



7107 – 2007-PRESENT, MERCEDES SPRINTER NCV3 OR VS30 3500 4WD, REAR 2.0” LIFT KIT

Version 1.2

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. Four, ¼” diameter holes need to be drilled for attaching brackets to the vehicle.
- 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.
- This suspension kit can be completely removed, allowing the vehicle to be returned back to stock configuration if desired.

Parts List

4008 – 2007-PRESENT, MERCEDES SPRINTER, REAR BRAKE LINE DROP BRACKET, 2.0” LIFT KIT

- (2) 400801 REAR BRAKE LINE DROP BRACKET, 2.0” LIFT
- (2) HM06-1.00-25-10.9 M6-1.00 X 25MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (2) NNM06-1.00 M6-1.00 NYLOCK NUT, CLEAR ZINC
- (4) WFM06 M6 YELLOW ZINC FLAT WASHER
- (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
- (1) HOSE-VAC-06-12 1 FOOT, 3/8” VACUUM HOSE

3036 – 1994-PRESENT, MERCEDES SPRINTER 3500, OPTI-RATE REAR LEAF SPRINGS

- (2) 303601 OPTI-RATE REAR LEAF SPRINGS
- (4) UB-750-2800 75MM DIAMETER X 280MM LONG, M14X1.50” THD, U-BOLT
- (8) NLM14-1.50 M14-1.50 LUG NUT
- (4) 306502-01 OPTI-RATE SPRING, ADJUSTABLE PRELOAD SPACER (INSTALLED)
- (8) 306502-02 OPTI-RATE SPRING, ADJUSTABLE PRELOAD SLIDER PAD (INSTALLED)

3013 – 1994-PRESENT, MERCEDES SPRINTER 3500, REAR BUMP STOP DROP BRACKET, 2.0” LIFT KIT

- (2) 301301 REAR BUMP STOP DROP BRACKET, 2.0” LIFT
- (4) HT5-5-10 5/16-18 X 1” LONG, HEX HEAD THREAD CUTTING SCREW

3059 – 2019-PRESENT, MERCEDES SPRINTER VS30, REAR HEADLIGHT LEVELING BRACKET, 2.0" LIFT KIT

- (1) 305901 REAR HEADLIGHT LEVELING BRACKET
- (1) HC-06-10 3/8-16 X 1" HEX HEAD BOLT
- (2) WF8-03 3/8" FLAT WASHER
- (1) NNC-03 3/8" NYLOCK NUT

3024 – 2007-2018, MERCEDES SPRINTER NCV3 3500, REAR LOWER SHOCK MOUNT, 2.0" LIFT KIT

- (2) 302401 REAR LOWER SHOCK MOUNT, 2.0" LIFT
- (2) 302402 REAR LOWER SHOCK MOUNT, 2.0" LIFT, SPACER BUNG
- (4) HM14-1.50-80-10.9 M14-1.50 X 80MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (4) NSM14-1.50 M14-1.50 STOVER NUT
- (8) WFM14 M14 YELLOW ZINC FLAT WASHER
- (2) HM10-1.50-70-10.9 M10-1.50 X 70MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (2) NSM10-1.50 M10-1.50 STOVER NUT
- (4) WFM10 M10 YELLOW ZINC FLAT WASHER

3018 – 2007-2018, MERCEDES SPRINTER NCV3 3500, REAR SWAY BAR DROP BRACKET, 2.0" LIFT KIT

- (2) 301801 REAR SWAY BAR DROP BRACKET, 2.0" LIFT
- (2) 301801-03 REAR SWAY BAR DROP BRACKET, 2.0" LIFT, SPACER BUNG
- (4) HM12-1.50-60-10.9 M12-1.5 X 60MM LONG, GR10.9, YELLOW ZINC HEX HEAD BOLT
- (4) NSM12-1.50 M12-1.5 STOVER NUT
- (8) WFM12 M12 YELLOW ZINC FLAT WASHER
- (2) HT5-5-10 5/16-18 X 1" LONG, HEX HEAD THREAD CUTTING SCREW

Tools Needed

- Quality jacks and 2 jack stands.
 - Optional – Automobile lift and two screw jacks
- Simple hand tools:
 - Torque Wrench
 - Dykes or similar tool for cutting zip ties.
 - Basic wrench and socket set:
 - Metric sizes: 10mm, 13mm, 16-19mm, 21mm
 - SAE sizes: ½", 9/16"
 - Allen – 7/32"
- Drill with quality metal cutting step drill or unibit will be needed.
- 4-1/2" angle grinder with metal cutting wheel or similar tool for cutting thin sheet metal.
- Nut driver or drill with ¼" socket bit attachment for installation of thread cutting hardware.

