



7218 – 2023-PRESENT, MERCEDES SPRINTER AWD, FRONT 2.0” LIFT KIT

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 lift kit that can be installed with basic hand tools.
- The installation of this lift kit will require removal of brake hoses to install brake line drop brackets. Bleeding the brake system will be required.
- **DISCLAIMER:** This lift kit will require two holes to be drilled in the suspension subframe to rotate the front differential slightly to achieve proper driveline angle. However, even with this diff rotation, the front driveshaft does see an increase in operating angle. We cannot guarantee dealer warranty of front driveshaft issues should it show premature signs of wear at a later date.
 - Note a right angle drill is required for differential rotation cam washers to be installed.
- With this lift kit, 315/75/16 (35”) tires can be fitted with the following conditions met:
 - Trimming of the front mudflaps
 - Slight trimming of the rear of the front fender
 - Installation of Van Compass Big Tire Mudflap Bracket kit (Part Number: 4063)
 - Trimming of the front bumper and front plastic inner fender well liner
 - Minimum of a 9/16” (14mm) wheel spacer installed. This is for tire clearance between the inside of the tire and the strut.
 - Note; this could be omitted with an additional 9/16” (14mm) offset on aftermarket wheels.
- These instructions will outline the full lift kit installation along with the appropriate modifications required to clear a 315/75/16 tire on a factory steel wheel.
- **NOTE:** Vehicles equipped with Distronic / Brake Assist (AKA; Adaptive Cruise Control) can run a maximum tire size of 275/75/16 or 275/70/17. Fitment of a larger tire than that will cause the Distronic system to not function.
- **Note:** Many of the photos in these instructions are taken from a lift kit install on a 2019 2wd Sprinter van. While there are differences in the chassis, the installation process is the same. 4x4 specific photos are added where needed.
- **Note:** If a Van Compass skid plate system is installed on the vehicle, it must be removed for the duration of the lift kit installation. The full skid plate system can be re-installed with the addition of a new front steel “Bash Plate” designed for the 2.0” lift. Van Compass part number: 4029

Parts List

1013 – 2007-PRESENT, MERCEDES SPRINTER NCV3 / VS30, FRONT STRUT SPACER, 2.0” LIFT KIT

- (1) 101301-L FRONT STRUT SPACER, LEFT HAND SIDE
- (1) 101301-R FRONT STRUT SPACER, RIGHT HAND SIDE
- (8) HM08-1.25-30-10.9 M8-1.25 X 30MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (8) WFM08 M8 YELLOW ZINC FLAT WASHER

1014 – 2007-PRESENT, MERCEDES SPRINTER NCV3 / VS30, FRONT SUB FRAME DROP SPACERS, 2.0” LIFT KIT

- (4) 101401-01 FRONT SUBFRAME DROP SPACER, FRONT AND REAR PUCK
- (2) 101402-01 FRONT SUBFRAME DROP SPACER, MIDDLE PUCK
- (2) HM14-1.50-130-10.9 M14-1.5 X 130MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (2) HM14-1.50-165-10.9 M14-1.5 X 165MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (2) HM14-1.50-210-10.9 M14-1.5 X 210MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (6) WFM14 M14 YELLOW ZINC FLAT WASHER
- (1) LTBL-02 BLUE LOCTITE, 2ML TUBE

2009 – 2019-PRESENT, MERCEDES SPRINTER VS30 4WD, STEERING SHAFT EXTENSION, 2.0” LIFT KIT

- (1) 200901 SPRINTER VS30 4WD, 2.0” STEERING SHAFT EXTENSION
- (1) SM08-1.25-25-12.9 M8-1.25 X 25MM LONG, GR12.9, CLEAR ZINC SOCKET CAP SCREW

4009 – 2007-PRESENT, MERCEDES SPRINTER RWD & AWD, TRANSMISSION MOUNT LIFT BRACKET, 2.0” LIFT KIT

- (1) 4009 TRANSMISSION MOUNT LIFT BRACKET
- (2) HM10-1.50-130-10.9 M10-1.50 X 130MM LONG, GR10.9, ZINC PLATED HEX HEAD BOLT
- (2) WFM10 M10 CLEAR ZINC FLAT WASHER
- (4) HM08-1.25-70-10.9 M8-1.25 X 70MM LONG, GR10.9, ZINC PLATED HEX HEAD BOLT
- (3) HM08-1.25-150-10.9 M8-1.25 X 150MM LONG, GR10.9. ZINC PLATED HEX HEAD BOLT
- (4) WFM08 M8 FLAT WASHER, CLEAR ZINC

4081 – 2007-PRESENT, MERCEDES SPRINTER NCV3 / VS30, MOTOR MOUNT LIFT BLOCK, 2.0” LIFT KIT

- (1) 408101-LH MOTOR MOUNT LIFT BLOCK, DRIVER SIDE
- (1) 408101-RH MOTOR MOUNT LIFT BLOCK, PASSENGER SIDE
- (4) HM10-1.50-30-10.9 M10-1.50 X 30MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (4) NNM10-1.50 M10-1.50 NYLOCK NUT, CLEAR ZINC FINISH
- (8) WFM10 M10 YELLOW ZINC FLAT WASHER

4024 – 2007-PRESENT, MERCEDES SPRINTER NCV3 / VS30, FRONT BRAKE LINE DROP BRACKET, 2.0" LIFT KIT

- (2) 402401 FRONT BRAKE LINE DROP BRACKET, 2.0" LIFT
- (2) HM12-1.50-25-10.9 M12-1.50 X 25MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (2) NNM12-1.50 M12-1.50 NYLOCK NUT, CLEAR ZINC
- (2) WFM12 M12 YELLOW ZINC FLAT WASHER

4103 – 2023-PRESENT, MERCEDES SPRINTER AWD, FRONT DIFFERENTIAL CAM WASHERS

- (2) 410301 FRONT DIFFERENTIAL CAM WASHER, DRIVER SIDE
- (2) 410302 FRONT DIFFERENTIAL CAM WASHER, PASSENGER SIDE
- (2) SM12-1.50-100-10.9 M12-1.50 X 100MM LONG, GR10.9, SOCKET CAP SCREW
- (2) NSM12-1.50 M12-1.50 STOVER NUT, CLEAR ZINC
- (4) WFM12 M12 YELLOW ZINC FLAT WASHER
- (1) HB-6-00 3/8" ID HOSE BARB EXTENSION, BRASS, STRAIGHT
- (1) 410303 3" LONG PIECE OF TRANSMISSION COOLER HOSE
- (2) HC-PS HOSE CLAMP
- (1) BIT-12-SL DRILL BIT, 12MM, SHORT LENGTH

Tools Needed

- Two vehicle jacks and 4 jack stands.
 - Optional – Automobile lift, one transmission jack, and two screw jacks.
- Simple hand tools:
 - Torque Wrench
 - Dykes or similar tool for cutting zip ties.
 - Body trim removal tools
 - Basic wrench and socket set:
 - Metric sizes: 10mm, 13mm, 16-19mm, 21mm, 24mm
 - T-25, T-27, T-45 torx
 - 6mm Allen
- Right angle drill and quality 1/4" (6mm) metal cutting drill bit for pilot hole drilling.
- Heat gun
- 4-1/2" Angle grinder with flap disc, or similar sanding tool for light material removal.
- Die grinder with 1/4" – 3/8" diameter burr bit.
 - A 4-1/2" angle grinder with grinding wheel can also be used in substitute of this.

Approximate Installation Time

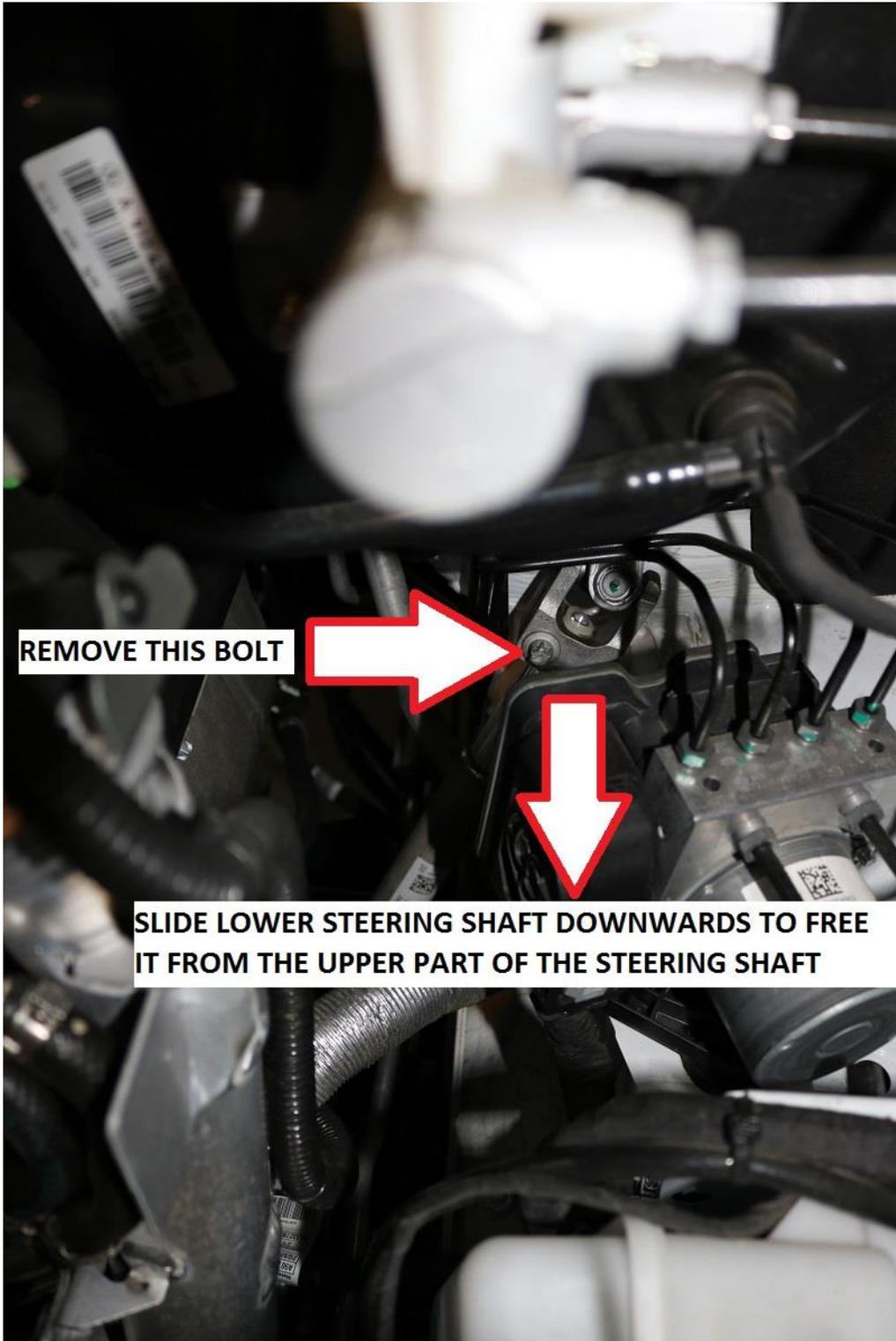
- Professional shop with automotive lift: 6-8 hours
- Driveway install with jack and jack stands: 8-10 hours

Installation

- 1) Disconnect ground cable from battery underneath the driver (left hand) side floor board.
- 2) Locate the two T25 torx screws which secure the floor mat cover to the door sill.



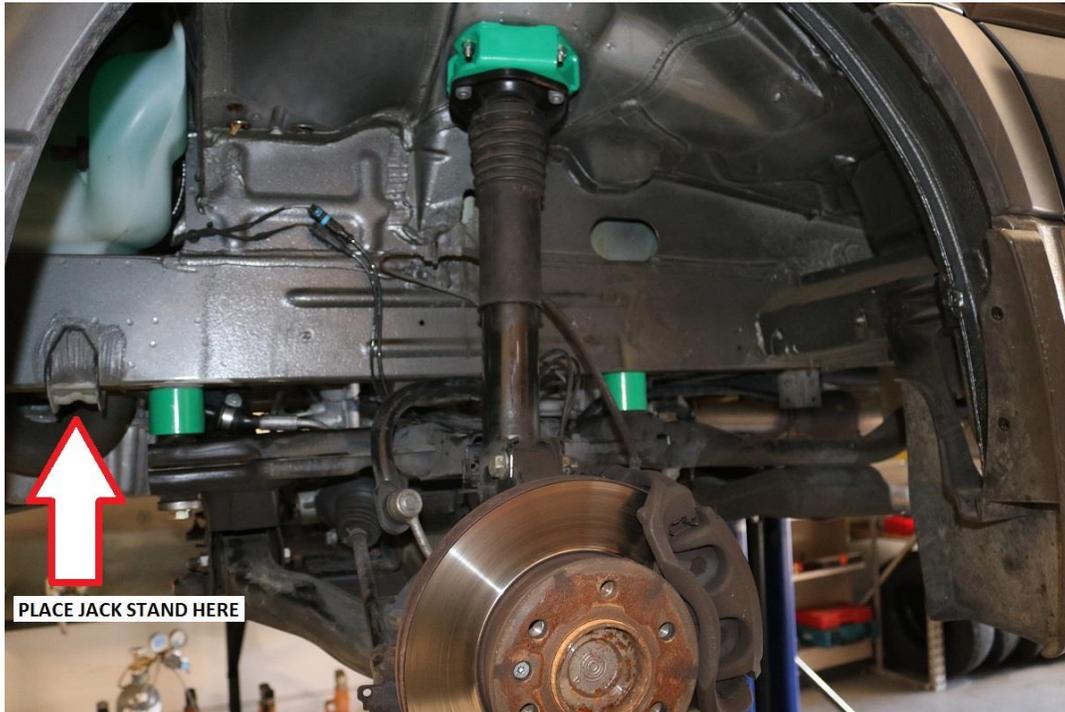
- 3) Remove the driver side floor mat and locate the four T-27 Torx bolts which secure the battery cover to the vehicle. Loosen all four bolts so the cover plate can be slid back and up for removal.
- 4) With the battery exposed, remove the ground cable from the negative side of the battery using a 10mm socket / wrench.
- 5) Before lifting the vehicle on a lift or placing it on jack stands, the upper portion of the lower steering shaft must be disconnected from the vehicle. Set the steering wheel straight and keep reference of its orientation throughout the install. Do not spin it 360 degrees out of alignment as this will cause the steering wheel position sensor to read incorrectly.
- 6) Under the hood, locate the steering shaft connection just behind the ABS control module on the driver side of the vehicle.
 - a. Remove the bolt using an inverted torx socket, size E12.
 - b. Retain the bolt as it will be reused.
 - c. Once this bolt is removed, slide the lower portion of the steering shaft down to separate it from the upper connection point of the steering shaft. See image below for reference.



REMOVE THIS BOLT

SLIDE LOWER STEERING SHAFT DOWNWARDS TO FREE IT FROM THE UPPER PART OF THE STEERING SHAFT

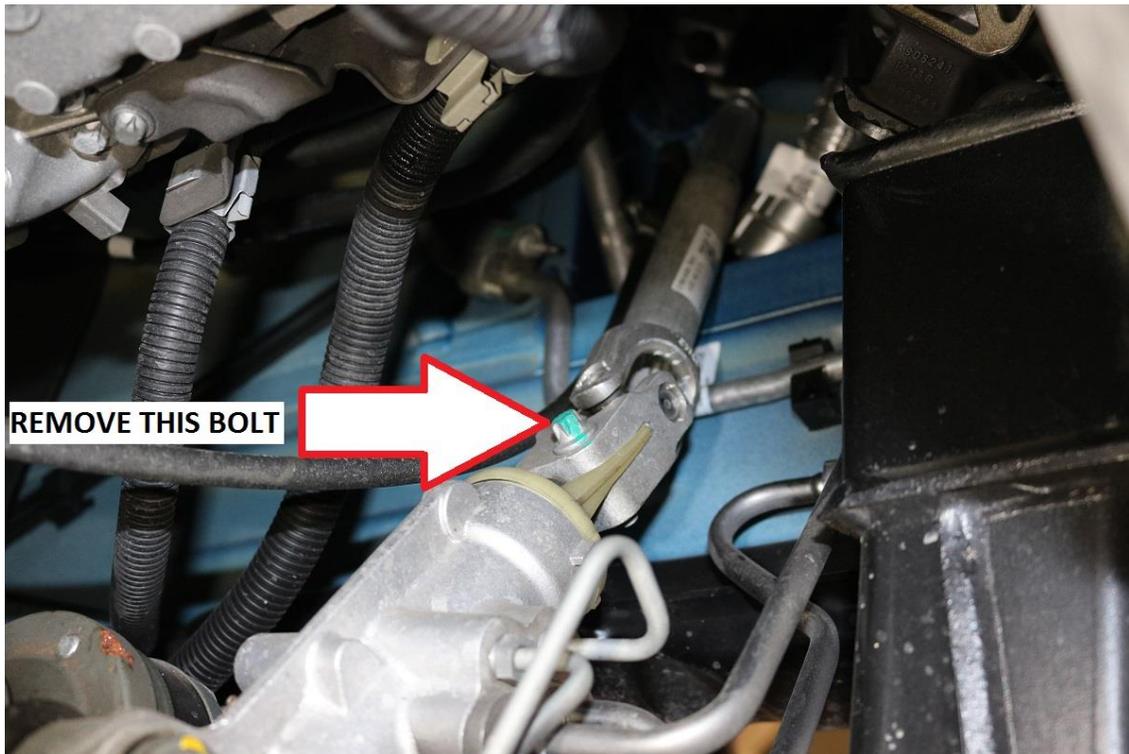
- 7) Now the vehicle can be placed on jack stands or raised on a lift. Be sure that the entirety of the front suspension sub frame is not supported and can be lowered away from the main chassis of the vehicle.
- a. If performing this installation on the ground with a jack and jack stands, place the jack stands just forward of the suspension sub frame.



- b. If performing this installation on an automobile lift, place lifting point just forward of the gas tank on the vehicle's main chassis section. Mirror this location on the passenger (right hand) side.



- 8) With the vehicle safely raised so the front suspension is completely unloaded, locate where the steering shaft connects to the steering rack underneath the vehicle. Use an E12 inverted torx socket and remove this bolt. Remove the steering shaft from the rack and pinion splines and remove from vehicle.



- 9) Note the installation of the front lift kit must be done simultaneously on both the left and right sides of the vehicle. Complete steps on both sides of the vehicles unless otherwise specified.

- 10) Remove the front inner fender well liner by first removing 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.



- 11) 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.



