



ARROW
SUSPENSION

OWL INSTALL GUIDE

2019-UP MERCEDES SPRINTER ARROW 6 FULL LEAF PACK, REAR 2" LIFT KIT

UPDATED WINTER 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.
Drill four openings measuring 1/4 in (approximately 6 mm) in diameter to mount the brackets to the vehicle, and drill two 11/32 in (approximately 9 mm) diameter openings to reposition the emergency brake cable mounts.
- Keep factory lift block as it will be used with the leaf add-on.
- Removal and trimming of the plastic inner fender well liner is necessary for installation.
- 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 Rear Full Leaf Spring Pack

PART	P/N	QTY.	✓
ARROW 6-PACK 2" 85/95 LEAF SPRING	AA37 or AA37.2 or AB41	2	
U-BOLT 3-6 PACK	UBK2K or UBK1K	4	
STEEL SLEEVE		4	

1994-Up, Mercedes Sprinter Rear Bumpstop Drop Bracket

PART	P/N	QTY.	✓
REAR BUMP STOP BRACKETS 2500	SP-2500-RBSM	2	
5/16-18 X 1" LONG, HEX HEAD THREAD CUTTING SCREW	SP-RBB-HRD	2	

2007-Up, Mercedes Sprinter Rear Lower Shock Mount, 2" Lift

PART	P/N	QTY.	✓
SPRINTER ARROW 6 REAR LOWER SHOCK MOUNT	SP-ARROW-6-RSLM	2	
SPRINTER ARROW 6 REAR LOWER SHOCK MOUNT SPACER	SP-ARROW-6-RSLM-04	2	
M12-1.75 X 70MM LONG, GR10.9, MAGNI 565 HEX HEAD BOLT		4	
M12-1.75 STOVER NUT MAGNI 565		4	
M12 MAGNI 565 FLAT WASHER		8	
M8-1.25 X 65MM LONG, GR10.9, MAGNI 565 HEX HEAD BOLT		2	
M8-1.25 STOVER NUT		2	
M8 MAGNI 565 FLAT WASHER		4	

2019-Up, Mercedes Sprinter Rear Sway Bar Link

PART	P/N	QTY.	✓
2019-PRESENT, MERCEDES SPRINTER VS30 4X4, REAR SWAY BAR LINK, 2.0" LIFT KIT	SP-SWY-LNK	2	
M12-1.75 X 70MM LONG, GR10.9, HEX HD BOLT MAGNI 565		2	
M12-1.75 STOVER NUT MAGNI 565		2	
M12 MAGNI 565 FLAT WASHER		4	

2019-Up, Mercedes Sprinter Rear Headlight Adjuster Bracket

PART	P/N	QTY.	✓
2019-PRESENT, MERCEDES SPRINTER VS30, REAR HEADLIGHT LEVELING BRACKET, 2.0" LIFT KIT	SP-2500-RHLAB	1	
3/8-16 X 1" HEX HEAD BOLT MAGNI		1	
3/8" FLAT WASHER gr 8 MAGNI		2	
3/8" NYLOCK NUT MAGNI		1	

TOOLS NEEDED

1. Quality jack and two jack stands
2. Basic hand tools:
 - Wrench and socket set, including:
 - Metric sizes: 9mm, 10mm, 13mm, 17-19mm, 21mm
 - SAE sizes: 1/2", 9/16", 7/32" allen
 - T55 Torx socket
 - Torque Wrench
 - Tool for cutting zip ties
3. Automotive trim removal tool
4. Drill equipped with a 1 1/32" (9mm) metal-cutting drill bit
5. Nut driver with 1/4" socket bit for thread cutting hardware
6. 2 C-Clamps (min of 6")
7. 2 Quick clamps

INSTALLATION

1.

Safely support the vehicle on an appropriate lift or jack stands so the rear suspension can hang freely. Ensure the support method follows the vehicle manufacturer's specifications.

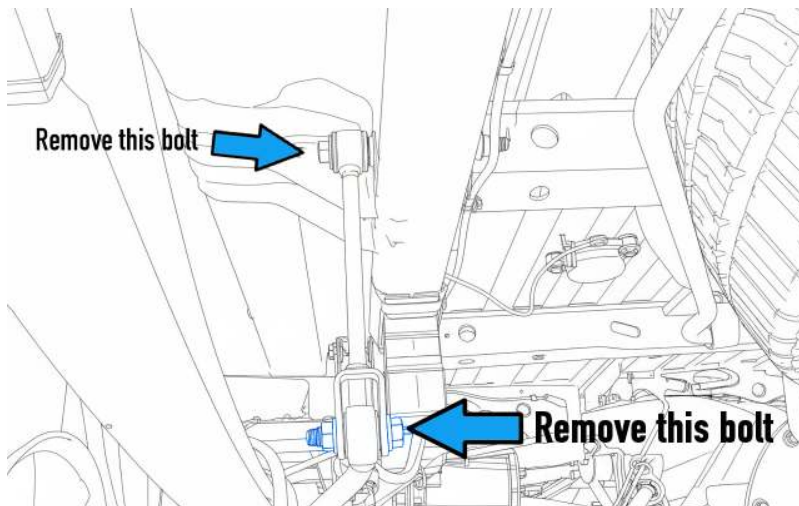
2.

With the suspension supported, remove the rear wheels and tires.

3.

Detach the stabilizer bar end links from the rear suspension.

