



7004 – 2015-PRESENT, MERCEDES SPRINTER NCV3 4X4, FRONT FOX SHOCK KIT

Version 1.0

General Notes

- For the most up to date and current instructions, please visit our website at www.vancompass.com
- Please read all instructions thoroughly before starting installing Van Compass products.
- This is a bolt on shock kit that can be installed with basic hand tools.
- Removal and trimming of the plastic inner fender well liner will be required for installation.
- This suspension kit can be completely removed, allowing the vehicle to be returned back to stock configuration if desired.

Parts List

1006 – 2015-PRESENT, MERCEDES SPRINTER NCV3 4X4, FOX FRONT UPPER SHOCK MOUNT

- (2) 100601 MERCEDES SPRINTER NCV3 4X4, FOX FRONT UPPER SHOCK MOUNT
- (6) HM08-1.25-45-10.9 M8-1.25 X 45MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (6) NSM08-1.25 M8-1.25 STOVER NUT
- (12) WFM08 M8 YELLOW ZINC FLAT WASHER

1007 – 2015-PRESENT, MERCEDES SPRINTER NCV3 4X4, FOX FRONT LOWER SHOCK MOUNT

- (2) 100701 MERCEDES SPRINTER NCV3 4X4, FOX FRONT LOWER SHOCK MOUNT
- (2) HC8-9-30 9/16-12 UNC X 3.0" LONG, GR8, YELLOW ZINC HEX HEAD BOLT
- (2) NS8-9 9/16-12 UNC STOVER NUT
- (4) WF8-9 9/16" GR8 FLAT WASHER
- (16) SC8-4-03 ¼-20 UNC X ¾" LONG, GR8, SOCKET HEAD CAP SCREW

1016 – 2015-PRESENT, MERCEDES SPRINTER NCV3 4X4, FOX FRONT SHOCKS

- (2) 101601 MERCEDES SPRINTER NCV3 4X4, FOX FRONT SHOCKS

Tools Needed

- Quality Jack and 2 jack stands.
- Simple hand tools:
 - Basic wrench and socket set:
 - T25 Torx bit
 - Metric sizes: 10mm, 13mm
 - SAE sizes: ½", 13/16", 7/8", 3/16" allen tool

- Automotive trim removal tool
- Cutting tool for plastic inner fender well trimming.
 - 4-1/2" angle grinder or 3" pneumatic cut off tool
 - Die grinder or Dremel style tool

Approximate Installation Time

- Professional shop with automotive lift: 1-2 hours
- Driveway install with jack and jack stands: 2-3 hours

Installation

- 1) Begin by safely supporting the vehicle so that the front suspension can hang free.
- 2) With the front suspension hanging free, remove the front wheels / tires. Factory lug bolts are typically a 17mm bolt head.
- 3) These instructions will show installation on the driver's (left hand) side of the vehicle. Installation on the passenger side is the same.
- 4) 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.



- 5) This style of push pin is a 3 step removal process. Begin by rotating the head of the push pin 90 deg so it cams out of the indent in the push pin body.



ROTATE PUSH PIN HEAD 90 DEG AS SHOWN (CW OR CCW ROTATION) SO THE HEAD OF PIN CAMS OUT OF THE INDENT IN THE PUSH PIN BODY

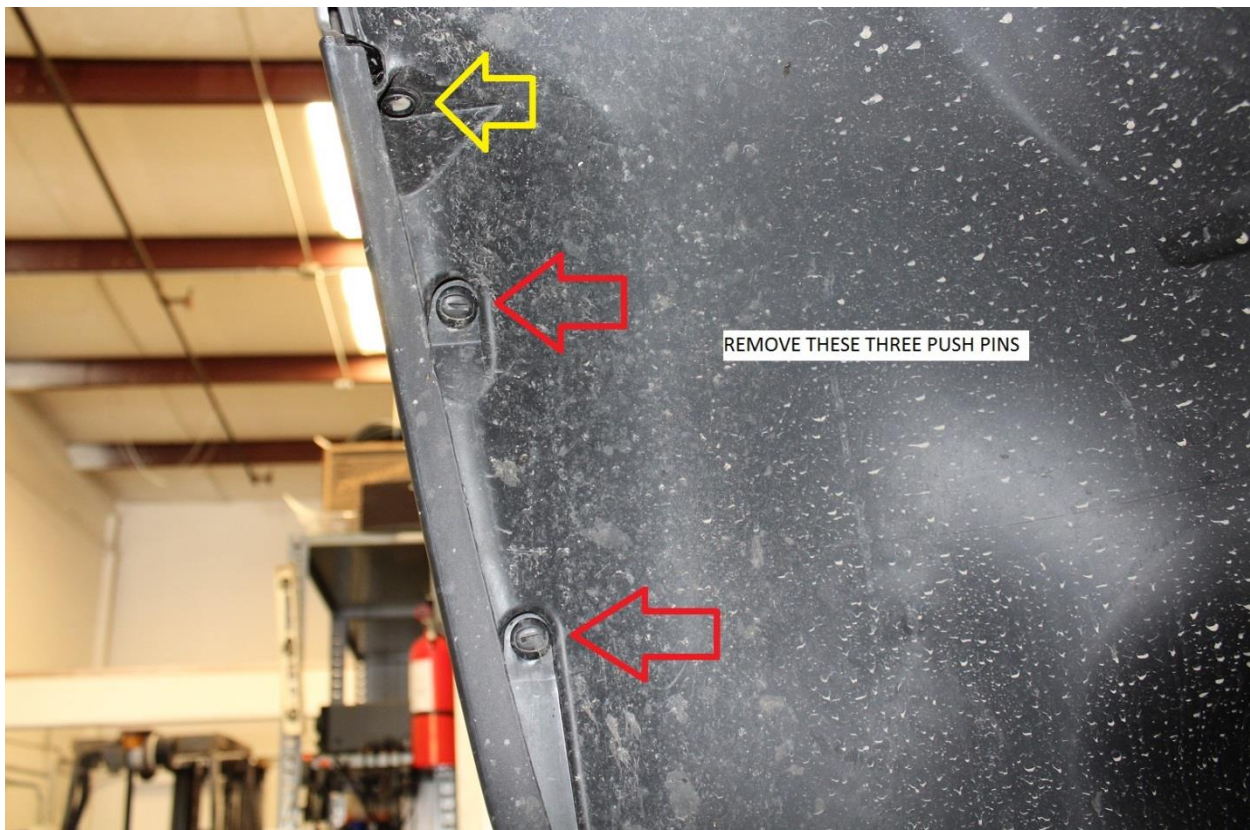
- 6) Next, using an automotive trim removal tool, pull up the head of the push pin.



