



SUPERLIFT®

S U S P E N S I O N

**Superlift 0.5"- 2" Leveling System / 6" Upgrade System for 2004 and Newer
Ford F-150 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 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:

- **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.**
- These components can be used as a stand-alone 0-2" leveling system or used in conjunction with Superlift's 4.5" lift system (making 6" of total lift). If these components are being installed in conjunction with a 4.5" lift installation, refer to those instructions (Form #9900) prior to beginning installation.
- If the replacement struts are used in conjunction with Superlift's 2-1/2" preload spacer lift system (#9950), the struts must be run at the 0" lift setting or serious front suspension damage and undesirable handling characteristics will result.
- Rear lift is optional with the leveling system and sold separately.
- A special tool is required to disassemble / assemble the front struts. Other special tools are recommended to separate ball joints. Refer to the factory service manual.
- Front end realignment is necessary.
- An arrow on diagrams indicates which direction is toward the front of the vehicle.
- A foot-pound torque reading is given in parenthesis () after each appropriate fastener.
- 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.

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 (Qty.- if more than one)	NEW ATTACHING HARDWARE (Qty.- if more than one)
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6" system only		
BE5-C298-H0	(2) strut assembly.....	(2) hardware pack

Optional components with 2" system; Included with 6" system		
55-01-9910	(6) spacer plate	(4) 1/2" x 6" tie bolt (4) 1/2" fine-thread nut
10622.....	(4) U-bolt	(1) hardware pack

00461..... decal, "Warning To Driver"

STRUT PROCEDURE

NOTE: If only the rear lift components have been purchased, proceed to the next step.

1) PREPARE VEHICLE...

NOTE: If strut replacement is being done in conjunction with the installation of Superlift's 4.5" lift system, complete steps 1-17 of the front lift system installation instructions (Form #9900) and then proceed to step 3.

- 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) STRUT REMOVAL...

- Remove the three nuts securing the upper end of the strut to the frame. Save all hardware for re-use.
- Remove the nut securing the anti-sway bar link to the lower control arm. The link can remain attached to the anti-sway bar. Save the nut for re-use.
- Support the lower control arm assembly with a jack and then remove the nut securing the lower ball joint to the lower control arm. Using an appropriate puller tool, separate the ball joint from the lower control arm. Save the nut for re-use.
- Remove the bolt securing the lower end of the shock to the lower control arm. Swing the control arm down enough to facilitate removing the strut from the vehicle. Save all hardware for re-use.

3) STRUT ASSEMBLY...

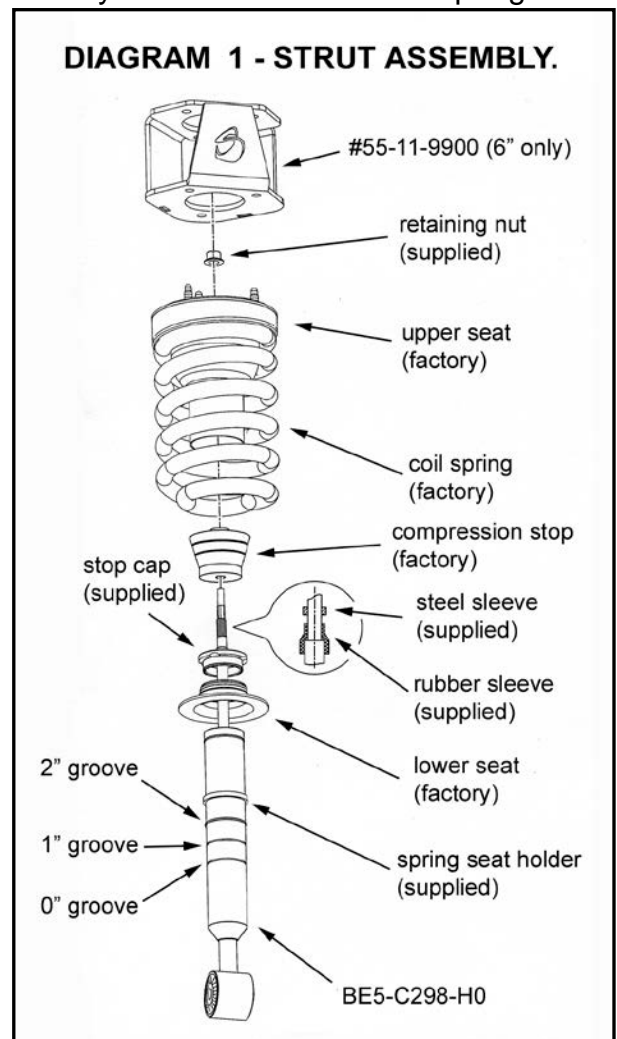
WARNING: Extreme care must be taken during the following steps. The struts have a tremendous amount of energy stored in them and can cause serious injury or even death if an attempt is made to work on them without the proper tools. Dis-assembly / assembly of the struts can only be performed by a qualified professional with the special equipment designed for this task. If necessary, the struts can be removed from the vehicle and taken to a shop with the proper equipment to have the necessary work performed.

