4044 – 2014-2018, MERCEDES SPRINTER NCV3, FRONT WINCH MOUNT

Version 2.1

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 that can be installed with simple 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 if desired.
- This front winch mount is designed around the Warn Zeon series of winches. Many other winches are compatible with this kit but please reference the Warn Zeon 12 winch for the maximum winch size.
- Included with this kit is a front hitch receiver tube that can be installed if desired. This receiver has a maximum vertical load capacity of 300lbs.
- 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 Zeon 12S winch on a 2015 4x4 2500 Sprinter Crew Van. Some aspects of installation will vary depending on year, chassis configuration and winch choice.
- Front shackle mounting points are included as a bolt on addition to this winch mount system. Installation instructions on shackle mounting points are covered at the end of these instructions.
- The following instructions do not cover wiring of the winch. Refer to the instructions included with your winch manufacturer for details regarding winch wiring.

Parts List

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- (1) 404401 MERCEDES SPRINTER NCV3, FRONT WINCH MOUNT
- (8) HM08-1.25-30-10.9 HEX HEAD BOLT, M8-1.25 X 30MM
- (1) NNM08-1.25 NYLOCK NUT, M8-1.25
- (9) WF-M8 FLAT WASHER, M8
- (2) HM12-1.50-40-10.9 HEX HEAD BOLT, M12-1.50 X 50MM LONG
- (2) WF-M12 FLAT WASHER, M12
- (2) CC5-6-10 3/8-16 UNC, GR5 CARRIAGE BOLT, 1.0” LONG

- (2) WF8-6 3/8” GR8 FLAT WASHER
- (2) NNC-6 3/8-16 UNC, NYLOCK NUT, CLEAR ZINC PLATED
- (1) LTBL-02 BLUE LOCTITE, 2ML TUBE
- (2) 406005 MERCEDES SPRINTER SHACKLE RECOVERY POINT
- (4) HC8-8-20 HEX HEAD BOLT, ½-13 X 2.0” LONG
- (4) NSC-8 STOVER NUT, ½-13
- (8) WF-8 FLAT WASHER, GR8 ½”

Tools Needed

- Simple hand tools:
    - Torque Wrench
    - Basic wrench and socket set:
        - T25 Torx bit
        - Metric sizes: 13mm, 18mm
        - SAE sizes: ¾”
- Automotive trim removal tool
- Cutting tool for metal front tow point trimming.
    - 4-1/2” angle grinder or 3” pneumatic cut off tool or sawzall.
- Cutting tool for plastic bumper trimming.
    - 4-1/2” angle grinder or 3” pneumatic cut off tool
    - Die grinder with 1” drum sander or Dremel style tool with a round burr bit of sorts for plastic material trimming.

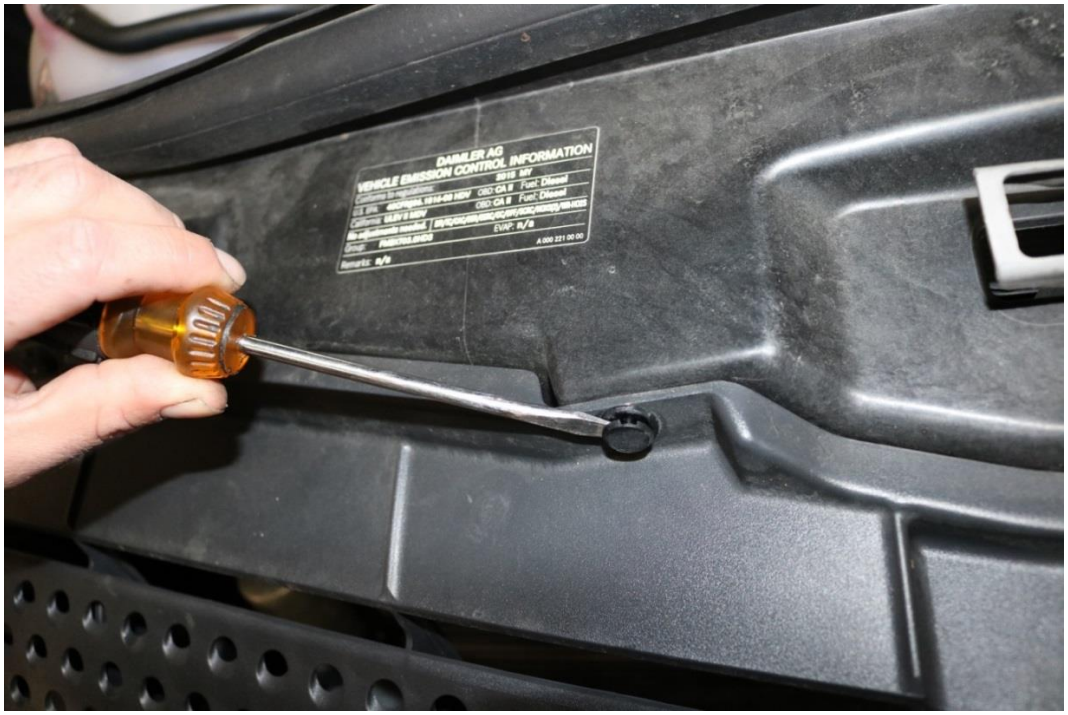
Approximate Installation Time

- 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

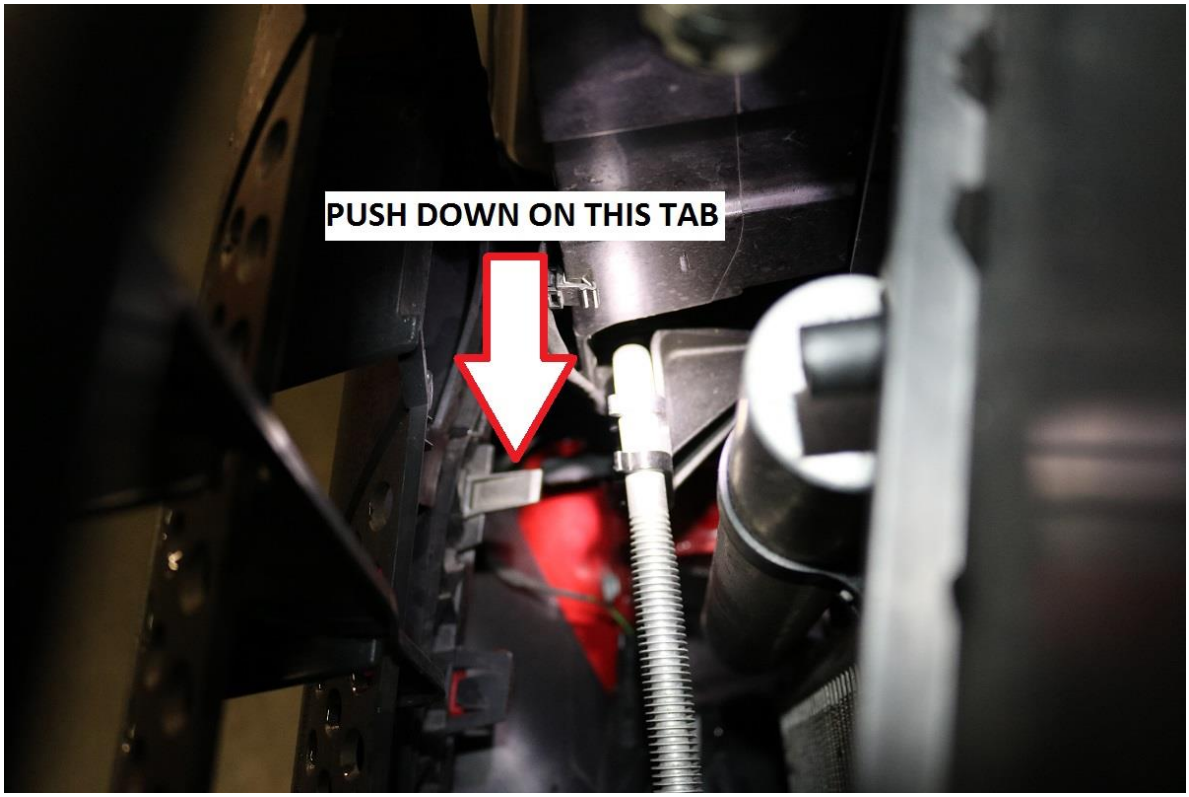
1) Begin by opening the hood and locating the two torx head screws securing the grill to the core support. Use a T-25 Torx head socket and remove these two screws. See image below for reference.

2) Next, use an automotive trim removal tool to remove the four push pin fasteners securing the top of the grill insert to the core support.
    a. Note; the center of this style of fastener must be pulled up for removal. We have found the use of a small flat nose screwdriver to work well in getting the center pin separated from the fastener housing.
    b. Once the center pin is raised slightly, use an automotive trim removal tool similar to those shown in the images below to remove the fastener from the grill.