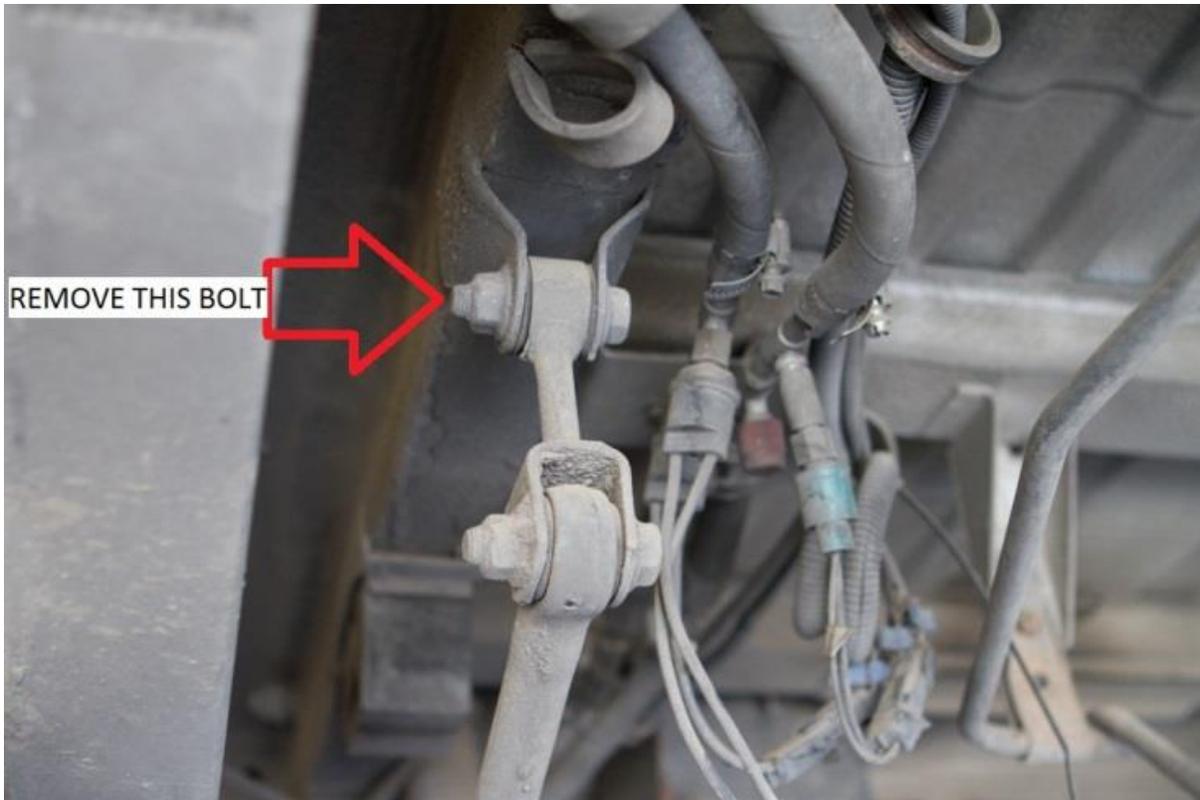
- Brake bleeding tool.
- DOT 4 Synthetic Brake Fluid

Approximate Installation Time

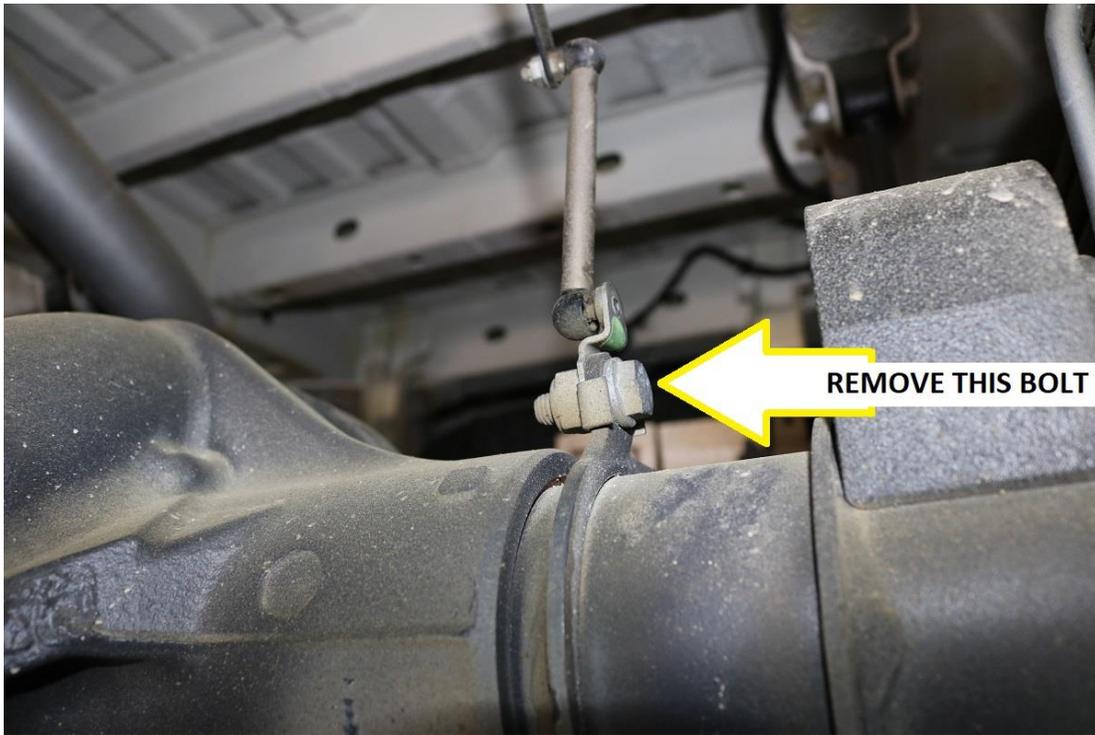
- Professional shop with automotive lift: 3-4 hours
- Driveway install with jack and jack stands: 4-5 hours

