



4099 – 2023-PRESENT, MERCEDES SPRINTER VS30, FRONT WINCH MOUNT

Version 1.1

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 winch mount that can be installed with basic hand tools.
- Removal and trimming of the plastic front bumper cover is required for installation
- A small piece of the metal tow hook tube will need to be cut off for installation
- This front winch can be completely removed and the factory front bumper can be re-installed.
- This front winch mount is designed specifically around the Warn VR EVO 12 and Superwinch SX12SR. Other winches are compatible but please reference the Warn VR EVO 12 winch for dimensions.
- 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 document the installation of a Warn VR EVO 12S winch on a 2023 Sprinter 2500 AWD cargo van. Some aspects of installation will vary depending on year, chassis configuration and winch choice.
- The following instructions do not cover wiring of the winch. Refer to the instructions included with your winch manufacturer for details regarding winch wiring.
 - NOTE: For simplicity of winch wiring, we recommend purchasing the [Van Compass Big Power Distribution Kit. Part Number 7215](#)

Parts List

4099 – 2019-PRESENT, MERCEDES SPRINTER VS30, FRONT WINCH MOUNT

- | | |
|--------------------------|--|
| • (1) 409901 | MERCEDES SPRINTER VS30, FRONT WINCH MOUNT |
| • (1) 409902 | MERCEDE SPRINTER VS30, RADAR SENSOR MOUNT |
| • (1) 410401 | MERCEDES SPRINTER VS30, NUDGE BAR |
| • (2) HM12-1.50-40-10. 9 | M12-1.50 X 40MM LONG, HEX HEAD BOLT, |
| • (2) WF-M12 | M12 FLAT WASHER |
| • (2) SCS-02-12-BO | ¼-20 X 1.50" LONG, SOCKET CAP SCREW, SS BLACK ZINC |
| • (2) NFC-02 | ¼-20 FLANGE NUT, SERRATED, CLEAR ZINC |
| • (2) CC5-7-11 | 7/16-14 X 1.25" LONG CARRIAGE BOLT, CLEAR ZINC |
| • (2) WF8-7 | 7/16" FLAT WASHER, CLEAR ZINC |
| • (2) NAC-7-SS | 7/16-14 ACORN NUT, STAINLESS STEEL |

- (1) LTBL-02 BLUE LOCTITE, 2ML TUBE
- (2) HC8-8-12 ½-13 X 1.25" LONG, GR8 HEX HEAD BOLT, YELLOW ZINC
- (2) NNC-8 ½-13 UNC NYLOCK NUT, CLEAR ZINC
- (4) WF8-8 ½" GR8 FLAT WASHER, YELLOW ZINC
- (2) PE-PLUG-1250 PLASTIC TUBE PLUG, 1.23"-1.33" ID

Tools Needed

- Simple hand tools:
 - Torque Wrench.
 - Body trim removal tools
 - Quality shears or tin snips to cut rubber
 - Basic wrench and socket set:
 - Small flat blade screwdriver
 - T-25, T-30, T-45 torx, 3/16" allen, E-10 Inverted Torx
- Metric Sizes:
 - 13mm, 18mm, 19mm
- SAE Sizes:
 - 5/8", ¾"
- Drill with quality ½" drill bit or step drill bit
- 4-1/2" Angle grinder with metal cut off wheel.
- 4-1/2" Angle grinder with flap disc, or similar sanding tool for light material removal. A small 3" pneumatic sanding tool works well.
- Die grinder with 1" drum sander or Dremel style tool with a round burr bit of sorts for plastic material trimming.

Approximate Installation Time

- 6-7 hours (Note-this is an estimated time frame depending on complexity of winch wiring. Some vehicles will be easier to wire the winch than others.)

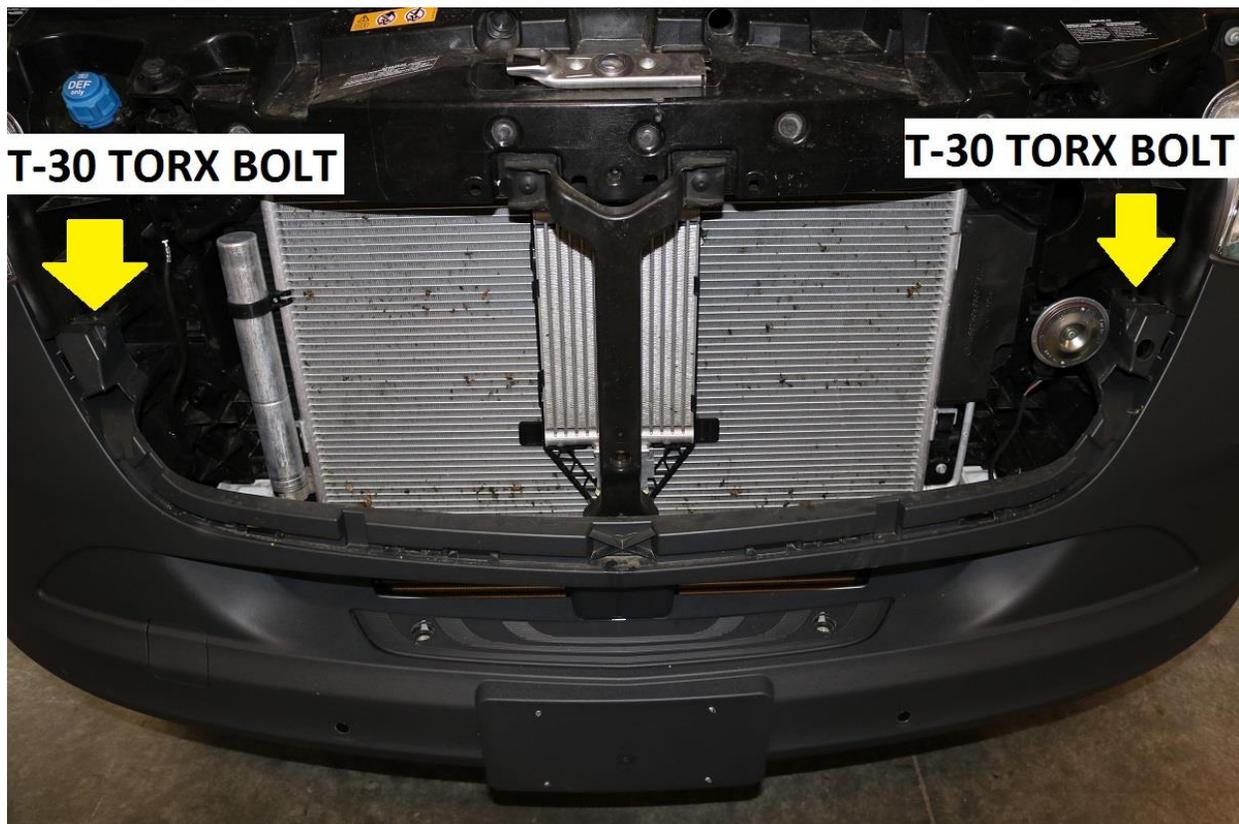
Installation

- 1) Begin by opening the hood and locating the three torx head screws securing the grill to the core support. Use a T-25 Torx head socket and remove these three screws. See image below for reference.



- 2) With the upper part of the grill separated, gently pull the top of the grill back to locate and remove the two T-30 torx head bolts securing the top of the bumper cover to the vehicle.
 - a. The first image below shows the T-30 torx bit w/ extension in place. The second image shows the location of the T-30 torx bits on both sides of the vehicle with grill removed for clarity.





- 3) Use a small flat blade screw driver or automotive trim removal tool to pry up the plastic caps on the front step which will reveal two T-45 torx bolts



- 4) With the caps off, use a T-45 Torx bit to remove the two step bolts.
5) Remove the two push pins located near the front bottom side of the bumper which connect the inner fender well to the front bumper. See image below.



- 6) Use an automotive trim removal tool to pry up under the head of the push pin prior to prying under the body of the fastener to fully remove it.

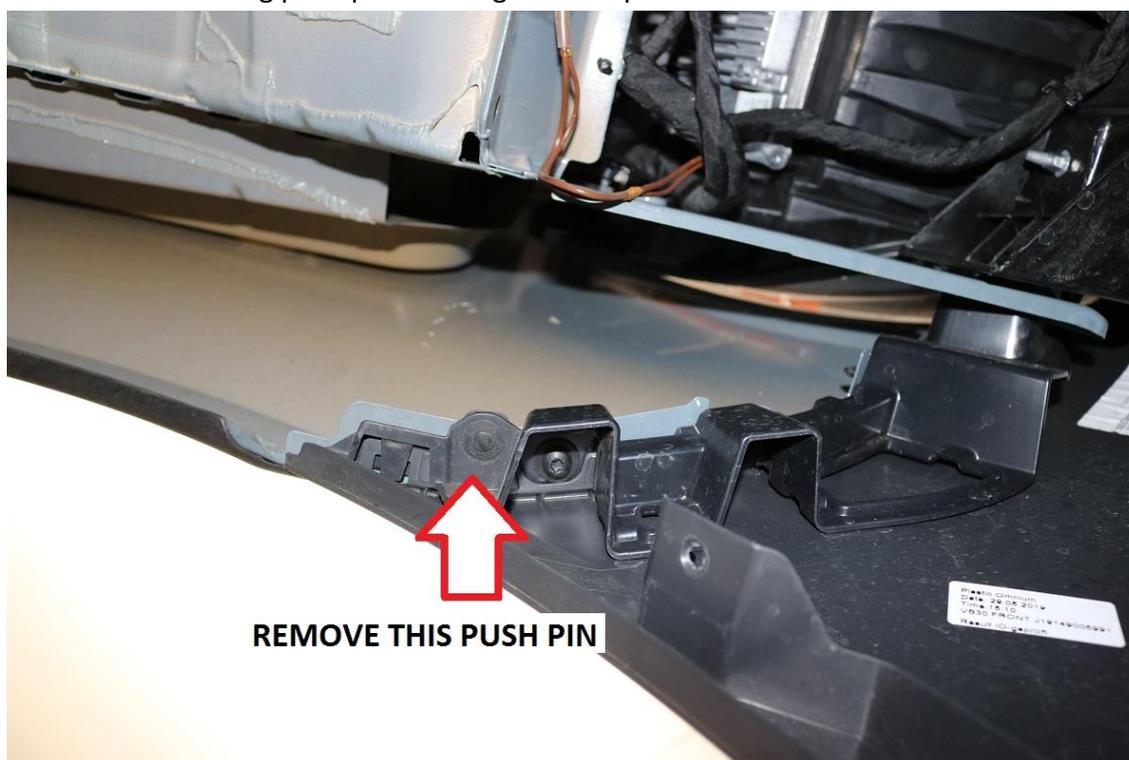


- 7) Next, on the inside of the fender well, remove the three push pin fasteners near the outer lip of the bumper.



REMOVE THESE THREE PUSH PINS

- 8) Look up from the inside of the fender where the plastic bumper cover meets the metal fender and locate the last remaining push pin securing the bumper cover to the vehicle.



REMOVE THIS PUSH PIN

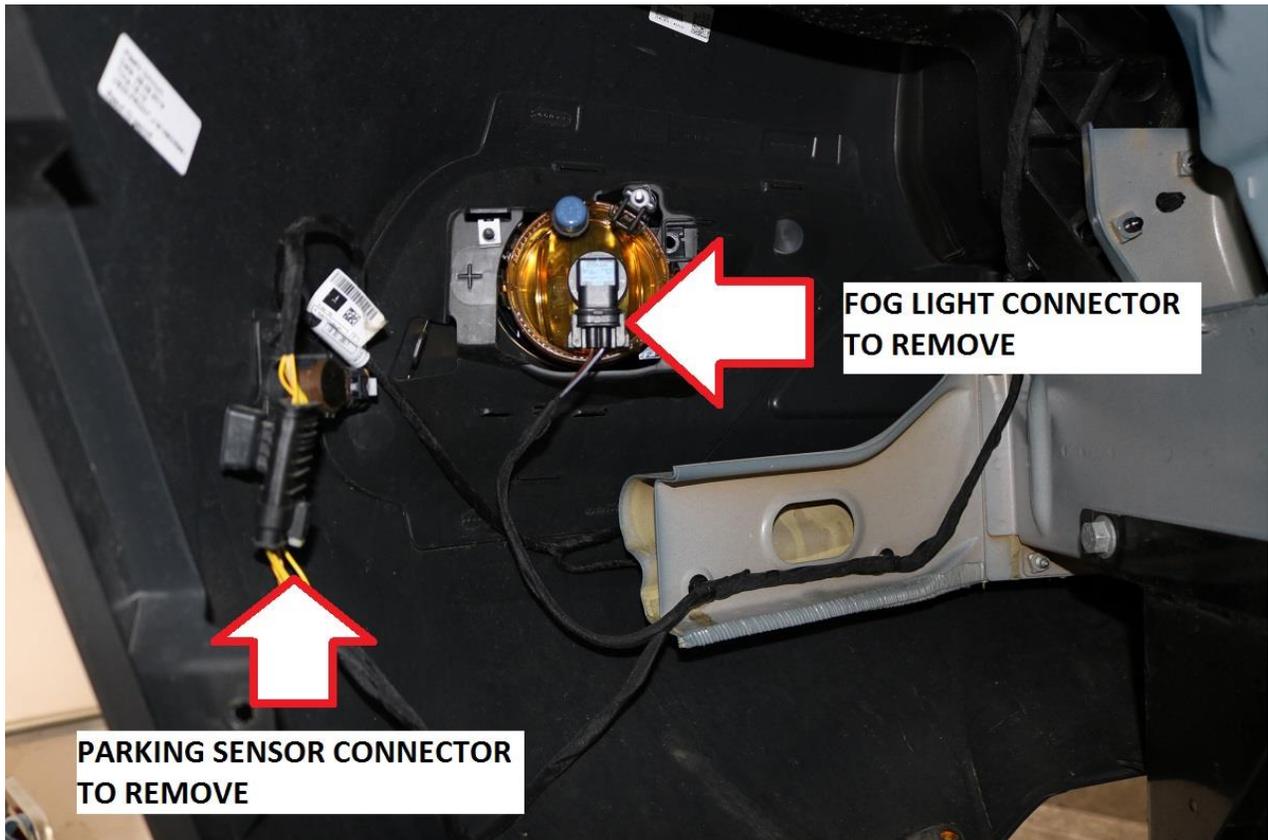
- 9) The plastic bumper cover / grill assembly can now be separated from the vehicle. Pull outwards on the side of the bumper cover where it meets with the bottom of the front fender. See image below for reference.

