



3016 – 2007-2016, MERCEDES SPRINTER NCV3 4x4, REAR ADD-A-LEAF PACK

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 add-a-leaf pack lift kit that can be installed with basic hand tools.
- For vehicles not getting the full 2.0" rear lift kit installed, the two smallest leafs from the leaf pack must be removed to prevent over extension of critical suspension components.
- This leaf spring pack can also be installed with varying numbers of leafs from left to right to cure a side to side lean often associated from fully built out interiors on camper vans.
- This suspension kit can be completely removed, allowing the vehicle to be returned back to stock configuration if desired.

Parts List

3016 – 2007-2016, MERCEDES SPRINTER NCV3, REAR 5 LEAF ADD-A-LEAF PACK

- (2) 301601 REAR 5 LEAF ADD-A-LEAF PACK
- (4) UB-750-2600 75MM DIAMETER X 260MM LONG, M14X1.50" THD, U-BOLT
- (8) NLM14-1.50 M14-1.50 LUG NUT

Tools Needed

- Quality jacks and 2 jack stands.
 - Optional – Automobile lift and two screw jacks
- Simple hand tools:
 - Torque Wrench
 - Basic wrench and socket set:
 - Metric sizes: 10mm, 13mm, 17-19mm, 21mm
 - SAE sizes: 9/16", 5/8", 11/16"

Approximate Installation Time

- Professional shop with automotive lift: 2-3 hours
- Driveway install with jack and jack stands: 3-6 hours

Installation

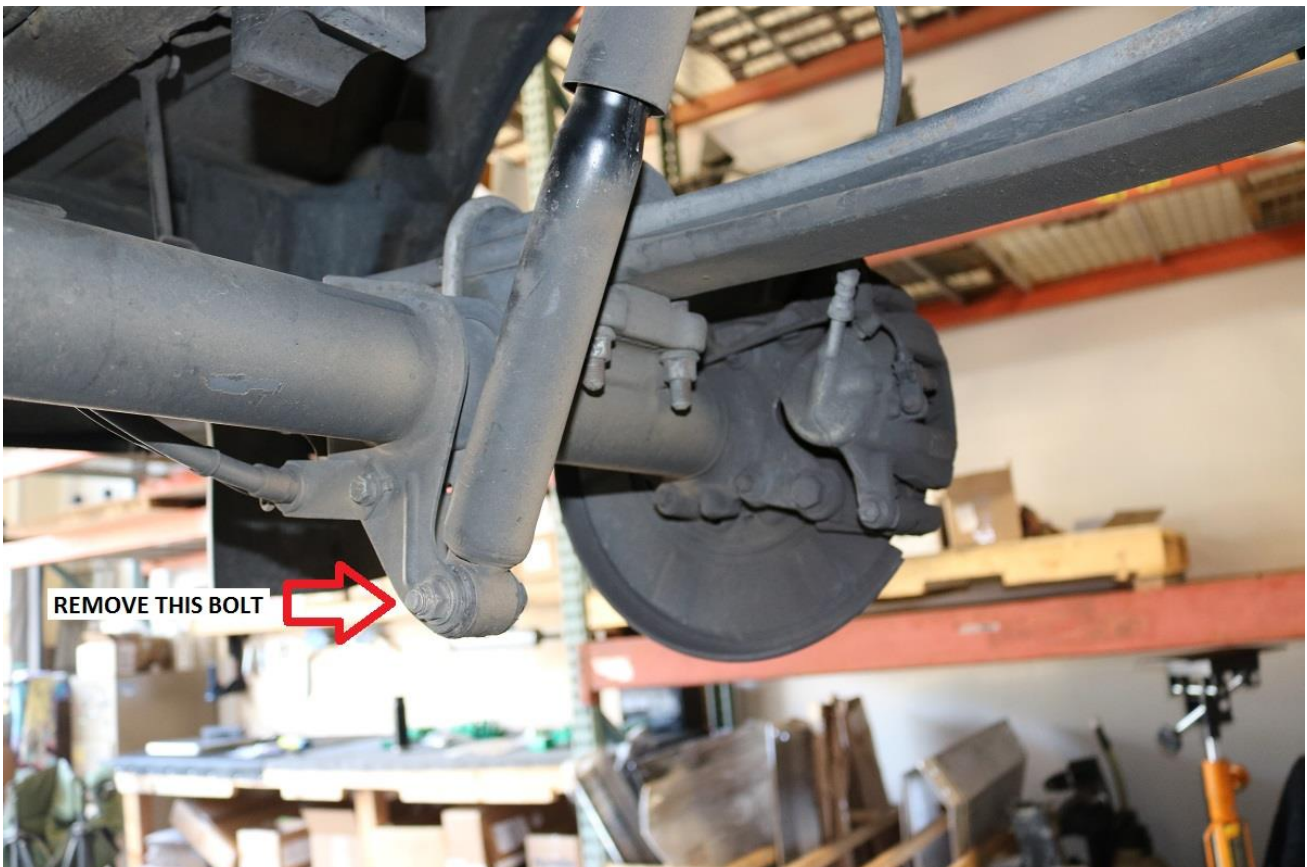
- 1) Before placing the vehicle on jack stands or on an automobile lift, we recommend taking ride height measurements on both sides of the vehicle to determine a baseline as well as to decide if a side to side lean needs to be addressed.
 - a. Note, most vans will sit lower on the driver side (left hand) due to the fuel tank placement on this side of the vehicle.
- 2) 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.
- 3) With the rear suspension hanging free, remove the rear wheels / tires.
- 4) Remove the rear lower sway bar end link bolt on both sides of the vehicle.
 - a. Begin by using an 18mm socket and wrench to remove the bottom sway bar link attachment bolt.
 - b. Retain this hardware as it will be re-installed.



