



Installation Instructions



8" Rear Crawler System

FTS24048BK

1987-1995 JEEP YJ 4WD

Fabtech Motorsports 4331 Eucalyptus Ave. Chino, CA 91710
Tech Line 909-597-7800 Fax 909-597-7185 Web www.fabtechmotorsports.com



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*8" Rear Crawler System
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Parts List:

FTS24067BK Sub-Box 1		
Qty	Part #	Description
2	FT50222BK	Rear Leaf Shackle
1	FT50264	Bushing & Sleeve Kit
2	FT50243BK	Rear Axle Saddle
2	FT50244BK	Rear U-Bolt Plate
4	FT730U	U-Bolt
1	FT12H	1/2" U-Bolt Hardware
2	FTT20	Pass. Rear Shock Tabs
2	FT50272	Drv. Rear Shock Tabs
1	FT50251	Hardware Kit
1	FT50035	Rear Brake Hose
1	FTT79	Brake Line Clip
1	FT50268	E-Brake Cable Guide
FTS24068BK Sub-Box 2		
Qty	Part #	Description
1	FT50254BK	Traction Bar
1	FT50255	Traction Bar Axle Mount weld on
1	FT50258BK	Crossmember
1	FT50256BK	Crossmember Frame Bracket Drv
1	FT50257BK	Crossmember Frame Bracket Pass
1	FT50259BK	Shackle Traction Bar
2	FTS43	Mis-Alignment
1	FTS98003	Heim 3/4"
2	FTS98002	Solid Heim 3/4"
2	FT24048i	Instruction Sheet
2	FTS44016	Rear Leaf Pack (not included)



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FT50251 Rear Hardware Kit

Qty.	Description	Location
2	1/2"-13 X 2 3/4" Hex Cap Bolt	Rear Shock Bolts
2	1/2"-13 C-locks	
4	1/2" SAE Washer	
2	1/2"-13 X 4 1/2" Hex Cap Bolt	Rear Shackle @ Leaf Spring
2	1/2"-13 C-locks	
4	1/2" SAE Flat Washer	
2	9/16"-12 X 4 1/2" Hex Cap Bolt	Rear Shackle @ Frame
2	9/16"-12 C-locks	
4	9/16" SAE Washers	
8	1/2"-20 C-Locks	U Bolts Front And Rear
8	1/2" SAE Washer	
4	7/16"-14 X 4 1/2" Hex Cap Bolt	Rear Traction Bar Frame Brk.
4	7/16"-14 C-Locks	
8	7/16" SAE Flat Washer	
2	1/2"-13 X 4 1/4" Hex Cap Bolt	Rear Traction Bar Cross bar
2	1/2"-13 C-Locks	
4	1/2" SAE Flat Washer	
1	1/2"-13 X 4 1/2" Hex Cap Bolt	Rear Traction Bar @ Pivot
1	1/2"-13 C-Locks	
2	1/2" SAE Flat Washer	
1	1/2"-13 X 3" Hex Cap Bolt	Rear Traction Bar @ upper Heim
1	1/2"-13 C-Locks	
2	1/2" SAE Flat Washer	
3	3/4"-16 Jam Nuts	Rear Traction Bar
2	3/4"-10 X 2 1/2" Hex Cap Bolt	
2	3/4"-10 C-Lock	
4	3/4" SAE Flat Washer	



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**** THIS SYSTEM IS DESIGNED TO BE USED ONLY WITH THE STOCK FACTORY YJ AXLES ****

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.

CHECK ALL PARTS INCLUDED IN THIS KIT TO THE PARTS LIST BEFORE BEGINNING INSTALLATION OF THE KIT. THE LIST HAS ALL THE APPLICATIONS FOR ALL THE VARIATIONS OF THE SYSTEMS. VERIFY THAT YOU HAVE THE CORRECT COMPONENTS FOR YOUR PARTICULAR APPLICATION AND SYSTEM SELECTED. IF ANY PIECES ARE MISSING, CONTACT FABTECH AT 909-597-7800

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

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 REQUIRE WELDING FOR INSTALLATION.

THE INSTALLATION OF THIS SUSPENSION SYSTEM SHOULD BE PERFORMED BY TWO PROFESSIONAL MECHANICS.

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

THIS SUSPENSION SYSTEM MUST BE INSTALLED WITH FABTECH SHOCK ASBORBERS

WILL NOT FIT ON 4CYL.



