



## **INSTALLATION INSTRUCTIONS**



**2001-10 GM C/K2500HD & C/K3500HD 2WD/4WD  
MULTIPLE FRONT SHOCK SYSTEM  
0" & 6" UNIBALL UPPER CONTROL ARMS**

**FTS51012BK**

**FT51012i**

**Fabtech Motorsports** | 4331 Eucalyptus Ave. Chino, CA 91710

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## - PARTS LIST -

	<b>FTS51012BK</b>	<b>K2500HD MULTI SHOCK KIT</b>
1	FT20591BK	UCA DRIV ASMBLD
1	FT20592BK	UCA PASS ASMBLD
1	FT20598	HARDWARE SUBASSEMBLY
1	FT90118	BUSHING KIT
1	FT20543BK	DUAL SHOCK HOOP DRIVER
1	FT20544BK	DUAL SHOCK HOOP PASSENGER
1	FT20084	HARDWARE KIT

	<b>FT20598</b>	<b>HARDWARE SUBASSEMBLY</b>
4	FT147	HD MISALIGNMENT
2	FTS88	BUMP STOP
1	FT90121	HARDWARE KIT
4	FT84	GREASE FITTING 1/4-28
2	FT91201	UNIBALL ADAPTER PIN
2	FT51012I	INSTRUCTIONS
1	FTLOCK	THREAD LOCKING COMPOUND 1 MIL
4	12008007100	ZIP TIE 8" BLACK 40 LBS
2	37160003052	3/8"-16 NYLOCK NUT
2	37000005052	3/8" SAE WASHER

	<b>FT90121</b>	<b>HARDWARE KIT</b>
2	56180004152	9/16" -18 C LOCK NUT
2	56000005052	9/16 SAE WASHER G5 ZINC
2	75160004152	3/4-16 C-LOCK NUT ZINC

	<b>FT90118</b>	<b>BUSHING KIT</b>
4	FTS1001	A-ARM BUSHING FTS1001
4	FT1002	BUSHING UCA HALF
4	FT1500-6-101	SLEEVE .750 X .560 X 2.180
1	FTLUBE	URETHANE LUBE 1 PACKET

## - TOOL LIST -

### Required Tools (Not Included)

Basic Hand Tools  
 Floor Jack  
 Jack Stands  
 Assorted Metric and S.A.E sockets, and Allen wrenches  
 Torque Wrench  
 Torsion Bar Removal Tool

## - PRE-INSTALLATION NOTES -

### *Read this before you begin installation-*

Check all parts to the parts list above before beginning installation. If any parts are missing contact Fabtech at 909-597-7800 and a replacement part will be sent to you immediately.

Read all instructions thoroughly from start to finish before beginning the installation. If these instructions are not properly followed severe frame, driveline and / or suspension damage may occur.

Check your local city and state laws prior to the installation of this system for legality. Do not install if not legal in your area.

Prior to the installation of this suspension system perform a front end alignment and record. Do not install this system if the vehicle alignment is not within factory specifications. Check for frame and suspension damage prior to installation.

The installation of this suspension system should be performed by two professional mechanics.

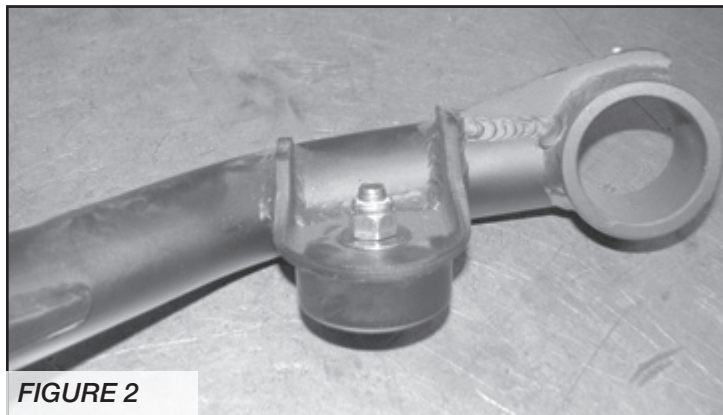
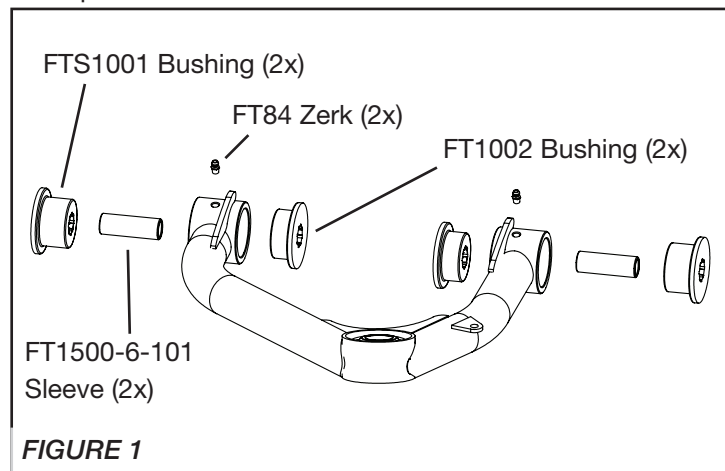
Use the provided thread locking compound on all hardware.

