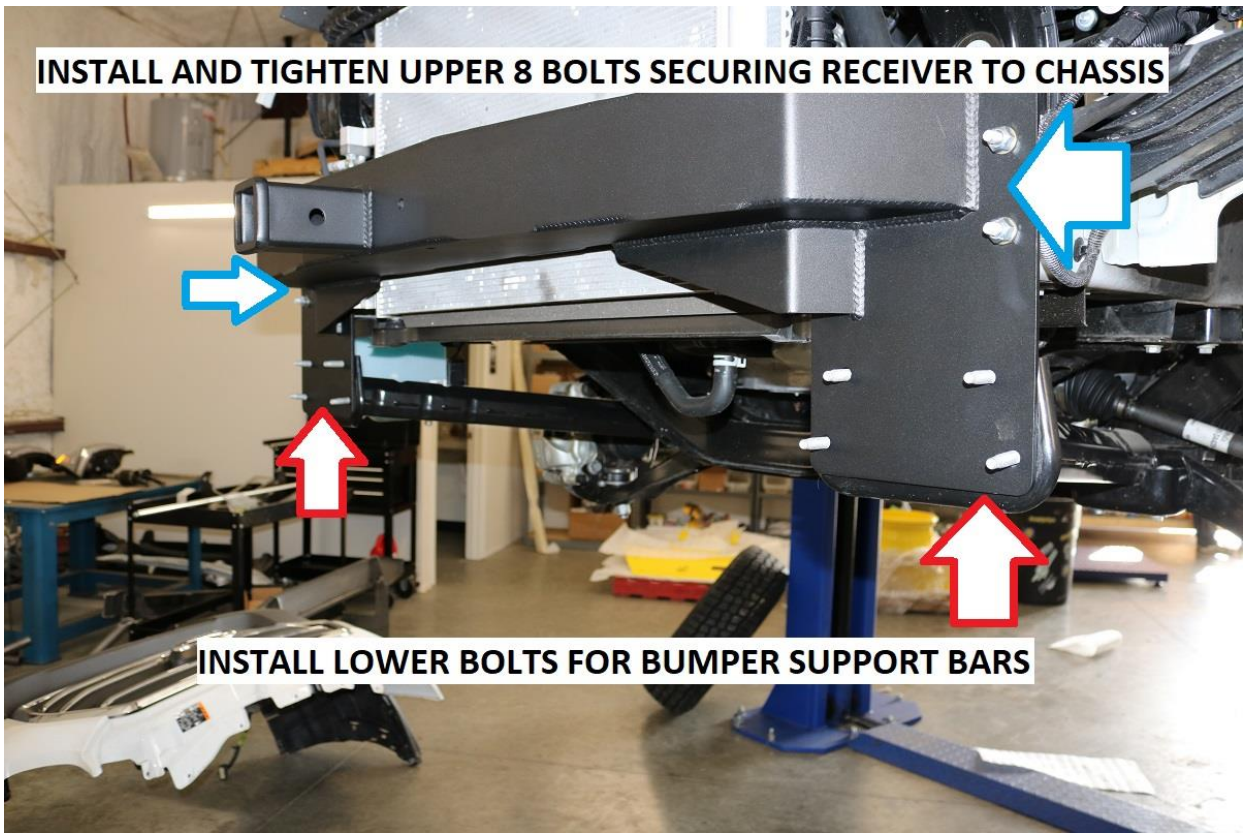


28) At this time, sand any rough / sharp edges smooth on the chassis. Touch up any exposed areas of metal with a quality paint to prevent corrosion.