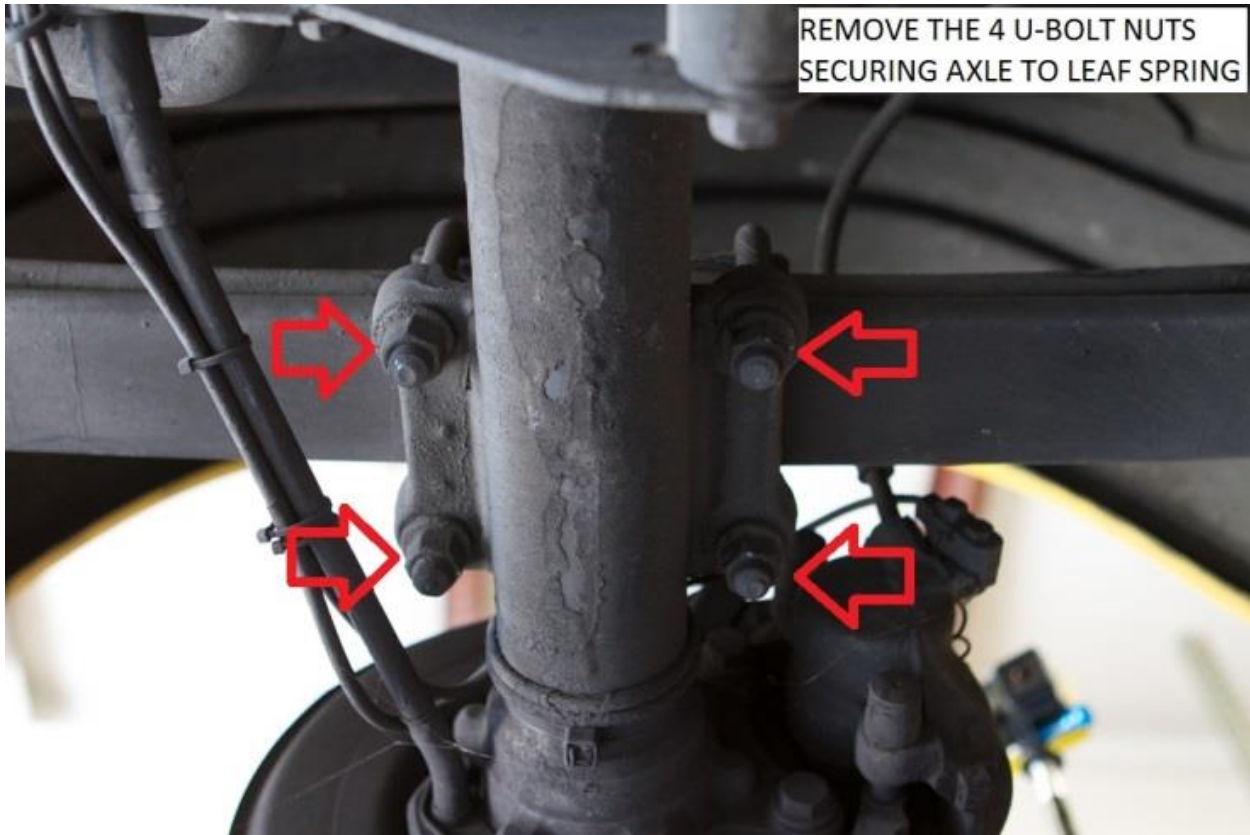
- 5) If equipped, disconnect the brake portioning / wind assist sensor lever. Retain the nut for future use. Use a 16mm socket / wrench for removal.