**WARNING-** Installation of this system will alter the center of gravity of the vehicle and may increase roll over as compared to stock.

For technical assistance call: 909-597-7800 or e-mail: [info@fabtechmotorsports.com](mailto:info@fabtechmotorsports.com)

## - INSTRUCTIONS -

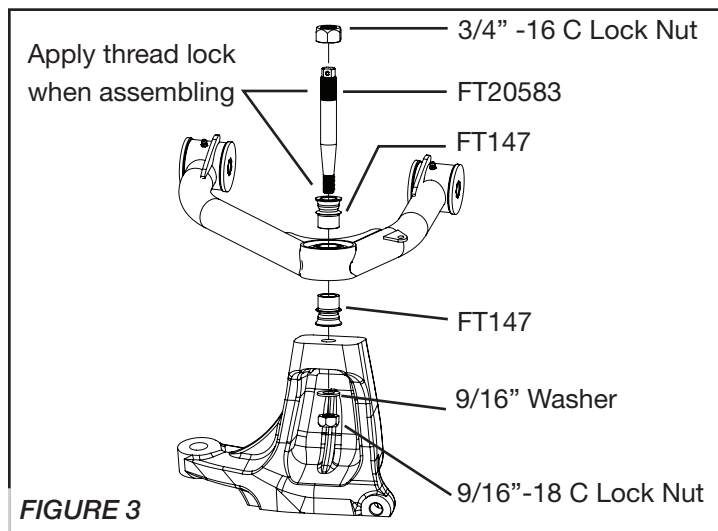
1. Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the front tires.
2. Locate the torsion bar adjusting keys and threaded bolts. Measure exposed threads of torsion bar adjusting bolts and record for reinstallation. Use a torsion bar removal tool to unload the torsion bars. NOTE- Do not attempt to unload or remove torsion bars without the proper torsion bar tool. Torsion Bars are under extreme spring load. Remove the Torsion Bar bolt and nut. Remove the torsion bar tool so the torsion bars are completely unloaded.
3. Remove the upper ball joint nut. Disconnect the upper ball joint from the knuckle by striking the knuckle with a large hammer next to the upper ball joint on the knuckle to dislodge the ball joints. Use care not to hit the ball joints when removing.
4. Mark the location of the alignment cams on the frame of the upper control arm pocket. Remove the upper control arm and retain the factory hardware.
5. Locate the Fabtech driver's side control arm FT20451BK, Two FTS1001 bushings two FT1002 bushings; two grease zerks FT84, FTS88 bump stop, and two sleeves FT1500-6-101.
6. Install all these components in the control arm barrels. The FTS88 Bump stop will be mounted to the bottom side of the bump stop tab on the control arm. Torque the bump stop nut to 15 ft lbs. **SEE FIGURES 1-2**



7. Install the new Fabtech upper control arm in the factory upper control arm pockets using the factory hardware at the previously marked alignment cam location. When installing the arm on the truck make sure the barrel gussets are up. Torque to 150 ft- lbs.
8. Locate FT20583 Uniball adapter pin, and two 147 uniball misalignment spacers.

