



ARROW
SUSPENSION

OWL INSTALL GUIDE

2007-UP MERCEDES SPRINTER 4X4, AWD PRO SERIES STRUT KIT

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 performance strut kit designed for easy installation using basic hand tools.
- **Note:** If the vehicle has more than **50,000 miles** on the **OEM upper strut bushing**, or if the bushing shows any **signs of wear or deterioration**, we **strongly recommend replacing it** during the installation of the **Owl Pro Series Struts** for optimal performance and longevity.
 - **OEM Strut Bushing Part Number:** 906 323 05 20
- These instructions detail the installation process on a 2023 Mercedes-Benz Sprinter 2500 AWD. Installation steps will be similar for earlier model years as well as for RWD configurations, with only minor variations in component layout and hardware access.
- This shock kit is fully removable, allowing the vehicle to be returned to its original stock configuration if desired.
- **Alignment Notice:**
The following installation steps utilize a digital angle finder to help maintain alignment settings close to the vehicle's current geometry. **However, this process does not replace a professional alignment. A full alignment must be performed immediately after installation to ensure proper handling, tire wear, and suspension performance.**

PARTS LIST

2007-Up, Mercedes Sprinter 4x4, AWD Pro Series Strut

PART	P/N	QTY.	✓
MERCEDES SPRINTER VS30 4X4, DRIVER PRO SERIES STRUT	22-07-33-311-200	1	
MERCEDES SPRINTER VS30 4X4, PASSENGER PRO SERIES STRUT	20-07-33-312-200	1	

TOOLS NEEDED

1. Quality jack and two jack stands
2. Basic hand tools:
 - Wrench and socket set, including:
 - Metric sizes: 13mm, 18mm, 21mm, 24mm
 - T-25, 2.5 & 7MM Allen
3. Flat head screw driver
4. Electric or Pneumatic impact gun recommended
5. Direct angle finder

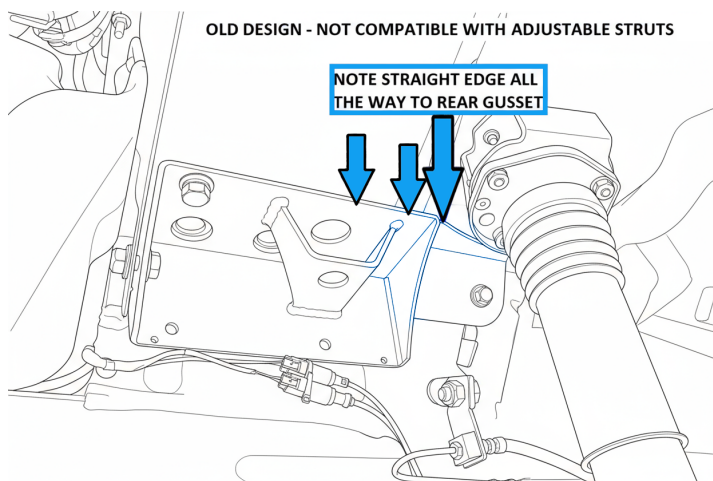
INSTALLATION

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.

CHECK BEFORE STARTING INSTALLATION OF STRUTS!!

- a. If the vehicle is equipped with an auxiliary shock kit; Upper shock brackets may interfere with the Pro Series adjustable Strut. 4x4 vehicles equipped with older brackets will require clearance modification of the existing brackets, or new upper shock brackets to be installed.
- b. Owl Upper shock brackets are designed to work in conjunction with the Pro Series Adjustable Strut.
- c. Vans equipped with a 2" lift kit do not have any clearance issues with any revision of upper shock brackets.
- d. Please see the images below denoting the difference between an older bracket (not compatible) and a current bracket (compatible with Pro Series Struts).