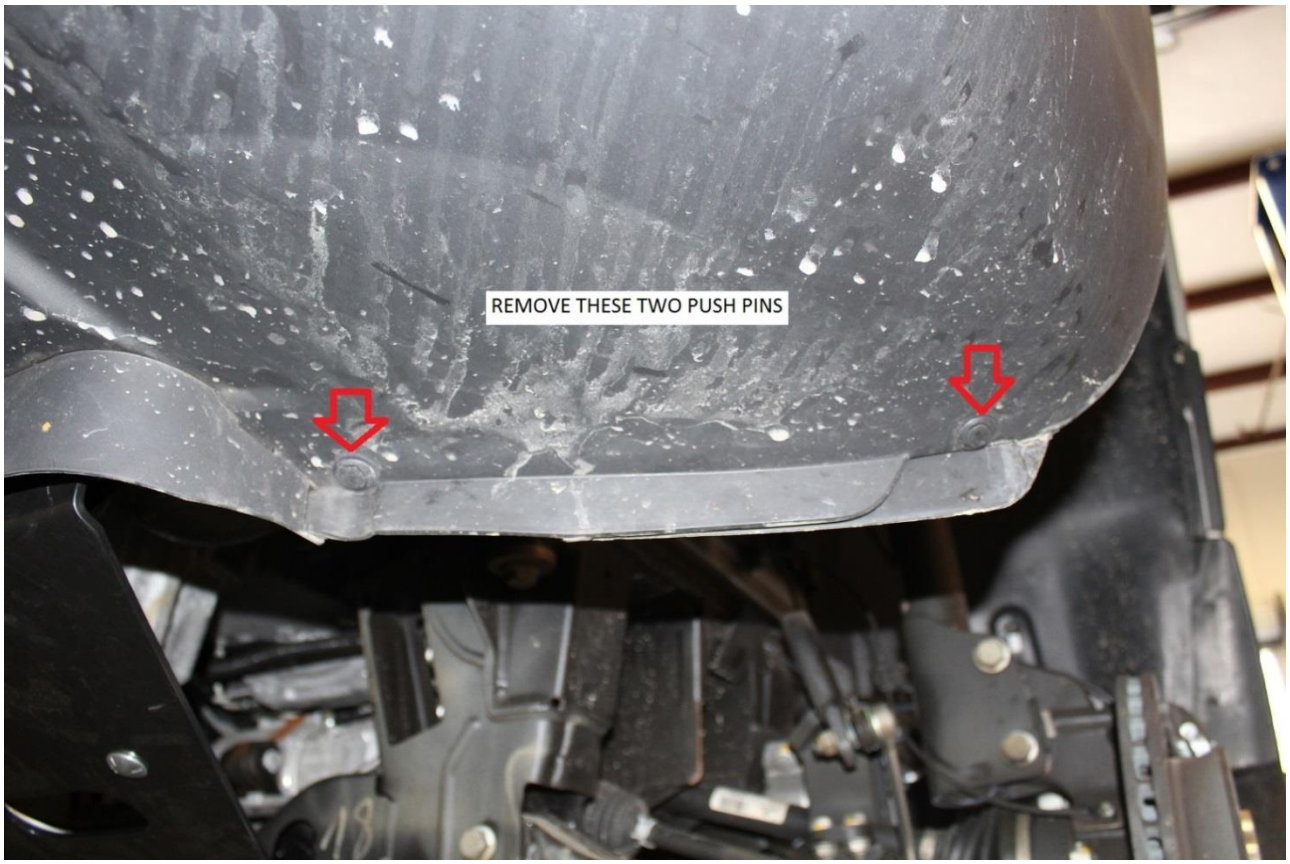


3) With the upper part of the grill separated, gently pull the top of the grill back and locate the four tabs which secure the bottom of the grill to the van.

4) Once these tabs are located, push down on them and gently pull the bottom of the grill away from the van and it should easily come free from the vehicle. We have found a long flat nose screwdriver to work well as a tool to push down on the tabs.



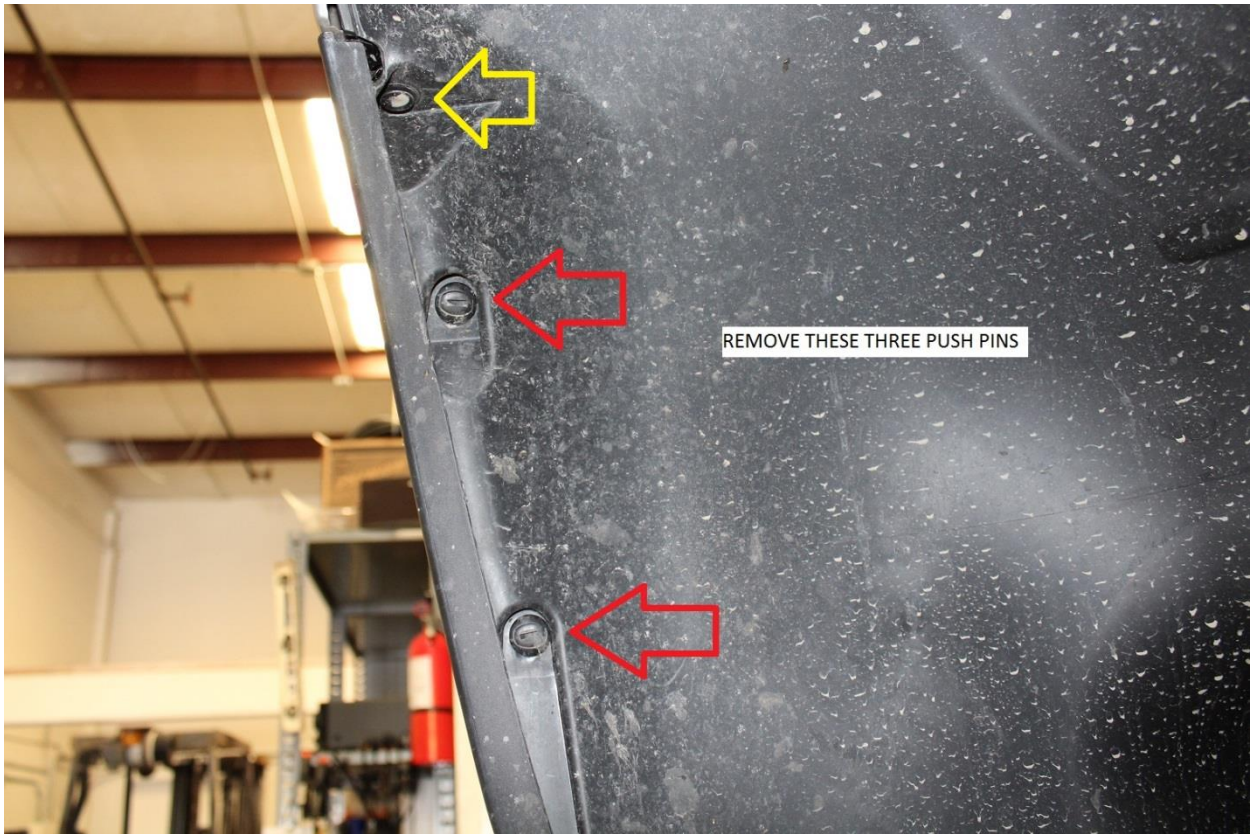
5) Locate the two push pin fasteners located near the front bottom side of the bumper cover which connect the inner fender well liner to the front bumper cover.



6) This style of push pin is a 2 step removal process.
    a. First, use an automotive trim removal tool to pull up the head of the push pin.

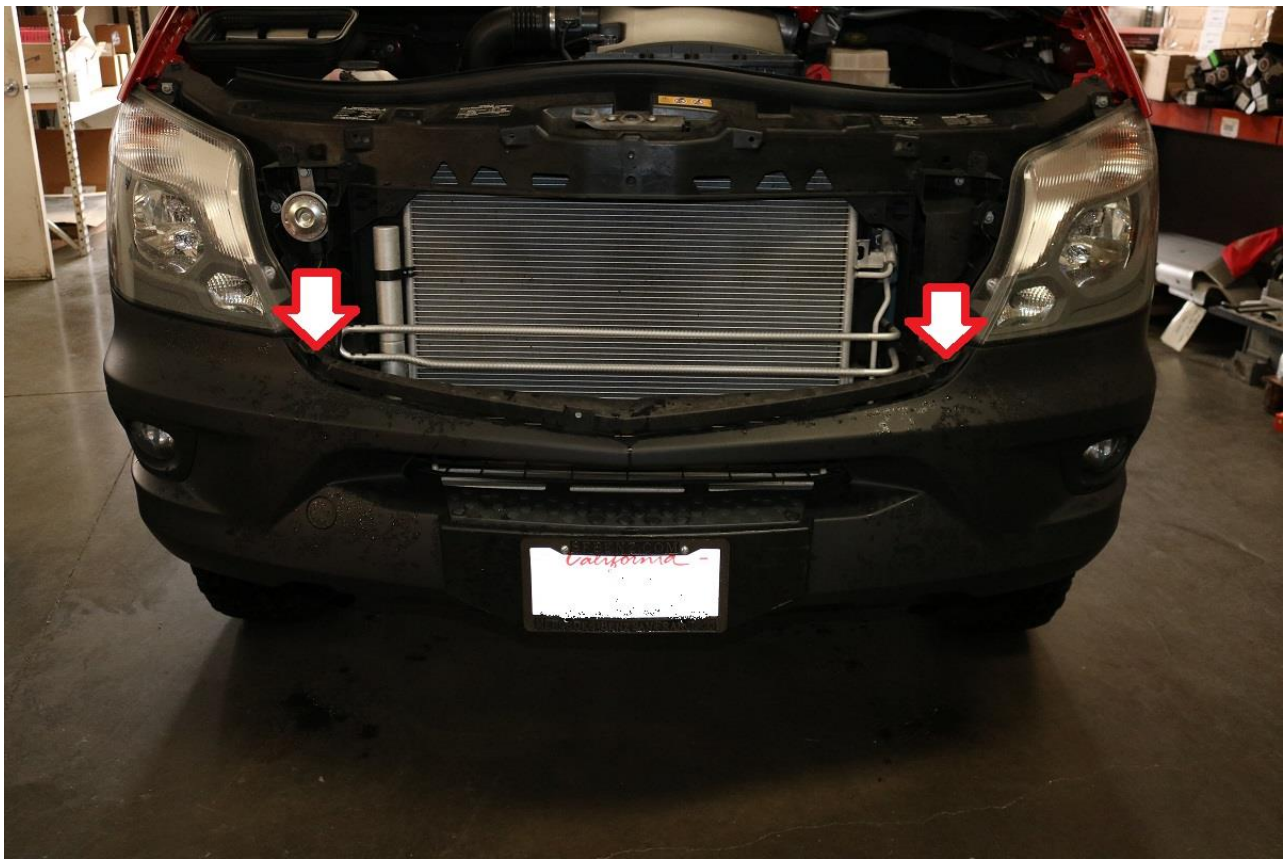
7) Using the same automotive trim removal tool, pry up under the head of the push pin body to fully removal the fastener. Remove these from both sides of the vehicle.

