



3065 – 2013-PRESENT, FORD TRANSIT, OPTI-RATE REAR LEAF SPRINGS

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 leaf pack that can be installed with basic hand tools.
- This suspension kit can be completely removed, allowing the vehicle to be returned to stock configuration if desired.
- These springs are designed to be a 2.0" rear lift at a minimum on T-250 & T-350 chassis. They are specifically designed for built out camper vans & motorhomes running near or over GVWR.
- These springs must be paired with some form of 2" bump stop drop bracketry for proper function and longevity of the leaf spring.
- 4x4 Quigley / Quadvans with built in 2" lifts from their 4wd conversions can install the Opti-rate leaf pack and remove the factory 2" lift block.
- **Note – If the van is equipped with a factory rear sway bar, the OEM sway bar links cannot be re-used. Van Compass extended rear sway bar links must be used. Part number 3067**
- These springs ship in their fully assembled "Max Spring Rate" configuration. Refer to spring configuration chart at the end of these instructions to set-up the springs properly per the weight of the vehicle.
 - Note, the chart is to be used as a guide, ultimately it is up to the installer & end user to tailor the springs to their liking for both ride quality and ride height.

Parts List

3065 – 2013-PRESENT, FORD TRANSIT, OPTI-RATE REAR LEAF PACK

- | | |
|--------------------|-------------------------------------------------------------|
| • (2) 306501 | TRANSIT OPTI-RATE REAR LEAF SPRINGS |
| • (4) UB-3125-0700 | 3.125" DIAMETER X 7.00" LONG, M14X1.50" THD, U-BOLT |
| • (8) NNM14-1.50 | M14-1.50 NYLOCK NUT |
| • (8) WFM14 | M14 FLAT WASHER, CLEAR ZINC |
| • (4) 306502-01 | OPTI-RATE SPRING, ADJUSTABLE PRELOAD SPACER (INSTALLED) |
| • (8) 306502-02 | OPTI-RATE SPRING, ADJUSTABLE PRELOAD SLIDER PAD (INSTALLED) |

Tools Needed

- Quality jacks and 2 jack stands.
 - Optional – Automobile lift and two screw jacks
- Simple hand tools:

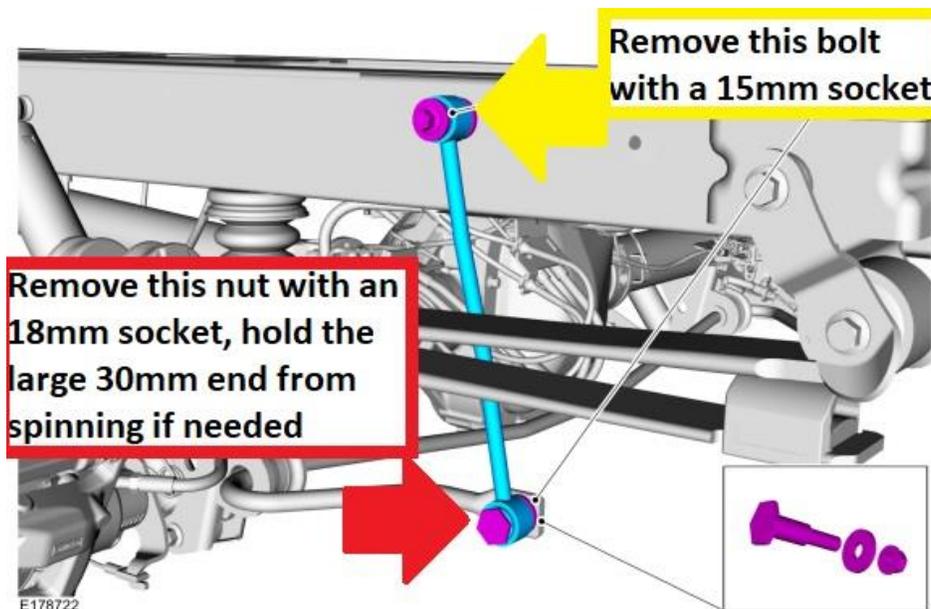
- Torque Wrench
- Basic wrench and socket set:
 - Metric sizes: 15mm, 18mm, 20-22mm, 24mm
 - SAE sizes: 9/16", 7/32" allen