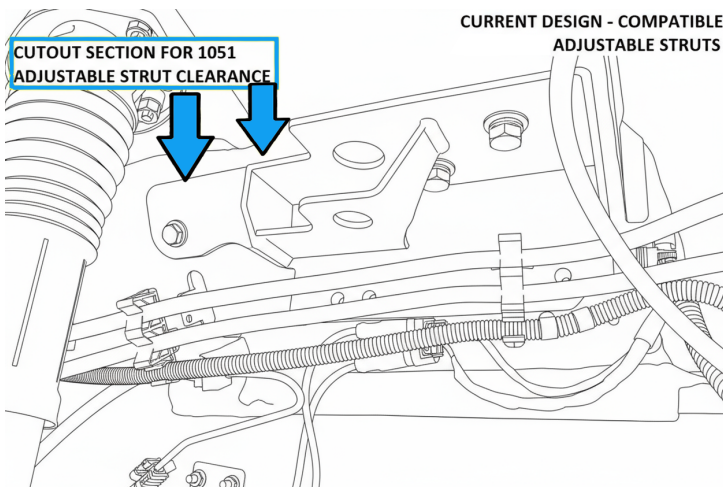


2. NON-COMPATIBLE BRACKET OPTIONS

If the van is equipped with **older, non-compatible upper shock brackets**.

a. Replace with Updated Brackets

- Remove the existing upper shock brackets and install the **updated Owl upper brackets**.
- Updated Bracket Part Number: SP-FUSM-D, SP-FUSM-P

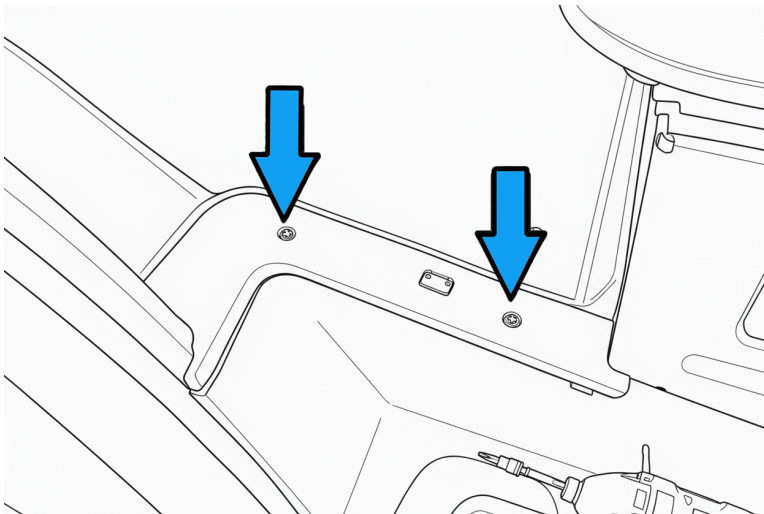


STRUT INSTALLATION

1.

ACCESSING UPPER STRUT MOUNTING POINTS – DRIVER SIDE

- **Gain Access:**
 - Begin by gaining access to the upper strut mounting points inside the cabin.
- **Remove Floor Mat Cover:**
 - Locate and remove the two (2) T25 Torx screws securing the floor mat cover to the driver-side door sill.
- **Remove Trim and Floor Mat:**
 - Lift and remove the plastic trim piece beneath the Torx screws.
 - Remove the driver-side floor mat to expose the upper strut access area.
 - Tip: Sliding the driver seat all the way back makes this step easier and prevents mat binding.



