



# INSTALLATION INSTRUCTIONS

Part FTS7505 w/o Shocks Part FTS7505H / Part FTS7505M w/Shocks  
4.0" Flex Arm Suspension System

97-2006 Jeep Wrangler TJ / Jeep Rubicon / Jeep Unlimited

*Read instructions from start to finish before installation*

Carton 1 (A)	Qty
50-750506 Front Trac Bar Frame Cross Brace	1
50-750605 Front Adjustable Trac Bar	1
50-750505 Trac Bar Frame Mount Bracket	1
FTS3001 Pitman Arm	1
50-750502 Rear Track Bar Bracket	1
50-750501 Lower Control Arm	4
<b>70-7560 Front Trac Bar Hardware Kit</b>	
KMX-12 3/4" Chromoly Rod End	1
50-750615-004 Mis-Alignment Spacers	2
CA1018 Black Vecton Trac Bar Bushing	2
SLE151 Trac Bar Sleeve	1
N34J 3/4" Jam Nut	1
<b>70-7570 Bushing Kit (2 required)</b>	
MO2782 Bushings	8
SLE116 Sleeves 2 5/8"	4
<b>FTS306057 Front Sway Bar Link Kit (Assembled)</b>	
50-750513 Front Sway Bar Disconnects	2
50-5000 Disconnect Ends	2
U0120677 Bail Pins	2
MOO392-BK-01 5/8" Hourglass Bushing	2
MOO393-BK-01 3/4" Hourglass Bushing	2
SLE104 1/2" x 1-3/8" Sleeves	2
CA1005 Disconnect U-Saddles	2
1/2" x 2 1/2" Grade 5 Bolt	2
10mm x 35mm Bolt	2
10mm Flat Washer	2
10mm x 1.50 Nut	2
<b>70-7582 Rear Sway Bar Link Kit (Assembled)</b>	
50-750503 Sway Bar Links (rear)	2
<b>70-7584 Bump Stop Kit</b>	
CA1003 3" X 2" Aluminum Bump Stop Ext.	2
CA1004 2" X 2" Aluminum Bump Stop Ext	2
10mm x 65mm Bolt	2
3/8" 2 Self Tapping Bolt	2
Installation Instructions	1
Box #7148	1

Carton 1 (A) <i>continued</i>	Qty
<b>70-7580 Master Hardware Kit</b>	
CA1001 Transfer Case Skid Spacers 1-1/8"	6
CA1007 Beveled Conical Spacers	6
CA1002 Track Bar Bracket Crush Spacer 1-1/4"	1
12mm X 70mm 1.75 bolts	9
12mm Metal Lock Nut	1
5/16" x 1" Bolt	3
5/16" x 3/4" Bolt	3
5/16" Flat Washer	10
5/16" Metal Lock Nut	6
CA1006 Brake Line Bracket L & R	2
1/2 x 1.5" NC Gr.8 Bolt	1
1/2 x 2.5" NC Gr.8 Bolt	8
1/2 x 3.5" NC Gr.8 Bolt	1
1/2 x 5.0" NC Gr.8 Bolt	2
1/2 SAE Flat Washer	10
1/2 Metal Lock Nut	4
9/16" x 2.5" NC Gr.8 Bolt	1
9/16" Metal Lock Nut	1
9/16" Flat Washer	2
S10354 Shift Linkage Bracket	1
1/4" x 3/4" Bolt	2
1/4" Nut	2
<b>Carton 2 (B)</b>	
	Qty
50-7501 Front Coil Springs	2
50-7502 Rear Coil Springs	2
<b>Carton 3 (C) OPTIONAL</b>	
	Qty
Front Shock 524515 (658526) Hydro	2
Rear Shock 524505 (658527) Hydro	2
MOO392-BK-01 5/8 Hourglass Bushing	6
BP7 Bar pin 3 1/4" Front	2
BP20 Bar pin 3 1/2" Rear	2
SLE104 1/2 x 1-3/8" Sleeve	2
8172Bag1Stem Pack	2
MOO337-GY Shock Boot	4
Zip Tie	4
FTS Decal	4
<b>Footnote:</b> Rear Short Shaft Adaptor and CV drive shaft recommended.	



