



## 4105 – 2013-PRESENT, FORD TRANSIT, FRONT WINCH MOUNT

Version 1.0

### General Notes

- For the most up to date and current instructions, please visit our website at [www.vancompass.com](http://www.vancompass.com)
- Please read all instructions thoroughly before starting installing Van Compass products.
- This is a bolt on front winch / hitch mount 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 front underbody plastic air damn cannot be re-installed with this winch mount.
- This front winch mount is designed around the Warn VR EVO series of winches. Many other winches are compatible with this kit but please reference the Warn VR EVO 12S winch for the maximum winch size.
- A front receiver hitch is integrated into this winch mount. The receiver has a maximum vertical load capacity of 300lbs. Do note, that vehicles equipped with adaptive cruise control / active brake assist will not function properly when a large item is mounted into the receiver.
- The front license plate is not retained with this front winch set-up; however there are reasonably priced license plate mount options available for both Hawse and Roller fairleads. For example;
  - Hawse fairlead: Tuffy Products Part Number: 333-01
  - Roller Fairlead: Smittybilt Part Number: 4432
- The following instructions documents the installation of a Warn VR 10,000 on a 2020 Ford Transit AWD 148" WB. Some aspects of installation will vary depending on year, chassis / engine configuration and winch choice.
- Note, this front winch mount features integrated shackle recovery points and is not compatible with the Van Compass 4039 Transit front tow point.
- Van Compass intercooler skidplate 4068 is not compatible with this winch mount. Utilize part number 4110 for compatibility with this winch mount.

### Parts List

#### 4105 – 2013-PRESENT, FORD TRANSIT, FRONT WINCH MOUNT

- (1) 410501 FORD TRANSIT, FRONT WINCH MOUNT
- (6) PP-M08-14 PUSH PIN FENDER CLIP, 8MM HOLE X 14MM LONG
- (16) NSM10-1.50 STOVER NUT, M10-1.50
- (16) WF-M10 FLAT WASHER, M10
- (1) 407205-02 RADAR SENSOR RELOCATION BRACKET
- (2) SM10-1.50-16-8.8-LP M10-1.50 X 16MM LONG, LOW PROFILE SOCKET CAP SCREW
- (2) NPPM10-1.50 M10-1.50 PLASTIC HEX NUT, BLACK
- (2) PE-PLUG-750 PLASTIC SNAP-IN ROUND PLUG

#### ADDITIONAL INCLUDED HARDWARE IF EQUIPPED WITH PARKING SENSORS:

- (2) 410507 FRONT PARKING SENSOR MOUNTING STRAP
- (6) MC5-10-03 MACHINE SCREW, 10-24 X ¾" LONG, CLEAR ZINC
- (6) NNC-10-24 10-24 NYLOCK NUT, CLEAR ZINC

#### OPTIONAL:

#### **4105-06 – 2013-PRESENT, FORD TRANSIT, FRONT NERF BAR**

- (1) 410506 FORD TRANSIT, FRONT NERF BAR
- (4) HC8-7-10 7/16-14 X 1.0" LONG HEX HEAD BOLT, GR8 YELLOW ZINC
- (4) NNC-7 7/16-14 NYLOCK NUT
- (8) WF8-7 7/16" FLAT WASHER, GR8, YELLOW ZINC

#### Tools Needed

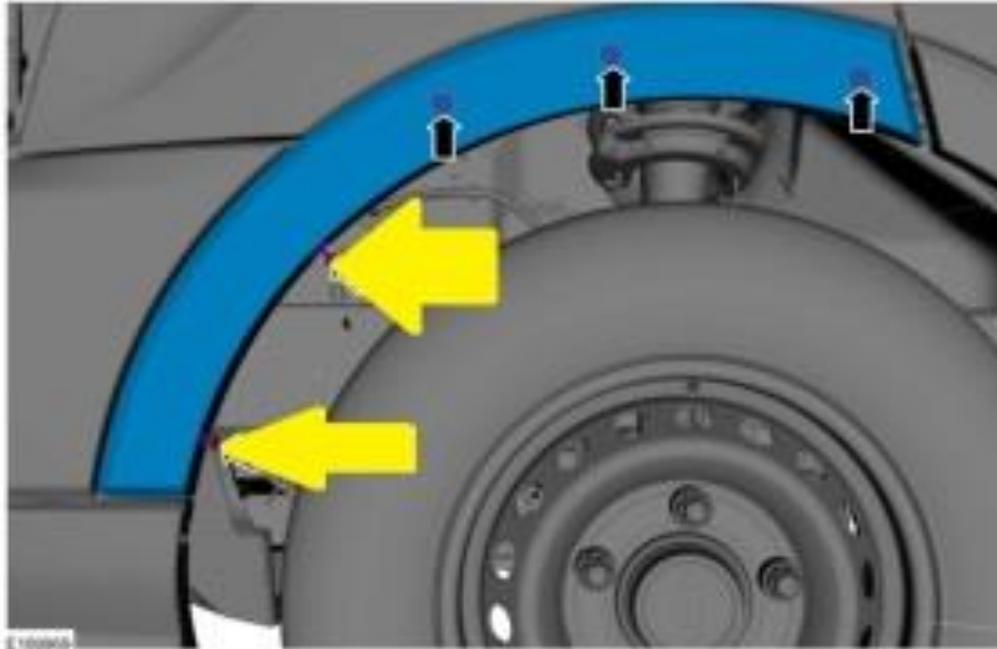
- Measuring tape
- Combination Square / ruler
- Torque wrench
- Floor jack
- Metal cutting tool
  - 4-1/2" angle grinder with metal cutting disc and sanding disc.
  - 3" pneumatic cut off tool.
  - Die grinder with drum sander or Dremel style tool (for detail plastic bumper material removal)
- Automotive 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

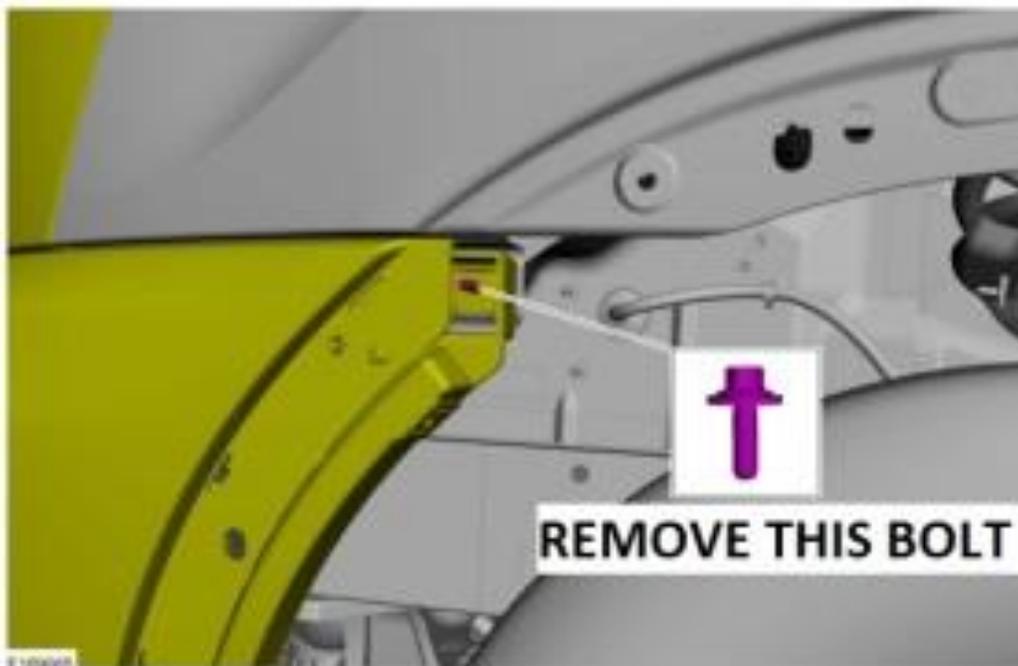
- 4-6 hours for installation, factor in an additional 2 hours for winch wiring.

#### Installation

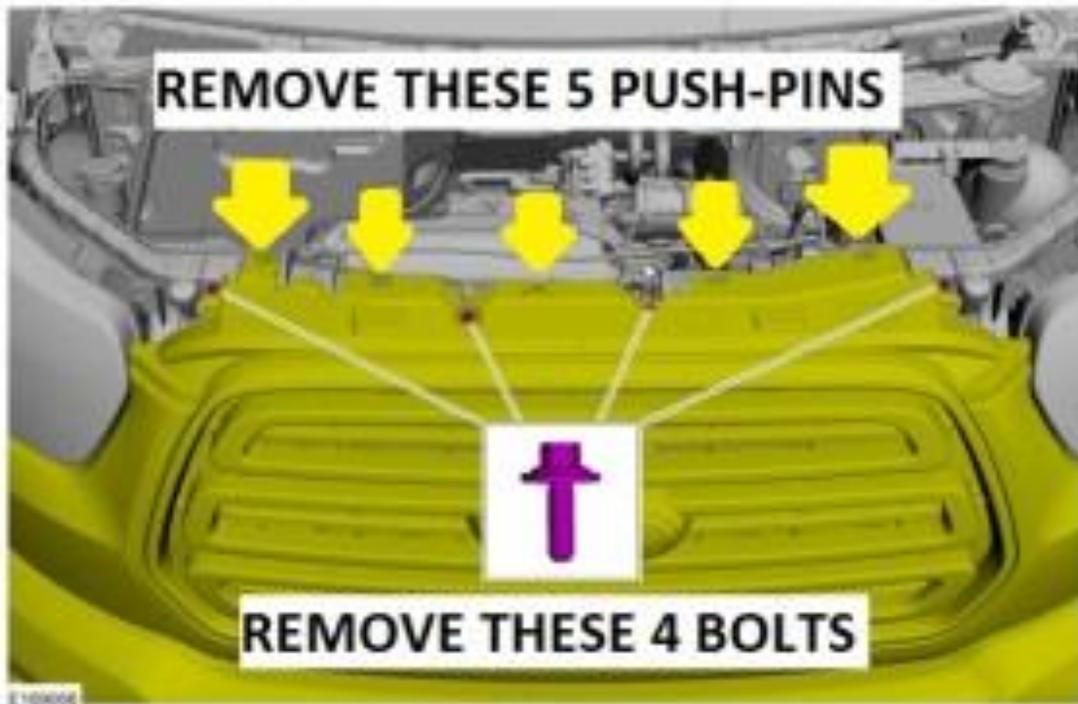
- 1) Note; retain all OEM hardware removed as it will be re-installed during re-assembly.
- 2) Begin by removing the front fender trim piece on both sides of the vehicle. Remove the two pull pins towards the front of the wheel well using an automotive trim removal tool under the head of the pin. Denoted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