- a. Support the bottom of the fender when pulling outwards on the bumper cover.

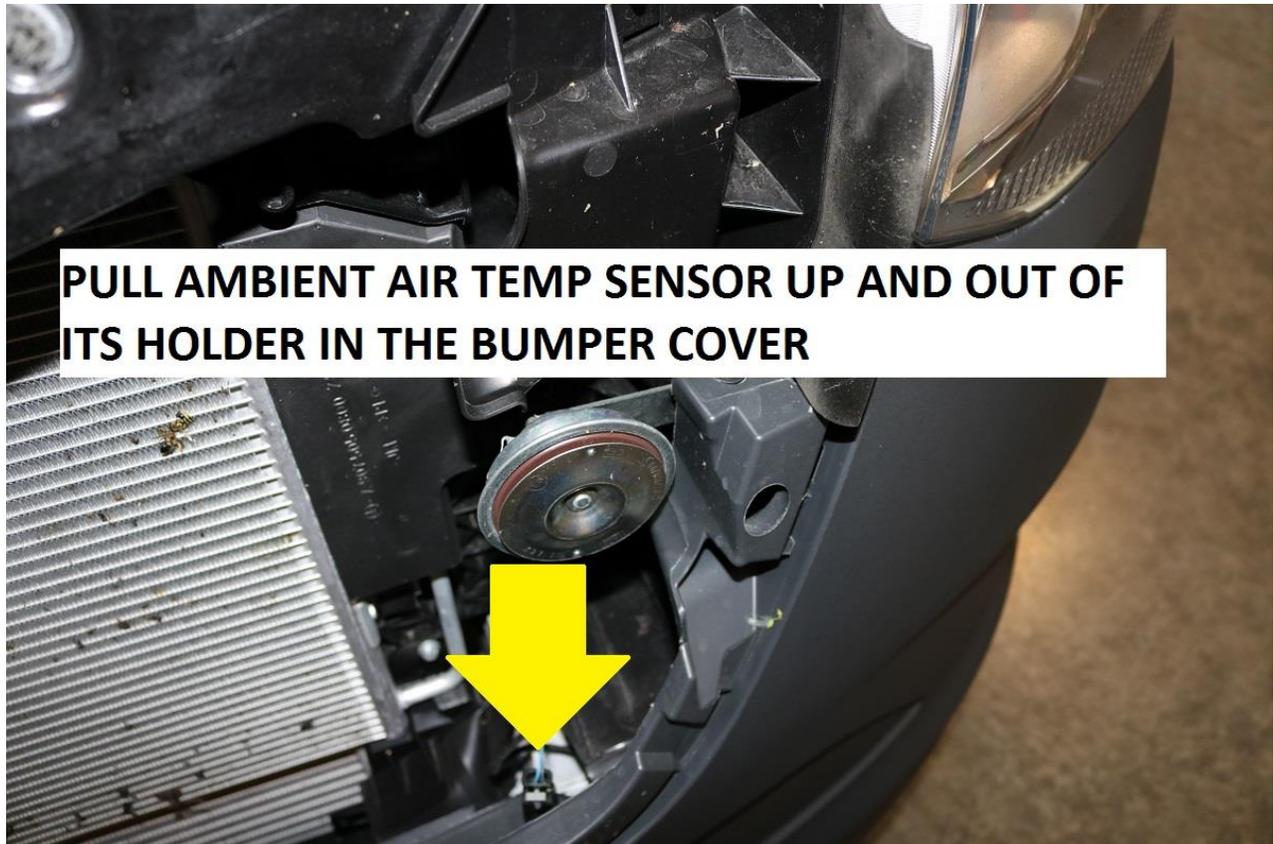


- 10) As the bumper cover is removed, take note to unplug the front parking sensor wiring on the driver (left hand) side of the bumper cover. There is a weather pack connector to allow for bumper cover removal.

- a. If the vehicle is equipped with factory fog lights, there will be additional connectors to unplug on both sides of the vehicle for the bumper cover to be fully removed.

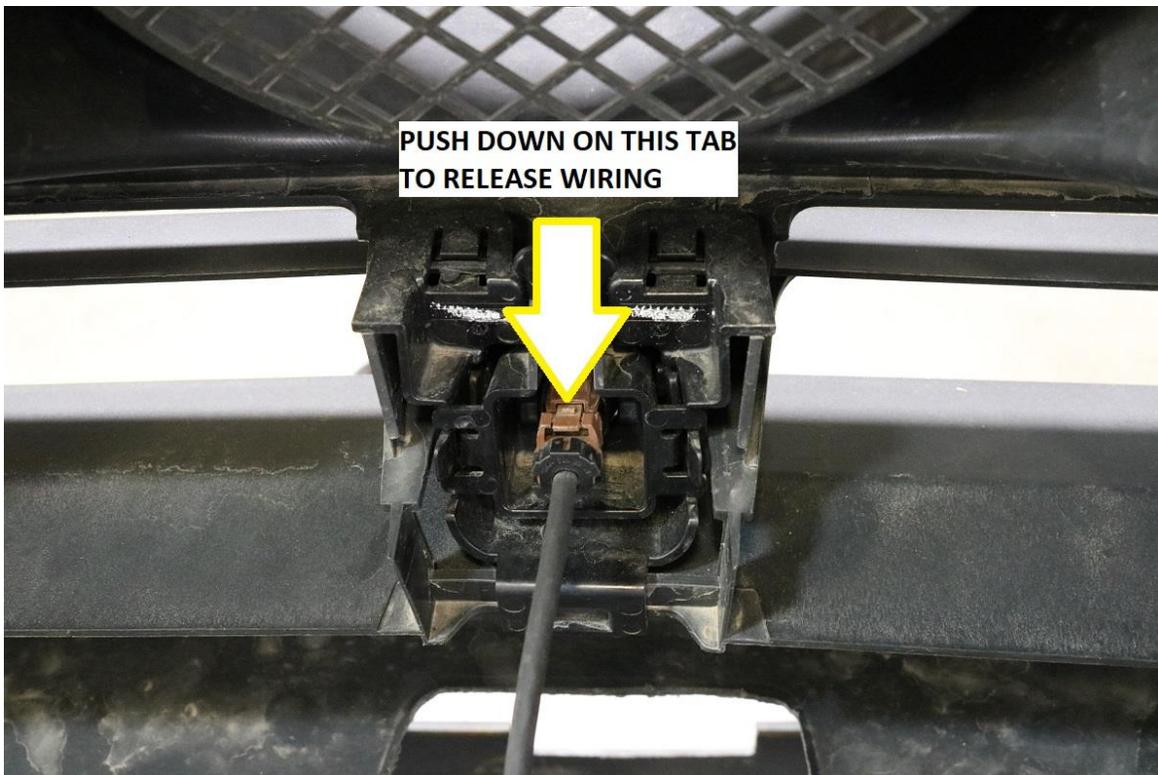


11) As the bumper cover is removed, locate, and remove the ambient air-temp sensor from its holder in the near the horn on the driver side.



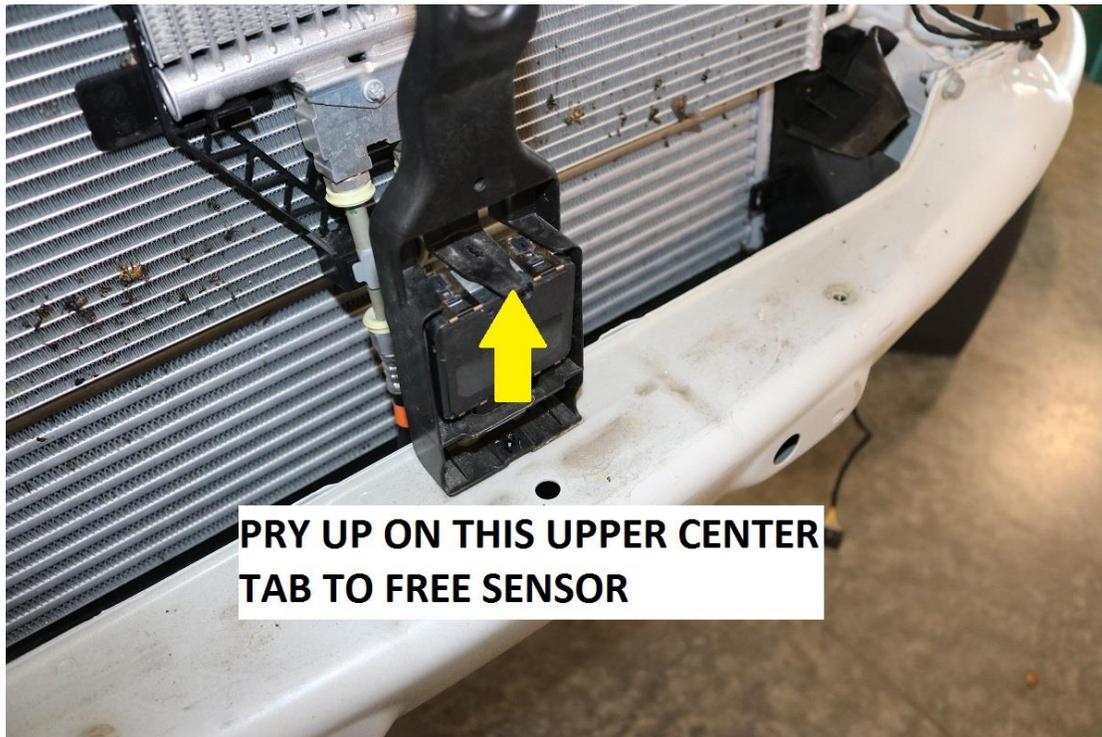
12) Lastly, if the vehicle is equipped with the front facing camera, be sure to unplug the wiring from behind the grill as the bumper cover / grill assembly is being removed.

- a. Remove the center clip to expose the tab to release the wiring from the camera.
- b. Push down on the wiring lock tab to remove. See image below for reference.



13) With the bumper cover / grill assembly removed, separate the front collision sensor from its plastic mount.

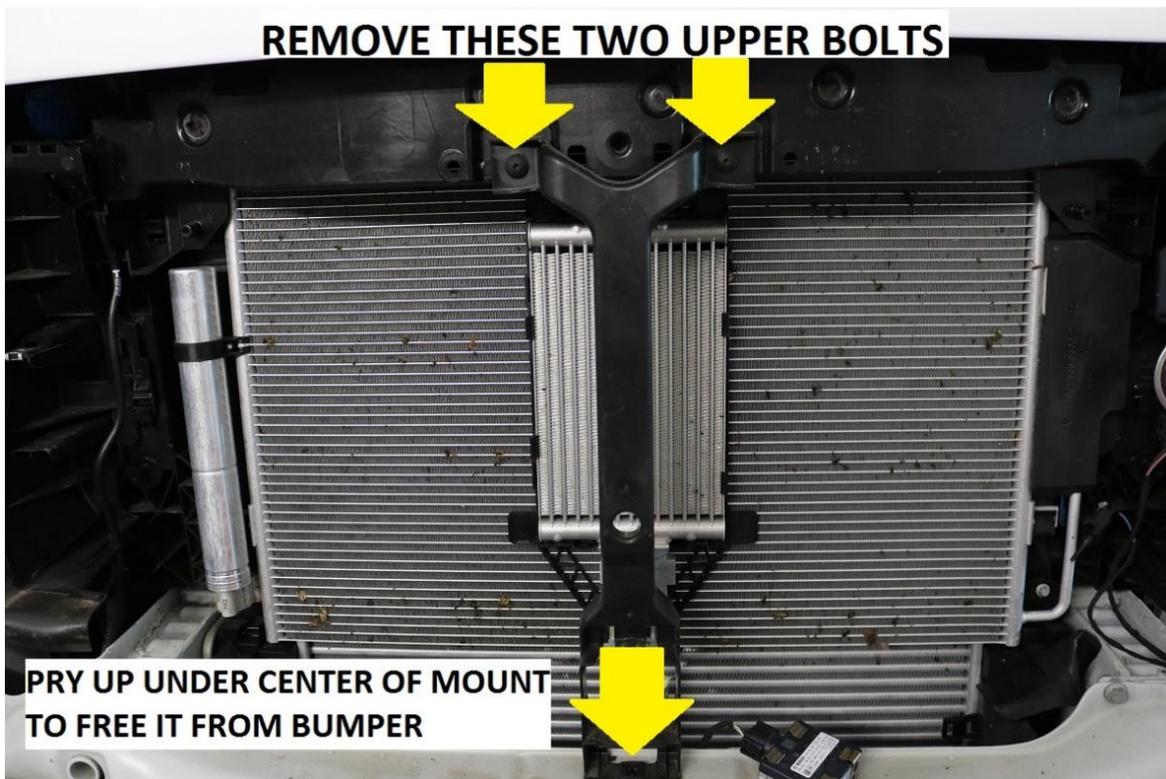
- a. Pry up on the upper tab of the mount and pull the collision sensor up and out to access the plug to disconnect it.