- 7) Using the same automotive trim removal tool, pry up under the head of the push pin body to fully remove the fastener.



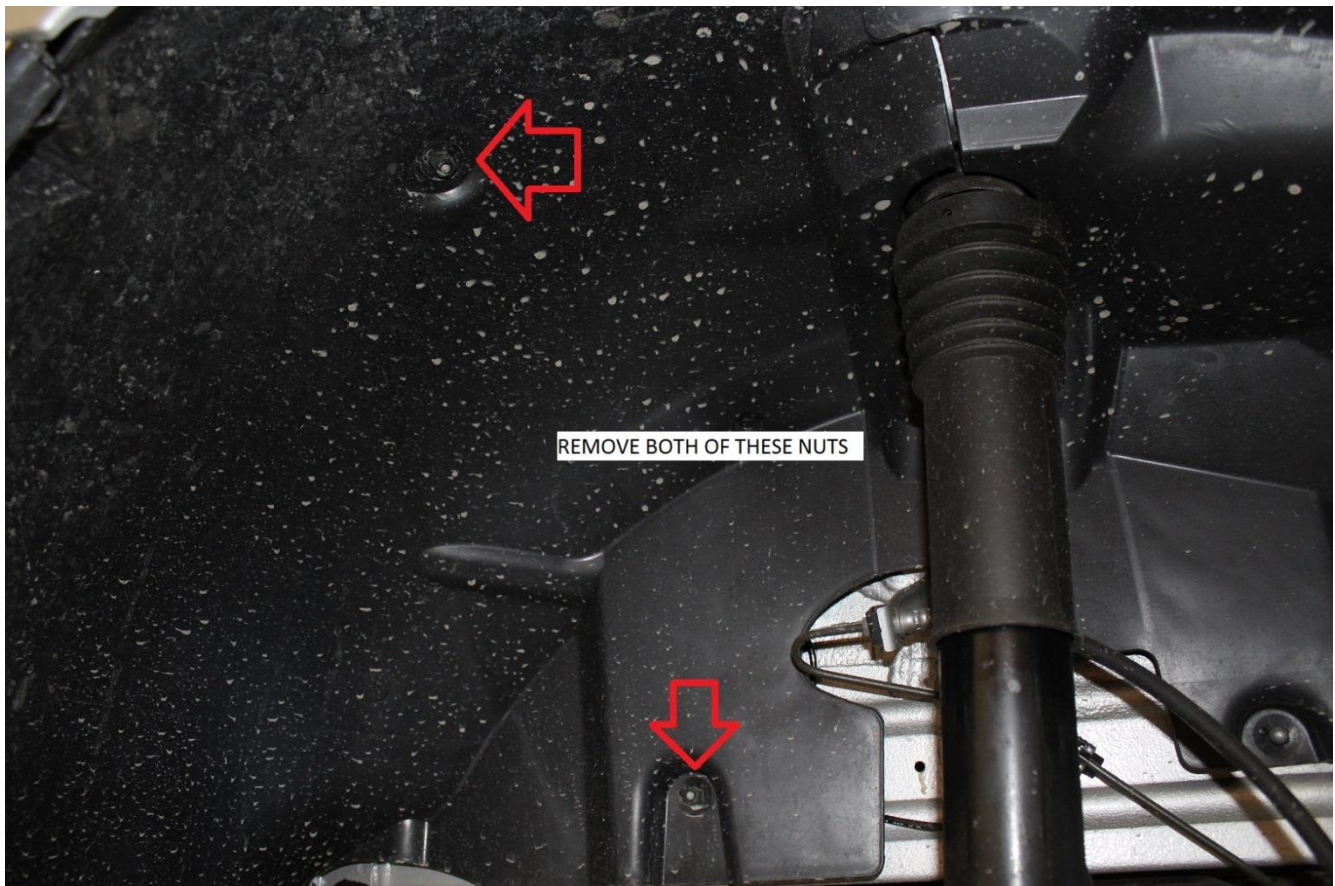
8) Next, on the inside of the fender well, remove the three push pin fasteners near the outer lip of the bumper.



- 9) Note, the bottom two fasteners (denoted with the red arrows) are the same “cam style” fastener from step 5. The upper fastener (denoted with the yellow arrow) is a standard style push pin which can be removed in two steps. Simply pry up under the push pin head prior to prying underneath the body of the fastener.



- 10) Now, locate and remove the two plastic nuts securing the front half of the inner fender well liner to the chassis. Use a 10mm socket for removal.



11) Locate and remove the 3 plastic 10mm nuts securing the rear half of the inner fender well liner to the chassis.



