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2004 Ford F-150 Platinum Series Suspension Lift 6" Installation Instructions

REQUIRED TOOL LIST:

- Metric and Standard wrenches and sockets
- Spring Compressor
- Floor Jack
- Jack Stands
- Measuring Tape
- Torque Wrench
- Transmission Jack



Before beginning the installation, read these instructions and the enclosed driver's WARNING NOTICE thoroughly and completely. Also affix the WARNING decal in passenger compartment in clear view of all occupants. If any of these items are missing from this instruction packet, do not proceed with installation, but call SKYJACKER® to obtain needed items. If you have any questions or reservations about installing this lift kit, call SKYJACKER® at 318-388-0816 for Technical Assistance or Customer Service departments.

Make sure you park the vehicle on a level concrete or asphalt surface. Many times a vehicle is uneven (side-to-side) from the factory, but usually not noticed until a lift kit has been installed which makes the difference more visible. Using a measuring tape, measure the front and rear (both sides) from the ground up to the center of the fender opening above the axle. Record below for future reference.

Driver Side Front: _____

Passenger Side Front: _____

Driver Side Rear: _____

Passenger Side Rear: _____

IMPORTANT NOTES:

- **The two screws located on the end cap of the shock must be tightened prior to installation!**
- Please refer to Parts List to insure that all parts and hardware are received prior to disassembly of vehicle. If any parts are found to be missing, contact your dealer as soon as possible.
- If larger tires (10% more than stock diameter) are installed, speedometer recalibration is necessary (see Ford dealer or Tire Store).
- This lift is determined from the front while only lifting the rear to a position level with the front.
- After installation, a qualified alignment facility is required to align the vehicle to factory specs.
- Under NO circumstances are SKYJACKER® coil springs to be used in conjunction with any type of coil spring or spring tower block/spacer. The use of coil spring block/spacers will allow ANY coil spring to exceed its designed stress and travel loads allowing it be overstressed, oversprung, fatigued, and possibly break. SKYJACKER® warranty is void under any such application.

Kit Box Breakdown:

F4601A:

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
F460L	LEFT STEERING KNUCKLE	1
F460R	RIGHT STEERING KNUCKLE	1
F460LSP-S	2004 F150,LOWER SKID PLATE	1
F460USP-S	2004 F150,UPPER SKID PLATE	1
F460SPD-S	DRIVER SIDE SKID PLATE BRACE	1
F460SPP-S	PASSENGER SIDE SKID PLATE BRACE	1
SBL460-B	SWAY BAR LOWERING BRACKET	2
F460FS	6" 2004 F150 COIL-SINGLE	2
M9045S	PLATINUM MONOTUBE GAS SHOCK	2
F46SS	SHOCK SHAFT,6"ONLY 2004F150	2
F436AS	ALUM COIL RETAINER,04 F150	2
HB-F436SHK	HARDWARE BAG:FRONT SHOCKS	1
HB-F460-SP	HARDWARE BAG: SKID PLATES	1
HB-SBL	HARDWARE BAG:SWAY BAR LOW BRKTS	1

Hardware Bag Breakdown:

HB-F460-SP Front Skid Plates

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
38X1FTB	3/8 X 1 FINE THREAD BOLT	14
38X114FTB	3/8 X 1 1/4 FINE THREAD BOLT	11
38FTN	3/8-24 FINE N/I LOCK NUT	25
38SAEW	3/8 SAE WASHER	50

HB-F436SHK Front Shock Hardware

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
SP3608	SHOCK EYE BUSHING	4
F436SHS	SHOCK SLEVE	2
ZF316	ZERK FITTING / ALEMITE, 3/16"	2
38FTN	3/8-24 FINE N/I LOCK NUT	2
LT100	THREAD LOCKING COMPOUND	1

HB-SBL Front Sway Bar Brackets

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
716X112FTB	7/16 X 1 1/2 FINE THRD BOLT	4
716FTN	7/16-20 FINE N/I LOCK NUT	4
716SAEW	7/16 SAE WASHER	8