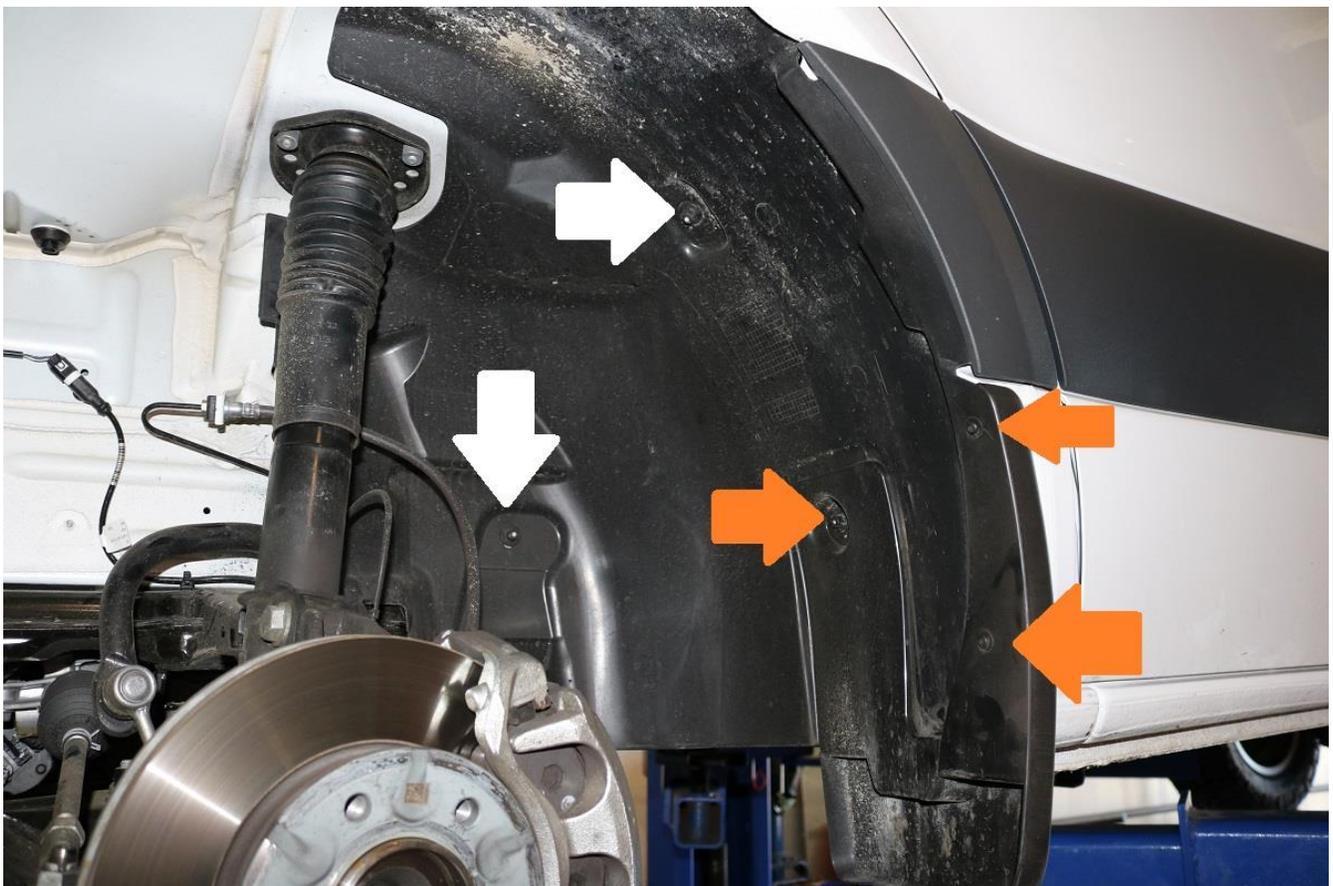
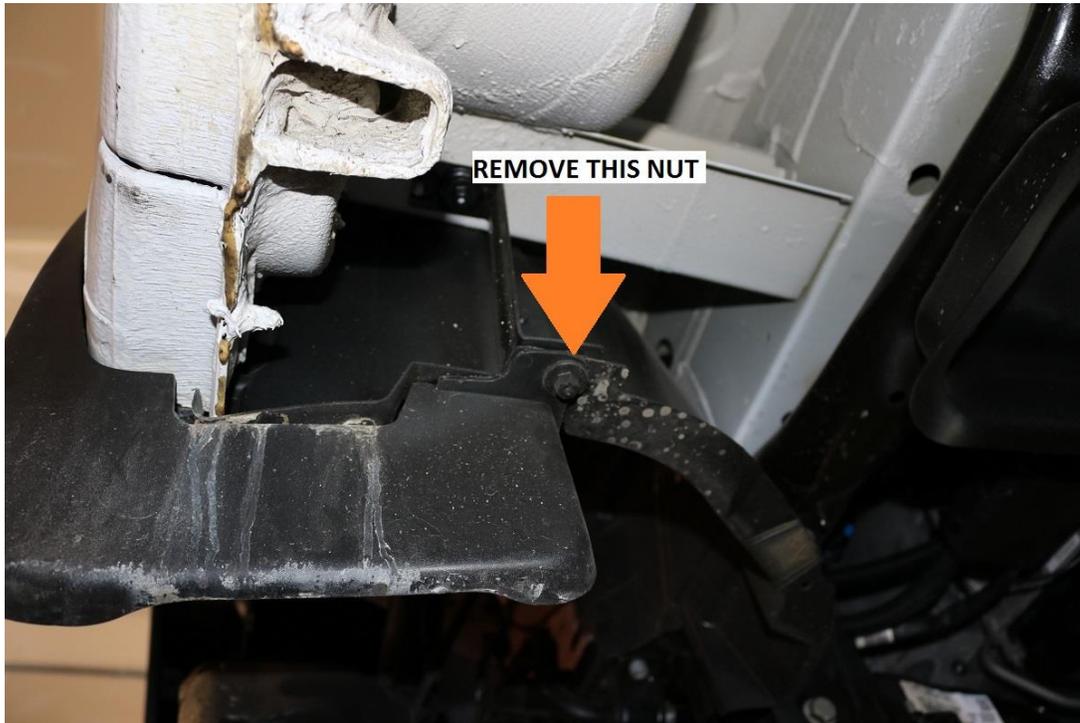
- 12) Next, on the inside of the fender well, remove the three push pin fasteners near the outer lip of the bumper.



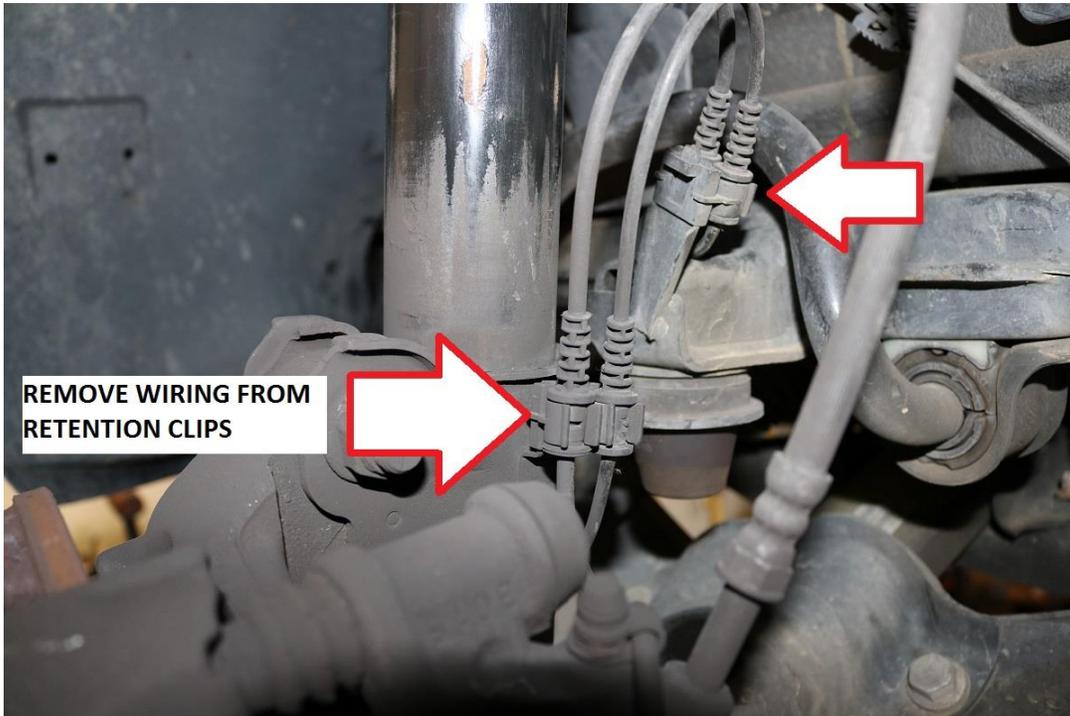
- 13) Locate and remove the three plastic nuts securing the front half of the inner fender well liner to the chassis. Use a 10mm socket for removal.

14) Remove the mudflap by removing the two T-25 torx screws and two 10mm plastic nuts securing it to the vehicle. All fasteners denoted with an orange arrow in the images below must be removed for mudflap removal.

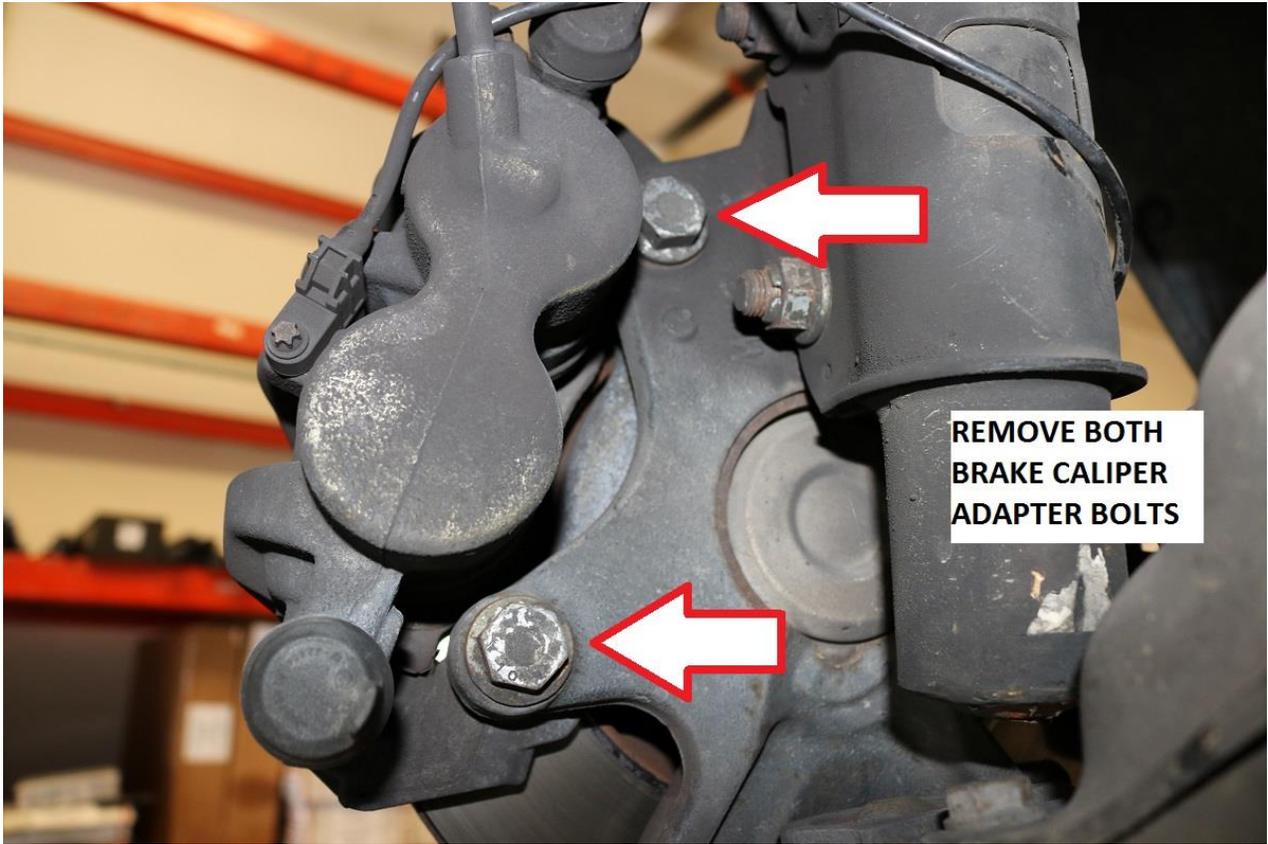
- a. Note, there is one plastic 10mm nut on the underside of the vehicle towards the center of the wheel well. See images below for reference.



- 15) Locate and remove the remaining two plastic 10mm nuts securing the rear half of the inner fender well liner to the chassis. These are denoted in the image above with the white arrows.
- 16) Remove the rear half of the inner fender liner first by pulling it free of the threaded studs and out from under the lip of the fender itself.
- 17) Remove the front half of the inner fender liner by pulling the outer edge out from under the lip of the plastic bumper cover and from the outer lip of the metal fender. Rotate down so the liner clears the threaded studs and remove from vehicle.
- 18) Remove wheel speed sensor and brake pad wear sensor wiring from their respective retention clips on the strut and on the inner fender. See images below for reference.



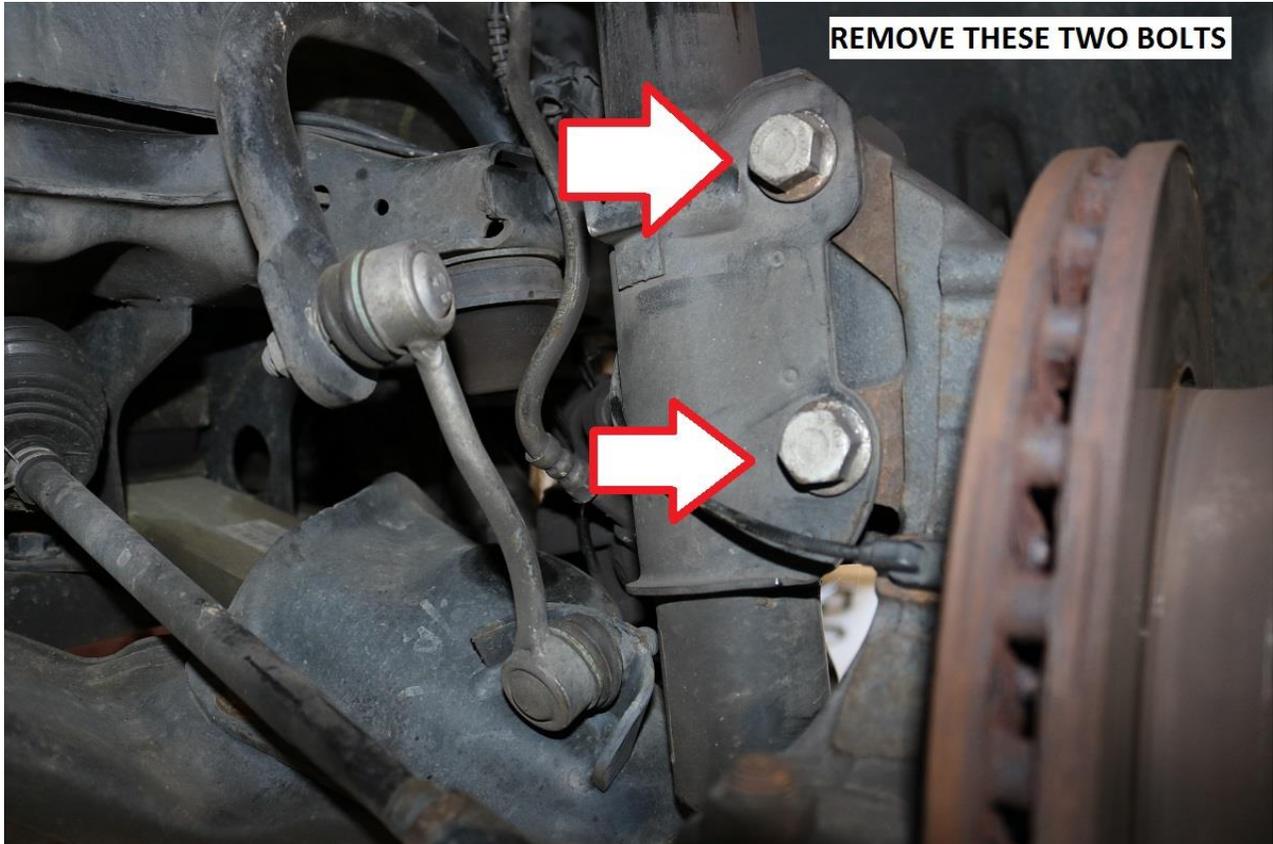
19) Use a 21mm socket to remove the front brake caliper adapter bolts. There are two bolts per caliper.



20) Remove the brake caliper from the rotor and secure up out of the way. Do not allow the caliper to hang by the brake hose.



21) Raise the lower control arm about 3/8" (10mm) to remove tension from the strut. Use a 21mm socket to remove the 2 bolts securing the strut to the steering knuckle.



22) With the strut disconnected from the steering knuckle, allow the lower control arm to hang free again. Be careful to slowly lower the knuckle out of the strut. Be sure the wheel speed sensor wire is not strained.



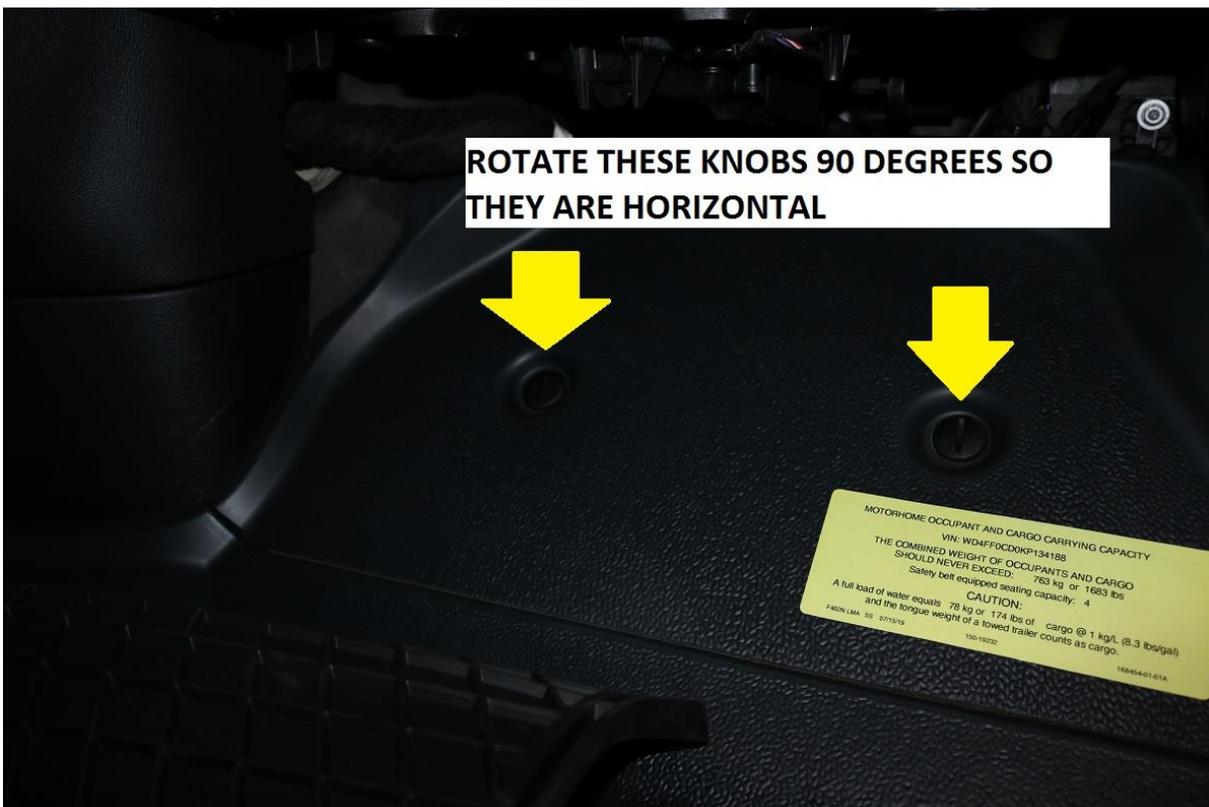
23) Fully remove the strut by removing the four upper strut bolts inside the cabin of the vehicle. Use a 13mm socket / wrench for removal.

- a. Note; it is helpful to have one person hold / remove the strut while another person removes the four bolts from inside the vehicle as to prevent the strut from just falling on the ground.
- b. Label which side of the vehicle each strut came from. Re-install on the same side they were removed from.