### SEE FIGURE 3 FOR STEPS 9-13

9. Insert the uniball pin into the factory knuckle upper ball joint taper. Install the 9/16"-18 lock nut with thread lock compound and flat washer on to the bottom side of the pin. This will lock the pin into the knuckle. Torque to 129 ft-lbs.
10. Install one FT147 uniball misalignment spacer on to the pin.
11. Swing the control arm down, slide the pin into the uniball on the control arm seating the lower FT147 spacer in the control arm.
12. Install the upper FT147 uniball misalignment spacer onto the pin.
13. Install the 3/4" -16 lock nut on the top side of the pin with thread lock compound and torque to 250 ft-lbs. Lube zerk fittings.

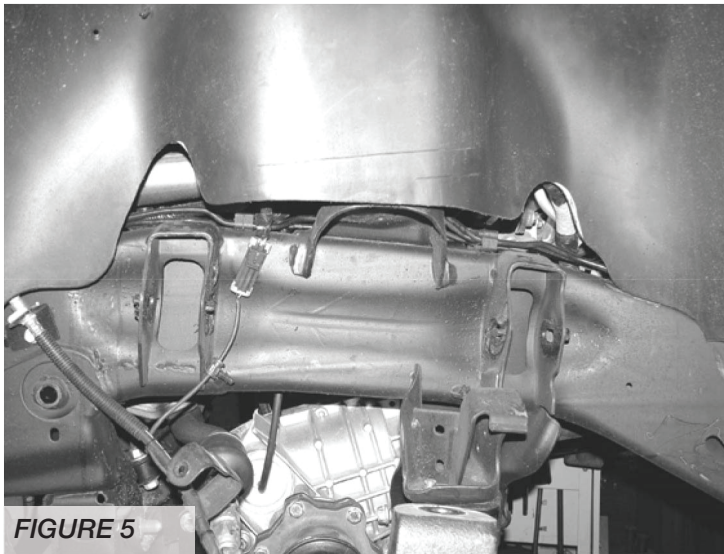
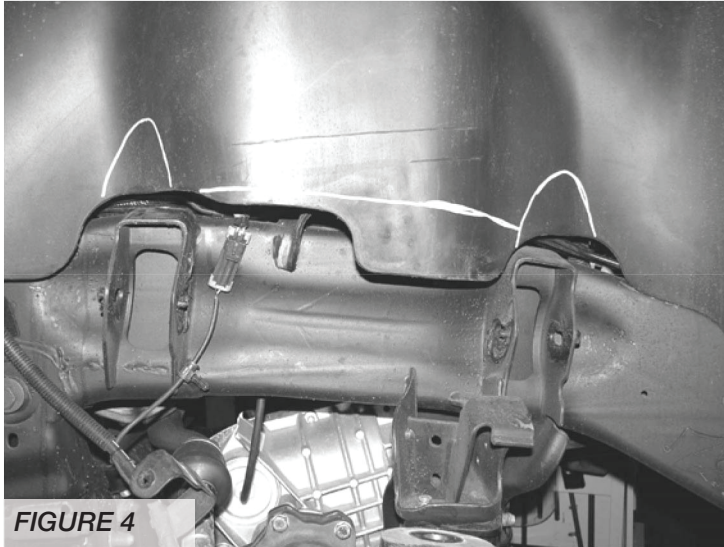


14. Repeat steps 3-13 on the passenger side of the vehicle.
15. Reinstall torsion bar hardware using your previously recorded measurements.