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

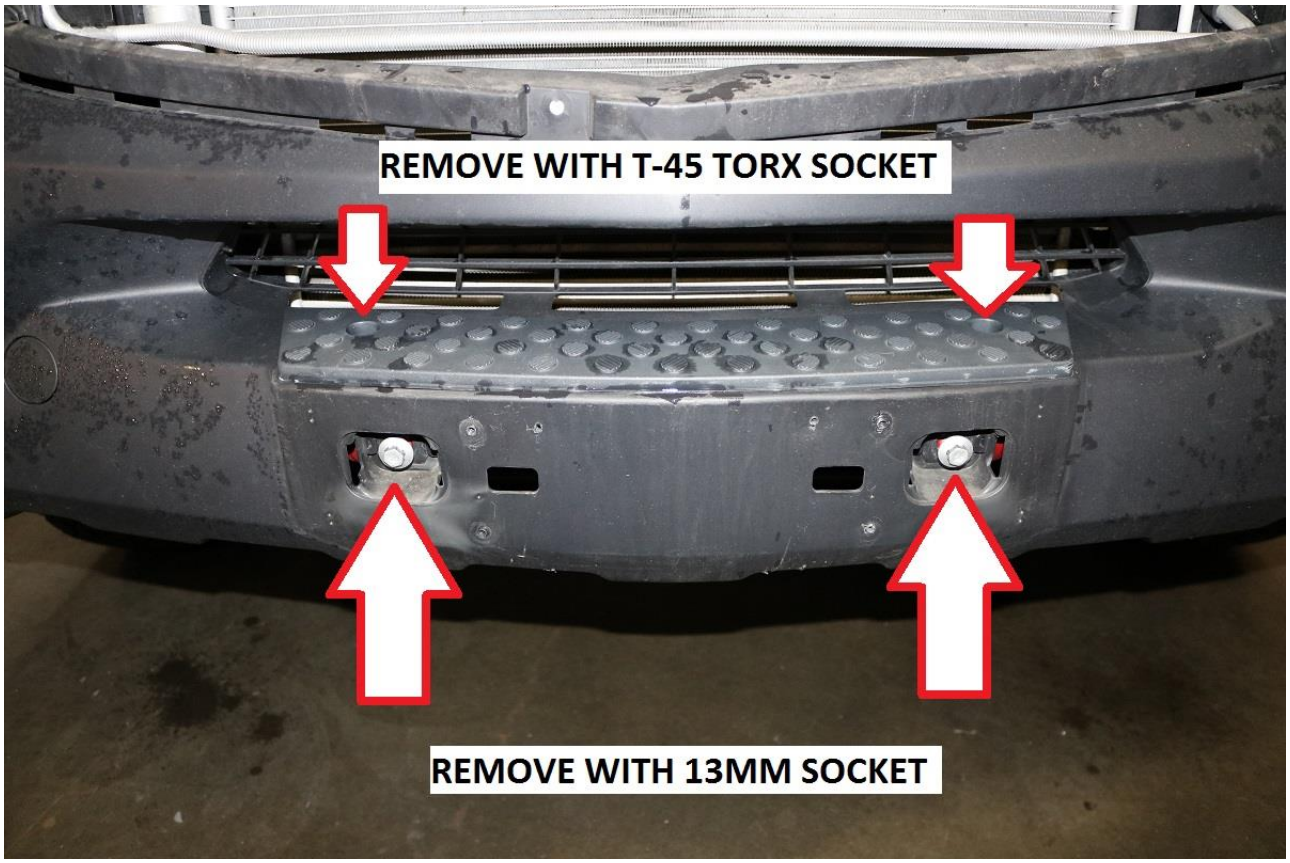


9) Note, the bottom two fasteners (denoted with the red arrows). The upper fastener (denoted with the yellow arrow) is a slightly larger push pin, take note of the different head style and be sure to reinstall in the same location during reassembly. Again, make sure to remove these pins on both sides of the vehicle.

10) Remove the two Torx head bolts that are now exposed with the grill removed. Again, use a T-25 Torx socket for removal. The bolts are denoted in the image below by the two red & white arrows.
    a. At this time, also remove the front license plate and license plate mount if equipped. The license plate is usually secured to the vehicle with Phillips head screws.
    b. The license plate mount is typically secured to the vehicle with either Phillips head screws or T-20 torx head bolts.



11) With the front license plate and mount removed, the front bolts securing the plastic bumper cover to the chassis can be accessed. Remove these two bolts with a 13mm socket.
    a. Now is also a good time to remove the T-45 torx head bolts securing the top step to the vehicle.
    b. See image below for reference.



12) At this time the bumper cover is only secured to the vehicle via snap clips where the bumper meets the front fender. Pull the back corner of the bumper cover outwards to separate it from the clips. These clips are fairly tight, so a good strong pull will be needed for separation.

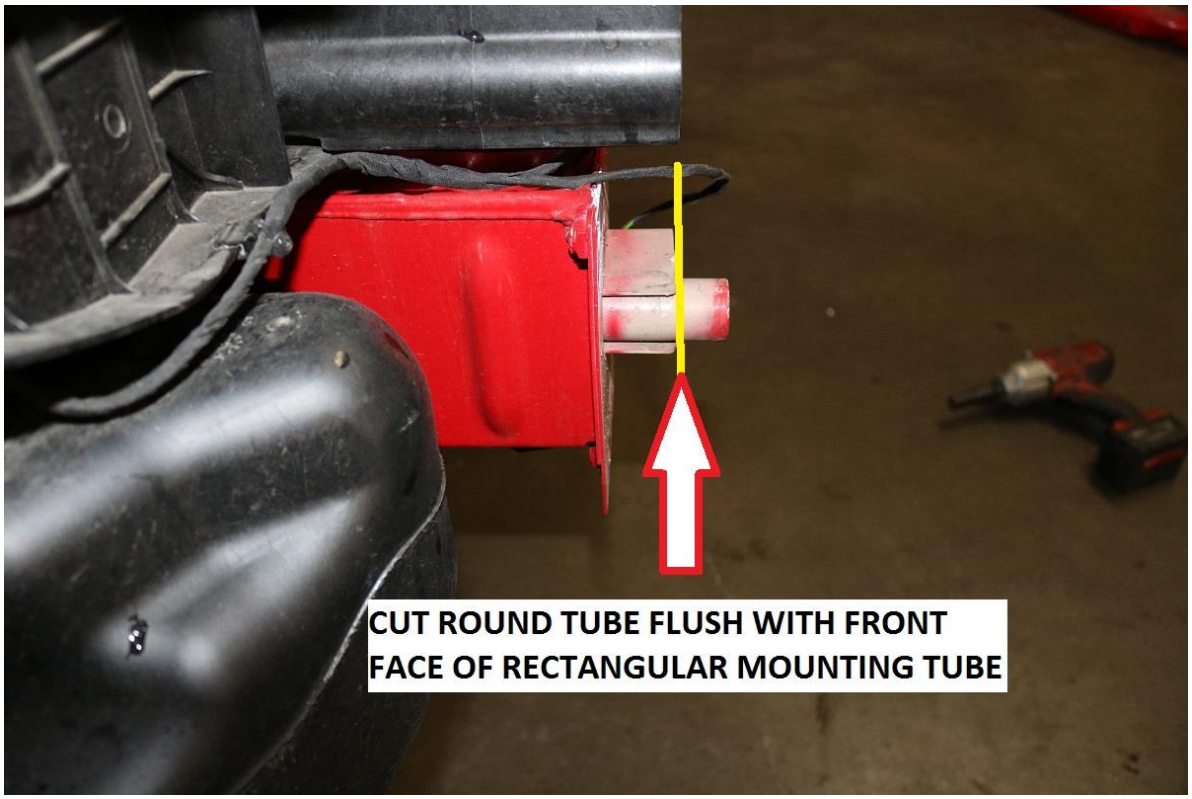
13) Remove the ambient air temperature sensor from it’s housing in the front bumper cover.

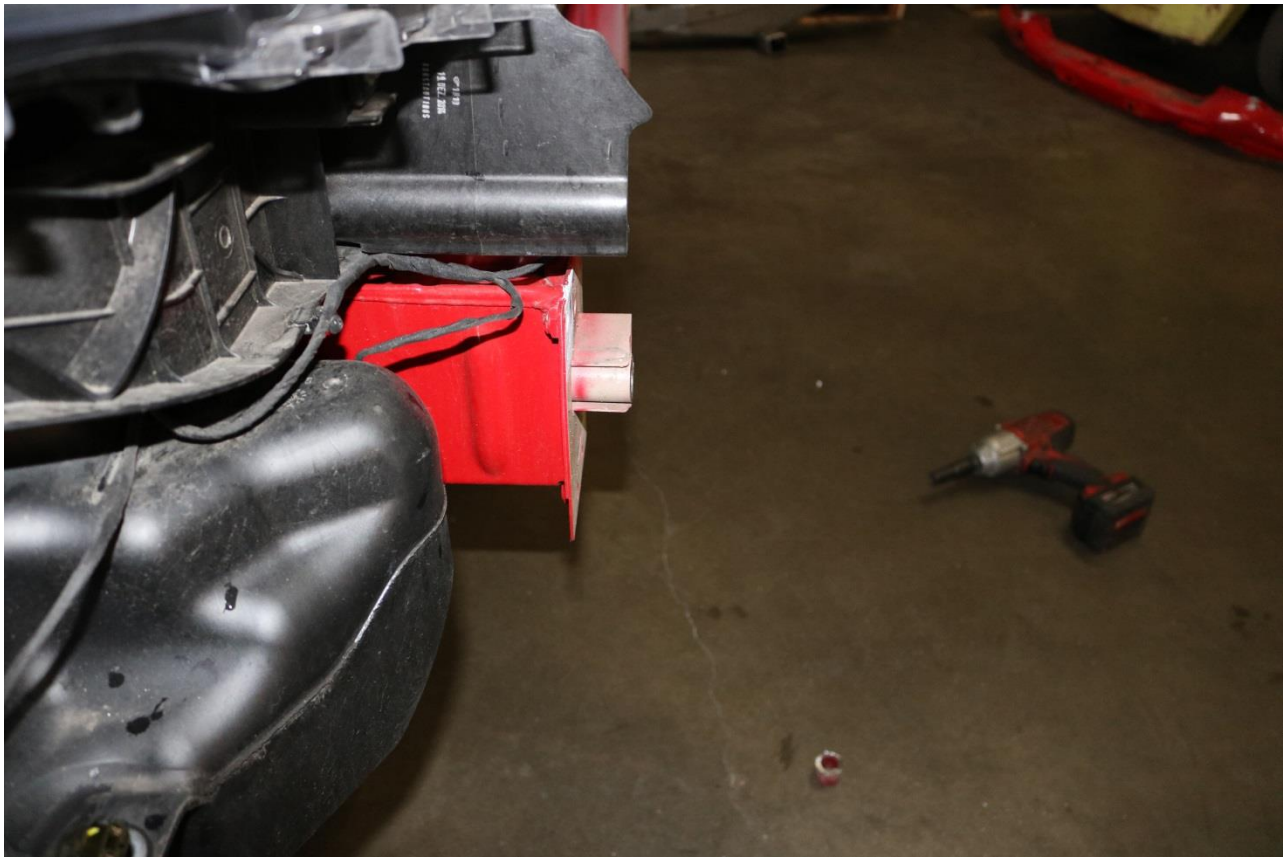
14) If the vehicle is equipped with fog lamps, disconnect the wiring at the lamps in each corner of the bumper
15) Some vehicles will also have a module on the back side of the bumper that will need to be unplugged prior to bumper cover removal. The module appears as shown below.