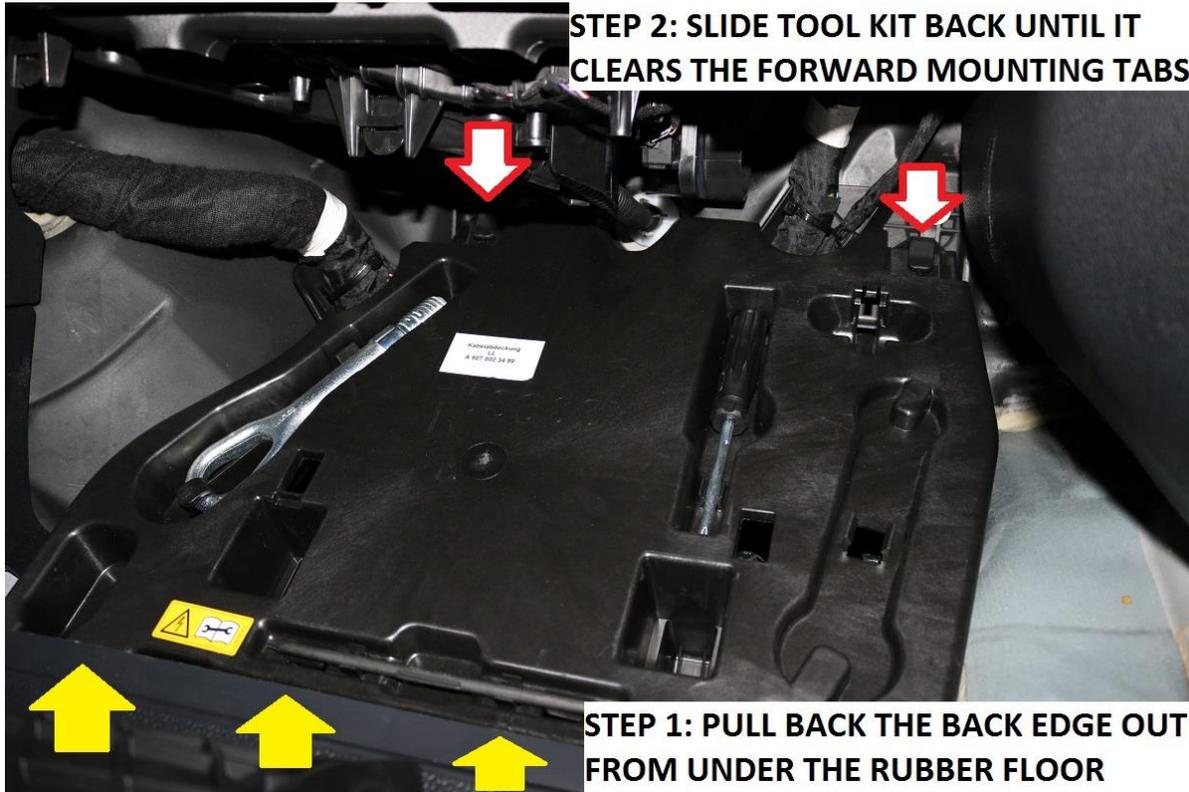
24) The passenger side upper strut bolts can be accessed by pulling up the tool kit cover panel in the passenger footwell. Use a large flat blade screwdriver to rotate the lock knobs on the kick panel so they are horizontal.

- a. Remove the kick panel. See image below for reference.

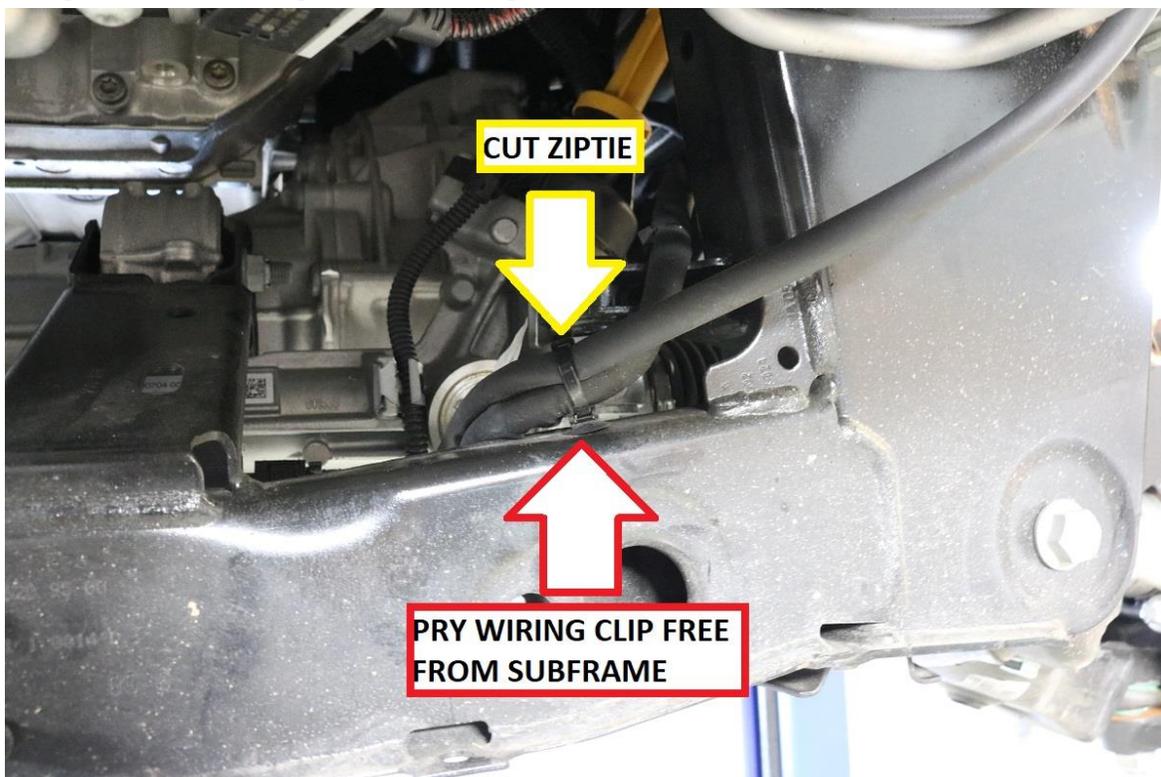


25) With the kick panel removed, remove the tool kit by pulling the back edge of it out from under the floor mat.

- a. Once the back edge is out from underneath the rubber floor, slide the tool kit back until it clears its mounting tabs near the firewall. See image below for reference.



26) On the driver side of the suspension subframe, near the driver side motor mount. Use an automotive trim removal tool to pry free the wiring retention clip from the suspension subframe and cut the zip tie securing the two wires together. See image below for reference.

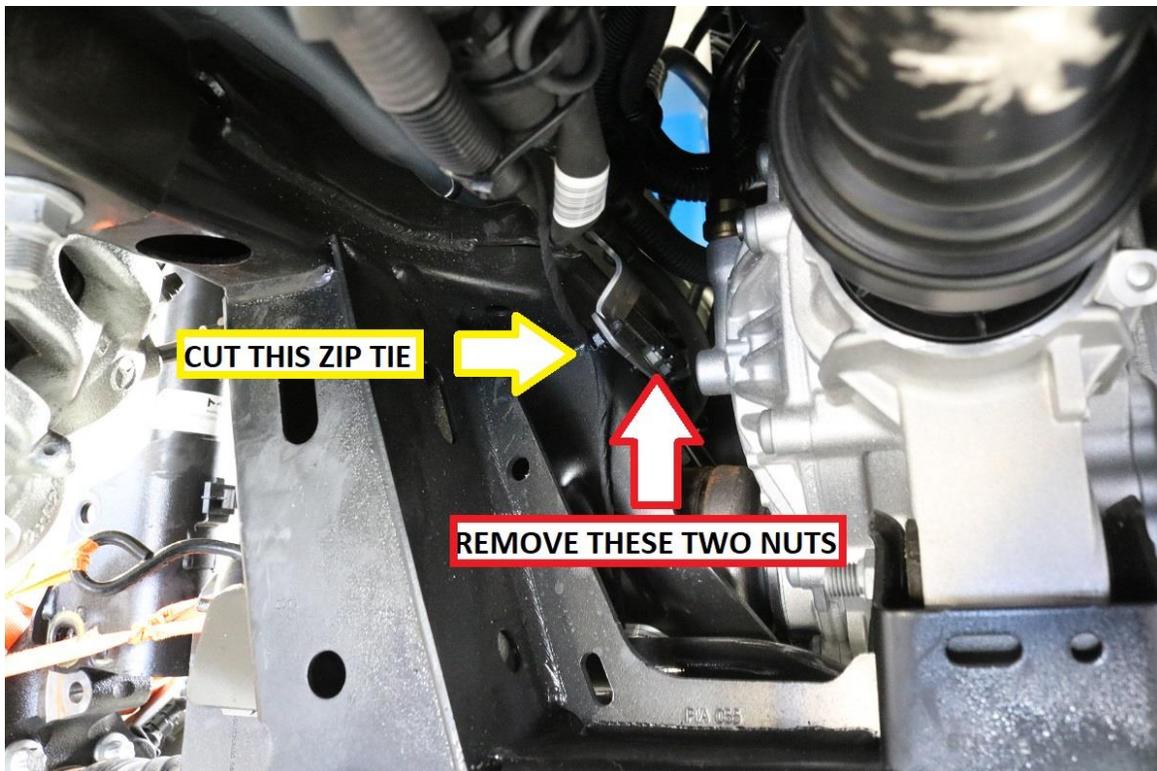


27) Locate the wiring retention clip on the inside of the suspension subframe near the inner tie rod joint on the driver side. Again, use an automotive trim removal tool to separate the retention clip from the subframe. See image below for reference.

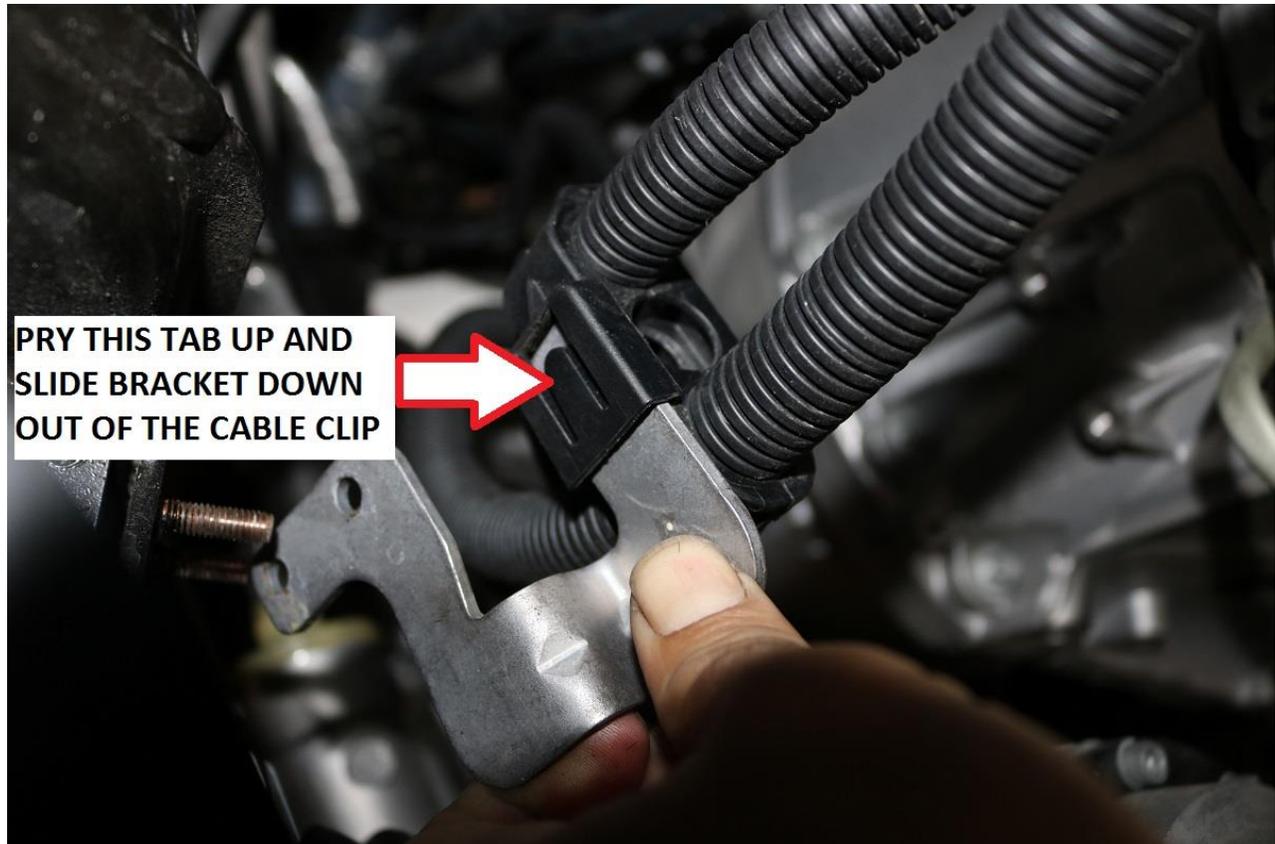


28) On the underside of the vehicle near the front driveshaft, locate the two large battery cables running forward along the chassis.

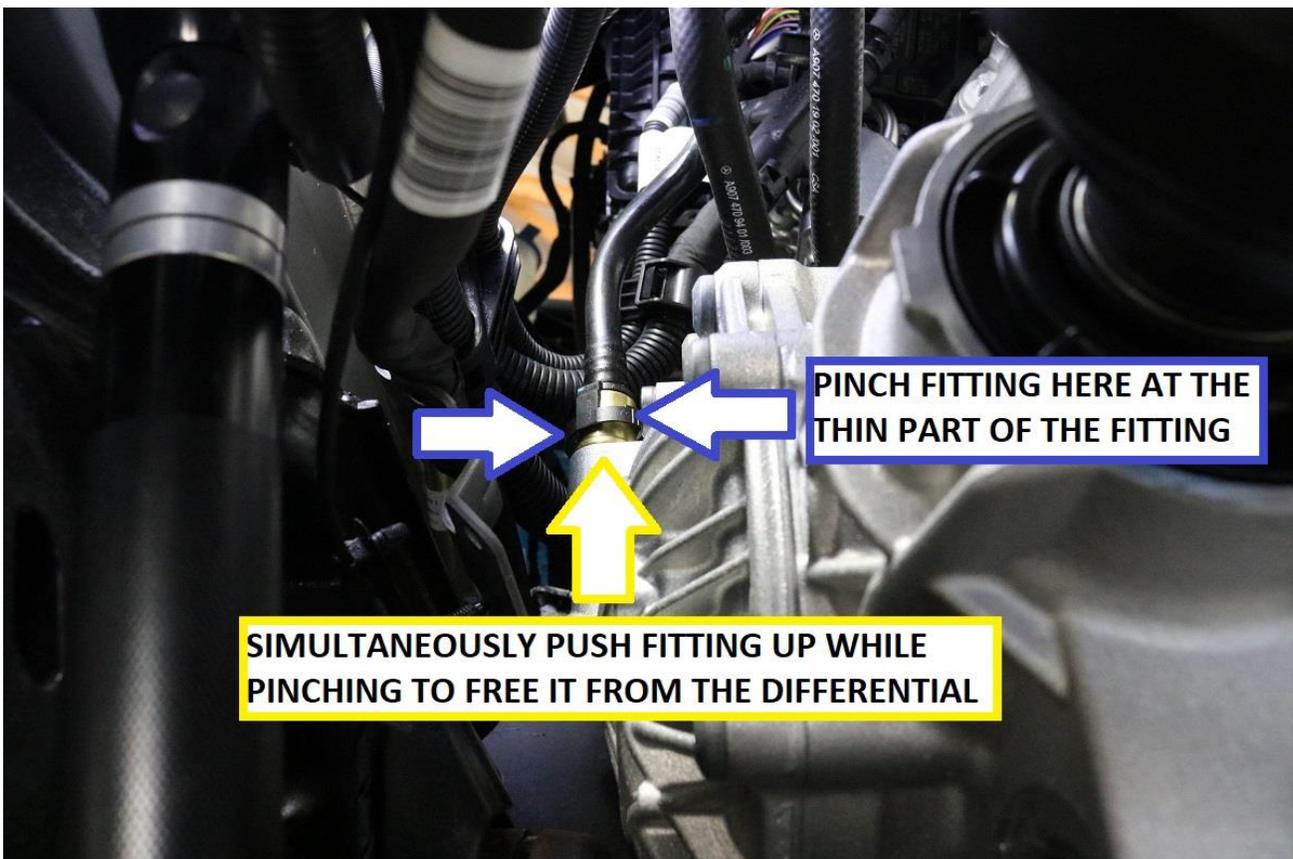
- Cut the zip tie for the small wiring loom running down towards the front sway bar.
- Locate the two 10mm nuts securing the wiring mounting bracket to the suspension sub frame. Use a 10mm socket / wrench to remove the bracket from the chassis.



29) With the bracket separated from the chassis, use a small flat blade screw driver to pry up under the plastic retention clip so the bracket can be freed from the cables.



30) Locate the front diff breather tube near the wiring bracket that was just removed in the previous step. Pinch the plastic retention clip and push the hose fitting up to free it from the front differential.

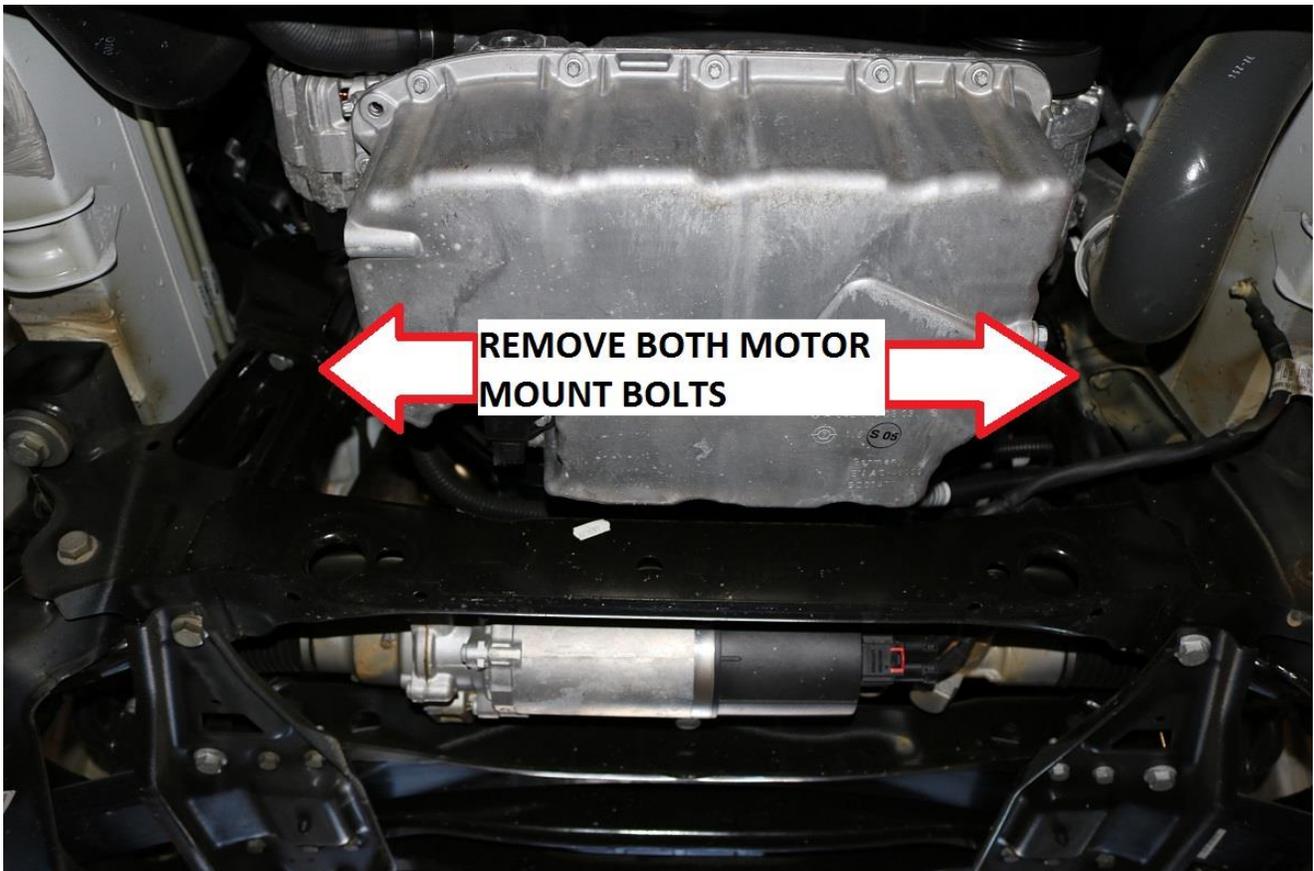


1014 Front Sub Frame Drop Spacer Installation

31) Support the motor with a jack underneath the oil pan.