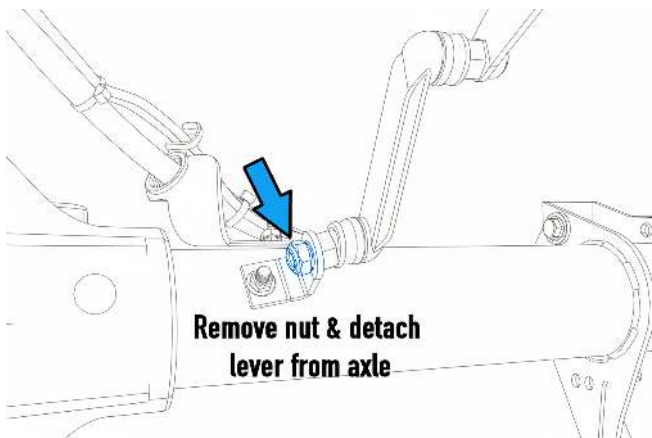
- a. Using an 18mm wrench and socket remove the connecting bolts on each side.
- b. Keep the top fasteners for reuse alongside the extended replacement links supplied in the kit.



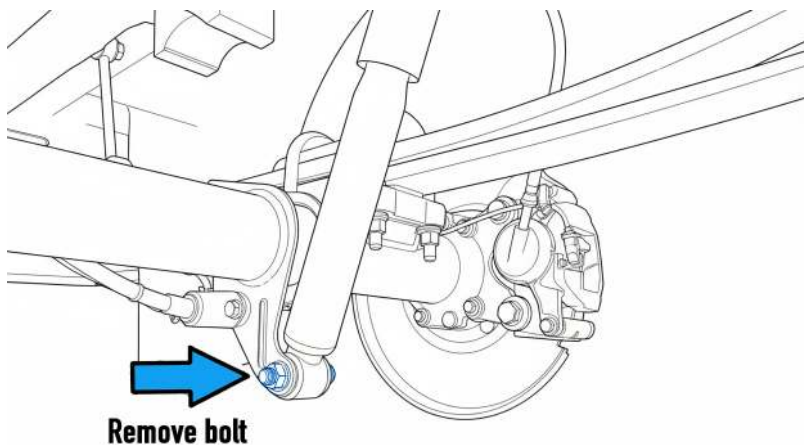
4.

If your vehicle has it, unhook the rear bracket for the headlight leveling system. Keep all fasteners for later reinstallation.

- a. Start by separating the lever arm from the compact L-shaped bracket on the axle housing using 9mm and 10mm wrenches.
- b. Fully detach the small L-bracket from the axle tube by taking off the mounting nut with a 10mm socket or wrench.

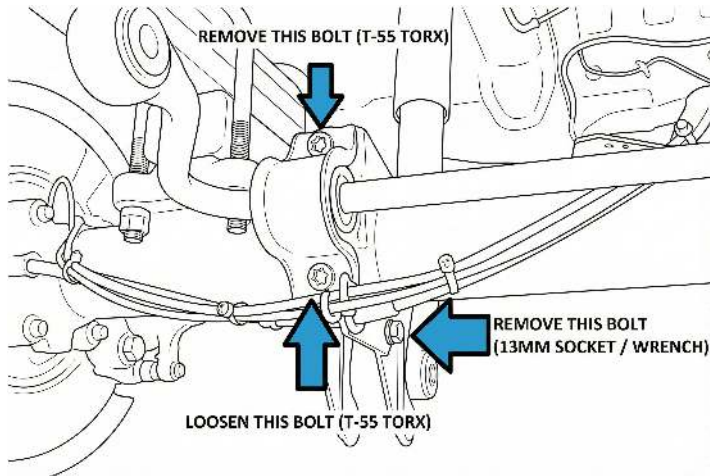
**5.**

Secure the rear axle with a jack or support stand, then unfasten the bottom shock absorber bolt using an 18 mm socket and wrench. After taking off the shock, let the axle droop freely once more. Keep in mind that without the shocks, the leaf springs will restrict how far down the axle can drop.

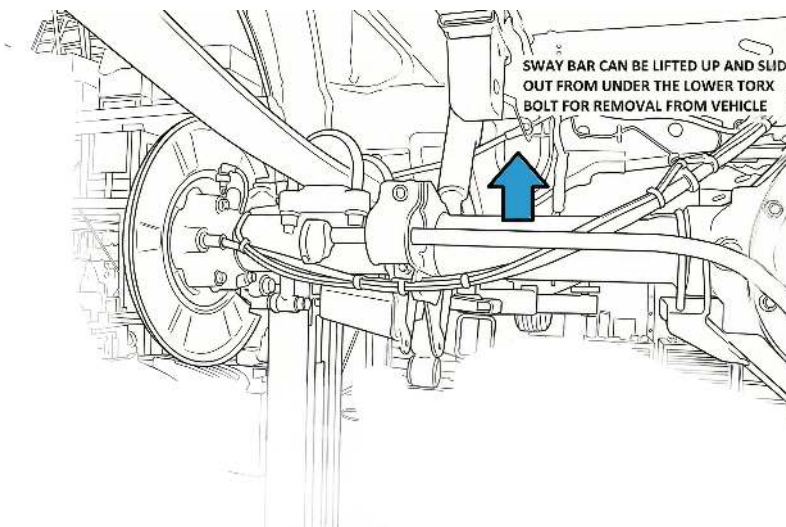


6.

Take off the parking brake cable mounts located at the axle housing. Use a 13 mm socket or wrench to remove the fasteners. Set aside this hardware for reinstallation later.

**7.**

Remove the four Torx fasteners that hold the rear stabilizer bar to the axle housing. Apply a T55 Torx socket to extract the top bolts. Just loosen the bottom bolts by about three complete turns, then slide out the sway bar.



8.