Kit Box Breakdown:

F4601BS:

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
F460FCM-S	2004 F150,FRONT CROSS-MEMBER	1
F460RCM-S	2004 F150,REAR CROSS-MEMBER	1
F460DDS-S	2004 F150,DRIVER DIFF DROP BRACKET	1
F460DPS-S	2004 F150,PASS. DIFF DROP BRACKET	1
F460SPCM-S	2004 F150,UPPER SKID PLATE CROSS-MEMBER	1
916X318X1012	9/16 X 3 1/8 X 10 1/2 SQUARE U-BOLT	4
HB-F460-AK	HARDWARE BAG: ALIGNMENT KIT / A-ARM BOLTS	1
HB-F460DXBU	HARDWARE BAG: CROSS MEMBER / DIFF BRACKETS	1
HB-F460-BLE	HARDWARE BAG: BRAKELINE BRACKETS, KNUCKLES	1
916FTN	9/16" FINE THREAD NUTS FOR U-BOLTS	8

Hardware Bag Breakdown:

HB-F460-AK Alignment Kit / A-Arm Bolts

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
F4DB150	18X150 /10.9 D-BOLT / CAMBOLT	4
W460-S	WASHER FOR CAMBOLT	4
18MMN	18MM-2.5TPI NYLON LOCKNUT	4
34SAEW	3/4 SAE WASHER	4

HB-F460DXBU Cross Member / Diff Brackets

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
12X90MMB	12 X 90 METRIC BOLT/ 10.9	3
12MMN	12 MM NUT (METRIC)	3
12SAEW	1/2 SAE WASHER	3

HB-F460DXBU Brakeline Brackets, Front Knuckles

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
F460BLE-F	BRAKE LINE BRACKET, FRONT	2
DVL10	REAR BRAKE LINE BRACKET-FLAT	1
14X1FTB	1/4 X 1 FINE THREAD BOLT	3
14FTN	1/4-28 FINE N/I LOCK NUT	3
14SAEW	1/4 SAE WASHER	6
38CC	3/8" CABLE CLAMPS	2
5MMX12SHB	5MM X 12MM.80 KNUCKLE BOLTS	2

Note: F4601B box will contain rear Add-A-Leafs, Part # R3440 and rear degree shims.

Front Installation:

1. With vehicle on flat level ground, set the emergency brake and block the rear tires. Place floor jack under the lower control arm's front cross member and raise vehicle. Place jack stands under frame rails, behind the front wheel wells, then lower the frame onto the stands.
2. Remove front tires using a 22mm socket. Remove factory skid plate located under front differential. Remove caliper using a 13mm wrench. (See Photo #1). It will not be necessary to remove the brake line from the caliper. Simply wire it out of the way until reassembly. Remove brake rotor.
3. Disconnect C.V. shaft from differential and steering knuckle. Mark driver and passenger as they are removed.
4. It will now be necessary to cut the rear cross member for differential clearance when lift is installed. Unbolt and remove the rear cross member from the frame. Locate the supplied template found on page #10. Line the 2 holes in template up with the rear mounting holes found on the **driver** side of rear cross member. (See Photo #2) Draw a straight line along outer edge of template. Place template on the opposite side, reverse template, and draw a line. Now connect the two lines on the top. Using a grinder, or reciprocating saw, cut along the lines. Be sure to cut all the way around cross member. (See Photo #3). Remove this piece from the frame. (See Photo #4).
4. With C.V. shafts removed, disconnect the ABS line and Vacume line from hub bearing assembly. Disconnect the outer tie rod from the steering knuckle using 21mm socket. It may be necessary to strike the side of the knuckle to dislodge the tie rod end. Be careful not to damage the tie rod itself.
5. Disconnect the upper and lower A-Arm ball joint from the factory steering knuckle using a 21mm socket. (See Photo #5) Remove steering knuckle.
6. Disconnect the front sway bar from the frame. (See Photo # 6). Disconnect the sway bar links from the lower A-Arm and remove sway bar.
7. Remove lower strut mount bolt from the lower A-Arm using a 1 3/16" and 1 1/16" socket. Disconnect the 3 upper strut mount bolts from the frame using a 15mm wrench. (See Photo #7).



