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# 2004 - 2008 Ford F-150 2WD 6" Suspension Lift Installation Instructions

### REQUIRED TOOL LIST:

- Safety Glasses
- Metric / Standard Wrenches & Sockets
- Spring Compressor
- Floor Jack
- Jack Stands
- Measuring Tape
- Torque Wrench
- Transmission Jack
- 10,000 lb Shop Press



Before beginning the installation, thoroughly & completely read these instructions & the enclosed driver's WARNING NOTICE. Affix the WARNING decal in the passenger compartment in clear view of all occupants. Please refer to the Parts List to insure that all parts & hardware are received prior to the disassembly of the vehicle. If any parts are found to be missing, contact SKYJACKER® Customer Service at 318-388-0816 to obtain the needed items. If you have any questions or reservations about installing this product, contact SKYJACKER® Technical Assistance at 318-388-0816.

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

Driver Side Front: \_\_\_\_\_ Passenger Side Front: \_\_\_\_\_

Driver Side Rear: \_\_\_\_\_ Passenger Side Rear: \_\_\_\_\_

### IMPORTANT NOTES:

- This lift is determined from the amount of lift to the front of the vehicle, while only lifting the rear to a position level with the front.
- If larger tires (10% more than the stock diameter) are installed, speedometer recalibration will be necessary. Contact your local Ford dealer or an authorized dealer for details.
- After installation a qualified alignment facility is required to align the vehicle to factory specifications.

## Component Box Breakdown:

### Part #: F4621A

Item #	Description	Qty
F462L	F462, LEFT STEERING KNKLE	1
F462R	F462, RIGHT STEERING KNKLE	1
F4622FCM-S	F150 2WD 6" FRT CROSS-MBR	1
F462RCM-S	F150 2WD 6" REAR CROSS-MBR	2

Item #	Description	Qty
SBL462-B	6" F462, SWAY BAR BRACKET	2
HB-SBL	HDWR BG: SWAY BAR BRKTS	1
HB-F4622-CM	HDWR BG: F4622 CROSS-MBRS	1

## Hardware Bag Breakdown:

### Part # HB-SBL

Item #	Description	Qty
716X112FTB	7/16 X 1 1/2 FINE THRD BOLT	4
716FTN	7/16-20 FINE N/I LOCK NUT	4

Item #	Description	Qty
716SAEW	7/16 SAE WASHER	8

### Part # HB-F4622-CM

Item #	Description	Qty
18X150MMB	18MM X 150MM BOLT/ 10.9	4
34SAEW	3/4 SAE WASHER	8
18MMN	18MM-2.5TPI NYLON LOCKNUT	4
12X512FTB	1/2 X 5 1/2 FINE THREAD BLT	4

Item #	Description	Qty
12SAEW	1/2 SAE WASHER	8
12FTN	1/2-20 FINE N/I LOCK NUT	4
CS3980	CRUSH SLEEVE, F462RCM-S	2

## Component Box Breakdown:

### Part #: F4621BST

Item #	Description	Qty
F460ST-S	6" STRUT 04-08 F150	2
R3440S	ADD-A-LEAF 3.5-4" 04 F150	2
WS4320	SHIM KIT, 2004 F150	1
916X318X1012U	9/16 X 3 1/8 X 10 1/2 SQUARE	4

Item #	Description	Qty
HB-F460-BLE	HDWR BG: F460 FR/RR BL BRKT	1
HB-916	HDWR BG: 8 - 9/16" NYLON	1
I-F4621	INST SHEET: 6" 04 F-150 2WD	1

### Part #: F4621BSST

Item #	Description	Qty
F460ST-S	6" STRUT 04-08 F150	2
916X318X1012U	9/16 X 3 1/8 X 10 1/2 SQUARE	4
HB-F460-BLE	HDWR BG: F460 F/R BL BRKT	

Item #	Description	Qty
HB-916	HDWR BG: 8 - 9/16" NYLON	1
I-F4621	INST SHEET: 6" 04 F-150 2WD	1

