



SUPERLIFT®

S U S P E N S I O N

Superlift® 8 King Coilover System for 2008 – 2010 FORD F-250 / F-350 SUPER DUTY 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:

- The factory steering stabilizer cannot be retained. Choose from two different Superlift® dual stabilizer options, purchased separately.
- Verify rear suspension specifics if using Superlift® block kit and add-a-leaves - While the F-250 / 350 family shares the same basic leaf spring rear suspension design, there are differences in configuration:
 - The most common has a 1.91" tall factory spacer block (measured at block's rear facing end), and does not have top-mount overload rear springs (included in Ford's Camper Package). Superlift® rear block kit #9032 fits this configuration, and is included in Superlift's Master Pack.
 - For vehicle with 1.91" block and top-mount overloads, or vehicle with 3.71" factory block without top mount overloads: order either a different rear block kit (#9158), or set of longer U-bolts (qty. one #11684).
 - For vehicle with 3.71" factory block and top-mount overloads: order either a different rear block kit (#9157), or set of longer U-bolts (qty. one #11694).
 - For "duallie", measure factory U-bolts then refer to Superlift® U-bolt chart and order correct U-bolts.
- If rear lift is via replacement Superlift® springs, the factory rear overload springs cannot be retained. For full load carrying capacity order Superlift® Rear Load Assist System #9038.
- If vehicle is factory equipped with a 2-piece rear driveshaft, Superlift's Carrier Bearing Drop Kit (#9695), purchased separately, is required.
- If vehicle is factory equipped with rear sway bar, Superlift's Sway bar Link Kit (#9069), purchased separately, is required.

- Special Tools Required:
 - The pitman arm-to-steering sector nut requires a 46mm or 1-13/16” socket.
 - A torque wrench capable of 406 ft. lbs.
- Do not install additional components or modify this system to gain additional suspension height.
- Front end realignment is necessary.
- Speedometer recalibration is recommended if a taller tire is used.
- A foot-pound torque reading is given in parenthesis () after each appropriate fastener.
- Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged. After drilling, file smooth any burrs and sharp edges.
- Prior to operating a torch or saw, protect any heat-sensitive components located in the immediate area by covering them with a water-saturated cloth. Most undercoating are flammable but can be extinguished using a water-filled spray bottle. Have a spray bottle and an ABC rated fire extinguisher on hand.
- 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 <small>(Qty.- if more than one)</small>	ATTACHING HDW. <small>(Qty.- if more than one)</small>	BAG #
01-1116	pitman arm	cotter pin	77-9068-1
		30mm x 1.5 nut	
55-03-9022.....	(2) track bar key		77-9068-1
55-03-9066.....	track bar bracket, front		
55-01-9068	compression dampener	(2) 3/8” x 1-1/4” bolt	77-9068-2
	bracket for driver side, front	3/8” x 1” bolt	
		(3) 3/8” SAE washer	
		(3) 3/8” nyloc nut	
55-02-9068	compression dampener	(2) 3/8” x 1-1/4” bolt	77-9068-2
	bracket for pass. side, front	3/8” x 1” bolt	
		(3) 3/8” SAE washer	
		(3) 3/8” nyloc nut	

PART NO.	DESCRIPTION (Qty.- if more than one)	ATTACHING HDW. (Qty.- if more than one)	BAG #
66-09-9000	radius arm, driver side	(1) 18mm x 130mm bolt..... (2) 18mm washer (2) 18mm nyloc nut (1) Cam Bolts (1) Zip Tie	77-9500
66-10-9000	radius arm, passenger side	(1) 18mm x 130mm bolt..... (2) 18mm washer (2) 18mm nyloc nut (1) Cam Bolt (1) Zip Tie	77-9500
55-03-9068	(2) anti-sway bar link, front	(4) hourglass bushing..... (4) 3/4" OD x 1-11/16" sleeve	77-9064-1
55-05-9066	(2) anti-sway bar link, (NOTE: SOLD SEPERATLEY) rear	(4) hourglass bushing..... (4) 5/8" OD x 1.48" sleeve (4) 12mm x 70mm bolt (4) 1/2" USS washer	77-9066-2
01-91560	Bulletproof brake hose for..... driver side, front		77-91415
02-91560	Bulletproof brake hose for..... passenger side, front		77-91415
02-91550	Bulletproof brake hose, rear		
SL5146.....	King Front Coilovers		
SL5171.....	King Rear Shocks		
00461.....	decal, "Warning To Driver"		
00421.....	decal, Superlift® die-cut		
9032.....	lift block kit, rear.....	(2) 5" lift block (4) 11662 U-bolt nut / washer kit.....	77-1505
2570.....	add-a-leaf kit, rear.....	(2) add-a-leaf w / tie-bolts	