2.**ACCESSING UPPER STRUT MOUNTING POINTS –
PASSENGER SIDE****• Gain Access:**

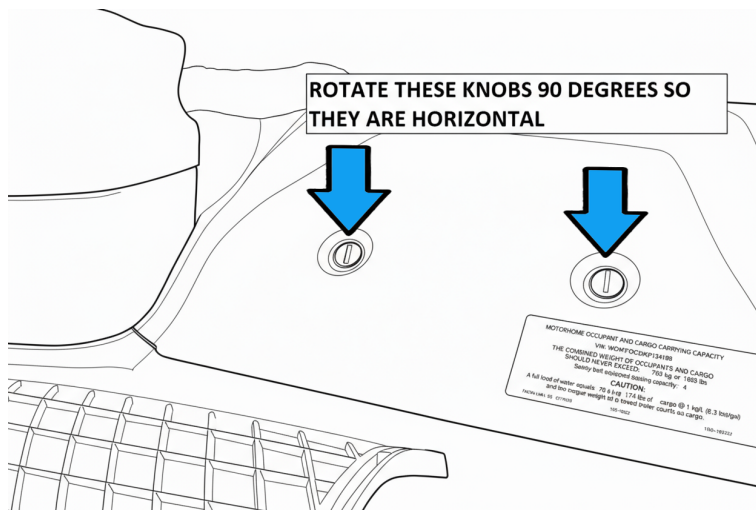
- Lift the tool kit cover panel located in the passenger footwell to expose the upper strut mounting area.

• Unlock Kick Panel:

- Using a large flat-blade screwdriver, rotate the two lock knobs on the kick panel until they are horizontal.
- This will release the panel from its mounting tabs.

• Remove Kick Panel:

- Carefully pull the kick panel away and set it aside.
- See image below for reference.

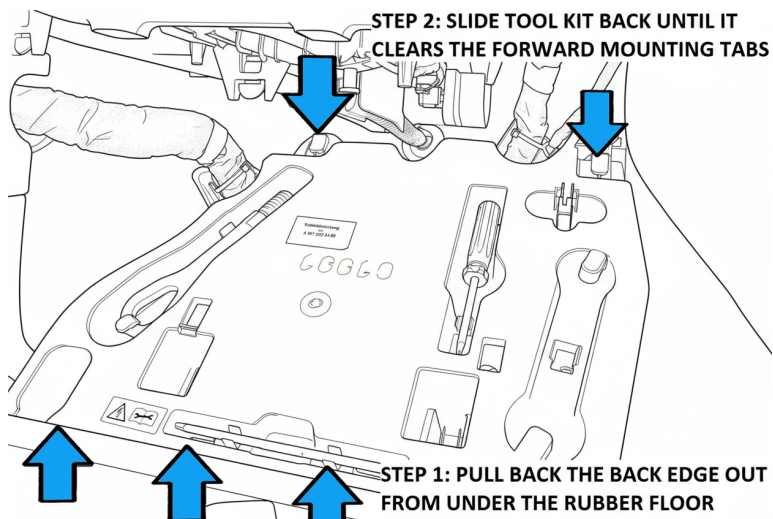


3.**REMOVE TOOL KIT – PASSENGER SIDE****• Remove Tool Kit:**

- With the kick panel removed, pull the rear edge of the tool kit out from beneath the rubber floor mat.

• Disengage from Mounting Tabs:

- Once the rear edge is free, slide the tool kit rearward until it clears the mounting tabs located near the firewall.
- See image below for reference.

**4.**

Loosen the lug bolts then jack up the vehicle and securely support it on jack stands, ensuring the front suspension hangs freely.

Verify the vehicle is stable and level before working underneath.

5.

With the front suspension hanging freely, remove both front wheels and tires to gain access to the strut assembly.

Factory lug bolts: typically 19mm head size.

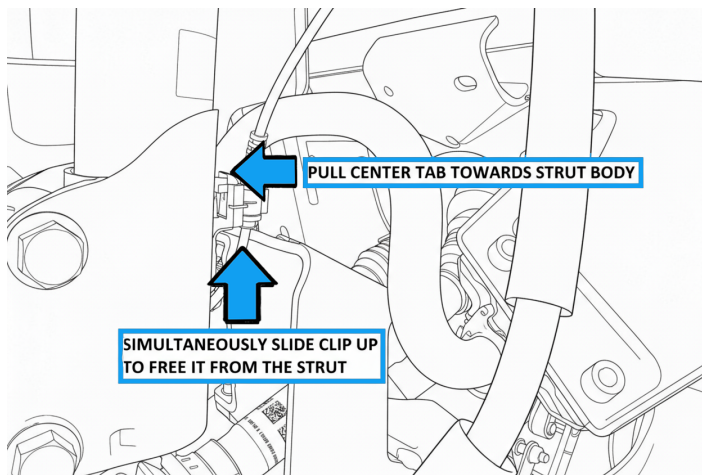
6.