Installation

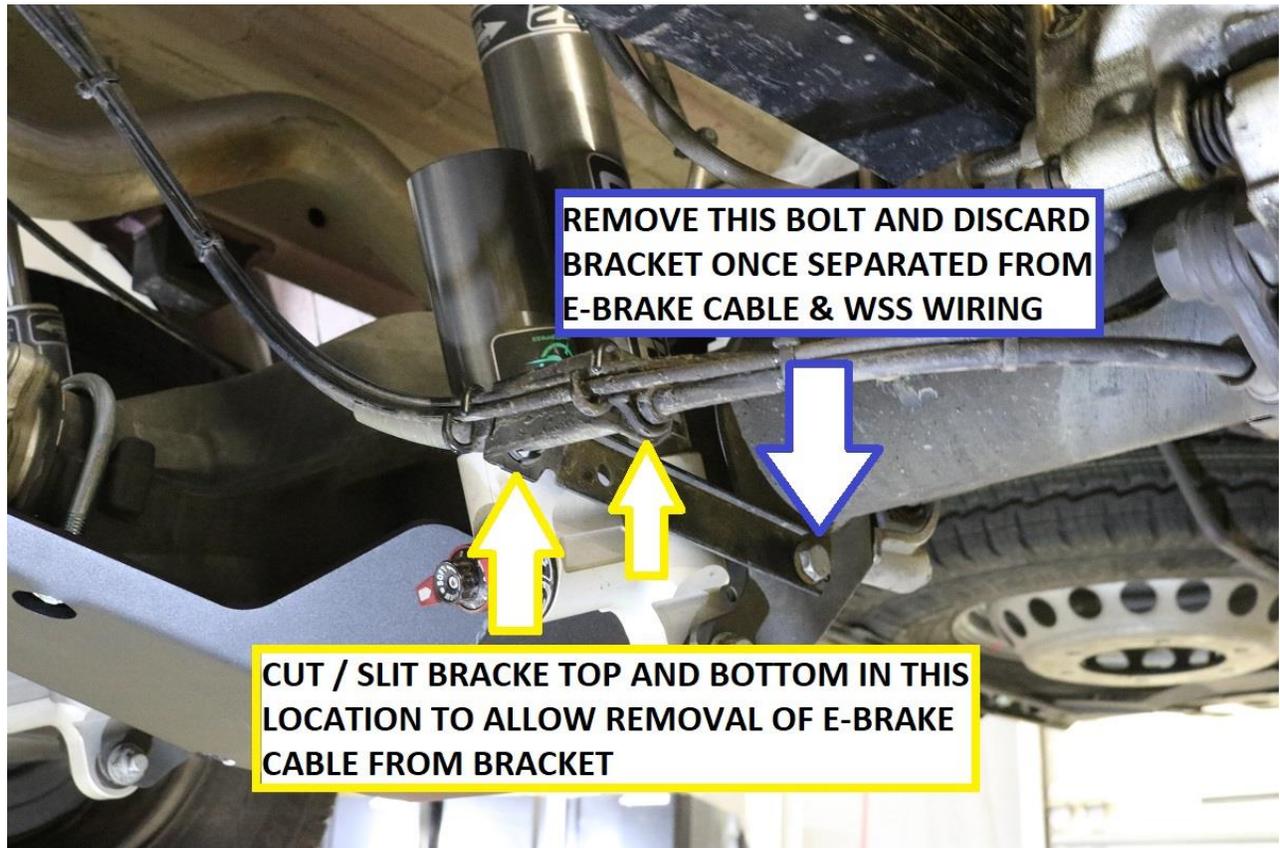
- 1) Begin by safely supporting the vehicle so that the rear suspension can hang free. This can be done with an automobile lift or a quality jack and a pair of jack stands.
- 2) With the rear suspension hanging free, remove the rear wheels / tires.
- 3) Remove the rear sway bar end links.
 - a. Begin by using an 18mm socket and wrench to remove both sway bar link attachment bolts.



- 4) Disconnect the headlight adjuster bracket at the axle. Retain the bolt for future use.
 - a. Use a 16mm socket / wrench to remove the bolt.



- 5) Locate the bracket securing the emergency brake cable and wheel speed sensor (WSS) wiring to the lower shock mount on the axle.
 - a. Use an angle grinder with metal cutting wheel or small pneumatic cut off wheel to carefully slit the bracket to allow for the E-brake cable to be freed. See image below for reference.
 - b. Pry open the small fingers securing the WSS wiring to the bracket and free the wiring from the bracket.
 - c. Lastly, with the E-brake cable and WSS wiring free from the bracket, use a 16mm socket / wrench to remove the remainder of the bracket from the lower shock mount.



- 6) Support the axle and disconnect the lower shock bolt. Use a 21mm socket and wrench for removal. Once the shock is removed, allow the axle to hang freely again. Note that the springs will limit the downward travel with the shocks removed.

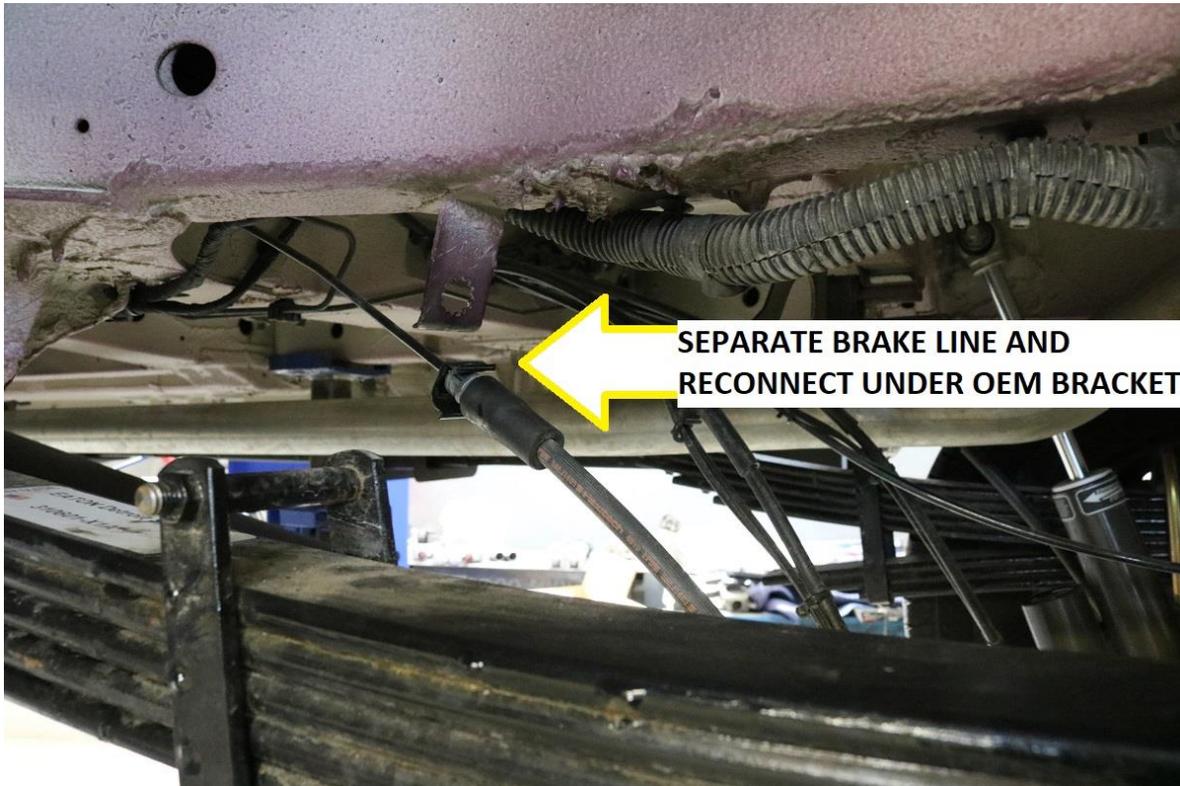


- 7) Remove the bump stops. Some Windex or similar glass cleaner to lubricate the rubber bump stops helps make removal easier.
- a. Note – Bump stop designs vary by year and wheelbase options. However, they all attach to the chassis in the same manner. A pry bar can be useful in bump stop removal. See images below.



