Installation Instructions

7” Performance Suspension System
2000-2007 Classic Chevy/GMC 2WD C1500 P/U

FABTECH MOTORSPORTS
4331 Eucalyptus Ave. Chino, Ca. 91710
Tech Line 909-597-7800 FAX 909-597-7185 Web www.fabtechmotorsports.com

7” Performance Suspension System
FTS21022,FTS21023,FTS21029

Parts List

	FTS21022	99-04 Box 1 ALL
Qty	**Part #**	**Description**
2	FT20067	Strut mount tab nuts
1	FT20071	Sway Bar Link Kit
1	FT20074	Carrier bearing drop
1	FT20168	Hardware Kit
1	FT20401	Hdwr Sub-Assembly Kit
2	FT41003BK	Coil Springs
1	FT44009	Coil Spacer
1	FTS10013D	Spindle -Driver
1	FTS10013P	Spindle - Pass

	FT20401	Hdwr Sub-Assembly Kit
Qty	**Part #**	**Description**
1	FT1044	Bushing Kit
2	FT21022i	Instruction Sheet
1	FTAS12	Sticker
1	FTAS16	Warning sticker
1	FTREGCARD	Reg. Card
2	FTS88	Bumpstops

	FTS21029BK	Box 2 4 Door 2wd
Qty	**Part #**	**Description**
1	FT20116BK	Front CrossmeMber
1	FT20117BK	Rear Crossmember
2	FT20106BK	Impact Tub Mount
2	FT20065BK	Impact Tube
2	FT20025BK	Rear Bump Stop Spacer
2	FTBK31	Block
4	FT1500U-3	U-Bolt
1	FT916H	U-Bolt Hardware
2	FT20024	Add-A-Leaf
2	BTM-10X130	Center Pin 10mm
2	NUT-HM-10	Center Pin Nut 10mm
1	FT21029i	Instruction Sheet

	FTS21023	Box 2 99-04 Ext. Cab 2wd
1	FT20116	Front Crossmember
1	FT20117	Rear Crossmember
2	FT20106	Strut Mount Dual Hole
2	FT20065	Impact Strut
2	FT20025	Rear Bumpstop Drop
2	FTBK5	5" Block
4	FT1500U-3	U Bolts
1	FT916H	U Bolt Hardware

	FTS20168	
Qty	**Description**	
4	7/16" -14 x 1 1/4" bolt	
4	7/16" -14 Nylok Nut	
12	7/16" SAE Flat Wshr	
4	7/16" - 14 x 3 1/2" bolt	
2	5/8"-11 x 5 ½" bolt	
2	5/8" -11 x 4 1/2" bolt	
4	5/8" - 11 C-lock Nut	
8	5/8" SAE Flat Washer	
2	3/8" - 16 x 2" bolt	
4	3/8"- 16 Nylok Nut	
8	3/8" SAE Flat Washer	
2	1/4" - 20 x 3/4" bolt	
2	1/4" Split Lock Washer	
2	1/4" SAE Flat Washer	
2	Thread Locking Cmpd	
2	10MM-1.5 x 25MM bolt	
2	10MM Split Washer	

7” Performance Suspension System
FTS21022 & FTS21023
Warnings

THIS KIT IS DESIGNED TO BE INSTALLED ON STOCK VEHICLES ONLY. DO NOT INSTALL THIS KIT ON A VEHICLE UNLESS THE SUSPENSION IS STOCK.

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

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

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

READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED, SEVERE FRAME OR UPPER CONTROL ARM DAMAGE MAY RESULT TO THE VEHICLE.

WARNING: FABTECH RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS TO AVOID ANY POSSIBILITY OF INJURY.

THIS KIT IS NOT COMPATABLE WITH AUTO RIDE OR ELECTRONIC CONTROL RIDE SHOCK SYSTEMS.