Approximate Installation Time

- Professional shop with automotive lift: 1-2 hours
- Driveway install with jack and jack stands: 2-4 hours

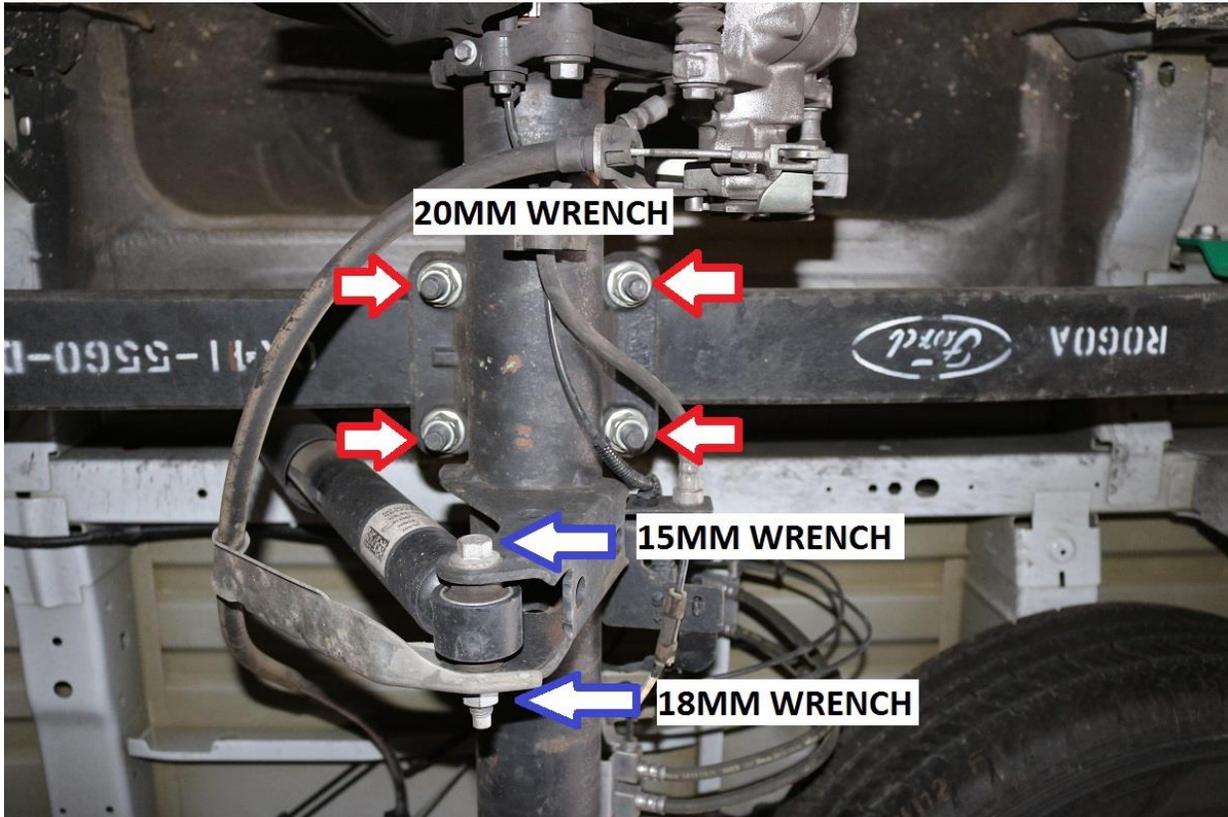
Installation

- 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) If the van is equipped with a rear sway bar, use a 15mm socket / wrench to remove the bolt which connects the top of the sway bar end link to the chassis.
 - a. Use an 18 mm socket / wrench to remove the lower bolt. Note the larger end of the lower sway bar link is pressed into the bushing. It may need to be held using either a 30mm socket or large crescent wrench in order to remove the nut from the opposing end.
 - b. See image below for reference.