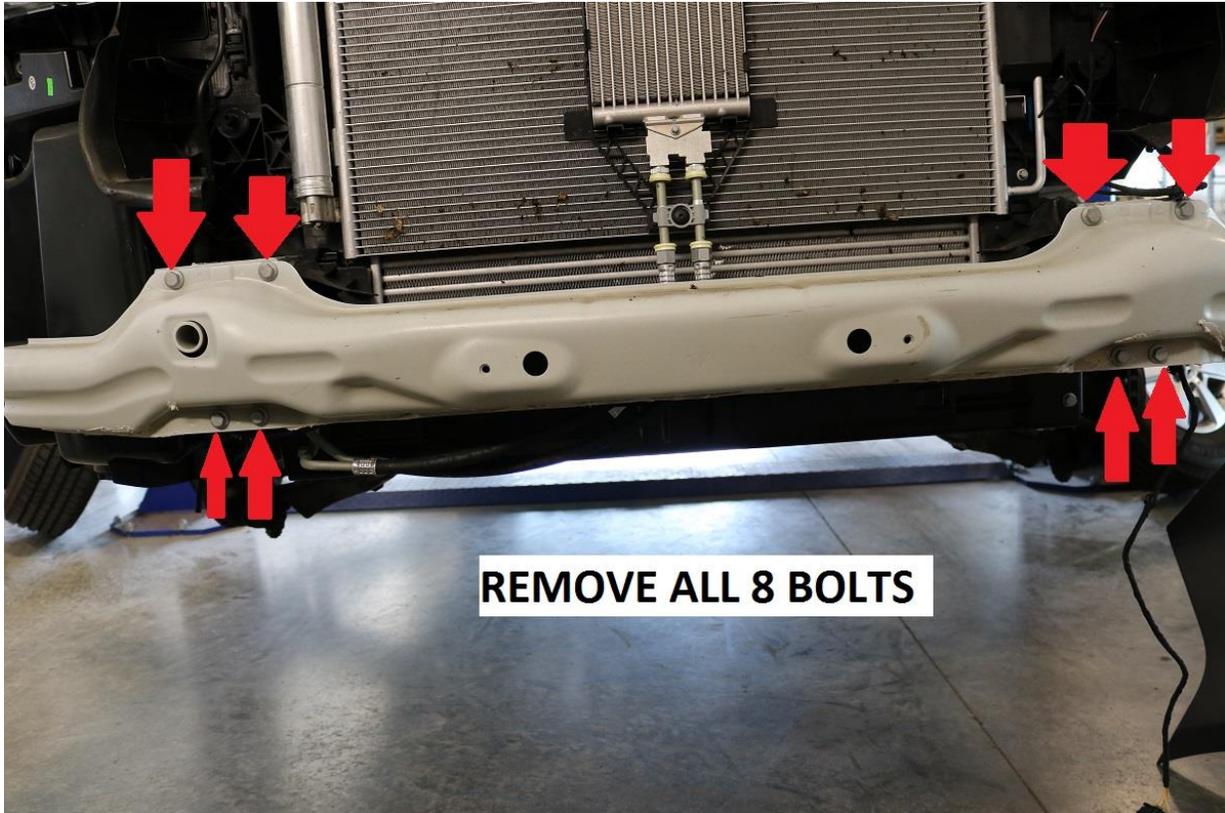
14) Unplug the sensor and set aside to be re-installed later.

15) Remove the plastic mounting bracket by first unbolting the two T-25 torx bolts at the core support.

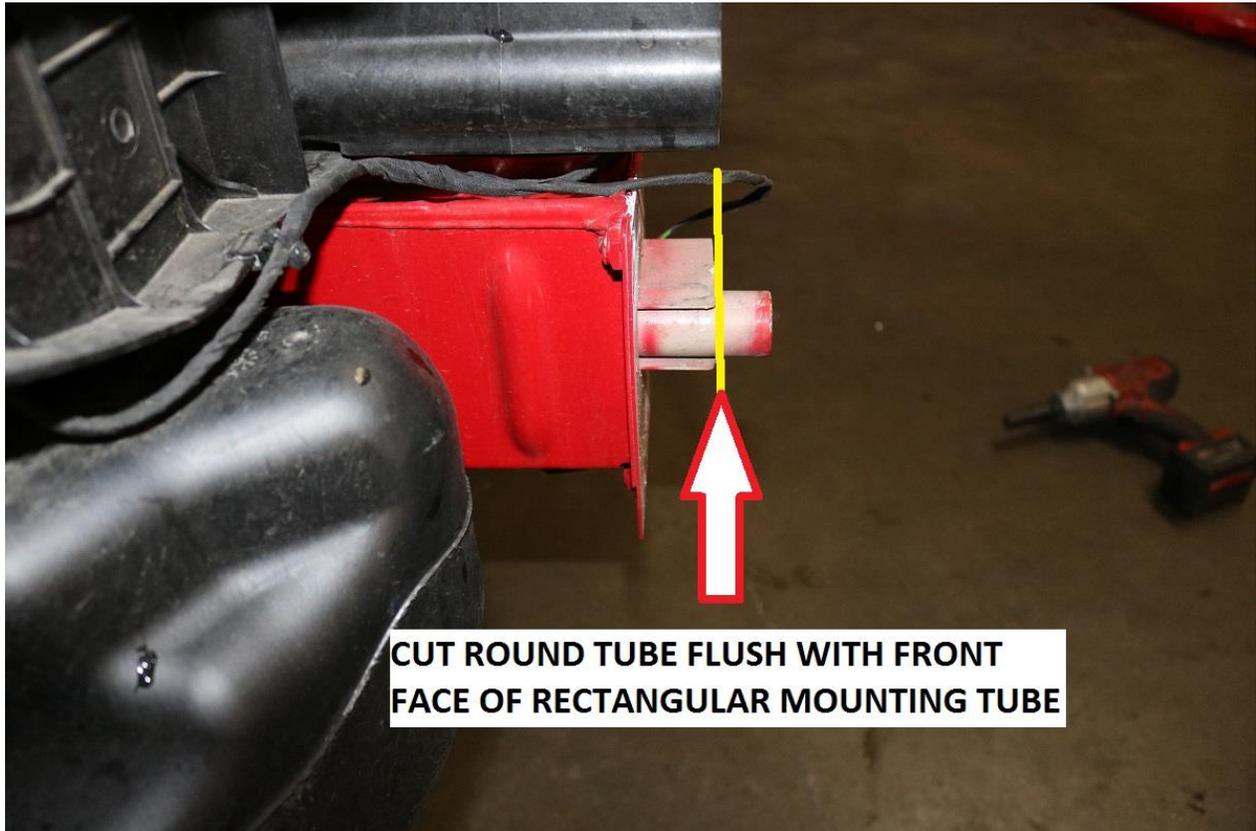
- a. Once the upper bolts are removed, pry the bottom barb fastener free of the steel bumper and remove the entire plastic mounting piece. See image below for reference.



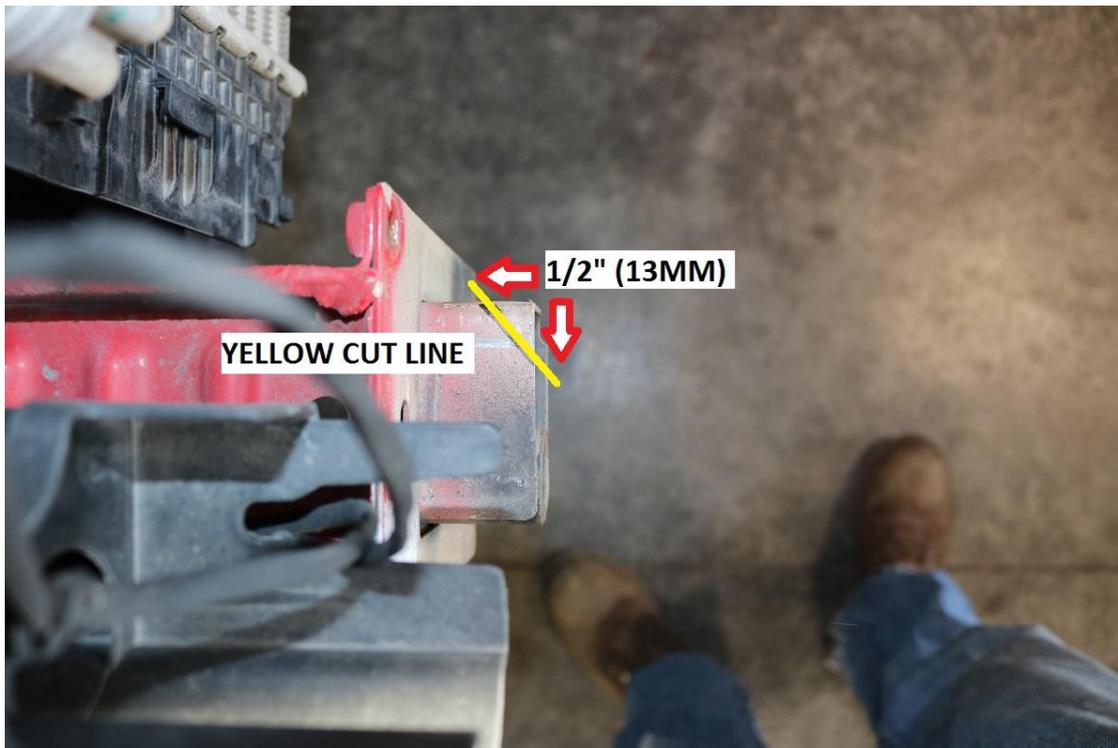
- 16) Take note of any wiring behind the steel bumper. There are likely a couple plastic barb clips securing the collision sensor wiring to the back of the bumper. Additionally, if the vehicle is equipped with front parking sensors or fog lights, there will be wiring secured to the back of the bumper as well.
 - a. Separate this wiring using an automotive trim removal tool.
- 17) Use a 13mm socket / wrench to remove the steel bumper from the vehicle. Remove all 8 bolts securing it to the chassis.
 - a. Retain all 8 bolts to be re-installed later.
 - b. Note, some glue / undercoating used during assembly can cause the front bumper to be stuck onto the chassis. A rubber mallet or deadblow will help free it from the vehicle.
 - c. See image below for reference.



- 18) Use a metal cutting tool to cut the factory tow point tube flush with the rectangular mounting tube in the chassis. We recommend a 4-1/2" angle grinder with cut off wheel, but a sawzall or similar cutting tool can be used alternatively.
 - a. See images below for reference.