32) Remove the motor mount bolt on both the driver and passenger side with a 16mm socket / wrench.



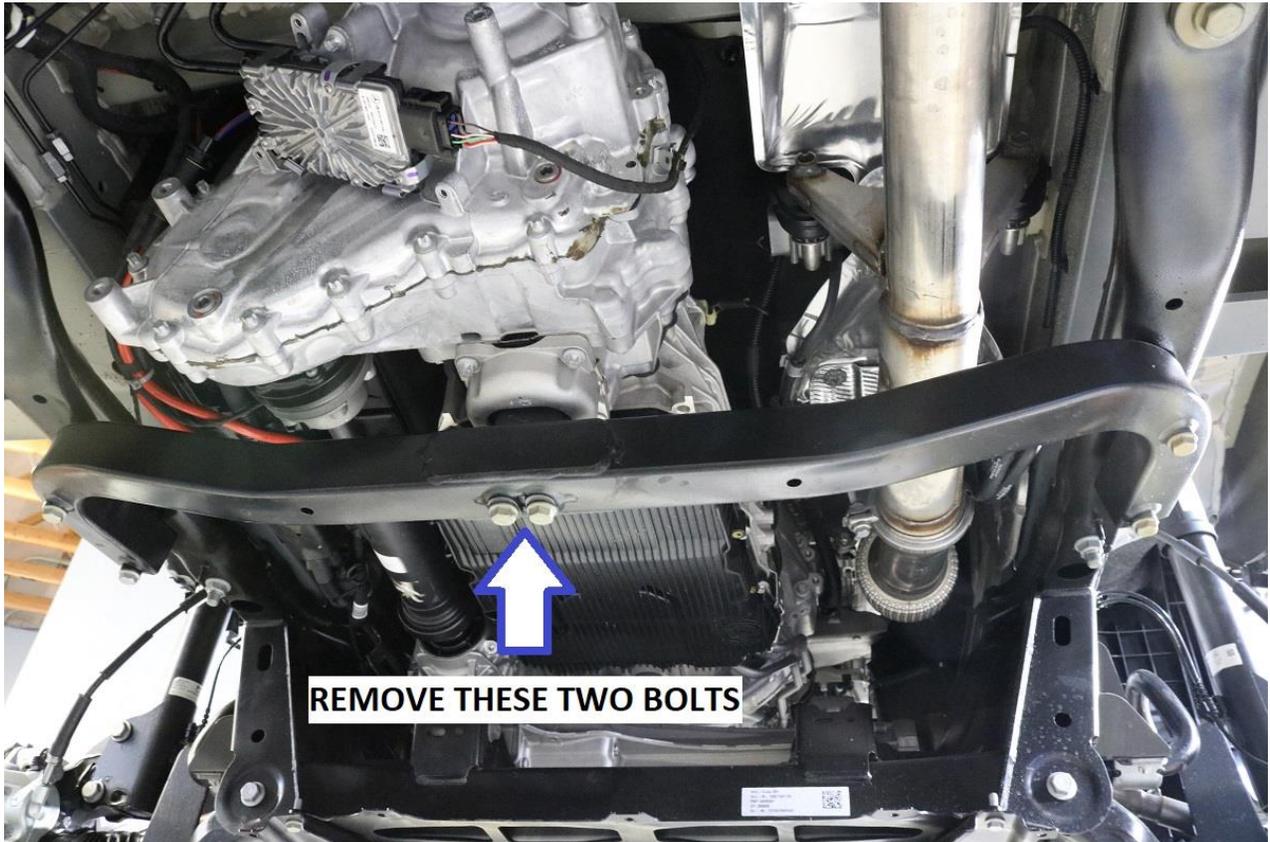
33) Support the sub frame with a jack. See image below for reference.



34) Support the transmission with another screw jack or floor jack. See image below for reference.



35) Remove the two transmission mount bolts shown below. Use a 16mm socket for removal.



REMOVE THESE TWO BOLTS

- 36) At this point, it is necessary to have another person available to aid in the sub frame drop procedure.
- 37) With the motor, transmission and suspension sub frame supported, remove the suspension sub frame attachment bolts. There are three per side. Use a 21mm socket for removal. Their locations are shown by the red arrows in the image below.



38) Prepare the spacers and new sub frame attachment bolts. The image below shows where each bolt / spacer is designed to be installed. It is critical to use the correct bolts / spacers in their corresponding locations.

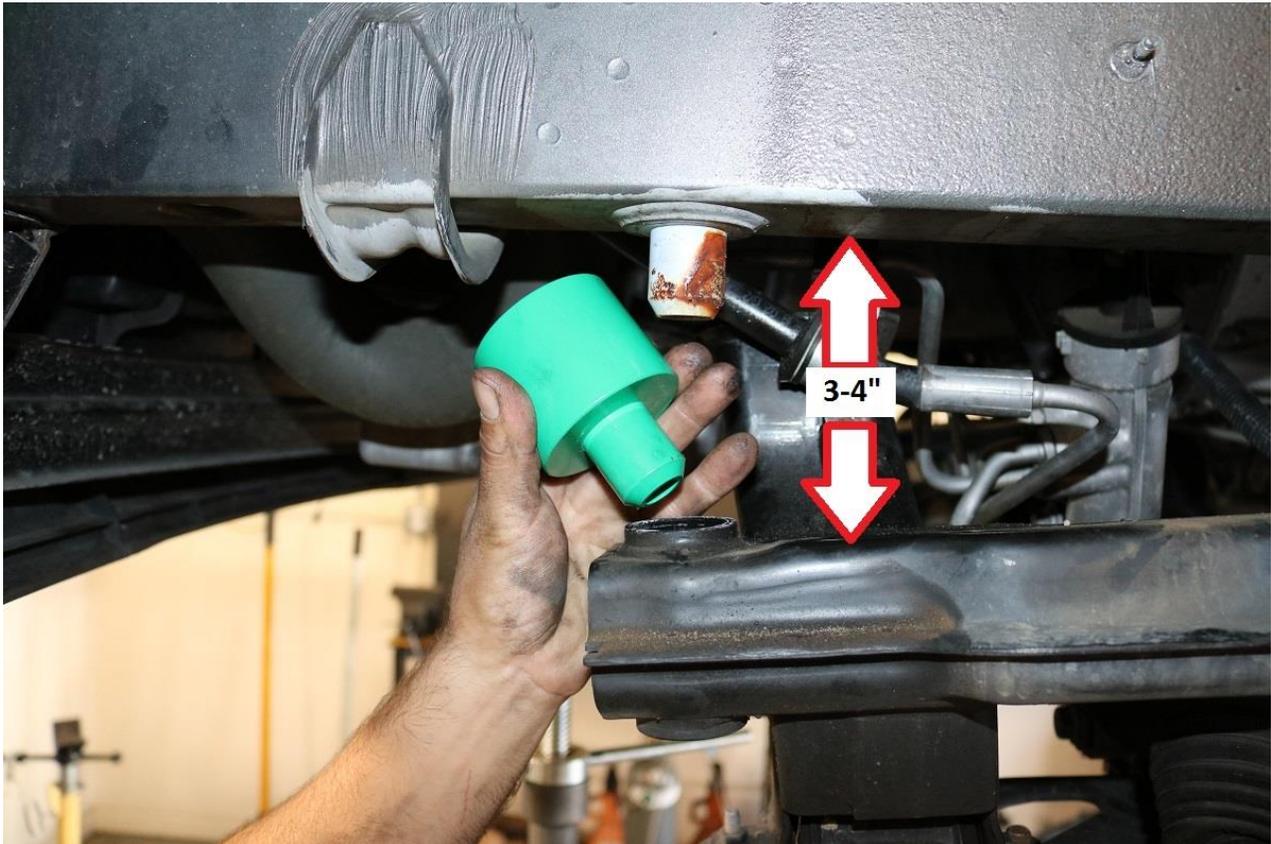


39) Remove all 6 bolts (3 per side) and slowly start to lower the sub frame. This is where an extra person is very helpful to support / balance the sub frame as it is lowered.

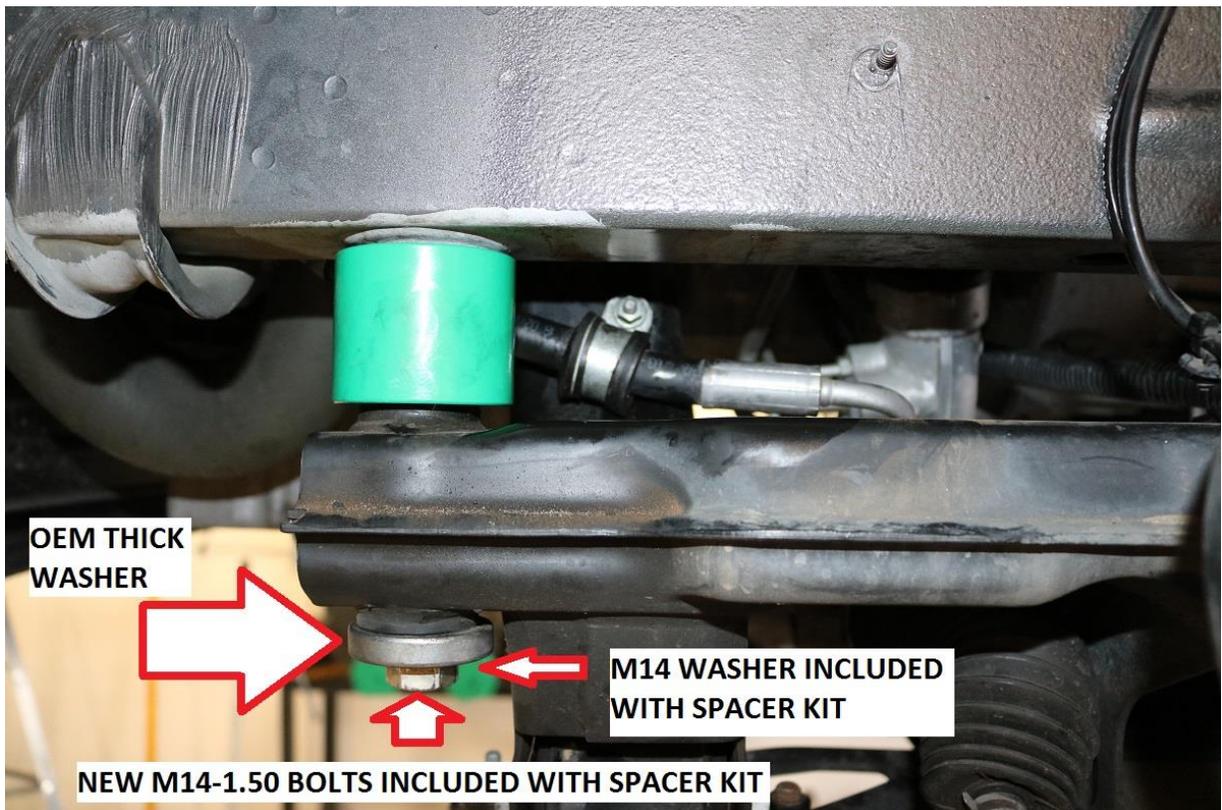
- a. As the suspension sub frame is lowered, take careful notice of the wiring along the left side of the vehicle.

40) Lower the sub frame just enough until the spacers can be installed. The sub frame will need to lower around 3" in order to install the front and rear spacers.

- a. As soon as the front spacer can be installed as shown below, stop lowering the sub frame.
- b. **CAUTION:** Take care when lowering the suspension subframe to not damage the front driveshaft. It will be very close to bind when lowering the subframe. If there is any doubt, remove the 6 bolts securing the driveshaft to the transfer case using a T-55 Torx bit



- 41) Install all 6 spacers in their corresponding locations and raise the sub frame into place.
- a. **CRITICAL: The front and rear spacer bolts must re-use the thick OEM washers which were originally equipped on the factory sub frame attachment bolts.**
 - b. Install the new sub frame attachment bolts using a dab of the included Loctite on the threads. Be sure to also use a new M14 washer under each bolt head.



42) Snug all 6 bolts but do not torque at this time. Final torque will occur once the motor mount spacers are installed and the engine / transmission support jacks & jack stands can be removed.

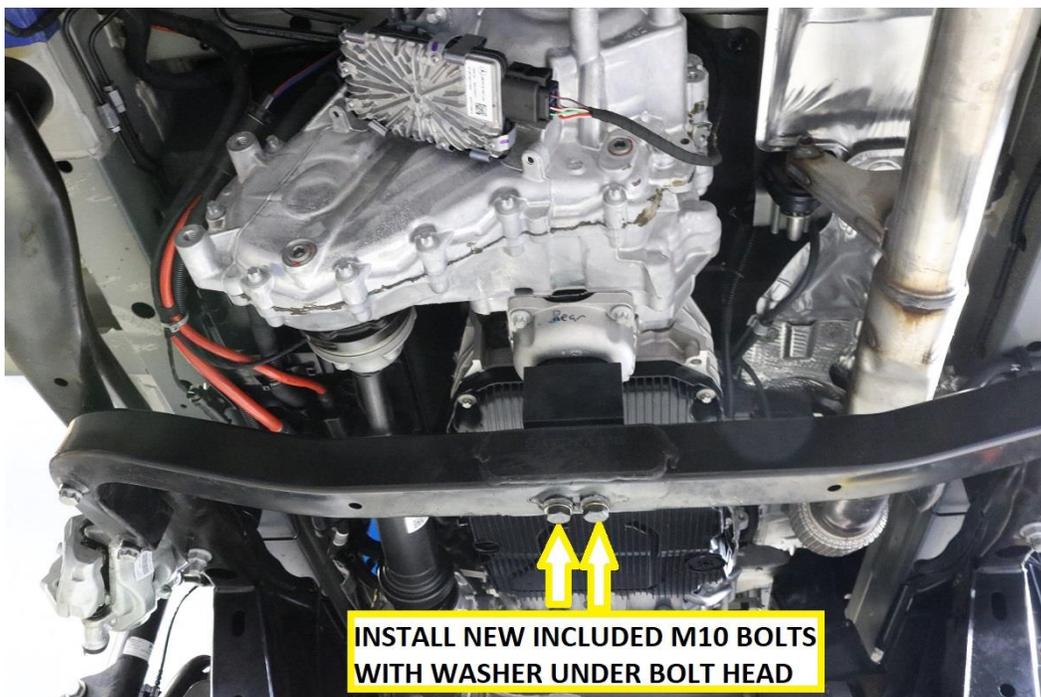
4009 Transmission Mount Lift Block Installation

43) Fit the 4009 lift block in place. Note for AWD vans, the two large centered holes will be used.



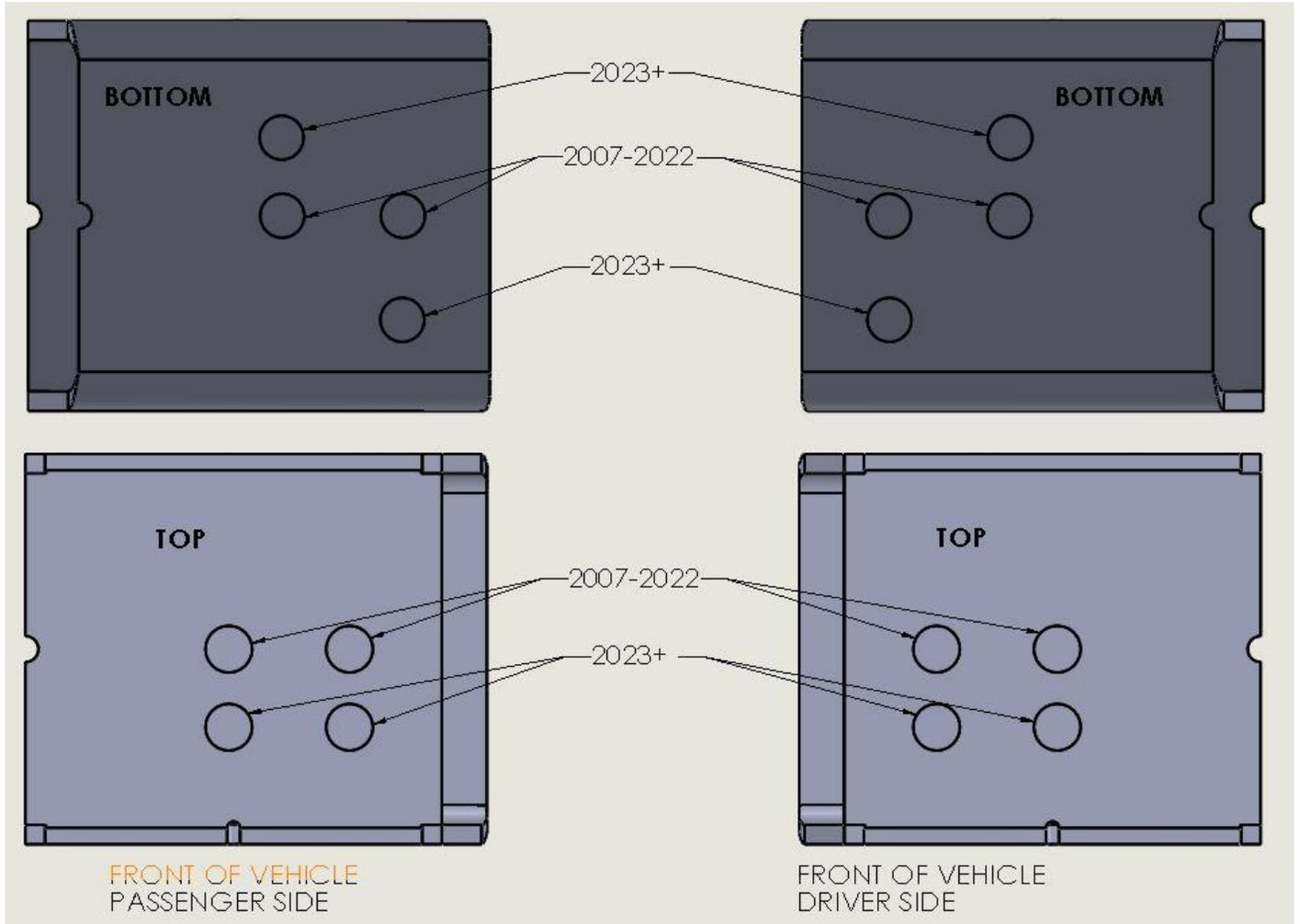
44) Line up the center M10 mounting holes and fit the new M10-1.50 x 130mm long bolts provided. Use a washer under the bolt heads and start the hardware with a 17mm socket / wrench. Do not fully tighten at this time.

- a. Lower the jack supporting the transmission so the full weight of the transmission is back on the mount itself.



4081 Motor Mount Lift Spacer Installation

- 45) Take note of the motor mount lift block orientation as shown below. The blocks are left and right side specific.
- The drawing below shows both the block orientation as well as which holes are to be used depending on model year.
 - 2007-2022 will utilize the centered mounting holes on both the top & bottom of the block.
 - 2023+ will utilize the forward mounting holes on the top of the block and the front / rear mounting hole on the bottom of the block.