The following steps illustrate the installation process on the driver's (left-hand) side of the vehicle.

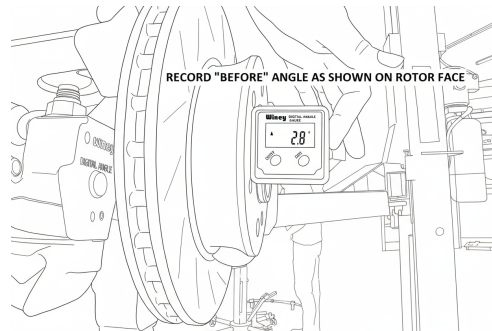
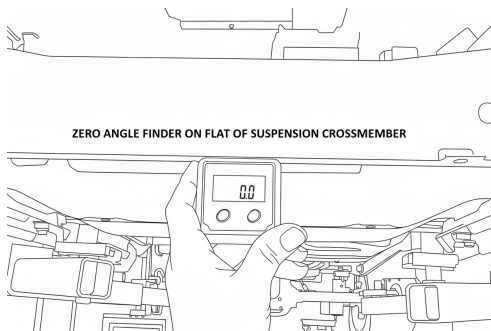
Installation on the passenger side is nearly identical – any side-specific differences will be clearly noted in the instructions that follow.

7.

Remove the ABS sensor clip from the strut by pulling the locking tab toward the strut body, then sliding the clip upward to release it.

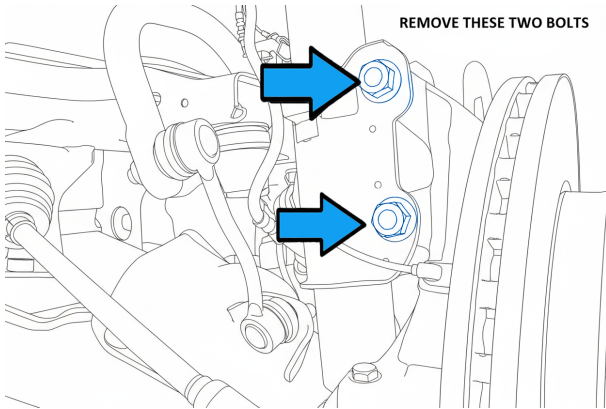
**8.**

Using a digital angle finder, zero the tool on the flat surface of the lower suspension crossmember. Once zeroed, place it against the rotor face to record the current camber angle. Be sure to measure and record both the driver and passenger sides for reference during reassembly.

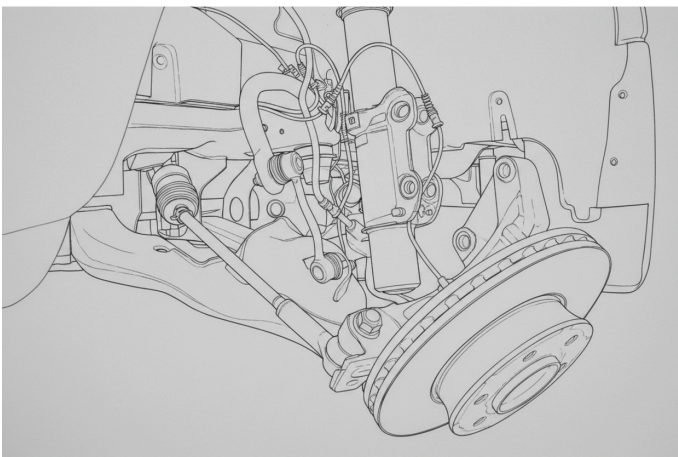


9.