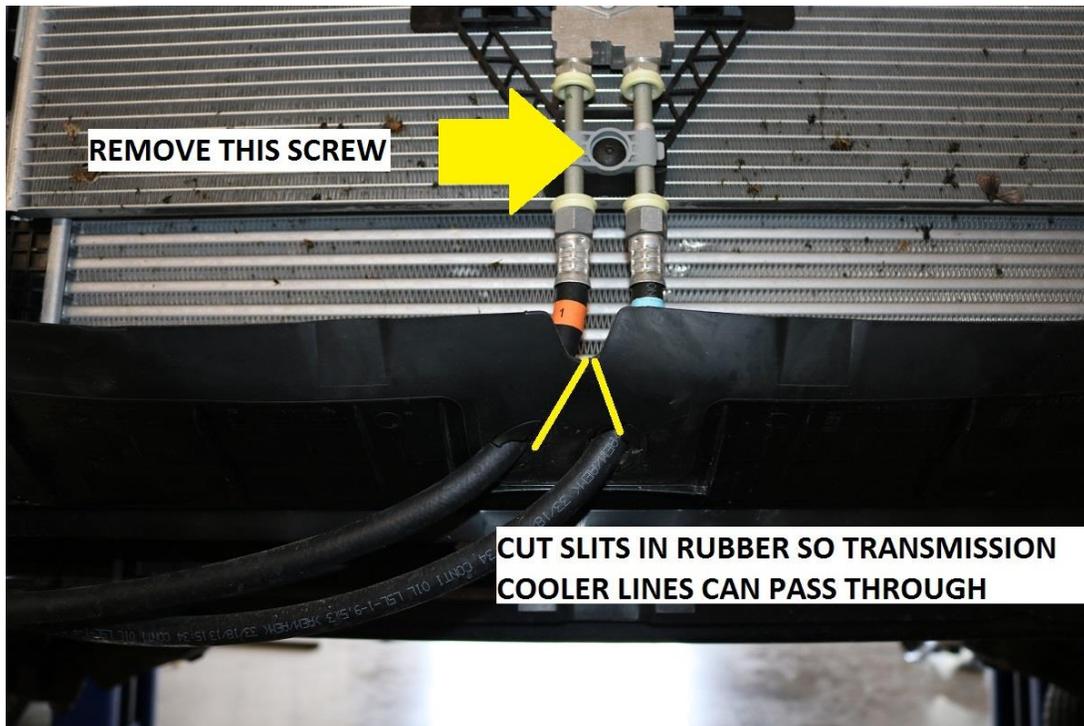


- 19) On the inside edge of the rectangular protrusion of the factory tow point, mark a diagonal cut line $\frac{1}{2}$ " (13mm) back and $\frac{1}{2}$ " outwards and cut the inner corner piece off the rectangular mounting tube of the tow point.
- a. See image below for reference.

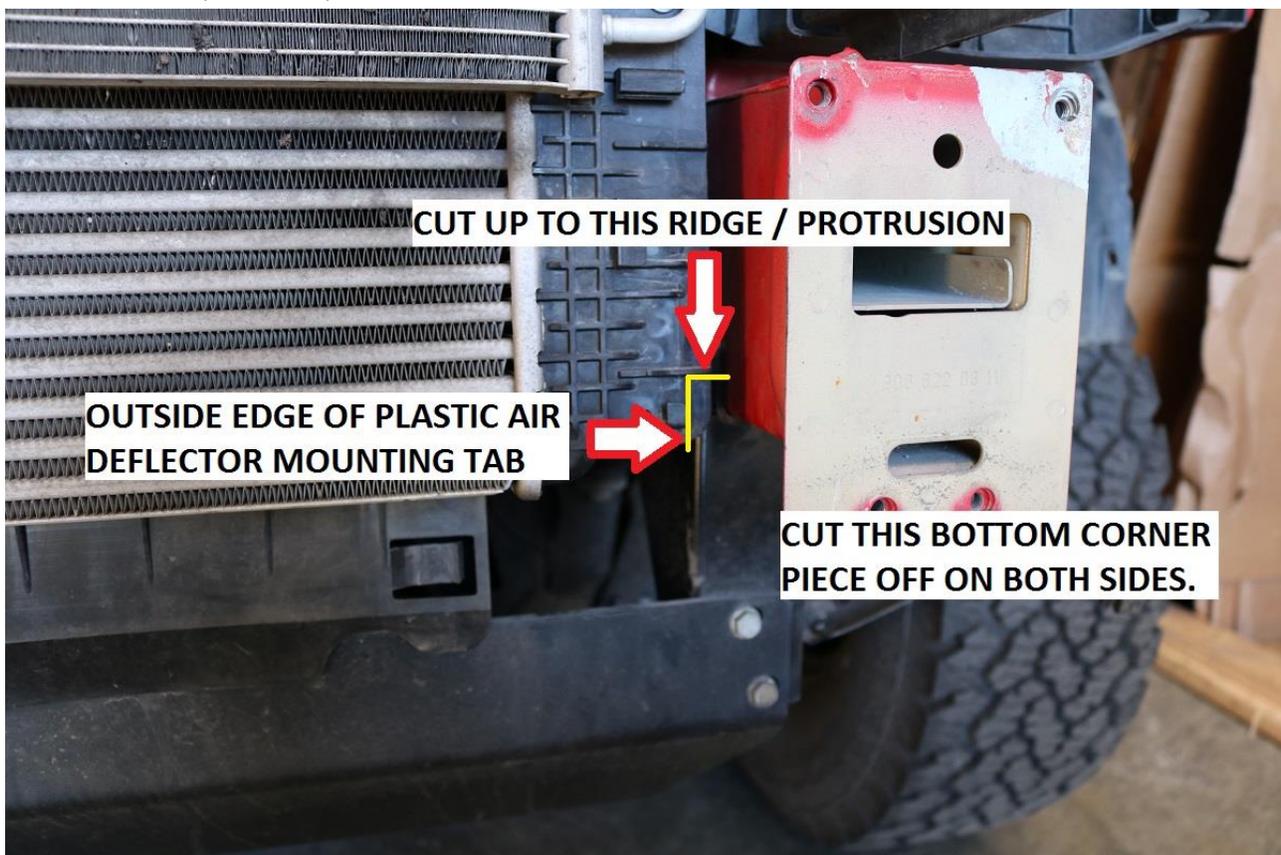


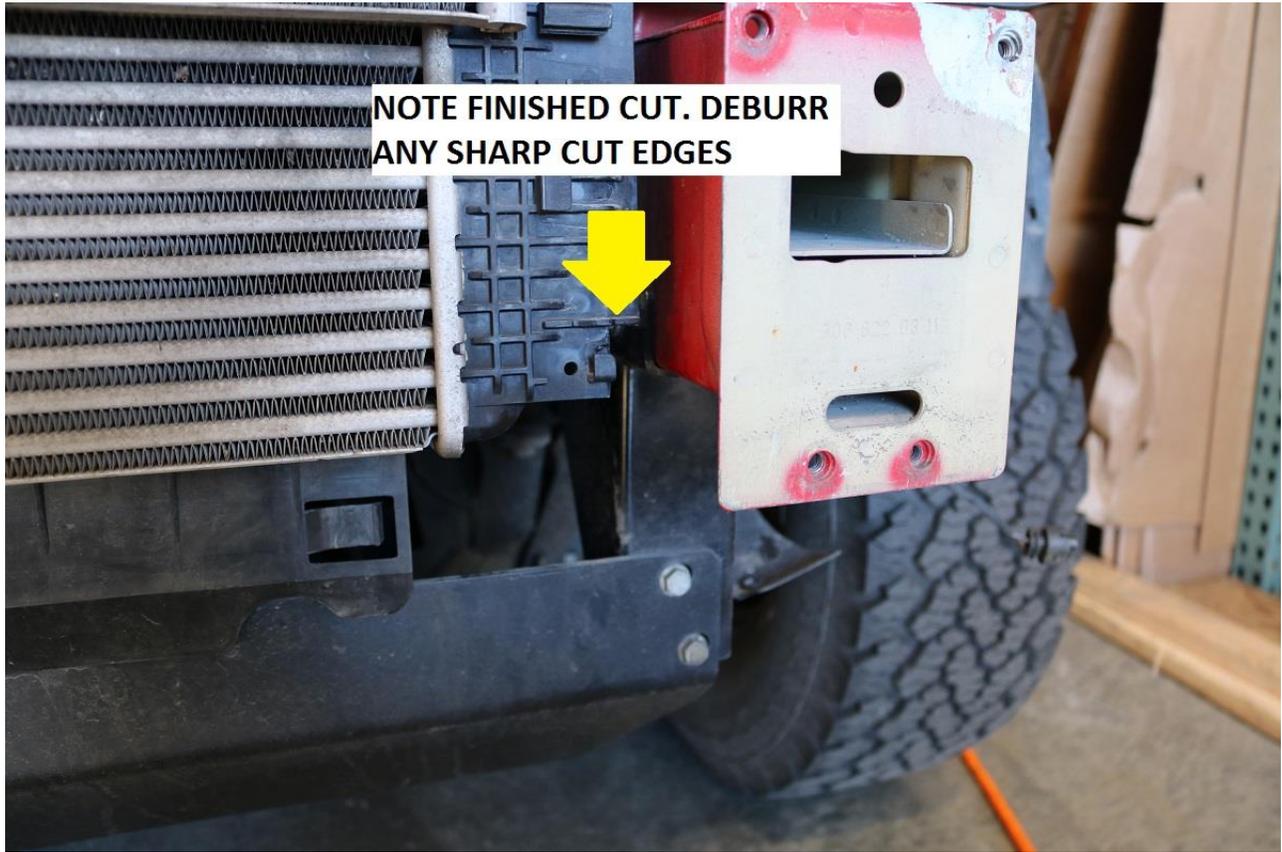
- 20) After cutting and cleaning up any rough-cut edges, paint any exposed areas of bare metal with a quality paint to prevent corrosion.

- 21) Use a pair of scissors or tin snips to cut a slit in the lower air scoop near the transmission cooler lines so the lower air scoop can be removed.
- a. Remove the lower air scoop once the transmission cooler lines can pass through.

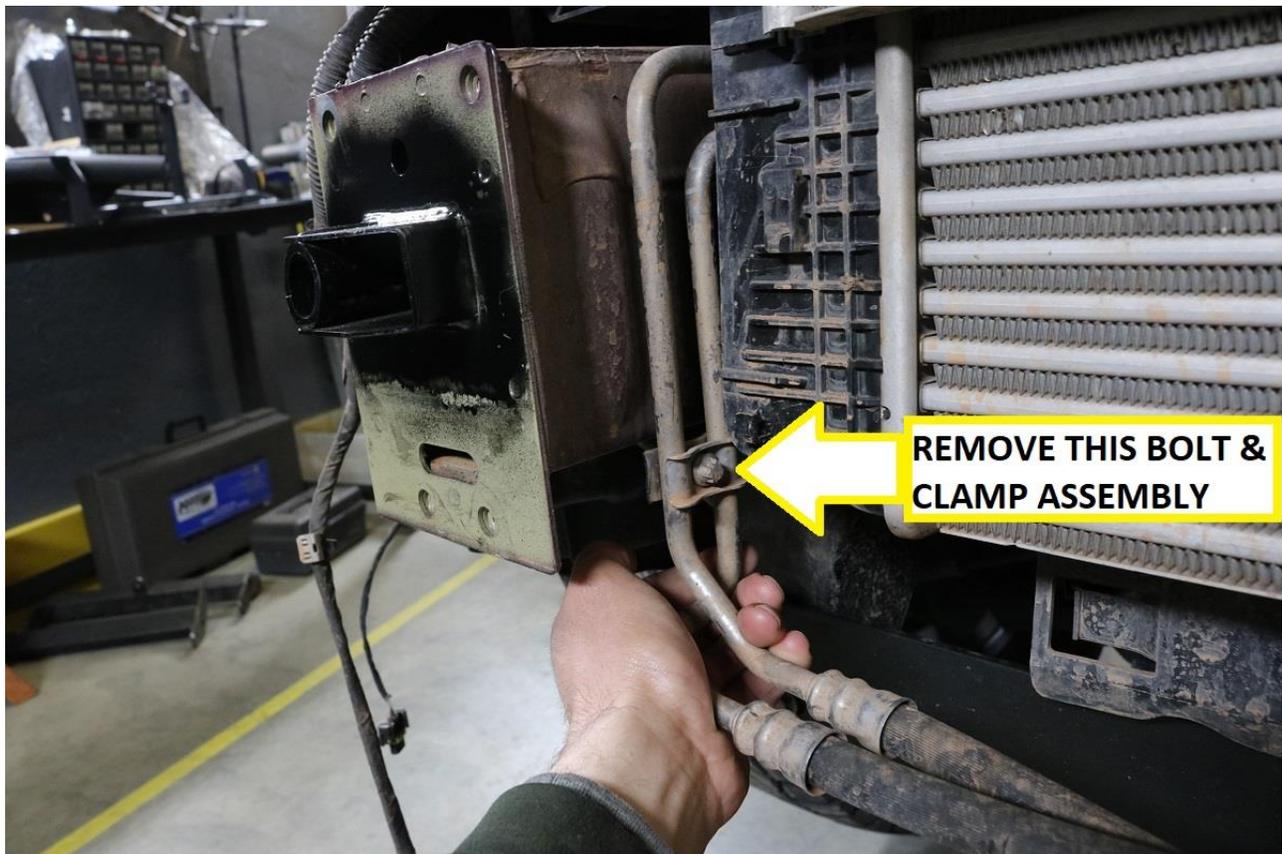


- 22) On 2019-2022 3.0L V6 models, a small piece of the intercooler needs to be trimmed for the winch mount to fit. See the following two images below for cut reference. The cut only needs to be made on the driver (left hand) side of the vehicle.