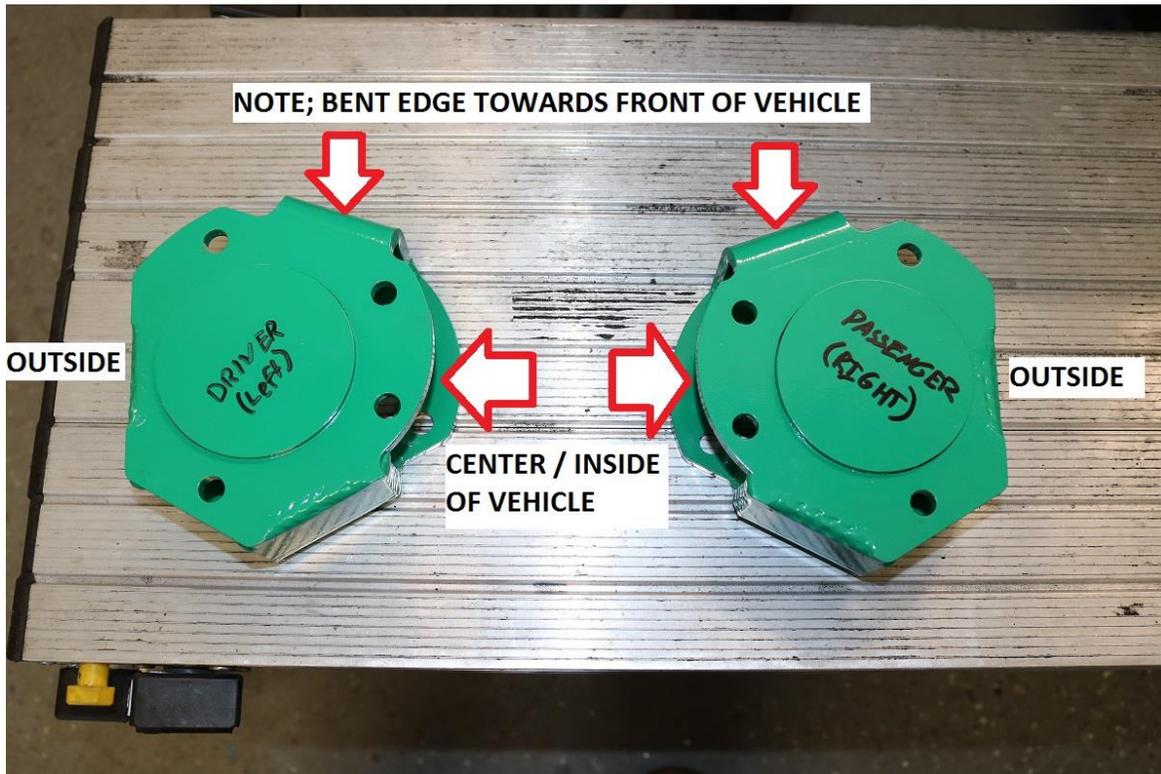
- 46) Fit the spacers into the vehicle. Raise / lower the motor as needed to get the lift blocks into place. Install the OEM motor mount bolt removed in step 36 into the motor mount.
- 47) Attach the motor mount lift spacers to the sub frame using the supplied M10-1.50 x 35mm long bolts provided in the kit. Use a washer under both the bolt head and nylock nuts included.
- 48) Start all hardware before fully tightening.
- 49) Once all hardware has been installed, remove any support jacks to the engine / transmission is sitting fully on its respective mounts.
- 50) Tighten the M10-1.50 motor mount bolts.
- Use a 16mm socket / wrench for the OEM motor mount bolt.
 - Use a 17mm socket / wrench for the new Van Compass supplied hardware for the lift spacers.
 - Torque all motor mount bolts to 43 ft-lbs (58 N.m)



- 51) Torque the M10-1.50 transmission mount bolts to 43 ft-lbs. (58 N.m)
- 52) Torque the front and rear sub frame attachment bolts to 127 ft-lbs (172 N.m)
- 53) Torque the middle sub frame attachment bolts to 89 ft-lbs (120 N.m)
- 54) If the front driveshaft was unbolted at the T-case during the subframe lowering process, re-install the factory bolts with a dab of blue loctite on them and tighten to 52 ft-lbs (70 N.m)

1013 Strut Spacer Installation

- 55) The strut spacers are left and right specific. Be sure to install the correct spacer on the correct side of the vehicle. See image below for reference / orientation.

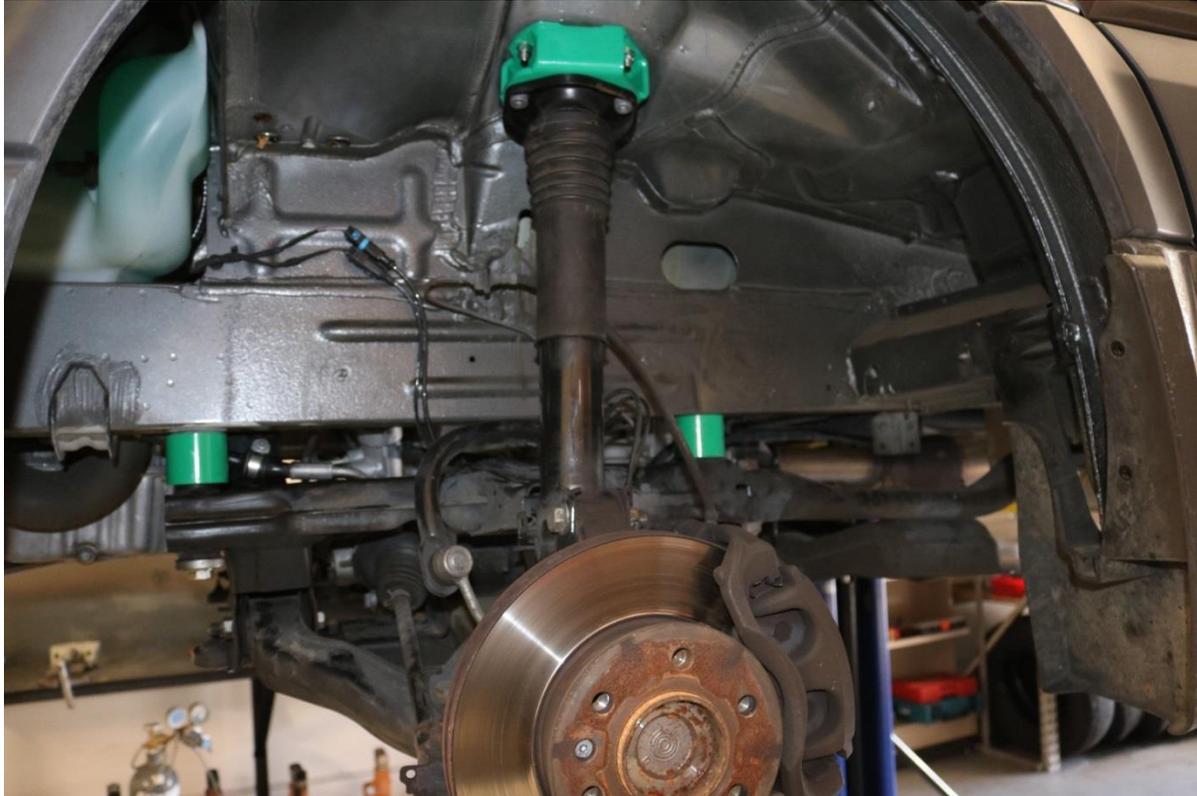


- 56) Install the spacers onto the top of the struts using the OEM strut bolts originally removed. Snug all bolts tight, and add an additional $\frac{1}{4}$ - $\frac{1}{2}$ turn. The torque spec on these bolts is only 21 ft-lbs (28 N.m).
- 57) With the spacers installed, fit the strut back into the vehicle. Again, an extra set of hands is very helpful at this stage. Use a 13mm socket to thread in the included M8-1.25 x 30mm long bolts included with the kit from above. Use a washer under the head of each bolt. Make sure the spacer is sitting flush in the strut hole in the chassis.



- 58) With all bolts installed and snug, torque to 21 ft-lbs (28 N.m)
- 59) Raise the steering knuckle / lower control arm and re-install the lower strut mounting bolts.

- a. Try to center the lower strut bolts back in the same “worn in” spot on the strut. This should set the camber approximately to what it was prior to removal.
- b. Now is also an appropriate time to re-install the brake caliper onto the knuckle.
 - i. Note; We recommend putting a dab of blue Loctite on the brake caliper adapter bolts
- c. Re-attach all ABS / ESP wiring back into their respective retention clips on the chassis / knuckle.
- d. Secure the battery cables previously separated from the chassis in step 35 back to its mounting bracket using a ziptie.
- e. Re-secure any additional wiring clips previously removed if there is adequate slack in the wiring to secure. Do not strain any wiring, use zipties where appropriate to keep wiring secure to the chassis and away from any heat or moving parts.



60) Torque lower strut bolts to 127 ft-lbs (172 N.m).

61) Torque brake caliper adapter bolts to 59 ft-lbs (80 N.m). Turn an additional ¼ turn after torquing.

4103 Differential Cam Washer Installation

62) With the lift kit installed, move back to the underside of the van to the front differential breather line previously removed in step 30.

- a. Use a pair of tin snips, dykes, or cable cutters to cut the fitting off approximately 1.0” above the plastic fitting. See image below for reference on finished cut.



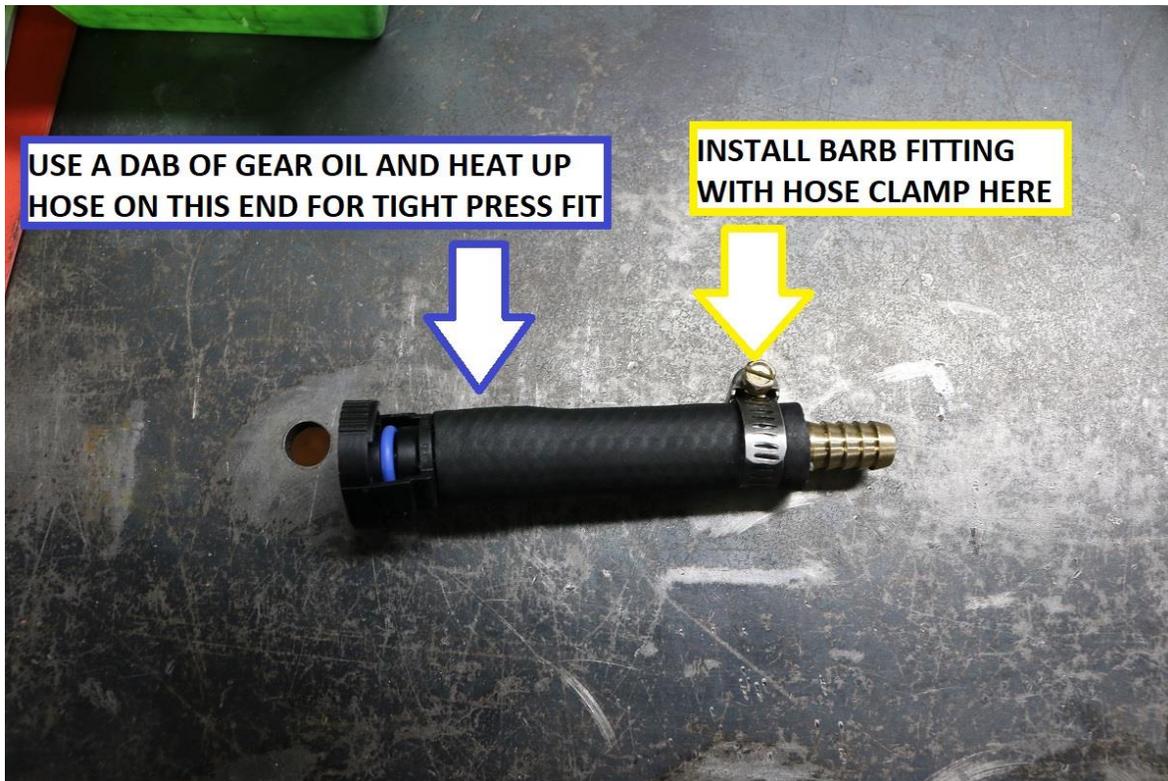
63) With the cut fitting on a work table, use a razor blade to slit the plastic vent line lengthwise to separate it from the barb fitting.

- a. Once slit, separate and discard the remaining plastic vent line from the diff breather fitting. See image below for reference.

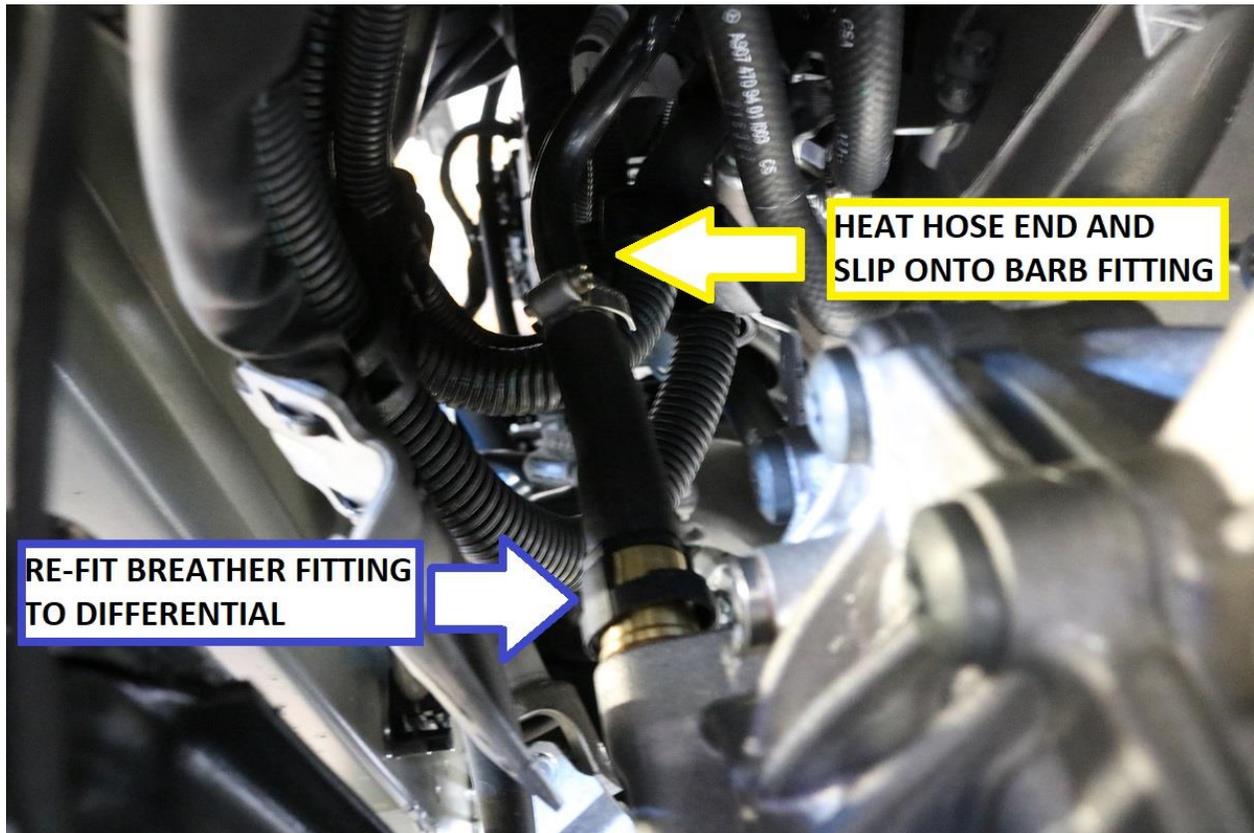


64) Assemble the included hose extension piece onto the diff breather fitting as shown below.

- a. Note, use a dab of gear oil on the barb fittings to allow for easier assembly. Additionally a heat gun is helpful to warm up the hose itself for easier assembly as it is very tight fitting on the OEM diff breather fitting.
- b. Use a hose clamp at the brass barb fitting and tighten. Below is an image of the completed extension piece ready to be installed on the vehicle.



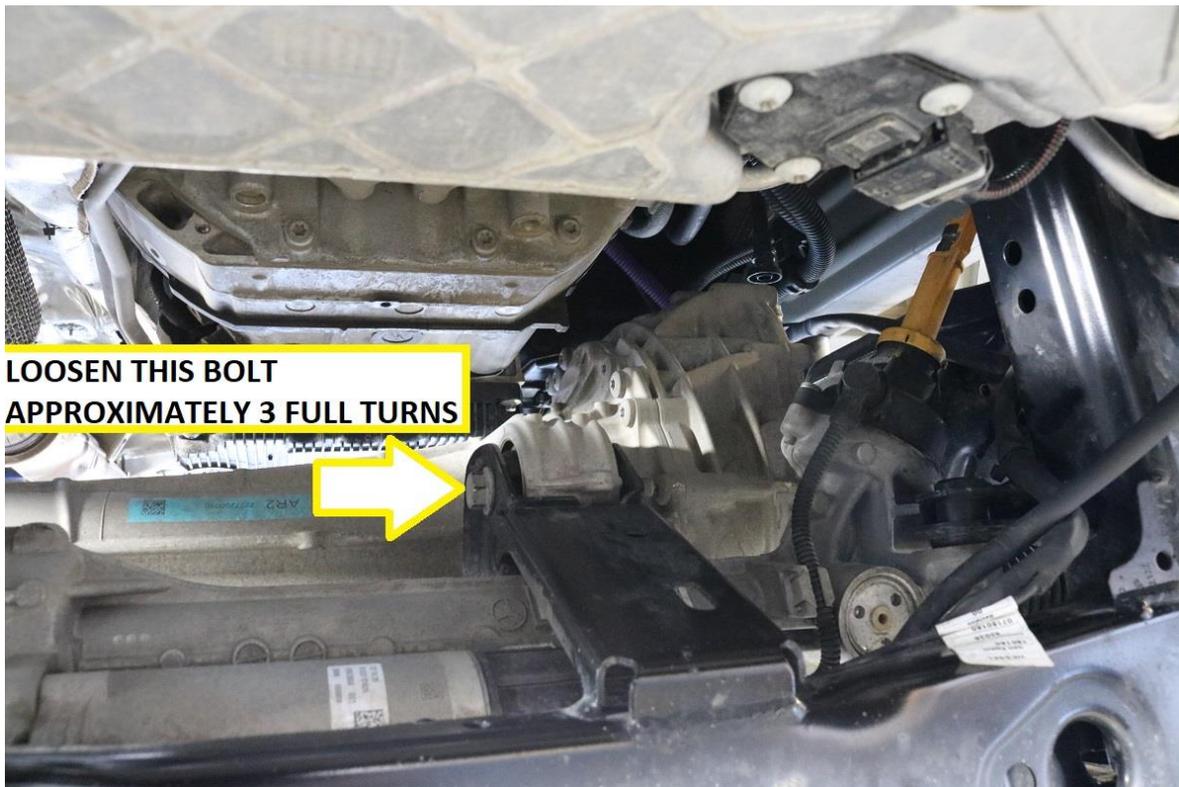
- 65) Take the assembled extension piece back to the van and fit the breather fitting to the differential. Use a heat gun to carefully heat the end of the OEM plastic breather line and slip it onto the brass barb extension piece.
- a. Once cooled, the plastic line will form a tight fit onto the barbed extension piece. No hose clamp should be needed but we include one if desired.
 - b. Completed installation is shown below.