FRONT INSTALLATION PROCEDURE

NOTE: Save all factory components and hardware for reuse, unless noted.

1) TRACK BAR... Prior to raising the vehicle, disconnect the track bar from its frame attachment point, and let the bar hang.

2) ANTI-SWAY BAR LINKS... Disconnect the links from both the sway bar body and the front axle.

3) JACK STANDS... Place vehicle in neutral. Raise front of vehicle with a jack and secure a jack stand beneath each frame rail, behind the radius arm mounts. Ease the frame down onto the stands, place transmission in low gear or "park", and chock rear tires. Remove front tires.

4) SHOCK ABSORBERS... Position a jack so that it supports, but does not raise, the front axle. Remove shocks.

5) STEERING STABILIZER... Remove the steering stabilizer cylinder then unbolt the factory steering stabilizer bracket from the crossmember.

6) DRAG LINK... Remove the cotter pin, castellated nut cover and nut attaching the drag link-to-pitman arm. Using the appropriate puller tool, separate the drag link from the pitman arm.

7) BRAKE HOSE BRACKETS, VACUUM LINE... Perform on each side.

A bracket attaches the brake line / hose assembly to the outboard face of the frame rail, just forward of the coil spring tower. Unbolt this bracket from the frame.

The rubber brake hose's lower end, and the 4WD activation vacuum line, are attached to the front axle via a bracket located in front of the coil spring's lower seat. Unplug the vacuum line where it passes through this bracket then unbolt the bracket from the axle.

8) REMOVE COILS... Carefully lower the front axle enough to facilitate coil springs' removal. Save the rubber isolators, located on top of the coils, for re-use.

Unbolt the factory lower coil mount and discard.

9) TRACK BAR BRACKET ... Unbolt the factory track bar bracket from the frame.

10) PITMAN ARM...

NOTE: The pitman arm-to-steering sector nut requires a 46mm or 1-13/16" socket, not a box-end wrench. A torque wrench capable of 350 ft. lbs. is also required.

Note the pitman arm-to-sector shaft indexing. Remove arm-to-sector nut and, using the appropriate puller tool, remove the arm from the sector shaft.

IMPORTANT: The arm-to-sector nut is for "one time use" only. Discard the factory nut.

IMPORTANT: Thoroughly clean both the steering sector shaft splines and the new pitman arm splines; use paint thinner or brake cleaner.

Position #01-1116 pitman arm onto the sector shaft, in the same orientation as the factory arm, then install the supplied nut (350).

11) TRACK BAR BRACKET...

NOTE: Where this bracket attaches to the crossmember, there is often an excessive amount

of undercoating build-up, especially on the back (rearward facing) portion of the crossmember. Scrape-off excessive undercoating to prevent the track bar bracket from loosening over time.

[SEE DIAGRAM] Position track bar bracket (#55-03-9066) on the frame in the factory location, and secure using the five factory bolts (136).

12) RADIUS ARMS...

NOTE: Perform the following steps one side at a time. Start on the driver side.

- Unclip the ABS wire from the radius arm and secure it out of the way.
- Verify once again that the axle is supported by the jack, then unbolt the radius arm from the frame and front axle. Save frame side hardware for re-use.
- Attach the radius arm to the frame using the factory hardware. Attach the axle end using the 18 x 130MM bolt in the upper mount and the cam bolt in the lower. All hardware should be installed from the outside. Snug, but do not fully tighten at this time.
- Repeat this procedure on the passenger side. All radius arm hardware will be tightened once the vehicle is on the ground.