**Note:** The F4621BSST component box will not contain the R3440S rear Add-A-Leafs or WS4320 rear degree shim kit.

### Part # WS4320

Item #	Description	Qty
WS4320S-17/32	WS430S, 2 HOLES, 1.56"CTR	2
1204S	1/2 X 4 TIE BOLT W/NUT	4

Item #	Description	Qty
12TBN	1/2" TIE BOLT NUT	4

## Hardware Bag Breakdown:

### Part # HB-F460-BLE

Item #	Description	Qty
F460BLE-F	BRAKE LINE BKT,FRONT 04F150	2
DVL10	FORD VAC / BRAKE BKT-FLAT	1
14X1FTB	1/4 X 1 FINE THD BOLT G8	3
14FTN	1/4-28 FINE N/I LOCK NUT	3

Item #	Description	Qty
14SAEW	1/4 SAE WASHER	6
38CC	3/8" CABLE CLAMPS	2
5MMX12SHB	5MM X 12MM.80 KNUCKLE BLTS	2

### Part # HB-916

Item #	Description	Qty
916FTN	9/16-18 NYLON INSERT LOCKNU	8

Item #	Description	Qty
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## Front Installation:

1. With the vehicle on flat level ground, set the emergency brake & block the rear tires. Place a floor jack under the lower control arm's front cross member & raise the vehicle. Place jack stands under the frame rails, behind the front wheel wells & lower the frame onto the jack stands.

2. Remove the front tires / wheels using a 22mm socket. Remove the brake caliper using a 13mm wrench. (See Photo # 1) It will not be necessary to remove the brake line from the brake caliper. Simply wire it out of the way until reassembly. Remove the brake rotor.



Photo # 1

3. Disconnect the ABS line from the steering knuckle. Disconnect the outer tie rod from the steering knuckle using a 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.



Photo # 2

4. Disconnect the upper & lower A-arm ball joint from the OEM steering knuckle using a 21mm socket. (See Photo # 2) Remove the steering knuckle.

5. Disconnect the front sway bar from the frame. (See Photo # 3) Disconnect the sway bar links from the lower A-arm & remove.



Photo # 3

6. Remove the lower strut mount bolt from the lower A-arm using a 1 3/16" & 1 1/16" socket. Disconnect the three upper strut mount bolts from the frame using a 15mm wrench. (See Photo # 4)



Photo # 4

7. Remove the lower A-arm mounting bolts from the frame & remove the lower A-arm.

8. Locate the new Skyjacker rear cross member brackets. They will attach to the OEM cross member location using the 1/2" x 5 1/2" fine thread bolts, washers, & nuts. The bracket will attach to the OEM A-arm position using the 18mm x 150mm bolts, washers, & nuts. (See Photo # 5) Be sure to use the crush sleeves Part # CS3980 along with the 18mm bolts between the OEM A-arm mount.



9. Install the new Skyjacker front cross member using the 18mm x 150mm bolts, washers, & nuts. (See Photo # 6)



10. Attach the lower A-arms to the new Skyjacker cross members using the OEM hardware. **Note:** Skyjacker's design allows for the use of after market alignment kits. Available from an authorized Skyjacker dealer, order two of Part # F462-AK.

11. Using a strut spring compressor, unload the tension on the upper strut mount of the OEM coil assembly. Remove the upper shock retaining nut using 9/16" socket & slide the OEM strut out from the bottom of the OEM strut assembly. (See Arrow in Photo # 7)



12. At the upper hex portion of the shaft, rotate the shaft of the new Skyjacker strut assembly counter clockwise in order to unlock & extend the shaft of the new Skyjacker strut assembly. Assemble the new Skyjacker strut by installing the new Skyjacker coil spring seat, new Skyjacker coil spring pad, & OEM bump stop on the new Skyjacker strut. (See Photo # 8)

13. Slide the new Skyjacker strut assembly in from the bottom & install the OEM rubber coil seat on top of the OEM coil. (See Photo # 9) **Important Note:** Be sure that the bottom shock eye is square with the two upper front studs on the OEM rubber mount.