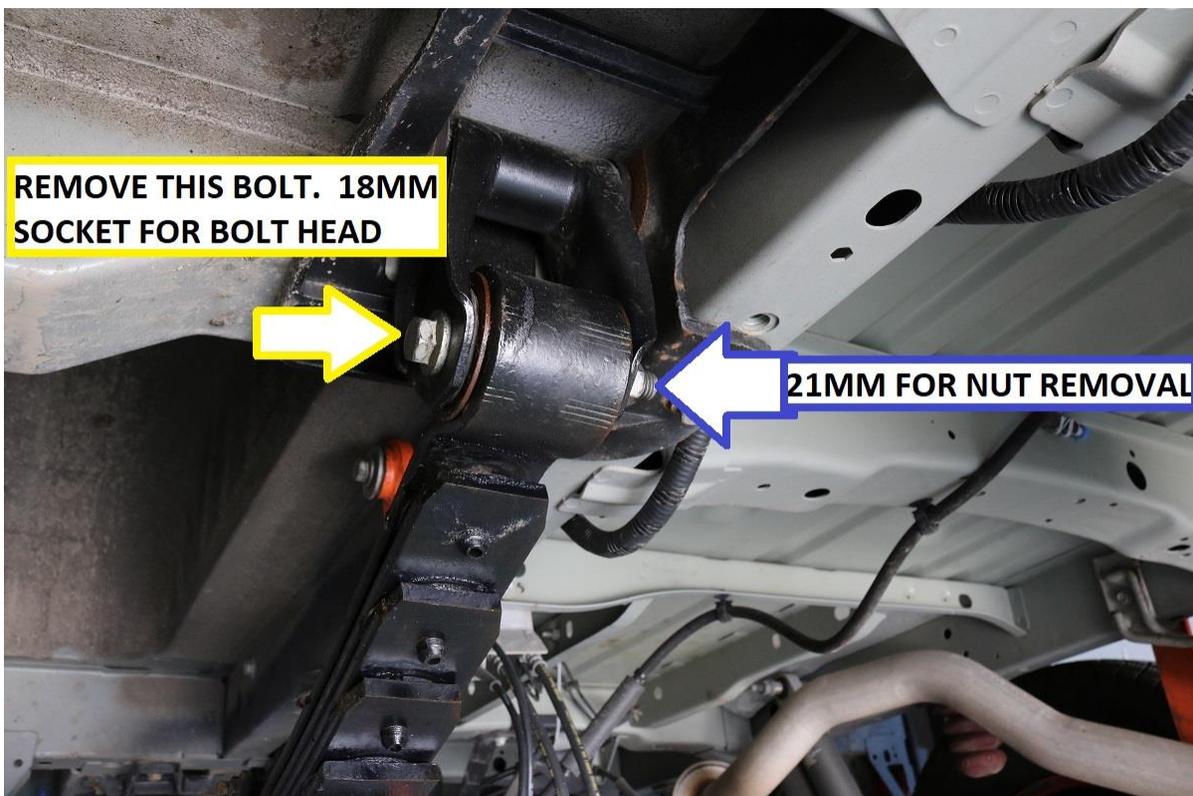


- 5) Retain the hardware from the upper mounting point as it will be re-used with the new extended sway bar link.
- 6) At this point, work on one side of the vehicle at a time. Start on the driver side (left hand).