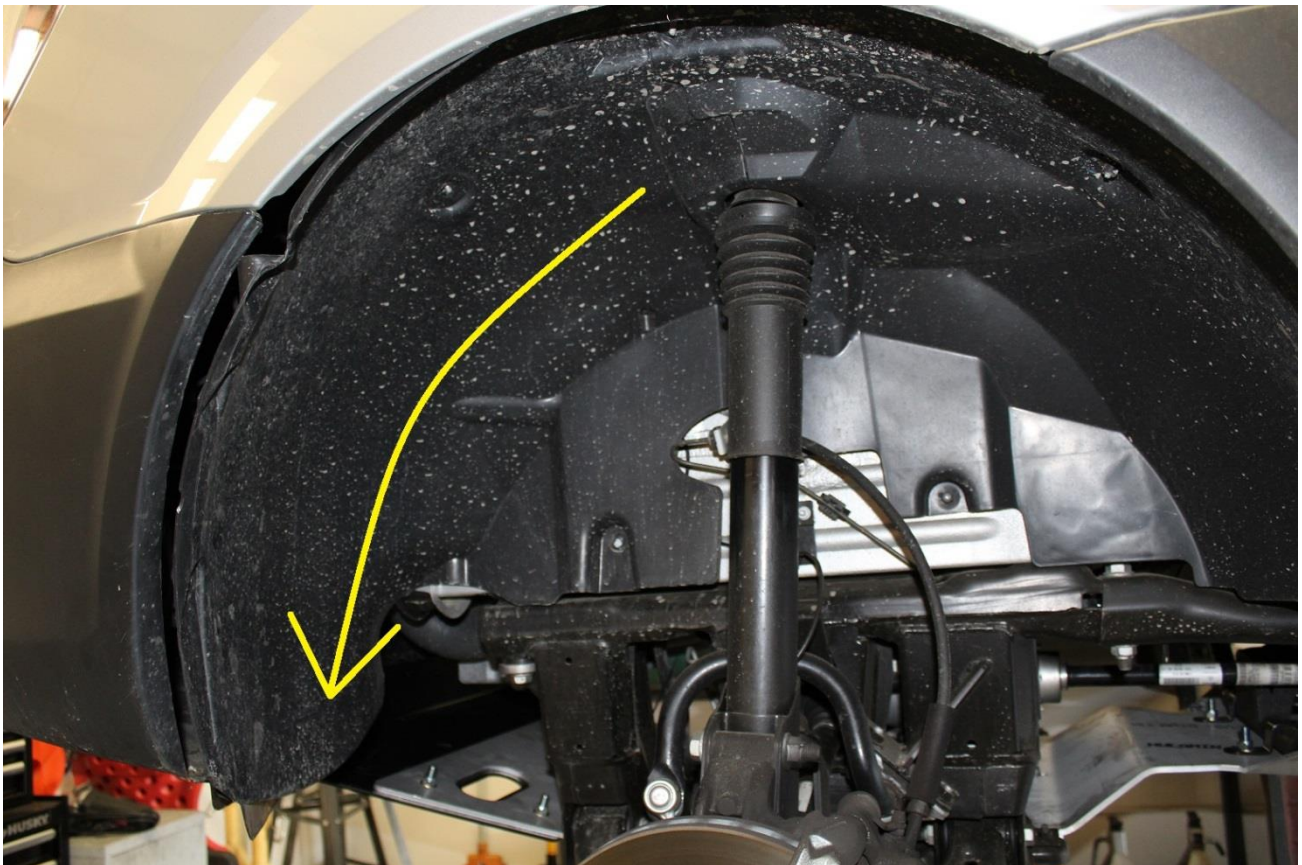
12) Lastly, remove the upper nut which secures both the front and rear half of the inner fender well liner to the chassis. Again, use a 10mm socket for removal.



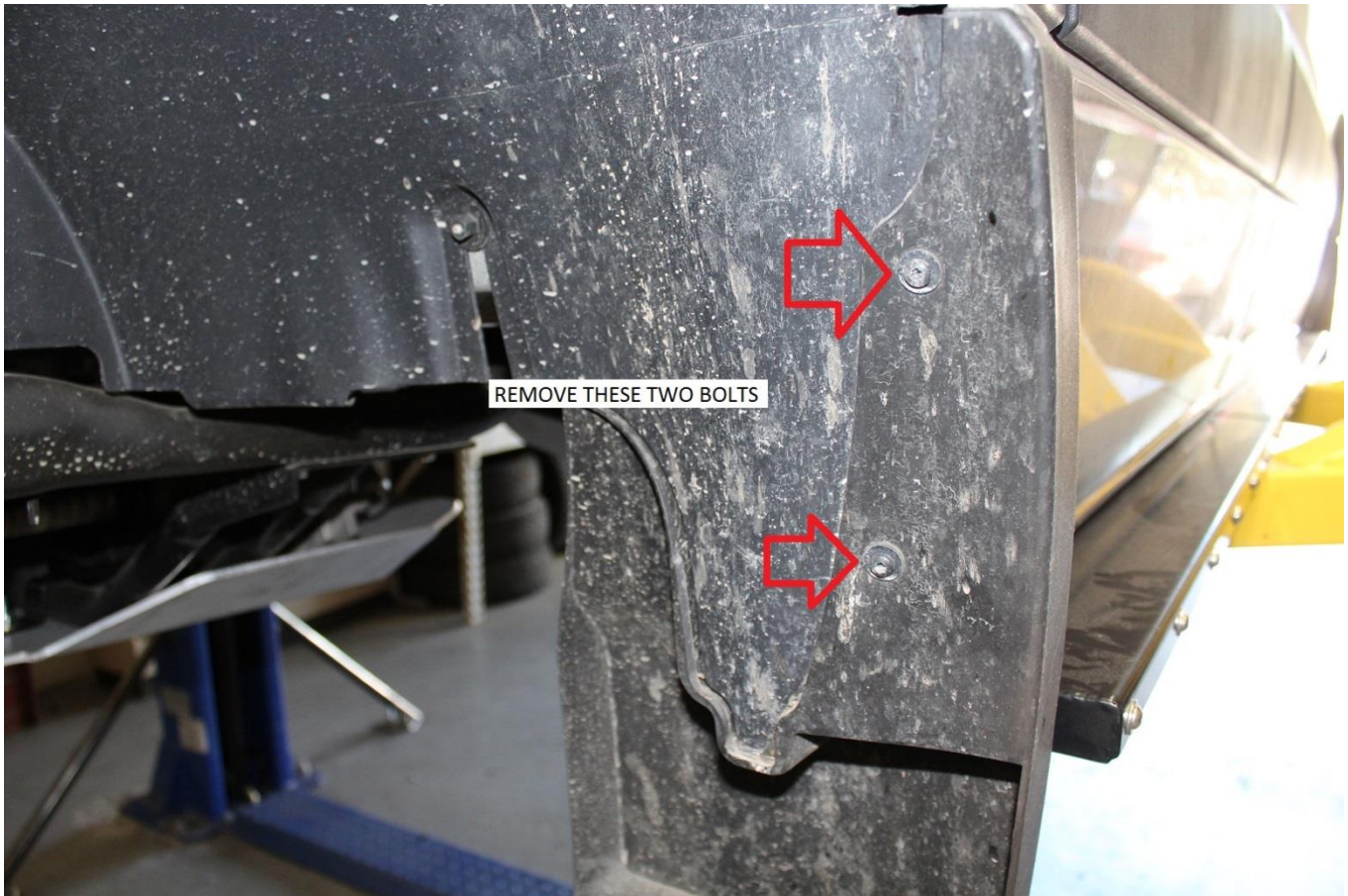
13) Remove the front half of the inner fender well liner by pulling the liner away from the bottom stud as shown.