FABTECH RECOMMENDS AFTER MARKET WHEELS WITH A MAXIMUM BACKSPACING OF 4 5/8” BE USED WITH THIS KIT.

THIS KIT MAY NOT WORK ON VEHICLES WITH 1 PIECE DRIVESHAFT.

TOOL LIST: (NOT INCLUDED)

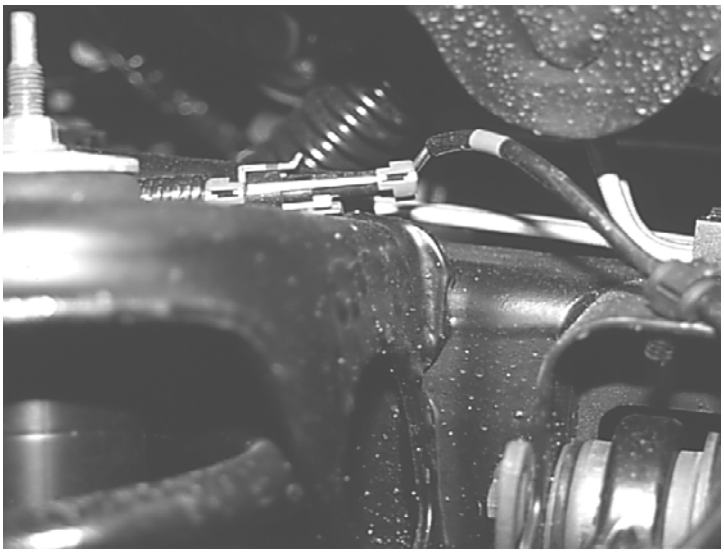
- **FLOOR JACK**
- **JACK STANDS**
- **ASSORTED METRIC AND S.A.E SOCKETS, & ALLEN WRENCHES**
- **DIE GRINDER WITH CUTOFF WHEEL OR SAWZALL**

INSTRUCTIONS:

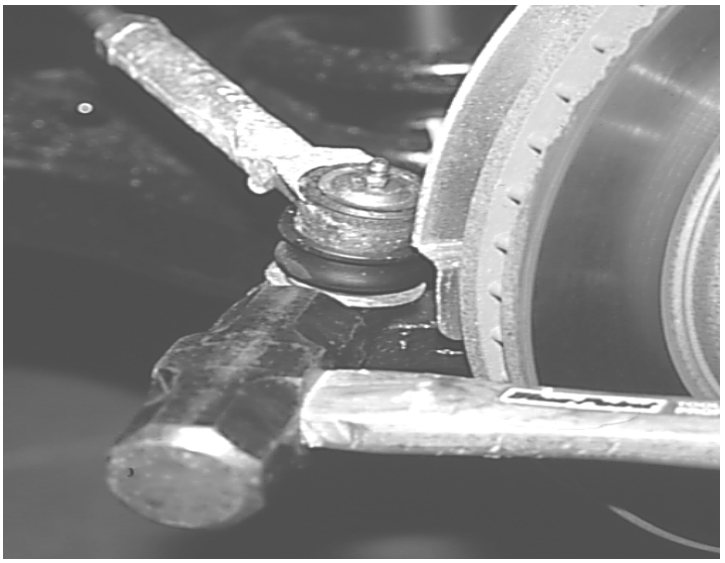
1. Disconnect the negative terminal on the battery. **With the truck on level ground measure the trucks ride height from all four corners. Record the heights for use in the installation of the kit**.

2. 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.

3. On both sides of the truck, remove the hardware securing the brake line to the spindle, discard hardware. Remove the bolts attaching the brake caliper to the spindle, save hardware. Remove the caliper and tie is up out of the way. **DO NOT ALLOW THE CALIPER TO HANG BY THE BRAKE LINE!** Remove the brake rotor. Remove the front sway bar end links and discard. Also, disconnect the ABS wire from the frame. SEE PHOTO BELOW



4. On the driver side of the vehicle support the lower control arm (LCA) with a jack and remove the front shock and discard, save hardware from lower shock mount and discard upper shock hardware. Remove the nut from the end of the tie rod and separate the tie rod from the spindle by hitting the end of the steering knuckle with a hammer, as shown above, **DO NOT HIT THE THREADS ON THE TIE ROD END.** Save hardware. SEE PHOTO IN NEXT COLUMN.