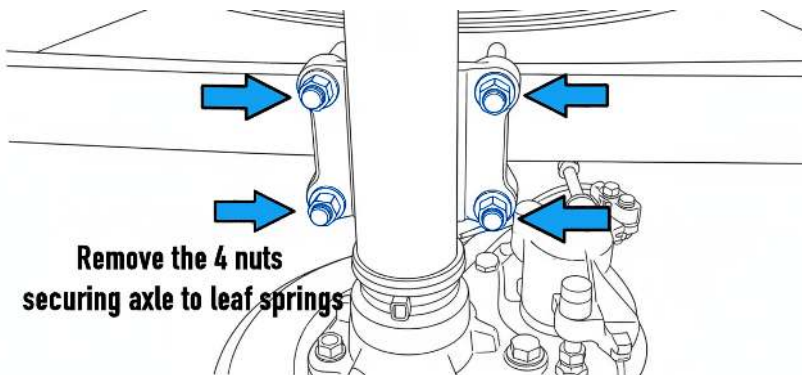
Pull out the rubber bump stops from their chassis mounts. Spray some Windex or glass cleaner on the rubber to help loosen them for simpler extraction.

- a. Note: Bump stop styles differ based on model year and wheelbase, but they all secure to the frame the same way. A pry bar works well for popping them free.

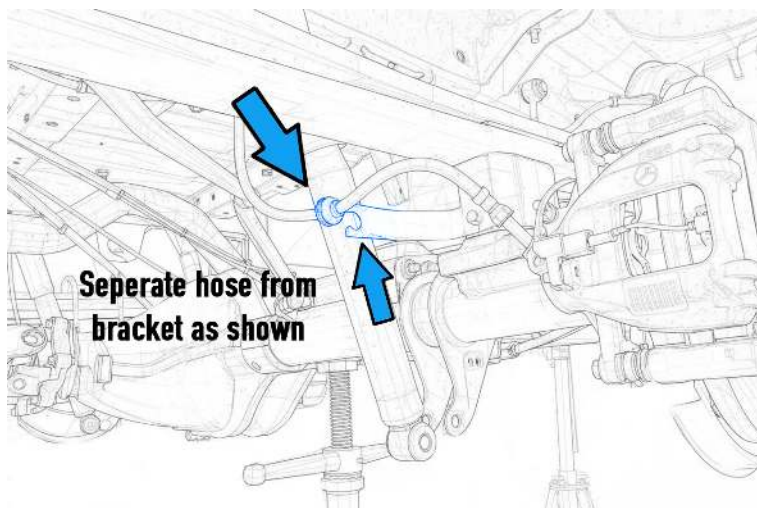
9.

Mount the new rear leaf spring packs one side at a time.

- a. Unscrew the U-bolt nuts using a 19mm socket or wrench, then pull off the U-bolts completely.

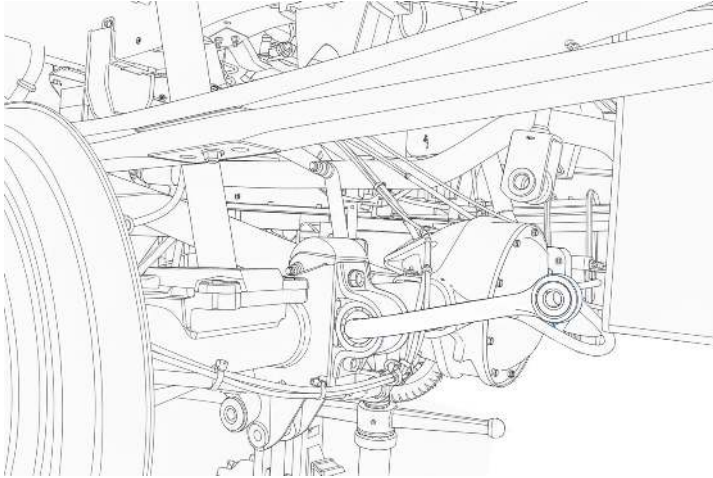
**10.**

Unclip the brake line from the stock lift block spacer, and detach the brake line holder from the block as well. Use a 13 mm socket or wrench to remove the fasteners.



11.

Carefully lower the axle until the original lift block spacer comes loose. Take out the factory lift block and store it nearby for reinstallation later.

**12.**

Extract the front leaf spring bolt using an 18 mm socket or wrench.

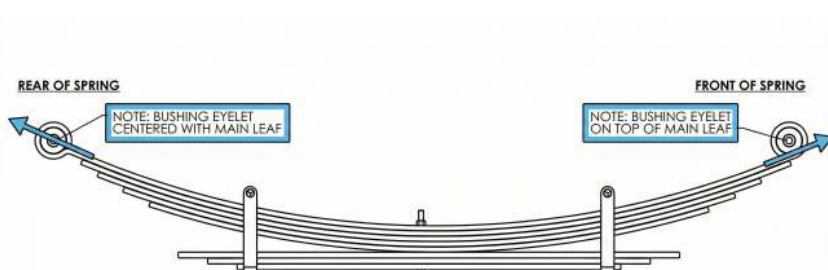
13.

Take out the lower shackle bolt, then carefully lower the leaf spring down onto the axle. Pull the entire axle and shackle setup out of the vehicle. Tip: An extra set of hands makes spring removal smoother. Lay the stock spring beside the new Arrow Full spring for comparison.

14.

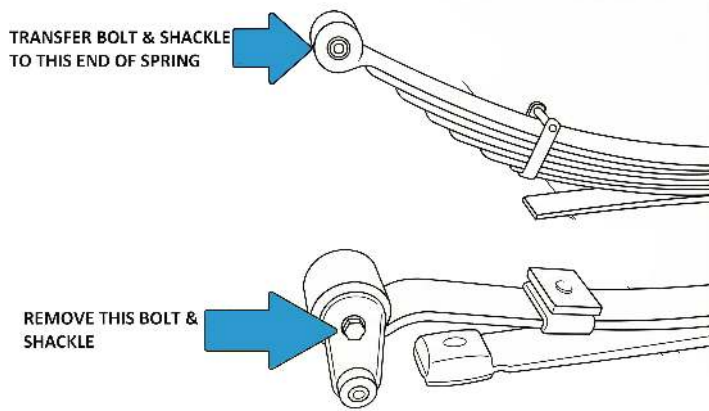
Observe how the spring eyes differ: The rear eye has the main leaf centered in the bushing, while the front eye positions the bushing above the main leaf.