4008 Rear Brake Line Drop Bracket Installation

- 1) Installation of the rear brake line drop brackets can be done on both sides of the vehicle simultaneously.
- 2) Use an 11mm brake line wrench and disconnect the brake hose from the brake line at the chassis. Remove the brake hose / line from the factory routing tab and reconnect under it as shown below.



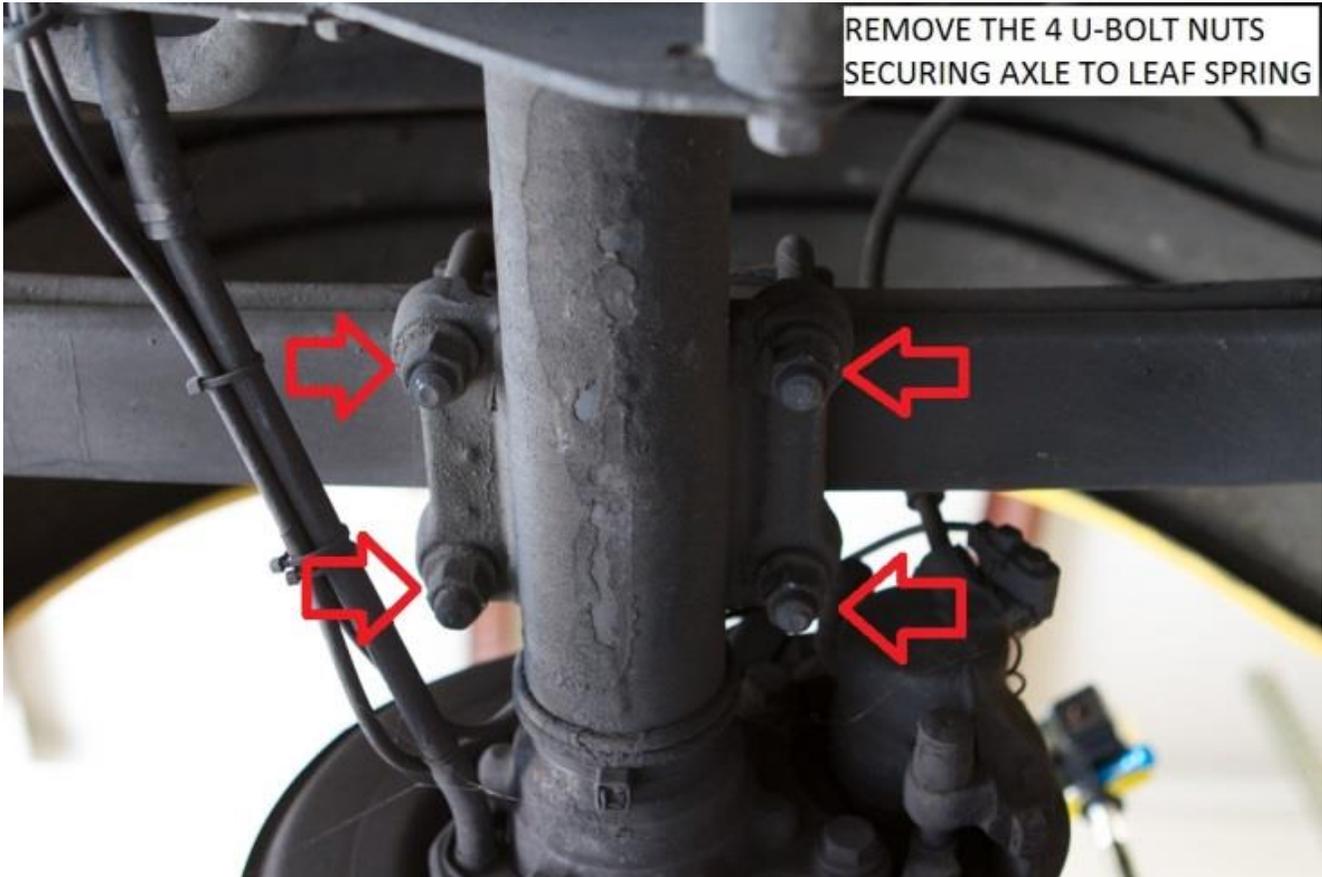
- 3) Fit the 400801 brake line drop bracket as shown below. Use the M12-1.50 x 25mm long bolt provided with the kit to align the bracket as shown. Mark the top hole and drill using a 1/4" (6mm) drill bit.



- 4) Once the upper hole is drilled, install the brake line drop bracket.
 - a. Use a washer under both the bolt head and nylock nut of the 6mm bolt.
 - b. Use a washer under just the bolt head of the 12mm bolt.
 - c. NOTE; The brake hose stays routed below the spring just as OEM.

3036 Replacement Leaf Pack Installation

- 5) Install the rear leaf packs one side at a time. Support the rear axle with a floor jack towards one side of the axle. Remove the 4 U-bolt nuts securing the leaf spring to the axle housing on that side using a 19mm socket.