5. Locate the three factory bolts on the back side of the spindle attaching the bearing assembly to the spindle. Remove bolts and bearing assembly and save.

6. Remove the nut holding the upper ball joint to the spindle. If the ball joint shaft spins inside the spindle, insert an allen wrench in the bottom of the ball joint and loosen the nut with a wrench. Do not remove nut at this time. SEE PHOTO BELOW.

7. Separate the ball joint from the spindle by hitting the side of the spindle with a hammer. **DO NOT HIT THE THREADS ON THE BALL JOINT**. Remove the ball joint nut from ball joint than remove upper ball joint from the spindle and save hardware. Remove the nut from the lower ball joint and separate the spindle from the lower ball joint, you may need to hit the side of the spindle with a hammer to free the lower ball joint from the spindle, save nut. **BE SURE NOT TO HIT THE THREADS OF THE BALL JOINT**. Discard factory spindle. SEE PHOTO ON NEXT PAGE.

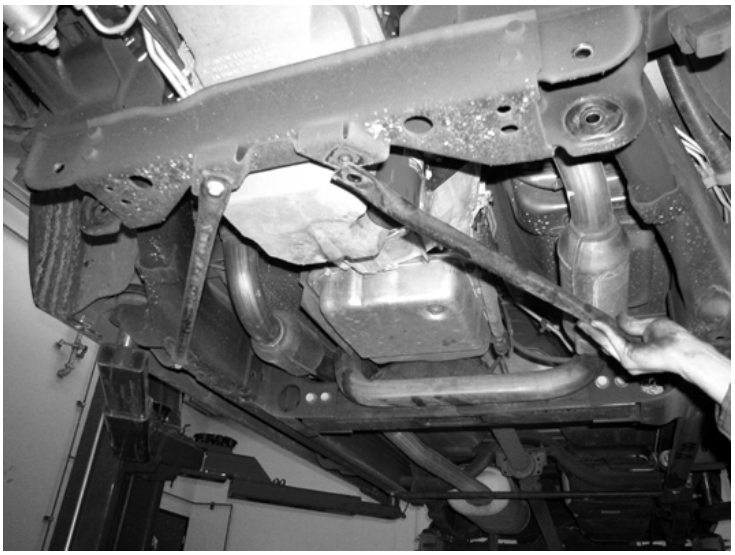
8. Slowly lower the floor jack supporting the lower control arm to release the coil spring. **EXERCISE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS UNDER LOAD!** Set the coil spring aside and make sure to remove the upper and lower spring insulators. **DO NOT DISCARD THE COIL INSULATORS, THEY WILL BE REINSTALLED ON THE NEW COILS.**

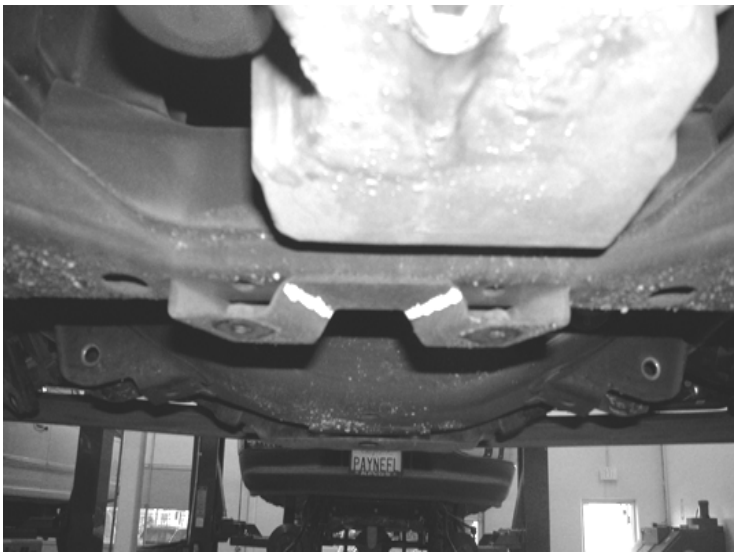
9. Remove the factory lower control arms from the truck. Save the factory hardware as you will reuse it during installation.