14. Install the new coil / strut assembly into the vehicle. Attach to the OEM upper mount using the OEM hardware.

15. Attach to the lower A-arm using the OEM hardware. **"Ford Torque Specifications"** for this bolt is 351 Ft. Lbs.



16. It will be necessary to have the OEM spindle pressed out of the OEM steering knuckle by a qualified machine shop. Once the spindle is pressed out, apply anti-seize compound & press the spindle into the new Skyjacker steering knuckle. (See Photo # 10). **Note:** A 10,000 lb shop press will be needed for this step.



Photo # 10

17. Attach the new Skyjacker steering knuckle to the lower A-arm ball joint (Torque to 111 Ft. Lbs) & upper A-arm ball joint (Torque to 85 Ft. Lbs) using the OEM hardware. (See Photo # 11) Attach the outer tie rod using the OEM hardware. (Torque to 111 Ft. Lbs.) *Periodically re-torque upper / lower ball joints & outer tie rod!*



Photo # 11

18. On the rearward side of the new Skyjacker steering knuckle, there is a new mounting location for the OEM ABS line. Using the 3/8" cable clamps & 5mm x 12mm bolts, attach the ABS line to this new location.

19. Locate the OEM brake line bracket on the frame rail. Remove the OEM bracket from the frame rail & install the new Skyjacker drop bracket at this position. Attach the new bracket to the frame rail using the OEM hardware. Attach the OEM brake line bracket to the new bracket using the 1/4" x 1" fine thread bolts, washers, & nuts. (See Photo # 12)



Photo # 12

20. Attach the brake rotor & brake caliper to the new steering knuckle using the OEM hardware.

21. Install the new Skyjacker sway bar drop brackets. Attach to the OEM mount on the frame using the OEM hardware. Attach the sway bar to the new brackets using the 7/16" x 1 1/2" fine thread bolts, washers, & nuts. The brackets will install with the open portion towards the inside of the vehicle & the pointed end towards the rear. Attach the sway bar links to the lower A-arms using the OEM hardware. (See Photo # 13)



Photo # 13

22. With the front end complete, install the front tires /wheels & lower the vehicle to the ground. (See Photo # 14)

## **Rear Installation:**

23. Raise the rear of the vehicle & support the frame rails using jack stands. Remove the rear shocks using a 15mm & 18mm socket. (See Photo # 15) Remove the rear u-bolts using a 21mm socket. Disconnect the rear brake line bracket from the frame rail.

**If installing rear add-a-leafs, skip to Step # 27.**

### **Rear Spring Installation:** Part # FR44S

24. 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 is located on the outside of the driver side frame rail & must also be disconnected. (See Photo # 16)

25. Lower the axle down so there is no load on the rear leaf springs. Remove the rear leaf spring eye bolts using a 21mm socket. (See Photo # 17) **Note:** It will be necessary to loosen the gas tank straps to allow the gas tank to slide over enough to get the leaf spring eye bolts out. (See Photo # 18) Be sure to support the gas tank with a transmission jack. On the passenger side, it will be necessary to disconnect / remove the exhaust. Disconnect in front of the muffler & remove. Remove the OEM leaf spring.