13) COMPRESSION TRAVEL DAMPENER BRACKETS...

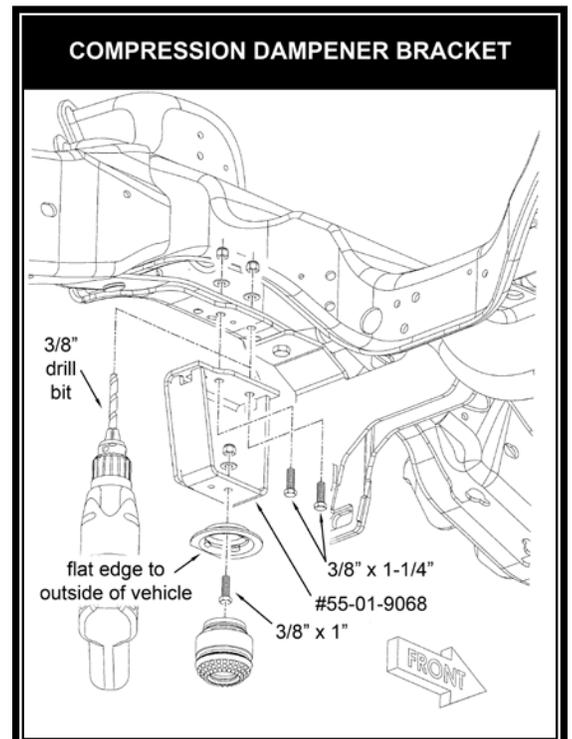
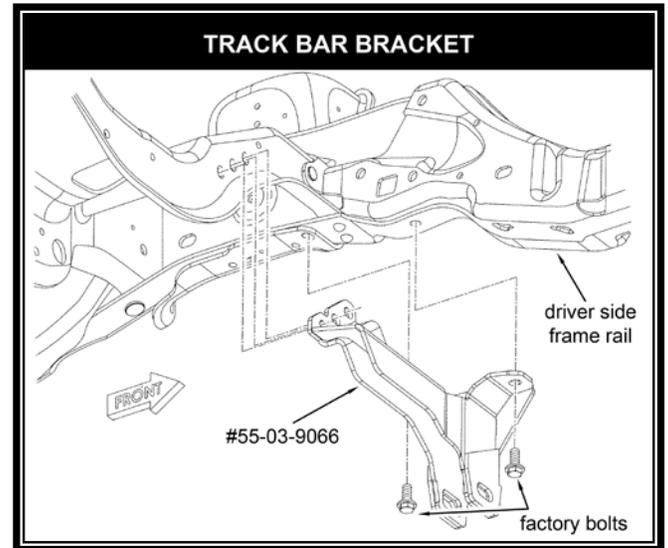
[SEE DIAGRAM] Perform step 13 one side at a time. Start on the driver side.

Pry the front compression travel dampeners out of its mounting cup then unbolt the cup from the frame.

Note that bracket #55-01-9068 is for driver side; #55-02-9068 is for passenger side. Position bracket #55-01-9068 onto frame, in the factory cup's location. There are two recesses in the bracket that align with two existing frame rivets. Also note that the bracket's inside edge is contoured to match a similar edge on the frame. Align the two contoured edges, then using the bracket as a template, mark the location for two mounting holes to be drilled.

Drill the two marked locations using a 3/8" drill bit. Also drill-out the mounting hole in the factory compression stop cup to 3/8".

Attach the Superlift® bracket-to-frame using the



supplied 3/8" x 1-1/4" bolts, pointing up, as shown. Place the washers on the frame side, install nyloc nuts and tighten (23).

Position the factory cup onto the Superlift® bracket. Insert the cup's alignment tab into the secondary hole in the Superlift® bracket. The cup should mate flush with the bracket, and its flat edge facing outboard, as shown. Insert the supplied 3/8" x 1" bolt through the cup and bracket. Install washer and nyloc nut (23).