**HEAT HOSE END AND
SLIP ONTO BARB FITTING**

**RE-FIT BREATHER FITTING
TO DIFFERENTIAL**

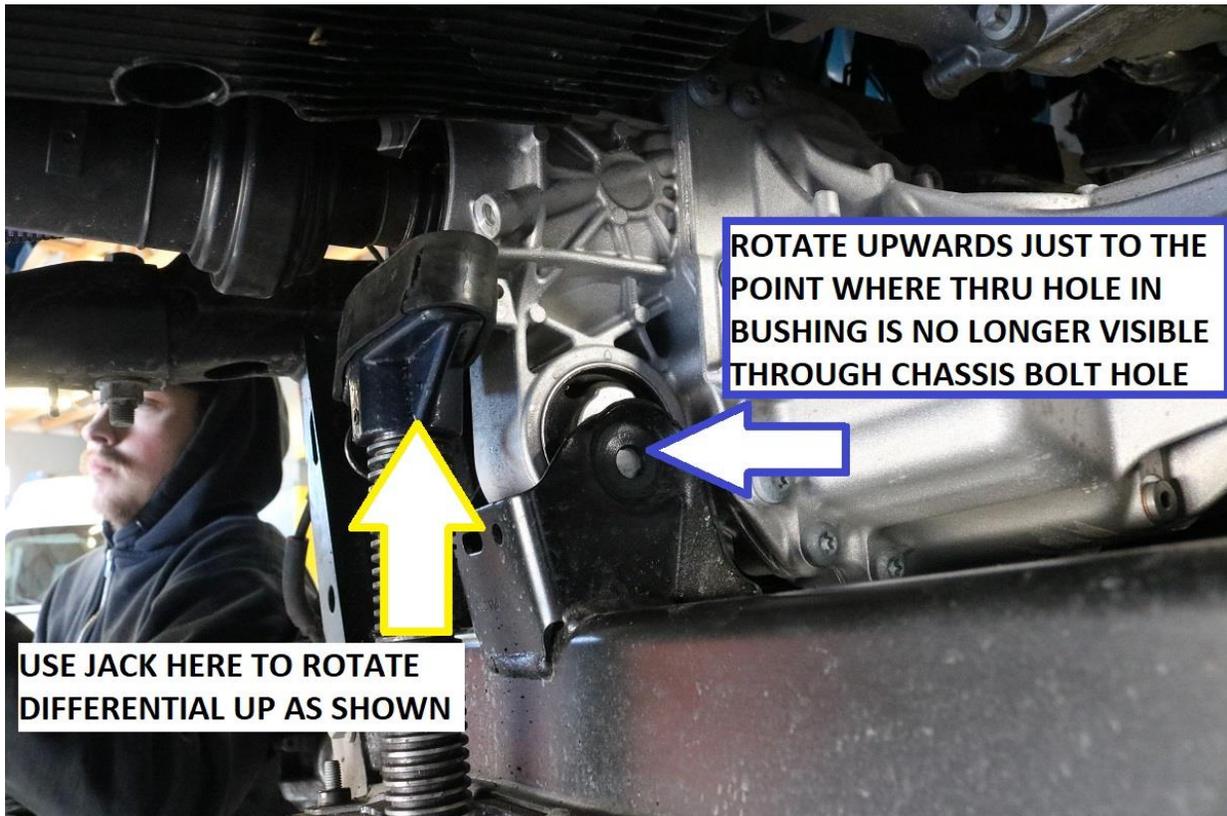
66) Loosen the front mounting bolt for the front differential. Use an 18mm socket / wrench to loosen.



**LOOSEN THIS BOLT
APPROXIMATELY 3 FULL TURNS**

67) Locate the two rear mounting bolts for the front differential and remove them. Again, use an 18mm socket for removal.

68) Once removed, use a screw jack or a floor jack with a piece of wood to rotate the differential up just to the point where the thru hole in the bushing is no longer seen through the hole for the mounting bracket on the chassis.

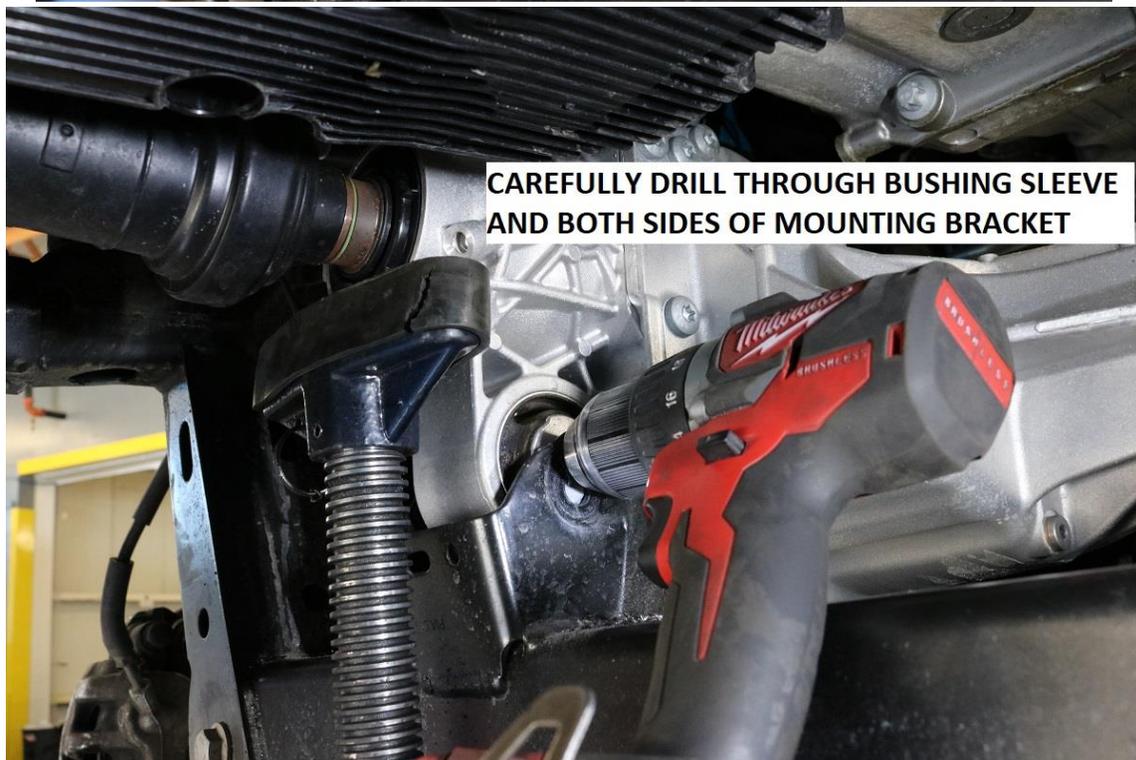
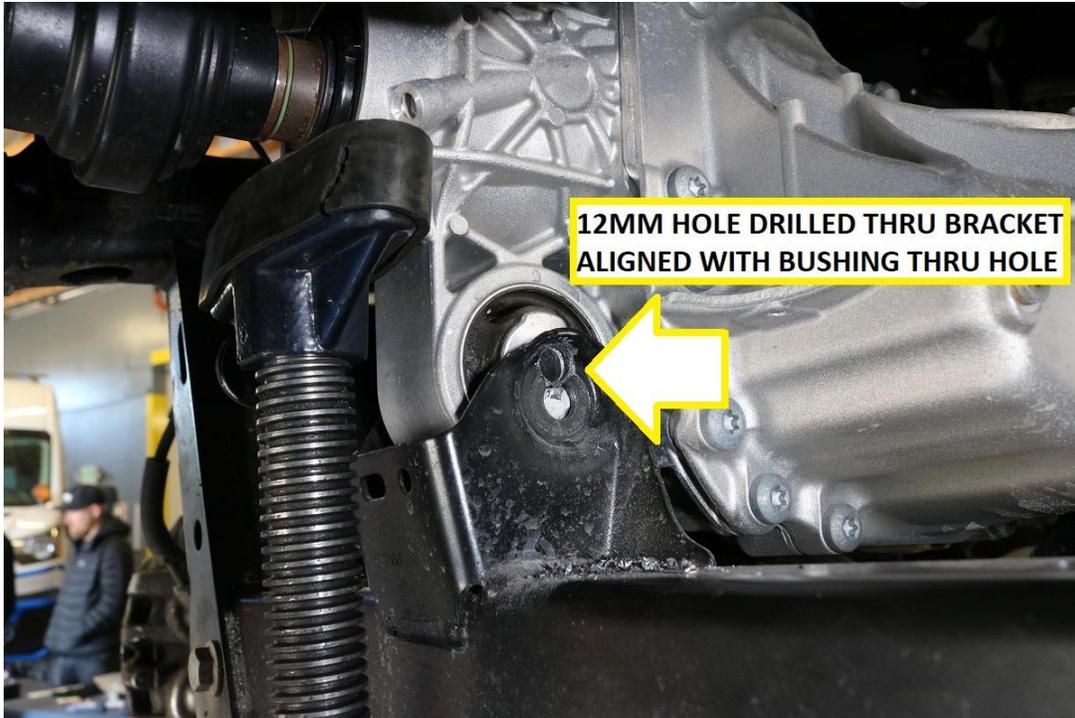


- 69) Next, fit the differential cam washers to the chassis as shown below. Note there is a driver side and passenger side cam washer. The smaller pair of cam washers are for the driver side.
- Position the cam washer with the new thru hole approximately vertical and aligned with the bushing's thru hole as shown below.
 - Use a pencil or sharpie to mark the center of the mounting hole.



- 70) Center punch the marked hole and drill with a $\frac{1}{8}$ " pilot hole to start. Just drill thru the one side of the bracket with the pilot drill.

- a. Once the pilot hole is drilled, use the 12 mm short drill bit included with the kit to drill thru the bushing and both sides of the chassis bracket. See images below for reference.



71) Deburr any sharp edges and touch up any exposed areas of metal with spray paint to prevent corrosion.

- a. Fit the cam washers and included socket cap screws as shown below. Use a washer under the bolt head and nylock nut. Start the nylock nut and snug the hardware ensuring the cam washer settles into the pocket on the chassis bracket. Use a 10mm allen, and 19mm wrench to tighten.

- b. NOTE: The top of the cam washer will contact the upper formed lip of the bracket during tightening. This is normal and will flatten out upon completion of installation and achieving full torque on the bolt.

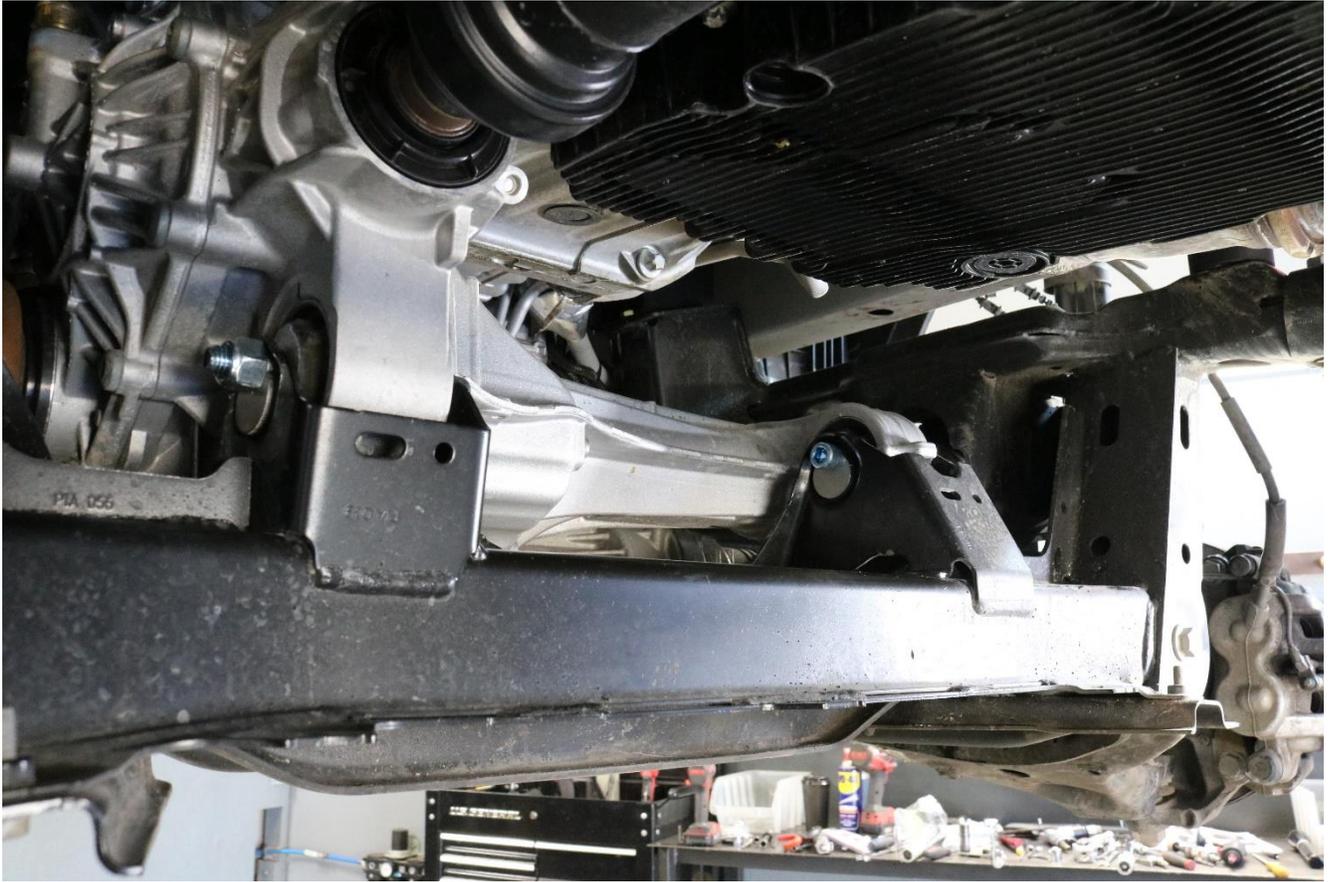


72) Repeat this process on the passenger side.

- a. Note: The passenger side will require a 90 degree drill or small pneumatic drill to be used due to space constraints.
- b. Utilize a pry bar to wedge / align the differential mounting bushing in the proper location since a floor jack / screw jack cannot be utilized on that side.

73) Once the passenger side cam washers have been installed, torque all three differential mounting bolts to 81 ft-lbs (110 N.m)

- a. Again, make sure during tightening that the cam washers themselves settle into the pockets on the chassis mounting brackets. Completed install shown below:



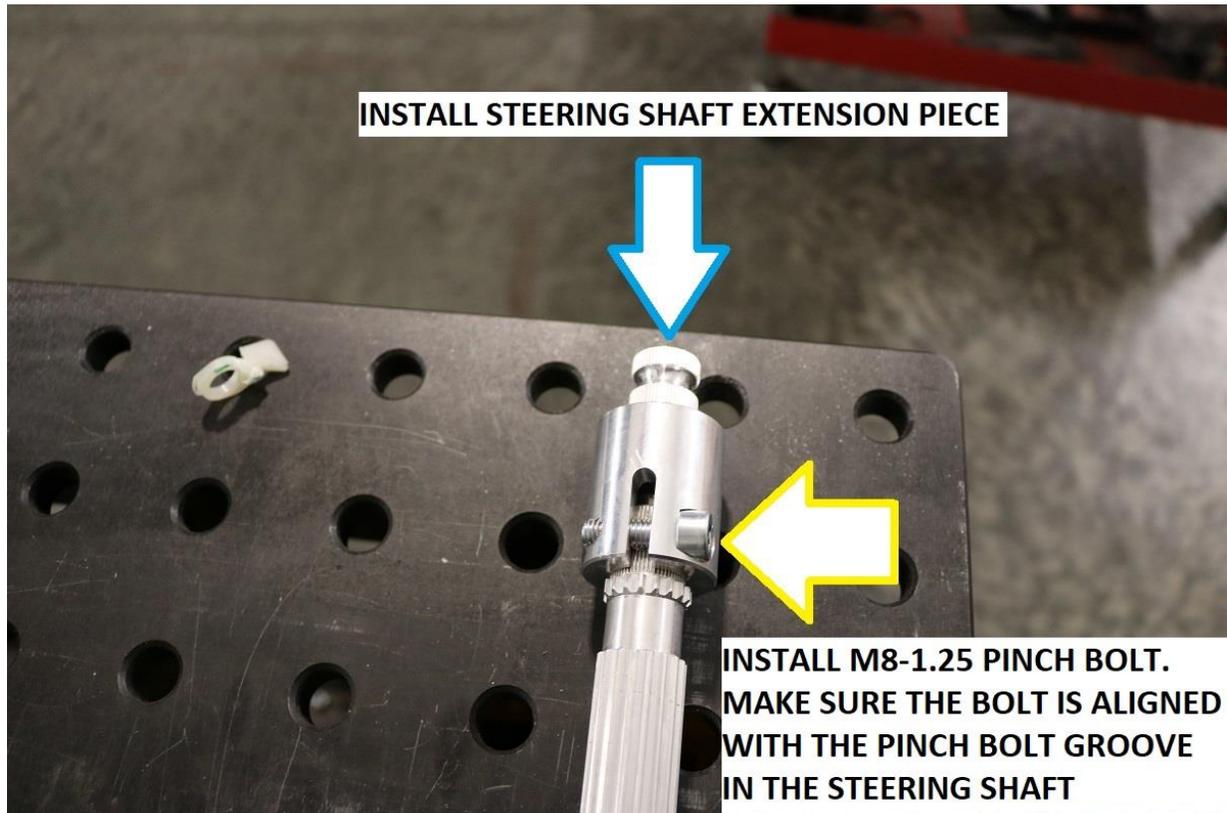
2010 Steering Shaft Installation

74) The plastic indexing tab on the factory steering shaft needs to be removed for the steering shaft extension piece to be installed. It is very simple to pull the plastic indexing tab off by using a pair of dykes to pull / pry the tab off the top of the steering shaft.



75) Install the steering shaft extension piece onto the steering shaft.

- a. Install the M8-1.25 socket cap screw included with the steering shaft extension piece. Use a dab of Loctite on the threads before installing and use a 6mm allen wrench to torque to 18 ft-lbs (24 N.m).



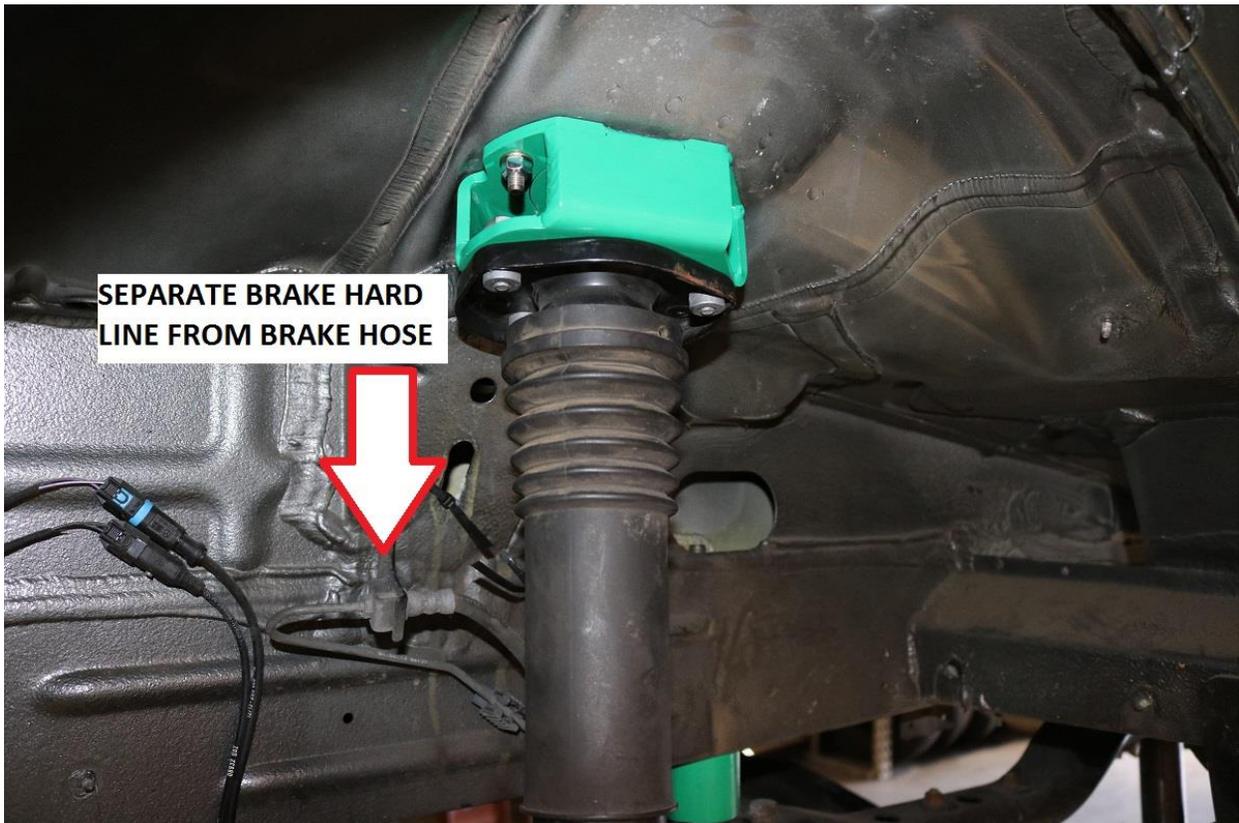
76) Reference step 10 of the instructions if needed and re-install the steering shaft onto the steering rack. Use a dab of Loctite on the inverted torx bolt and torque to 18 ft-lbs (24 N.m)

77) Put a small dab of grease or anti-seize on the male spline of the steering shaft extension piece.

