



ARROW
SUSPENSION

OWL INSTALL GUIDE

2007-UP MERCEDES SPRINTER 4X4, AWD REAR ADJUSTABLE SHOCKS

UPDATED FALL 2025

NOTES

For the most up-to-date and current installation instructions, please visit our website at **www.owlvans.com**

- Please read all instructions carefully before installing Owl products on your vehicle.
- This is a bolt-on shock kit designed for easy installation using basic hand tools.
- The Owl Tuned Falcon Rear Shock Package can be installed with the vehicle on the ground at ride height. However, for a smoother, single-person installation, it's recommended to unload the suspension by lifting the vehicle so the rear axle hangs freely. This provides easier access to the shock mounts and hardware.
- The mode adjust feature on the Owl Tuned Falcon Shocks allows the installer to select the base shock tune best suited for the vehicle's setup and driving style. The recommended settings outlined in this guide are based on vehicle weight ranges, but they can be adjusted later to match driver preference or specific use conditions.
- Each Owl-Tuned Falcon Shock features a proprietary internal damping tune, developed in collaboration between Owl Engineering and Falcon, specifically optimized for the Mercedes-Benz Sprinter platform. This tune delivers exceptional ride quality and control across all road and terrain conditions.
- Each Owl Tuned Falcon Shock features an internal bypass valve (free-bleed circuit) that allows fine-tuning of the shock's baseline compression characteristics. This adjustment is made by rotating the shock shaft—only when the shock is fully extended—to ensure proper internal alignment and prevent damage to the valve assembly.
- When rotating the shock shaft, you will feel a distinct change in resistance as the internal mode switches. To ensure the shock is fully engaged in the desired mode, rotate the shaft at least 360° in one continuous direction. This guarantees the correct mode selection and proper internal valve positioning.
- The Owl Tuned Falcon Shocks are equipped with a Fast Adjust Knob, providing a wide range of compression damping adjustment. This allows drivers to fine-tune ride quality for any terrain or load condition.
- This shock kit is fully removable, allowing the vehicle to be returned to its original stock configuration if desired.

PARTS LIST

2007-Up, Mercedes Sprinter 4x4, AWD Fast Adjust Rear Shocks Mid

PART	P/N	QTY.	✓
MERCEDES SPRINTER VS30 4X4, REAR ADJUSTABLE SHOCK MID (L)	20-02-33-321-212	1	
MERCEDES SPRINTER VS30 4X4, REAR ADJUSTABLE SHOCK MID (R)	20-02-33-322-212	1	

OR

2007-Up, Mercedes Sprinter 4x4, AWD Fast Adjust Rear Shocks HD

PART	P/N	QTY.	✓
MERCEDES SPRINTER VS30 4X4, REAR ADJUSTABLE SHOCK HD (L)	20-02-33-321-213	1	
MERCEDES SPRINTER VS30 4X4, REAR ADJUSTABLE SHOCK HD (R)	20-02-33-322-213	1	

TOOLS NEEDED

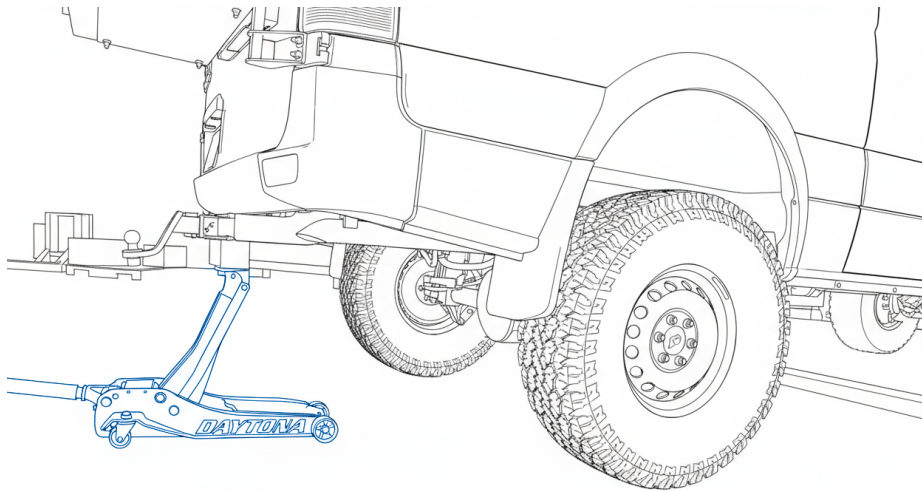
1. Quality jack and two jack stands
2. Basic hand tools:
 - Wrench and socket set, including:
 - Metric sizes: 18mm, 21mm

INSTALLATION

These instructions show installation on the driver's (left-hand) side. Passenger side installation is similar; any differences will be noted in the steps.

