



## 2007-PRESENT, MERCEDES SPRINTER 4X4, FALCON 3.3 FAST ADJUST PIGGYBACK REAR SHOCKS

Version 1.0

### General Notes

- For the most up to date and current instructions, please visit our website at [www.vancompass.com](http://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.
- The installation of the Van Compass tuned Falcon rear shock package can be performed with the vehicle sitting on the ground at ride height; however we find that it is easier for a single person to install if the vehicle's suspension is unloaded.
- This suspension kit can be completely removed, allowing the vehicle to be returned back to stock configuration if desired.

#### **SP2 Mode Adjust shocks:**

- The mode adjust feature on the Falcon shocks allows the installer the choice of setting the base shock tune. The settings we have laid out in these instructions are our recommendations based on van weights but can be changed at a later time depending on driver preference and vehicle use. The internal shock tune in the Van Compass Falcon shock is a proprietary tune developed in partnership with Falcon and Van Compass and is specifically tuned for optimum ride quality in all road conditions for the Mercedes Sprinter Van.
- The shocks feature an internal bypass valve (free bleed circuit) that is adjusted by rotating the shaft only when the shock is fully extended.
- When rotating the shock shaft, it is easy to feel when the mode switches. Rotating the shaft at least 360 degrees in one direction guarantees the shock will be in the correct mode.
- These shocks feature a Fast Adjust Knob that gives a massive range of compression adjustment for the customer to dial in their ride preference and to take full advantage of Van Compass's years of experience developing tuned shock packages for the Mercedes Sprinter.

### Parts List

#### **3041 – 2007-PRESENT, MERCEDES SPRINTER 4X4, FALCON 3.3 FAST ADJUST PIGGYBACK REAR SHOCKS, LIGHT / MID TUNE**

- (2) 3041 MERCEDES SPRINTER NCV3 4X4, FALCON REAR SHOCKS, LIGHT/ MID
- (2) WH8-9 THICK HARDENED FLAT WASHER, 9/16"

**OR**

#### **3042 – 2007-PRESENT, MERCEDES SPRINTER 4X4, FALCON 3.3 FAST ADJUST PIGGYBACK REAR SHOCKS, LIGHT / MID TUNE**

- (2) 3042 MERCEDES SPRINTER NCV3 4X4, FALCON REAR SHOCKS, MID/ HEAVY
- (2) WH8-9 THICK HARDENED FLAT WASHER, 9/16"

## Tools Needed

- Quality Jack & Jack Stands
- Simple hand tools:
  - Basic wrench and socket set:
    - Metric sizes: 18mm, 21mm
- Torque wrench