- a. Check the drawing below for clarification.
- b. Unbolt the shackle from the rear spring eye.



15.

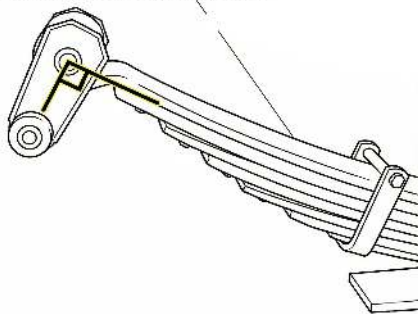
Remove the fastener attaching the shackle to the rear spring eye.

**16.**

Attach the shackle to the rear eye of the new Arrow Full spring pack. Orient the shackle perpendicular to the main spring's curve.

- a. Tighten the shackle bolt to 100 ft-lbs.

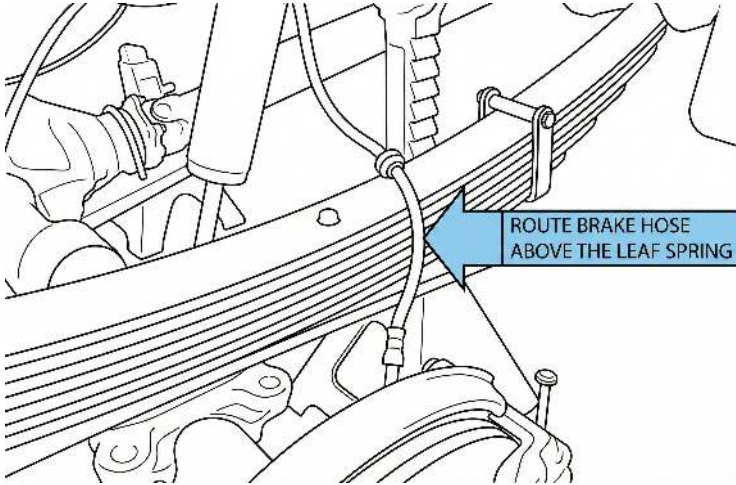
EXAMPLE OF SHACKLE INSTALLED
PERPENDICULAR TO ARCH OF MAIN SPRING



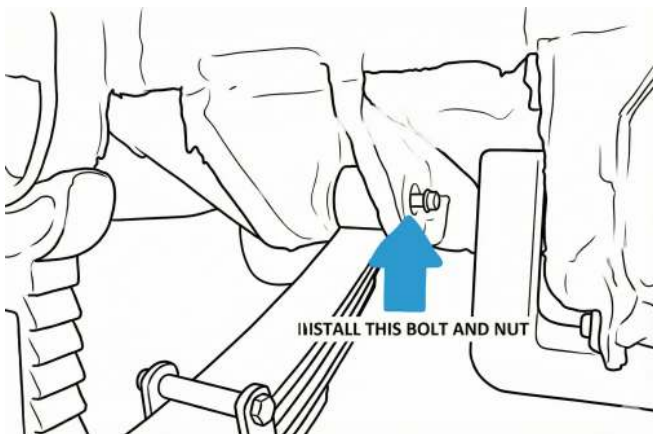
17.

Slide the new leaf springs into the vehicle. It's simplest to load them inverted first, then flip them upright into place once positioned.

- a. Make sure to loop the brake hose over the top of the spring

**18.**

After rotating the springs into their correct orientation, insert the front spring bolt through the hanger bracket and add the nut—but leave it loose for now.

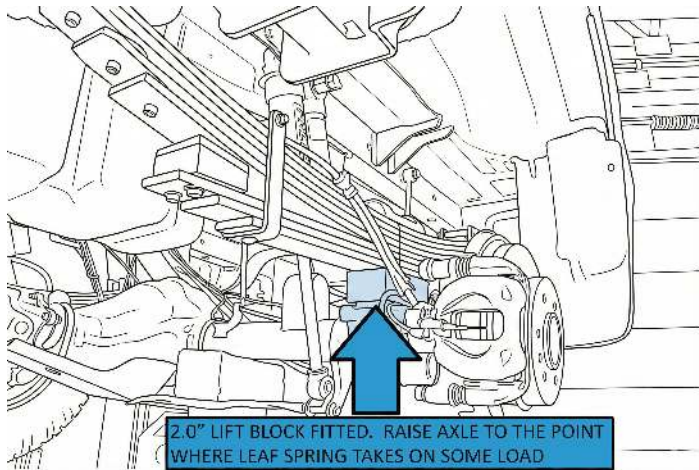
**19.**

Raise or lower the axle with the jack until the lower shackle bolt lines up easily. Insert the bolt and nut, but keep them snug rather than fully torqued.

20.

With the leaf spring secured in the vehicle, lower the axle enough to fit the supplied 2-inch lift block underneath.

- a. Set the lift block in place, raise the axle, align the springs's center pin with the block's pin.
- b. Lift the axle until the leaf spring starts carrying
- c. weight.