### PLEASE NOTE:

Required wheel size-15" maximum, 8" width with a 3-3/4" offset from the inward side.

Maximum tire size-33 x 12.50

### BEFORE YOU BEGIN:

Read the instructions separating the parts according to the areas where they will be used and placing the hardware with the brackets before you begin will save installation time.

Check the parts and hardware against the parts list to assure that your kit is complete.

Always wear safety glasses when using power tools.

A Jeep Wrangler TJ Factory Service manual will aid in the installation of this kit.

Always use NEW cotter pins (these items are not supplied) when replacing them.

There are two special tools needed during disassembly and installation. They may be purchased through your authorized JEEP dealer.

1. Puller - C-3894-A
2. Pitman Remover - C-4150A

### DISASSEMBLY - FRONT

1. Raise and support vehicle with jack stands. Support axle with a floor jack. Remove wheels and tires.

2. Place reference marks on front drive shaft and axle. Disconnect the front drive shaft from axle.

**NOTE:** If vehicle is equipped with ABS brakes remove sensor wire from the inboard side of the Lower Control Arm.

3. Locate Adjustment Cam-Bolts, positioned on front of existing lower control arms. Make an index mark for installation reference. Remove lower control arms.

4. Remove front shock absorbers. Disconnect the stabilizer bar link at the axle.

5. Lower axle until coil spring is free from upper mount. Remove coil spring retainer bolt and remove the coil spring.

CAUTION: Use a Universal Puller Tool to separate the track bar stud from the frame rail bracket. This will prevent damage to the ball stud seal.

6. Remove the front track bar from frame and axle. Remove steering system.

7. Remove the cotter pin and nut from the drag link at the pitman arm. Using the Puller (C-3894-A), disconnect the pitman arm from the drag link

8. Remove the nut and washer from the steering gear shaft. Remove pitman arm using Special Pitman Remover Tool (C-4150A)

### INSTALLATION - FRONT

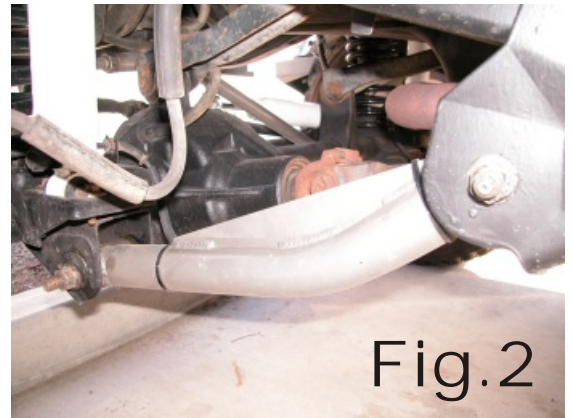
1. Insert the Bushings and Sleeves, using a thin layer of lubricant, into the new Lower Control Arms.

2. Position the Lower Control Arms in the front and rear brackets and install using the existing hardware. **(Arms mount with the Gusset in the “Up” position. Once mounted, there should be a gap between the axle and the end of the gusset).** See Fig.2

Adjust the Cam-Bolt to the index mark. Torque lower Cam-Bolt Nut to 85 ft-lbs and upper Frame Bracket Nut to 130 ft-lbs.

**NOTE:** If your vehicle is equipped with ABS Brakes re-install sensor wire to inboard side of gusset located on Lower Control Arm using zip ties.

3. Using the existing hardware, install the new Pitman Arm onto the drag link (torque to 60 ft-lbs) and steering gear shaft (torque to 185 ft-lbs).