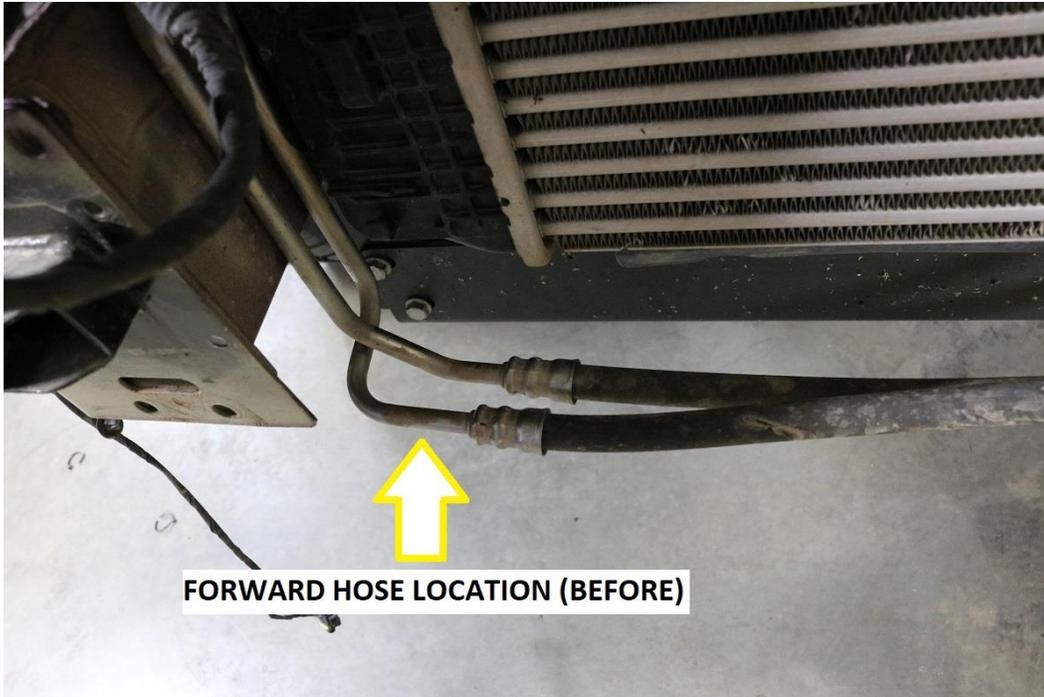




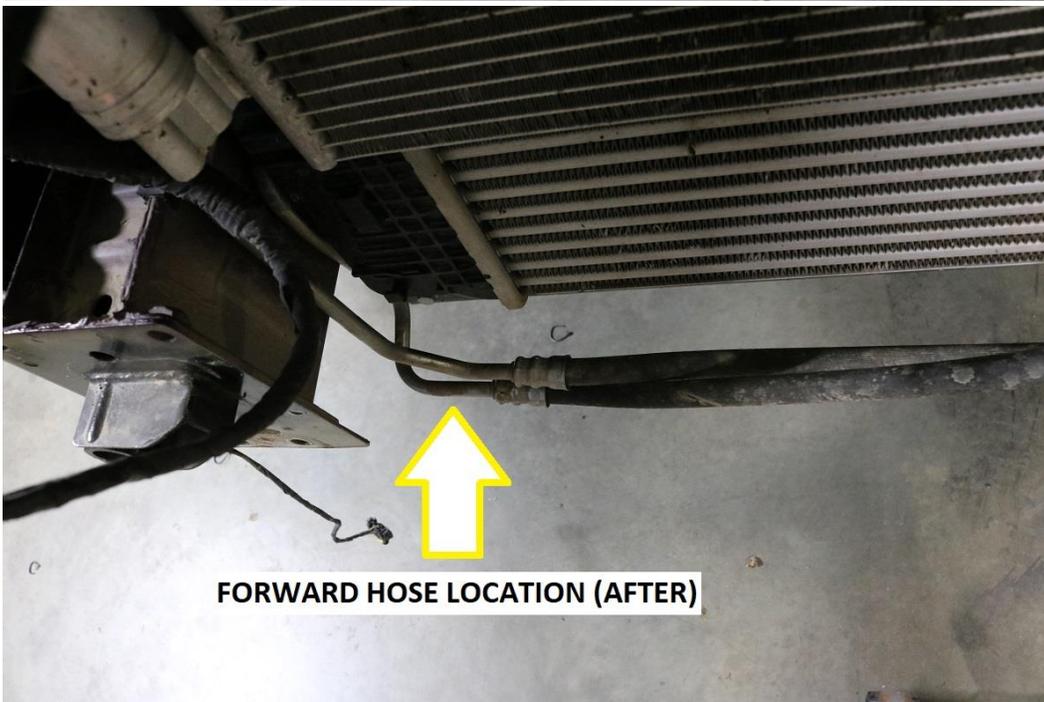
23) Additionally, for 2019-2022 V6 4x4 models. Locate the clamp securing the transmission cooler hard lines to the chassis on the passenger side. Use an E-10 inverted torx socket to remove the bolt / clamp assembly.



24) With the bolt / clamp removed, carefully bend the forward hose back so it is positioned under the rear transmission cooler hose. See image below for Before / After reference.



FORWARD HOSE LOCATION (BEFORE)



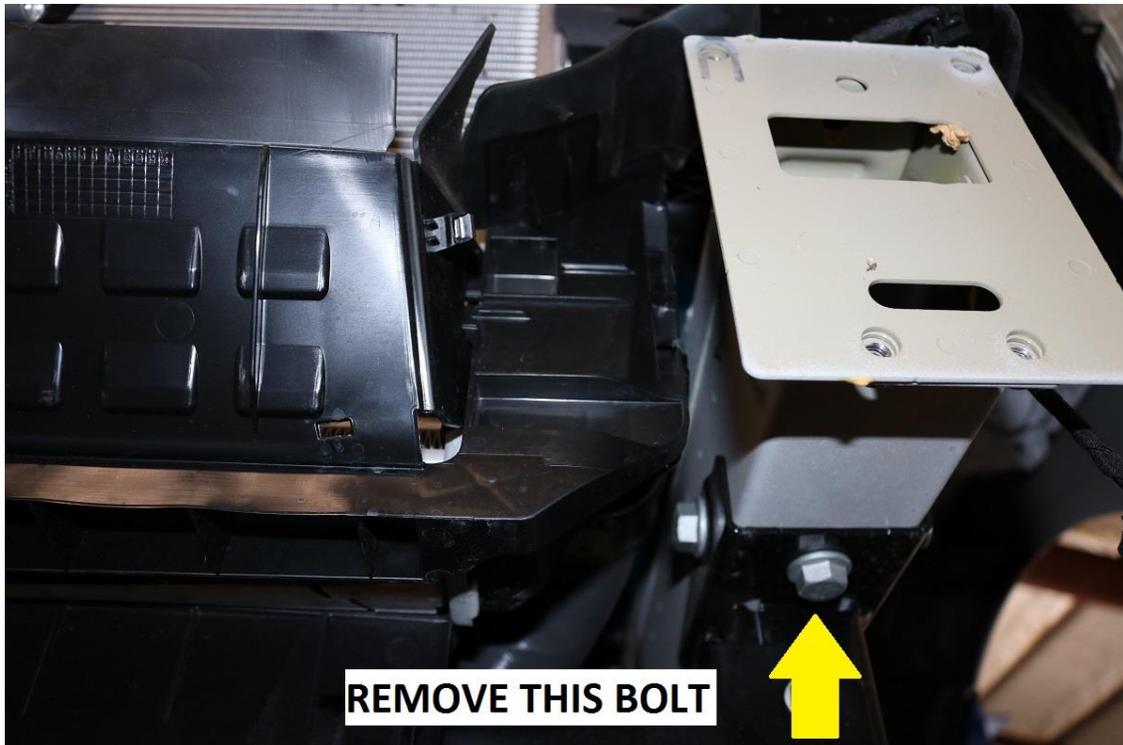
FORWARD HOSE LOCATION (AFTER)

25) On 2023+ models with the twin turbo 4cyl diesel motor, remove the bottom plastic shroud from the lower part of the radiator.

- a. Locate the clips on both sides of the shroud. Pinch inwards to release.
- b. The shroud should be able to removed from the bottom once the clips are released.



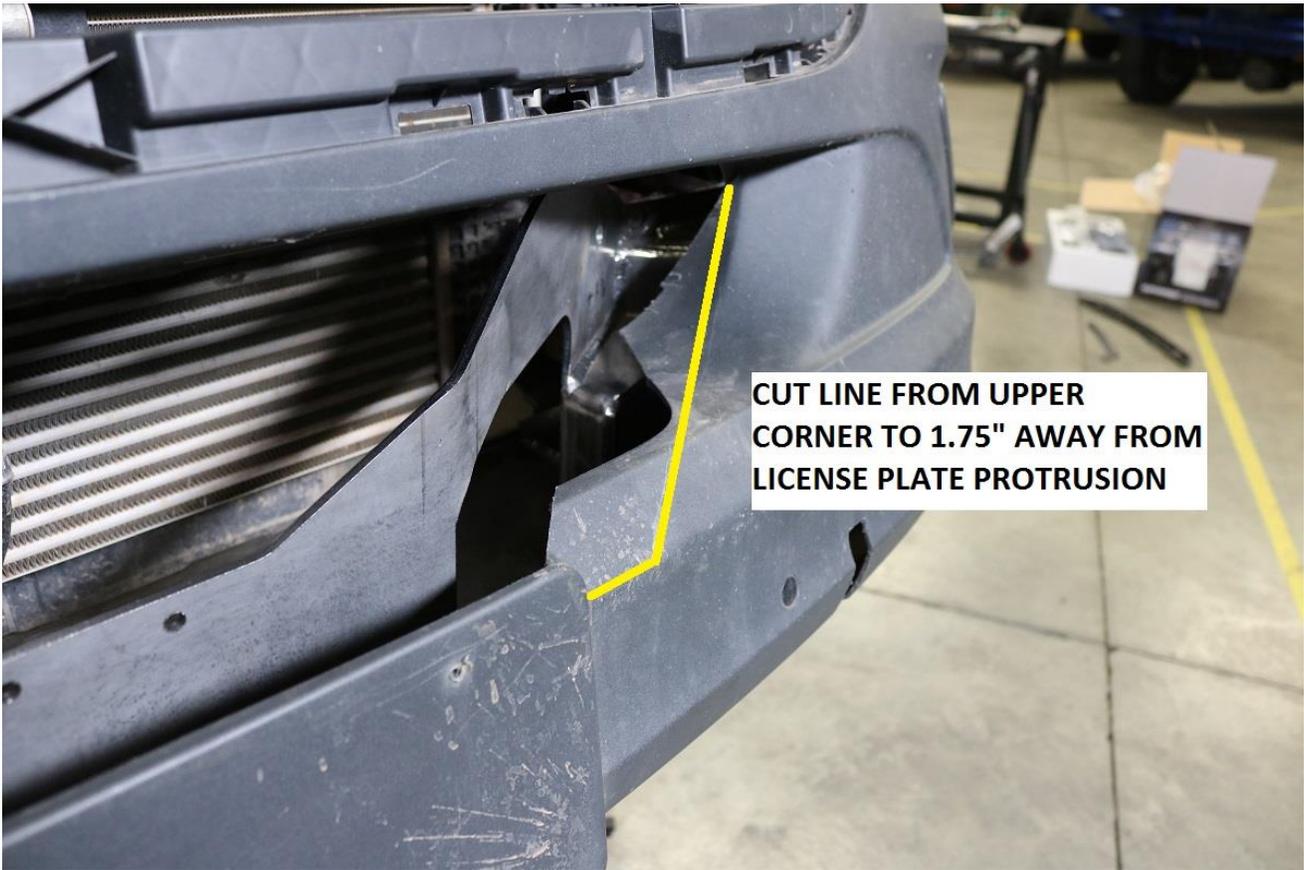
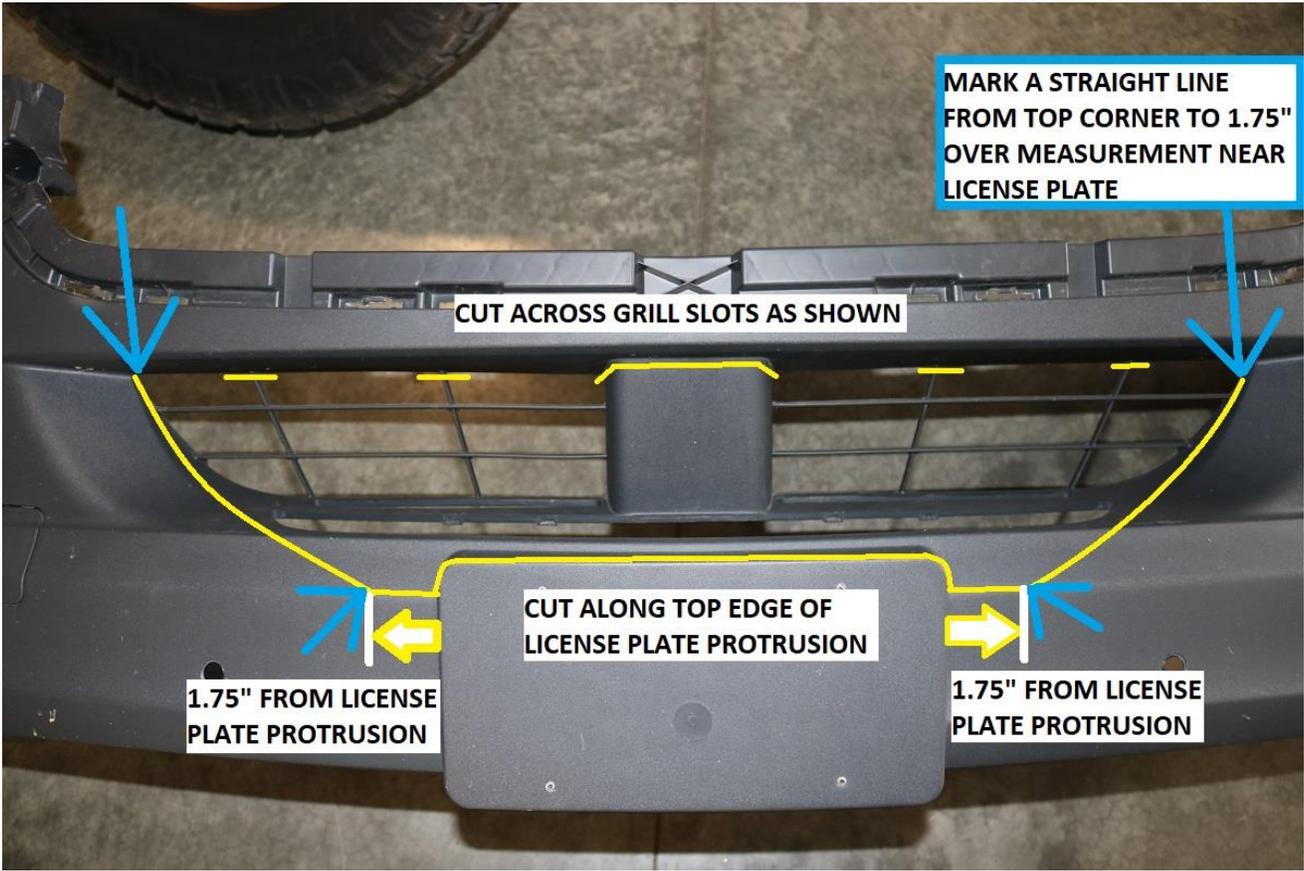
- 26) On the underside of the chassis, just behind the front attachment point of the steel bumper, locate the lower bolt of the front over run mount. Use an 18mm socket / wrench to remove the bolt on each side of the vehicle.
- Note; most 2500 vans will have this bolt in place. On 3500 vehicles, there are typically no overrun mounts fitted, but the bottom threaded hole for them will be in the chassis. Our kit includes new bolts to tie the winch mount into this location.
 - See image below for reference.