10. Locate the factory lower control arm bump stop on the frame. Remove and discard.

11. Repeat steps three through nine on the passenger side of the vehicle at this time.

12. If equipped, remove the factory strut tubes and discard. SEE PHOTOS BELOW AND NEXT COLUMN.



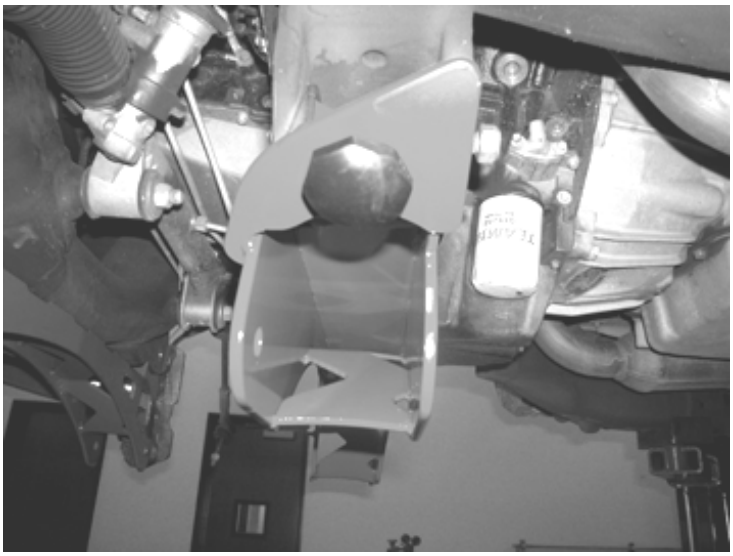


13. Locate the front mounts for the factory strut tubes previously removed. Mark as indicated above. With a die grinder and cutoff wheel cut the mounts from the frame. SEE PHOTO BELOW.

14. Locate the new Fabtech front crossmember (FT20116). Install the crossmember onto the two front lower control arm pockets. Use factory hardware, and hand tighten at this time.

NOTE:
ON SOME MODLES THE CROSSMEMBER BOLT HOLES MAY BE SLIGHTLY OFF TO LINING UP WITH THE FRAME. IF THIS IS THE CASE USING A SMALL GRINDER, OPEN THE FACTORY HOLES UP ON THE FRAME TO MATCH THE NEW CROSSMEMBER. THIS MAY BE THE CASE ON BOTH FRONT AND REAR CROSSMEMBERS.

15. Locate the new Fabtech rear crossmember (FT20117). Install the two low profile bump stops (FTS88) onto the Fabtech crossmember with the supplied 3/8 nuts and washers, torque to 5 lbs. Install the rear crossmember into two rear lower control arm pockets. Use factory hardware, and leave loose at this time. SEE PHOTOS ON NEXT PAGE.