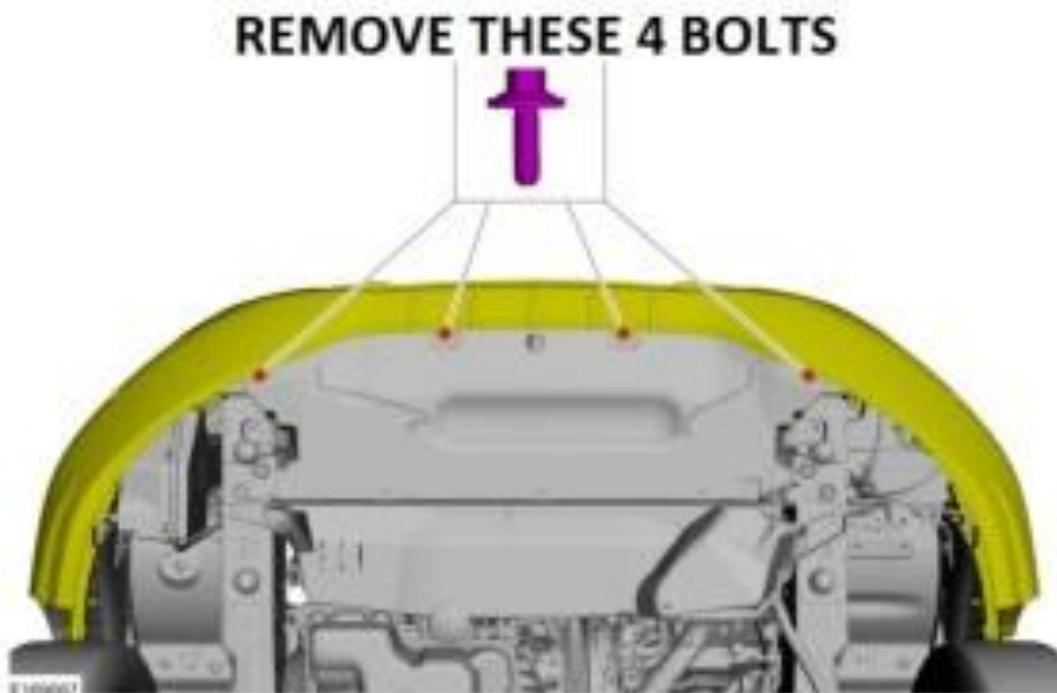
- 3) Using the above image as a reference, try to locate and pry free the three remaining push pins securing the fender trim to the fender denoted by the black arrows above.
  - a. Note, these pins will likely break. Included in your tow point kit are replacement pins if needed.
- 4) Begin removing the 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.

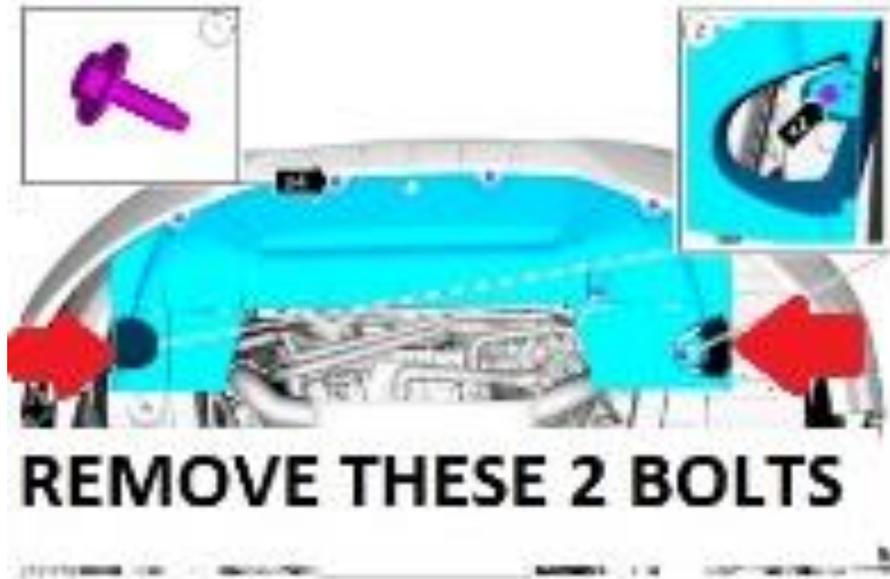


- 5) Open the hood of the vehicle and locate the 4 bolts securing the top portion of the grill to the core support of the vehicle. Remove all 4 bolts using a 10mm socket / wrench.
  - a. Once all 4 bolts have been removed, locate and remove the 5 push-pin fasteners securing the grill to the core support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



- 6) Remove the lower air damn on the underside of the bumper by locating the 6 bolts securing the lower air damn to the vehicle.
- There are 4 bolts towards the front which connect the bumper cover to the air damn and 2 additional bolts securing the air damn to the chassis itself. See image below for reference. Remove these 6 bolts using a 10mm socket / wrench.

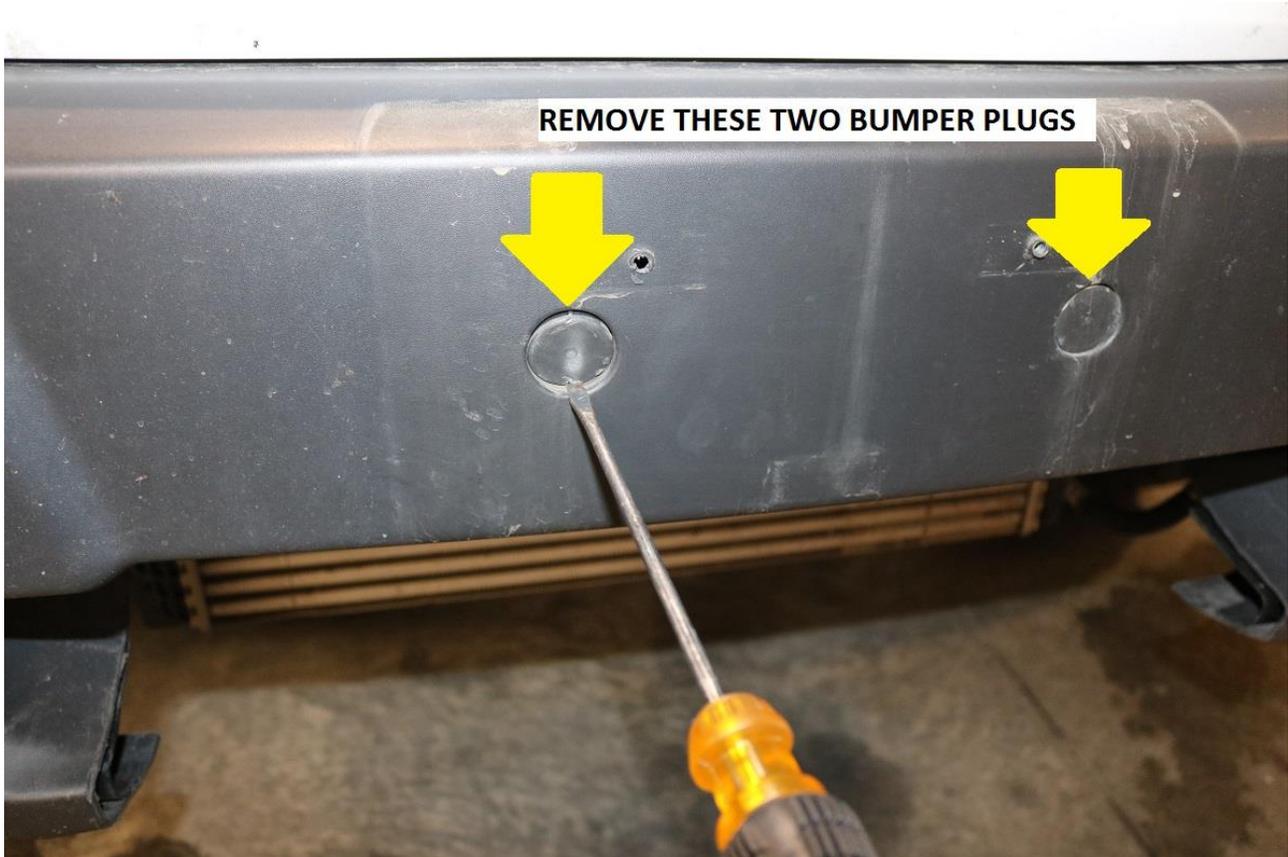




- 7) Next, remove the front license plate mount if equipped. On this vehicle, the license plate mount was secured with two 5/16" bolts.

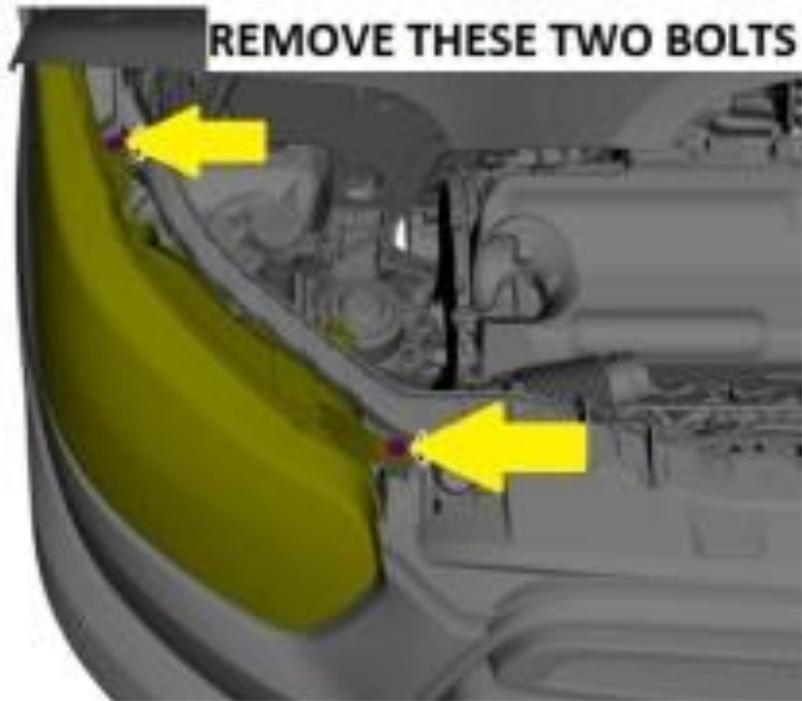


8) Remove the two bumper plugs using a small flat blade screwdriver.