16) Remove the bumper cover from the vehicle.
17) Remove the bolt securing the DEF tank to the main bumper. Use a 13mm socket / wrench for removal.
18) Remove the 8 bolts securing the bumper to the vehicle. Again, use a 13mm socket / wrench for removal. See image below for reference.

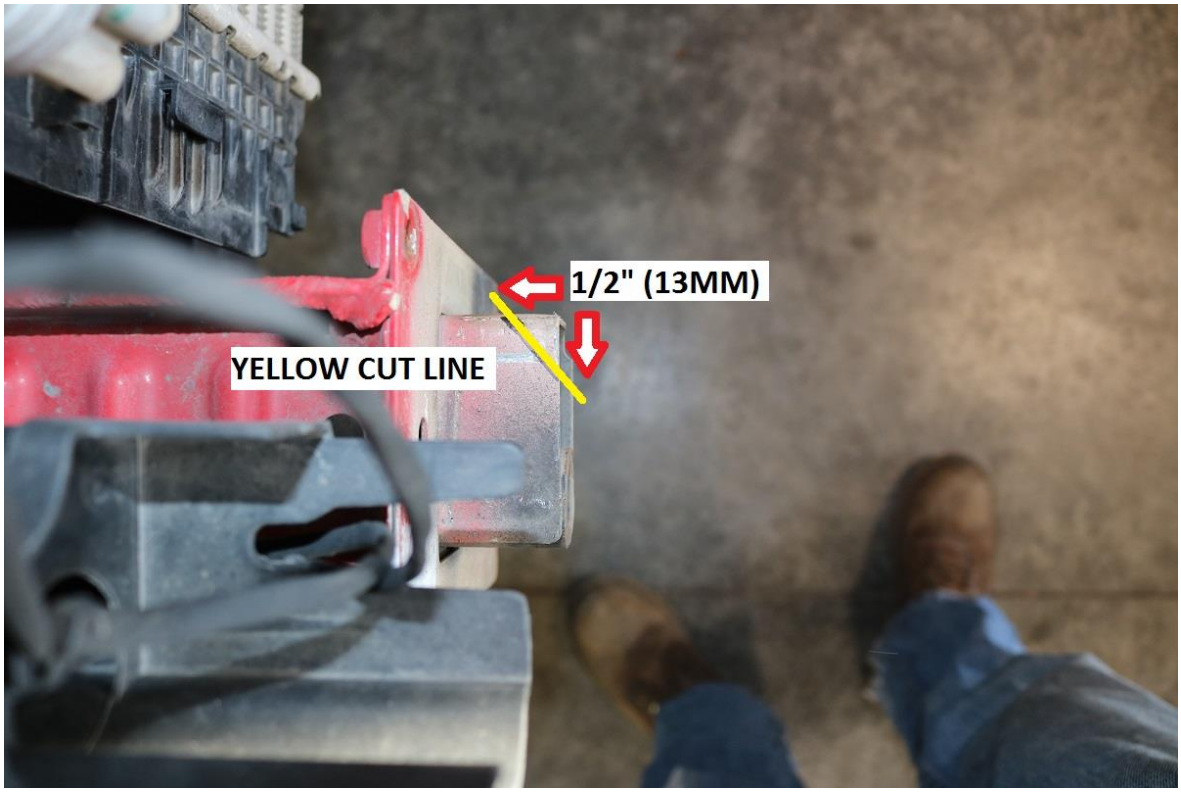
19) Remove bumper from vehicle. Note, some of the glue / undercoating used during assembly can cause the front bumper to be stuck onto the chassis. A rubber mallet or deadblow will help free it from the vehicle.

20) Using 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.

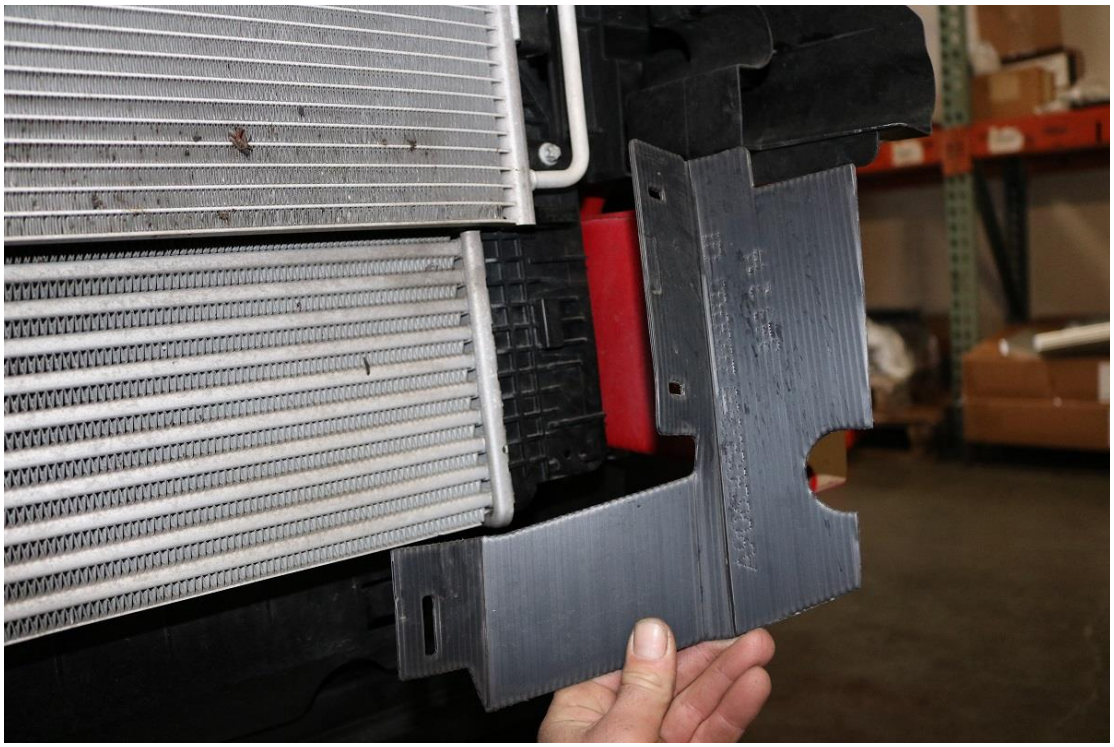




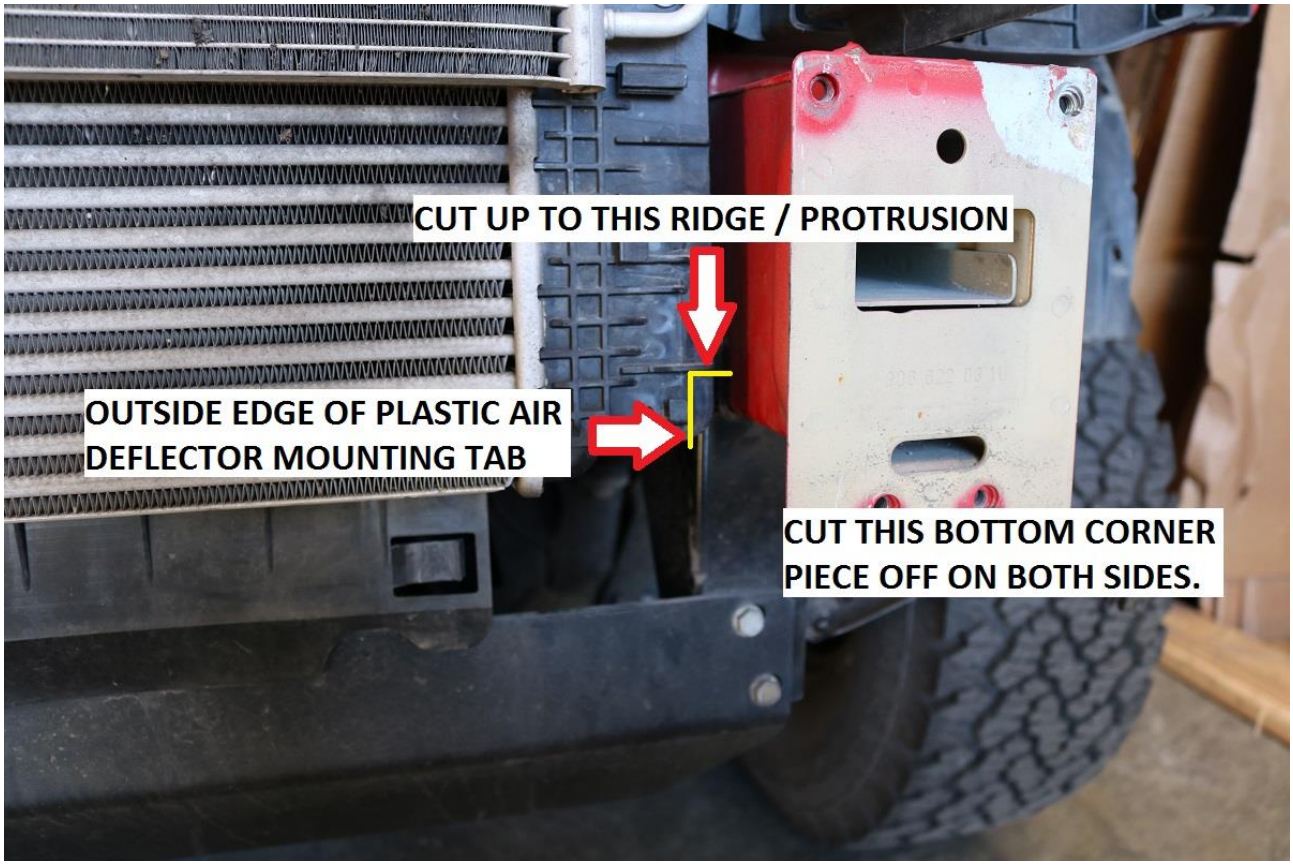
21) Next, on the inside edge of the rectangular protrusion of the factory tow point, mark a diagonal cut line ½" (13mm) back and ½" outwards and cut the inner corner piece off the rectangular mounting tube of the tow point.
    a. See image below for reference.