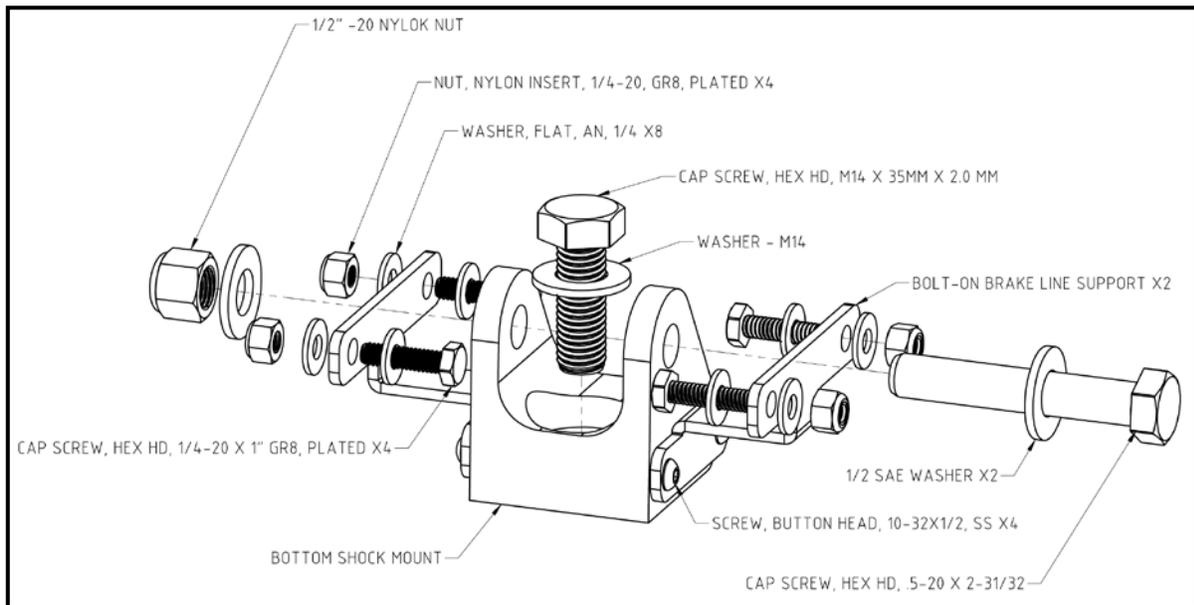
Press the factory compression dampener back into the mounting cup.

Perform step 13 on opposite side.

14) COILOVER SHOCKS...

Make sure the lower coil mount is free from any dirt or debris. Mount the lower coilover bracket on the axle as shown using the supplied hardware. (90)





- Place the reservoir mount, located in the SL5146 box, over the upper factory coil locating boss. Carefully mark the three hole locations. Remove the bracket and drill 7/16" holes in the three marked locations. **WARNING:** Take extreme caution to not drill into anything located on top of the coil towers.
- Cut the coil spring locating boss flush with the upper coil mount. Grind any remaining edges of the coil spring locating boss so there is a smooth mounting surface.
- Place the coilover into the lower mount and secure using the supplied hardware. (90)
- Insert the supplied 3/8" bolts into the holes in the coil tower. Note that the short (3/8" x 3/4") bolt goes in the outermost hole. Failure to have the bolts in the correct orientation can cause damage to the hose fitting on the coilover.
- Position the reservoir mount between the shock mount and the frame. Move the coilover into position and tighten the top mounting bolts. (35) Accessing these bolts through the engine compartment may be necessary.
- Center the reservoir in the mount and secure with the band clamps. Position the reservoir so hose is close to the inside of the wheelwell and tighten.
- Bolt the ABS line and the brake lines to the lower mount, making sure there is adequate clearance to any moving parts.



15) BRAKE HOSES... Install Bulletproof hoses per separate instructions. On each side, be sure to reconnect the 4WD activation vacuum line, which passes through the new brake hose-to-axle bracket.