- 7) Disconnect the lower shock bolt. Use a 15mm socket / wrench for the head of the bolt. Use an 18mm socket / wrench for the nut. See photo below for clarity. Pull the lower part of the shock forward out of the mount so it is out of the way.
- 8) Support the rear axle on one side. Remove the U-bolt nuts. Use a 20mm socket / wrench for removal.

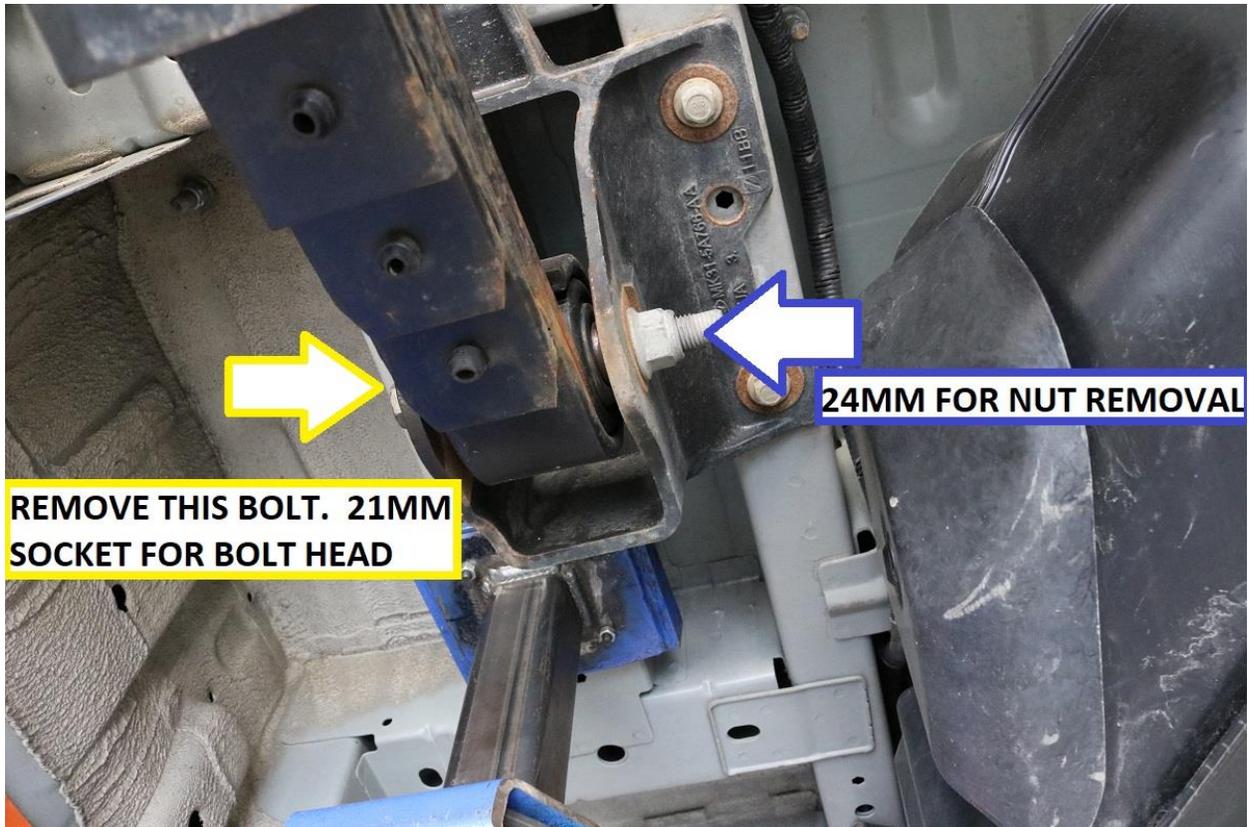


- 9) Remove the U-bolts. Keep the rear axle supported and remove the rear lower shackle bolt.
 - a. Use an 18mm socket for the bolt head and a 21mm socket for the nut.



10) Remove the forward spring bolt

- a. Use a 21mm socket for the bolt head. Use a 24mm socket for the nut.