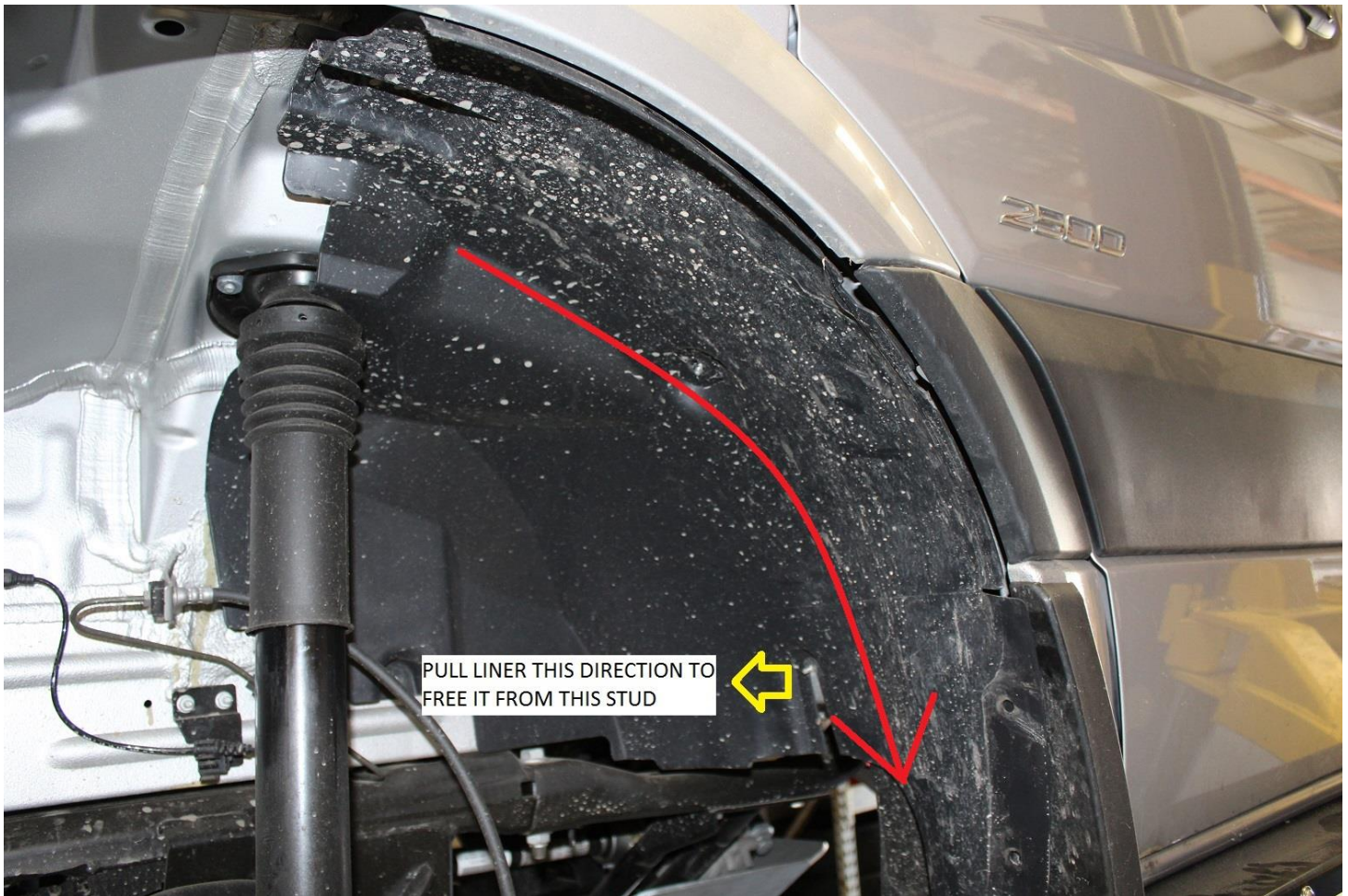
14) Next pull the inner fender well liner away from the bumper and out from under the fender lip until it appears as shown.



