



# SUPERLIFT<sup>®</sup>

## S U S P E N S I O N

1" to 4" lift system for  
all JEEP<sup>®</sup> Replacement Leaf Spring Lift Systems  
(CJ Types 1986 and older)

### INSTALLATION INSTRUCTIONS

#### INTRODUCTION

Installation requires a professional mechanic. Prior to beginning, inspect the vehicles steering, driveline, and brake systems, paying close attention to the U-bolts, brake hoses, 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:

- These instructions cover the basic steps taken to install Superlift products on quite a range of different year model vehicles. A factory type service manual is required for fastener torque specifications, assembly techniques, and special tool requirements that are unique to your particular year and model JEEP<sup>®</sup>.
- Do not add or fabricate any components to gain additional suspension height.
- Any welding must be performed by a professional certified welder.
- Paint or undercoat all exposed metal surfaces.
- Prior to attaching components, be sure mating surfaces are free of grease, grit, oil, undercoating, etc.
- Use the check-off box "☐" found at each step to help keep your place. Two "☐☐" denotes that one check-off box is for the driver side and one is for the passenger side.
- Retain all factory hardware for reuse, unless otherwise specified.

#### Tech Tips:

- 1976 to 1986 CJ types have 2-piece spring shackles from the factory. One half is a strap with press fitted shouldered bolts on top and bottom. The bolts fit through the spring and frame eyes, then the other half of the shackle, simply a strap with two holes, is installed. Age, combined with severe operation, can cause the shackle bolts' press fit to fail. We suggest that the press fitted bolts be replaced with 1/2" diameter Grade 8 hex bolts with Stover type self-locking nuts.

- Avoid using aftermarket shackles on the front end that are over 1" longer than stock length. As the front of the front spring is lowered, caster angle becomes more negative. As negative caster increases, so do bad steering traits such as drift, wandering, and / or darting. Also, the excessive side-to-side flex that most longer shackles exhibit compounds these same bad traits.
- Tire air pressure greatly impacts ride quality. The maximum cold air pressure recommendation of your tires is for that tire at maximum load. Consider that in the vast majority of cases, a Jeep® will weigh considerably less than a full-size vehicle and has less load capacity. This means that normally you should run less than maximum air pressure for the best possible tire wear, ride quality and handling characteristics. On the other hand, not running enough air pressure will increase tire wear, decrease fuel mileage, increase body roll when cornering, and make steering response sluggish. Your optimum air pressure depends on tire type, tread design, vehicle weight, and driving habits. The goal is a flat tread "foot print" without excessive sidewall bulge. Experiment to determine what air pressure is right for you.
- As stated throughout these instructions, most of the suspension fasteners are not fully tightened until the suspension is supporting vehicle weight. This, along with not over tightening the fasteners, are "must do" for good component wear and ride characteristics.

## **PARTS LIST...**

System contents vary depending on vehicle year model, lift height, and what Superlift options are used. The normally used Superlift components are:

<b>1" and 2-1/2" systems</b>	-	replacement springs, shock absorbers, front and rear U-bolts
<b>4" system, 1975 and older</b>	-	replacement springs, shock absorbers, front and rear U-bolts
<b>4" system, 1976 and newer</b>	-	replacement springs, shock absorbers, front and rear U-bolts, dropped pitman arm

1975 and older applications use stock type steel encased rubber spring eye bushings that are factory installed. 1976 to 1986 models use Polyurethane spring eye bushings that are customer installed. Other popular options are replacement bushings for the springs' shackle-to-frame eyes (suggested for all applications) and longer brake hoses (for 4" lift).

Prior to disassembly, identify each part and place the appropriate mounting hardware with it. Contact your Superlift dealer if any components are missing.

## **FRONT**

### **1) PREPARE JEEP®...**

- With the transmission in neutral, raise front of Jeep with a pneumatic bumper jack or a floor jack positioned under the front axle. Place jack stands under the frame rails, directly behind the front springs' rear hangers. Lower the frame onto the stands. Put Jeep in gear or park, set parking brake and chock rear tires. Remove front tires / wheels and shocks.

## 2) REMOVE U-BOLTS and ANTI-SWAY BAR LINKS...

- Remove the four spring-to-axle U-bolts.
- For 4" lift only - If the Jeep is equipped with a front and/or rear anti-sway bar, the drop links (they connect the bar body to the spring U-bolt plates) should be sectioned and lengthened 3-1/2". Before cutting the links, scribe a line so the ends can be re-indexed properly. The easiest and cleanest method is to sleeve the body with a piece of tubing. You may also consider using aftermarket disconnect type links.

## 3) LEAF SPRINGS...

- On the driver's side, position the floor jack under the axle tube, just inboard of the spring. Raise the jack until the axle separates from the spring. Remove the factory springs. Inspect the shackle pins and spring hanger bolts for wear.
- If the springs take Polyurethane eye bushings, thoroughly lubricate all contact areas with a light, water-resistant, Lithium based grease. Install the Superlift spring. Only hand tighten the spring mounts; they are fully tightened in a later step.
- Repeat the spring removal and installation procedure on the passenger's side.