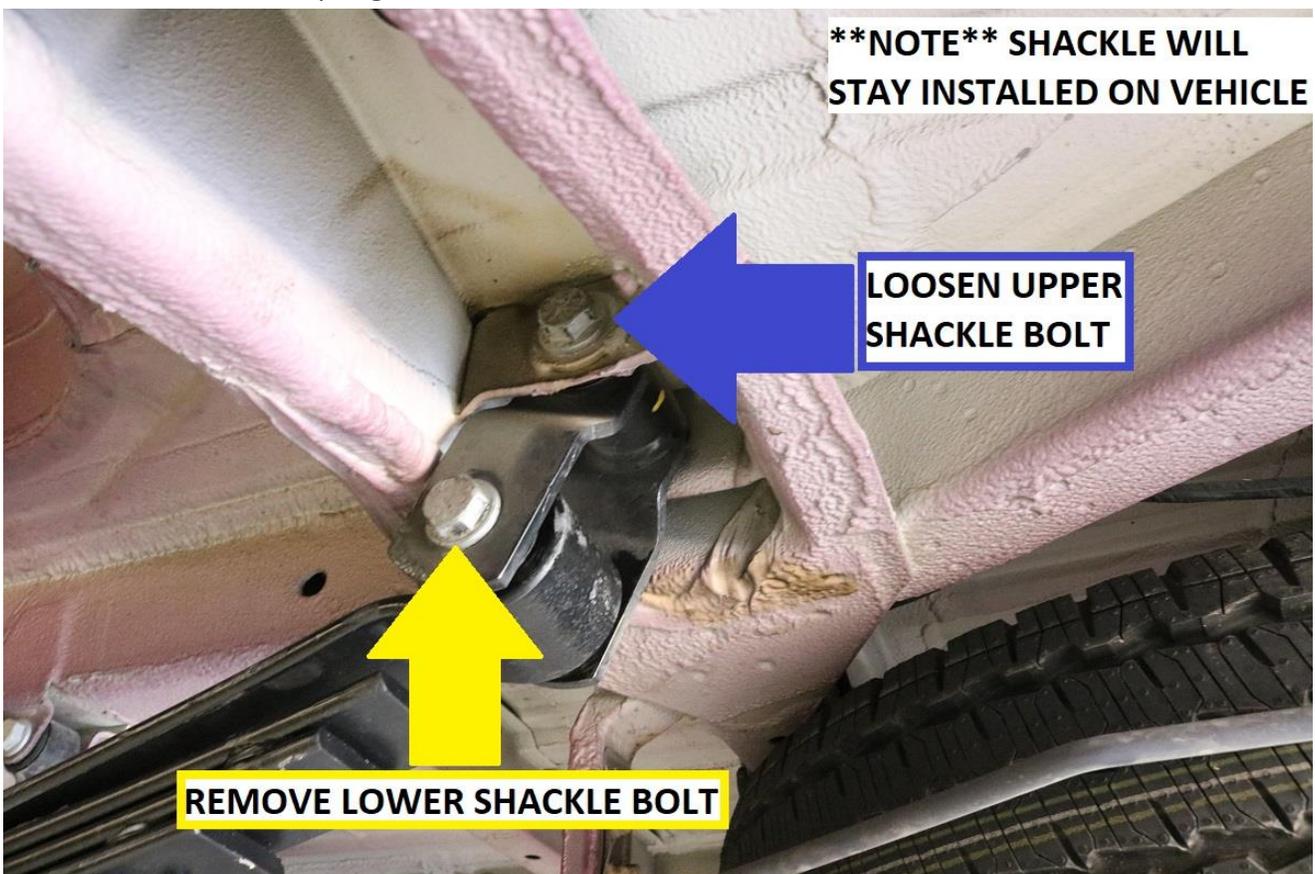


- 6) Lower the rear axle until the factory lift block can be removed. Remove the factory lift block for the time being. The factory lift block will be re-installed with the new leaf springs.



REAR BLOCK REMOVED, AXLE RAISED BACK INTO PLACE TO SUPPORT LEAF SPRING FOR REMOVAL

- 7) Remove the forward leaf spring bolt using a 21mm socket / wrench.
- 8) Loosen the upper shackle bolt but do not remove it.
- 9) Remove the lower shackle bolt and lower the axle while carefully balancing / supporting the leaf spring and remove the leaf spring from the vehicle.



****NOTE** SHACKLE WILL STAY INSTALLED ON VEHICLE**

LOOSEN UPPER SHACKLE BOLT

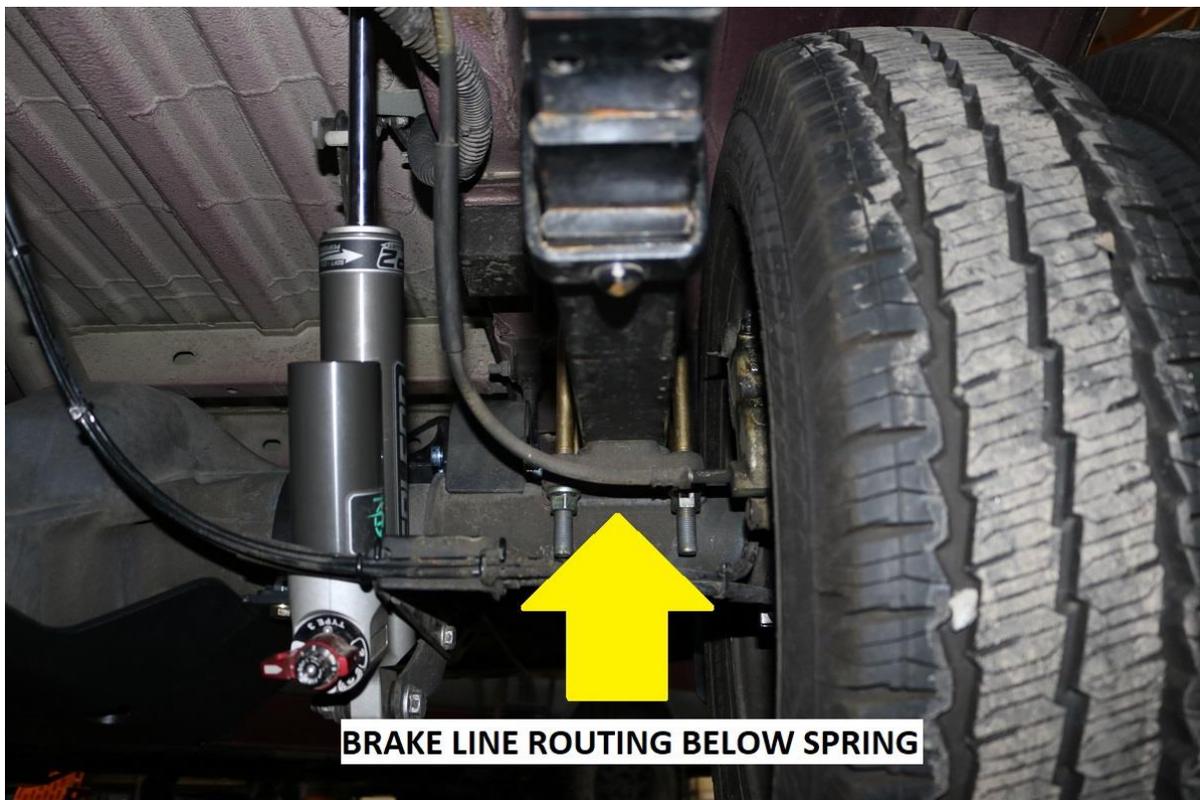
REMOVE LOWER SHACKLE BOLT

10) Take note of the double military wrap on one side of the new Opti-rate leaf spring, this is the front of the spring and is to be installed towards the front of the vehicle.