**16. FOLLOW STEP 18 FOR 2007-2008 MODEL TRUCKS**

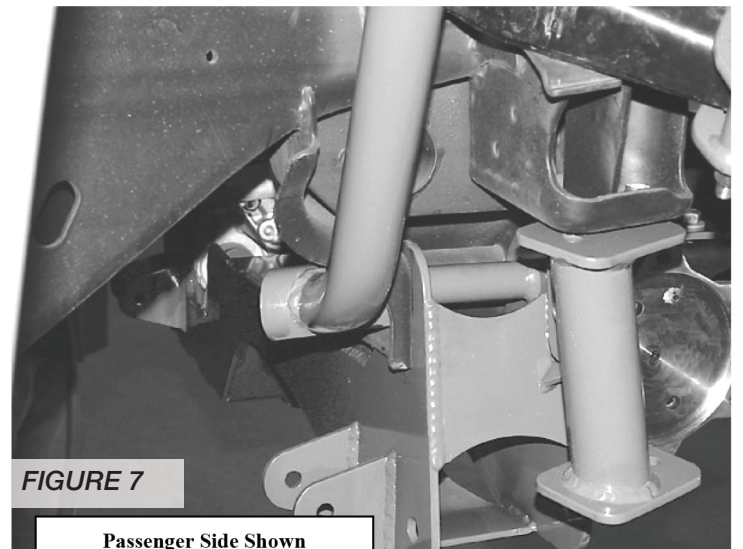
17. Use a paint pen and mark both of the plastic inner wheel liners as shown. Once marked, cut **ONLY** the liners. Use this as a starting point, you may have to trim a little more of the liner based on the truck and the original cut. **SEE FIGURE 4-5**



18. Working from the driver side of the vehicle, locate and remove the steering box bolt on the outside of the frame rail closest to the upper control arm. **SEE FIGURE 6.**

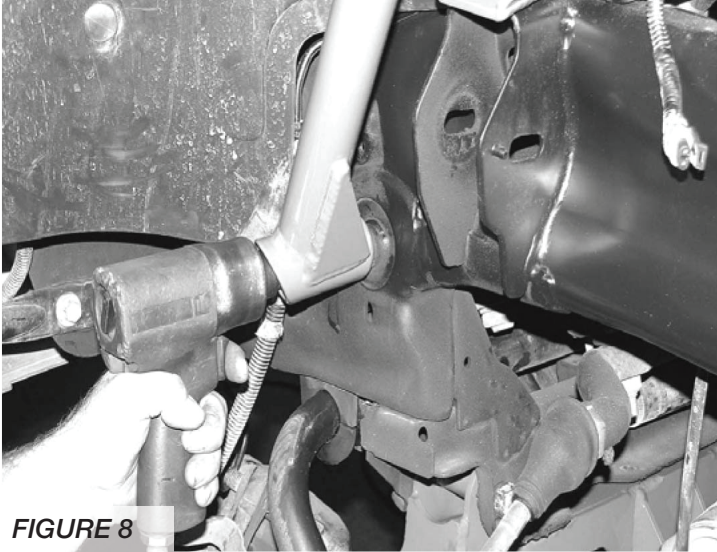


19. Locate and remove the nut and washer that retains the stock lower control arm pivot bolt towards the rear of the vehicle. Do not remove the bolt, only the nut and washer.
20. Locate FT20543BK driver side shock hoop and place the rear leg mount over the stock rear lower control arm bolt and attach with the stock nut and washer. **SEE FIGURE 7**



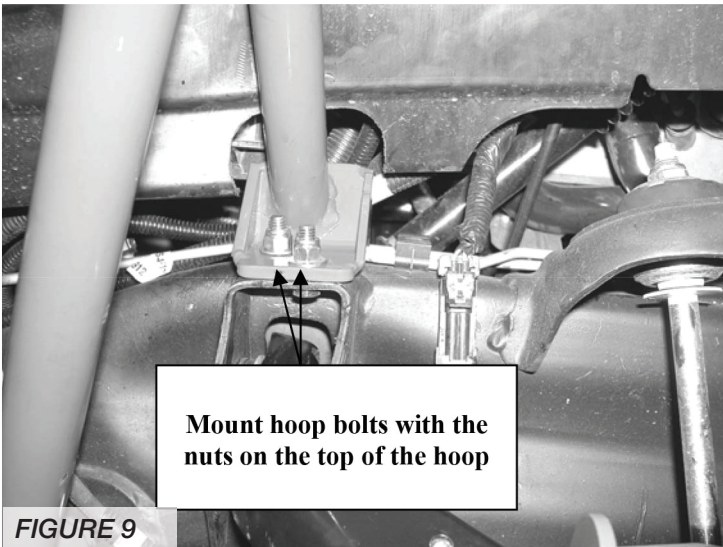


21. Place the front leg of the hoop over the steering box bolt hole and re-install the stock steering box bolt, nut, and washer. Torque the steering box bolt to 110lbs and the rear lower control arm bolt to 90 lbs. **SEE FIGURE 8**