With the “before” camber measurements recorded, support / raise the lower control arm about 3/8” (10mm) to remove tension from the strut. Use a 21mm socket to remove the 2 bolts securing the strut to the steering knuckle.

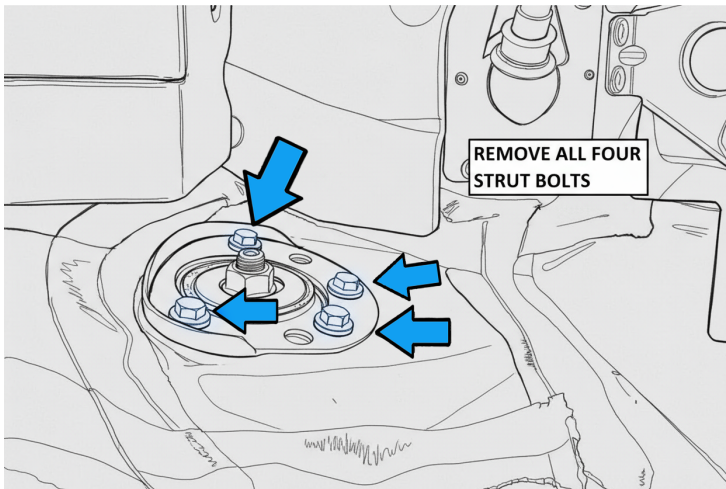
**10.**

With the strut disconnected from the steering knuckle, allow the lower control arm to hang freely. Carefully lower the knuckle out of the strut, ensuring the wheel speed sensor wire and brake hose remain relaxed and are not under tension.

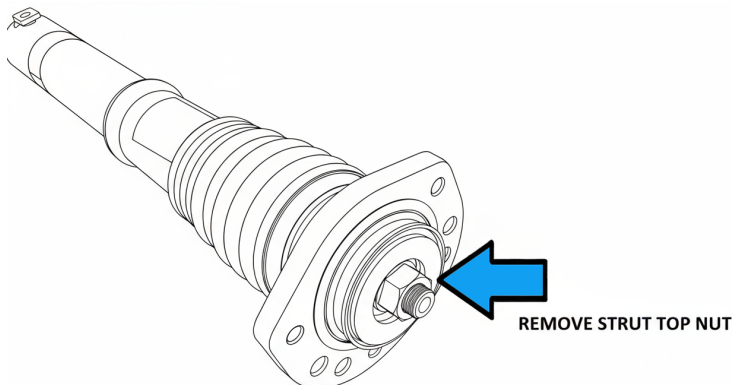


11.

Fully remove the strut assembly by taking out the four upper strut bolts located inside the cabin using a 13mm socket or wrench. It's recommended to have one person support the strut from below while another removes the bolts from inside to prevent the strut from dropping and potentially damaging the CV boots on 4x4 models.

**12.**

Place the strut assembly on a workbench and remove the upper strut nut using a 24mm wrench while holding the strut shaft with a 7mm Allen key if an impact gun is not available. The preferred method is to pull the OEM strut boot downward and hold the shaft by hand or with soft jaws in a vice, then use a 24mm socket with an impact gun to remove the nut safely.



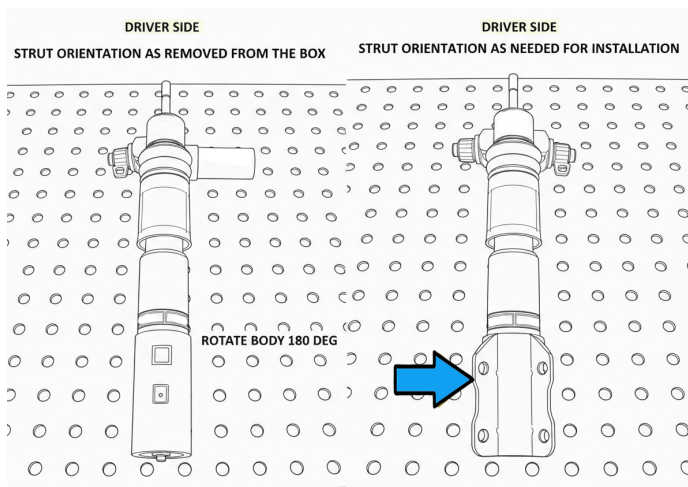
13.