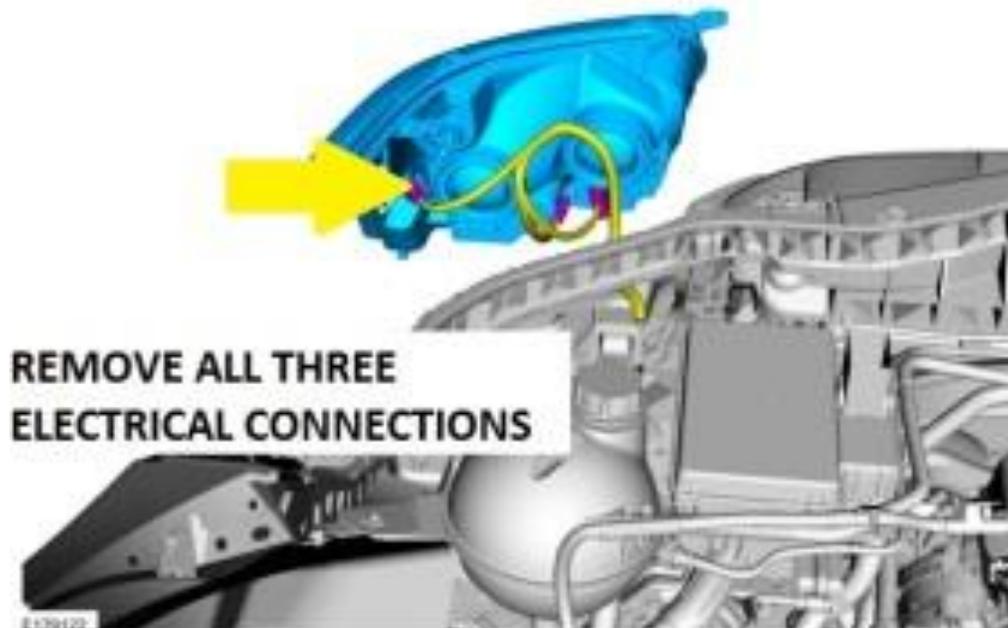
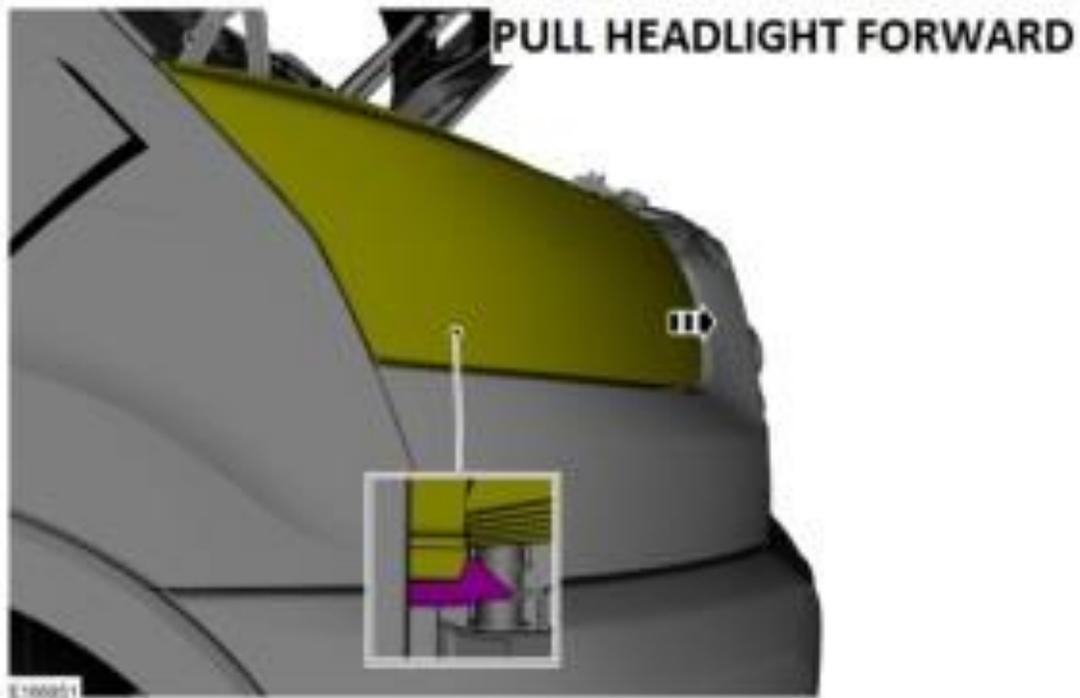


9) Remove the two bolts behind the bumper plugs. Use a 13mm socket / wrench for removal.

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.



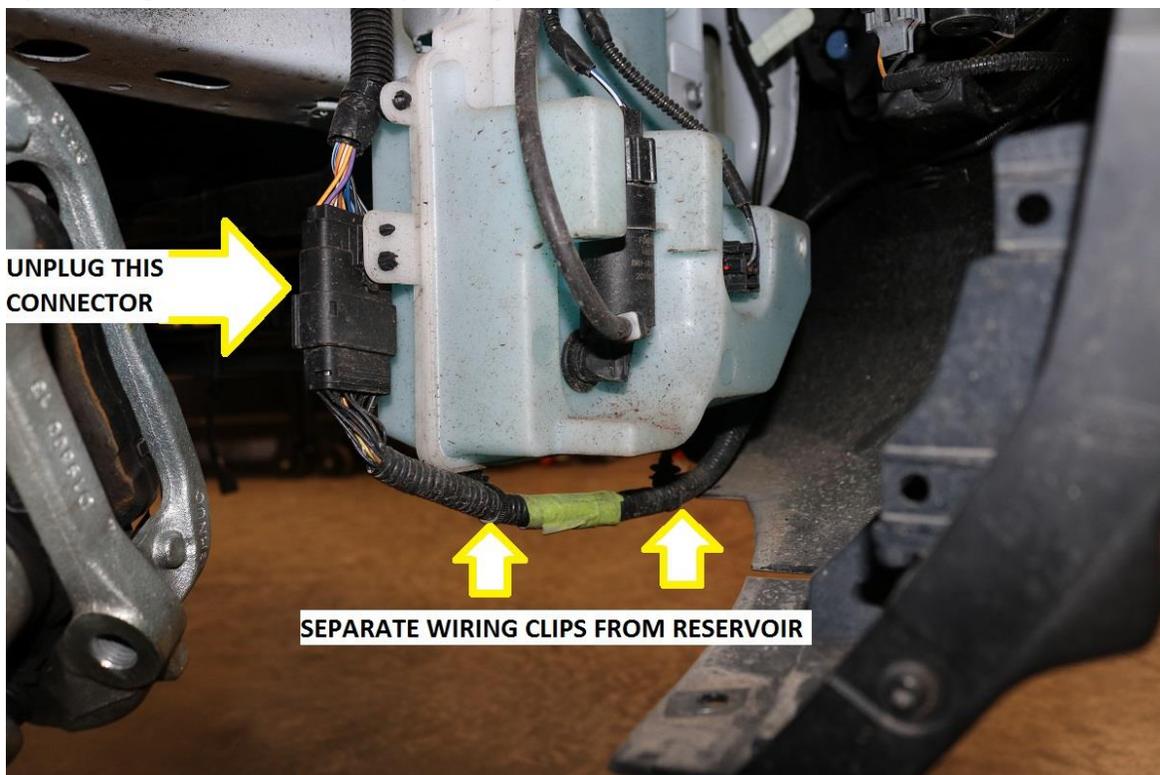
- 11) Pull the headlight forward and free it from the clips securing it to the vehicle. Once the headlight is free from its mounting clips, undo the three electrical connectors and completely remove the headlight housing from the vehicle.



- 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.
- Once the torx screws are removed, pull the black plastic clip brackets which sandwich the bumper cover to the front fenders.
  - Pull the front bumper corners outwards to separate the retention clips securing the sides of the bumper cover to the fenders.
  - See image below for reference.

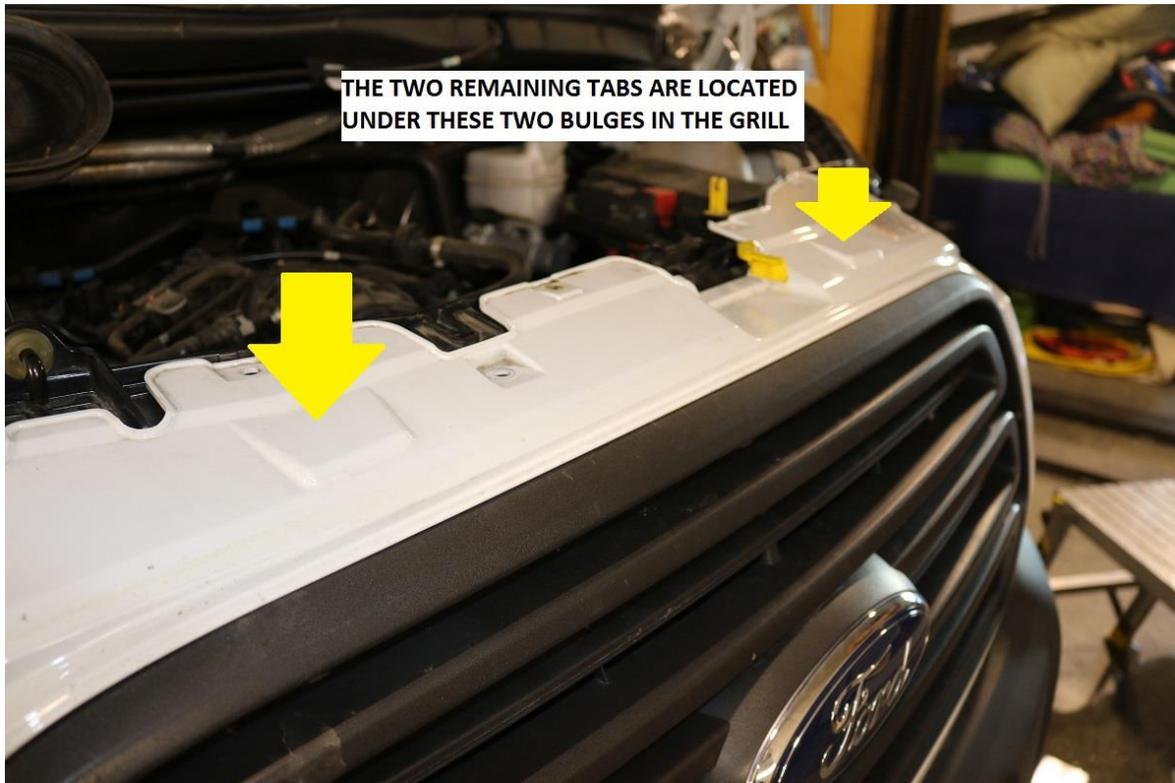


- 13) On newer models equipped with brake assist and / or front parking sensors, unplug and separate the bumper wiring in the front of the passenger wheel well near the windshield washer reservoir.



- 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.
- Note the two bulges in the top of the grill; this is where the tabs are located.

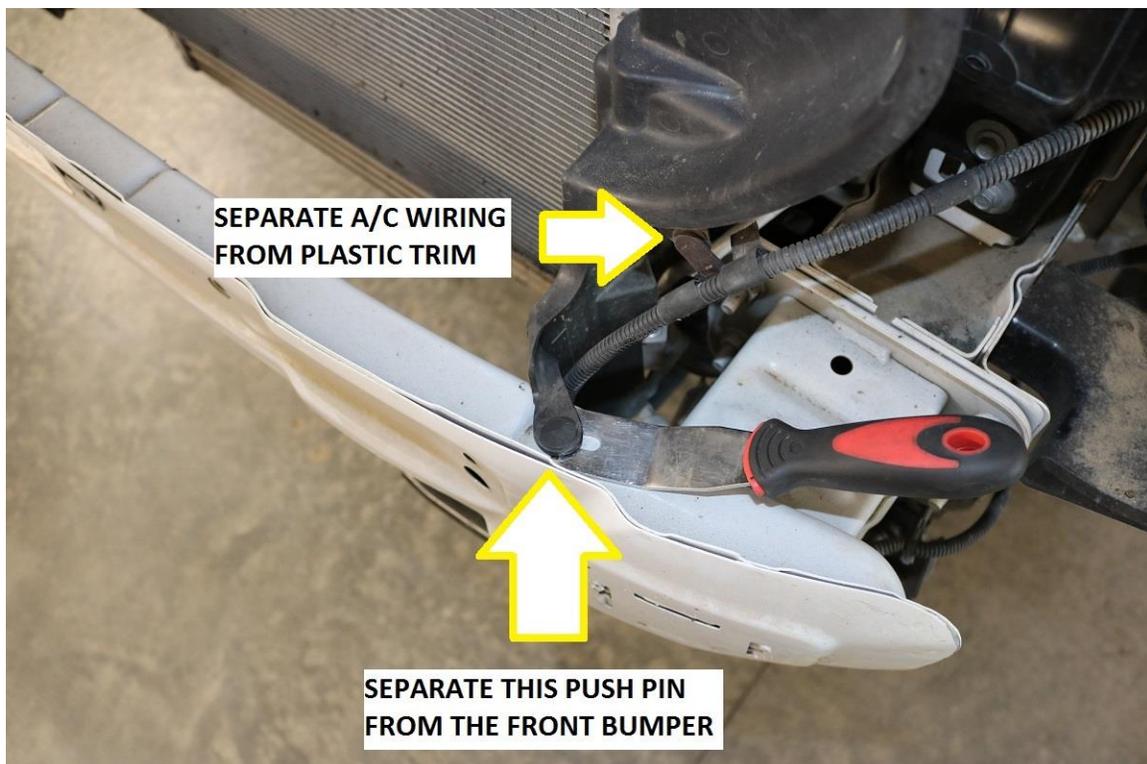
b. Reference the photo below for the locations of the 2 tabs.

