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## 2004 Ford F-150 2WD 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
- 10,000 lb shop press



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:

### **F4621A:**

| <u>ITEM#</u> | <u>DESCRIPTION</u>          | <u>QTY</u> |
|--------------|-----------------------------|------------|
| F462L        | F462, LEFT STEERING KNUCKLE | 1          |
| F462R        | F462,RIGHT STEERING KNUCKLE | 1          |
| F462FCM-S    | F150 2WD 6" FRONT CROSS-MBR | 1          |
| F462RCM-S    | F150 2WD 6" REAR CROSS-MBR  | 2          |
| SBL462-B     | 6" F462, SWAY BAR BRACKET   | 2          |
| HB-SBL       | HDWR BAG:SWAY BAR LOW BRKTS | 1          |

### **Hardware Bag Breakdown:**

#### **HB-SBL**

#### **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          |

### **F4621B:**

| <u>ITEM#</u>  | <u>DESCRIPTION</u>          | <u>QTY</u> |
|---------------|-----------------------------|------------|
| F6FS          | 6" 2004 F150 COIL-SINGLE    | 2          |
| M9045S        | PLATINUM MONOTUBE GAS SHOCK | 2          |
| SP6938        | SHOCK PEDESTAL,OVERALL 8"   | 2          |
| F436AS        | ALUM SHK SHAFT CONN,2" LONG | 2          |
| PSD           | PLATINUM SHOCK DECAL        | 2          |
| HB-F436SHK    | HDWR BAG:F430/F460 SHOCKS   | 1          |
| R3440S        | SGL ADD-A-LEAF,3.5-4"04F150 | 2          |
| WS4320        | SHIM KIT,2004 F150 4X4      | 1          |
| 916X318X1012U | 9/16 X 3 1/8 X 10 1/2 SQUAR | 4          |
| HB-F460-BLE   | HDWR BG:F460 FR/RR BL BRKTS | 1          |
| HB-916        | HRDWR BAG/ 8 - 9/16" NYLON  | 1          |
| HB-F462-CM    | HDWR BAG:F462 CROSS MEMBERS | 1          |
| AST4          | ANTI-SQUEAK TAPE,FOR R3440S | 2          |

## Hardware Bag Breakdown:

### HB-F436SHK

#### Front Shocks

| <u>ITEM#</u> | <u>DESCRIPTION</u>          | <u>QTY</u> |
|--------------|-----------------------------|------------|
| SP3608       | SHOCK EYE BUSHING,04 F150   | 4          |
| F436SHS      | SHOCK SLV FOR SP3608/04F150 | 2          |
| ZF316        | ZERK FITTING ALEMITE, 3/16" | 2          |
| LT100        | NUTS N' BOLTS 427 1 ML TUBE | 1          |
| 38FTN        | 3/8-24 FINE N/I LOCK NUT    | 2          |
| 38FTSN       | 3/8" FINE STANDARD HEX NUT  | 2          |

### WS4320

#### Front Shocks

| <u>ITEM#</u>  | <u>DESCRIPTION</u>          | <u>QTY</u> |
|---------------|-----------------------------|------------|
| WS4320S-17/32 | WS430S,2 HOLES 1.574"CENTER | 2          |
| 1204S         | 1/2 X 4 TIE BOLT W/NUT      | 4          |
| 12TBN         | 1/2" TIE BOLT NUT           | 4          |

### HB-F460-BLE

#### Brake-Line Extensions

| <u>ITEM#</u> | <u>DESCRIPTION</u>          | <u>QTY</u> |
|--------------|-----------------------------|------------|
| F460BLE-F    | BRAKE LINE BKT,FRONT 04F150 | 2          |
| DVL10        | DGE/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          |
| 14SAEW       | 1/4 SAE WASHER              | 6          |
| 38CC         | 3/8" CABLE CLAMPS           | 2          |
| 5MMX12SHB    | 5MM X 12MM.80 KNUCKLE BOLTS | 2          |

### HB-F462-CM

#### Cross-Members

| <u>ITEM#</u> | <u>DESCRIPTION</u>          | <u>QTY</u> |
|--------------|-----------------------------|------------|
| 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          |
| 12SAEW       | 1/2 SAE WASHER              | 8          |
| 12FTN        | 1/2-20 FINE N/I LOCK NUT    | 4          |
| CS4530       | CRUSH SLEEVE, F462FCM-S     | 1          |
| CS3980       | CRUSH SLEEVE, F462RCM-S     | 2          |
| 14x150MMBG5  | 14X150MM BOLT 8.8           | 1          |
| 14MMN        | 14MM NYLOC NUT              | 1          |
| 916SAEW      | 9/16" SAE WASHER            | 2          |

**Note: F4621BS box will not contain rear Add-A-Leafs or 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 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 the ABS line from steering knuckle. 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 #2) Remove steering knuckle.
6. Disconnect the front sway bar from the frame. (See Photo # 3). Disconnect the sway bar links from the lower A-Arm and remove.
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 #4).
8. Remove the lower A-Arm mounting mounting bolts from the frame, remove lower A-Arm.
9. Locate the new Skyjacker rear Cross-Member brackets. They will attach to the factory cross-member location using the 1/2 x 5 1/2" fine thread bolts, washers and nuts. Bracket will attach to the factory A-Arm position using the 18x150mm bolts, washers and nuts. (See Photo #5). Be sure to use Crush Sleeves Part# CS3980 along with the 18mm bolts between the factory A-Arm mount.
10. Before installing Skyjacker Front Cross-Member, insert Crush Sleeve Part# CS4530 into front frame rail. (See Photo #6).