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REAR DRIVE SHAFT INFORMATION

MODELS EQUIPPED WITH A NP231 TRANSFER CASE- INSTALLATION OF A FIXED YOKE CV STYLE REAR DRIVESHAFT AND FIXED YOKE KIT WILL BE REQUIRED WITH THIS SYSTEM TO REDUCE DRIVELINE VIBRATION.

THE JEEP YJ'S FROM 1987-1995 CAME WITH TWO OPTIONS FOR REAR DRIVESHAFTS. TO DETERMINE WHICH DRIVESHAFT YOUR VEHICLE IS EQUIPPED WITH, MEASURE THE WIDTH ON THE U-JOINT AT THE REAR AXLE. THE TWO OPTIONS ARE 3 1/4" OR 3 5/8". THE 1987 – 1993 MODELS PREDOMINATELY CAME WITH THE 3 1/4" AND THE 1994-1995 MODELS CAME WITH THE 3 5/8" U-JOINT. DUE TO MANY DIFFERENT ASSEMBLY PLANTS, YOU **MUST** MEASURE THE DRIVESHAFT ON YOUR JEEP TO DETERMINE WHICH SHAFT YOU HAVE.

FTS94004 FIXED YOKE KIT
FTS94045 CV DRIVESHAFT w/ 3 1/4" / 1310 U-JOINT
FTS94046 CV DRIVESHAFT w/ 3 5/8" / 1330 U-JOINT

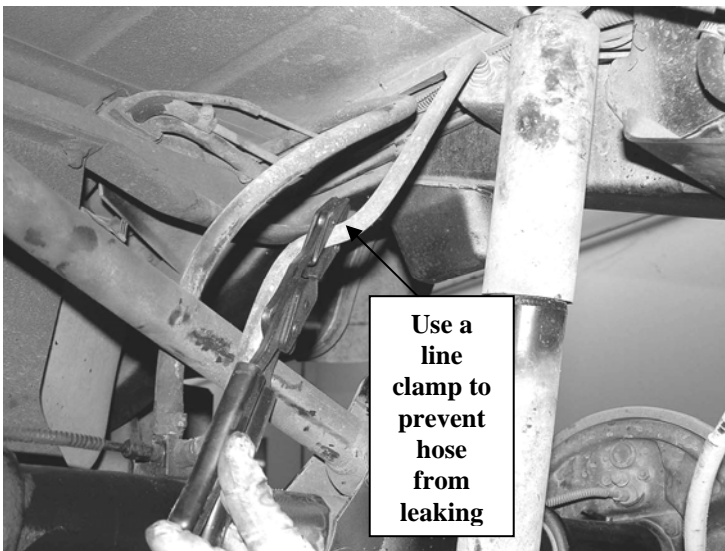
THE SHOCK TABS PROVIDED WITH THIS KIT ARE A WELD-ON INSTALLATION. ONLY AN EXPERIENCED CERTIFIED WELDER SHOULD COMPLETE THIS INSTALLATION.

TOOL LIST: (NOT INCLUDED)

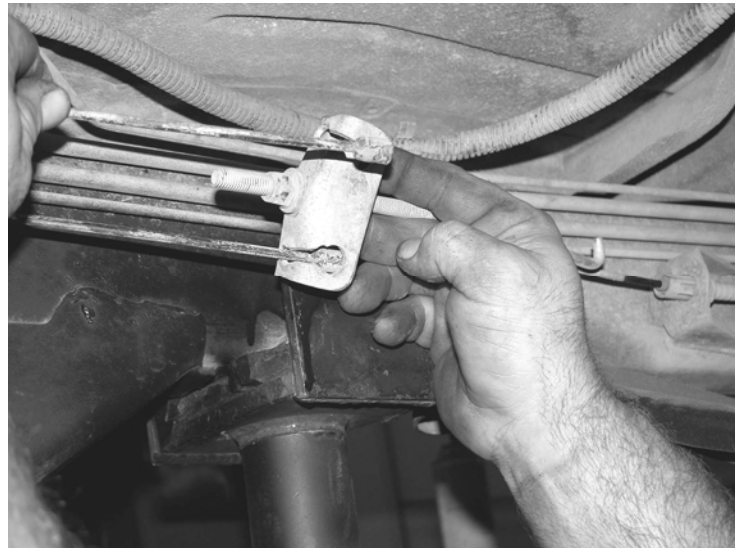
- FLOOR JACK & JACK STANDS
- ASSORTED METRIC AND S.A.E SOCKETS, & WRENCHES
- TORQUE WRENCH
- DRILL WITH ASSORTED DRILL BITS
- DIE GRINDER w/ CUT OFF WHEEL & SANDING DISC
- MIG WELDER