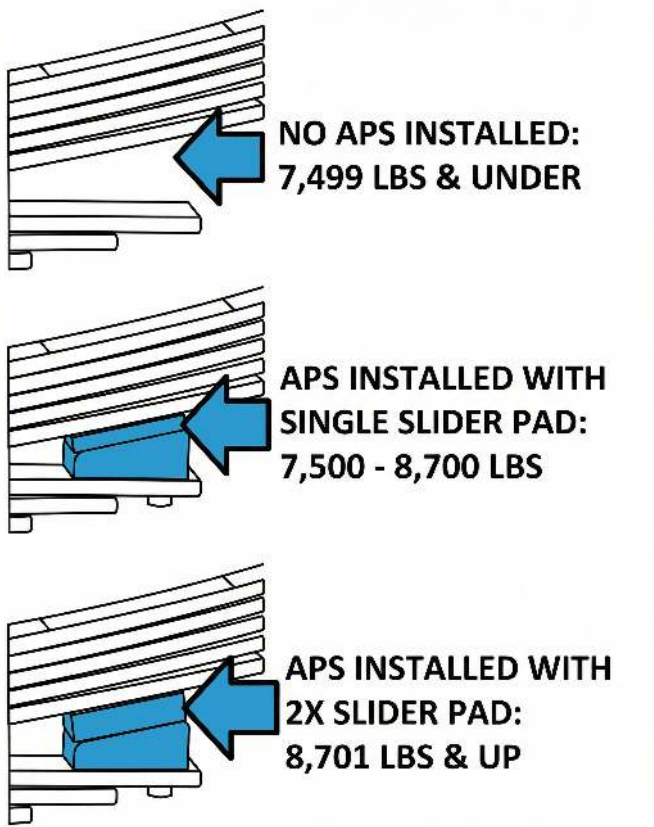
**21.**

Add the new U-bolts and nuts from the kit. Hand-tighten all nuts loosely for now using a 19 mm socket or wrench—final torque comes later.

22.

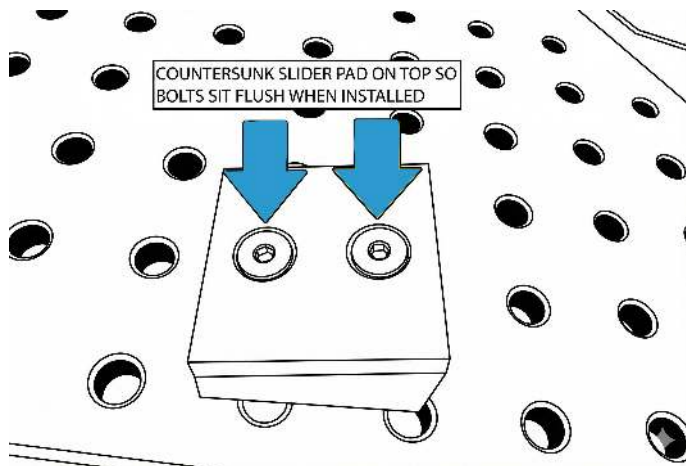
If you know the vehicle's approximate loaded weight, set the adjustable preload spacer (APS) now. Use the chart below as a starting guide, but fine-tune it yourself for the ideal ride height and comfort.

WEIGHT OF VEHICLE	OPTI-RATE CONFIGURATION
7,499 LBS & UNDER	NO APS INSTALLED
7,500 LBS - 8,700 LBS	APS BLOCK + 1 SLIDER PAD INSTALLED
8,701 LBS & UP	APS BLOCK + 2 SLIDER PADS INSTALLED

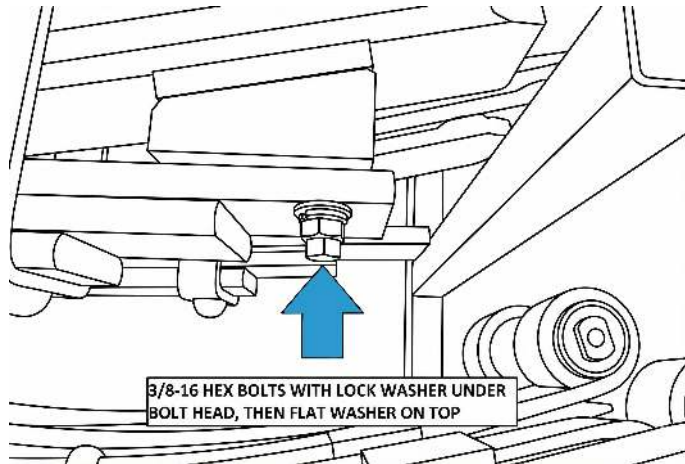
**23.**

Tip: Always position the slider pad with countersunk holes facing up, as shown.

- a. Tighten the countersunk screws to 15 ft-lbs (20Nm) using a 7/32-inch Allen wrench.



- b. Secure the APS to the leaf spring with a 9/16-inch socket to 20 ft-lbs (27 Nm), adding a flat washer and lock washer under the bolt head.

**24.**

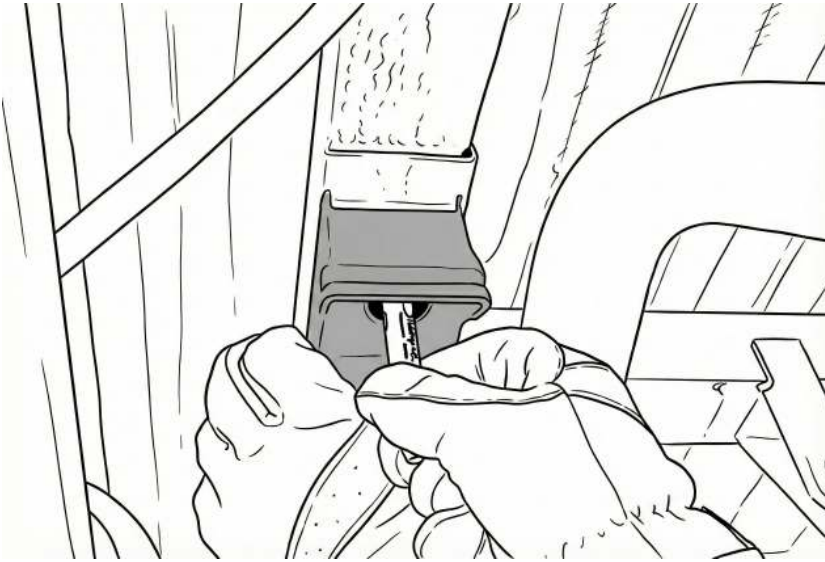
Carry out the same leaf spring and lift block setup on the other side of the vehicle.