4. Install new Bump stop Pad. Mark center of lower Coil Spring Pad. Using a 11/32" diameter drill bit, drill a pilot hole in the previously marked area. Install using 3/8" self-tapping hardware provided. Torque to 30 ft.-lbs.

**\* See Checks and adjustments on last page for critical information and instructions, concerning track bar mount bolts and hardware.**

5. Position new front coil spring on axle pad. Re-install coil spring retainer and bolt. (2001 & Later models may not have coil retainer brackets) Torque to 16 ft-lbs. Raise the axle into position until coil spring seats in upper mount, then raise axle another 2". Install new front shock absorbers. Torque upper shock nuts to 17 ft-lbs and lower nuts to 20 ft-lbs.

6. Mount the Front Sway Bar link to the sway bar using the 10mm hardware provided. Attach Sway Bar Link using factory nut. Torque Nut to 30 ft-lbs. **Fig.2a**

7. The transfer case and transmission are supported by the skid plate. Before removing the skid plate ensure that the transmission is properly supported. Remove the (6) bolts connecting the skid plate to the frame, But only remove one side at a time (3 bolts). Re-install transfer case skid plate with 1-1/8" Transfer Case Spacers, Beveled Conical Spacers and supplied hardware. For 97-04 TJ, install using 1/2" x 2-1/2 SAE bolts. For 2003/04 and **Rubicon** models, install 12mm x 70mm x1.75 metric bolts. Torque bolts to 55 ft-lbs.



Fig.2a

8. Re-connect the front drive shaft to the axle using the reference marks as guides.

### DISASSEMBLY - REAR

1. Raise the rear of the vehicle, support frame with jack stands and remove rear wheels.
2. Locate and remove existing rear lower control arms.
3. Disconnect lower track bar mount and track bar from rear axle.
4. Locate and remove end links from the rear sway bar. Leave rear sway bar attached at frame mounts. Remove rear shock absorbers.
5. Lower rear axle until coil springs are free from upper seat. Remove coil springs.

### INSTALLATION - REAR

1. Position rear lower control arms into existing front and rear mounting brackets and install using hardware previously removed. **(Arms mount with the Gusset in the "Up" position. Once mounted, there should be a gap between the axle and the end of the gusset).** Do not tighten at this time.
2. Install new rear bump stop extensions using the supplied 10mm hardware. Torque to 27 ft-lbs.
3. Install rear sway bar links, using hour glass bushings and sleeves .When re-installing existing stabilizer bar you must ensure that the bar is centered, equally spaced, over both sides of differential housing. Fasten using existing hardware. Torque to 40 ft-lbs..

4. Install rear Track Bar Mount Bracket using both supplied hardware & factory track bar bolt. Insert 1-1/4" crush Spacer between bracket and frame. Reinstall factory frame bolt through bracket and crush spacer and torque. Torque existing track bar bracket bolt to 74 ft-lbs. Drill out both 3/8" holes at the two 5/16" hole locations using bracket as template. **Fig.3**

5. Install new rear coil springs and new rear shock absorbers. At this time, torque existing lower control arm nuts to 130 ft-lbs.

6. Attach rear track bar into new track bar mounting bracket using hardware provided. Torque nut to 37 ft-lbs.

7. Install brake line extension brackets. Recheck brake hose/fittings for leaks. Be sure all hoses are long enough.



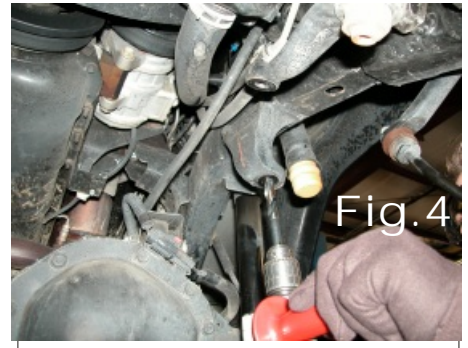
Fig.3



The Full-Traction Equipped TJ Ramps an incredible 1160 RTI with 33x12.50 Tires.