Photo #1

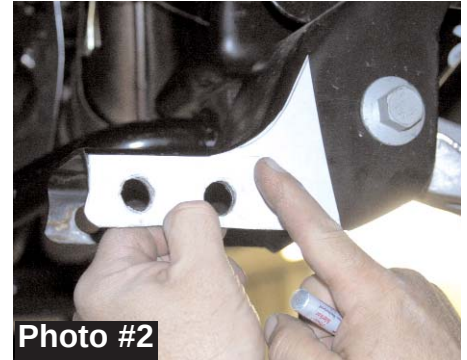


Photo #2



Photo #3

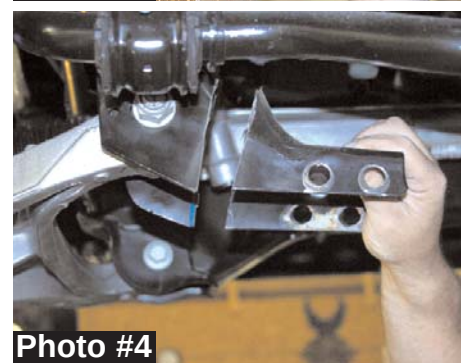


Photo #4

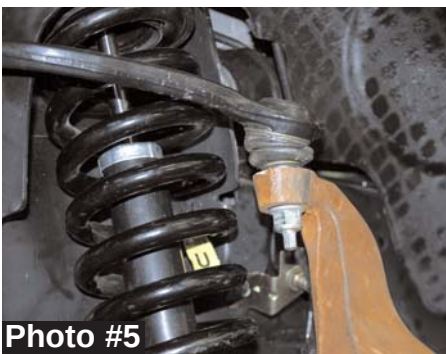


Photo #5

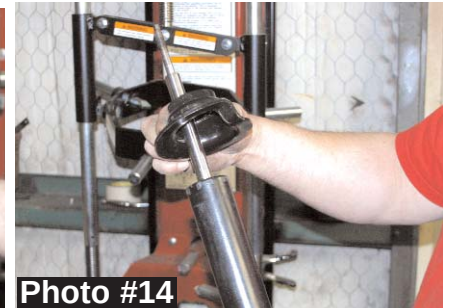
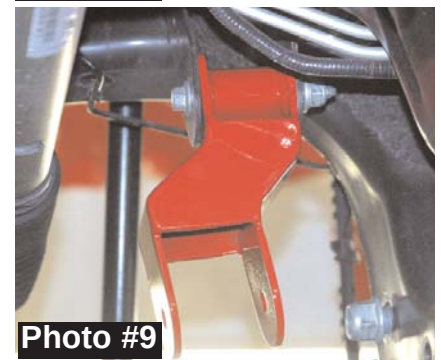
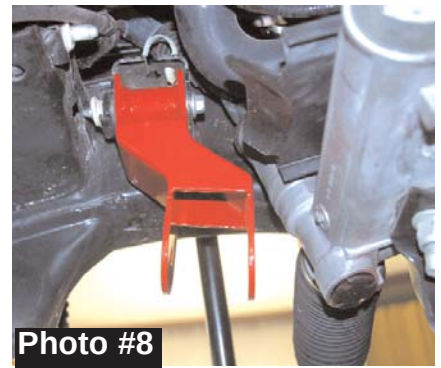