16) DRAG LINK... Reattach drag link-to-pitman arm (148) then install castellated nut cap and the supplied cotter pin.

NOTE: Over-tightening may result in premature wear and / or failure.

17) TIRES / WHEELS... [SEE DIAGRAM]

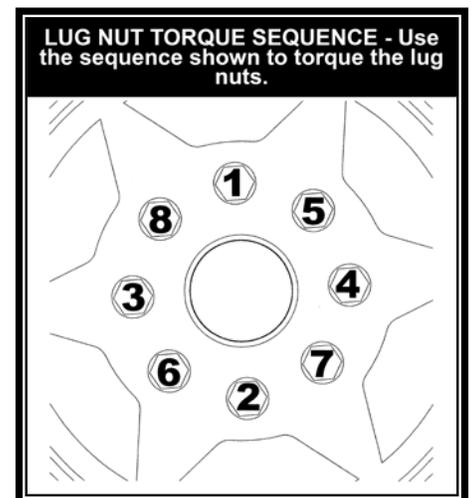
Tighten the lug nuts (148) in the sequence shown.

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 time lug nuts are loosened. Failure to do so could cause wheels to come off while vehicle is in motion.

18) JACK STANDS... Raise vehicle, remove jack stands and lower vehicle to the floor. The remaining front installation steps are performed with the suspension supporting vehicle weight.

19) RADIUS ARMS... On both sides, tighten factory bolts that attach radius arms-to-frame and axle (222). Reattach ABS wire-to-arm then reconnect ABS wire at the frame.



20) TRACK BAR...

- Align the track bar's upper end with the slotted holes in the Superlift® track bar bracket.
- Track bar keys (#55-03-9022) - The hole in each of the two keys is offset to one side. Insert the keys into the slots in the Superlift® bracket so the key holes are offset towards the driver side. Insert the factory track bar bolt and tighten (406).

IMPORTANT: Yes, the proper torque specification for the track bar eye bolt is 406 lb-ft; this is not a typographical error. If the appropriate torque wrench is not available, tighten the bolt as much as possible then take the vehicle to your Ford Dealer or a heavy equipment repair shop to perform the final torque operation. Proper torque on this bolt is critical.

21) FRONT SHOCK-TO-AXLE BOLT - On both sides, tighten bolt (136).

22) FRONT ANTI-SWAY BAR LINKS...

- Install supplied bushings and sleeves into the Superlift® anti-sway bar links (#55-03-9068).
- Attach links to the axle housing and anti-sway bar body (80). Note that the links attach to the outboard ends of the bar body.

23) STEERING STABILIZER... Install Superlift® dual stabilizer system now, purchased separately, as per separate instructions.

24) INITIAL CLEARANCE CHECK... Again, raise the vehicle and place a jack stand under each frame rail just behind the radius arm attaching points. With 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.

25) FINAL CLEARANCE and TORQUE CHECK... Raise vehicle, remove jack stands and lower vehicle to the 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.

REAR INSTALLATION

Disregard the instructions packaged with the rear block and add-a-leaf kits; use these instructions.

26) JACK STANDS... Raise rear of vehicle with a jack and secure a jack stand beneath each frame rail, just in front of the rear springs' front hangers. Ease the frame down onto the stands and chock front tires. Remove rear tires.

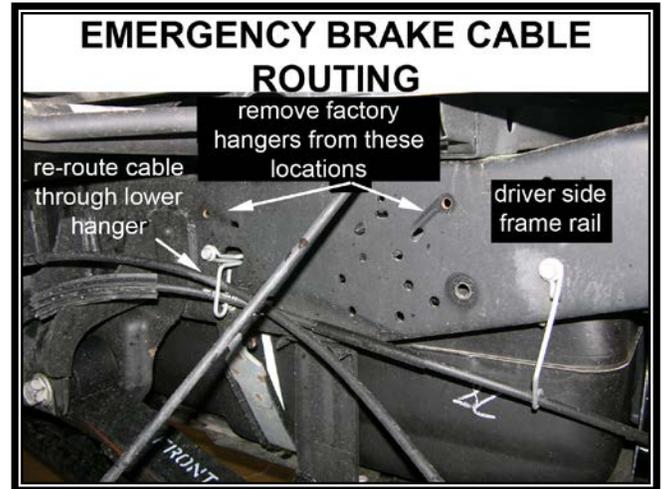
27) SHOCK ABSORBERS... Position a jack so that it supports, but does not raise, the rear axle. Remove shocks.