- 15) Slide the front half of the inner fender well forward and down until it clears from underneath the rear half of the inner fender well liner. Note arrow in above photo is there to denote direction of movement needed for removal.
- 16) With the front half of the inner fender well liner removed, remove the two torx head bolts securing the rear half of the inner fender well liner to the mud flap. Use a T-25 Torx bit tool for removal.



- 17) Pull the mudflap out away from the body so the inner fender well liner can be pulled free from behind it. Again, pull the inner fender well liner out from underneath the lip of the fender. And pull the liner away from the bottom stud.



- 18) The liner should now be able to rotate down and out the direction denoted above with the large red arrow.
- 19) Install the 100701 lower shock mount by bolting it to the sway bar, just above where the sway bar changes from round to flat as shown below. Take note, the tabs on the mount should jog down as shown.
 - a. Use the $\frac{3}{4}$ " long $\frac{1}{4}$ -20 socket cap screws included with the lower mount. Simply snug up all bolts. Make sure the mount can still be rotated. Use a $\frac{3}{16}$ " allen tool to tighten the bolts.



- 20) Move to the inside of the vehicle and remove the floor mat to access the strut's upper mounting bolts.
- a. Remove the floor mat by locating the three T-25 bolts above the step which secure the floor mat flange to the step.



- b. Once these three bolts are removed, the floor mat can be pulled up out of the way to access the strut mounting bolts.



- c. Note, on the passenger side, simply remove the cover for the vehicles jack / tool kit to access the upper strut mounting bolts. See images below for reference.



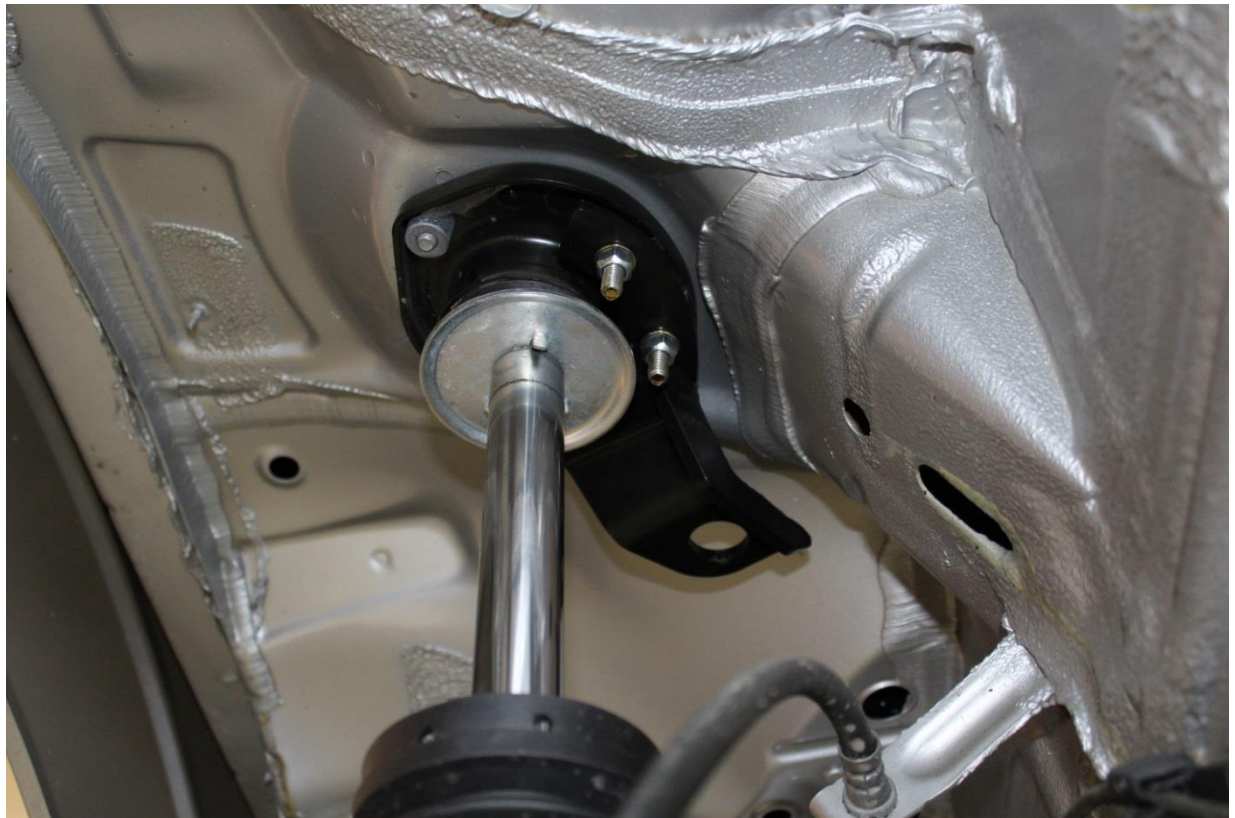
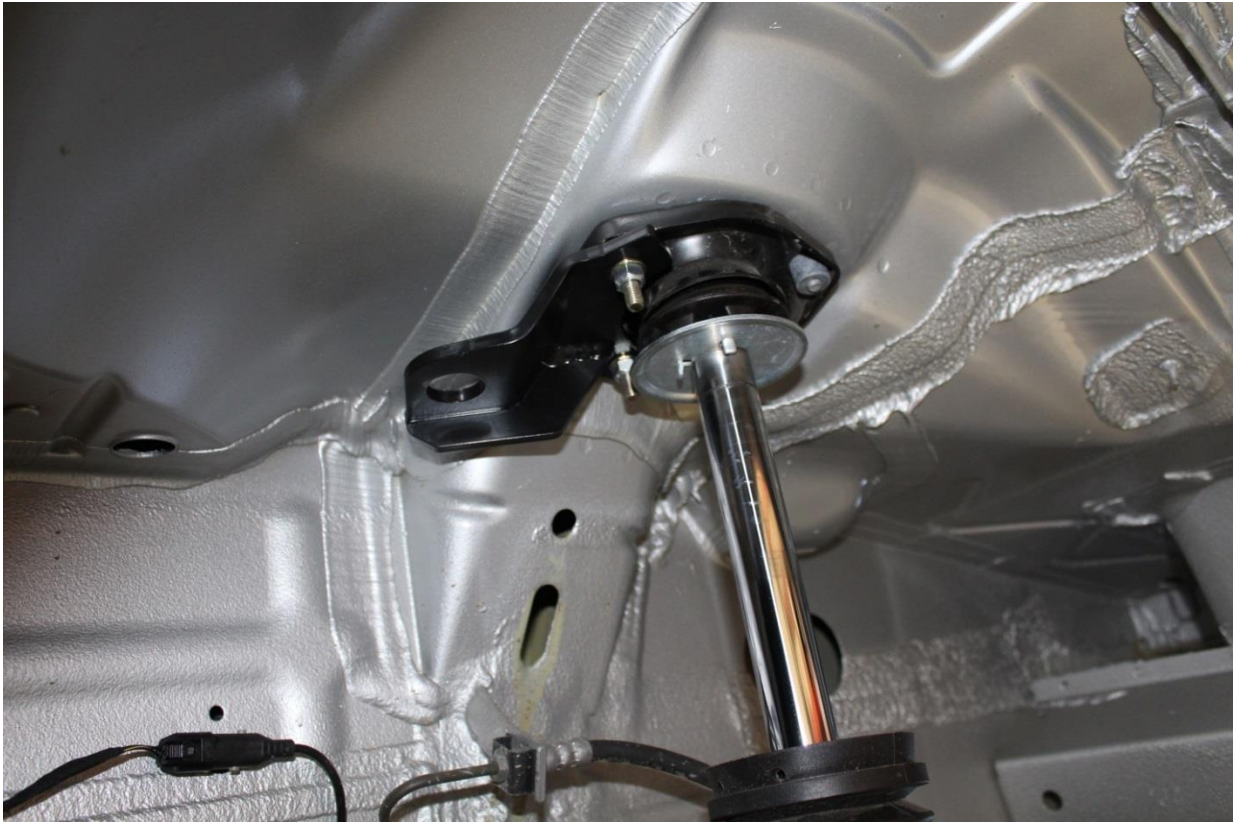
- 21) Remove the front and two inside bolts one at a time and replace them with the M8-1.25 x 45mm long bolts provided. Use a M8 washer under each bolt as shown. Use a 13mm socket for both bolt removal and for installing the new bolts. Torque the bolts to 30 ft-lbs.