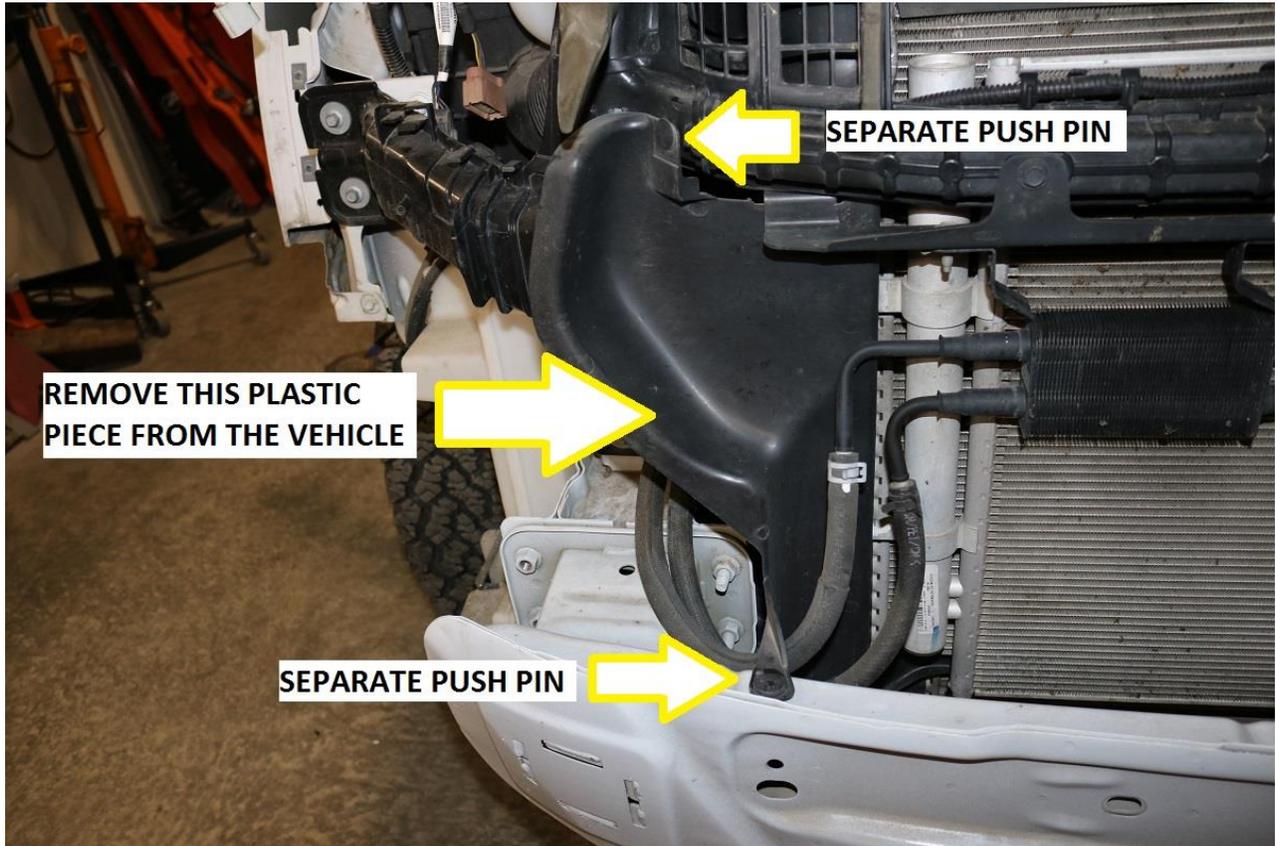


15) Remove the front bumper / grill assembly from the vehicle.

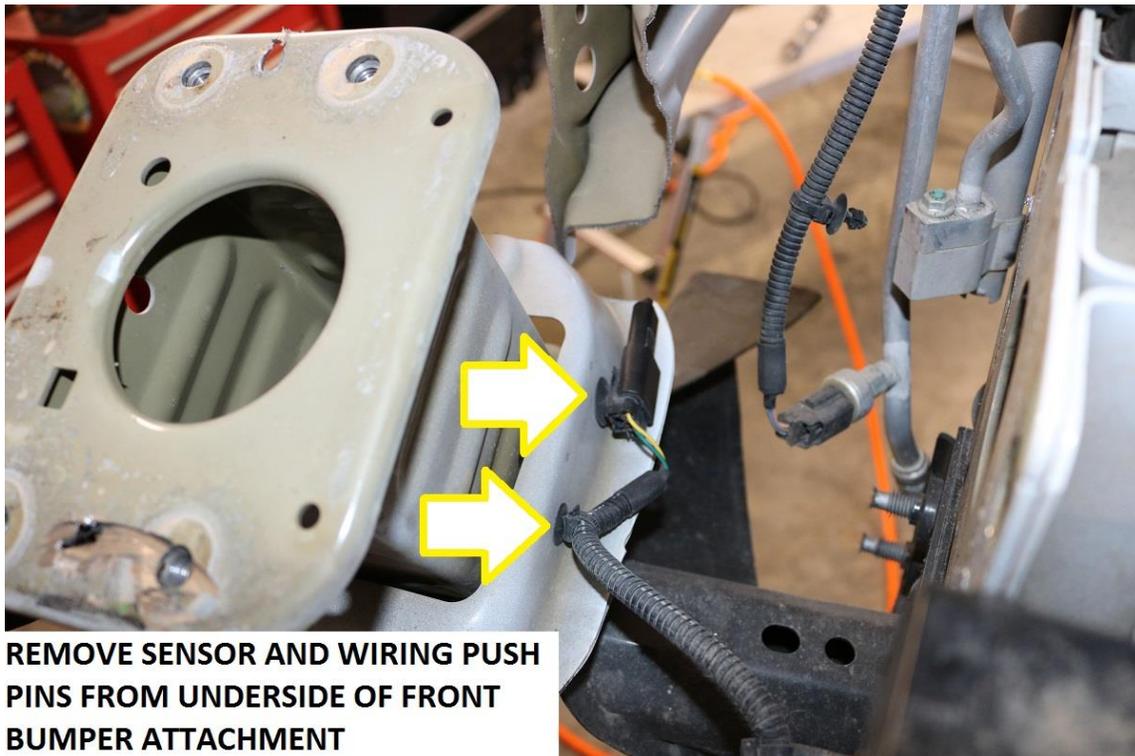
16) Separate the push pin clips securing the plastic front trim connected to the front bumper and core support using an automotive trim removal tool as shown below.

- 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.



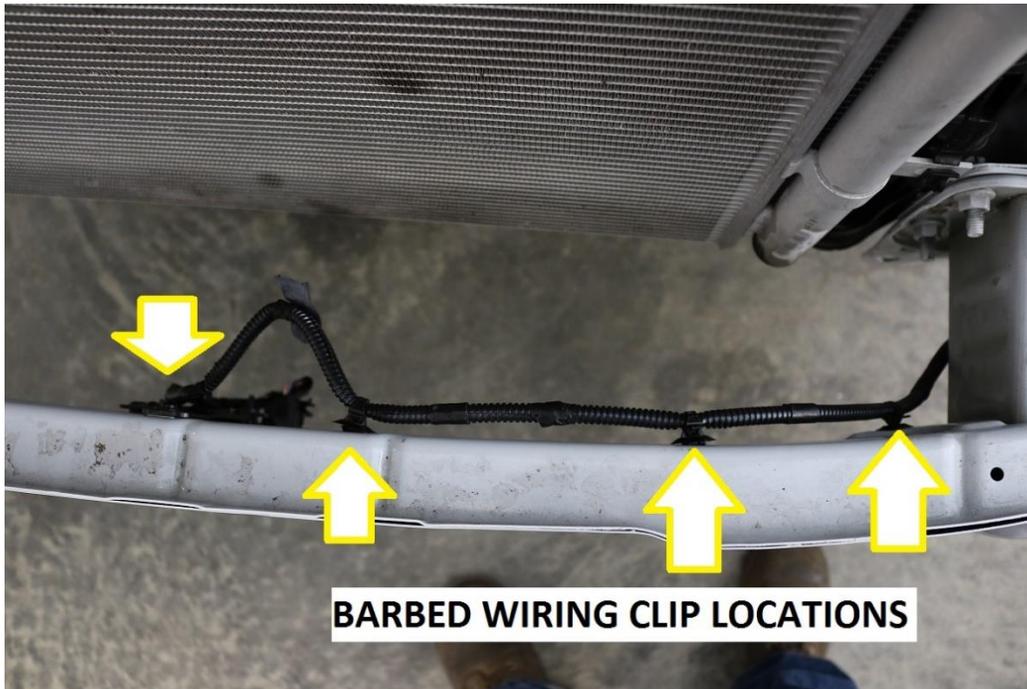


- 17) Note, on the underside of the driver side bumper attachment point is the outside ambient air temperature sensor.
- Separate the sensor and wiring from the bumper's attachment point using an automotive trim removal tool.

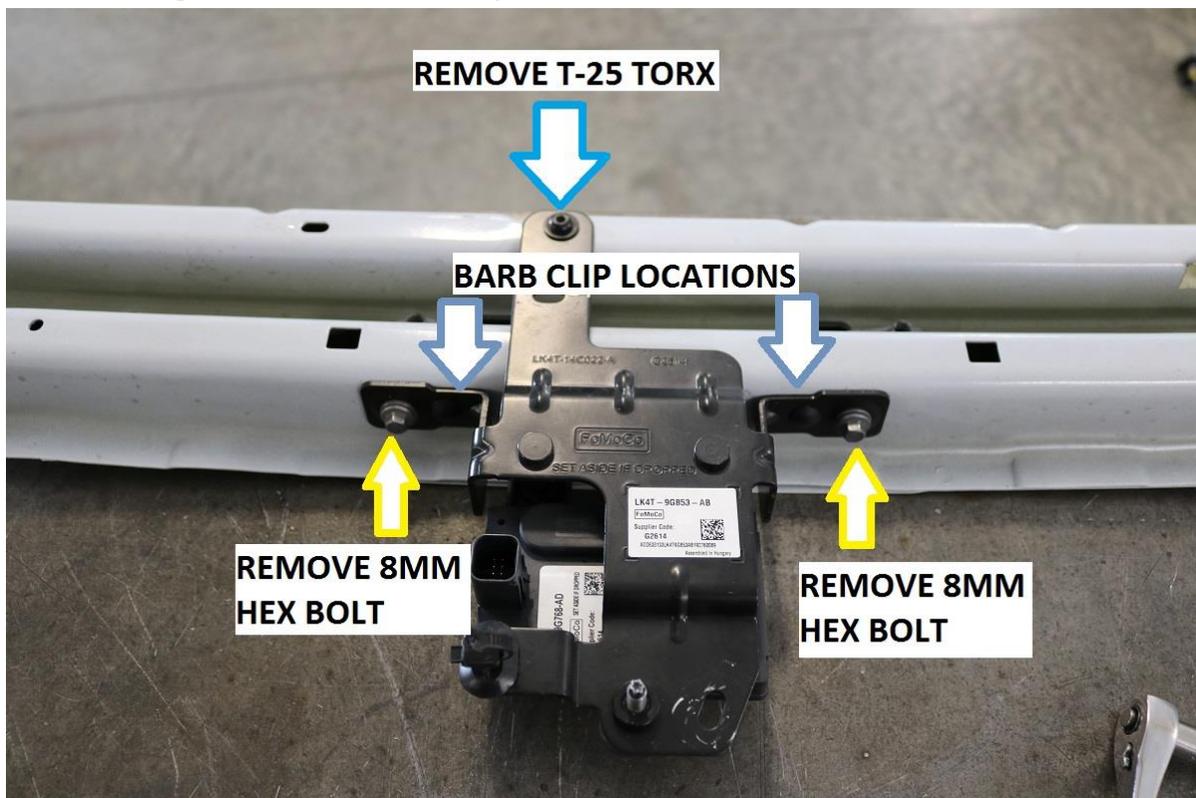


- 18) On newer vans equipped with active braking or adaptive cruise control, there is a radar sensor located behind the factory bumper.