28) ANTI-SWAY BAR LINKS... Not all models are equipped with an anti-sway bar. Remove hardware securing the anti-sway bar links-to-bar body (at the axle).

29) EMERGENCY BRAKE CABLES...

The driver side emergency brake cable is bolted to the driver side U-bolt plate; detach this bracket from the U-bolt plate. The cable bracket can be discarded unless Superlift's Rear Load Assist System is being used.

[SEE PHOTO] From the factory, each cable is routed through two hangers bolted to the driver side frame rail. Remove and discard the two uppermost cable hangers (used for driver side cable). Route the driver side cable through the remaining front hanger, as shown.



30) U-BOLTS... Remove spring-to-axle U-bolts. Use the jack to carefully lower the axle enough to facilitate add-a-leaf installation. Prior to removing factory blocks, note which side they are on, and their factory front / rear orientation.

31) ADD-A-LEAFS...

Remove the spring tie-bolt. The bottom overload leaf, and possibly more leaves (depending on factory spring type) will separate from the pack when the tie-bolt is removed.

Insert one Superlift® add-a-leaf plate in the #2 position from the bottom, directly above the overload leaf. Reposition all factory leaves in their proper pyramid order.

The add-a-leaf kit includes two different diameter tie-bolts; this application takes the larger 7/16" bolt. Start tie bolt from the bottom, up through the pack. Secure a C-clamp a few inches on either side of the tie-bolt. Compress the spring pack with the clamps, not the tie-bolt, to avoid stripping bolt threads. After tightening, trim-off excess bolt threads.

32) BLOCK KIT...

Position Superlift® block onto axle; be sure that tall end of block faces towards rear of vehicle. Position factory block on top of Superlift® block in the same orientation as factory. Be sure all components seat and align properly.

Evenly raise the axle until the factory blocks mate with the springs. Position U-bolt plates on top of spring. Evenly tighten U-bolts using an "X" tightening pattern (145).

33) SHOCK ABSORBERS... Install the rear shock absorbers. Note the body of the cylinder is mounted to the frame and the shaft to the axle using the factory hardware. (76) Make sure there is adequate clearance between the reservoir hose and the frame rail and exhaust; adjust the position of the hose or reservoir if needed.

34) ANTI-SWAY BAR LINKS... (NOTE: SOLD SEPERATLEY)

Remove hardware securing the anti-sway bar links-to-frame.

Install supplied bushings and sleeves onto Superlift® links (#55-05-9066).

Install Superlift® links using the supplied 12mm x 70mm bolts, washers and factory nuts

(80). Note that the links attach to the inboard sides of the bar body, and the outboard sides of the frame.

35) TIRES / WHEELS... Install tires / wheels. Refer to step 20 for warnings and proper torque information. Remove jack stands and lower vehicle to floor.

36) SHOCK ABSORBERS... With the suspension supporting vehicle weight, tighten rear shock mounts (85).

37) REAR CLEARANCE CHECK... Check all components for proper tightness, clearances and operation.

38) CARRIER BEARING DROP KIT... If vehicle is factory equipped with a 2-piece rear driveshaft, Superlift's drop kit, purchased separately, is required. Install per separate instructions.

FINAL PROCEDURES

39) 4WD SYSTEM CHECK... Activate 4WD system and check for engagement.

40) HEADLIGHTS... Readjust headlights to proper setting.

41) 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 instruction sheet.

42) ALIGNMENT... Realign vehicle to factory specifications.

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 (1-800-551-4955) 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.

SUPERLIFT SUSPENSION SYSTEMS

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