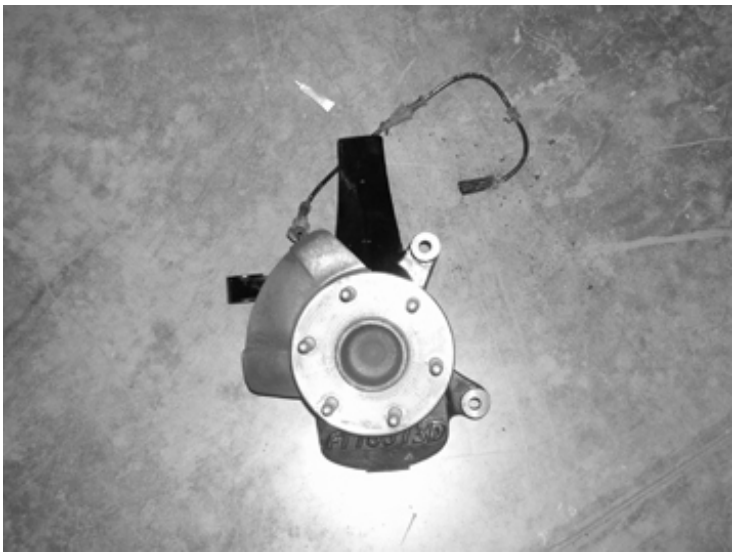
16. On the driver side of truck, locate the factory lower control arms. Install onto the new Fabtech crossmembers. Using the 5/8" x 5 ½" bolt, nut and washer on the rear pivot mount and the 5/8" x 4 ½" bolt, nut and washer on the front pivot mount. Leave loose. SEE PHOTO BELOW.

17. Refer to the ride height measurements recorded before the beginning of the installation. If the truck at stock height was sitting lower on the driver side front, install the supplied FT44009 coil spacer on the driver side coil only. The coil spacer if used will be installed on top of the factory coil isolator.

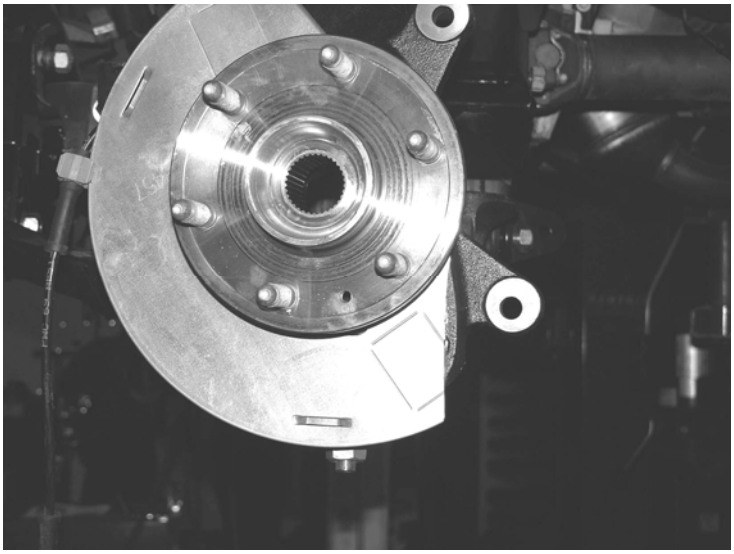
18. Take one of the lift coil springs and attach the original lower coil insulator onto the bottom of the coil spring, the logo is at the bottom of the coil spring. Using electrical tape, attach the original upper coil insulator to the top of the coil spring. .

19. Lower the LCA as far as possible and position the top of the coil spring into the upper coil mount. Rotate the coil spring aligning the bottom of the coil spring with the timing pocket in the LCA. Using a floor jack raise the lower control arm to hold the coil spring in place. **EXERCISE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS UNDER LOAD!** SEE PHOTO BELOW.