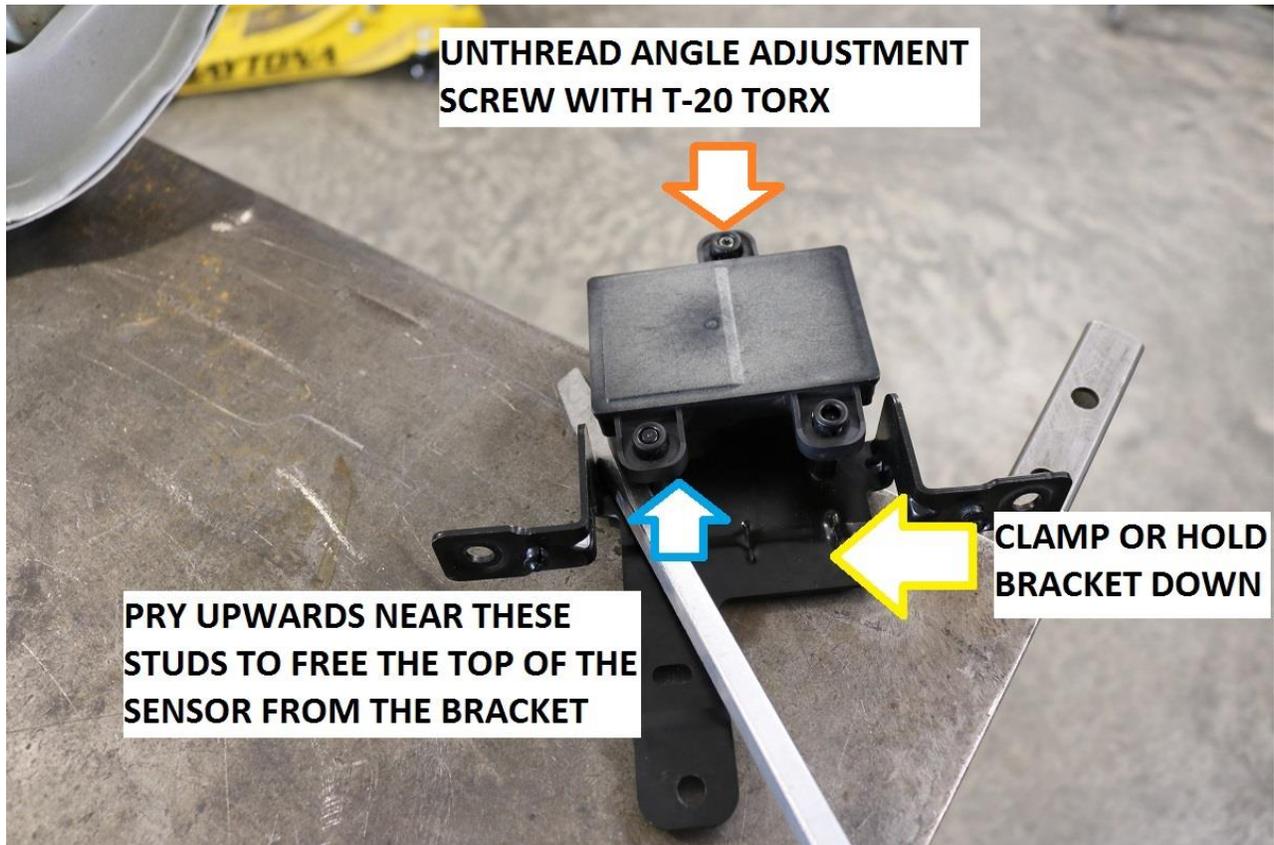
- a. Remove the barbed clips securing the wiring to the back of the bumper. There are three clips that run along the back of the bumper and one on the mounting bracket itself. Use an automotive trim removal tool to separate the clips.



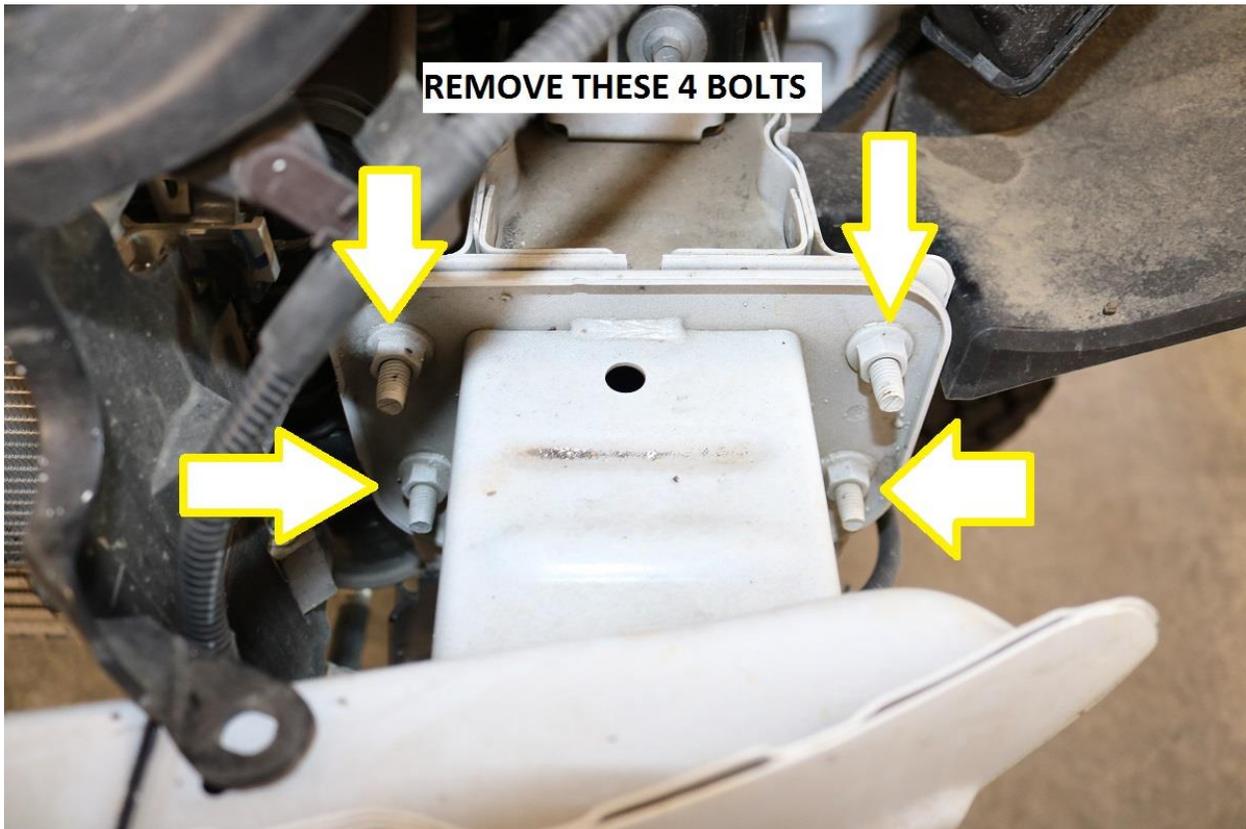
- 19) Un-plug the sensor and remove the sensor bracket from the backside of the bumper.
  - a. Be careful not to drop or hit the sensor as they are sensitive units.
  - b. Un bolt the sensor bracket by removing the two 8mm hex head bolts and the upper T-25 Torx bolt.
  - c. Once the hardware is removed,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



- 20) With the radar sensor and bracket removed from the bumper, place it on a work bench and separate the sensor from the bracket.
- Clamp the bracket to the table or hold it firmly down as shown in the image below.
  - Use a large flat blade screwdriver or prybar to carefully pop the sensor free of its upper mounting cups.
  - Once the upper mounting cups are free of the studs, use a T-20 Torx bit to unthread the sensor angle adjusting screw from the bracket and remove the sensor from the mounting bracket.



- 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.
- Note, a long extension (9-12") is helpful in reaching the inner bolts.
  - 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.

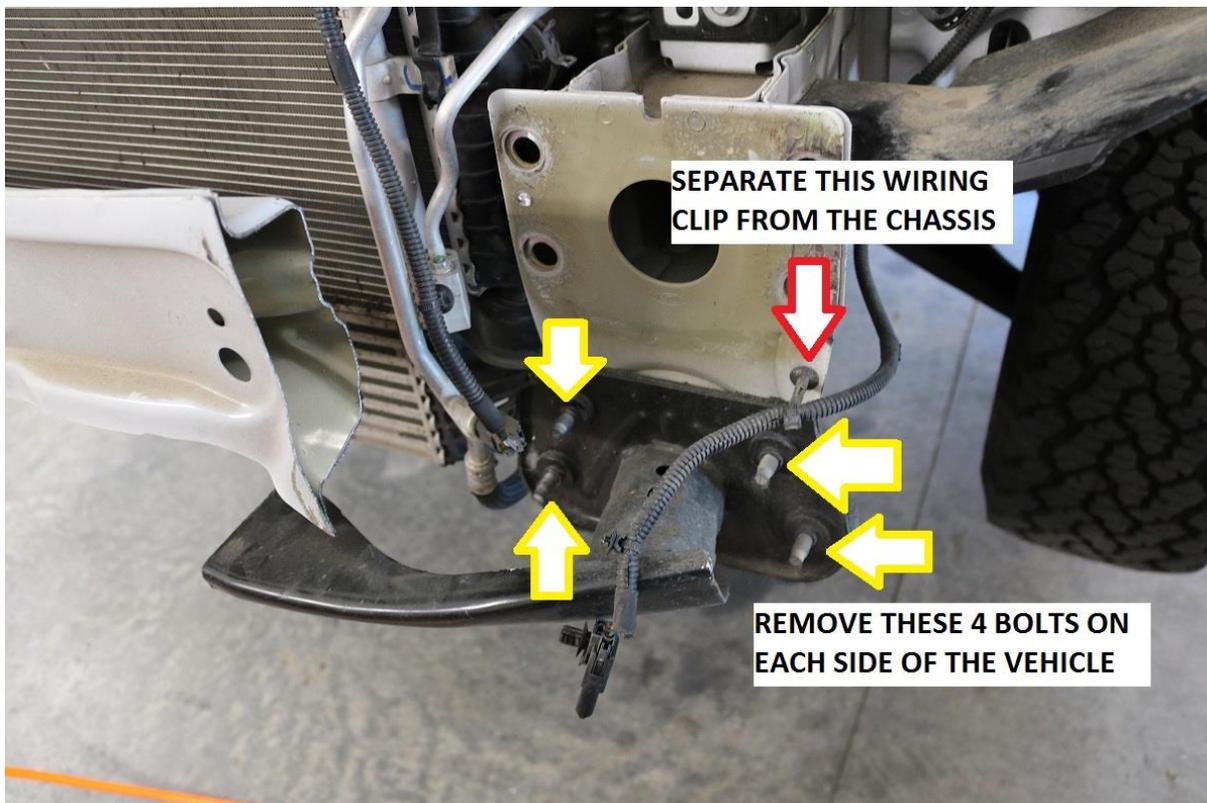


23) Once the spot welds have been located, grind / cut them out.  
a. When cutting out the spot welds, try to only cut / grind through the front bumper. Try not to cut too deep and start cutting into the chassis.