## Installing the Full-Traction Trac-Bar Bracket

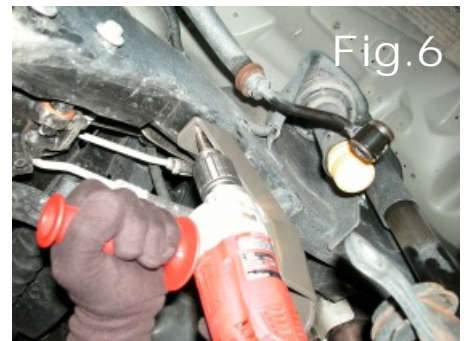
**1a.** To install, two (2) holes will be drilled. Drill out factory tapered hole in the large cast iron trac-bar mount to 9/16" as shown in **Fig.4** Insert the trac bar bracket guide rod into the frame hole in the bottom side of the frame. **Fig.5** Install 9/16" x 2.5" bolt, nut and washer and torque to 90lbs/ft. The 9/16" bolt will hold the new bracket in place while the next hole is drilled in the frame.



**1b.** Insert the drill bit into the trac bar guide rod and drill hole out through the top side panel of frame to 1/2" as shown in **Fig.6** install 1/2"x5" bolt, nut and washer. Torque to 75lbs.

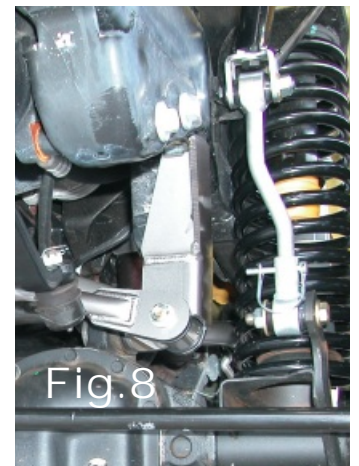


**2.** Install trac bar and brace brace using 1/2 x 3.5" bolt as shown in Fig. 8 & 9. On the Right side frame rail, locate the factory hole and drill a 1/2" hole through the top of the frame rail and install a 1/2" x 5" bolt through the frame. **Fig. 7a, Fig.7b & Fig.8**



**3.** Enlarge hole in axle bracket to 1/2". Install **KMX-12 3/4" Chromoly Rod End** and **#50-750608-04 Mis-Alignment Spacers** into the new trac bar. Mount trac bar to axle using 1/2" x 2.5" bolt, nut, and washers. **Fig 9**

**NOTE:** Attach trac bar to the axle after vehicle is sitting on level pavement with weight on the suspension. The axle must be centered under the vehicle before the Trac Bar is attached to the new bracket.



**4.** Install factory steering system back to vehicle. Check all bolts for proper tightness.  
**5.** Install the wheels and tires. Remove the jack stands and lower the vehicle to the ground.

## CHECKS AND ADJUSTMENTS. VERY IMPORTANT

- \*Recheck all hardware for tightness after the first 100 miles.
- \*To adjust location of front axle (side to side), Adjust rod end located at the end of the Adjustable track bar to move axle to desired location. Tighten jam nut on Rod End, then torque.
- \*Steering stops can be adjusted by use of spacers behind welded jam nuts or by use of a secondary jam nut (not provided).
- \*Headlights should be adjusted.
- \*Rotate front and rear drive shafts with suspension hanging.  
Depending on engine, transmission and differential combinations, it may be necessary to increase the drop on the transfer case if U-joint-to-yoke interference is found. This can be accomplished with the use of 1/2" flat washers (not provided). 1/4" additional drop is usually sufficient.
- \*Alignment of front wheels will be required, use factory specifications.