Photo #1



Photo #2



Photo #3



Photo #4

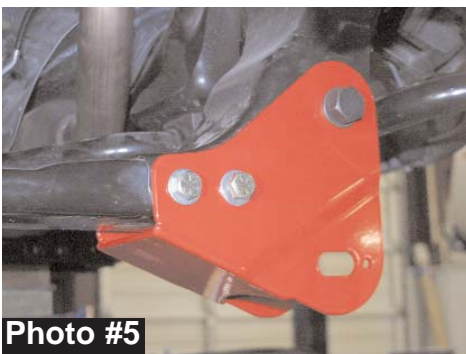


Photo #5

I-F4621



Photo #6



11. Install new Skyjacker Front Cross Member using the 18x150mm bolts, washers and nuts. (See Photo #7)
12. Install 14x150MM bolt, washers and nut at upper position in the frame where crush sleeve was installed. (See Photo #8)
13. Attach lower A-Arms to new Skyjacker cross members using the factory hardware. Note: Skyjacker's design allows for use of After-Market Alignment Kits. Available Direct From Skyjacker, Order 2 of Part# F462-AK. See Photo Below.



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 #9). 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 #10). With end cap removed, remove the lower coil seat from shock. (See Photo #11).
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 #12).
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 #13). 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 #11  
I-F4621

Photo #12

Photo #13



**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 #14)



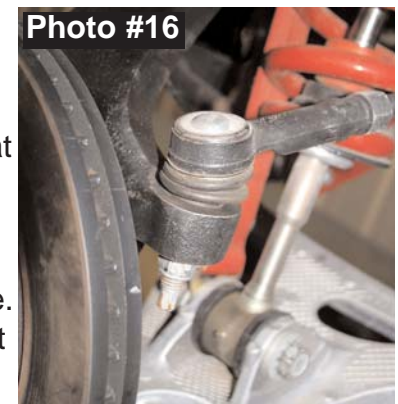
17. Install new coil / shock assembly into vehicle. Attach to factory upper mount using factory nuts.

18. Attach to lower A-Arm using factory bolt and nut. **"Ford Torque Specifications"** for this bolt is 351 Ft. Lbs.

19. It will be necessary to have the factory spindle pressed out of the factory steering knuckle by a qualified machine shop. Once spindle is pressed out, apply anti-seize compound and press spindle into Skyjacker Steering Knuckle. (See Photo #15). A 10,000 lb shop press will be needed for this step.



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 #16). Attach outer tie rod using factory hardware, torque to 111 Ft. Lbs. *Periodically re-torque upper / lower ball joints and outer tie rod!*



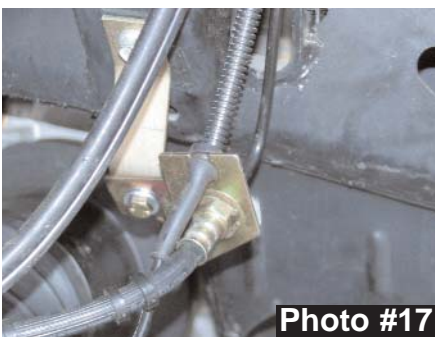
21. On the rearward side of the new steering knuckle, there is a new mounting location for the factory ABS line. Using the 3/8" cable clamps and the 5 x 12mm bolts, attach the ABS line to new location.

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 #17).

23. Attach rotor and caliper to new steering knuckle using OEM 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. With front end complete, (See Photo #19). Install tires/wheels and lower vehicle to the ground.





## **Rear Installation:**

26. 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 #20). 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 #21).

30. Lower axle down so that there is no load on rear leaf springs. Remove rear spring eye bolts using 21mm socket. (See Photo #22). 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 #23). 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.

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.

### **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).

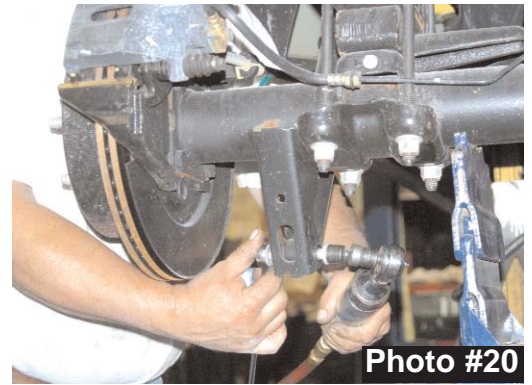


Photo #20



Photo #21



Photo #22



Photo #23



Photo #26

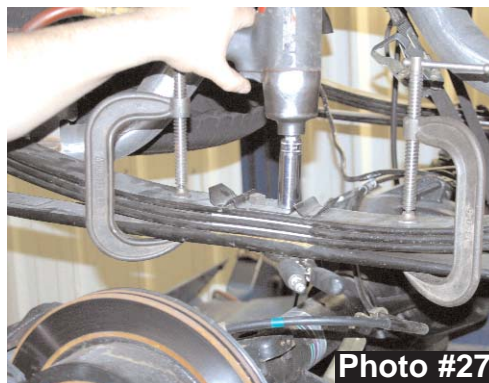


Photo #27

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.

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.
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.