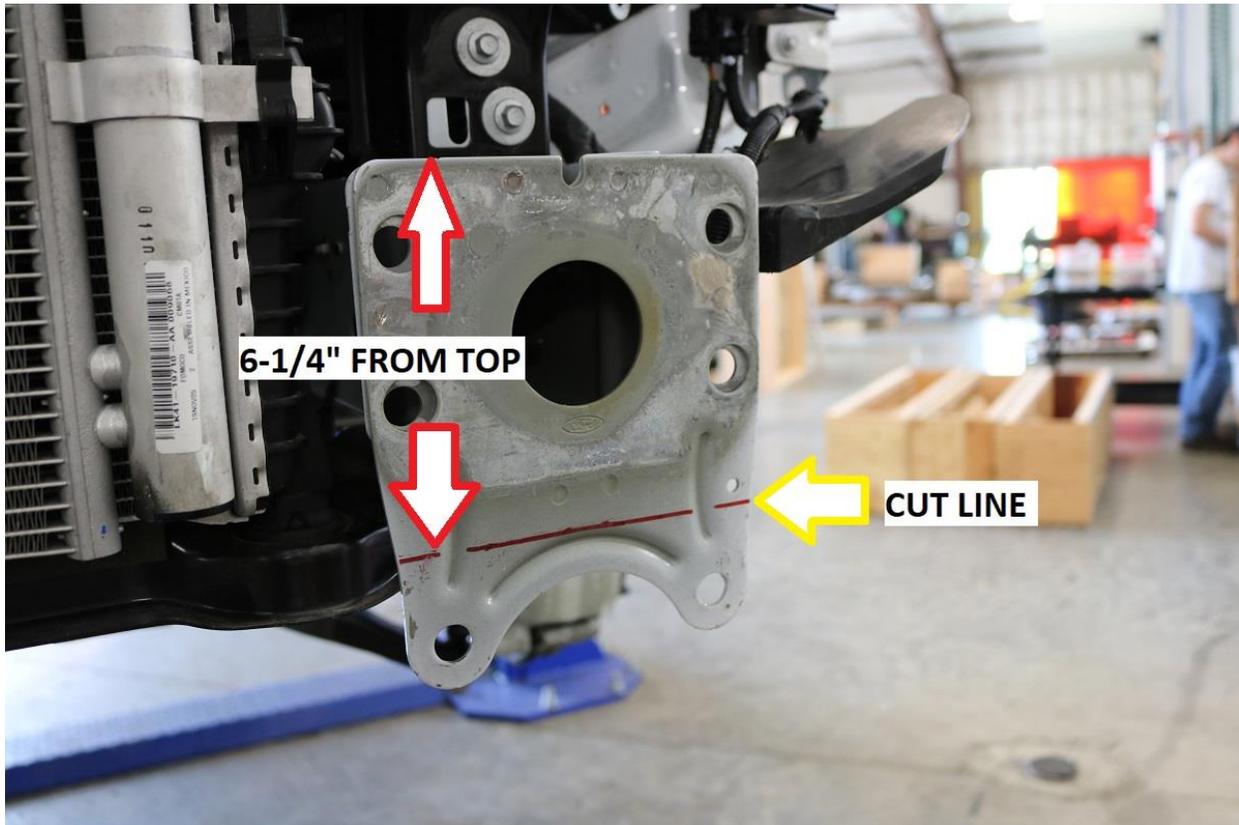
- b. Once the spot welds have been cut or ground down a good amount, use a chisel or large flat blade screwdriver to separate the front bumper from the chassis. See image below for reference.



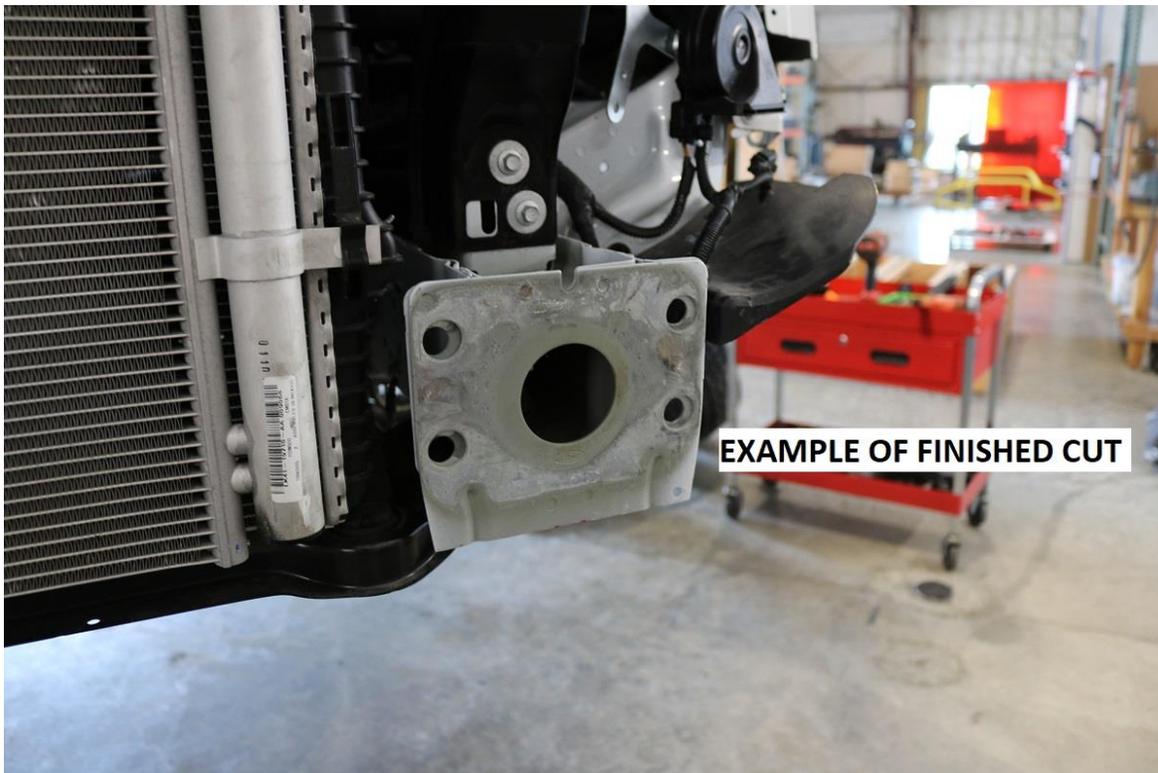
- 24) With the front bumper removed, remove the lower front bumper valence. Locate the four 13mm bolts on each side and remove.



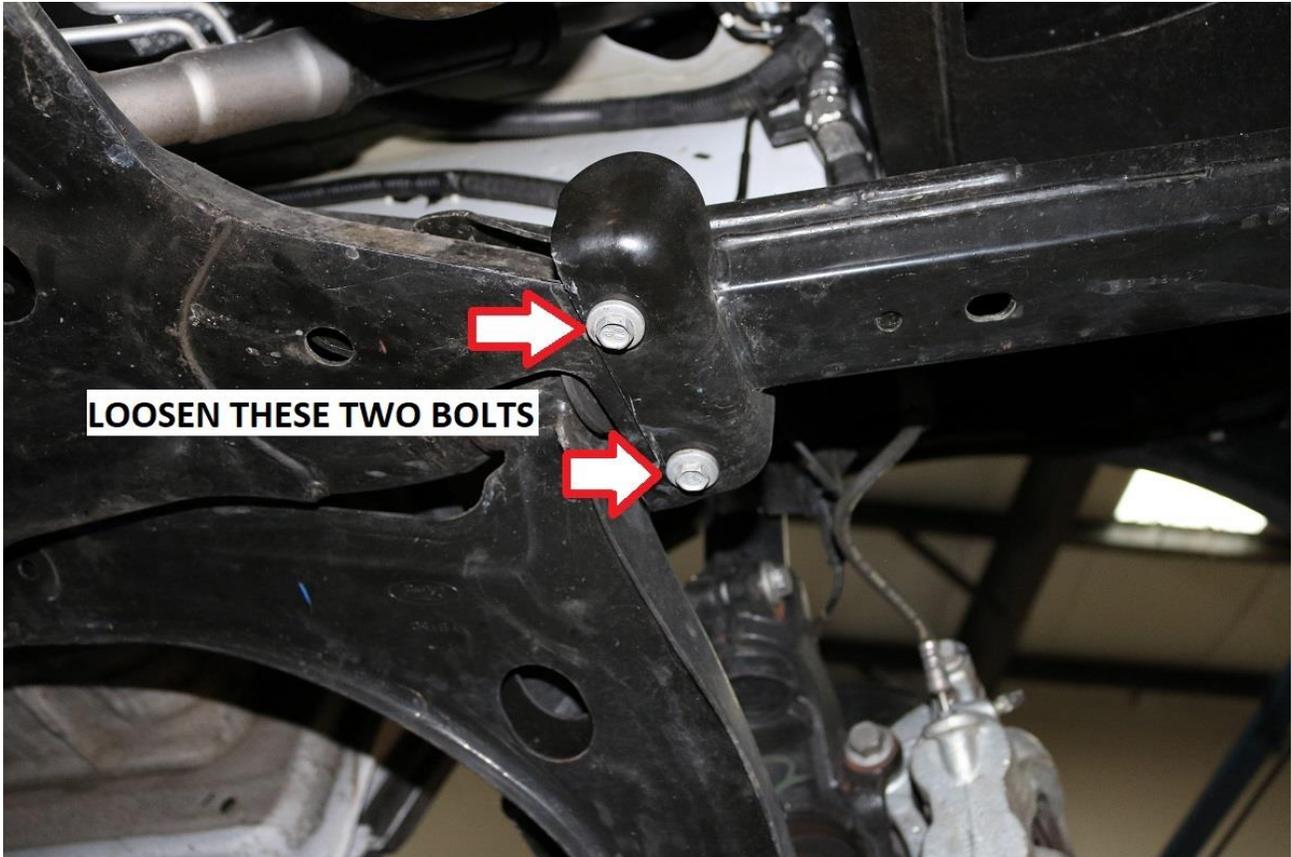
25) Mark a cut line on the chassis using a T-square or level. Measure cut line 6-1/4" (15.8 cm) from the top of the chassis. Note; Cut line should end up being tangent with the top edge of the bottom arc indentation.



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.