1.

Raise the rear of the van using a floor jack positioned **under the rear hitch** to allow the rear suspension to fully droop. Remove the factory rear shocks using an **18mm socket or wrench** for the **lower bolt** and a **21mm socket or wrench** for the **upper bolt**. Retain all hardware for reinstallation.



2.

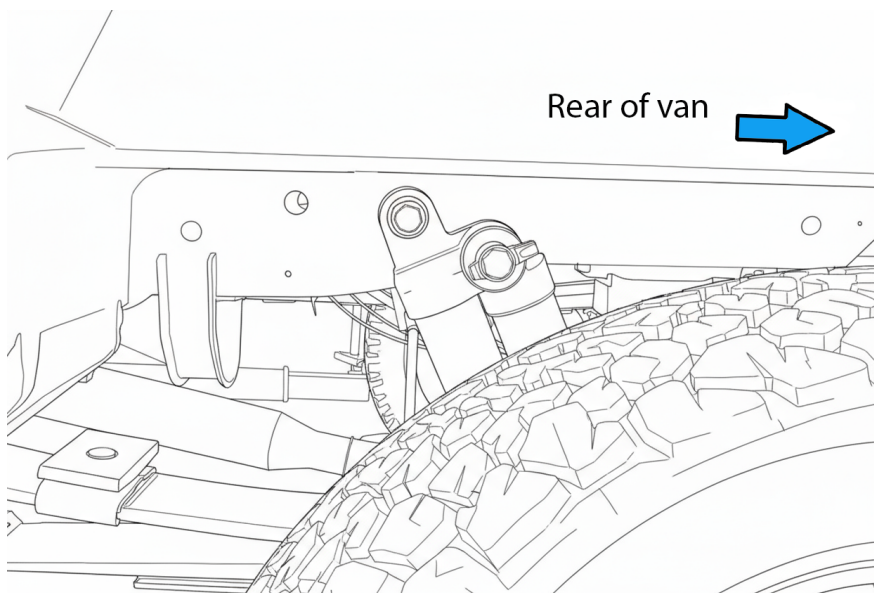
The Owl Tuned Falcon Shocks are side-specific. Verify orientation by checking the part number etched on the shock body to ensure each shock is installed on the correct side of the vehicle – **Driver (Left) or Passenger (Right).**

3.

Install the Owl Tuned Falcon Shock into the **upper shock mount** using the **factory bolt**. Apply a small dab of **red Loctite** to the threads of the **upper bolt** before installation to ensure secure retention under vibration and load.

4.

Position the shock body so the **reservoir faces the rear of the vehicle and the adjuster knob faces outward** for accessibility. Once properly oriented, torque the **upper shock bolt to 100 ft-lbs (108 N·m).**




5.

With the upper shock bolt secured, ensure the shock shaft is fully extended. Adjust the SP2 internal mode by rotating the shock shaft 360°.

6.

Rotate the **lower shock eyelet** in the **same direction** used during the SP2 adjustment to **align it with the lower shock mount**.

 Important: Rotating the eyelet in the opposite direction may change the internal mode setting, requiring readjustment.

7.

Install the **OEM lower shock bolt** through the **lower mount** and **torque to 60 ft-lbs (81 N·m)**. Confirm the shock is seated correctly and the bushing is not twisted before tightening.

8.

Set the large red Fast Adjust Knob to your desired compression setting. Begin with Position 1, which provides the lightest and softest ride.

- **Position 2 – Tunable Mode:** Enables use of the black micro dial for precision tuning based on vehicle weight and driver preference. This is the recommended starting point for on-road optimization. The micro dial offers 8 fine adjustment levels—experiment to find the ideal balance for your driving style.
- **Position 3 – Firm Mode:** Provides the firmest compression setting, ideal for high crosswinds, mountain driving, or when carrying heavy loads or towing.
- **Note:** All settings are driver-adjustable. Fine-tune as needed to achieve your ideal ride quality and make the most of your Owl Tuned Falcon Shock System.

9.

Check shock clearance after lowering the vehicle.

10.

After 100 miles, recheck bolt torques.

CONGRATS! YOUR INSTALLATION IS COMPLETE.

RELEASE OF LIABILITY

I, the customer, do hereby release and forever discharge Owl Vans 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 Owl Vans 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:

Owl Vans 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 Owl Vans 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, Owl Vans 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. Owl Vans 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.

Owl Vans 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 Owl Vans LLC products unless you are willing to accept this responsibility. Do not install any Owl Vans 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.

Owl Vans 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.