NOTE: A factory service manual should be on hand for reference. Perform the strut assembly and installation one side at a time.

- Make note of the position of the upper studs in relation to the lower strut eye for proper re-assembly.
- Place the factory strut assembly in a heavy-duty strut compressor and compress the coil spring enough to unload the shock. Remove the retaining nut on the upper shock mount and carefully remove the strut cylinder.
- Tap the compression stop cap off of the factory strut body and remove the lower spring seat. This seat will be re-used.
- Remove the replacement strut (BE5-298-H0) and hardware pack from its packaging. Note that the strut has three machined grooves in its body. Position the supplied snap ring in the appropriate groove for the desired amount of lift:
 - 0": bottom groove (closest to the strut eye).
 - 1": middle groove.
 - 2": top groove (closest to strut rod).

NOTE: Use the top groove (closest to the strut rod) if 6" of total lift is desired when using this strut in combination with Superlift's 4.5" lift system.

- Make careful note of the order and orientation of all the factory pieces for proper re-assembly. Remove all of the factory components from the original strut that will be re-used, including the upper and lower spring seats and compression stop.
- [DIAGRAM 1] Verify that the supplied snap ring is properly seated in the appropriate groove on the strut body. Position the supplied spring seat holder on the strut body with the tapered end facing up. Note that the bottom end of the holder has a groove machined into it; the snap ring on the strut should recess into this groove.



- Install the factory lower spring seat on the strut, then tap the supplied compression stop cap on to the strut body. Slide the factory compression stop on the shock rod, then install the supplied rubber sleeve and steel spacer on the stem of the shock.
- Install the spring, upper spring seat, and the remaining factory components. Position the studs of the upper spring seat in the same orientation relative to the lower shock eye as they were prior to disassembly. Compress the assembly enough to install the supplied retaining nut, tighten (37), then carefully unload the strut.

4) STRUT INSTALLATION...

NOTE: If strut replacement is being done in conjunction with the installation of Superlift's 4.5" lift system, return to the lift system installation instructions (form #9900) and perform all remaining front installation steps. For clarification, the strut spacer (#55-11-9900) must be used with the #BE5-C298-H0 replacement struts.

- Line up the studs on the top of the strut assembly with the frame mount and secure using the factory nuts. Do not tighten at this time.
- Attach the lower end of the strut to the lower control arm using the factory hardware. Do not tighten at this time.
- Attach the lower ball joint to the lower control arm and secure using the factory hardware. Tighten (111).
- Secure the anti-sway bar link to the lower control arm using the factory bushings and hardware. Tighten (66).
- Tighten the upper retaining nuts on the strut (35).