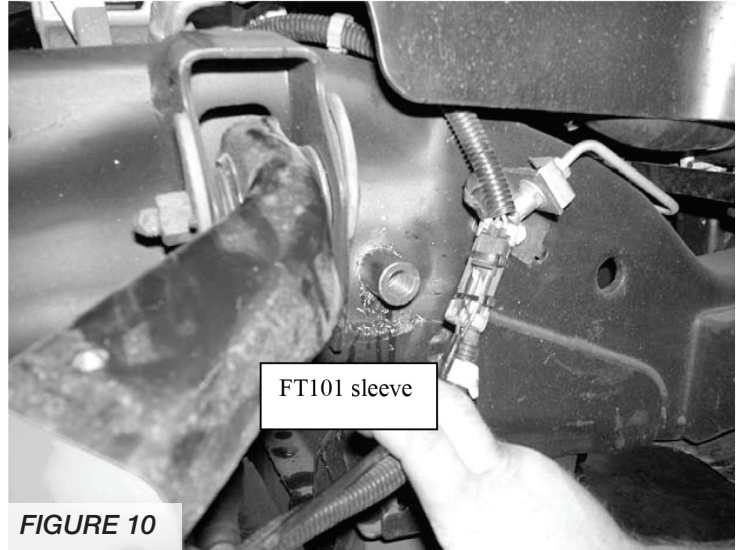
**FIGURE 8**

22. Pushing on the top of the hoop, mate the upper mounting tabs to the top of the upper control arm pocket and center punch holes. Remove the hoop from the truck. Drill out to 3/8" diameter. Install 3/8" x 1-1/4" bolts, nuts and washers. Torque to 25 lbs. Drill out to 3/8" diameter. Re-install the hoop and install 3/8" x 1-1/4" bolts, nuts and washers. Torque to 25 lbs. **SEE FIGURE 9**



**FIGURE 9**

23. Locate and install Fabtech shock part number FTS7052, bushings, 1/2" x 6" bolts, nuts and washers. Torque bolt to 35LBS.
24. Proceed to the passenger and follow the same steps except on the front leg of the hoop. If you have a 4wd HD the hoop will attach to the factory differential bolt. If you have a 2wd HD or H2 Hummer you will need to drill a 1" hole through the frame and insert the supplied sleeve FT101 into the frame as shown in the next column. Use the shock hoop as a template to locate the position of the 1" hole. You will use the supplied 9/16" bolt, nut and washer to attach the front leg of the frame.



**FIGURE 10**

25. Install tires and wheels and torque lug nuts to wheel manufacturer's specifications. Turn front tires left to right and check for appropriate tire clearance. **Note - Some oversized tires may require trimming of the front bumper & valance.**
26. Check front end alignment and set to factory specifications. Readjust headlights.
27. Recheck all bolts for proper torque.
28. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
29. Install Driver Warning Decal. Complete product registration card and mail to Fabtech in order to receive future safety and technical bulletins on this suspension

**Vehicles that will receive oversized tires should check ball joints and all steering components every 2500-5000 miles for wear and replace as required.**

**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 and driveshafts. 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.

Dirt Logic and Performance Coilover 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, powder coating, 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 on the website, but due to unknown auto manufacturer's production changes and/or inconsistencies 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 website 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 is not responsible for premature wear of factory components due to the installation of oversized tires and wheels.

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 on our website. 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.

Depending on the condition of the factory suspension components retained after the installation of a Fabtech suspension not all vehicles may have the same ride stance front to rear as described in the website. The blue color of suspension components shown in all Fabtech photographs are for display purposes only. Majority of all Fabtech components will be black specifically where noted with part numbers ending in BK.

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. Some state laws may prohibit modification of suspension to a vehicle in whole or in part. It is the responsibility of the installer and consumer to consult local laws prior to the installation of any Fabtech suspension product to comply with such written laws.

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 super cede, 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 website or price sheet. For the most recent Product Warranty and Warnings visit our website [www.fabtechmotorsports.com](http://www.fabtechmotorsports.com)