**Photo # 14**



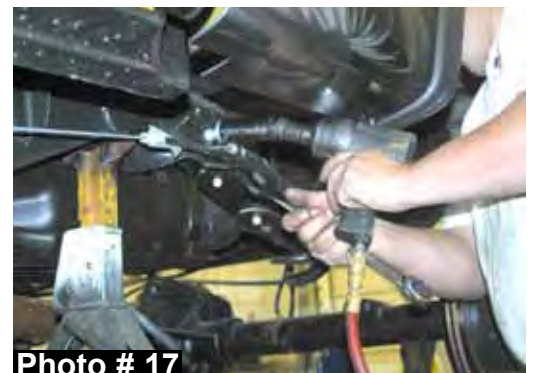
**Photo # 15**



**Photo # 16**



**Photo # 18**



**Photo # 17**

26. Install the new Skyjacker rear leaf spring on top of the OEM block. (See Photo # 19) **Note:** Be sure to install the new leaf spring with the long end of the leaf spring towards the rear of the vehicle. 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 of the vehicle. Make sure the tie bolt heads seat securely into the OEM block. Install the new Skyjacker rear u-bolts & torque to 130 Ft. Lbs. Skip to Step # 30. Do not tighten the leaf spring eye bolts until the vehicle is on the ground with the weight on the leaf springs.



**Rear Add-A-Leaf Installation:** Part # R3440

27. Lower the axle to gain access to the rear leaf springs. To perform the installation of the new Skyjacker 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 & tighten a C-clamp on each end of the leaf spring to hold the leaf spring assembly securely together. Using locking pliers to hold the head of the two center bolts, loosen & remove. With care, slowly loosen & remove the C-clamps. (See Photo # 20)
28. Insert the new Skyjacker tie bolts through the new axle wedge shim (thick end towards the rear bumper), OEM bottom overload leaf, new add-a-leaf, & OEM leaf spring pack. Only finger tighten the nut at this time.
29. **DO NOT USE THE CENTER TIE BOLTS TO DRAW THE SPRING LEAVES TOGETHER. FAILURE OF ANY COMPONENT CAN CAUSE AN EXPLOSIVE DISASSEMBLY & POSSIBLE INJURY!** Place one C-clamp on each side of the new center tie bolts & tighten evenly. Once the C-clamps have drawn the leaves securely together, hold the center tie bolt heads with locking pliers & torque the nuts to 41 Ft. Lbs. Remove the C-clamps & cut off the excess length of the tie bolts. Install the new Skyjacker u-bolts & torque to 130 Ft. Lbs.
30. Lower the vehicle to the ground & locate the new Skyjacker rear brake line extension bracket. It's a flat bracket with a hole at each end. Attach the new bracket to the OEM mount on the frame rail using the OEM hardware. Attach the OEM bracket to the new extension bracket using the 1/4" x 1" fine thread bolt, washers, & nut. Install the new Skyjacker rear shocks.

## **FINAL NOTES:**

- After the installation is complete, double check that all nuts & bolts are tight. Refer to the following chart below for the proper torque specifications. (Do not retighten the nuts & bolts where thread lock compound was used.)
- With the vehicle placed on the ground, cycle the steering lock to lock & inspect the steering, suspension, brake lines, front & rear drivelines, fuel lines, & wiring harnesses for proper operation, tightness, & adequate clearance.
- Have the headlights readjusted to the proper settings.
- Have a qualified alignment center realign the front end to the factory specifications.
- Retorque all the bolts after the first 100 miles.

<b><u>TORQUE SPECIFICATIONS</u></b>					
<b><u>INCH SYSTEM</u></b>			<b><u>METRIC SYSTEM</u></b>		
<b>Bolt Size</b>	<b>Grade 5</b>	<b>Grade 8</b>	<b>Bolt Size</b>	<b>Class 8.8</b>	<b>Class 10.9</b>
5/16	15 FT LB	20 FT LB	6MM	5 FT LB	9 FT LB
3/8	30 FT LB	35 FT LB	8MM	18 FT LB	23 FT LB
7/16	45 FT LB	60 FT LB	10MM	32 FT LB	45 FT LB
1/2	65 FT LB	90 FT LB	12MM	55 FT LB	75 FT LB
9/16	95 FT LB	130 FTLB	14MM	85 FT LB	120 FT LB
5/8	135 FT LB	175 FT LB	16MM	130 FT LB	165 FT LB
3/4	185 FT LB	280 FT LB	18MM	170 FT LB	240 FT LB

- The above specifications are not to be used when the bolt is being installed with a bushing.

**Seat Belts Save Lives, Please Wear Your Seat Belt.**