11) Remove the U-bolts and slowly lower the axle approximately 3.0" – 4.0" (75-100MM) so the leaf spring can be removed from the vehicle.



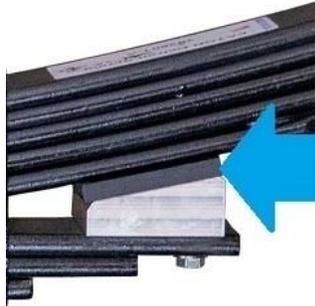
12) Remove the leaf spring from the vehicle.

- 13) Install the new Opti-rate leaf springs into the vehicle. Note the bushing with the larger bolt sleeve & mounting width installs in the forward spring hanger.
 - a. We have found it easiest to install the springs upside down and then rotating them up into position once under the vehicle.
- 14) Install the forward spring bolt in the spring hanger. Install the nut but do not fully tighten at this time.
- 15) Jack the axle up or down accordingly to be able to install the rear lower shackle bolt. Once aligned, install the bolt and nut but do not fully tighten at this time.
- 16) Make sure the leaf spring center pin falls into the spring perch pocket on the axle.
 - a. Jack up the axle to the point where the leaf spring takes on some load.
- 17) Install the new U-bolts, washers and nuts provided in the kit. Snug up all the U-bolt nuts but do not fully tighten at this time. Use a 22mm socket / wrench to tighten.
- 18) Repeat this procedure for the passenger side.
- 19) Reference the 3067 instructions if the van is equipped with an OEM rear sway bar and the Van Compass Extended Sway Bar Links are being installed.
- 20) Re-install the shock into the lower mount and re-install the bolt. Torque to 81 ft-lbs (110 N.m)
- 21) If an approximate weight is known for the vehicle, now is the time to configure the adjustable preload spacer (APS). 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.

FORD TRANSIT OPTI-RATE SPRING CONFIGURATION	
WEIGHT OF VEHICLE	OPTI-RATE CONFIGURATION
9,500 LBS & UNDER	NO APS INSTALLED
9,501 LBS - 10,750 LBS	APS BLOCK + 1 SLIDER PAD INSTALLED
10,751 LBS & UP	APS BLOCK + 2 SLIDER PADS INSTALLED



**NO APS INSTALLED:
9,500 LBS AND LESS**



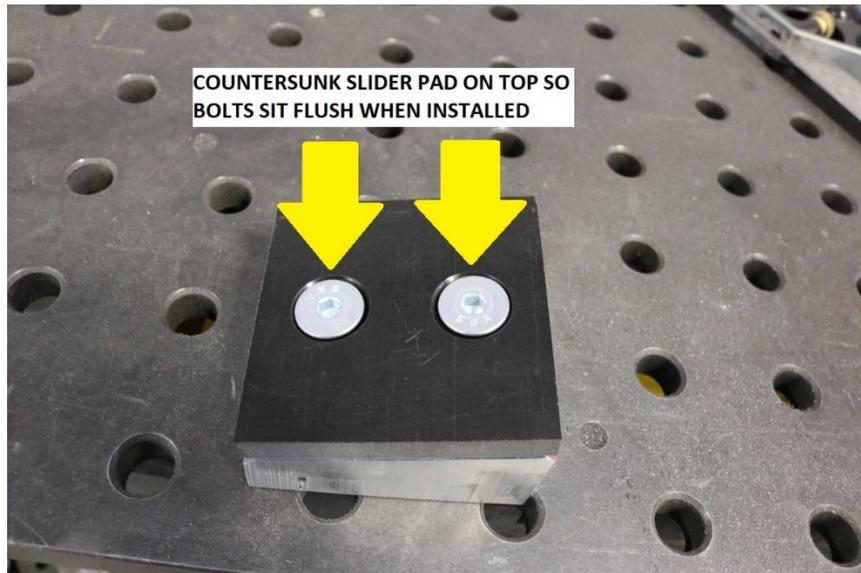
**APS INSTALLED WITH
SINGLE SLIDER PAD:
9,501-10,750 LBS**