- 22) Install the upper shock brackets. Begin by first pulling down the rubber boot which protects the strut shaft.



23) The brackets are left and right specific. The brackets should orient as shown. Install using the M8-1.25 stover nuts and M8 washers included with the kit. Use one washer under each nut. Snug up all nuts just until the bracket contacts the threaded bungs on the strut. Do not tighten further at this point.



24) Next, have someone put a wrench on each bolt head to prevent them from spinning loose while each nut is torqued from below to 30 ft-lbs.

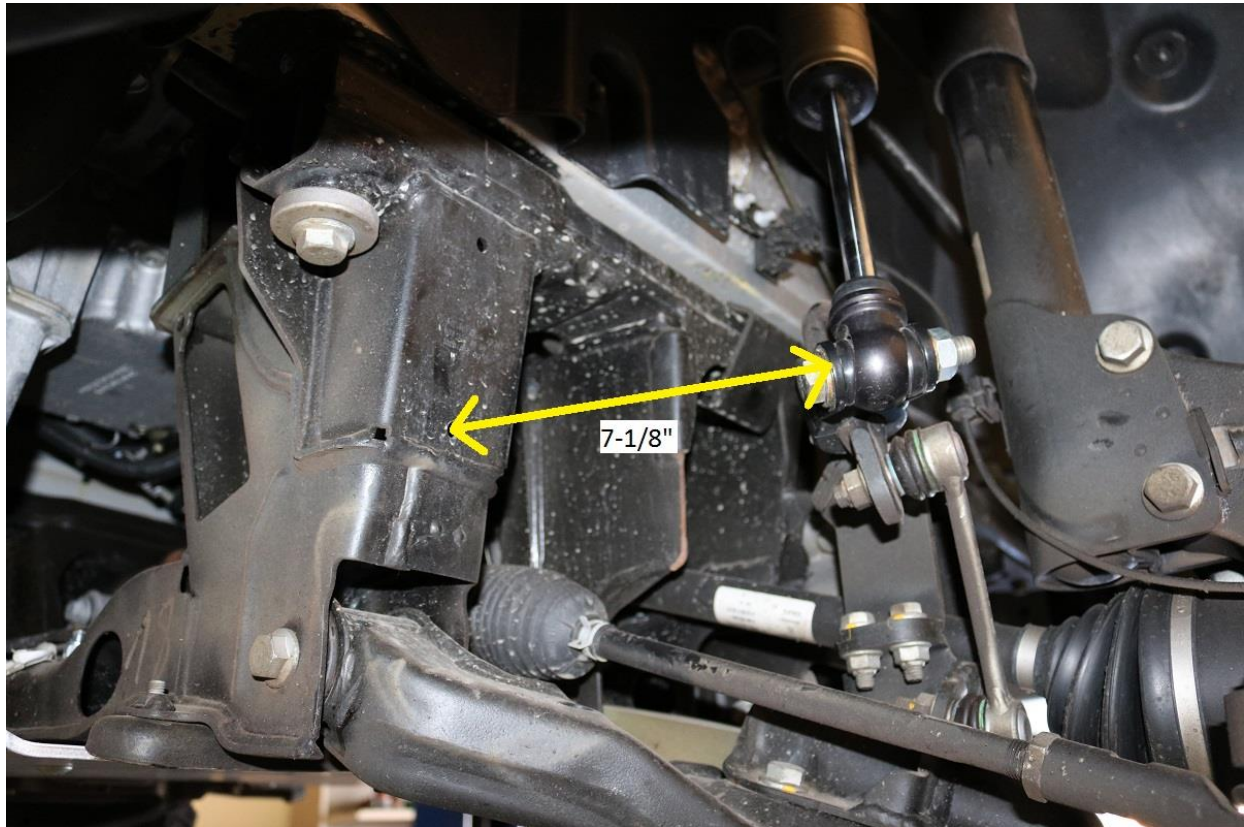
25) Re-position the strut boot back in place.

