



SUPERLIFT®

S U S P E N S I O N

Superlift® Level-It System for
 1997- 03 Ford F150 and 2004 F150 Heritage, 4WD
INSTALLATION INSTRUCTIONS

INTRODUCTION - Installation requires a professional mechanic. Prior to beginning, inspect the vehicles steering, driveline, and brake systems, paying close attention to the control arms and bushings, anti-sway bars and bushings, steering linkage, 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:

- **Prior to beginning the installation, check all parts and hardware in the box with the parts list below. If you find a packaging error, contact Superlift® directly. Do not contact the dealer where the system was originally purchased. You will need the control number from each box when calling; this number is located at the bottom of the part number label and to the right of the bar code.**
- Front end realignment is necessary.
- A foot-pound torque reading is given in parenthesis () after each appropriate fastener.
- Do not install any additional components or modify this system to gain additional suspension height.
- 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.
- Speedometer recalibration is recommended if a taller tire is used.
- 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.

PARTS LIST ... The part number is stamped into each part or printed on an adhesive label. Identify each part and place the appropriate mounting hardware with it.

PART NO.	DESCRIPTION <small>(Qty.- if more than one)</small>	BAG #
66-01-40005	(2) torsion key	
55-02-40005	(2) shock spacer.....	77-40005
02-141991	(2) shock washer, 7/16" ID hole ...	77-40005
00461.....	decal, "Warning To Driver"	
00421.....	decal, Superlift® die-cut	

NOTE: Save all factory components and hardware for re-use unless otherwise noted.

1) □ PREPARE VEHICLE... Place the vehicle in neutral. Raise the 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.

2) SHOCK ABSORBERS, CONTROL ARMS... Perform this step one side at a time.

□□ Remove the nut from the top of the shock stem followed by the upper bushing half. Press the shock stem down and out of the frame mount. Remove the remaining bushing half.

□□ An eccentric cam bolt assembly attaches each leg of the upper control to the frame; the cam bolts are also used for front end alignment. Loosen (do not remove) the cam bolts. Prior to loosening, mark the cam washers’ orientation, in relation to the control arm, for later reference.

3) UNLOADING THE TORSION BARS... Perform this step one side at a time.

WARNING: Be extremely careful when loading / unloading the torsion bars; there is a tremendous amount of energy stored in them. Keep your hands and body clear of the torsion bar / key assembly and the puller tool in case anything slips or breaks. Use a C-clamp type puller designed for this application. If using Superlift® tool #40017, be sure to also use the adapter (included with tool), designed to help keep the upper end of the tool in position on top of the crossmember.

IMPORTANT: Lubricate the puller tool bolt prior to use.

□□ Position the tool. Load the torsion bar then remove the adjusting bolt and nut block. Unload the bar.

□□ Prior to removing the key from the bar, scribe an alignment mark on the bar and factory torsion key to note how they are indexed in relation to each other.

□□ Slide the torsion bar forward into the lower control arm enough to remove the torsion key.

4) NEW TORSION KEYS... [SEE DIAGRAM - KEY INDEXING] Perform this step one side at a time.

□□ Determining proper key-to-bar indexing – Position one of the factory torsion keys on a flat surface (work bench or floor), with the scribe mark, made in step 3, facing up. Position a Superlift® key on top of the factory key. Align the “flats” of the hex holes so that the opposite ends of both the keys remain as close to each other as possible. Now scribe a mark, as shown, on the Superlift® key.

□□ Position the new torsion key inside the crossmember then mate the bar-to-key. Make sure the bar and key are properly indexed by aligning the



scribe marks.

Coat the adjusting bolt with an anti-seize type lubricant. Load the torsion bar. Insert the factory nut block into the crossmember. Install the factory adjusting bolt; leave approximately 1" of adjustment bolt threads visible below the nut block. Unload the tool. Final ride height adjustments are made once the vehicle is on the floor.

5) SHOCK ABSORBERS... Perform this step one side at a time.

Slide the supplied shock spacer #55-02-40005 over the stem end of the shock followed by the supplied shock washer #02-141991. Place the factory bushing half on top of the shock washer then attach the upper end of the shock-to-frame using the remaining factory hardware. Tighten until bushings swell slightly.



6) INITIAL CLEARANCE CHECK... With the vehicle still on jack stands, and the suspension "hanging" at full extension travel, cycle steering lock-to-lock and check all components for proper operation and clearances. Pay special attention to the clearance between the tires / wheels and brake hoses, wiring, etc.