After removing the strut nut, carefully inspect the OEM upper strut bushing. If the vehicle has more than 50,000 miles, or if the bushing shows any cracks, tears, or signs of deterioration, it should be replaced before reinstallation to ensure optimal performance and ride quality.

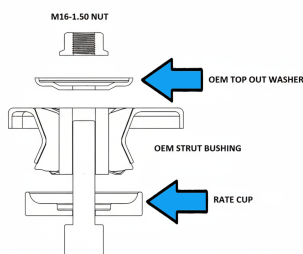
14.

The Owl Pro Series Struts are side-specific, labeled directly on the strut body and identified by a "D" (Driver) or "P" (Passenger) marking machined into the top cap.

Note: Struts are shipped with the strut tube and body rotated 180° out of phase for packaging. Before installation, rotate the body 180° to achieve the correct vehicle mounting orientation.

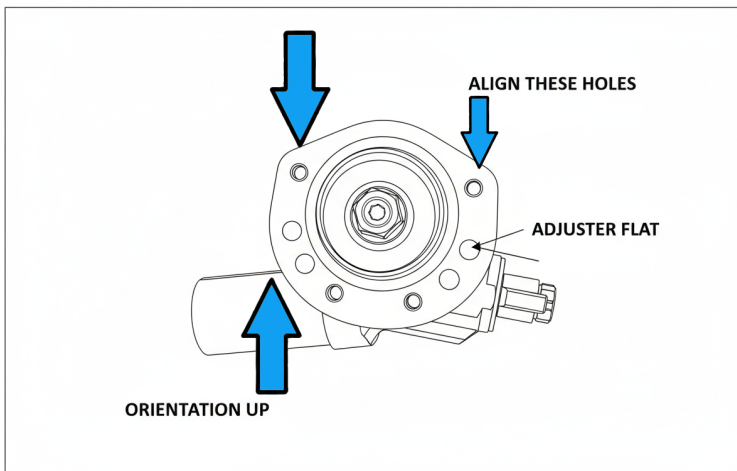
**15.**

Fit the lower rate cup onto the upper strut stud, ensuring the dished side faces upward toward the bushing. Install the bushing next, followed by the OEM top-out washer and the new stover nut. See image below for reference.



16.

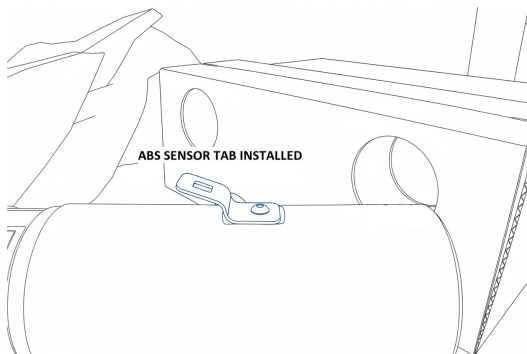
Lay the strut assembly flat on a workbench as shown below. Align the two wider-spaced bolts of the strut bushing with the flat surface on the outer edge of the adjuster to ensure proper orientation before installation.

**17.**

With the rate cup system installed and the strut bushing properly aligned, torque the upper strut nut to 74 ft-lbs (100 N·m) to secure the assembly.