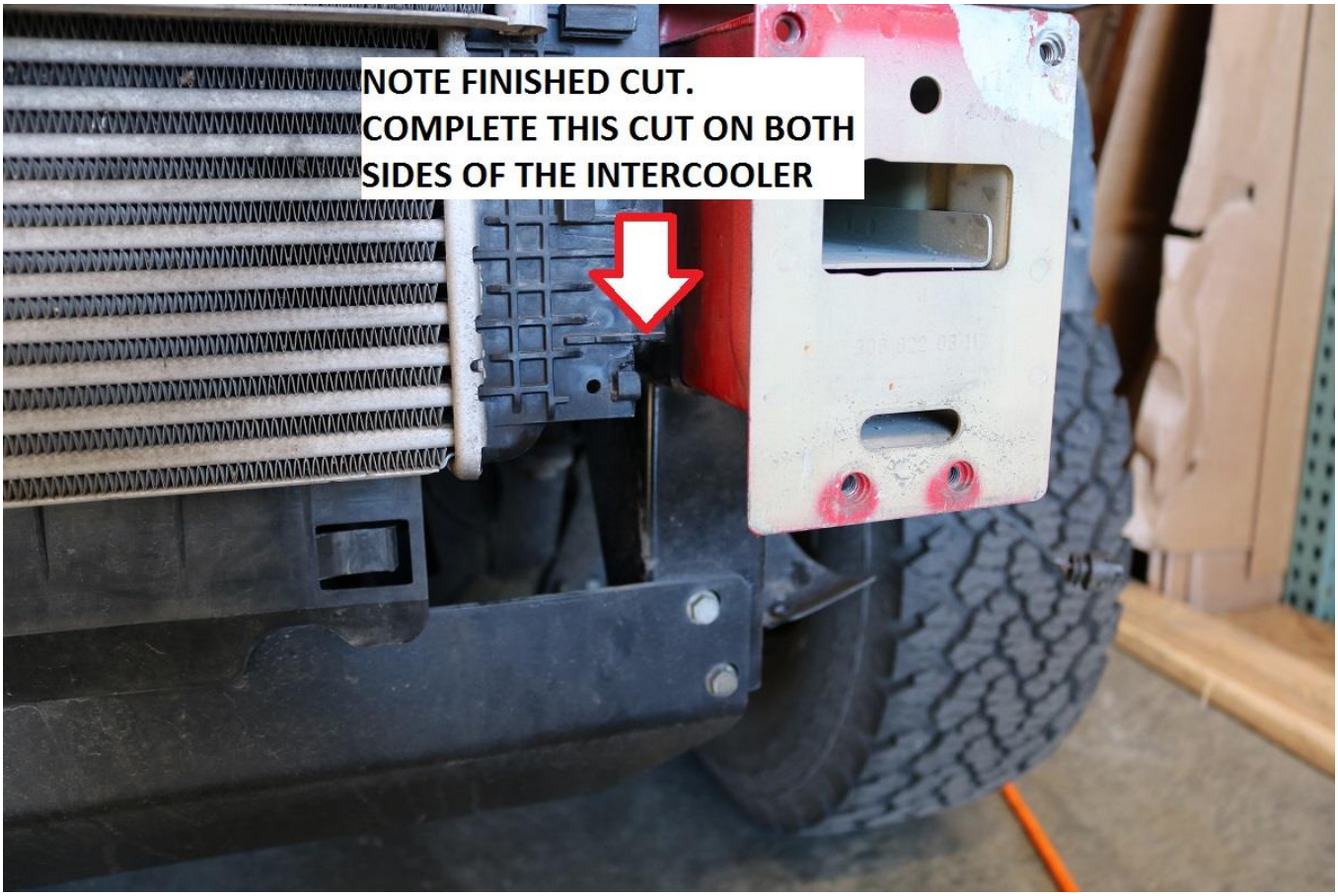


22) After cutting and cleaning up any rough cut edges, paint any exposed areas of bare metal with a quality paint to prevent corrosion.
23) Remove the plastic / cardboard air deflector pieces at the lower corners of the radiator / intercooler. Retain these as they will be re-installed.



24) 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.

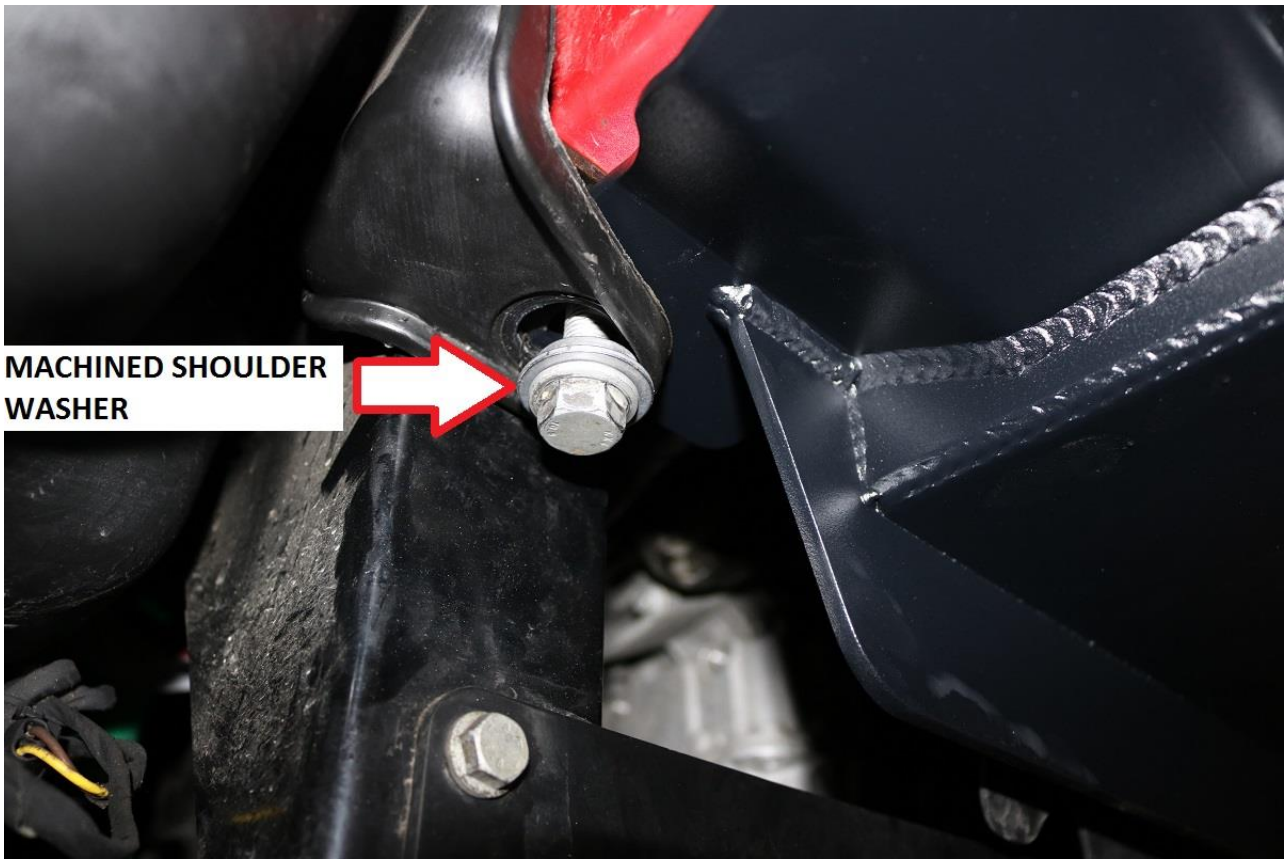




25) Remove the lower bolts on the front over run mounts. Use an 18mm wrench for removal.

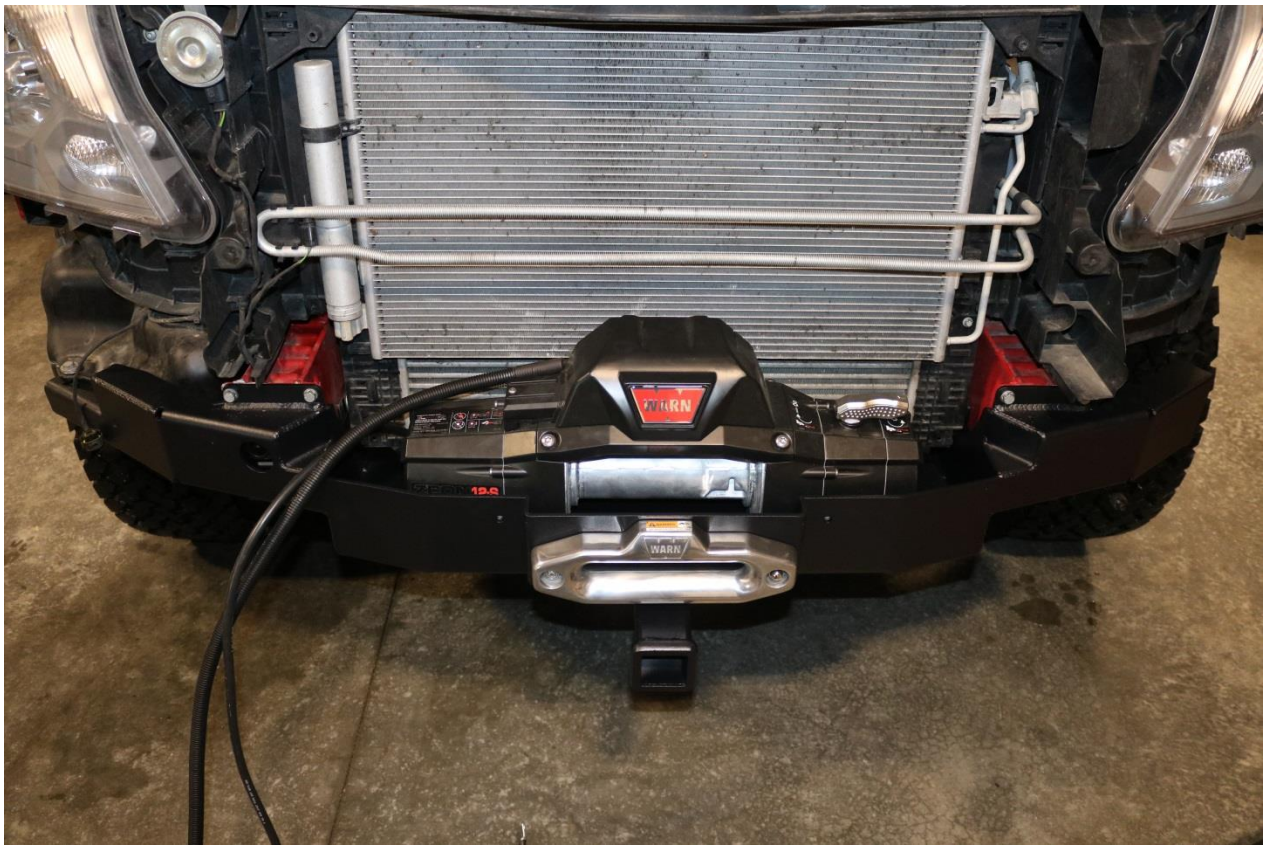
26) Install the front winch mount; be sure the DEF tank outer mounting point is sitting on top of the winch mount.
    a. The winch mount should be positioned between the frame and lower DEF tank mounting bolt. See image below for reference. Note, the factory shoulder washer is removed in the image below.