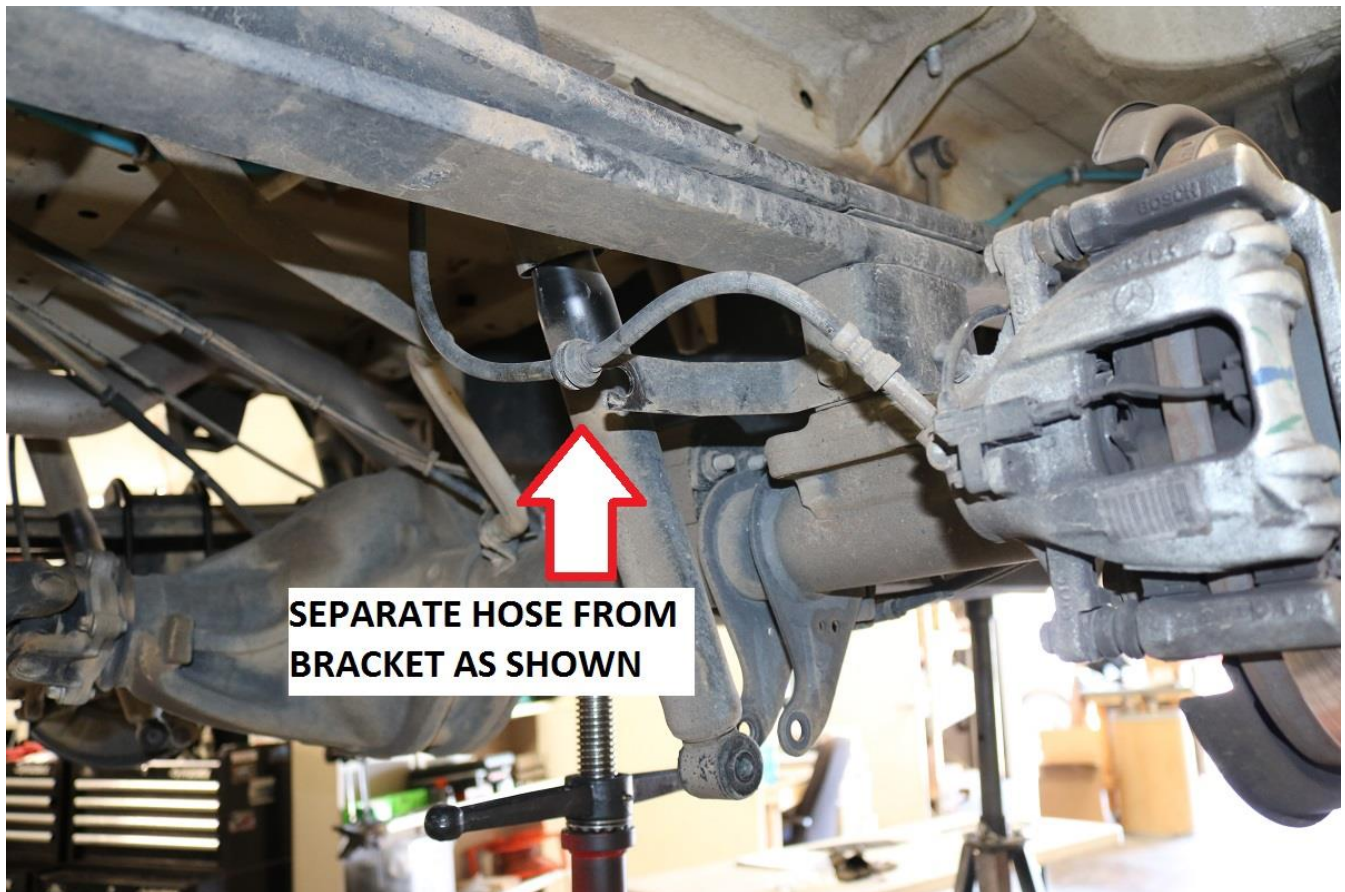
- 6) At this point work on one side of the vehicle at a time. Start on the driver side (left hand).
- 7) Support the axle and disconnect the lower shock bolt. Use an 18mm socket and wrench for removal. Once the shock is removed, allow the axle to hang freely again. Note that the springs will limit the downward travel with the shocks removed.