Photo #6



Photo #7

8. Remove the lower A-Arm mounting mounting bolts from the frame, remove lower A-Arm.
9. Disconnect the front drive shaft from the differential. It will not be necessary to remove the drive shaft from the transfer case. Simply wire it out of the way.
10. While supporting the front differential with a transmission jack, remove differential mounting bolts. There are two on the drivers side and one on the passenger side. With bolts removed, lower the differential out of the vehicle.
11. Locate the new driver and passenger side differential brackets. The driver side bracket is the thinner of the two. Attach the driver side bracket to the factory mount using factory hardware. (See Photo #8). Attach passenger side bracket using factory hardware as well. (See Photo #9).
11. Locate the new Skyjacker rear cross member. Notice there is a differential mount made on to the driver side of the cross member. The differential must be attached to this mount before the cross member can be installed. Attach the differential at this point using a 12 x 90 mm bolt, washers, and nut. (See Photo #10). Once attached, using a transmission jack install rear cross member and differential. Attach rear cross member to factory rear A-Arm mounts using the factory bolts. Attach differential to new driver and passenger side brackets using the 12 x 90 mm bolts, washers and nuts. Attach front cross member to factory front A-Arm mounts using the factory bolts. Be sure to install with new skid plate tabs pointing towards the front. (See Photo #11). **Note:** In some situations, the frame may need to be ground to allow for the cross-member to come up far enough for installation. (See Arrow in Photo # 11). Install drive shaft using oem hardware.
12. Attach lower A-Arms to new Skyjacker cross members using the 18 x 150 mm cam bolt with cam washer. Due to a tightly machined fit, it will be necessary to tap the bolt through the cam washer. (See Photo #11A) Once washer is on bolt attach lower A-Arm to front cross member. Tighten using 3/4" washer and 18mm nut.
13. Using a spring compressor, unload the tension on the upper mount of the factory coil assembly. Remove the upper shock retaining nut using 9/16" socket. (See Arrow in Photo #12). Slide shock out from the bottom.
14. Remove the upper end cap from the factory shock. It can easily be tapped off with a rubber mallet. (See Photo #13). With end cap removed, remove the lower coil seat from the shock. (See Photo #14).



15. Locate new lower shock mount. Install new bushings, sleeves and zerk fitting into shock eye. Zerk fitting is easily tapped in with the use of a 1/4" socket. Be sure to grease thoroughly. Now place the factory coil seat onto the new retainer. (See Photo #15).
16. With lower coil seat in place, place 2 drops of high strength thread locking compound onto threads of shock shaft. Screw the shock shaft into the top of the aluminum coil seat retainer. With shock assembled, place new Skyjacker coil into spring compressor and load. Slide new shock assembly in from the bottom, and install factory rubber coil seat on top of coil. (See Photo #16). Important Note: Be sure that bottom shock eye is square with upper two front studs on factory rubber mount. Also be sure that Skyjacker Decal is towards the outside.

Photo #15



Photo #16



Important Note! Using a wrench or ratchet, install the 3/8" nylon-insert lock nut on shock stem first and torque to 15-17 Ft. Lbs, then double nut by tightening the 3/8" standard hex nut against the nylon lock nut and torque to 14-16 Ft. Lbs. NOTE: Do NOT use an air impact to install nuts as this will strip the threads. Be sure coil is seated properly in upper and lower seat. (See Photo #17)

17. Install new coil / shock assembly into vehicle. Attach to factory upper-mount using factory nuts.
18. Attach to lower A-Arm using factory bolt and nut. **"Ford Torque Specifications"** for this bolt is 351 Ft. Lbs.
19. Remove factory hub assembly from factory steering knuckle and install onto new Skyjacker knuckle. (See Photo #18). Note: The factory dust shield will not be reused. Install the hub assembly so that the abs line is pointing toward the top of the steering knuckle.
20. Attach new steering knuckle to lower A-Arm ball joint and torque to 111 Ft. Lbs, upper A-Arm ball joint and torque to 85 Ft. Lbs using Factory hardware. (See Photo #19). Attach outer tie rod using factory hardware, torque to 111 Ft. Lbs. *Periodically re-torque upper / lower ball joints and outer tie rod!* Install C.V. shafts using factory hardware.
21. On the rearward side of the new steering knuckle, there is a new mounting location for the factory ABS line. Using the 3/8" cable clamps and the 5 x 12mm bolts, attach the ABS line to new location.
22. Locate the factory brake line bracket on the frame rail. Remove the factory bracket from the frame rail and install new drop bracket at that position. Attach new bracket to frame rail using factory hardware. Attach factory brake line bracket to new bracket using the 1/4 x 1" fine thread bolts, washers, and nuts. (See Photo #20).