20. Locate the new Fabtech lift spindle FT10013D. Install the factory bearing assembly with dust shield into the new spindle assembly. Make sure the hub assembly is seated properly. Using the factory hardware and thread locking compound on each bolt, torque to 133 ft/lbs. SEE PHOTO BELOW AND ON NEXT PAGE



On 2005-2007 models the dust shield will need to be trimmed as shown below. Using a die grinder with a cut off wheel make a straight cut allowing clearance for the caliper

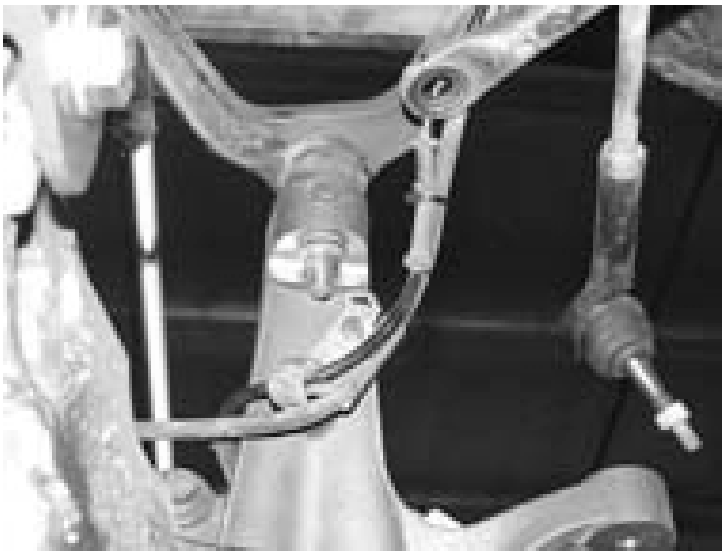


21. Attach the new Fabtech spindle onto the lower ball joint using the original nut. Torque the lower ball joint nut to 90 ft/lbs. Holding the top of the spindle inboard slowly raise the floor jack to set the upper ball joint into the spindle. You may have to move the floor jack as far out as possible on the LCA to raise the LCA high enough. **DO NOT RAISE THE JACK HIGH ENOUGH TO LIFT THE TRUCK OFF THE JACK STANDS. USE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS TO AVOID ANY POSSIBILITY OF INJURY. MAKE SURE THE BRAKE CALIPER IS TO THE REAR OF THE FENDER WELL AT THIS TIME, AS IT WILL BE REINSTALL LATER.**

22. When the upper ball joint is fully seated in the spindle install the factory lock nut. Torque to 37 ft/lbs. Install a Fabtech FTS9331 shock in the stock position (not included in kit) torque upper shock nut to 15 lbs and lower nuts to 19 lbs. Lower the floor jack supporting the LCA.

23. Now torque pivot bolts on LCA and the crossmember to 107 lbs.

24. Re-route the brake hose to the steering knuckle using the factory steel guide clamp to the back of the steering knuckle and attach with ¼" x 3/4" bolt, flat washer, and lock washer. Torque to 10LBS. Check to make sure that the brake hose is routed as to allow full turning radius to the steering without tire or suspension component contact. Route the ABS line to the front leg of the upper control arm next to the brake hose. Reattach to factory clips on upper control arm. SEE PHOTO BELOW



25. Reinstall the brake rotor onto the spindle. Reinstall brake caliper onto spindle, use thread locking compound on the caliper bracket bolts and torque to 129 ft/lbs

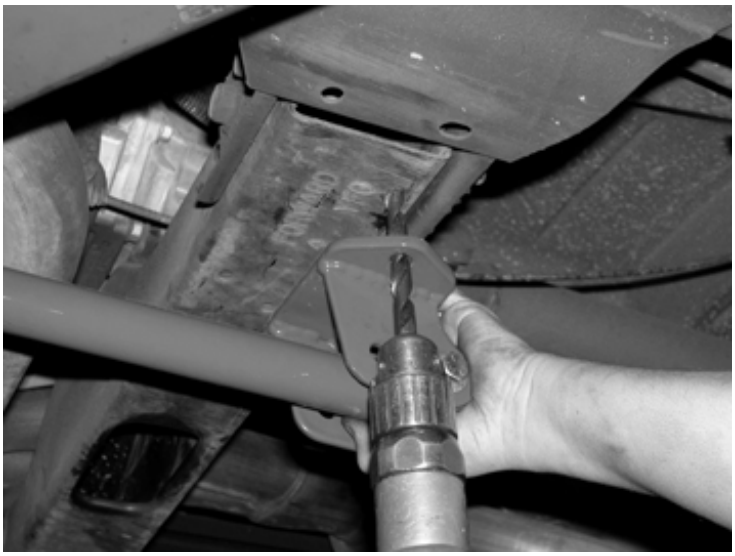
26. Remove the outer tie rod ends from the truck and leave the jam nut on the inner tie rod end. Using a die grinder with a cut off wheel carefully cut 1/4" from the end of the inner tie rod end. Reinstall the outer tie rod end back onto the inner tie rod end. Leave jam nut loose to set the toe on the alignment once the truck in completed.