8) Remove the U-bolt nuts. Use a 19mm socket / wrench for removal. Remove the U-bolts. See image below.



9) Remove the brake hose from the factory lift block. See image below.



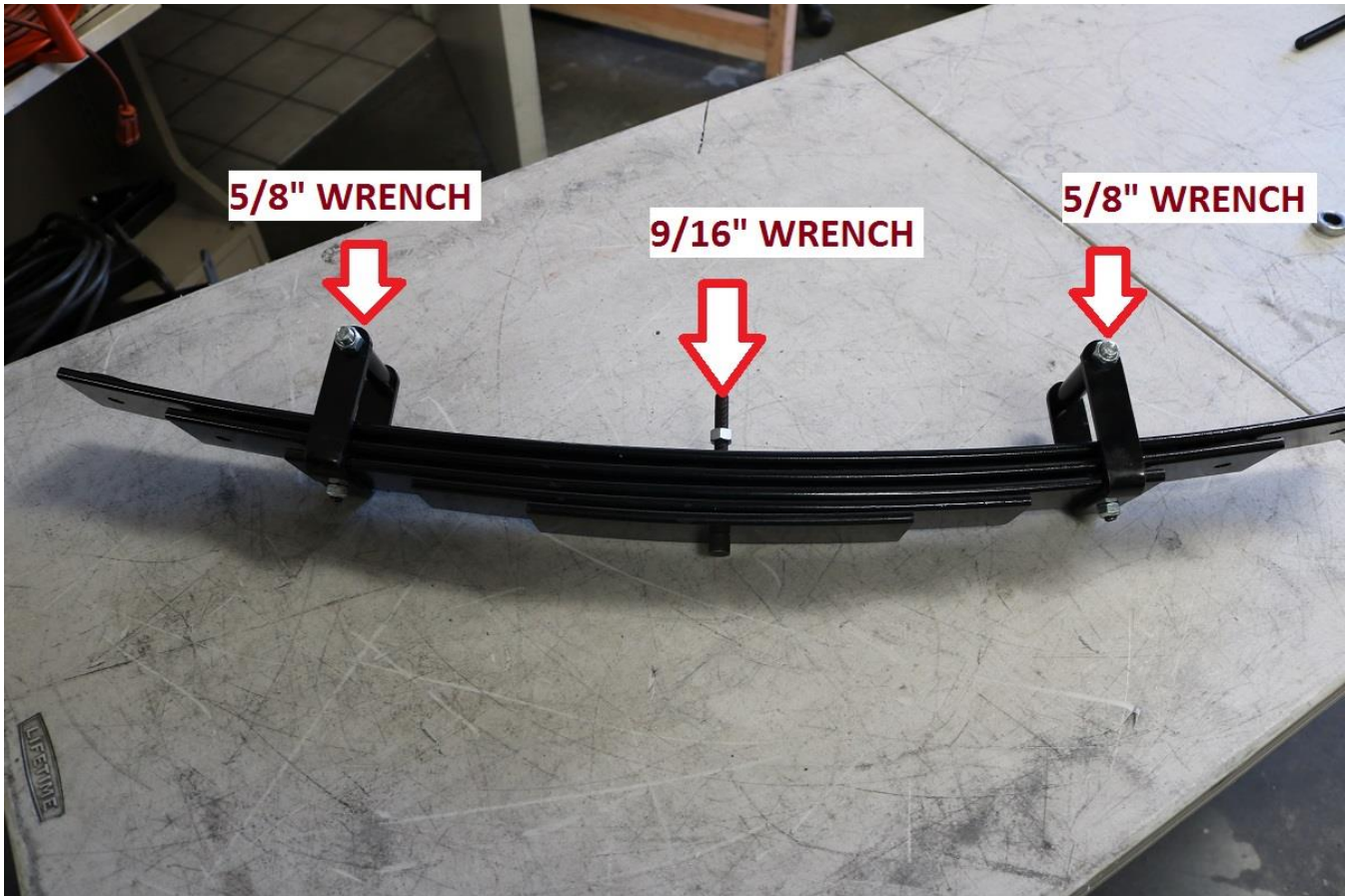
10) Next, lower the axle to the point where the factory lift block can be removed. Remove the factory lift block and set it aside to be re-installed later.