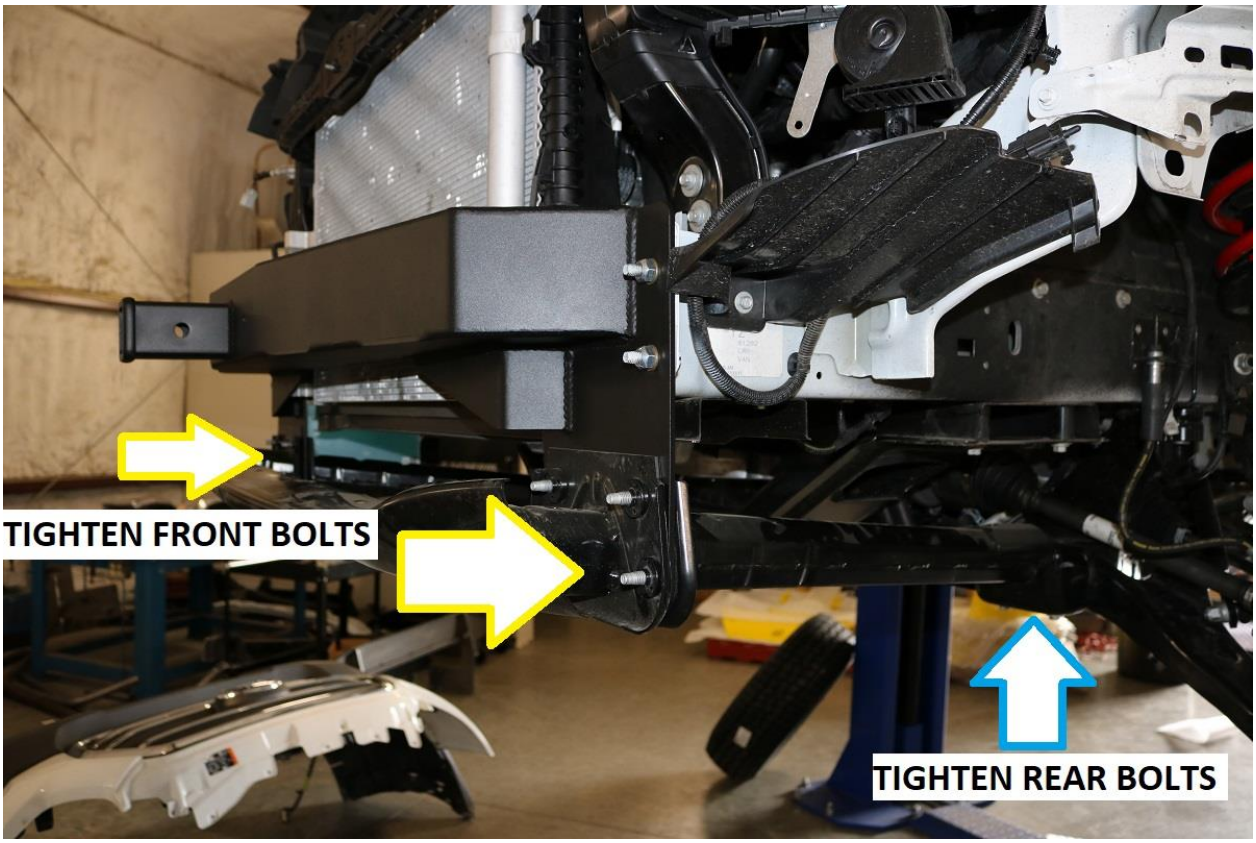
29) Unplug the sensor in the hard line to the A/C condenser.