REAR SUSPENSION INSTRUCTIONS:

1. Disconnect the negative terminal on the battery. Jack up the rear end of the vehicle and support the frame rails just in front of the rear bumper with jack stands.
2. Using a transmission jack or floor jack carefully support the transmission. Remove the four transmission mount nuts from the center of the crossmember and save. Remove factory transmission crossmember from the frame mounts. Save the factory hardware and the crossmember. **(If installing new optional Fabtech Pan section, discard the factory transmission crossmember and hardware)**
3. Remove the rear drive shaft and discard with the hardware. A fixed yoke conversion and C.V. rear drive shaft will need to be installed. Remove the front driveshaft and save with the hardware. Remove the transfer case at this point, save all hardware from transfer case. Locate the FTS94004 (not supplied with this system) T-case conversion kit and follow the instructions in that kit to complete the conversion. **SEE NOTES AT THE BEGINNING OF INSTRUCTIONS ABOUT DRIVELINE**
4. Re-Install T-Case and factory crossmember using the factory hardware **(or new Fabtech Pan and hardware)**. Locate and install factory front drive shaft with factory hardware **(check for wear in the U-Joints and replace as necessary)**.
5. Working on both sides of the truck and supporting the rear differential with a jack, remove and discard the rear shocks, save upper shock hardware. Use a line clamp or small vise grip to crimp the factory line to keep the fluid from draining and disconnect the rear brake hose from the rear axle. **SEE PHOTO BELOW**

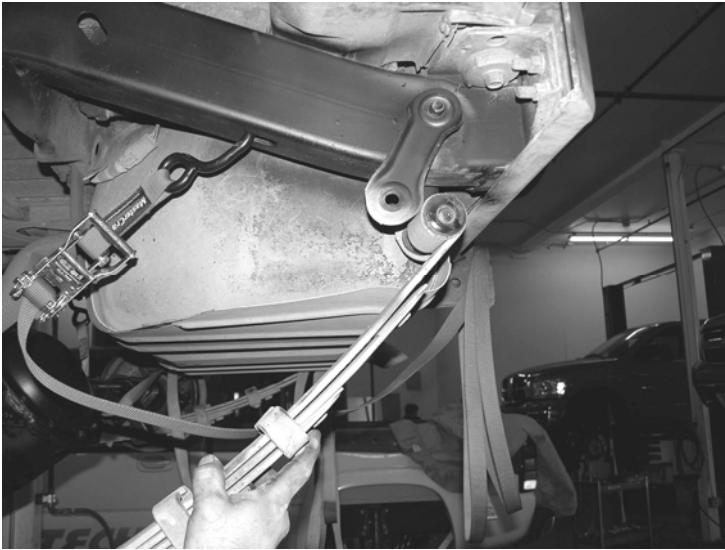


6. Locate, remove, and discard the trac bar and hardware
7. Locate the factory E-Brake cable adjuster. Measure the amount of threads above the adjustment nut and write it down and **only** loosen the adjuster enough to remove the cables from the cable retainer. Next remove the cables from the E-brake cable bracket on the frame and body and save with the hardware. **SEE PHOTO S IN NEXT COLUMN.**



8. Supporting the rear differential with two floor jacks or two heavy duty ratchet straps, remove and discard the factory leaf springs, shackles, u-bolts with the spring plates, front bumpstops, and hardware (Do not remove center the bumpstops). Lower the axle and remove from under the Jeep. **SEE PHOTOS BELOW AND ON NEXT PAGE.**