## 4) INSTALL U-BOLTS...

- Locate the front axle onto the springs being sure the tie bolt heads align and seat into the spring perch holes. Position the U-bolt plates and install the supplied replacement U-bolts. Only snug up the U-bolts; they are fully tightened in a later step.

If a dropped pitman arm and /or new brake hoses are being installed, install now per separate instructions.

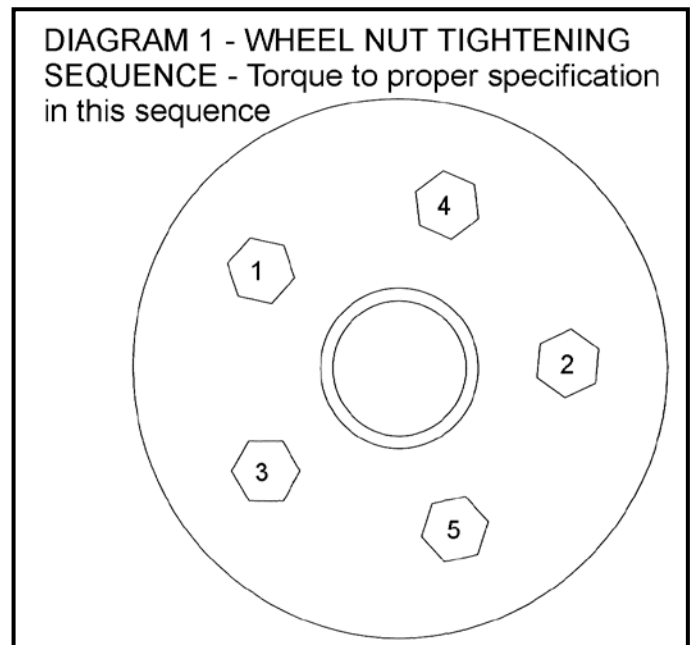
## 5) SHOCK ABSORBERS...

- Install new shock boot and decal.
- Insert shock bushings / sleeves and install shocks onto Jeep.

## 6) TIRES / WHEELS...

**CAUTION: Before installing each wheel, be sure to remove any built-up corrosion on the wheel mounting surfaces. Ensure wheels are installed with good metal-to-metal contact. Improper installation could cause loosening of the wheel nuts. Never use oil or grease on lug studs or nuts.**

- [DIAGRAM 1] Tighten all lug nuts just snug, then gradually tighten in proper sequence to the correct torque specification.



## 7) **ADJUSTING the TURNING RADIUS STOP BOLTS...**

The stops limit turning radius before the tires make contact with the leaf springs, or before the steering box bottoms out. When a different width tire and / or different wheel is used, the stops must be adjusted. If a tire makes contact with a leaf spring, tire damage may occur. This can also increase the possibility of vehicle rollover. If the steering sector is bottomed out in a full turn and receives a blow (rut, curb, etc.), steering linkage and / or sector main shaft failure may occur. Not all models have stops, but if yours does, they are located on the axle knuckles. Steps are performed one side at a time. Start on the driver's side.

- Loosen the stop bolt jam nut and screw the bolt all the way in. Turn the steering wheel full lock to the left. Now adjust the stop bolt out until it limits turning at least 1/2" before tire-to-spring contact, or before the sector bottoms out, whichever occurs first.

Repeat procedure on passenger side.

## 8) **INITIAL CLEARANCE CHECK...**

- With the front frame rails still on jack stands, and the suspension "hanging" at full extension travel, turn steering lock-to-lock while checking all components for proper operation and clearances.
- Remove jack stands and lower vehicle to the floor.

## 9) **FINAL CLEARANCE and TORQUE CHECKS...**

- Reference the service manual and torque the following fasteners:

- ◆ spring-to-axle U-bolts - NOTE: 1/2" diameter Superlift brand U-bolts and Nyloc nuts torque to 86 foot pounds.
- ◆ spring eye, stationary end
- ◆ spring and frame eye, shackle end

Over tightening the spring eye mounts will cause accelerated bushing wear and stiffen ride quality.

- Again, perform a lock-to-lock steering sweep and check for proper component operation and clearance, but this time with the suspension supporting the weight of the vehicle.

## **REAR**

- 10) The rear installation procedures are identical to the front. Note that some rear springs include tapered driveshaft alignment shims that are attached to the top of the springs. Be sure the shims' thick end points towards front of vehicle.

## 11) **HEADLIGHTS...**

- Readjust to factory settings.

**12) SAFETY DECAL...**

- Install "Warning To Driver" decal. Refer to "NOTICE TO DEALER AND VEHICLE OWNER" section below.

**13) DRIVELINE VIBRATION...**

- It is not unusual to experience driveline vibration with 4" of lift on Jeeps that have a very short rear driveshaft. 1980 and newer CJ5s with the inline 6-cylinder engine are a good example. Shaft angle at the rear axle is corrected by shims already attached to the Superlift springs. You can improve angle at the transfer case end by lowering the transfer case crossmember / skid plate. Install 1" to 1-1/2" of spacers between the plate and the frame rails; longer bolts are needed.

## **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.