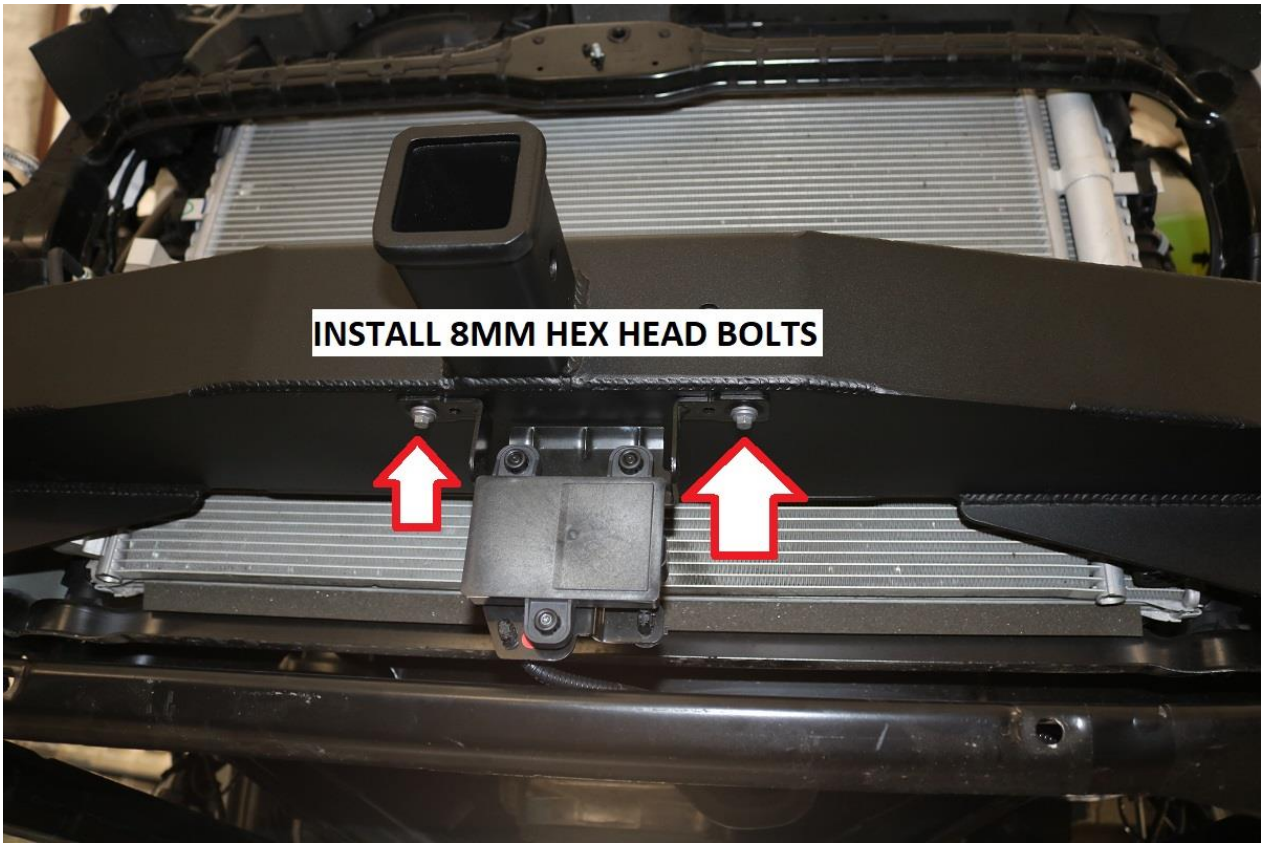
30) Use a floor jack or have a helper aide in fitting the front receiver to the vehicle.
    a. Raise the receiver up until the front mounting holes are aligned where the front bumper used to attach.
    b. Install the OEM bumper bolts from behind and secure using the new included M10-1.5 stover nuts. Be sure to use the included M10 flat washers under the nut.
    c. Align and install the OEM bolts for the lower bumper support bars.
31) Snug the front bolts using a 13mm socket / wrench for the bolt head and a 17mm socket / wrench for the stover nuts. Ensure the front receiver is level, adjust if needed and torque all 8 bolts to 43 ft-lbs. (58 N.m)



32) Separate the lower bumper from the bumper cover and bolt it to the receiver.
    a. Once all hardware has been started, torque the bolts at the suspension sub frame with a 13mm socket / wrench to 18 ft-lbs. (25 N.m)
    b. Torque the front bumper support bars to the bumper attachment bolts to 43 ft-lbs. (58 N.m)



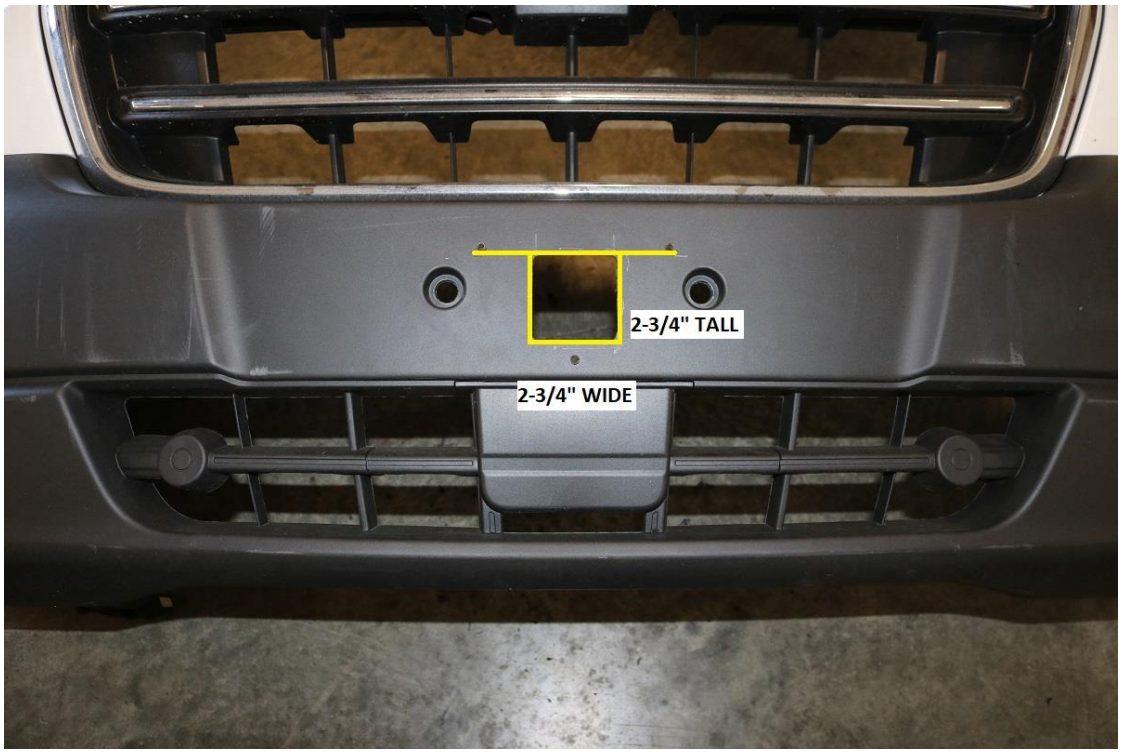
33) Re-install the front radar sensor removed in Step 19. Use the same 8mm hex head bolts it was originally secured with to bolt it to the front receiver. Simply snug bolts and give an additional 1/4 turn for final tightening.