3/8" Nylon Lock Nut



3/8" Standard Hex Nut

Photo #17

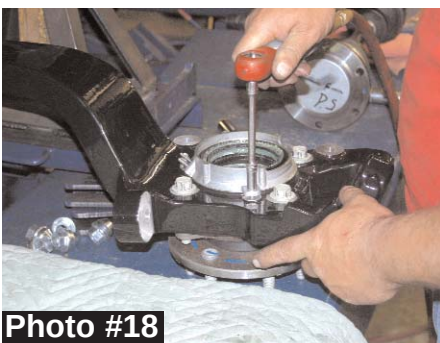


Photo #18

I-F4601

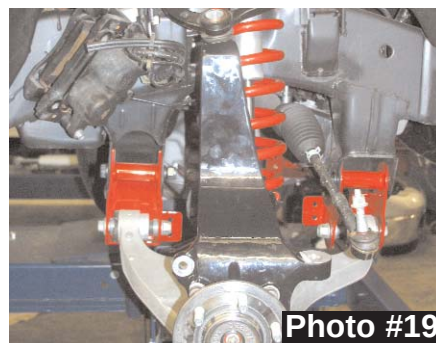


Photo #19



Photo #20

23. Attach rotor and brake caliper to new steering knuckle using factory hardware.
24. Install new Skyjacker sway bar drop brackets. Attach to factory mount on frame using factory hardware. Attach sway bar to new brackets using the 7/16 x 1 1/2" fine thread bolts, washers, and nuts. Brackets will install with open portion towards inside of vehicle, and the pointed end towards the rear. Attach sway bar links to lower A-Arms using OEM hardware.
25. Attach new skid plate braces to front and rear cross members using the 3/8 x 1 1/4" fine thread bolts, washers, and nuts. Do not tighten these bolts at this time.
26. Install the new front skid plate cross member at the factory tow hook position using the factory bolts. The cross member will install with the skid plate tabs pointing towards the rear. Attach lower skid plate to rear cross member using the 3/8 x 1" fine thread bolts, washers, and nuts. Do not tighten at this time.
27. Attach upper skid plate to upper skid plate cross member using 3/8 x 1" fine thread bolts, washers, and nuts. The upper skid plate will attach to the lower skid plate and through the mounting tabs on the front cross member using the 3/8 x 1 1/4" fine thread bolts, washers, and nuts. Once bolts are installed, tighten all bolts. (See Photo #21). Install tires and lower front end to the ground,



Photo #21



Photo #22



Photo #23

Rear Installation:

28. Raise the rear of the vehicle and support the frame rails using jack stands. Remove the rear shocks using a 15mm and 18mm socket. (See Photo #22). Remove the rear U-Bolts using 21mm socket. Disconnect rear brake line bracket from the frame rail.

If installing rear add-a-leaf, skip to step #32

Rear Spring Installation: Part # FR45S

29. To allow for the axle to lower down far enough to install the new Skyjacker rear leaf springs, the fuel filler extension must be disconnected from the bed. These bolts are located behind the fuel door. The fuel extension clamp located on the outside of the driver side frame rail must also be disconnected. (See Photo #23).
30. Lower axle down so that there is no load on rear leaf springs. Remove rear spring eye bolts using 21mm socket. (See Photo #24). Note: It will be necessary to loosen the gas tank straps to allow the gas tank to slide over enough to get the spring eye bolts out. (See Photo #25). Be sure to support gas tank with transmission jack. On passenger side, it will be necessary to disconnect / remove the exhaust. Disconnect in front of the factory muffler and remove. Remove factory leaf spring.



