

# Installation Instructions



# 4" Performance Suspension System 1984-2001 JEEP XJ 4WD



# 4" 1984-2001 JEEP XJ 4WD FTS24011

### Parts List Hardware Kit

Qua	Part #	Description
2	FT50018BK	Lower Link
2	FT50004BK	Coil Spring
2	FT50108	Frt. Bump Stop
2	FT50112BK	Basic End Link 4" XJ
1	FT50107	Rear Brake Line Bracket
2	FT2097	Rear Shackle
4	FT1034	Shackle Bushing
2	FT2097-4	Shackle Sleeve
2	FT50105	Rear Add-a-Leaf
4	FT50117	Two Piece Leaf Spring Clamp
2	CB-05X4	Center Pin Bolt
2	NUT-HF-05	Center Pin Nut
1	FT50106	Hardware Kit
1	FT50116	Bushing Kit
1	FT50089	Sleeve Kit
1	FT24011i	Instruction Sheet

#### TOOL LIST: (NOT INCLUDED)

- FLOOR JACK & JACK STANDS
- ASSORTED METRIC AND S.A.E SOCKETS, & WRENCHES
- TORQUE WRENCH
- DRILL AND DRILL BITS

Qua	Description	
2	3/8"-16 Nyloc Nut	
2	1/2"-13 x 3" Bolt	
4	1/2" SAE Washer	
2	1/2"-13 Nyloc Nut	
1	10mm-1.5 X 70mm	
3	10mm Flat Washer	
1	10mm-1.5 Nyloc Nut	
2	5/16"-18 x 4" Bolt	
2	5/16"-18 Nyloc Nut	
4	5/16" SAE Washer	
1	7/16"-14 x 1 1/4" Bolt	
1	7/16"-14 Nyloc Nut	
2	7/16" SAE Washer	
2	10mm-1.5 x 20mm	
2	3/8"-24 Non Lock Nut	
2	3/8"-24 x 1 3/4" Bolt	
2	5/16"-18 x 1" Thread Forming Bolt	
6	Grease Fittings	
1	Thread Locking Compound	

DO NOT ALTER THE FINISH OF THESE COMPONENTS, EXAMPLE- CHROMING, ZINC PLATING OR PAINTING. CHANGING THE FINISH CAN CAUSE STRUCTURAL FATIGUE OF COMPONENTS.

### SUSPENSION SYSTEM MUST BE INSTALLED WITH FABTECH SHOCK ASBORBERS

CHECK ALL PARTS INCLUDED IN THIS KIT TO THE PARTS LIST ABOVE BEFORE BEGINNING INSTALLATION OF THIS KIT. IF ANY PIECES/PARTS ARE MISSING, CONTACT FABTECH AT 909-597-7800

VEHICLES THAT WILL RECEIVE OVERSIZED TIRES SHOULD CHECK BALL JOINTS, TIE RODS ENDS AND IDLER ARM EVERY 2500-5000 MILES FOR WEAR AND REPLACE AS NEEDED

# THIS KIT IS DESIGNED TO BE INSTALLED ON A JEEP WITH STOCK AXLES & STOCK TRANSFER CASE & STOCK SUSPENSION

READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED, SEVERE FRAME, DRIVELINE AND / OR SUSPENSION DAMAGE MAY RESULT.

NOTE- PRIOR TO THE INSTALLATION OF THIS SUSPENSION SYSTEM A FRONT END ALIGNMENT MUST BE PERFORMED AND RECORDED. DO NOT INSTALL THIS SYSTEM IF THE VEHICLE ALIGNMENT IS NOT WITHIN FACTORY SPECIFICATIONS. CHECK FOR FRAME AND SUSPENSION DAMAGE PRIOR TO INSTALLATION. THIS SUSPENSION SYSTEM DOES NOT REQUIRE WELDING FOR INSTALLATION. DO NOT WELD ANY OF THESE COMPONENTS.

### FRONT SUSPENSION INSTRUCTIONS:

- Disconnect the negative terminal on the battery. With the
  Jeep on level ground set the emergency brake and block the
  rear tires. Jack up the front end of the truck and support the
  frame rails just behind the front link arms with jack stands.

  NEVER WORK UNDER AN UNSUPPORTED

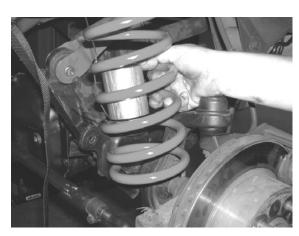
  VEHICLE! Remove the front tires. Support the front axle
  with a floor jack just enough so that axle does not hang
  freely.
- 2. Working from both sides of the Jeep, remove the front lower track bar bolt and discard. Pull track bar free from the axle mount.
- Remove the sway bar link ends from the sway bar and lower axle mount and discard the end links.
- 4. Remove the front shocks and discard. Save the factory lower shock hardware, discard the upper hardware.
- 5. Remove the front coil springs and discard, save the lower coil spring retainer (if equipped) and the hardware.
- 6. Working from the driver side of the truck, locate the factory lower link arm, remove and discard link the and save the factory hardware.
- 7. Locate the new lower link arm FT50018. Install, one supplied grease fitting into each end of the link arm. Using factory hardware, install the new link arm into factory frame mount, then attach to axle mount using the factory alignment cam bolts. Leave loose. NOTE: MAKE SURE THE GUSSETS ON BOTH ENDS OF THE LINK ARM ARE FACING DOWN. SEE PHOTO BELOW.