27) Secure the winch mount to the chassis using the included M8-1.25 bolts. Be sure to use a washer under the bolt head and use a dab of blue Loctite on all hardware. Start and snug down all the front hardware first. Use a 13mm socket / wrench for installation.
    a. Note, the front holes are oversized the same as the factory bumper holes were. Try to align the top mounting plates of the hitch with the top mounts on the chassis. See image below for reference.
28) Install the included M12-1.50 x 40mm long bolts in replace of the lower over run bolts removed in step 25. Note, it is easier to align the lower DEF tank mounting bolt from by unseating the machined shoulder washer and installing it on the bolt rather than try to align the DEF tank with the winch mount. Be sure to use an included washer under the bolt head. Again, use a dab of blue Loctite on the threads.

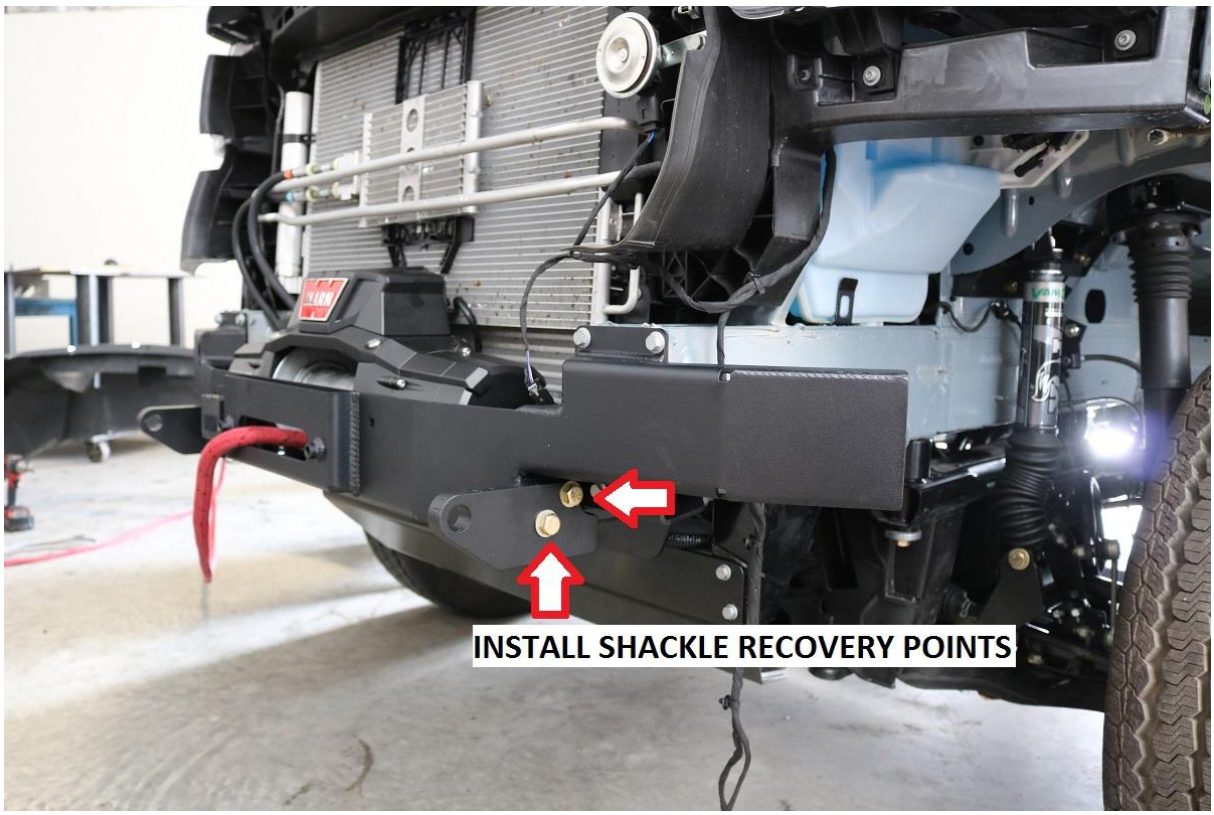


29) Install the small factory DEF tank bolt from above with the included washer / nylock nut. Use the washer under the nut.
30) Snug all bolts but do not fully tighten.
31) Torque the lower over run bolts with an 18mm socket / wrench to 52 ft-lbs (70 N.m).
32) Torque the smaller bolts (13mm wrench size) to 22 ft-lbs (30 N.m).
33) The front winch mount is now installed.

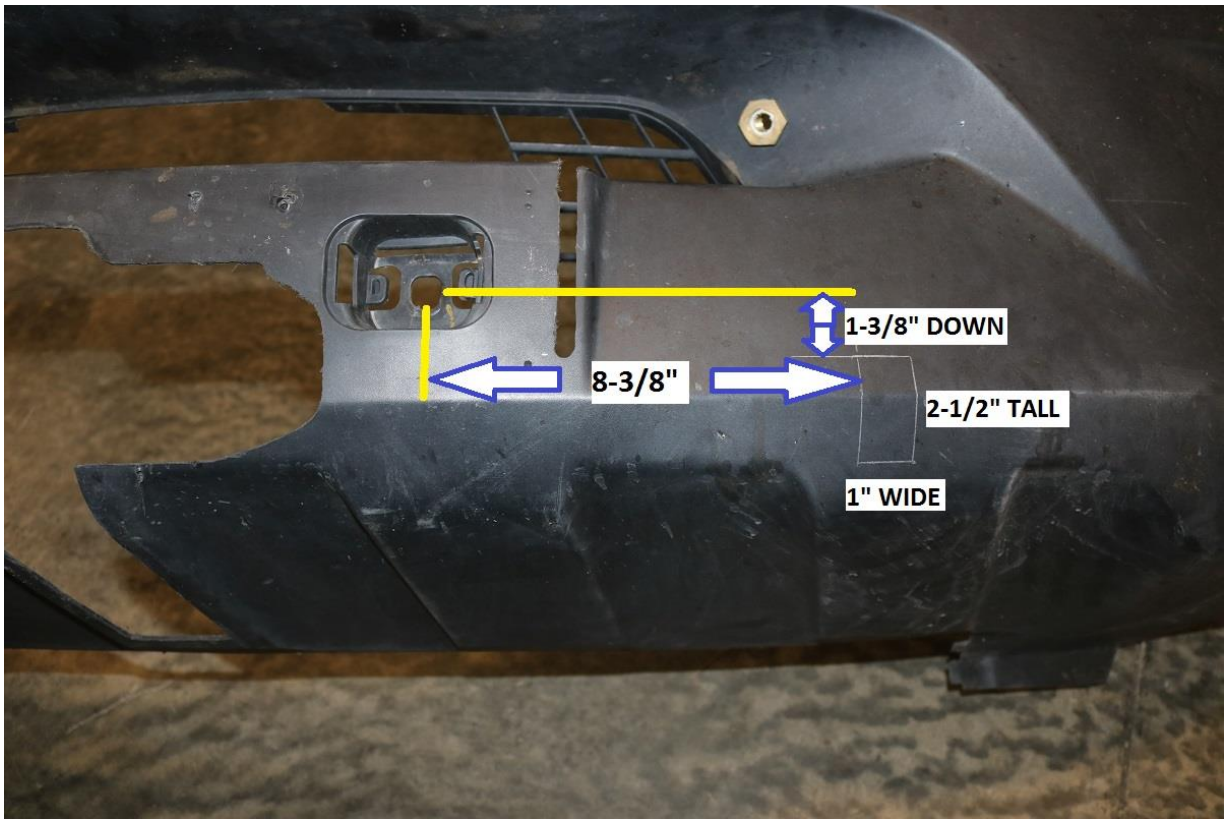
34) At this point, refer to your winch installation instructions and fit the winch to the vehicle. Prior to installing the winch, fit the 3/8-16 x 1.0” long carriage bolts provided and the fairlead attachment bolts as shown below.
    a. Now is also the time to determine if the vehicle will be receiving the front hitch receiver as it attaches to the winch mount using the same 4 bolts which secure the winch to the vehicle.



35) Additionally, determine if the shackle points recovery points will be fitted to the vehicle. Steps 35-37 will cover installation of shackle recovery points as well as bumper trimming. If shackle recovery points are not being installed, proceed to step 38
    a. Bolt the shackle points onto the winch mount using the supplied ½-13 x 2.0" long hex head bolts. Use a washer under both the bolt head and under the stover nut.
    b. Tighten the bolts with a ¾" socket / wrench and torque to 80 ft-lbs.