25.

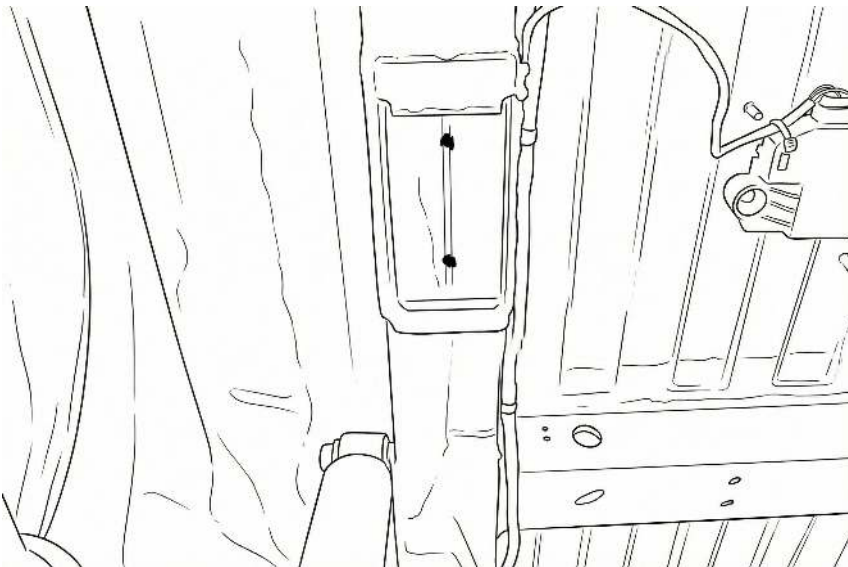
You can fit the bump stop drop brackets to both sides of the vehicle at the same time.

26.

Hold the rear bump stop relocation bracket in its mounting spot as illustrated, then mark the two attachment holes using a marker or transfer punch.

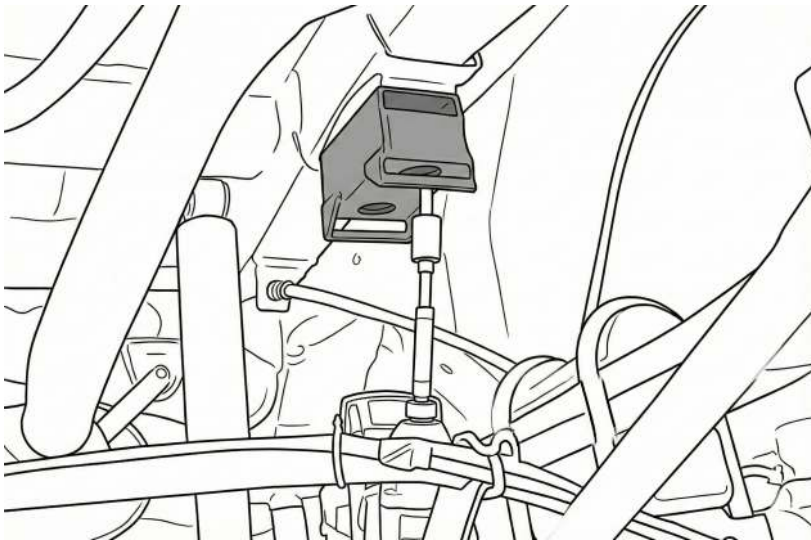
**27.**

The frame has grooves where these holes align, so use a step drill bit for clean work. Center-punch the marked spots first, then drill them out to $\frac{1}{4}$ inch (7 mm) using the step bit.



28.

Once both holes are drilled, seat the bump stop drop bracket back into position and fasten it to the frame with the included 5/16-18 x 1-inch thread-cutting screws. Insert them using a nut driver or a drill fitted with a ¼-inch bit adapter and ½-inch socket—keep the tool perfectly straight while cutting threads.

**29.**

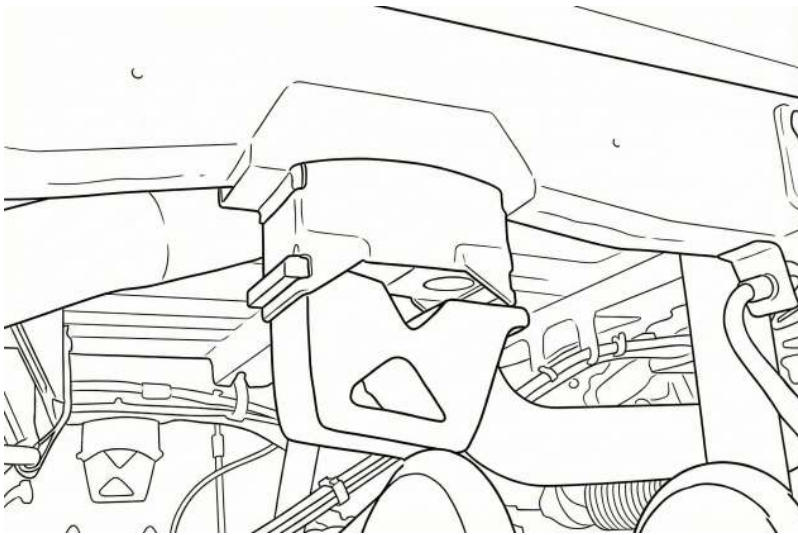
Run the drill or driver to snug the screws into place, but don't fully tighten with power tools. Finish by torquing to 13 ft-lbs (17 Nm).

30.

After mounting the drop brackets and torquing all fasteners correctly, generously apply Windex or glass cleaner to the rubber bump stops.

31.

Push the bump stop into the relocation bracket, working one side at a time. Flex it in the center to start the opposite edge. Expect a tight fit, just like in the original mounts—it takes some effort.