7) UPPER CONTROL ARM BOLTS... Lower vehicle to the floor. The suspension is now supporting vehicle weight. Prior to tightening the upper control arms eccentric cam bolts, realign the cams using the scribe marks made in step 2 during disassembly (83-112).



8) ADJUSTING FRONT RIDE HEIGHT...

Lower vehicle to the floor. The suspension is now supporting vehicle weight.

With the vehicle on a level surface, manually "bounce" the front of the vehicle to normalize (settle) the torsion bars.

CAUTION: Do not exceed maximum ride height.

[SEE PHOTO] As ride height increases, so does the distance between each compression travel dampener and its contact point located on the rear leg of each lower control arm. The distance between the dampener and lower control arm must not exceed **2-3/8"**, as shown. If this measurement is exceeded, ride quality will suffer, and the shock absorbers will be subjected to increased loads. Ride height is controlled via the torsion bar adjusting bolts. Increase height by tightening the bolts; decrease height by loosening the bolts. Verify that ride height is equal side-to-side. It is not unusual for one adjusting bolt to require more adjustment than the other.

9) 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.

10) **HEADLIGHTS...** Readjust headlights to proper setting.

11) **SUPERLIFT® WARNING DECAL...** Install the WARNING TO DRIVER decal on the inside of the windshield, or on the dash, within driver's view. Review the "IMPORTANT PRODUCT USE AND SAFETY INFORMATION / WARNINGS" text found at the end of this Instructions sheet.

12) **ALIGNMENT...** Realign vehicle to factory specifications. Below, record the ride height measurement at time of alignment. If, in the future misalignment occurs due to the torsion bars settling excessively, alignment can be restored by adjusting-up the bars to their original ride height.

Ride Height - _____

Measurement points - _____

Limited Lifetime Warranty / Warnings

Your Superlift® product is covered by the Limited Warranty explained below that gives you specific legal rights. This limited warranty is the only warranty Superlift® makes in connection with your product purchase. Superlift® neither assumes nor authorizes any retailer or other person or entity to assume for it any other obligation or liability in connection with this product or limited warranty.

What is covered? Subject to the terms below, Superlift® will repair or replace its products found defective in materials or workmanship for so long as the original purchaser owns the vehicle on which the product was originally installed. Your warrantor is LKI Enterprises, Inc. d/b/a Superlift® Suspension Systems ("Superlift®").

What is not covered? Your Superlift® Limited Warranty does not cover products, parts or vehicles Superlift® determines to have been damaged by or subjected to:

- Alteration, modification or failure to maintain.
- Normal wear and tear (bushings, tie-rod ends, etc.). Scratches or defects in product finishes (powder coating, plating, etc.),
- Damage to or resulting from vehicle's electronic stability system, related components or other vehicle systems.
- Racing or other vehicle competitions or contests. Accidents, impact by rocks, trees, obstacles or other aspects of the environment.
- Theft, vandalism or other intentional damage.

Remedy Limited to Repair / Replacement. The exclusive remedy provided hereunder shall, upon Superlift's inspection and at Superlift's option, be either repair or replacement of product or parts covered under this Limited Warranty. Customers requesting warranty consideration should contact Superlift® by phone to obtain a Returned Goods Authorization number. All removal, shipping and installation costs are customer's responsibility.

If a replacement part is needed before the Superlift® part in question can be returned, you must first purchase the replacement part. Then, if the part in question is deemed warrantable, you will be credited / refunded.

Other Limitations - Exclusion of Damages - Your Rights Under State Law

- Neither Superlift® nor your independent Superlift® dealer are responsible for any time loss, rental costs, or for any incidental, consequential or other damages you may have.
- This Limited Warranty gives you specific rights. You may also have other rights that vary from state to state. For example, while all implied warranties are disclaimed herein, any implied warranty required by law is limited to the terms of our Limited Lifetime Warranty as described above. Some states do not allow limitations of how long an implied warranty lasts and / or do not allow the exclusion or limitation of incidental or consequential damages, so the limitations and exclusions herein may not apply to you.

Important Product Use and Safety Information / Warnings

As a general rule, the taller a vehicle is, the easier it will roll over. Offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go “wide” as you go “tall”. Many sportsmen remove their mud tires after hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as feasible to enhance vehicle stability. We strongly recommend, because of rollover 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 performance and capabilities are decreased when significantly larger / heavier tires and wheels are used. Take this into consideration while driving. Also, changing axle gear ratios or using tires that are taller or shorter than factory height will cause an erroneous speedometer reading. On vehicles equipped with an electronic speedometer, the speed signal impacts other important functions as well. Speedometer recalibration for both mechanical and electronic types is highly recommended.

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.