26) Install the Fox shock. Bolt into the lower mount first using the 9/16-12 UNC x 3.0" long bolt provided in the kit. Use a washer under the head of the bolt and nut. Snug lower bolt but do not fully tighten at this time. A 13/16" socket / wrench is needed for the head of the bolt, while a 7/8" socket or wrench is used for the nut.

- a. Remove the upper nut, washer and bushing from the shock and compress the shock down until it can be positioned into the upper mount.
- b. Once the shock is in position on the upper mount, re-install the shock bushing, washer and nut as shown below. Tighten nut using a 3/4" open ended wrench. Tighten until the bushings have compressed approximately 1/8" (3-4mm).
- c. Note – the lower shock bushing / bolt will appear to be misaligned when initially installed since the front suspension is fully drooped out. This is normal and is not cause for alarm. When the van is at ride height, the bushing will be neutral due to the way the way bar rotates as the suspension cycles.



27) Rotate the lower shock mount forward so that the tabs are approximately 45 deg to the flat of the sway bar, where the sway bar end link bolts in. Measure from the center of the lower hole on the sub frame to the outer edge of the inside tab of the shock mount. This should measure out to 7-1/8" (181mm) See images below for reference.

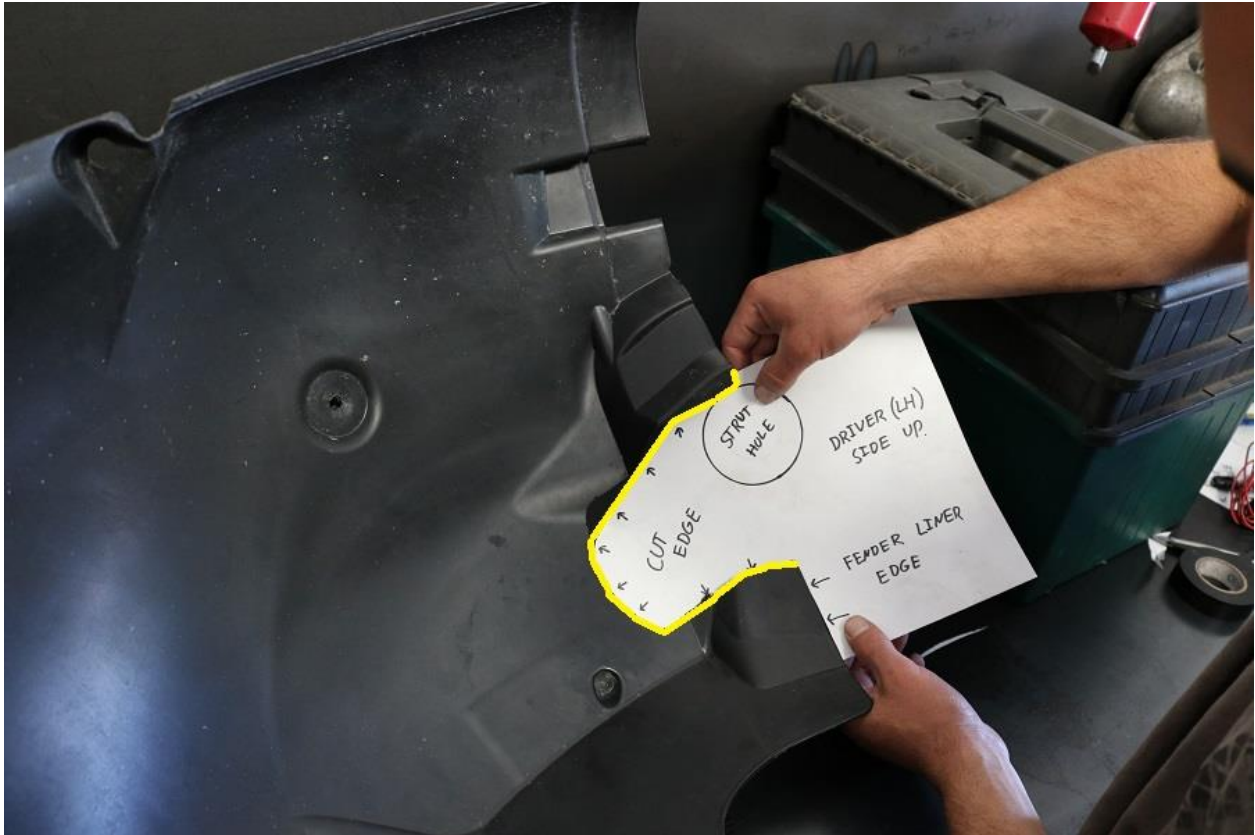


28) Torque the hardware for the lower shock bolt / mount

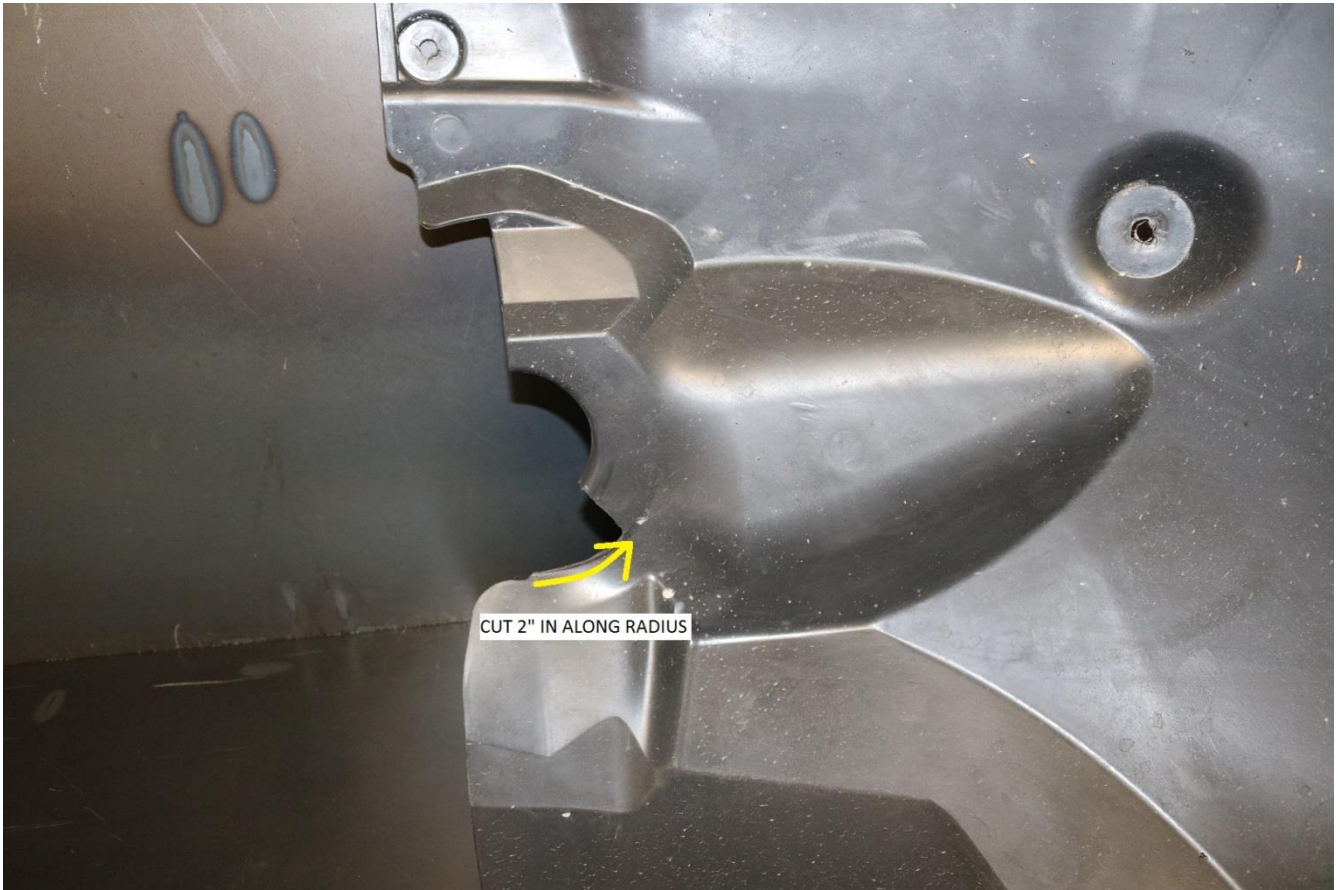
- a. Torque the ¼-20 socket cap screws on the lower shock clamp to 14 ft-lbs. (19 N.m)
- b. Torque the lower 9/16" shock bolt to 80 ft-lbs (109 N.m)