- 27) Fit the winch mount to the vehicle. It is helpful to have another person aide in fitting the mount to the vehicle.
- a. Start one of the OEM bumper bolts removed in step 17 on each side of the winch mount so it is held in place.
- 28) Install the 6 remaining 13mm bumper bolts. Start all bolts but do not tighten at this time.
- 29) Move to the underside of the winch mount and install the new included M12-1.50 x 40mm long bolts provided in the kit. Use a washer under the bolt head. Again, do not fully tighten at this time.
- 30) Pull the top of the winch mount up as high as it will go. It should end up approximately flush with the top of the front chassis mounts.



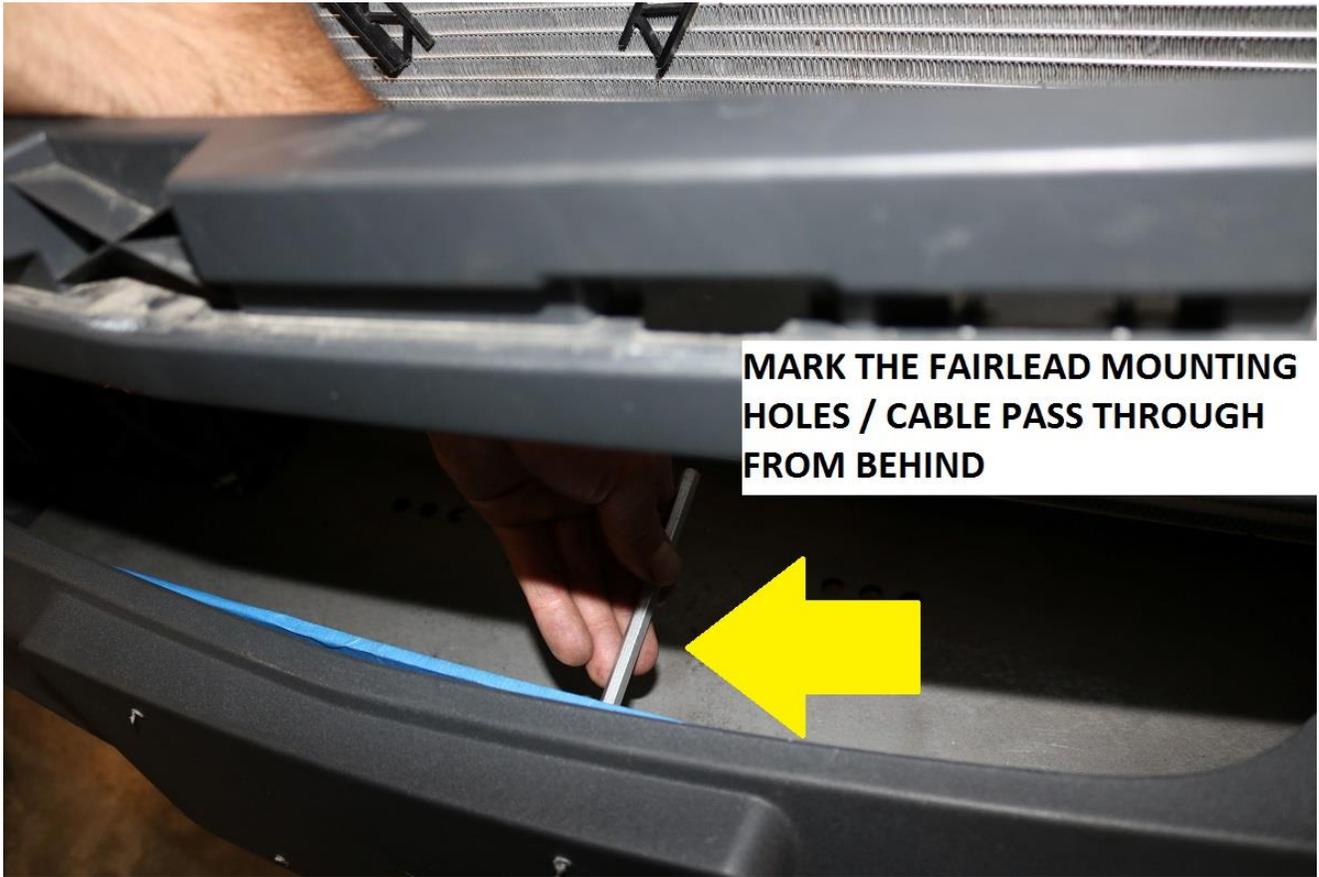
- 31) Move to the plastic front bumper cover and begin trimming for clearance of the winch / winch mount.
- 32) Begin by removing the parking sensor wiring harness from the bumper cover. This is to prevent any damage to the harness during trimming.
- a. Note, leave the parking sensors installed in the bumper cover to prevent any sort of mis-orientation upon installation.
- 33) The center lower grill portion will need to be trimmed out for clearance for the winch / winch mount.
- a. First, remove the step cover by pushing upwards on it from underneath.
 - b. See images below for reference on cuts. Use a body saw or small pneumatic cut off wheel to make the cuts.



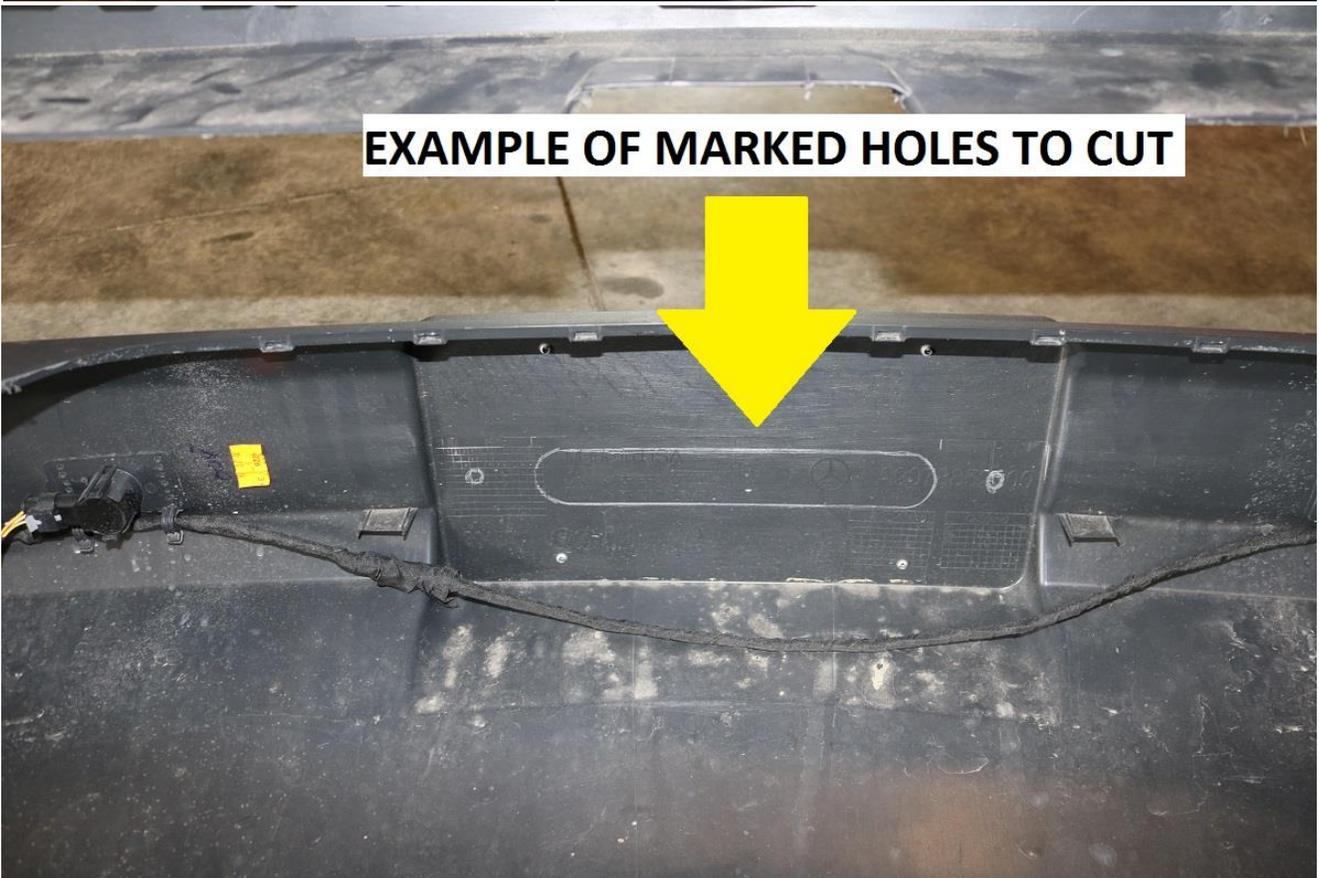
- 36) Measure 15-13/16" over from the center of bumper cover. Mark a vertical line. This is the inside line of an approximately 2.25" tall x 1.0" wide rectangular cutout to be made.
- Note, these trimming instructions are to be used as a guideline. Additional trimming may be needed for a clean installation.
 - The top of the rectangular cutout should be in line with the center of the parking sensor.



- 37) Use a body saw or small pneumatic cut off wheel to make the rectangular cuts. Drilling a hole in the corners of the rectangular area to be cut out will help make for a cleaner cut.
- Measure / cut on both sides of the bumper.
 - Again, these cut instructions are just to be used as guidelines to get the bumper cover close, final trimming for shackle points will need to be done by fitting the bumper cover back to the vehicle and trimming accordingly.
- 38) Fit the bumper cover back on the vehicle. Snap the sides of the cover back into place near the fender / headlight.
- Use the winch mount as a guide for marking the fairlead mounting holes and winch cable pass through from behind. Use a light colored pencil or silver sharpie to easily mark the holes.



