

**SUPERLIFT SUSPENSION SYSTEMS**

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**FORD ADJUSTABLE CASTER/CAMBER  
 BUSHING FOR  
 1987-96 F-150, F-250, F-350 4x2 TRUCKS  
 1992-2000 ECONOLINE VAN  
 2000 AND NEWER 4x2 EXCURSION  
 1991-94 4x2 EXPLORER  
 1989-97 4x2 RANGER  
 1991-94 4x2 MAZDA NAVAJO  
 1994-99 4x2 MAZDA PICKUP**

**INSTALLATION INSTRUCTIONS****INTRODUCTION**

Installation requires a professional mechanic. Prior to beginning, inspect the vehicles steering, driveline, and brake systems, paying close attention to the suspension link arms and bushings, anti-sway bars and bushings, tie rod ends, pitman arm, ball joints and wheel bearings. Also check the steering sector-to-frame and all suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace all worn parts.

**Read instructions several times before starting. Be sure you have all needed parts and know where they install. Read each step completely as you go.**

**NOTES:**

- This installation is best done by a professional alignment shop. "Eyeballing" the alignment is not satisfactory, and vehicle must be aligned after bushing installation.
- Front end realignment is necessary.
- Do not fabricate any components to gain additional suspension height.
- Paint or undercoat all exposed metal surfaces.
- Prior to attaching components, be sure all mating surfaces are free of grit, grease, undercoating, etc.
- A factory service manual should be on hand for reference.
- Use the check-off box "" found at each step to help you keep your place. Two "" denotes that one check-off box is for the driver side and one is for the passenger side. Unless otherwise noted, always start with the driver side.

**BUSHING PROCEDURE****1) PREPARE VEHICLE...**

- Place vehicle in neutral. Raise front of vehicle with a jack and secure a jack stand beneath each frame rail, behind the lower control arms. Ease the frame down onto the stands, place transmission in low gear or "park", and chock rear tires. Remove front tires.

**2) REMOVE BUSHINGS...**

- Remove the upper ball joint cotter pin and nut.
- Remove the lower ball joint cotter pin, loosen the ball joint nut; do not remove.
- Strike the inside of the knuckle near the upper and lower ball joints to break it loose from the ball joint studs.
- Remove the old bushing. A Pitman arm puller, Ford part number T64P-3590-F, will work on original bushings. A hammer and flat chisel may be used.

**3) BUSHING INSTALLATION...**

- Thoroughly clean ball joint opening.
- Partially tighten the lower ball joint stud nut to 40 ft. lbs.
- [DIAGRAM 1] Lubricate the new bushing with "Never Seize" or similar lubricant and verify it is in the neutral or "N" position as shown in Diagram 1. Partially tighten the bushing in place with the nut.
- Reinstall the tires and wheels and take an alignment reading to determine the amount of positive (+) and negative (-) camber and caster changes are necessary.
- Refer to Chart A. Follow both measurements (caster and camber changes required) to their intersection on the chart. Within the box you will find two letters. The UPPER letter represents the code for positioning the INNER adjuster. The LOWER letter is the reference for positioning the OUTER adjuster.

**NOTE:** If there are two upper or lower letters in a box, position the adjuster between the two letters.

- [DIAGRAM 2] Using a wrench, rotate the INNER bushing so that the UPPER letter noted in the chart lines up with the slot of the OUTER bushing.

**NOTE:** It is not necessary to remove the bushing in order to make adjustments.

- Rotate the OUTER bushing so that its slot points straight out (towards the tire) as shown in Diagram 2.
- Install and tighten the pinch bolt to the proper specifications found in the factory service manual.
- Install the snap ring as required.
- Tighten the provided upper ball joint stud nut to 80-100 ft. lbs. Advance the nut to the next castellation and install a new cotter pin.
- Finish tightening the lower ball joint nut to 95-110 ft. lbs. Advance the nut to the next castellation and install a new cotter pin.