- If installing Fabtech's optional upper link arm kit, do so at this time. See instructions included in Fabtech's upper link arm kit.
- 9. Locate the factory brake line tab on the frame and remove bolt. Pull the factory hard line 1 ½" down on the frame and mark the spot. Using a drill, drill a 9/32" guide hole into the frame. Using the supplied 5/16"x 1" thread forming bolt reattach the brake line to the frame. SEE PHOTO NEXT COLUMN



- 10. Repeat steps six through nine on the passenger side of the truck.
- 11. Working from both sides of the Jeep, locate the factory lower coil mount. Using a drill, drill a 5/16" hole through the center of the lower coil spring mount. This hole will be used later to mount the new bump stop.
- 12. Locate the new lift coil springs FT50004 and bump stop FT50108. Slide the bump stop into the coil spring (as shown below) and install the coil spring into the truck. You will want to slide the coil over the upper bump stop first then seat the coil in the lower pocket. If the truck was equipped, reinstall the lower coil spring retainer clip. Attach the bump stop to the lower coil mount using the supplied 5/16" x 4" bolt, nut, and washer. Torque bolt to 20 ft. lbs.



- 13. Torque the lower link arm bolts on the frame mounts to 130 ft lbs and the axle mounts to 85 ft lbs.
- 14. Locate the new front shocks FT7170 (not included in kit) and install them using the factory lower hardware and the supplied upper hardware from the shock kit. Torque upper nut to 18 ft. lbs, and lower mount to 25 ft. lbs.

15. Locate the new sway bar end links FT50112. Press one hour glass bushing into the lower mount along with one of the supplied ½" sleeves. Using the supplied stem bushings, washers, and 3/8" nyloc nut, attach the end link to the factory sway bar. Using the supplied ½" x 3" bolt, nut, and washers attach the end link to the axle mount. SEE PHOTOS BELOW.



Upper Mount



Lower Mount

16. Locate the factory lower mount hole for the trac bar. Measure 3/4" from the center of the hole toward the driver side. Mark the spot and drill a 7/16" hole. Reattach factory trac bar to the new hole using the supplied 10mm x 70mm bolt, nut, and washer. Torque to 55 ft. lbs. SEE PHOTO BELOW.



17. Locate the factory steering stops and remove and discard. Locate the supplied 3/8" fine thread bolt and nut. Thread one nut onto one bolt 3/4" from the head of the bolt. Install bolt with nut into the factory steering knuckle. While steering the truck lock to lock adjust the steering stop for appeal clearance for the braking system. Tighten nut against the factory steering knuckle to 50 ft lbs.

18. Install front tires and wheels. Torque the lug nuts to the wheel manufacturers specifications.

### **REAR SUSPENSION INSTRUCTIONS:**

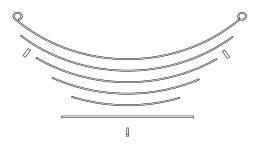
- 19. Jack up the rear end of the vehicle and support the frame rails just in front of the rear bumper with jack stands.

  NEVER WORK UNDER AN UNSUPPORTED

  VEHICLE! Remove the rear tires. Support the rear axle with a floor jack just enough so that axle does not hang freely.
- 20. Working on both sides of the truck, support the rear differential with a jack, remove and discard the rear shocks and save the shock hardware. Use care not to over extend the brake hose.
- 21. Remove the factory rear sway bar end links from the axle mount and save the hardware.
- 22. Locate the brake line mount on the driver side of the on the frame. Disconnect the brake line from the frame. Locate the supplied FT50107 brake line bracket and attach to the frame where the brake line was originally mounted using the supplied 7/16" x 1 ¼" bolt, nut, and washer. Attach the brake line to the new bracket using the original hardware. SEE PHOTO BELOW.



- 23. With the rear axle still being supported by a floor jack, remove the factory u-bolts and save all the hardware.
- 24. Clamp the leaf spring in the middle of the spring and remove the center bolt.
- 25. Separate the springs and discard the factory leaf spring clamps and install the provided add a leaf with the new center bolt in a pyramid pattern smallest on the bottom graduating to the longest on top. Clamp the spring and tighten the new center bolt as not to leave a gap between the springs. Cut the thread of the bolt smooth with the nut. The nut should be on the top of the leaf spring pack. Using the supplied FT50117 two-piece leaf clamps, attach one clamp at each end of the leaf spring pack in place of original spring clamps. SEE DRAWING ON NEXT PAGE.