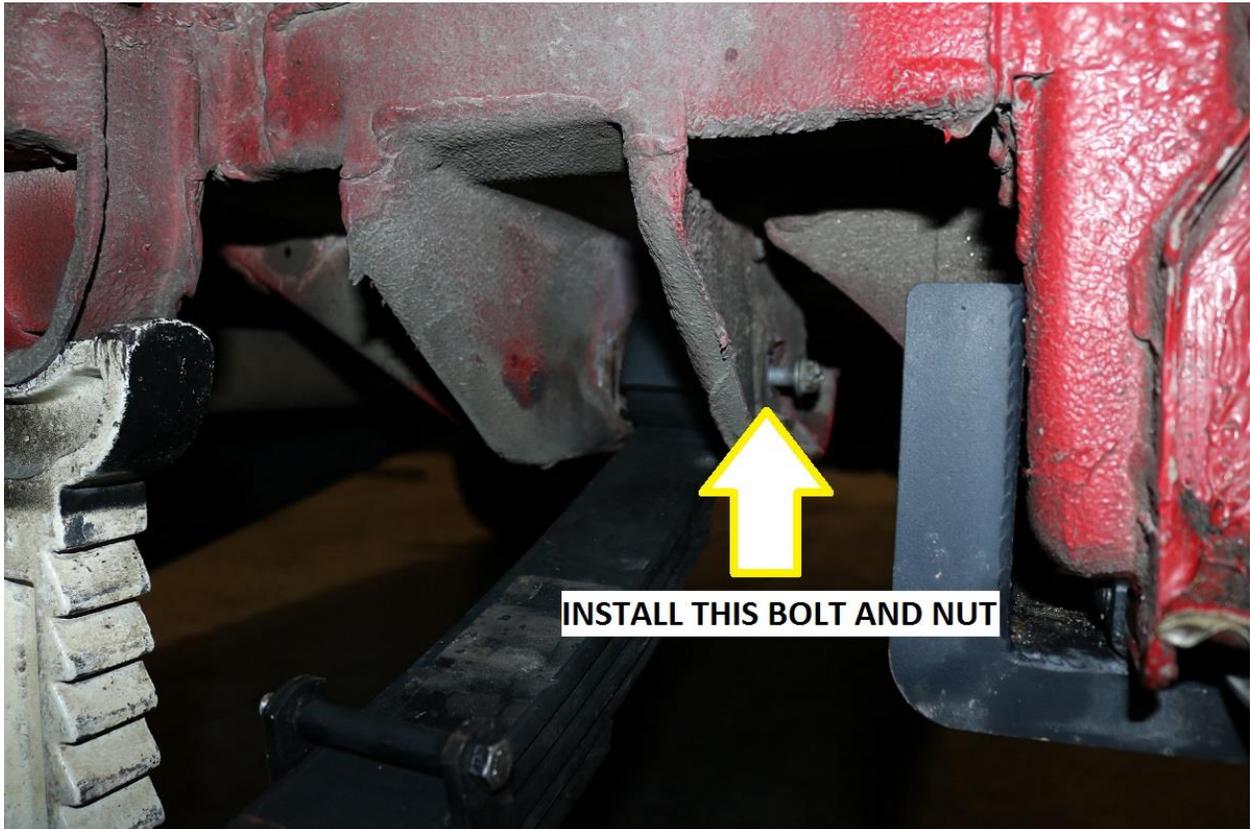


11) Install the leaf springs into the vehicle. We have found it easiest to install the springs upside down and then rotating them up into position once under the vehicle.

- a. **NOTE:** Be sure to route the brake line under the leaf spring same as the factory configuration.



12) Once the springs are rotated into position. Install the forward spring bolt in the spring hanger, install the nut but do not tighten at this time.



- 13) Jack the axle up or down accordingly to be able to install the lower shackle bolt. Once aligned, install the bolt and nut but do not tighten at this time.
- 14) Next, lower the axle so the factory rear lift block can be re-installed. Make sure the leaf spring center pin falls into the center pin hole on the factory lift block. Jack up the axle to the point where the leaf spring takes on some load.
- 15) At this point, install the new U-bolts and nuts included with the kit. Snug up all the nuts but do not fully tighten at this time. Use a 19mm socket / wrench to tighten.
- 16) Repeat this procedure for the opposite side of the vehicle.
- 17) If an approximate weight is known for the vehicle, now is the time to configure the adjustable preload spacer (APS) engagement. The following chart is to be used as a guide but ultimately it is up to the installer / end user to configure the springs to their preference for both ride height and ride quality.

MERCEDES SPRINTER 3500 OPTI-RATE SPRING CONFIGURATION	
WEIGHT OF VEHICLE	OPTI-RATE CONFIGURATION
8,500 LBS & UNDER	NO APS INSTALLED
8,501 LBS - 10,000 LBS	APS + 1 SLIDER PAD INSTALLED
10,001 LBS & UP	APS + 2 SLIDER PADS INSTALLED