- b. Set the front wheels and steering wheel straight and slide the steering shaft up into the steering shaft coupler at the firewall.
- c. Note, orientation of the steering shaft extension into the coupler at the firewall is not super critical due to the extremely fine spline of the steering shaft, however be careful to keep track of steering wheel orientation as to not spin the steering wheel 360 deg out of phase.
- d. Secure using the factory inverted torx bolt removed in step 6. Use a dab of Loctite on the threads and torque to 18 ft-lbs (24 N.m)

4024 Front Brake Line Drop Bracket Installation

78) Separate the front brake hard line from the brake hose using an 11mm brake line wrench.



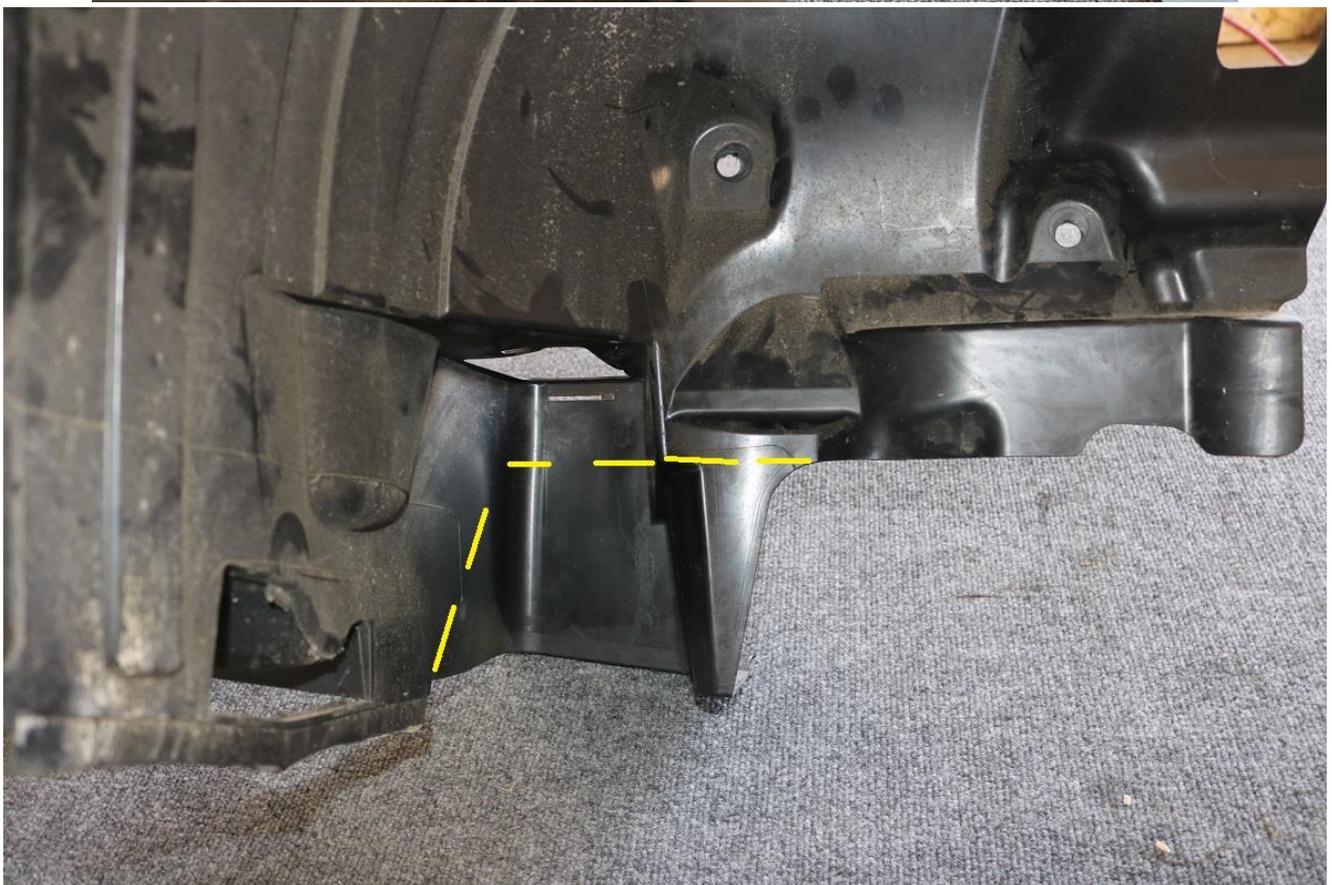
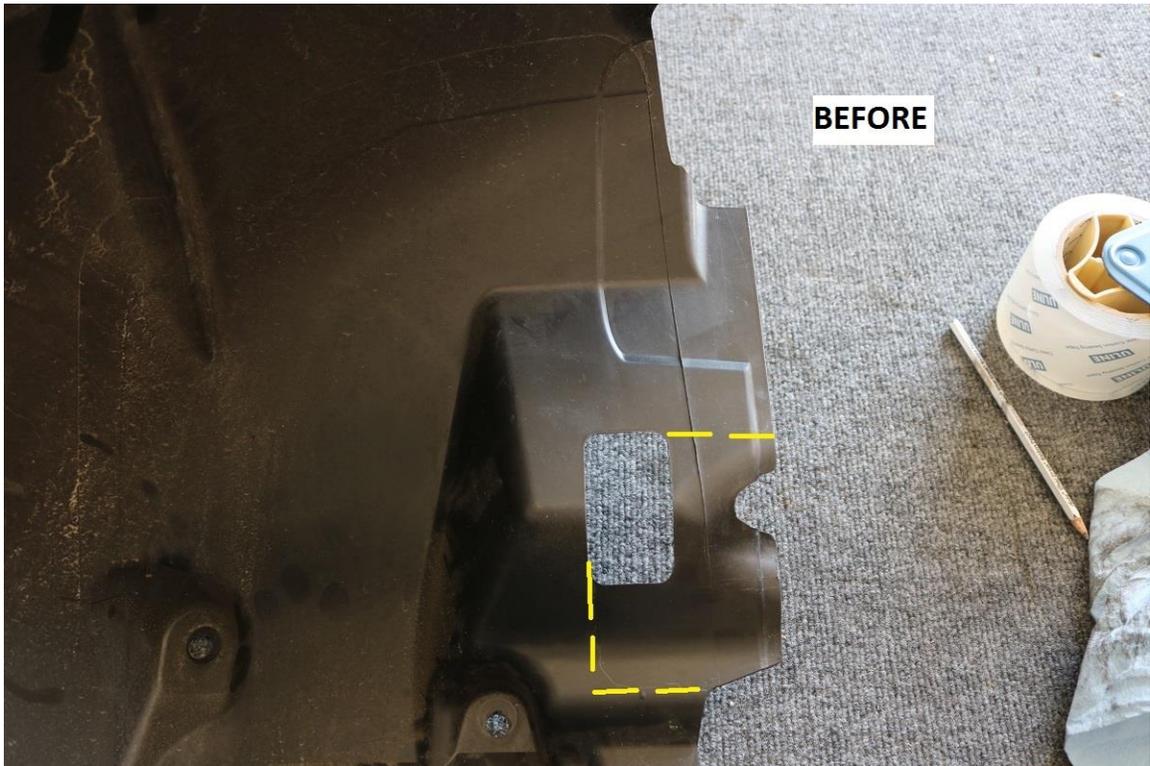
- 79) Install the front brake line drop bracket as shown below. Use the M12-1.50 x 25mm long bolts provided in the kit. Use a washer under both the nut and the head of the bolt.



- 80) Orient the tab as shown above. Tighten the M12 bolt to 50 ft-lbs (67 N.m). Reconnect the hard line to the brake hose and snug the brake line fitting tight.
- 81) With the front of the van still on jack stands. Refill the master cylinder with DOT 4+ Synthetic Brake Fluid. Refer to owner's manual for certainty
- 82) Bleed the front brakes using the factory recommended sequence. Ensure there is good pedal feel and all air is eliminated from the system. Failure to eliminate all air from the braking system is not only dangerous, but will also trigger an ABS warning light on the instrument cluster.

Fender liner clearance (stock tire size up to 275/70/17)

83) Start with the front half of the inner fender well liner. Trim as shown in the images below. The yellow dashed lines are the cut lines. A pair of sheet metal shears works well for cutting the plastic.





84) Trim the rear half of the fender liners as shown in the images shown below.

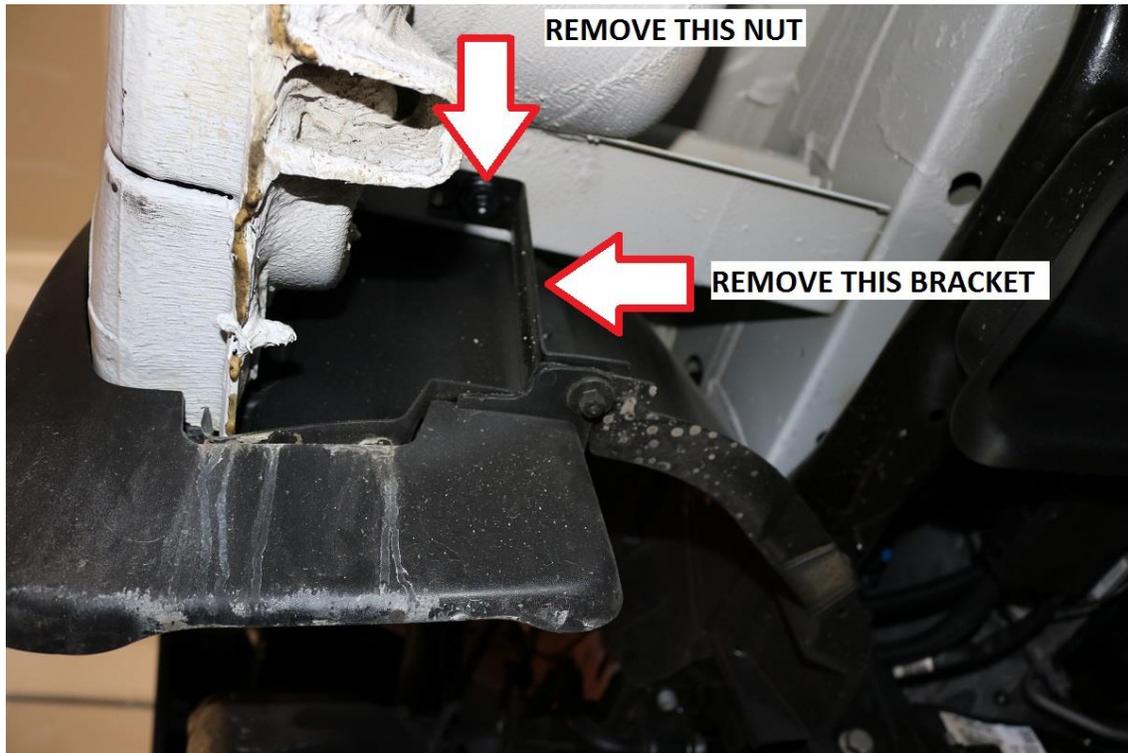


85) Re-install the fender well liners in the reverse order of removal.

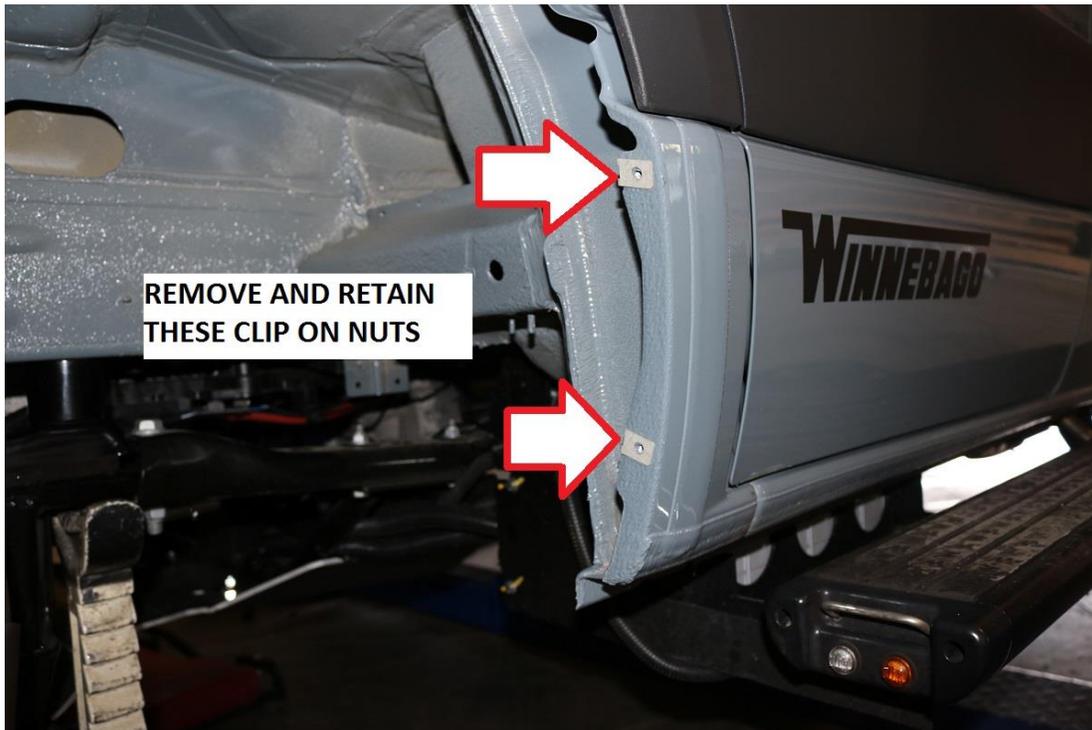
- a. Note; Skip to end of instructions for notes on trimming for 35" tire clearance.
- 86) Re-install wheels / tires and lower van to ground. OEM torque spec for wheel studs is as follows:
- a. 2500 SRW: 177-187 ft-lbs (240-250 N.m)
 - b. 3500 DRW: 140-150 ft-lbs (190-200 N.m)
- 87) With the vehicle on the ground, the last remaining under-hood components can be hooked back up.
- 88) Re-connect battery ground cable onto battery and re-install any interior components removed for access.
- 89) Take vehicle to alignment shop for a proper alignment to be done.
- 90) Re-check all bolt torques after 100 miles of driving.

Fender Clearance for 315/75/16 (35") tires

- 91) Note; fitting of 315/75/16 or equivalent 35" tall tires requires the purchase and installation of 4063 Van Compass Big Tire Mudflap Bracket Kit.
- a. The following instructions document trimming for 35" tires. Less trimming can be done if smaller tires are being installed.
- 92) Remove the rear mudflap attachment bracket. Use a 10mm socket / wrench to remove the nut securing the bracket to the vehicle.

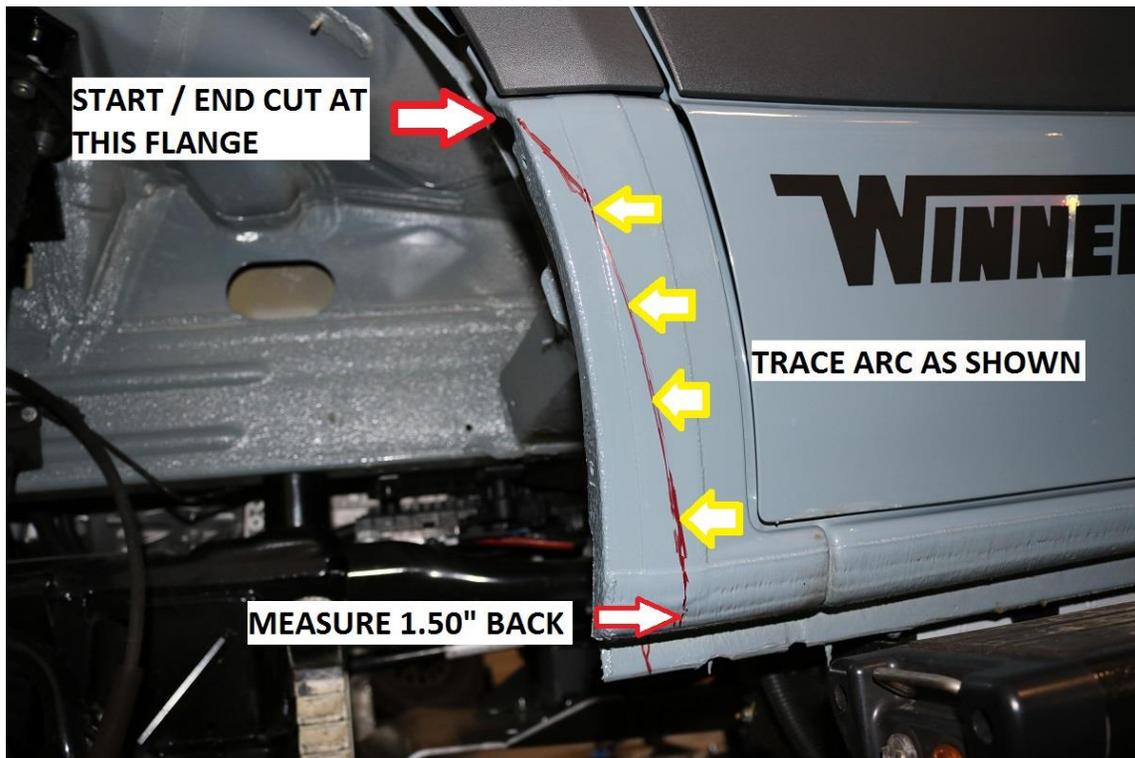


- 93) Remove and retain the clip-on nuts which secured the mudflap to the rear of the front fender.



94) Measure 1.50" back at the bottom of the fender. From there, trace an arc up to the small flange just below the plastic body molding. See image below for reference on the cut line.