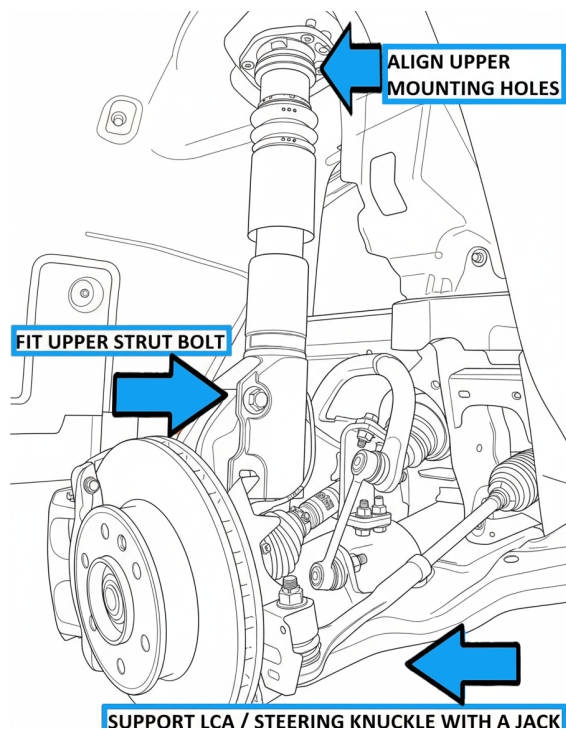
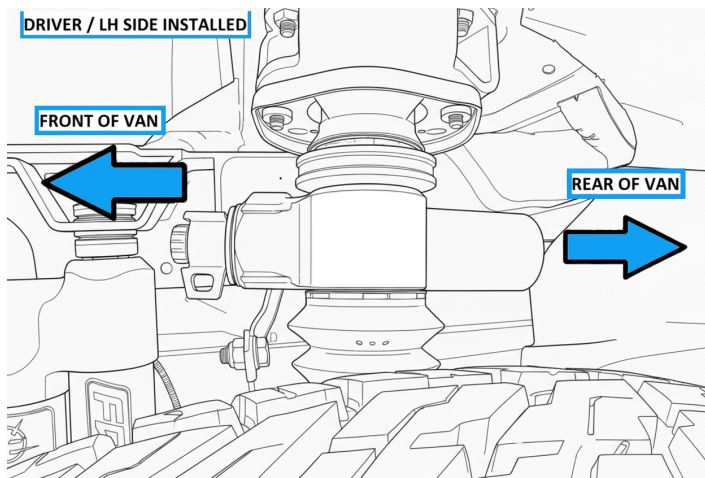
18.

Install the ABS wiring clip onto the strut using the included M4-0.7 Allen bolt and a 2.5mm Allen wrench. Position the clip so the square hole faces upward and the jog bends away from the strut body for proper clearance and wire routing.



19.

Support the lower control arm and steering knuckle, then fit the assembled strut into position on the vehicle. Ensure the correct strut is installed on its respective side – Driver (D) or Passenger (P). The reservoir should face the rear of the vehicle, and the adjuster should face forward. Once aligned, install the upper strut bolt to hold the assembly in place and prevent it from resting on the CV boot on AWD / 4x4 models.



20.

With the upper bolt installed, gently rotate the top of the strut until the mounting holes in the strut body align with the holes in the chassis for proper fitment.

21.

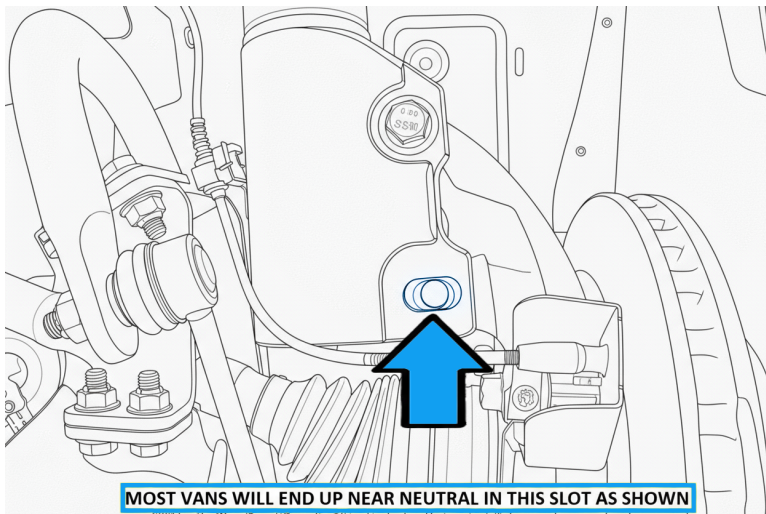
Once the upper mounting holes are aligned, raise the lower control arm slowly until the OEM bolts can be reinstalled into the upper strut mount. This will properly seat the strut and prepare it for torquing.