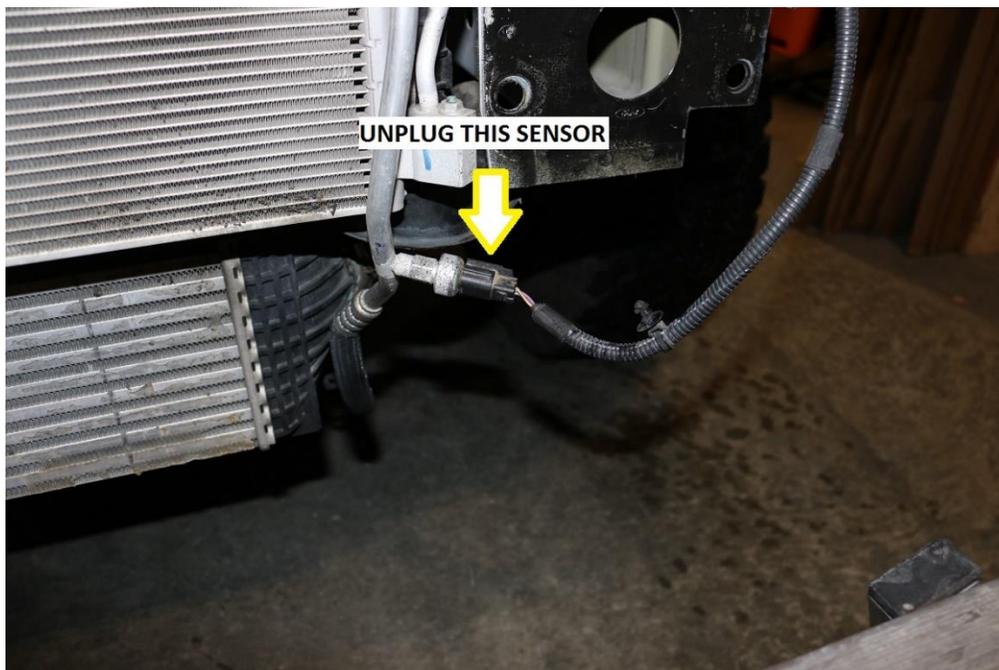


27) Next, loosen the bumper support bars from the vehicle. Use a 13mm socket / wrench to remove the two bolts securing the bars to the suspension sub frame.



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 winch mount to the vehicle.

- a. Raise the winch mount up until the front mounting holes are aligned where the front bumper used to attach.

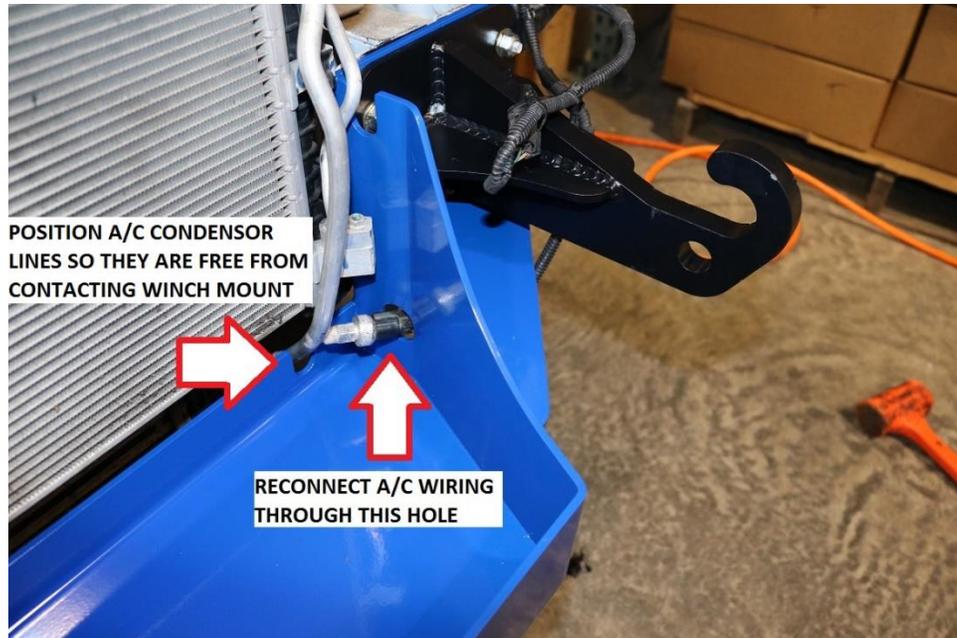
- b. Install the OEM bumper bolts from behind and secure using the new included M10-1.5 stover nuts. Be sure to use the included M10 flat washers under the nut.
- c. Align and install the OEM bolts for the lower bumper support bars.



- 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 winch mount is level, adjust if needed and torque all 8 bolts to 43 ft-lbs (58 N.m)
- 32) Fit the original bolts for the lower bumper support bars through the winch mount.
  - d. Install / start all attachment hardware before tightening. Again, use the OEM bumper bolts and a new included washer / stover nut to secure the support bars to the winch mount. .
  - e. 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)
  - f. Torque the front bumper support bar to winch mount attachment bolts to 43 ft-lbs. (58 N.m)
- 33) At this point, refer to your winch installation instructions and fit the winch to the vehicle.

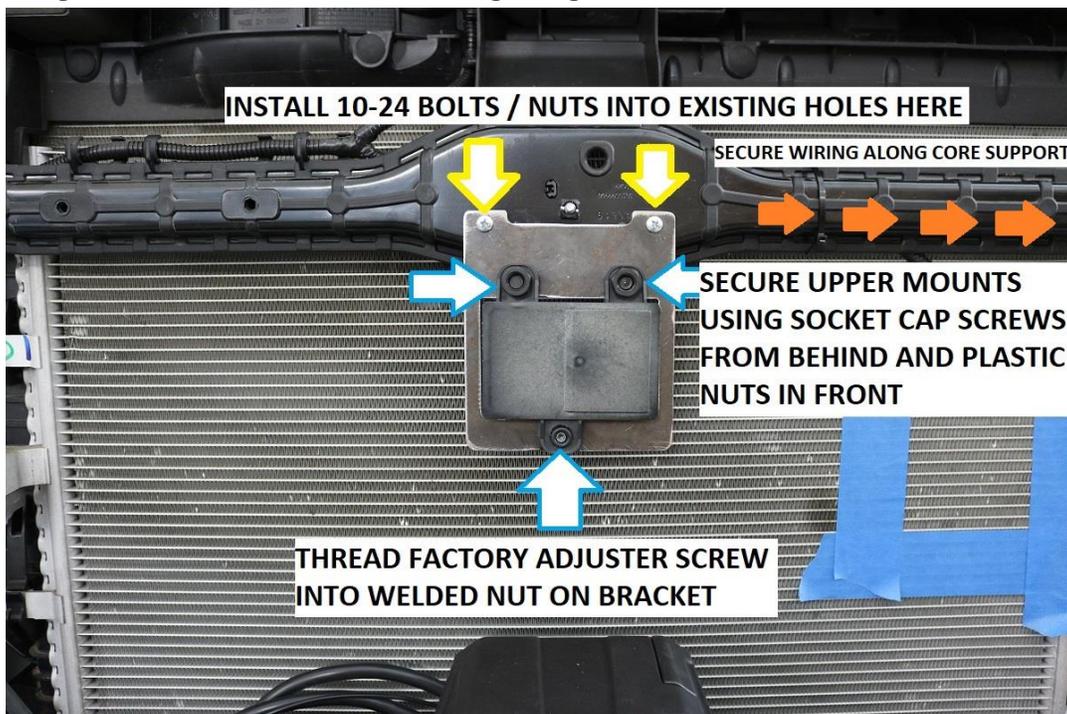


34) Reconnect / secure all wiring. Connect the wiring back to the A/C sensor unplugged in step 31. Connect wiring through the access hole in the winch mount as shown below.



35) Install the radar sensor (if equipped) into the included 407205-02 relocation bracket. See image below for reference.

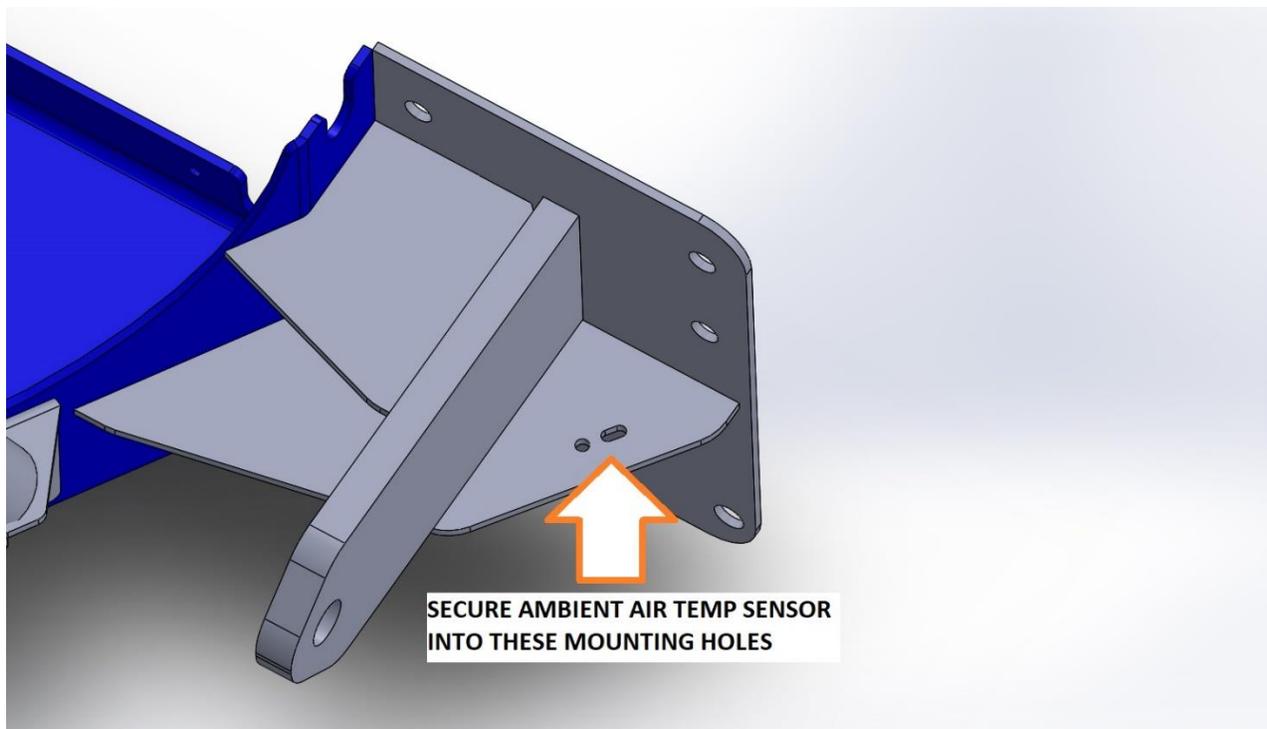
- Secure the sensor to the bracket by threading the factory stud into the welded nut on the bracket. Note, the sensor should sit flat on the bracket (nut should be on the backside)
- Next secure the top of the bracket with the included M10-1.50 x 16mm long socket cap screw and M10-1.50 plastic nuts.
- Secure the relocation bracket with sensor mounted to the upper core support crossmember on the vehicle. Bolt into the existing holes in the center of the crossmember using the included 10-24 x 3/4" long screws and nuts
- Plug in the sensor and route all wiring along the backside of the crossmember.