**32.**

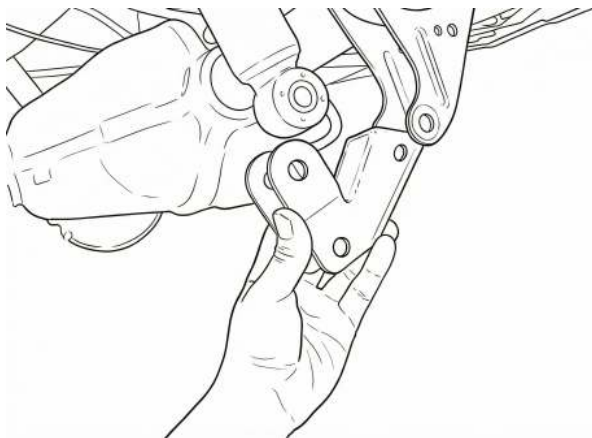
When the other side catches, use a screwdriver for leverage, wiggle it around, and add more lubricant to fully seat the bump stop in the bracket.

33.

Mount the rear lower shock extensions on both sides of the vehicle together.

34.

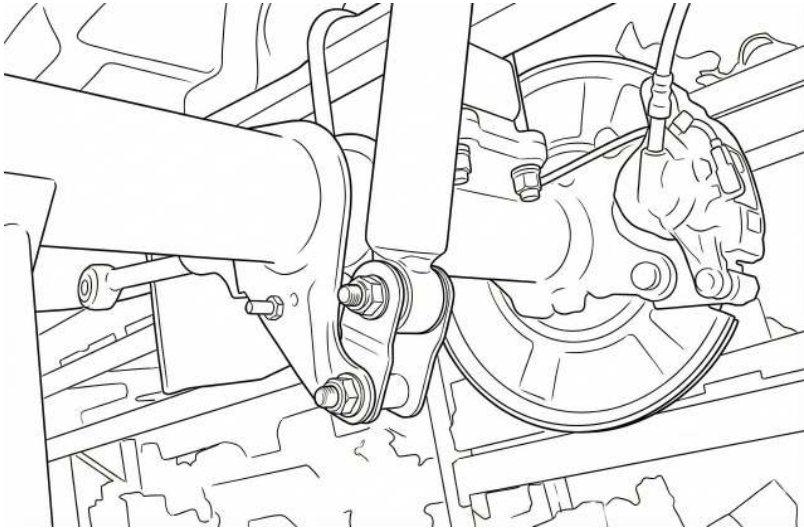
Position the rear lower shock extension bracket into place.



35.

Thread in the supplied M8-1.25 x 65 mm bolt as shown to hold the bracket steady, placing a washer beneath the bolt head.

- a. Add the spacer tube with the M12-1.50x70mm bolt to lock the bracket's position, again with a washer under the head.
- b. Attach matching stover locknuts and washers to both bolts.
- c. Slide the shock into the bracket and lightly tighten everything. Grab a 19mm socket/wrench for the M12 bolts and 13mm for the M8 bolts.

**36.**

Tighten the fasteners in this sequence:

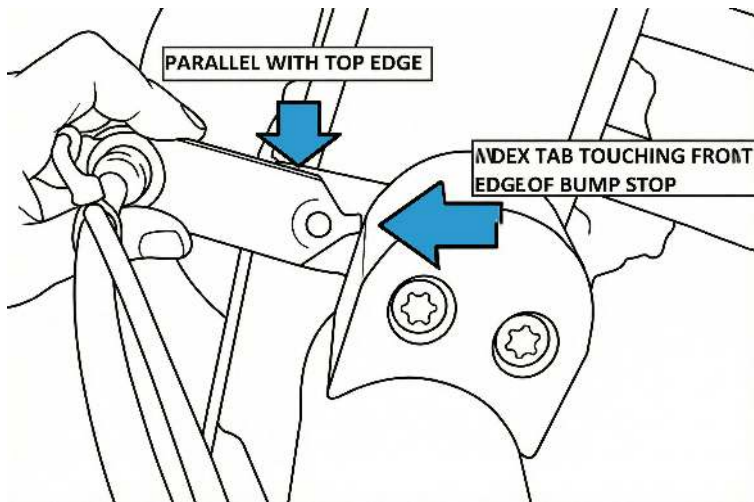
- a. M12-1.50 bolts to 52 ft-lbs. (70 Nm)
- b. M8-1.25 bolts to 15 ft-lbs. (20 Nm)

37.

Relocate the parking brake and ABS cable bracket above the stabilizer bar, as pictured below. Note: The little alignment tab on the bracket may bend flat once you torque the mounting bolts properly.

38.

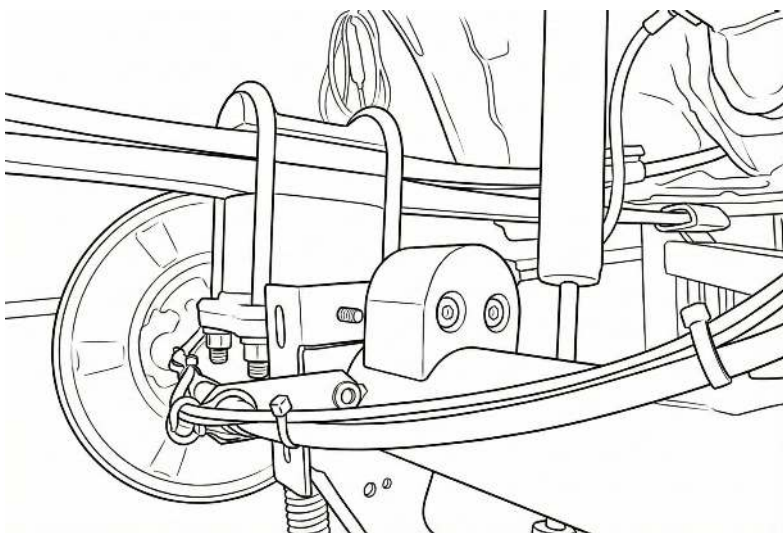
Place the parking brake/ABS cable bracket in the indicated spot below. Mark the new mounting hole and drill it with an 11/32-inch (9 mm) bit.