11) Remove the leaf spring center pin. Use a 16mm socket / wrench to remove the nut securing the center pin. Note; in some instances the center pin may need to be held with a pair of vise-grips as shown below.



- 12) Support the bottom leaf using some c-clamps so it does not fall and damage any other suspension components during center pin removal.
- 13) Remove the bottom leaf from the vehicle and set aside on a work bench.
- 14) Next disassemble the add-a-leaf pack by using a 9/16" socket / wrench to remove the leaf spring center pin nut and a 5/8" socket / wrench for the spring clamps. Retain all hardware.



- 15) **CRITICAL:** A maximum of **3 leafs** can be installed per side without installing a full rear lift kit that includes bump stop drop brackets, extended sway bar links, and extended rear shock mounts.

16) Assemble the leaf pack as shown below. Note, a 3 leaf installation is shown here for a 1.0" – 1.3125" (25mm – 33mm) lift.



17) Install the leaf pack back into the vehicle. Align the center pin with the main leaf spring and use some C-clamps to preload the springs into place. Do not use the center pin nut itself to suck the leaf springs into place as the threads can be easily strip in that situation..



18) Once the springs are aligned and clamped all the way into position, install the 3/8" center pin nut removed in step 14 and tighten with a 9/16" socket / wrench. Torque to 20 ft-lbs (27 N.m)

- 19) Re-install the 7/16" spring clamp hardware and spacers also removed in step 14. Use a 5/8" socket / wrench and torque to 40 ft-lbs (54 N.m).
- 20) Re-install the factory lift block and install the new U-bolts and nuts provided in the kit. Torque U-bolt nuts to 125 ft-lbs (169 N.m)
- 21) Secure the brake hose back in the factory bracket attached to the lift block.
- 22) Re-install the rear lower shock bolt and torque to 52 ft-lbs (70 N.m) using an 18mm socket / wrench.
- 23) Repeat steps 6-22 on the passenger side (right hand) of the vehicle.
- 24) Re-install the sway bar end link lower bolt and torque to 52 ft-lbs (70 N.m)
- 25) Lastly, re-secure the brake proportioning / wind assist sensor lever from step 5. Use a 16mm socket / wrench and torque to 15 ft-lbs (20 N.m)
- 26) 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, 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.