**MARK THE FAIRLEAD MOUNTING
HOLES / CABLE PASS THROUGH
FROM BEHIND**



EXAMPLE OF MARKED HOLES TO CUT

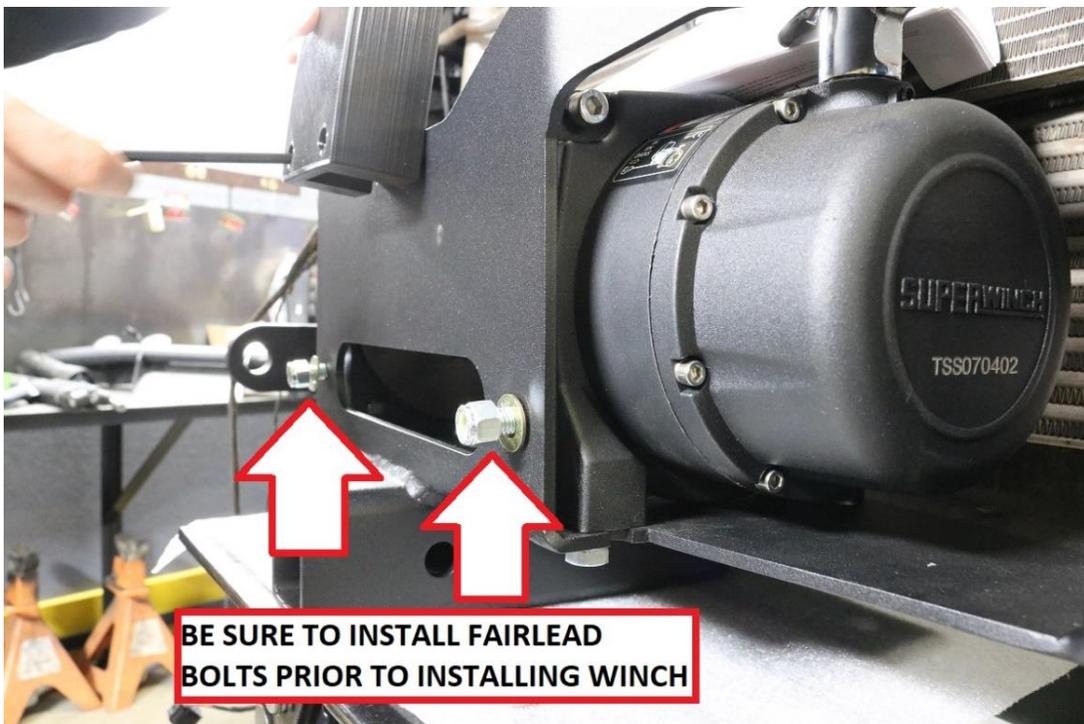
39) Lastly, mark on center a 3.5" wide x .500" tall rectangle to cut at the top of the license plate protrusion.



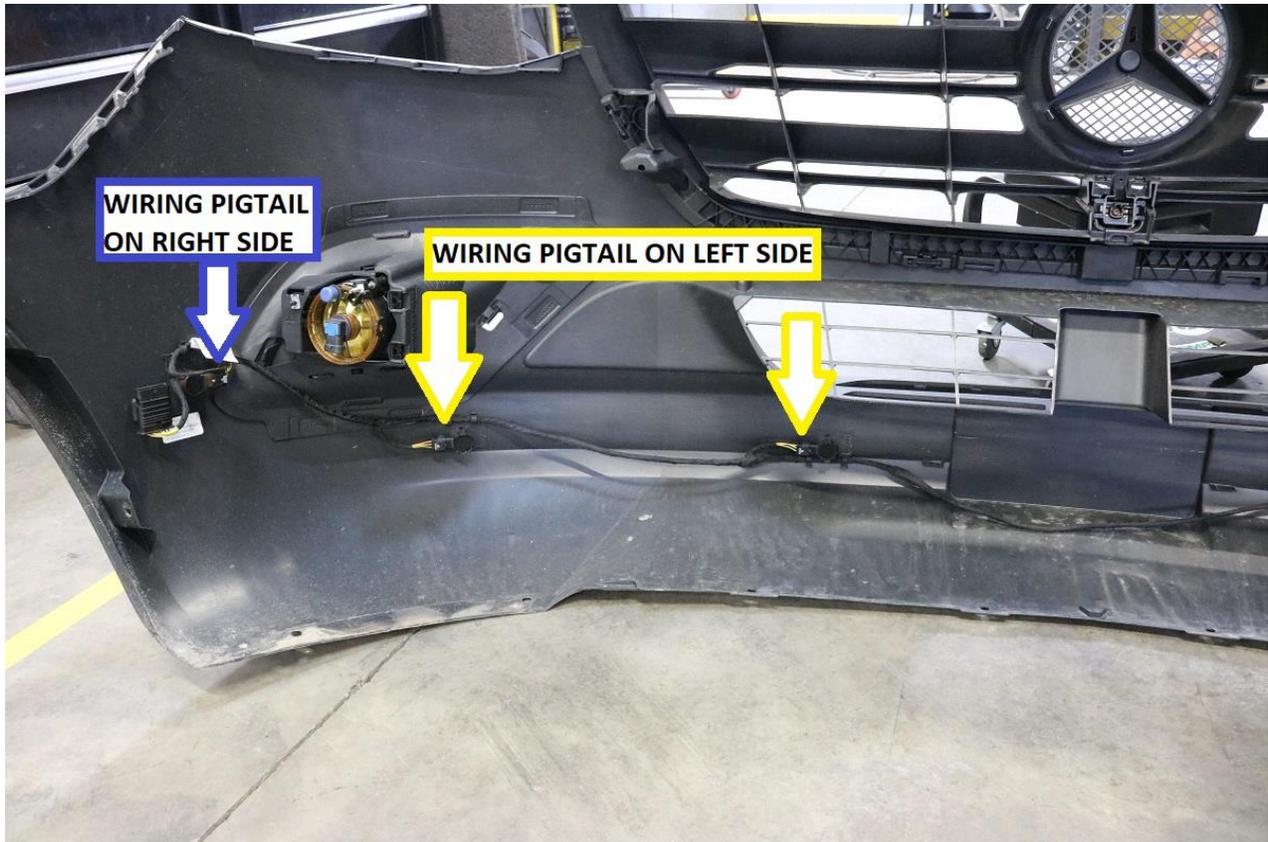
40) Drill the fairlead holes out to at least $\frac{1}{2}$ " (13mm) in diameter. Use a Dremel style tool or pneumatic die grinder to cut out center slot. Example of finished cut is pictured above.

41) At this point, remove the winch mount from the vehicle.

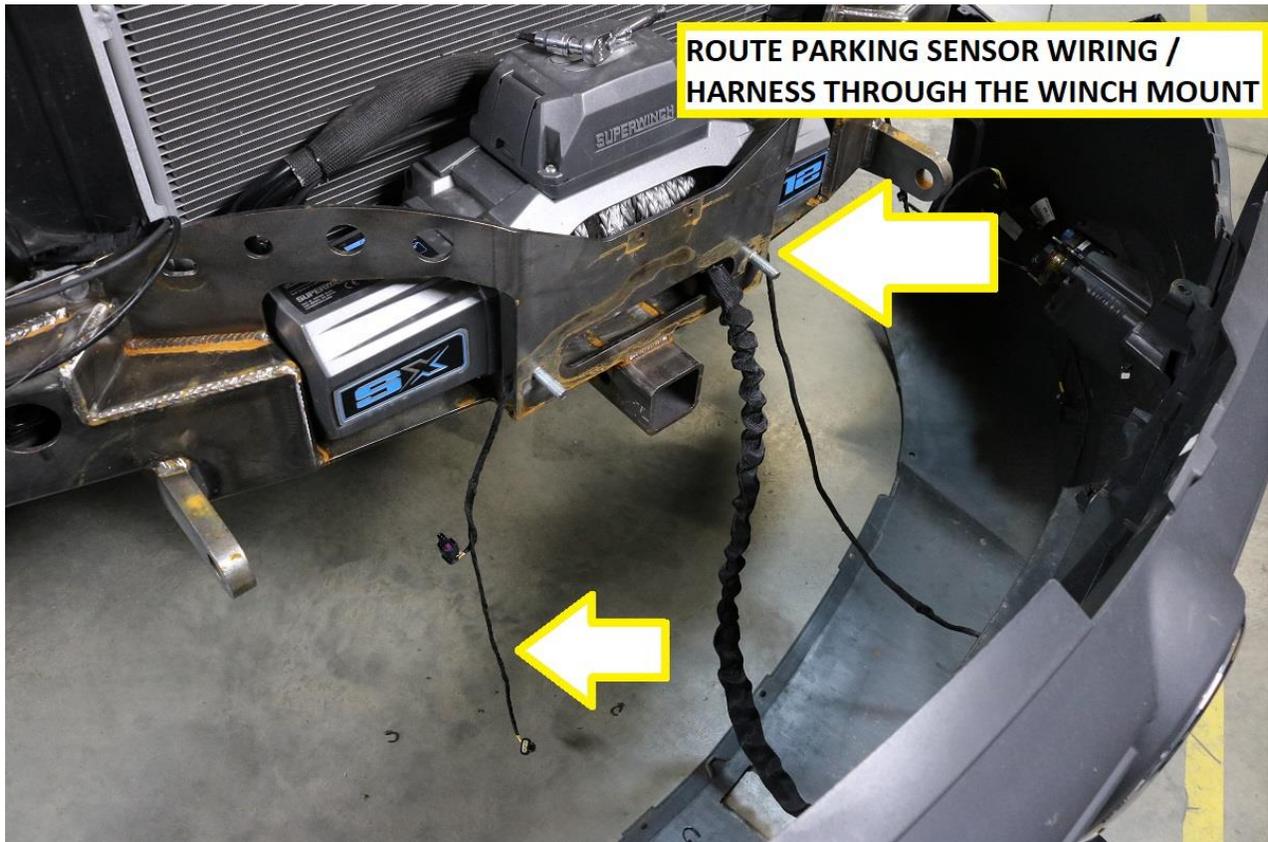
- a. Refer to your winch installation instructions and fit the winch to the winch mount.
- b. Prior to installing the winch, fit the 7/16-14 x 1.25" long carriage bolts provided and the fairlead attachment bolts as shown below.



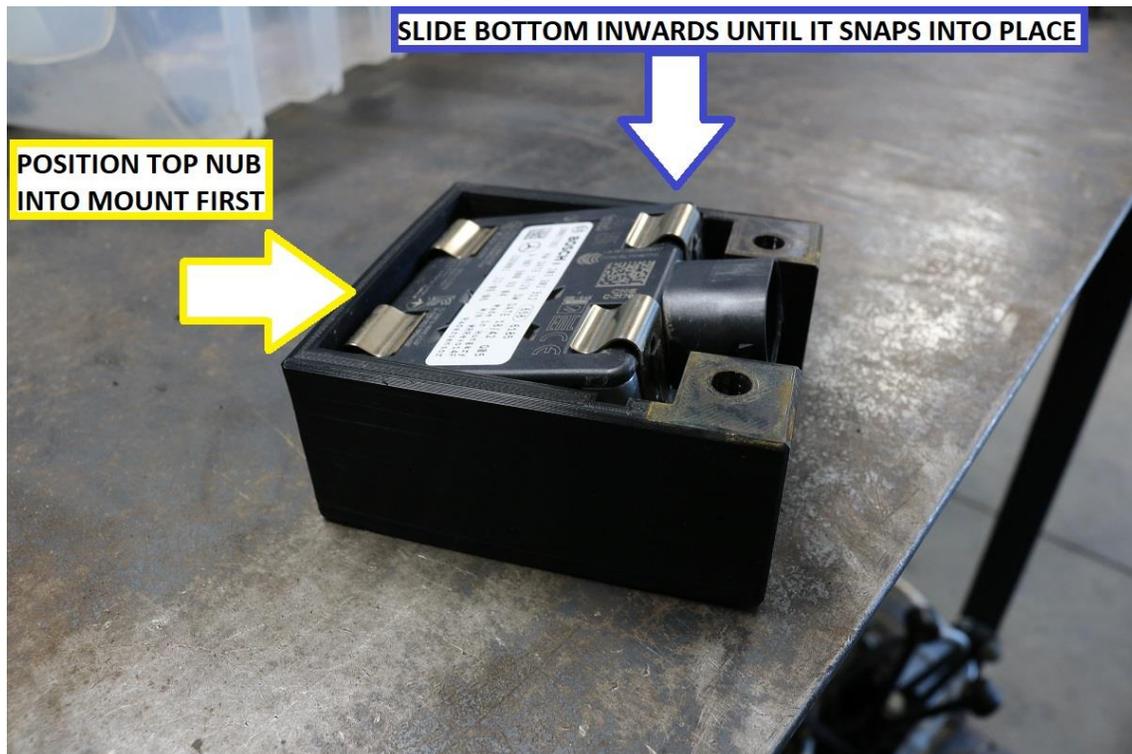
- 42) Utilize a floor jack or have a helper aide in fitting the winch mount assembly back onto the vehicle. Fit the winch mount onto the vehicle in the same manner as before. (Outlined in Step 27-28)
- a. Install the front M8 bolts and lower M12 bolts.
 - b. Tighten the front M8 bolts with a 13mm socket to 25 ft-lbs (34 N.m)
 - c. Tighten the lower M12 bolts with a 19mm socket to 52 ft-lbs (70 N.m)
- 43) Secure the winch cable wiring and wire the winch according to the winch manufacturer's specifications.
- a. Utilize Van Compass Big Power Distribution Kit for easier installation. Part number: 7215
- 44) Re-install the parking wiring harness on the driver side of the bumper cover. Take note of parking sensor orientation shown below in case a sensor may have come loose during trimming.