Photo #24



Photo #25

31. Install new Skyjacker rear spring on top of factory block. (See Photo #26). Be sure to install with the long end of the spring towards the rear. There is a degree shim attached to the bottom of the new leaf spring to correct pinion angle. Be sure that the thick portion of the shim is towards the rear. Make sure tie bolt heads seat securely into the factory block. Install new rear U-Bolts and torque to 130 Ft. Lbs. Skip to Step # 35. Do not tighten spring eye bolts until vehicle is on the ground with the weight on the springs.



Photo #26

Rear Add-A-Leaf Installation: Part # R3440

32. Lower axle down to gain access to rear leaf spring. To perform the installation of add-a-leaves properly you must use two large C-clamps to contain the elastic potential energy in a leaf spring when the center tie bolts are being removed. Attach and tighten a C-clamp on each end of the leaf spring to hold spring assembly securely together. (See Photo #27) Using vise-grips to hold the head of the two center bolts, loosen and remove them. With care, slowly loosen and remove the C-clamps. As an added precaution, Skyjacker supplies teflon tape to aid any squeaking that might occur from friction on the add-a-leaf. Apply the supplied teflon tape to the **long end** of the add-a-leaf prior to installation. The tape **must** be applied so that it is flush with the end of the add-a-leaf. Photo #28 and #29 shows before and after tape installation.

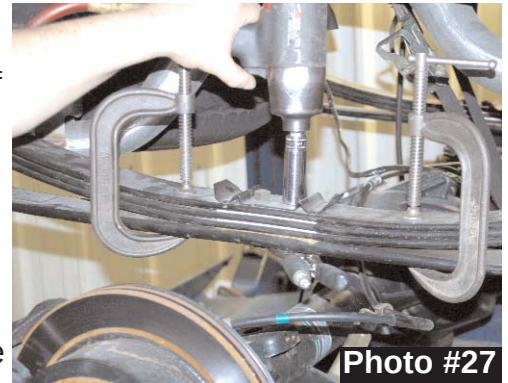


Photo #27

33. Insert new tie bolts through new axle wedge shim (thick end towards rear bumper), original bottom overload leaf, new add-a-leaf, and original spring pack. Only finger tighten the nut.
34. DO NOT USE THE CENTER TIE BOLTS TO DRAW THE SPRING LEAVES TOGETHER. FAILURE OF ANY COMPONENT CAN CAUSE AN EXPLOSIVE DISASSEMBLY AND POSSIBLE INJURY! Place one C-clamp on each side of the center bolts and tighten evenly. Once C-clamps have drawn leaves securely together, hold the center tie bolt heads with vise-grips and torque nuts to 41 Ft. Lbs. Remove C-clamps. Cut off excess length of tie bolts. Install new U-Bolts and torque to 130 Ft. Lbs.



Photo #28



Photo #29

35. Lower vehicle back to the ground. Locate the new rear brake line relocation bracket. It's a flat bracket with a hole at each end. Attach bracket to factory mount on frame rail using factory hardware. Attach the OEM bracket to the new extension bracket using the 1/4 x 1" fine thread bolt, washers, and nut. Install new Skyjacker rear shocks.

FINAL NOTES:

- * After installation is complete, double check that all nuts and bolts are tight.
- * Rotate drive shafts and check for interference at differential yoke and cardan joint.
- * Check to ensure there is adequate clearance between **All** rotating, mobile and fixed members. Check clearance between inner side wall of tires.
- * Ensure there is adequate clearance between exhaust and brake lines, fuel lines, fuel tank, floor board, and wiring harnesses. Check steering gear for interference and proper working order. Inspect brake lines for damage and adequate clearance. Test brake system.
- * With the vehicle on the floor, cycle steering lock to lock and inspect steering, suspension, drive line and brake line systems for proper operation, tightness and adequate clearance.
- * Have headlights readjusted to proper settings.
- * Front end realignment is necessary so have a qualified alignment center realign front end to factory specifications.

Factory Rear Cross Member Template