22.

Start all four upper strut mount bolts by hand before tightening. Once all bolts are properly threaded, torque each to 21 ft-lbs (28 N·m) in a crisscross pattern to ensure even clamping.

23.

Slowly lower the jack supporting the lower control arm—this should bring the alignment slot near neutral in the knuckle mount. Most vans will have the slot centered on the steering knuckle hole (shown on AWD / 4x4 models; RWD models feature the alignment slot in the upper hole). Once aligned, install the second lower strut bolt and secure it with the included flange nuts.



24.

With the lower strut bolt installed, snug both upper and lower strut bolts using an 18mm wrench for the bolt head and a 21mm wrench for the nut.

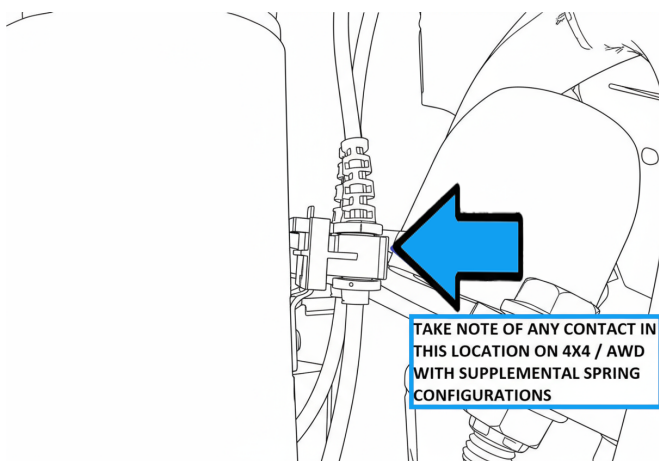
Reference the camber measurements recorded in Step 10, re-zero the digital angle finder at the same point on the crossmember, and measure from the rotor face as before.

Adjust the knuckle position until the camber angle matches your recorded baseline, then fully tighten both strut bolts to 127 ft-lbs (172 N·m).

25.

Reattach the OEM ABS wiring clip and harness to the new strut in the same orientation as on the factory strut.

Note: On 4WD / AWD vans, the OEM ABS clip may interfere when using supplemental springs such as SumoSprings or Owl Bump Buddies, due to the increased jounce stop and the larger inverted strut body. If contact occurs at full droop, remove the wires from the plastic retention clip and secure them to the ABS tab on the strut using zip ties. See image below for reference.



26.

Repeat the installation process on the passenger side, following the same steps and torque specifications outlined for the driver side.

27.

Reinstall the wheels and tires, then lower the van to the ground. Torque the wheel bolts to factory specification:

- 2500 SRW: 177-187 ft-lbs (240-250 N·m)
- 3500 DRW: 140-150 ft-lbs (190-200 N·m)

CRITICAL INSTALL NOTES**28.**

Double-check that the reservoir and adjuster have adequate clearance from the van body and any auxiliary shock brackets. If minor interference is present, you can gently rotate the strut body by hand using the reservoir to fine-tune its position for proper clearance.

29.

With the vehicle on the ground at ride height, check for adequate tire clearance to the strut dust boot. If clearance is insufficient, install an appropriate wheel spacer to prevent contact and potential damage to the boot.

30.

A professional vehicle alignment must be performed immediately after installation. Do not drive extensively before alignment, as incorrect geometry can lead to uneven tire wear, poor handling, and premature suspension component wear.

31.

After 100 miles of driving, re-check and verify all suspension and mounting bolt torques. This ensures components have properly seated and maintains long-term performance and safety.

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.