**NO APS INSTALLED:
8,500 LBS & UNDER**



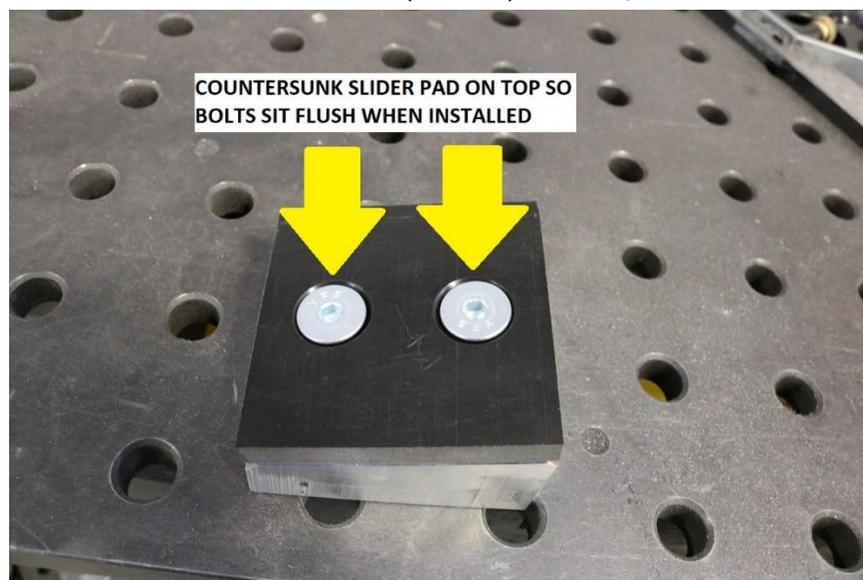
**APS INSTALLED WITH
SINGLE SLIDER PAD:
8,501 - 10,000 LBS**



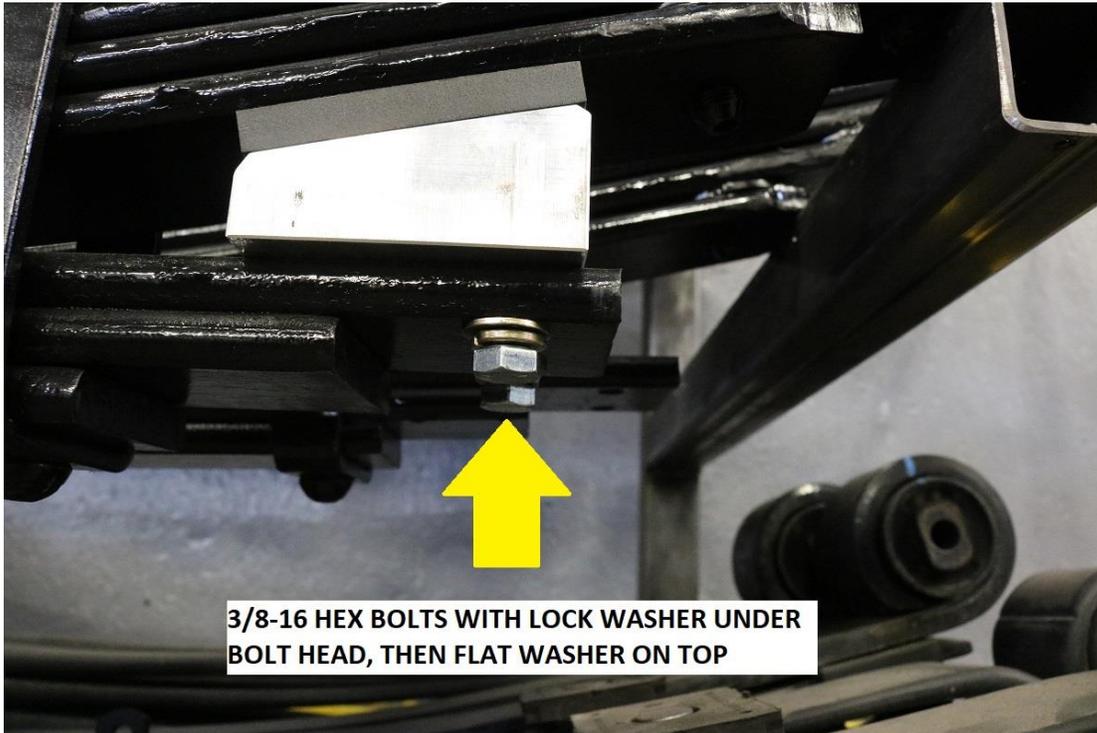
**APS INSTALLED WITH
2X SLIDER PADS:
10,001 LBS & UP**

18) Note; **ALWAYS** install the slider pad with the countersunk holes on top as shown below.

- a. Torque countersunk bolts to 15 ft-lbs (20 N.m) with a 7/32" allen wrench.



19) Torque the APS to the leaf spring with a 9/16" socket to 20 ft-lbs (27 N.m) Be sure to use a washer and lock washer under the bolt head as shown.



3005 Rear Bump Stop Drop Bracket Installation

- 20) Installation of the bump stop drop brackets can be done on both sides of the vehicle simultaneously.
- 21) Position the rear bump stop drop bracket in place as shown and mark the two mounting holes with a sharpie or transfer punch.





22) Since there is groove where the mounting holes land, a step drill will need to be used for drilling. Center punch the hole locations and drill with a step drill bit to a diameter of $\frac{1}{4}$ " (7mm).





23) With both holes drilled, position the bump stop drop bracket in place and secure it to the chassis using the 5/16-18 x 1" long thread cutting screws included with the kit. Use a nut driver or drill with a 1/4" bit adapter and a 1/2" socket to install the screw. Try to keep the drill / driver as straight as possible when cutting the threads.



24) Use drill / driver to snug bolts into place. Do not fully tighten using drill / driver. Torque bolts to 13 ft-lbs (17 N.m).

25) With drop brackets installed and hardware torqued to spec, thoroughly coat the rubber bump stops with Windex or a similar glass cleaner.



26) Install bump stop into the drop bracket. Install one edge at a time. Bend the bump stop in the middle to get the second side started. Installation can be tricky as the bump stops fit very tightly both in the factory location and in the drop brackets.





27) Once the second side is started, a screw driver, some wiggling and some additional lubricant will be needed to get the bump stop fully seated in the bracket.



3024 Rear Lower Shock Mount Installation

28) Installation of the rear lower shock mounts can be done on both sides of the vehicle simultaneously.
29) Fit the rear lower shock mount as shown below.



- 30) Install M10-1.50 x 70mm long bolt provided as shown above to locate bracket in place. Use a washer under the bolt head.
- Install the 300702-01 spacer bung as shown with the M14-1.50 x 80mm long bolt to finalize the bracket's location. Again use a washer under the bolt head.
 - Install the corresponding Stover nuts on the bolts along with washers.
 - Fit the shock into place and snug all hardware. Use a 21mm socket / wrench for the M14 bolts. Use a 17mm socket / wrench for the M10 bolts.