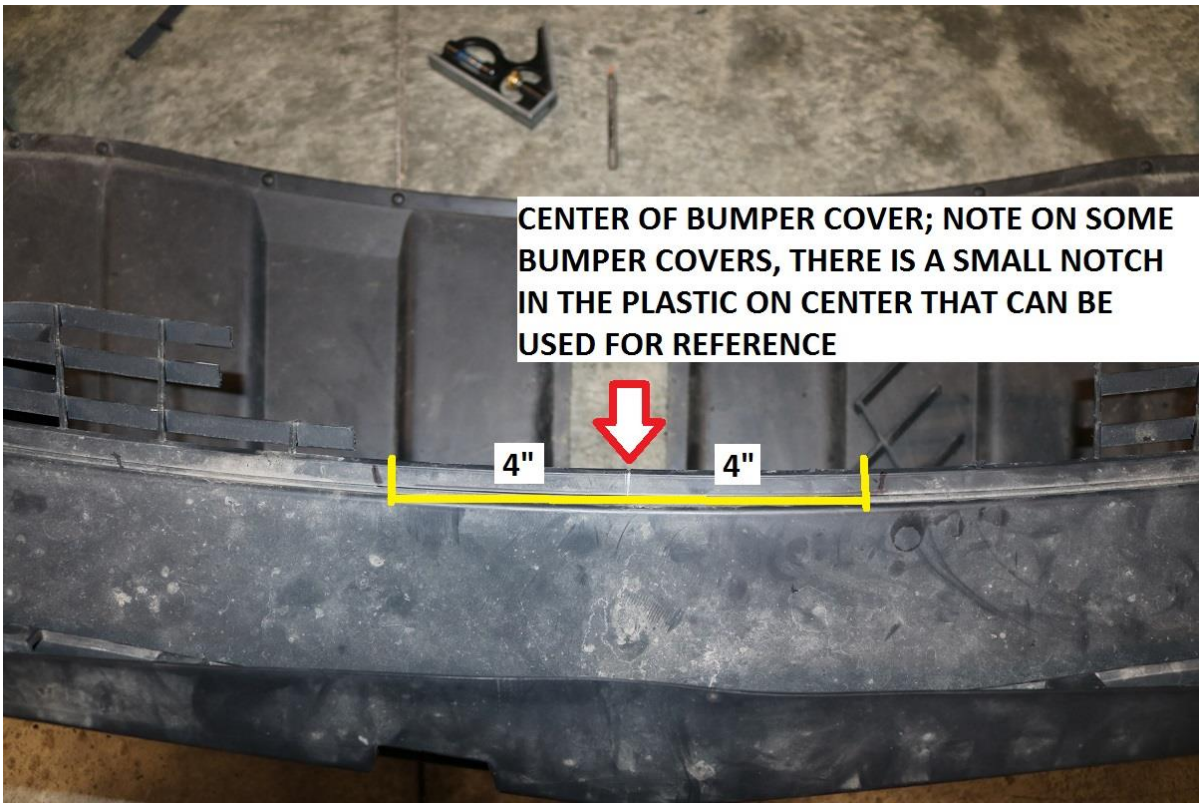


36) Measure 8-3/8" over from the center of the front bumper mounting holes. Mark a vertical line. This is the inside line of an approximately 2-1/2" tall x 1.0" wide rectangular cutout to be made.
    a. Measure 1-3/8" down from the center of the front bumper mounting holes. Mark a horizontal line. This is the top of the 2-1/2" tall x 1.0" wide rectangle to be cut.
    b. Note, these trimming instructions are to be used as a guideline. Additional trimming may be necessary for a clean installation.

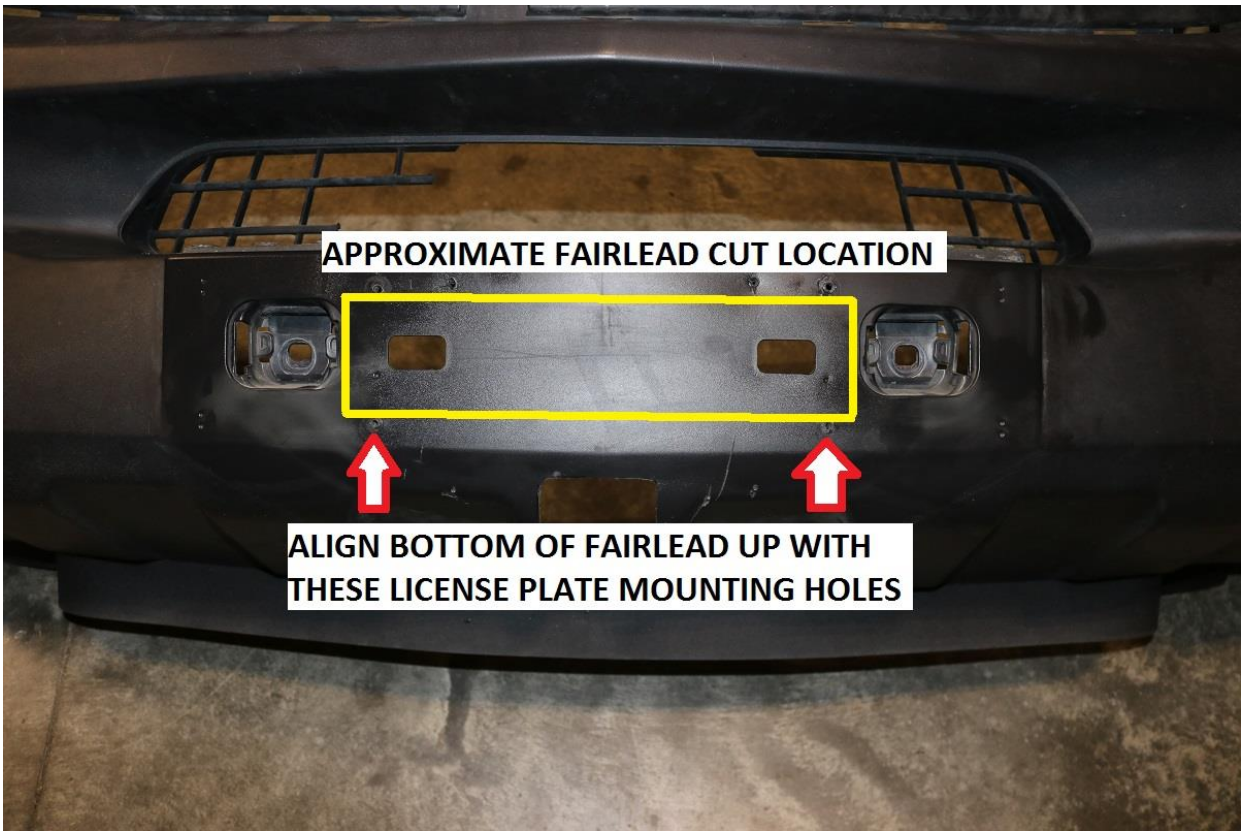


37) Use a body saw or small pneumatic cut off wheel to make the rectangular cuts. Drilling a hole in the corners of the rectangular area to be cut out will help make for a cleaner cut.
    a. Measure / cut on both sides of the bumper if both tow points are to be installed.
    b. Again, these cut instructions 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) Trim the front bumper cover for the winch fairlead to protrude through.
    c. The first trimming steps will cover fitment for winch / winch fairlead.
        i. Note, the bumper cover trimming in these instructions, covers fitment for a Warn Zeon-12 winch. Trimming for other winches will be very similar.
    d. The second trimming steps will cover the installation of the front hitch receiver.
39) Separate the front step tread plate from the front bumper cover.
40) Begin by trimming the front bumper cover for winch fitment.
    e. See image below for cut line reference.

41) Continue cuts along the vertical ribbing to finish cutting out the center lower grill structure.
42) Next, with the bumper cover sitting upright, locate the inner ridge just above the lower grill portion trimmed out in the previous step.
    f. Locate the center of the bumper cover and mark 4” in either direction. See image below for reference.
    g. Cut out this small rectangular piece to clear the top of the winch.



43) Next, fit the fairlead to be used to the bumper cover. Align the bottom of the fairlead with the bottom license plate mounting holes. Trace the outer profile of the fairlead to mark the cutlines.
    h. Note, this cut does not need to be super precise as the front license plate mount will be covering this cut.
    i. See image below for reference.



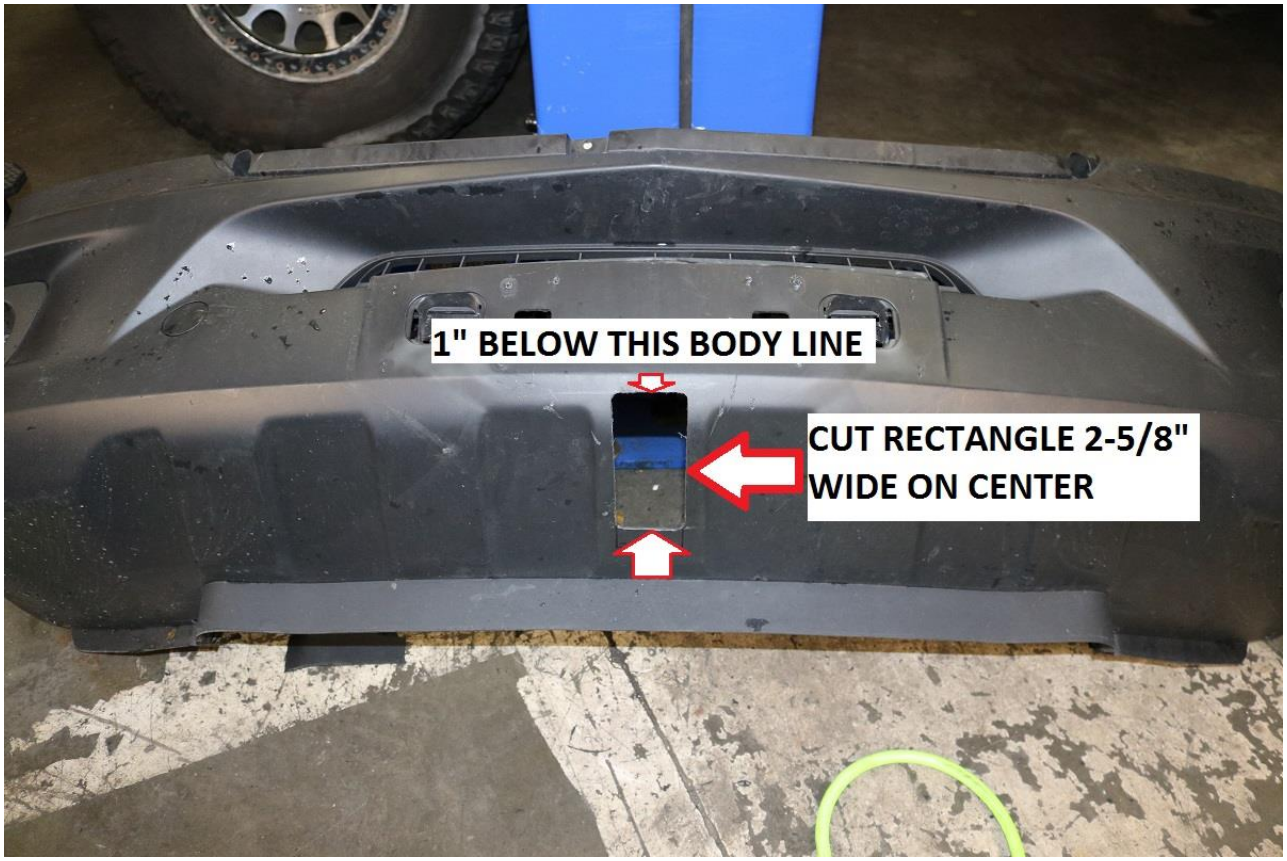
44) If the front receiver is not being installed, trimming of the front bumper cover is now complete and the installer can move along to step 43.

j. If the front receiver is being installed, continue along to step 42.