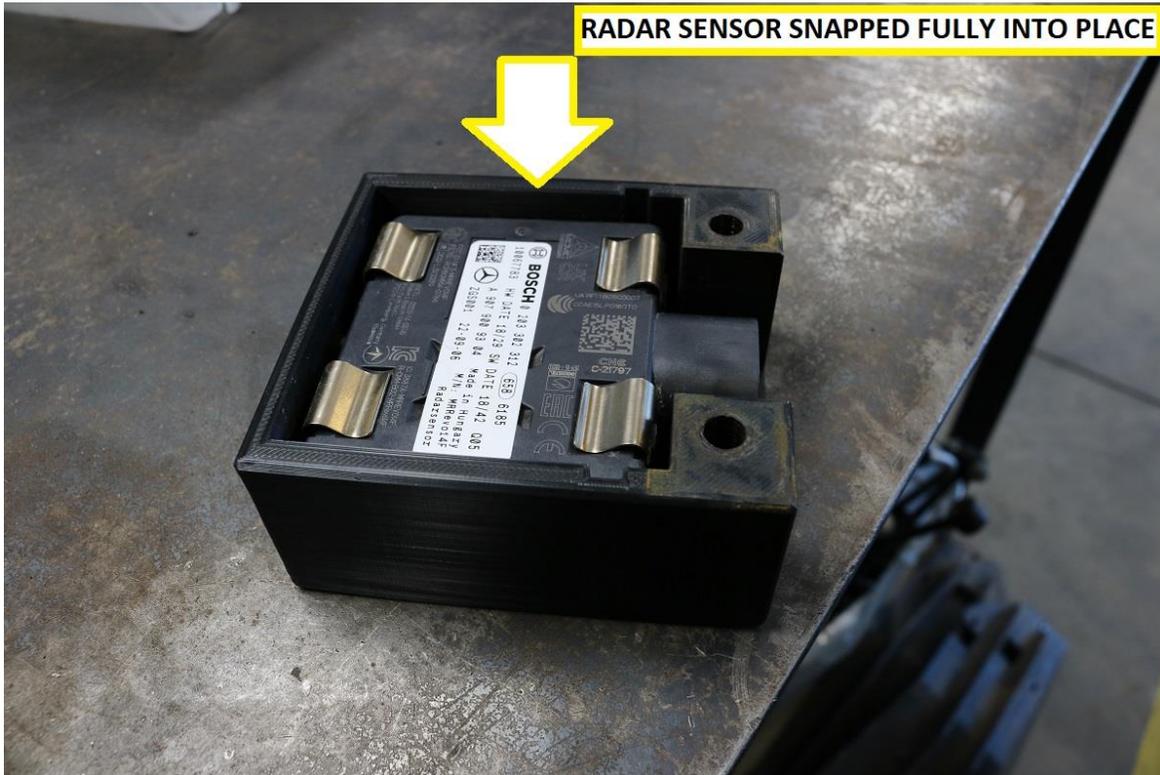


- 45) Have a helper aide in reinstalling the plastic bumper cover once the winch is wired and the winch rope has been fed onto the drum.
- a. Feed the winch rope through the cutout for the fairlead.
 - b. Route the passenger side parking sensors / harness through the winch mount between the winch drum and front plate. See image below for reference.

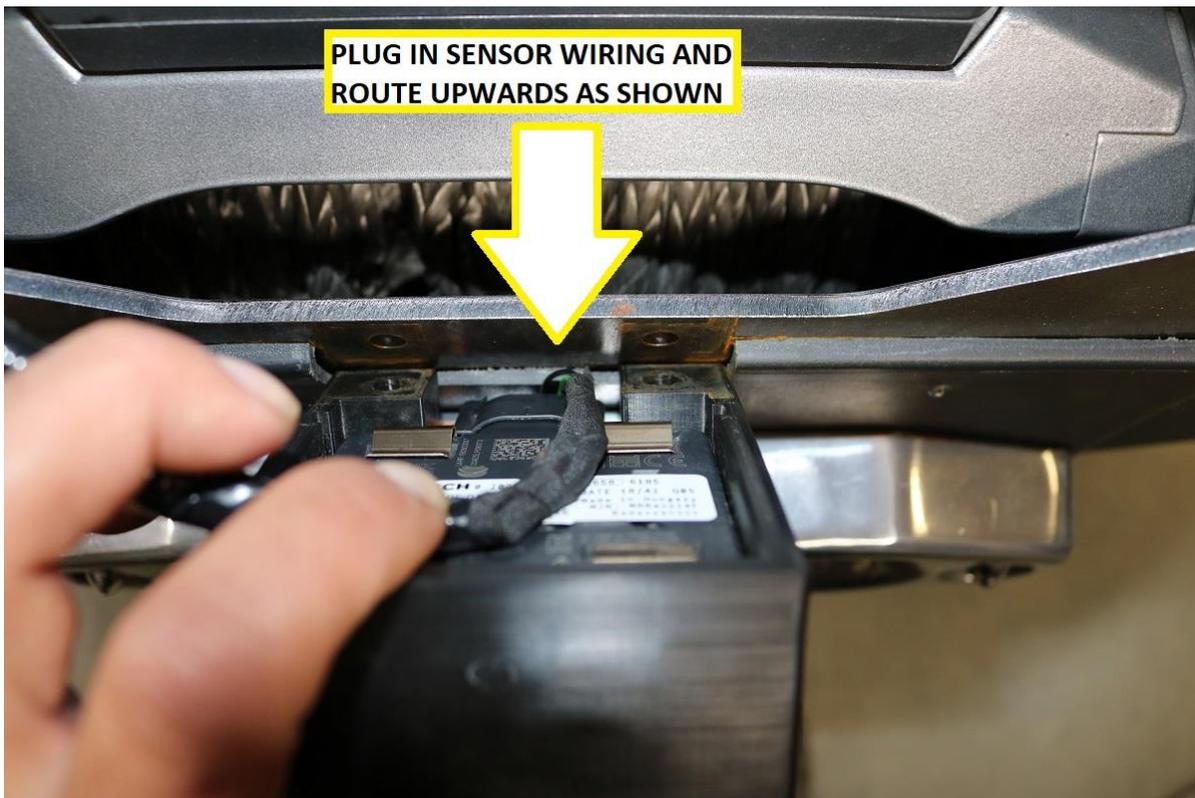


- 46) Have a helper bring the bumper cover up to the vehicle. Plug in the forward-facing camera and plug in the parking sensors along for the passenger side. Loosely fit the bumper cover to the vehicle.
- 47) Snap the radar sensor into the 409902 radar sensor mount included with the kit. Position the top nub of the sensor into the mount first then slide the bottom forward until it snaps into place.
 - a. Make sure the radar sensor is sitting flat inside the 409902 mount.

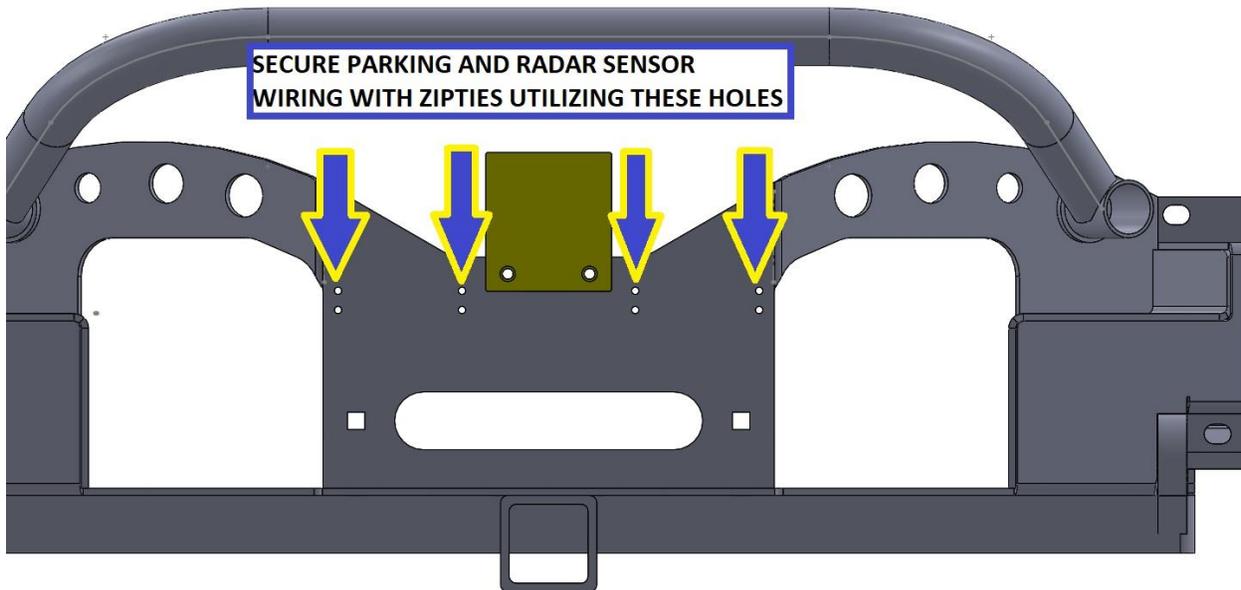




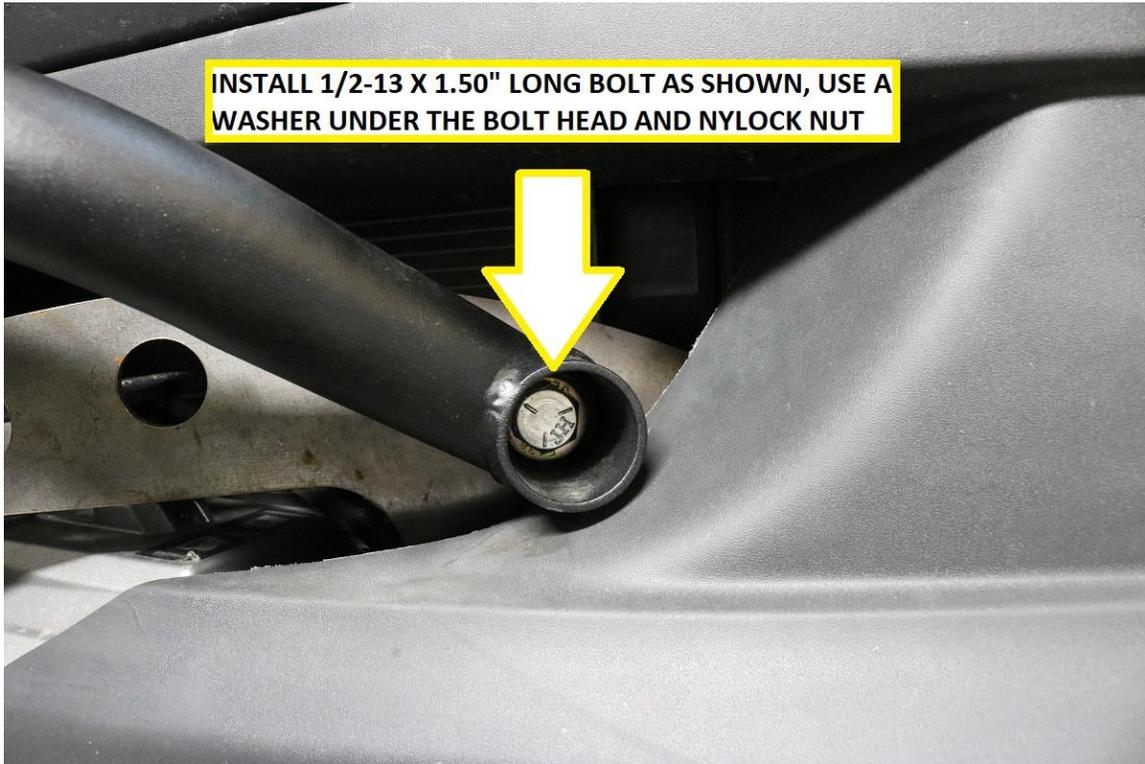
- 48) Plug the radar sensor wiring in and route it up as shown. Fit the assembled radar sensor mount to the winch mount. Bolt the radar sensor to the winch mount utilizing the two $\frac{1}{4}$ -20 x 1.50" long black zinc socket cap screws.
- Secure utilizing the included $\frac{1}{4}$ -20 flange nuts. Snug bolts but do not overtighten and damage the plastic radar sensor mount.
 - Use a 3/16" allen for tightening.



- 49) Secure parking and radar sensor wiring to the winch mount utilizing the small zip tie holes denoted in the image below.
- Ensure wiring is secure to the point where it won't interfere with the winch rope as it is spooled in / out.



- 50) At this point, re-install all front-end components. Installation is the reverse order of removal, reference the beginning of these instructions for re-installation.
- 51) Bolt the fairlead to the winch mount using the 7/16-14 acorn nuts provided in this kit.
- 52) Install the 4104 Nudge Bar. Use the 1/2-13 x 1.50" long hex head bolts included in the kit. Be sure to use a washer under the bolt head. Secure with a washer and the nylock nuts on the backside of the winch mount.
- Torque to 80 ft-lbs (108 N.m)
 - Once bolts are tightened, install the included plastic tube caps for a finished look.
 - See images below for reference.



53) 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.