- 26. Using the original U-bolts, nuts, and washers align axle and spring and torque the U-Bolts to 90lbs.
- 27. Locate the rear shackles and remove the bolts securing them to the leaf springs, then remove the bolts securing the shackles to the frame. Discard the shackles and save the hardware.
- 28. Locate the new lift shackle FT2097. Press two bushings and one sleeve into the top mount of the shackle. Using the original hardware install the shackle to the factory location. Torque both shackle bolts to 80 ft lbs. SEE PHOTO BELOW.



- 29. Locate the lower factory bumper bolt near the lift shackle. Remove the factory bolt and discard. Replace with the supplied 10mm x 20mm bolt and flat washer. Torque to 45 ft lbs.
- 30. Locate the new Fabtech rear shocks FTS7171 (not included in kit) and install onto vehicle with the shock shaft down and the body up, reusing the factory hardware. Torque the upper mount hardware to 25 ft lbs, and the lower mount hardware to 25 ft lbs. You can now re install sway bar end links.
- 31. Using a grease gun, grease all the grease fittings in the link arms.
- 32. Install the tires and wheels and torque the lug nuts to the wheel manufacturers specifications. Set the truck back on the ground. Turn the front tires left to right and check for appropriate tire clearance. Note- Some tires may require trimming of the front plastic bumper valance.
- 33. Recheck all nuts and bolts for proper torque tightness before driving. Drive the truck for 50 miles and have it aligned to factory specifications.
- 34. Recheck all bolts for proper torque. Recheck brake hoses and lines for proper clearances
- 35. Check the front end alignment and set to factory specifications. Re-adjust headlights.

#### RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 50 MILES AND PERIODICALLY THEREAFTER.

For technical assistance call: 909-597-7800

## Product Warranty and Warnings-

Fabtech provides a Limited Lifetime Warranty to the original retail purchaser who owns the vehicle, on which the product was originally installed, for defects in workmanship and materials.

The Limited Lifetime Warranty excludes the following Fabtech items; bushings, bump stops, ball joints, tie rod ends, limiting straps, cross shafts, heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days from the date of purchase for defects in workmanship.

Take apart shocks are considered a serviceable shock with a one year warranty on leakage only. Service seal kits are available separately for future maintenance. All other shocks are covered under our Limited Lifetime Warranty.

Fabtech does not warrant any product for finish, alterations, modifications and/or installation contrary to Fabtech's instructions. Alterations to the finish of the parts including but not limited to painting, powdercoating, plating and/or welding will void all warranties. Some finish damage may occur to parts during shipping which is considered normal and is not covered under warranty.

Fabtech products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (A "RACE" is defined as any contest between two or more vehicles, or any contest of one or more vehicle against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America.

Installation of most suspension products will raise the center of gravity of the vehicle and will cause the vehicle to handle differently than stock. It may increase the vehicle's susceptibility to a rollover, on road and off road, at all speeds. Extreme care should be taken to operate the vehicle safely at all times to prevent rollover or loss of control resulting in serious injury or death. Fabtech front end Desert Guards may impair the deployment or operation of vehicles equipped with supplemental restraining systems/air bag systems and should not be installed if the vehicle is equipped as so.

Fabtech makes every effort to ensure suspension product compatibility with all vehicles listed in the catalog, but due to unknown auto manufacturers production changes and/or inconstancies by the auto manufacturer, Fabtech cannot be responsible for 100% compatibility, including the fitment of tire and wheel sizes listed. The Tire and Wheel sizes listed in Fabtech's catalog are only a guideline for street driving with noted fender trimming. Fabtech is not responsible for damages to the vehicle's body or tires.

Fabtech's obligation under this warranty is limited to the repair or replacement, at Fabtech option, of the defective product only. All costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty. Fabtech is not responsible for damages and/or warranty of other vehicle parts related or non related to the installed Fabtech product. This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been subject to accident, negligence, alteration, abuse or misuse as determined by Fabtech.

Fabtech suspension components must be installed as a complete system including shocks as shown in our current catalog. All warranties will become void if Fabtech parts are combined and/or substituted with other aftermarket suspension products. Combination and/or substitution of other aftermarket suspension parts may cause premature wear and/or product failure resulting in an accident causing injury or death. Fabtech does not warrant products not manufactured by Fabtech.

Installation of Fabtech product may void the vehicles factory warranty; it is the consumer's responsibility to check with their local vehicle's dealer for warranty disposition before the installation of the product.

It is the responsibility of the distributor and/or the retailer to review all warranties and warnings of Fabtech products with the consumer prior to purchase.

Fabtech reserves the right to supercede, discontinue, change the design, finish, part number and, or application of parts when deemed necessary without written notice. Fabtech is not responsible for misprints or typographical errors within the catalog or price sheet.

Instruction Sheet Part #- FT24011i

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