45) Mark on center a 2-5/8” wide by 7” long (66mm X 178mm) rectangle as shown in the image below.

k. The top of the cut out should be approximately 1” (25mm) from the bottom of the main center body line of the front bumper cover.

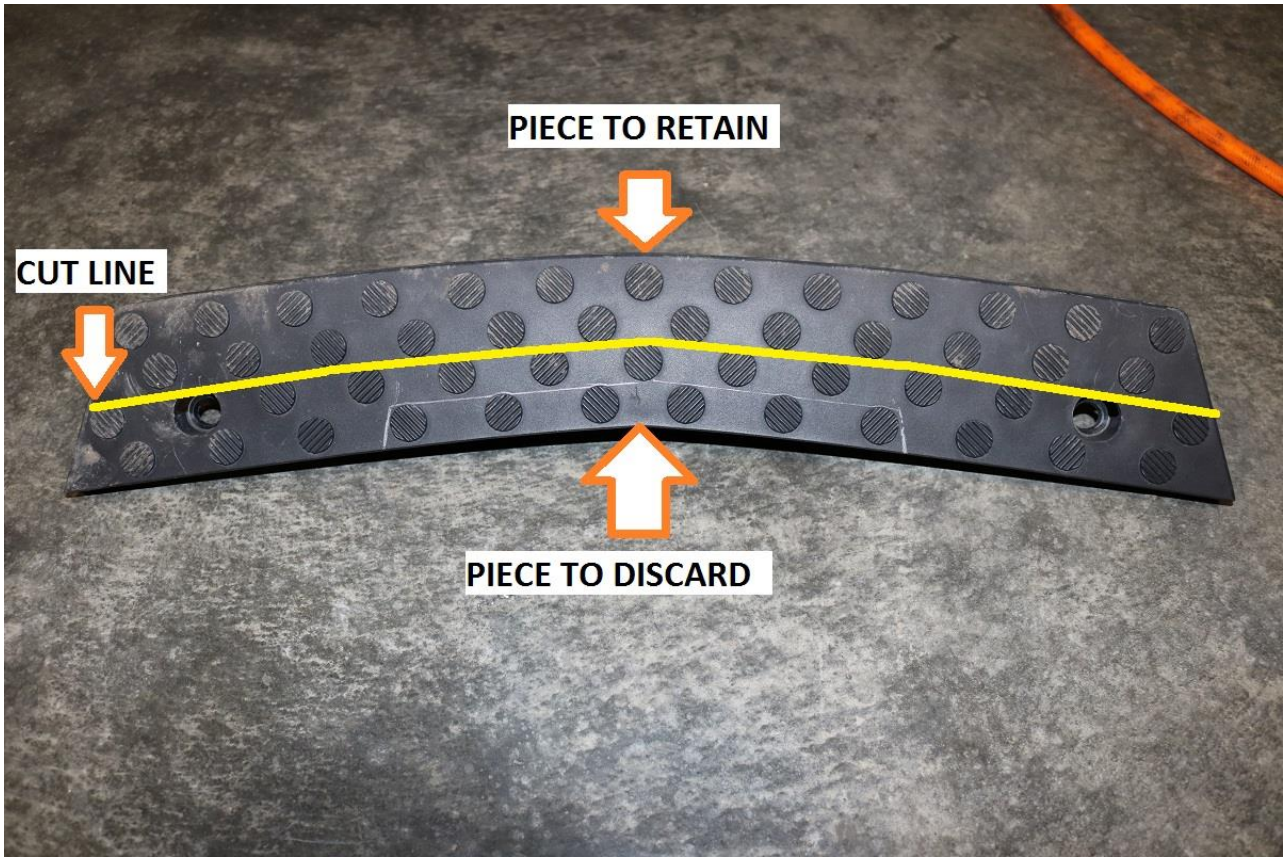
l. The bottom of the cut out should be approximately 2-1/2” (64mm) from the lower air damn.



46) On the underside of the step tread plate there are two portions of the mount which need to be removed. At the outer ends of the front mounting surface of the step tread, locate the outer portions which bend towards the front mounting surface of the tread plate.

47) Use a small air sander, or angle grinder with sanding disc, or a Dremel style tool to remove these "wings." This will allow the tread plate to sit flat on the front winch mount. See images below for reference of the finished modification.

48) Mark a cut line halfway through the tread plate using the raised circular protrusions and the photo below as a guide. Note that the front portion of the tread plate is what will be retained and re-installed onto the vehicle.



49) Install the fairlead onto the winch mount. Refer to winch instructions for torque specs.

50) Snap the step tread plate back into place on the front bumper cover and re-install the front bumper cover in the reverse order of removal.

    m. Note, for some fairleads, the horizontal rib running the length of the step tread plate may need to be trimmed to fully clear the fairlead.
    n. Secure the front bumper cover to the winch mount using the carriage bolts previously installed. Use the included 3/8-16 nylock flange nuts included with the kit to secure.

51) Remember to plug in all electrical components when re-installing the front bumper cover.

    o. Fog lights.
    p. Module on back side of bumper (see step 16)
    q. Ambient air temperature sensor

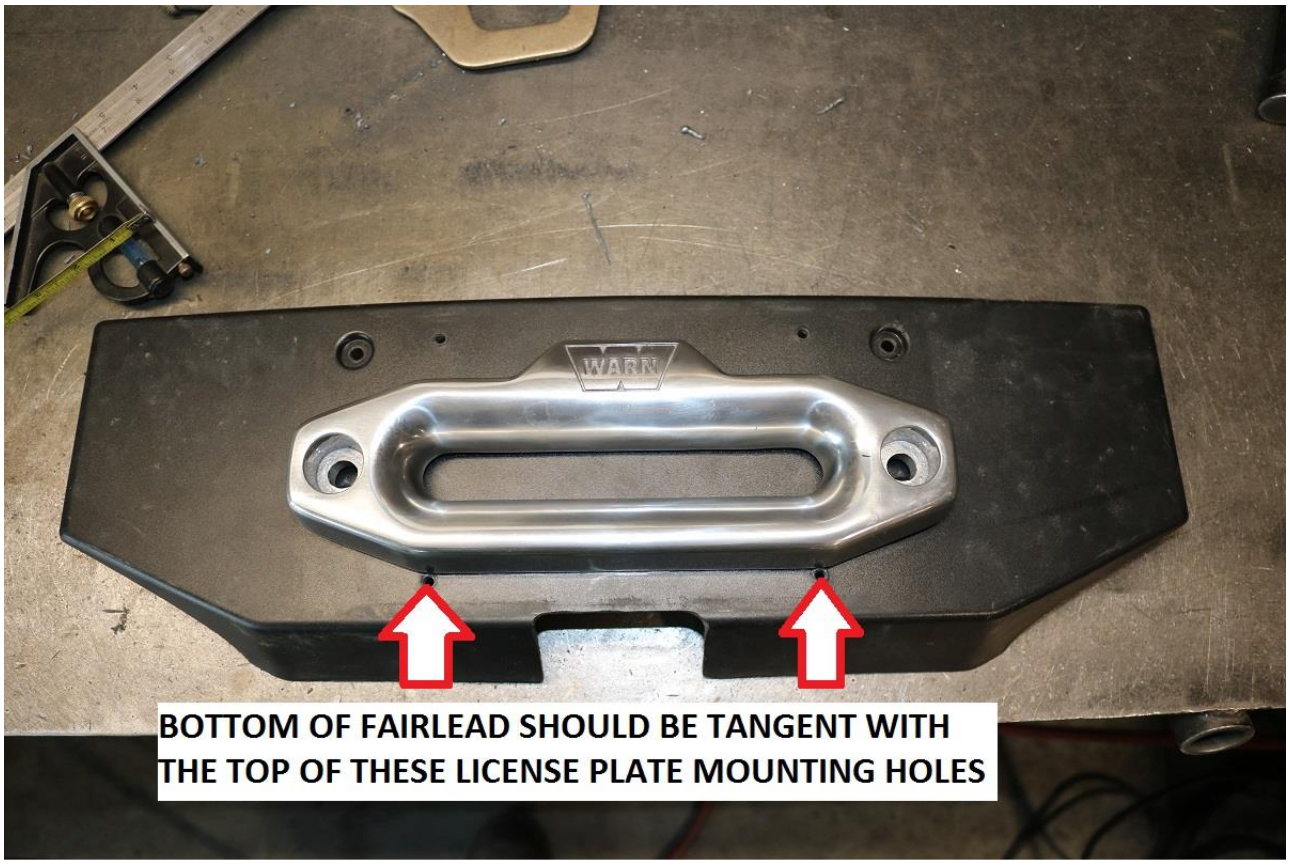
52) Re-install the two torx head bolts removed in step 11.

53) Trim the license plate mount as shown below if the front receiver is installed.

54) Fit and mark the outer cut profile of the winch fairlead on the license plate mounting panel.

r. Note, the bottom edge of the fairlead should be tangent with the top of the lower license plate mounting holes.

s. Center the fairlead as shown and carefully mark and trim the hole for the fairlead to protrude through.



55) Re-install the grill along with all corresponding fasteners.

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.