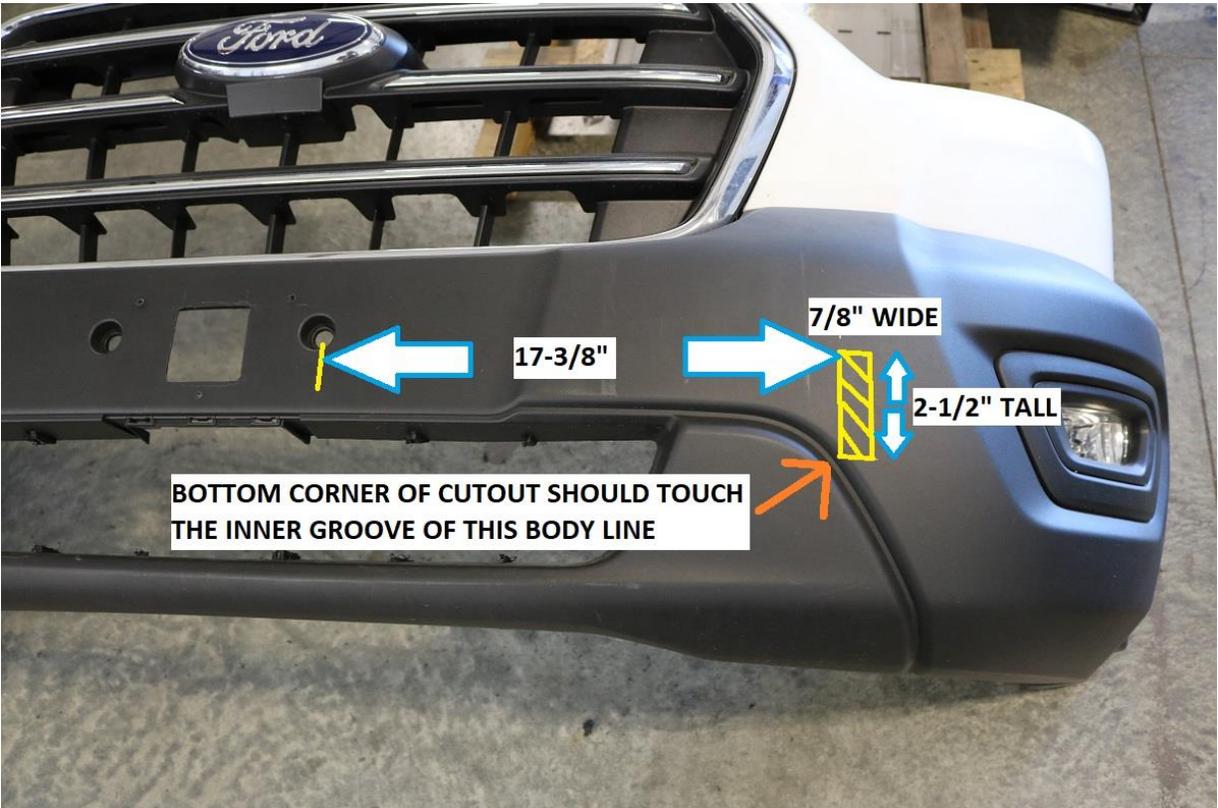
- 36) If equipped with front parking sensors, unplug and separate the sensors from the bumper fascia.
- Snap fit the 407207 parking sensor mounting strap around the parking sensor. Bolt into the mounting holes in the winch mount using the 10-24 x 3/4" long screws and corresponding nylock nuts included in the kit.
  - See image below for reference.



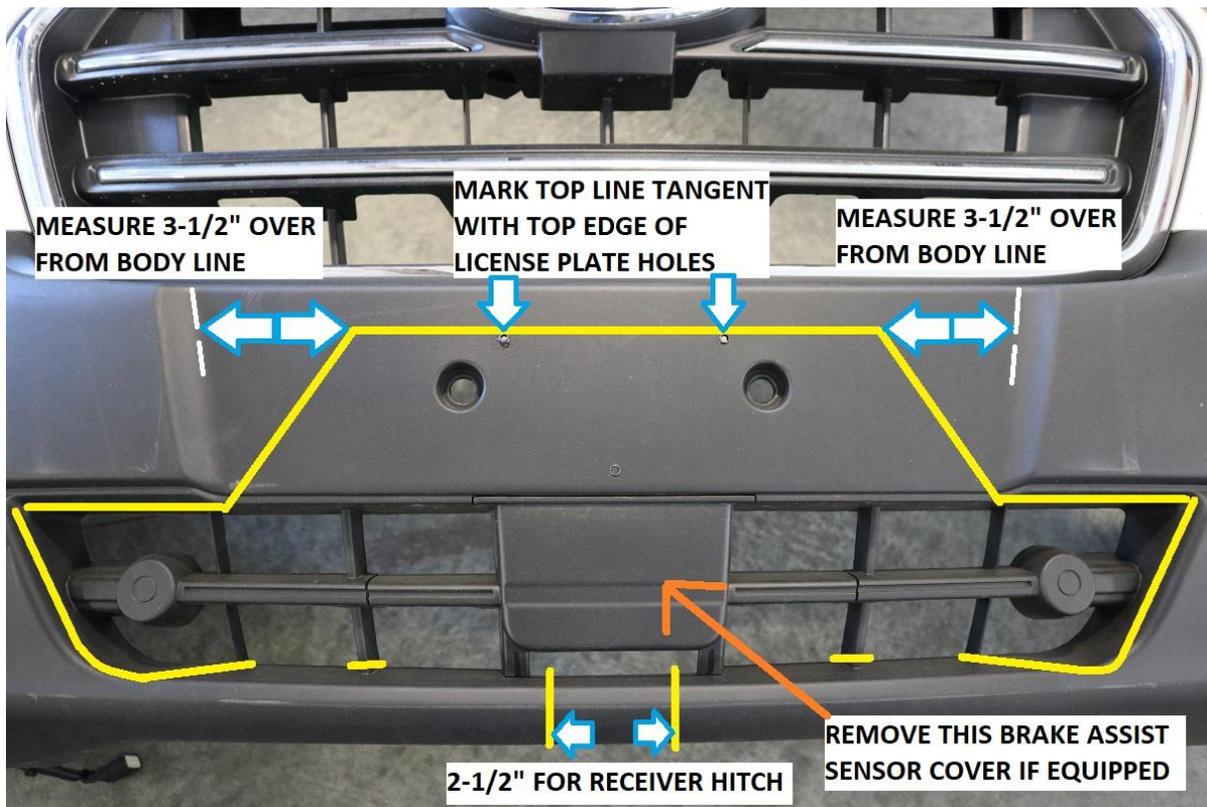
- 37) Secure the Ambient Air Temperature sensor to the winch mount on the driver side using the hole / slot on the gusset. See image below for reference.



- 38) Trim the front bumper for winch clearance. Begin by cutting the 7/8" wide x 2-1/2" tall rectangular cutouts for the shackle recovery points to pass through the bumper.
- From front bumper attachment holes, measure from the center of the hole, over 17-3/8" and mark a vertical line. This will be the inside line of a 2-1/2" tall x 7/8" wide rectangular cut out.
  - Mark this line from the nearest center attachment bolt on both the driver and passenger side of the bumper fascia.
  - Confirm the rectangular cutout lines are square by referencing the top / bottom and inner / outer edges to each other. The inside edges should measure approximately 43" to the opposing cut out.



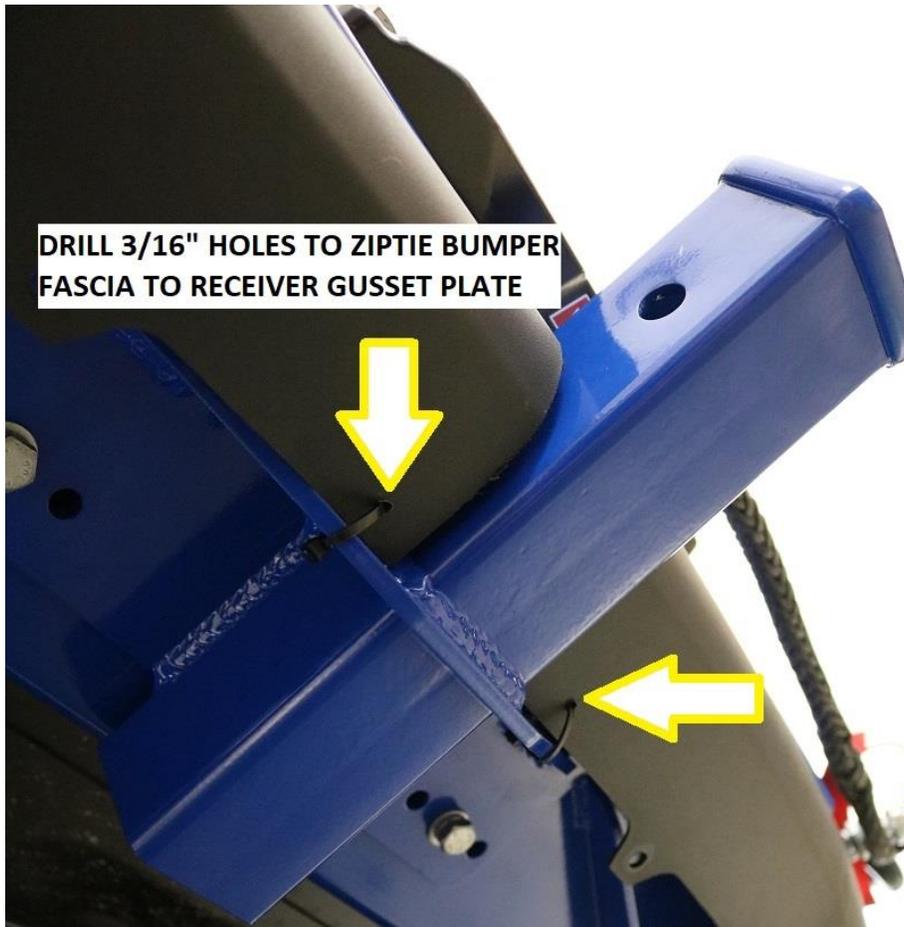
- 39) Use the images below for reference.
- Align the top cutline with the upper edge of the mounting holes for the license plate mounting bracket.
  - Remove the center brake assist / adaptive cruise sensor cover if equipped.
  - If the front receiver is being used, cut out 2-1/2" on center as shown in the image.



- 40) Test fit the front fascia and trim as needed until satisfied with fitment. Clean up any rough cut edges of plastic and re-install the front bumper fascia for good.
- 41) Reinstallation of the front bumper is the reverse order of removal. Refer to steps 15 thru 1 for re-installation.
- 42) Note, the lower air damn previously removed in Step 6, cannot be reinstalled with the front hitch receiver.



- 43) Note, on the bottom of the winch mount, there are two small holes for zipties to secure the lower portion of the bumper fascia to the bottom gussets.
- Drill a 3/16" hole in line with each hole and ziptie the bottom of the bumper fascia tight for a clean, finished look.
- 44) Note, if parking sensors are not equipped on the van and the installer wishes to fill the front holes, utilize the included plastic snap plugs and hardware to give the winch mount a more finished look.



- 45) Replace any broken push pin retainers on the fender trim pieces with the new ones included in the kit.  
(Step 2)

#### 4105-06 Nerf Bar Installation

- 46) If installing the 4105-06 Front Nerf Bar, utilize the included 7/16-14 x 1.0" long bolts included with the kit.
- 47) Fit the nerf bar to the front of the winch mount. Align the 4 mounting holes and install a 7/16-14 x 1.0" long bolt into each mounting hole with a washer under the bolt head.
- Fit a washer and nylock nut to each bolt. Use a 5/8" socket / wrench and torque to 35 ft-lbs. (47 N.m)



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 in compliance. 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.