## Approximate Installation Time

- Professional shop: 30 minutes – 1 hour
- Driveway install: 30 minutes – 1 hour

## Installation

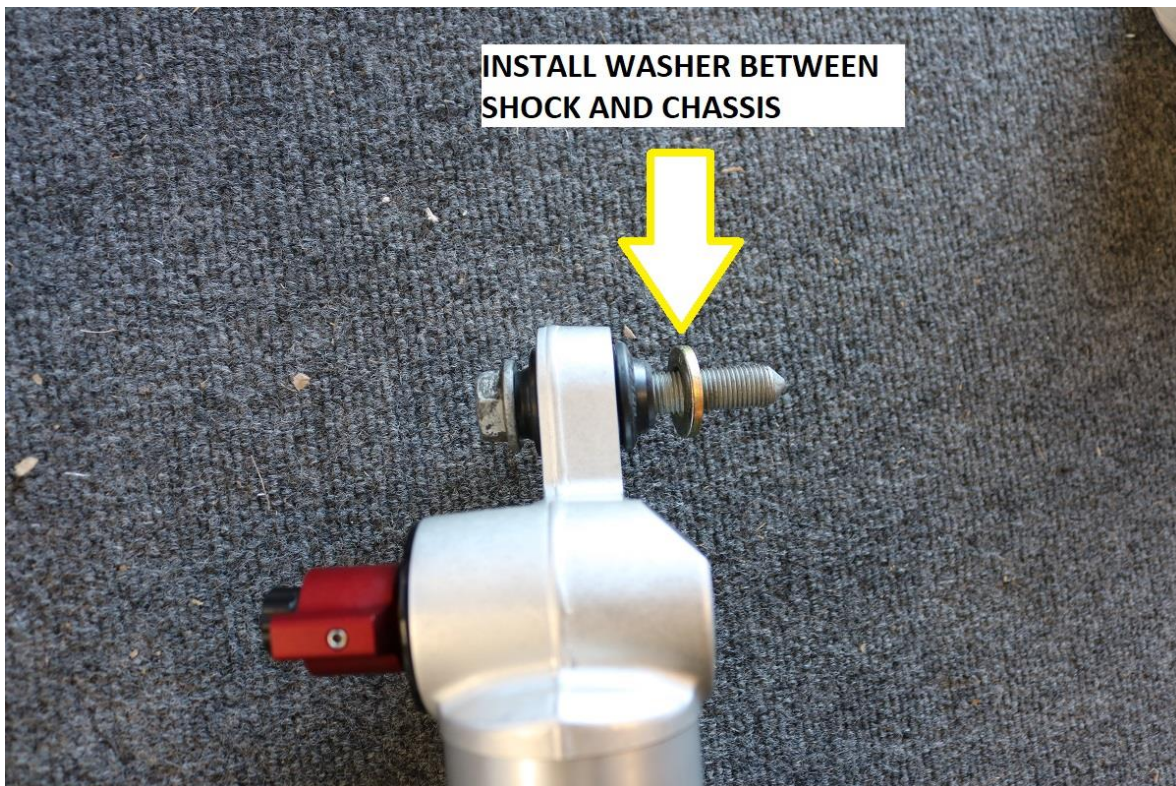
- 1) Raise the rear of the van with a floor jack under the rear hitch so the rear suspension can droop out.
  - a. Remove the factory shocks. Use an 18mm socket / wrench for the lower bolt and a 21mm socket / wrench for the upper. Retain both bolts as they will be re-installed.



- 2) Note the shocks are left and right specific, refer to the part number etched on the shock body to ensure they are installed on the correct side.



- 3) Install the shock into the upper mount using the factory bolt and included spacer washer as shown. Use a dab of red Loctite on the threads of the upper bolt.



- 4) Be sure to orient the shock body so the reservoir is positioned towards the rear and the adjuster faces out. Torque the upper bolt to 100 ft-lbs (108 N.m).



- 5) With the top of the shock bolted into the upper mount, ensure the shock shaft is extended out all the way. Adjust the SP2 mode adjust by rotating the shaft 360 degrees in the direction as specified below for the corresponding van weights:

VC Falcon Shock Settings			
VC Shock Part Number:	Van Weight (in lbs):	Rear Leaf Spring Configuration:	SP2 Mode:
3041	7,799 and Less	Factory	Open / Soft/Cold Setting
3041	7,800-9,000	Factory	Closed / Performance
3042	8,000-8,900	Factory	Open / Soft/Cold Setting
3042	8,901-11,000+	Factory	Closed / Performance
3041	8,000 and Less	Factory + Mini Pack (Stage 3 and up)	Open / Soft/Cold Setting
3041	8,001-9,200	Factory + Mini Pack (Stage 3 and up)	Closed / Performance
3042	8,000-9,100	Factory + Mini Pack (Stage 3 and up)	Open / Soft/Cold Setting
3042	9,101-11,000	Factory + Mini Pack (Stage 3 and up)	Closed / Performance

- 6) Rotate the lower shock eyelet in the same direction to align into the lower mount. Rotating in the opposite direction will cause the mode adjust to switch.
- 7) Use the OEM lower shock bolt and torque to 60 ft-lbs. (81 N.m)

- 8) Adjust the large red Fast Adjust Knob as desired. Start in position 1 (this is the lightest / softest setting)
  - a. Moving the Fast Adjust Knob to position 2 allows fine tuning of the micro dial to precisely adjust the shock for vehicle weight and personal preference. This is where the optimum on-road setting should be determined. There are 8 micro adjustments. Determine which number best suits your driving style / preference.
  - b. Moving the Fast Adjust Knob to position 3 sets the shock in its firmest setting. Use this setting for high side wind situations, twisty mountain roads, or when carrying a heavy payload / towing a trailer.
  - c. Note, any setting can be used and it is up to the consumer to fine tune and optimize their new Van Compass Falcon shocks.
- 9) 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, 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.