### **TORQUE SPECIFICATIONS:**

<b>Lower Control Arms-to-Axle</b>	<b>130ft-lbs.</b>
<b>Front Shock Absorbers at Axle</b>	<b>20ft-lbs.</b>
<b>Center Link-to-Pitman Arms</b>	<b>35ft-lbs.</b>

Congratulations on your choice of a performance engineered FULL-TRACTION SUSPENSION System. Proper maintenance of this kit will insure years of both on and off-road enjoyment. Check & re-torque all hardware every 500 miles or after EVERY off-road use. Keep all bushings and pivot points properly lubricated. Periodically check wheel alignment and check for abnormal tire wear.



*Maximum Suspension Performance...means - "Full-Traction"*

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**Business Hours: 8:00 - 5:00 PST Monday - Friday**



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# WARRANTY

## Full Traction Limited Warranty

### About our warranty

Full Traction components may have minor finish damage to powder coated or plated surfaces which may occur during shipping and is not covered under warranty. Full Traction Suspension warrants each new Full Traction Component against factory defects in material and workmanship for 1 year after date of purchase. Full Traction Suspension systems are sold as complete systems and must be installed as such per Full-Traction installation instructions. Any substitutions of other manufacturers components or exemptions of required components will immediately void the warranty. Full-Traction suspension guarantees that all of its products are of the finest quality and free from manufacturing defects. Any product that has been manufactured incorrectly or is of a defective nature will be repaired or replaced at the discretion of Full-Traction Suspension. Returns: Only after written or verbal approval, send such part(s) and proof of purchase, via prepaid freight with an RGA (Return Goods Authorization) number to: Full-Traction Suspension 6951 McDivitt Dr. Bakersfield Ca 93313 USA. Shipments without an RGA number clearly designated on the outside of all containers or collect shipments will be refused. To obtain RGA(s) call 661/398-9585

### What is not covered

Suspension and steel fabricated components: Limited (12) month warranty excluding the following items: Tie rod ends, bushings, hardware, brake lines, heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 90 days from the date of purchase for defects in workmanship. Shock absorbers are covered under our limited warranty. Products or components installed on vehicles other than those specifically indicated in the Full-Traction Suspension catalog or website. Products or components which have been subjected to abuse, accident, alteration, modification, improper installation, tampering, negligence, misuse, or products installed on a vehicle used in sanctioned racing events. A race is defined as any contest between two or more vehicles, or any contest of one or more vehicles against the clock, whether or not such contest is for a prize. This warranty does not include vehicles used for government or commercial purposes. Full Traction does not warrant any product not manufactured by Full Traction Suspension. Full Traction Suspension products are not covered under warranty outside the United States of America. Full Traction Suspension shall not be liable for any loss, damage, or injury, whether ordinary, direct, special, incidental or consequential damages, arising from the manufacture, sale, installation, re-sale, delivery, possession, handling or use of its products. Full Traction Suspension is not responsible for typographical errors either in pricing or in content. Warranties, policies, and prices subject to change without notice.

### Installer's Safety Warning

Full-Traction Suspension recommends our products to be installed by certified technicians only. These recommendations pertain only to Full-Traction Manufactured Products. Efforts to install our system without experience and knowledge may jeopardize the operating safety of the vehicle.

Detach and mail or fax to the address below

Name \_\_\_\_\_ Phone Number ( ) \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Products Purchased from: \_\_\_\_\_ Date Purchased \_\_\_\_\_

Installed By \_\_\_\_\_ Date Installed \_\_\_\_\_

Vehicle make \_\_\_\_\_ Model \_\_\_\_\_ Year \_\_\_\_\_

Installation Comments \_\_\_\_\_

Product Part Number FTS7505 Description: Jeep TJ 4" Suspension System

Mail or Fax To:  
Full Traction Suspension  
6951 McDivitt Dr  
Bakersfield Ca 93313  
  
Fax: 661-398-9555

Warranty Registration Number \_\_\_\_\_



WARRANTY FORM

WARRANTY FORM