27. Reinstall the tie rod onto the spindle using the factory nut. Torque to 45 ft/lbs.

28. Repeat steps fourteen through twenty-seven on the passenger side of the truck.

29. Locate the factory sway bar. Disconnect from the frame and flip upside down, reinstall using factory hardware torque to 24 lbs. Locate the new Fabtech sway bar end links (FT20071) and reconnect sway bar to lower control arm. **AT TIMES IT MAY BE EASIER TO RECONNECT THE SWAY BAR END LINKS WHEN THE TRUCK IS BACK ON THE GROUND.**

30. Locate and install the FT1044 bushings into the Impact Strut Tubes (FT20065). Attach the Impact Struts into the tabs on the backside of the lower control arm crossmember using the 7/16" x 3 ½" bolt, nut, and washers. On the other end of the impact strut tube attach the new impact tube bracket (FT20106) with the 7/16" x 3 ½" bolt, nut, and washer to the rear most hole of the bracket. Now raise the impact tubes up until the new bracket comes in contact with the transmission crossmember. Hold the bracket against the crossmember mark the holes and drill out to a 7/16"hole. Attach the bracket to the crossmember with the supplied 7/16" bolts, nuts and washers. Torque to 45 ft/lbs. SEE PHOTOS BELOW



REAR INSTRUCTIONS

FOR CREW CAB MODLES SEE INSTRUCTION SHEET ENCLOSED IN FTS21029BK BOX

31. Jack up the rear end of the vehicle and support the frame rails with jack stands. Supporting the rear differential, remove and discard the rear shocks and u bolts. Lower the axle down slowly. Use care, not to over extend the brake hose.

32. Locate and install the rear lift blocks with the provided short center pin on the bottom of the block, to the axle. The short end of the block should face to the front of the vehicle. Using the provided U bolts, nuts and washers align axle, lift blocks, and springs and torque to U Bolts to 90lbs. SEE PHOTO BELOW.

33. Remove rear rubber bump stops and discard factory hardware. Install the new Fabtech bump stop extension bracket using 10mm x 25mm bolt and lock washer. Reinstall factory rubber bumps stop to the bottom of the new bracket. SEE PHOTO BELOW.

34. For vehicles with a two-piece rear driveshaft locate and install FT20074 spacer between the carrier bearing and frame. Push out stock mounting bolts and use 3/8" x 2" bolts, nuts and washers. Torque to 30LBS. SEE PHOTO ON NEXT PAGE.

35. Install the new Fabtech shocks and Torque to 65 lbs using factory hardware on both upper and lower mounts.

36. Reinstall the wheels and tires and torque the lugs nuts to wheel manufacture specifications. Set the truck back onto the ground and set the toe in to factory specifications. **WHILE TURNING THE STEERING WHEEL FULLY IN EACH DIRECTION, MAKE SURE THERE IS AMPLE CLEARANCE BETWEEN THE WHEELS, TIRES, CONTROL ARMS, BRAKE LINES AND ABS WIRES, TRIM FENDERS AS REQIURED.**

37. Recheck all nuts and bolts for proper torque tightness before driving. Drive the truck for 50 miles and have it aligned 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 a part 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 #- FT21022i 2/25/13 GS