29) Trim the front half of the factory inner fender well liner. Use the included template on the last page of these instructions. Trace around the template as shown below in yellow to mark the cut.

- a. Trim out the plastic using a 4-1/2" angle grinder or similar cutting tool. Round the edges with a dremel or die grinder.
- b. A file works well for removing any remaining plastic burrs before re-installing.
- c. Note, flip the template over for the passenger side fender well liner.



30) Trim the rear half of the factory inner fender well liner as shown below.



31) Re-install inner fender well liners in the reverse order of removal. Ensure there is adequate clearance around shock mount.





- 32) Re-install wheels and tires and lower van to ground. OEM torque spec for wheel studs are as follows:
 - a. 2500 SRW: 177-187 ft-lbs (240-250 N.m)
 - b. 3500 DRW: 140-150 ft-lbs (190-200 N.m)
- 33) Turn wheels lock to lock and make sure there is no contact with the tire and shock at ride height. Rotate clamp slightly inward if any contact is occurring.
- 34) Re-check all bolt torques after 100 miles of driving.

Installation is Complete

RELEASE OF LIABILITY

I, the customer, do hereby release and forever discharge Van Compass LLC, of 8778 Plata Ln. STE B. Atascadero, Ca 93422 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 California.

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.

**CUT THIS
AREA OUT TO
CREATE
TEMPLATE**

**AREA TO BE CUT OUT
TO CLEAR SHOCK
MOUNT TRACE ONTO
PLASTIC AFTER
TEMPLATE IS CUT TO
SIZE**

FENDER LINER EDGE

STRUT HOLE

DRIVER SIDE (LH) UP