REAR PROCEDURE

IMPORTANT INFORMATION: If a 6" lift installation is being performed, both the add-a-leaves (included with the rest of the front lift components) *and* the #01-9910 spacer plates (detailed below) will need to be installed on the rear. Basic installation is the same as detailed in the add-a-leaf instructions (form #2049) except that the spacer plates must be installed along with the tie bolts.

Rear lift is optional with a 2" leveling system and must be purchased separately. Rear lift is only necessary if the consumer wishes to maintain the factory rear-high rake of the vehicle.

5) PREPARE VEHICLE...

- Put vehicle in neutral, raise vehicle with a suitable jack and secure jack stands beneath the frame rails, just in front of the rear springs' front hangers. Put vehicle in Park, or low gear for manual transmissions, and chock the front tires. Remove rear tires and position floor jacks to support rear axle.
- Unbolt the rear shock absorbers from the rear axle and save all hardware for re-use.
- Remove spring-to-axle U-bolts and move axle several inches away from springs.

- Place a C-clamp on either side of the spring tie bolts to hold the spring pack together. Be sure the clamps are far enough apart to facilitate installing the spacer plates but close enough together to keep the spring pack compressed. Remove and discard the tie bolts.

6) SPACER PLATES...

NOTE: For 6" systems, install the rear add-a-leaves in the spring pack before proceeding.

- Stack the #55-01-9910 spacer plates on top of one another and position them under the spring pack (up to three plates per side). Line up the holes in the plates with the holes in the spring pack and install the supplied 1/2" x 6" tie bolts. Secure the assembly using the supplied fine thread nuts and tighten. Remove the C-clamps.
- Trim the excess length of the tie bolts.

NOTE: The installer may add or remove spacer plates as necessary in order to fine-tune rear lift. Up to three spacer plates per side may be used. Generally speaking, using all three plates will maintain the factory rear-high rake of the vehicle; however, the proper combination will depend on personal preference and how the vehicle is equipped. If the installer anticipates needing to add or subtract spacer plates, do not trim the tie bolts until the consumer is satisfied with the stance of the vehicle.

- Raise the rear axle to the spring pack and be sure the tie bolts seat properly in the spring pads. Install the supplied U-bolts and torque evenly in an X pattern (82).
- Re-connect the shock absorbers to the rear axle and tighten to factory specifications.

NOTE: If performing a 6" lift installation, refer back to form #9900 and perform all remaining steps.

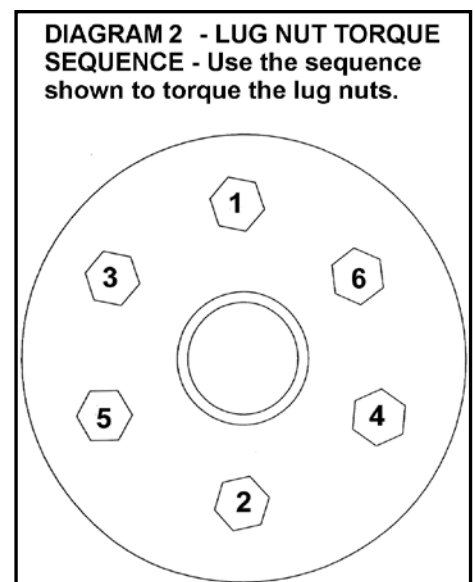
FINAL PROCEDURES

7) TIRES / WHEELS...

- [DIAGRAM 2] Tighten the lug nuts (150) in the sequence shown.

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.



8) 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.
- Lower vehicle to the floor.
- Tighten the bolt securing the strut to the lower control arm (351).

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. Pay close attention to knuckle and tire / wheel clearance.

10) Activate four wheel drive system and check front hubs for engagement.**11) HEADLIGHTS...**

- Readjust headlights to proper setting.

12) SUPERLIFT WARNING DECAL...

- Install the WARNING TO DRIVER decal on the inside of the windshield, or on the dash, within driver’s view. Refer to the “NOTICE TO DEALER AND VEHICLE OWNER” section below.

13) 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.

SUPERLIFT SUSPENSION SYSTEMS

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