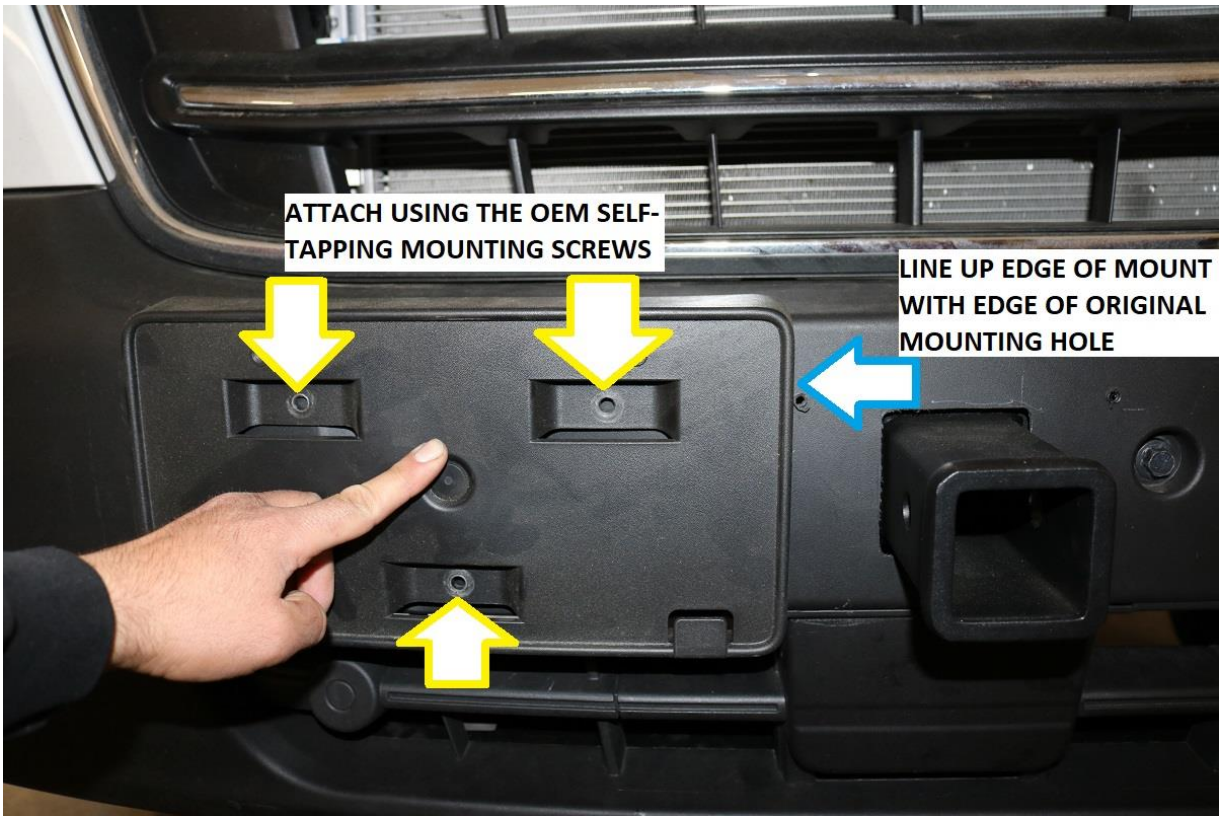
34) Reconnect / secure all wiring. Connect the wiring back to the A/C sensor unplugged in step 29.
    a. Ziptie radar sensor wiring along the top of the lower bumper.

b. Clip the ambient air temp sensor into the mounting holes on the bottom side of the receiver near the driver side chassis bolts.