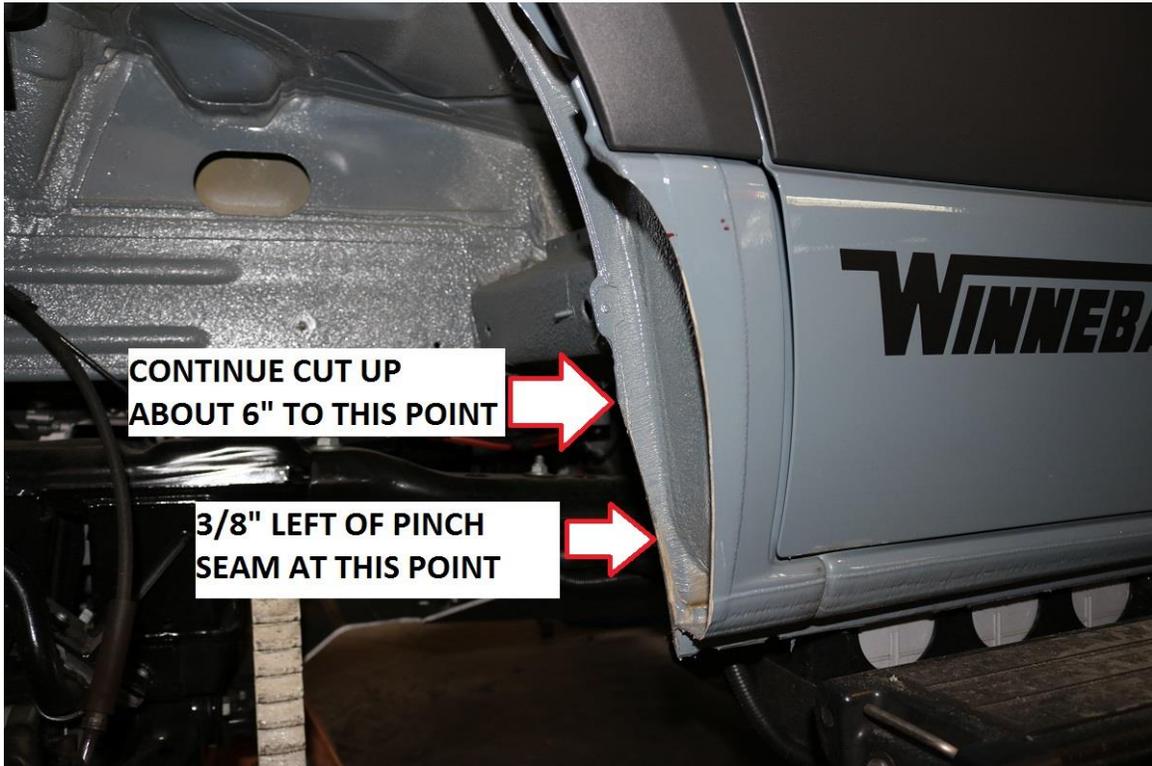
b. Once marked, cut using a 4-1/2" angle grinder with metal cut off wheel or similar cutting tool.



95) Continue the cut on the inner pinch seam. The cut should leave approximately 3/8" (9-10MM) of pinch seam left at the bottom. See image below.

c. Continue the cut in an arc upwards approximately 6"

d. Below is an example of a finished cut. Deburr any rough-cut edges and touch up with a quality paint to prevent corrosion.



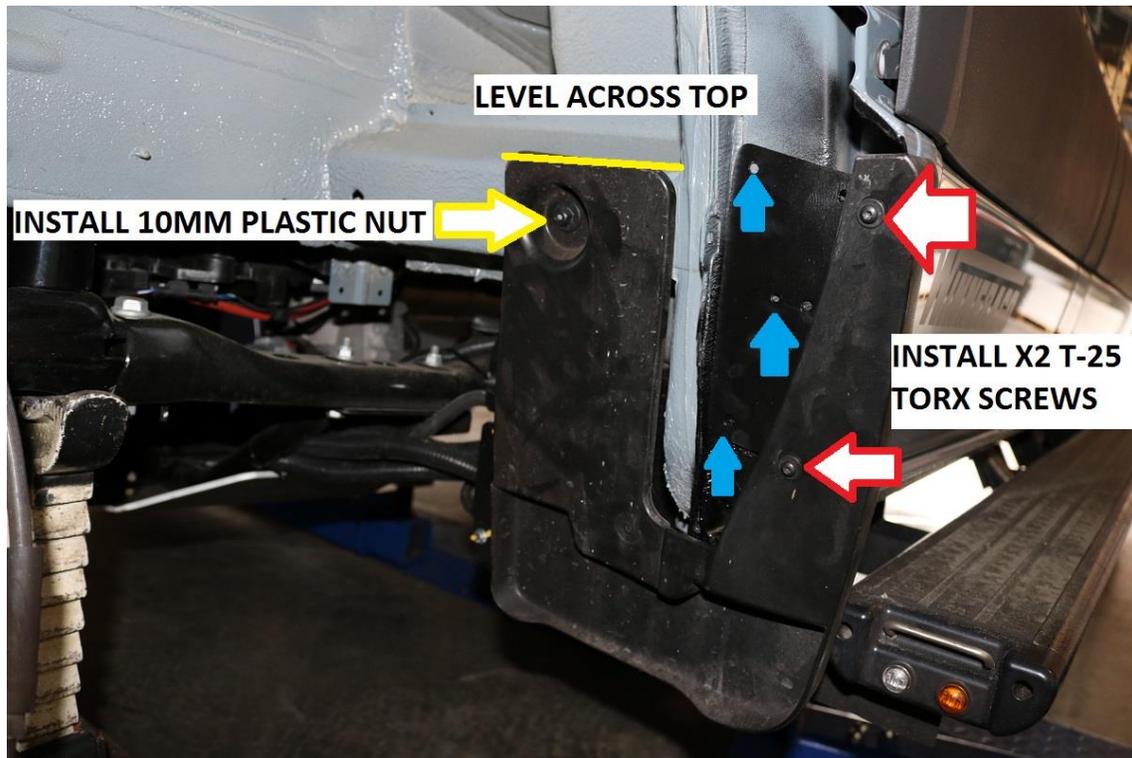
96) Install the oem clip on nuts previously removed in step 74 and install them onto the big tire front fender bracket as shown below.



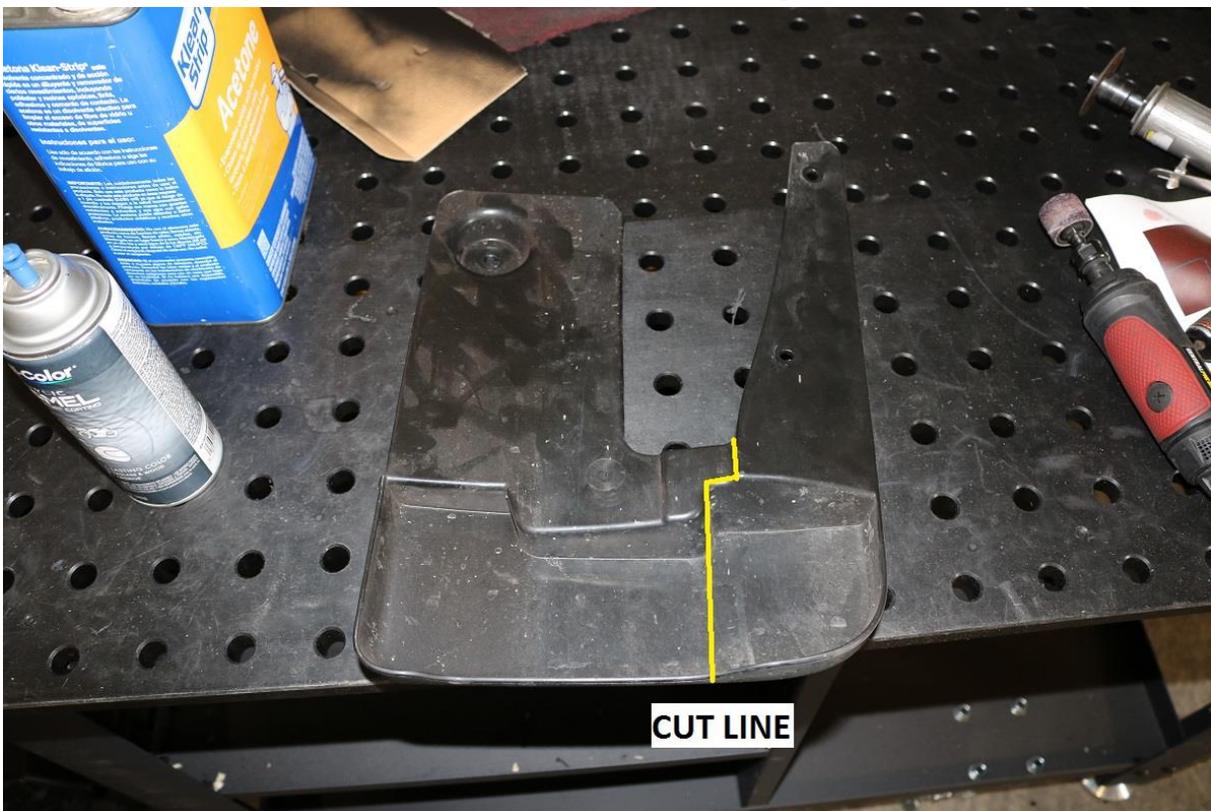
97) Install the mudflap back onto the vehicle using the 10mm plastic nut on the inside of the fender well. Level the mudflap across the top as shown in the image below.

- e. Once secured to the chassis. Install the big tire mudflap bracket to the mudflap using the OEM T-25 Torx screws previously removed in step 16.

- f. Push the bottom of the mudflap back as far as it will go, and mark / drill the three holes denoted by the solid arrows in the image below. Use the included self tapping screws to secure the bracket to the vehicle.

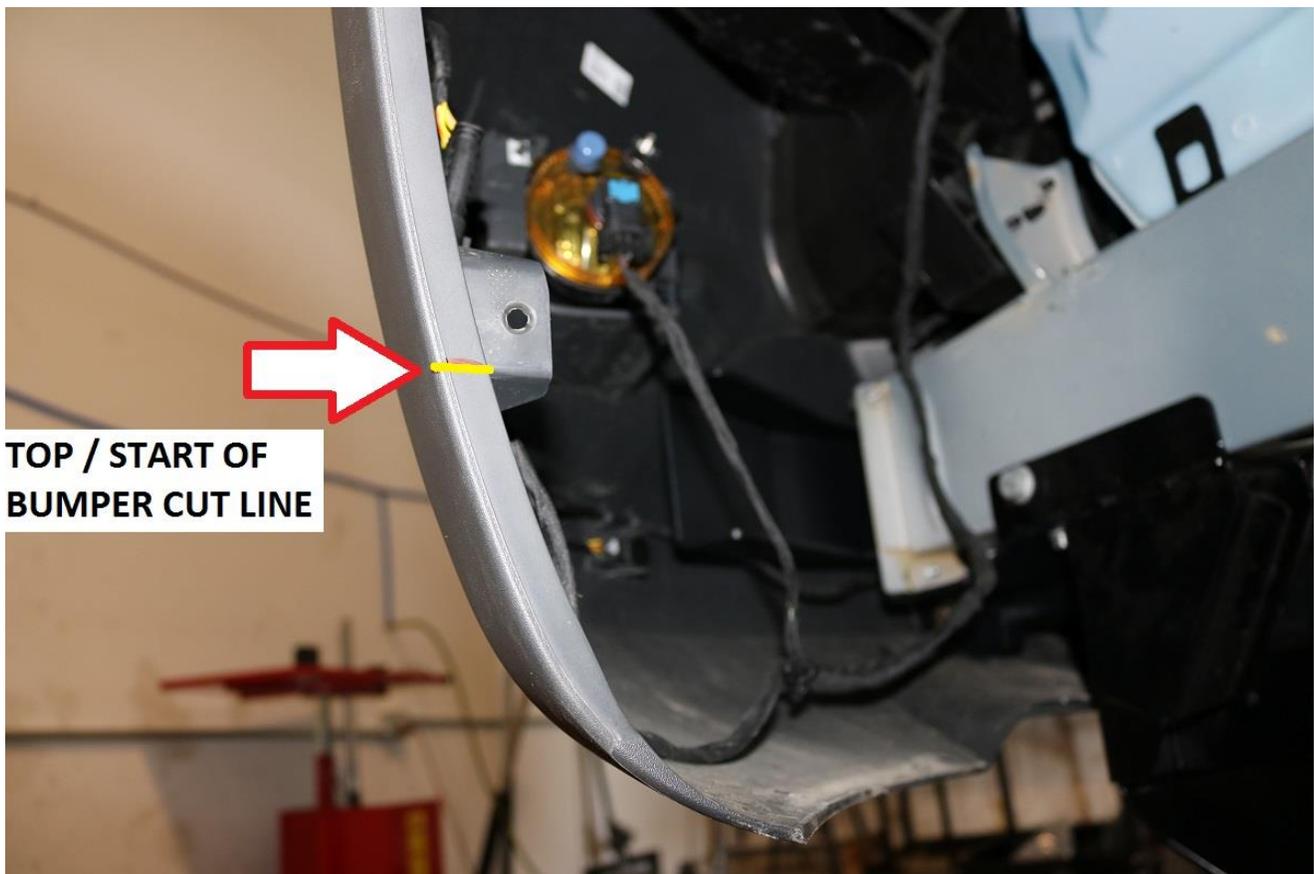


- 98) Remove the mudflap and mark a cut line as shown in the image below.

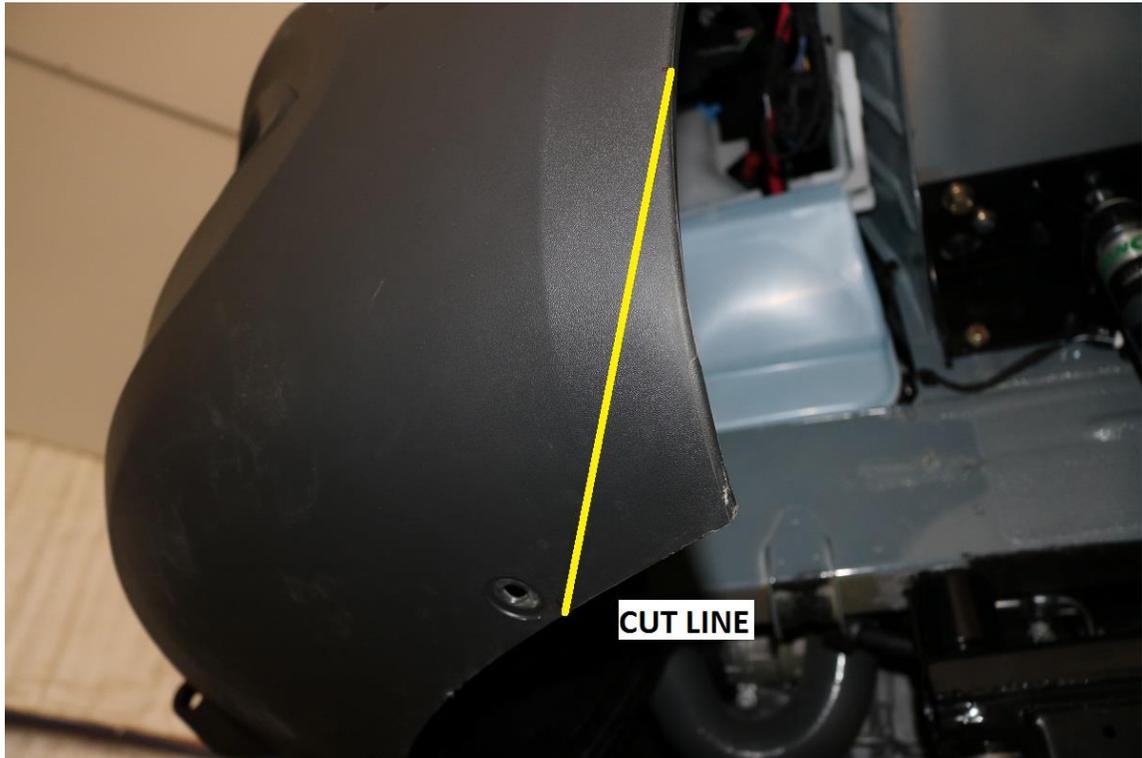




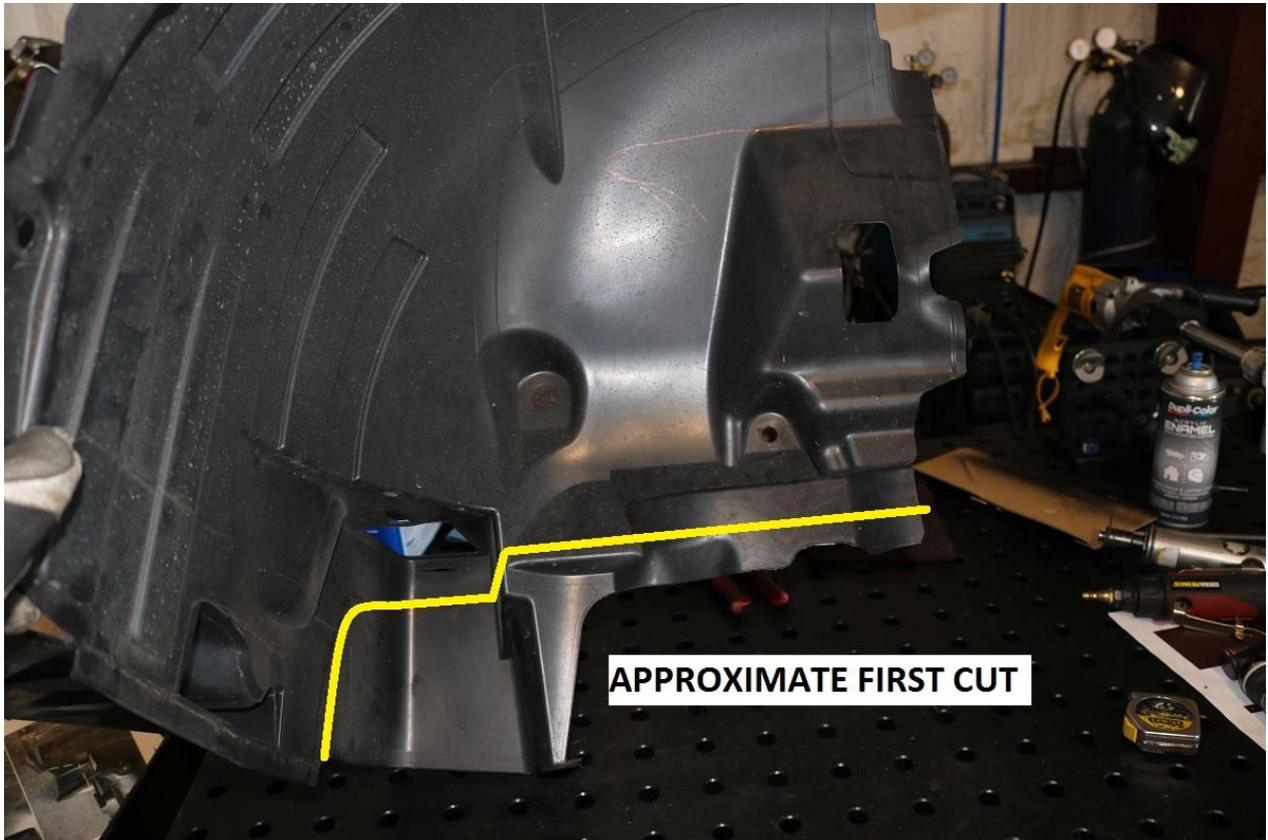
99) Mark a line at the bottom of the push pin mounting hole shown below. This is the bottom push pin mounting hole on the outside lip of the front bumper cover.



100) From the line marked in the previous step, continue cut line down so it is tangent with the bottom outer push pin hole in the front bumper cover. See image below for reference.



- 101) Use a 4-1/2" angle grinder or similar cutting tool to cut on this line. Deburr any rough edges with a file or sander of some sort.
- 102) Cut the front half of the inner fender liner as shown in the images below. Use a pair of tin snips or quality HD scissors to cut the plastic.





APPROXIMATE SECOND CUT LINE

103) Example of a finished cut front inner fender liner is shown below.



**EXAMPLE OF FINISHED
CUT FRONT HALF INNER
FENDER LINER**

104) Cut the rear half of the inner fender liners as shown in the images below.



105) Install trimmed fender liners and mudflap as shown below.



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.