**39.**

For best results, remove the bump stop bracket and drill the hole at a workbench or using a drill press.

40.

Insert the original equipment bolt from the rear side.

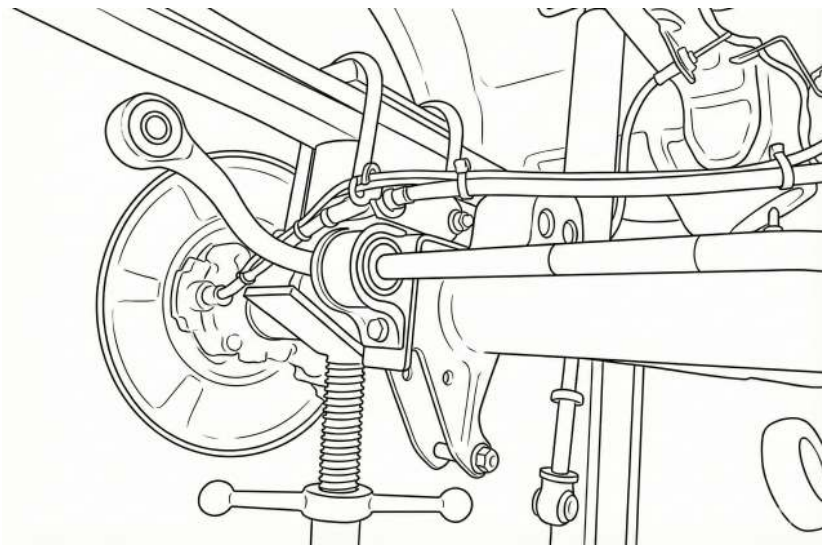


41.

Put the rear stabilizer bar back onto the axle housing using the four T55 Torx bolts you removed earlier (step 6). Torque them to 52 ft-lbs (70 Nm).

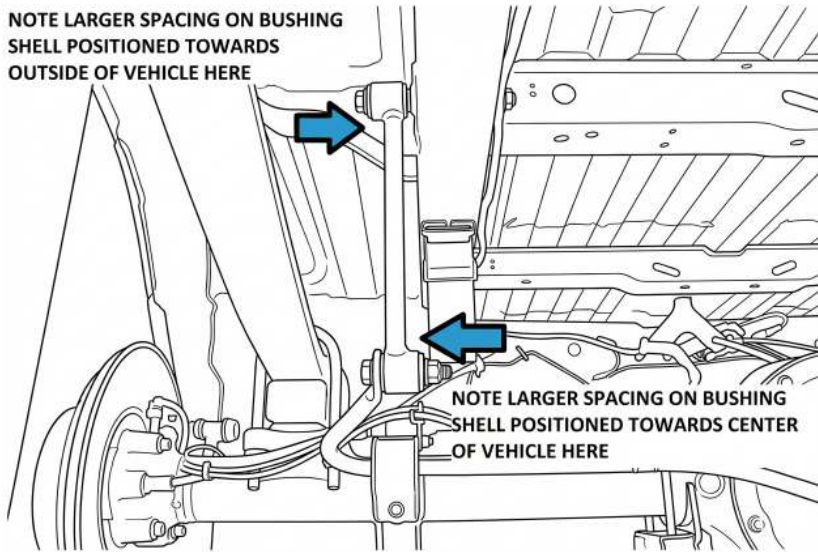
42.

Fasten the parking brake/ABS cable bracket to the axle with the factory hardware. Tighten the bolt using a 13 mm socket or wrench to 21 ft-lbs (29 Nm).

**43.**

Mount the rear stabilizer bar links using the original upper bolt and nut from step 3.

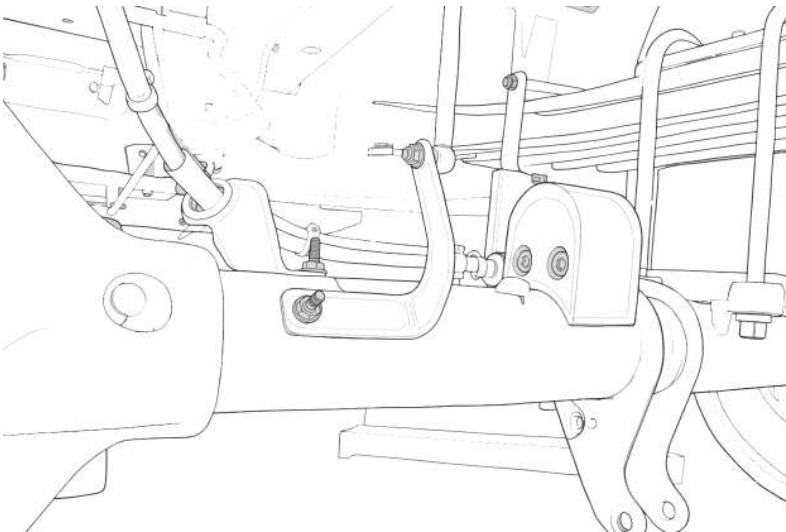
- a. Observe the link orientation: The bushings are pre-offset for correct alignment once fitted.
- b. Use the new M12-1.50 x 70mm bolt to connect the link to the sway bar, placing washers under both the bolt head and stover nut.

**44.**

Tighten the M12-1.50 bolts to 78 ft-lbs (105 Nm).

45.

Fit the replacement headlight leveling extension bracket as shown in the picture. Reuse the stock nut to secure it onto the axle tube stud, tightening with a 10 mm socket or wrench. Reattach the lever arm to the extension using another factory nut.



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.