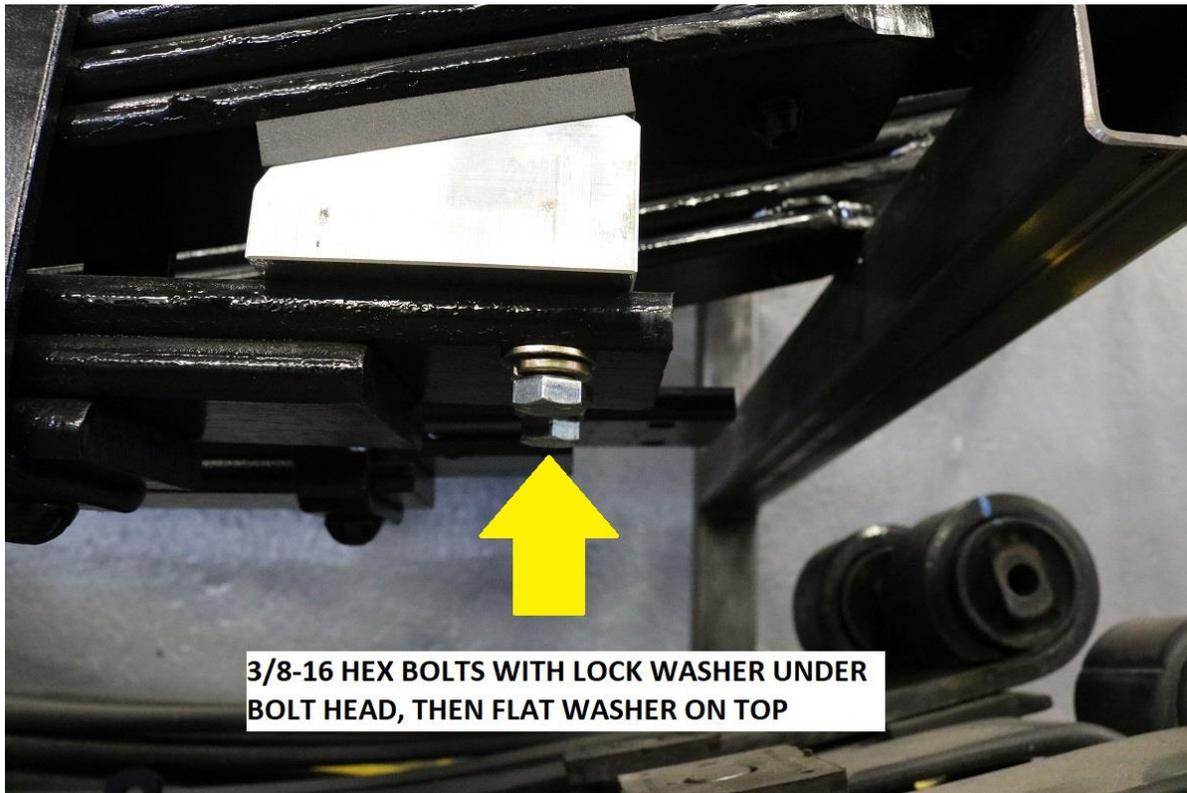
**APS INSTALLED WITH
2X SLIDER PADS:
10,751 LBS & UP**

22) 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.



- b. 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.



- 23) Re-install wheels / tires and lower van to ground.
 - a. Lug nut torque for SRW and DRWs are the same; 148 ft-lbs (200 N.m)
- 24) Torque the forward spring bolt to 203 ft-lbs (275 N.m)
- 25) Torque the lower shackle bolt to 129 ft-lbs (175 N.m)
- 26) Torque the U-bolts to 125 ft-lbs (169 N.m)
- 27) 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.