31) Torque hardware in the following order.

d. M14-1.50 torque to 100 ft-lbs. (135 N.m)

e. M10-1.50 torque to 35 ft-lbs (48 N.m)

3018 Rear Sway Bar Drop Bracket Installation

32) Installation of the rear sway bar drop brackets can be done on both sides of the vehicle simultaneously.

33) Begin by test fitting the drop bracket into the sway bar attachment point on the chassis as shown below.

f. Note, some vehicles have an excessive buildup of undercoating spray and will need to be removed with a small chisel or scraper in order for the bracket's hole to line up.



- 34) Install M12-1.5 x 60mm long bolt provided as shown above to locate bracket in place. Mark the two additional mounting hole locations which either a sharpie or transfer punch.
- 35) Remove bracket and center punch the hole locations. Drill holes using a ¼" (7mm) diameter drill bit.



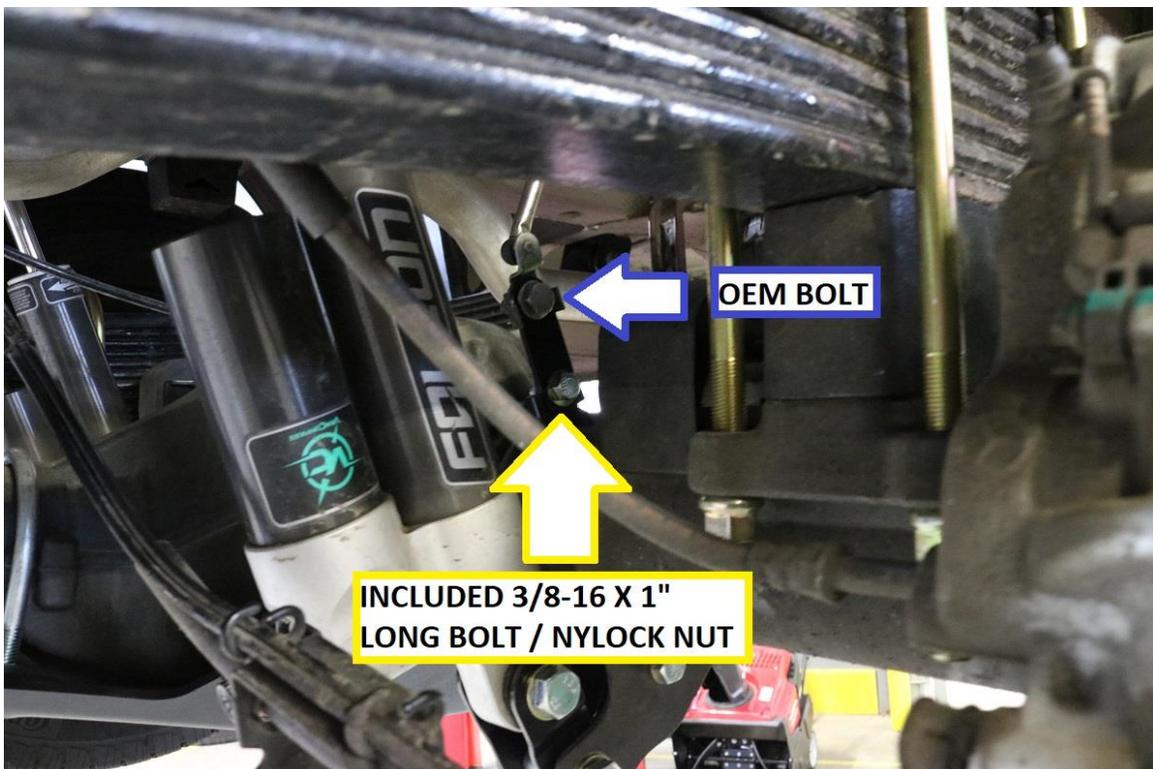
- 36) Reinstall drop bracket. Again, align with the 12mm bolt provided. Use the 5/16-18 x 1" long thread cutting screws included with the kit. Use a nut driver or drill with a ¼" bit adapter and a ½" socket to install the screw. Try to keep the drill / driver as straight as possible when cutting the threads.
- 37) Use drill / driver to snug bolts into place. Do not fully tighten using drill / driver. Torque bolts to 13 ft-lbs (17 N.m).
- 38) Remove the 12mm bolt aligning the bracket and re-install it with a washer under the bolt head and the included 300201-03 spacer bung as shown. Use a washer under the stover nut and start the nut on the other end.



39) Complete rear sway bar installation by securing the sway bar end links to the drop brackets. Use the remaining M12-1.5 x 60mm long bolts provided in the kit with a washer under both the bolt head and stover nut. With a 19mm socket and wrench, torque both upper and lower M12 hardware on the drop bracket to 60 ft-lbs (95 N.m).

3059 VS30 Rear Headlight Leveling Bracket

40) Install the new headlight leveling bracket as pictured below. Secure the bracket to the tab on the axle using the included 3/8-16 x 1" long bolt to secure the bracket to the tab on the axle. Be sure to use a washer under the bolt head and nylock nut. Use a 9/16" socket / wrench and snug the bracket down. Reuse the factory bolt to attach the lever arm to the extension bracket. Torque the bolts to 10 ft-lbs (14 N.m)



- 41) Cut the 3/8" ID rubber vacuum hose included with the 4008 Rear Brake Line Drop Bracket kit into two equal length pieces.
- a. Position a piece over each brake hose where it might touch the leaf spring. Split the hose length wise and secure it to the brake hose with multiple zip ties as shown. This is to protect the brake hose against any potential chaffing that might occur over time.



- 42) Refill the master cylinder with DOT 4+ Synthetic Brake Fluid. Refer to owner's manual for certainty.
- 43) Bleed the rear 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.
- 44) Re-install wheels / tires and lower van to ground. OEM wheel torque spec for studs is as follows:
- g. 3500 DRW: 140-150 ft-lbs (190-200 N.m)
- 45) Once on the ground and sitting at ride height, adjust preload spacer pucks as needed for optimum ride height and ride quality.
- 46) Double check all torque specs after 100 miles of driving.

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.