35) Trim the front bumper for the receiver tube. Use the image and notes below for reference.
   a. A 2-3/4” x 2-3/4” square hole needs to be cut in the center of the bumper between the two bumper cover mounting holes.
   b. Use the upper license plate bracket mounting holes as a reference to mark a horizontal line. This is the top of the cutout.
   c. From there, mark the center line of the bumper and measure out the square hole to be cut.



36) Re-install front bumper in the reverse order of removal. Refer to steps 15 thru 1 for re-installation.
37) Replace any broken push pin retainers on the fender trim pieces with the new ones included in the kit. (Step 4)
38) Note, if a front license plate is still desired, re-attach the original license plate mount removed in step 7 using the original factory self tapping screws to secure it to the bumper cover. Position the mount on either the driver or passenger side, just outside of the original mounting hole for the mount. See image below for reference.



Installation is Complete

RELEASE OF LIABILITY

I, the customer, do hereby release and forever discharge Van Compass LLC, their agents, employees, successors and assigns, and their respective heirs, personal representatives, affiliates, successors and assigns, and any and all persons, firms or corporations liable or who might be claimed to be liable, whether or not herein named, from any and all claims, demands, damages, actions, causes of action or suits of any kind or nature whatsoever, whether known or unknown, fixed or contingent, which I now have or may hereafter have or claim to have, as a result of or in any way relating to the following: Parts sold & installed by Van Compass LLC or parts sold & installed by end-user; any parts sold online, any parts sold online or installed by a re-seller, any parts installed by an installation shop.

It is understood and agreed that this payment is made and received in full and complete settlement and satisfaction of the aforesaid actions, causes of action, claims and demands; that this Release contains the entire agreement between the parties; and that the terms of this Agreement are contractual and not merely a recital. Furthermore, this Release shall be binding upon the undersigned, and his respective heirs, executors, administrators, personal representatives, successors and assigns. This Release shall be subject to and governed by the laws of the State of Idaho.

PRODUCT SAFETY WARNING:

Van Compass LLC strongly recommends the installation of products be done by a certified mechanic. If this does not occur, be certain the person(s) installing the product read, understand and follow all instructions and warnings pertaining to the application before installation. Do not add, alter, or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the Van Compass LLC product purchased. Mixing component brands is not recommended.

Installation of suspension lift kits or any other lifting kits or devices will raise the center of gravity. For this reason, Van Compass LLC urges that extreme caution be used when encountering driving conditions which may cause vehicle imbalance. Furthermore, the driver's field of vision and judgment will not be as good due to the height of the vehicle. Due to the installation of larger tires, the speedometer will read slower than the actual speed being traveled and more distance will be required to stop the vehicle. It is the owner's responsibility to caution and warn any potential driver of the vehicle about these driving and handling conditions. Van Compass LLC will not be held liable or responsible for damages or personal injuries resulting from the use of lifting devices and or related products. The tires and rims should be changed to sufficiently increase the vehicle's total overall width and stability to help accommodate lifting devices.

Van Compass LLC aftermarket suspension products and accessories modify a vehicle for uses which exceed conditions anticipated by the vehicle manufacturer. The uses include the high performance demands required during off-road. These conditions vary in the degree of extremity and cannot be controlled by the vehicle or product manufacturer. If the components within the suspension system or accessories become worn due to frequent and/or extreme use, the safety and reliability of the vehicle is at risk. The maintenance of aftermarket equipment to ensure the vehicle occupants safety is entirely your responsibility. Do not purchase Van Compass LLC products unless you are willing to accept this responsibility. Do not install any Van Compass LLC suspension products or accessories unless you feel competent at installing the product without causing present or future injury to yourself or other vehicle occupants; seek an authorized installation center.

Most states have some type of law limiting vehicle height. The amount of lift allowed, and how the lift can be achieved, varies greatly. Several states offer exemptions for farm and commercial registered vehicles. It is the vehicle owner's responsibility to check state and local laws to ensure that their vehicle will be incompliance. Van Compass LLC reserves the right to make changes in design, materials and specifications as deemed necessary without prior notice and without assuming obligation to modify any product previously manufactured. Obligation or liabilities will not be assumed with respect to similar products previously advertised.

This Release of Liability and Product Safety Warning has been read and fully understood by the undersigned and has been explained to me.