- Reinstall the wheel(s) and lower the vehicle.

**NOTE:** Excessive spindle turning effort with poor “steering return” may result if the installation tightening sequence described above is not followed exactly.

#### 4) TIRES / WHEELS...

- Tighten the lug nuts.

**WARNING:** When the tires / wheels are installed, always check for and remove any corrosion, dirt, or foreign material on the wheel mounting surface, or anything that contacts the wheel mounting surface (hub, rotor, etc.). Installing wheels without the proper metal-to-metal contact at the wheel mounting surfaces can cause the lug nuts to loosen and the wheel to come off while the vehicle is in motion.

**WARNING:** Retighten lug nuts at 500 miles after any wheel change, or anytime the lug nuts are loosened. Failure to do so could cause wheels to come off while vehicle is in motion.

#### 5) FINAL CLEARANCE and TORQUE CHECK...

- With vehicle on floor, cycle steering lock-to-lock and inspect the tires / wheels, and the steering, suspension, and brake systems for proper operation, tightness, and adequate clearance.

#### 6) ALIGNMENT...

Realign vehicle to factory specifications. Alignment must be performed by a certified professional.

### IMPORTANT PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is, the easier it will roll over. Offset, as much as possible, what is lost in roll over resistance by increasing tire track width. In other words, go “wide” as you go “tall”. Many sportsmen remove their mud tires after winter / hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as possible to enhance vehicle stability.

We strongly recommend, because of roll over possibility, that the vehicle be equipped with a functional roll bar and cage system. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Generally, braking performances and capabilities are decreased when significantly larger / heavier tires and wheels are used. Take this into consideration while driving.

Do not add, alter, or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the Superlift product purchased. Mixing component brands is not recommended.

Most states have some type of law limiting vehicle height. The amount of lift allowed, and how the lift may be achieved, varies greatly. Several states offer exemptions for farm or commercially registered vehicles. It is the owner’s responsibility to check state and local laws to ensure that their vehicle will be in compliance.

Superlift makes no claims regarding lifting devices and excludes any and all implied claims. Superlift will not be responsible for any altered product or any improper installation or use of our products.

We will be happy to answer any questions concerning the design, function, and correct use of our products.

#### **IMPORTANT MAINTENANCE INFORMATION**

It is the ultimate buyer's responsibility to have all bolts / nuts checked for tightness after the first 100 miles and then every 1000 miles. The steering, suspension and driveline systems, along with wheel alignment should be inspected by a qualified professional mechanic at least every 3000 miles.

#### **NOTICE TO DEALER AND VEHICLE OWNER**

Any vehicle equipped with a Superlift lifting device must have the enclosed "Warning to Driver" decal installed on the inside of the windshield or on the vehicle's dash, within driver's view. The "Warning to Driver" decal is to act as a constant safety reminder for whoever may be operating the vehicle. The WARRANTY IS VOID unless this decal is in place. **INSTALLING DEALER...** It is your responsibility to install warning decal and forward these installation instructions to the vehicle owner for review of warnings, product use and maintenance information. Replacement warning decals are available free upon request. These instructions are to be kept with the vehicle registration papers and owners manual for the service life of the vehicle.

#### **SUPERLIFT LIMITED LIFETIME WARRANTY**

Suspension products bearing the Superlift (LKI Ent.) name are warranted for as long as the original purchaser owns the vehicle that the LKI product was originally installed on. This warranty is non-transferable. Warranty covers only the product, no labor, time loss, or freight incurred. Any product that has been abused, altered, incorrectly installed, or used in competition is not covered. Product finish, spring bushings, Polyurethane products, and normal wear is not covered. The LKI product is subject to replacement or repair. No other warranties are expressed or implied. An authorized Superlift dealer must inspect the part in question and confirm that the "Warning to Driver" decal is properly displayed. A copy of the sales invoice is required for warranty consideration.