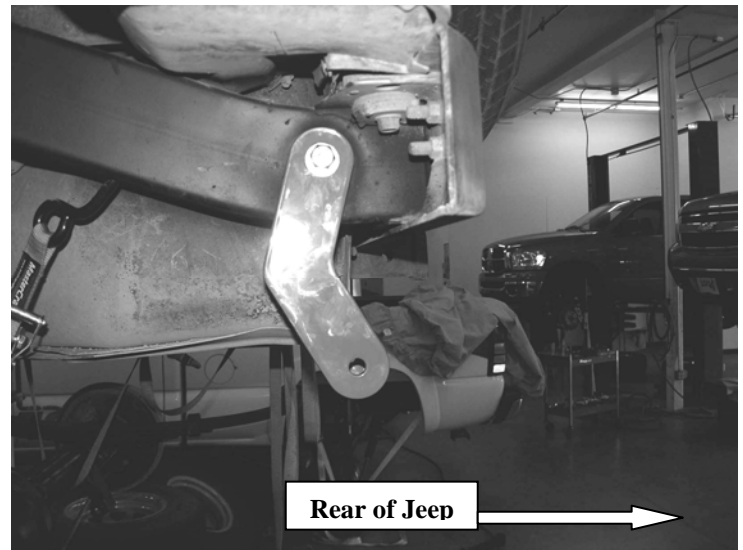


9. Remove the shackle bushings with the sleeves from the frame and discard. Locate the supplied bushings and 1/2" I.D. sleeves. Apply a small amount of grease to the bushings and sleeve. Press the bushings into the frame first, then the sleeve SEE PHOTO.



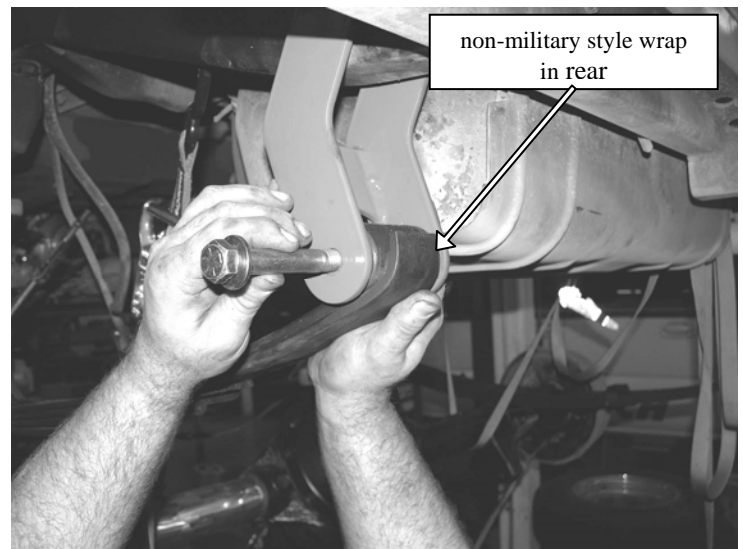
10. Locate FT50222 Rear Leaf Shackle and the supplied 1/2" x 4 1/2" bolt and hardware. Place the shackle over the bushings

(the part of the shackle **without** the center gusset goes up) and install with the bend of the boomerang facing towards the rear of the Jeep. Leave loose at this time. SEE PHOTO BELOW

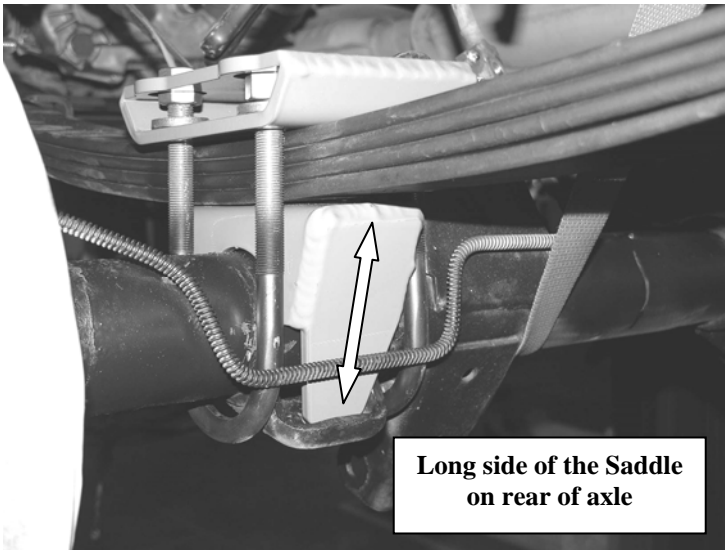


11. Locate supplied leaf spring bushings and 9/16" sleeves and install them into the rear leaf springs.

12. Install the assembled rear leaf pack with the supplied 9/16" x 4 1/2" hardware. Install the spring with the large military style wrap in the front mount first, then into the new boomerang shackle. Leave loose at this time. SEE PHOTO BELOW.

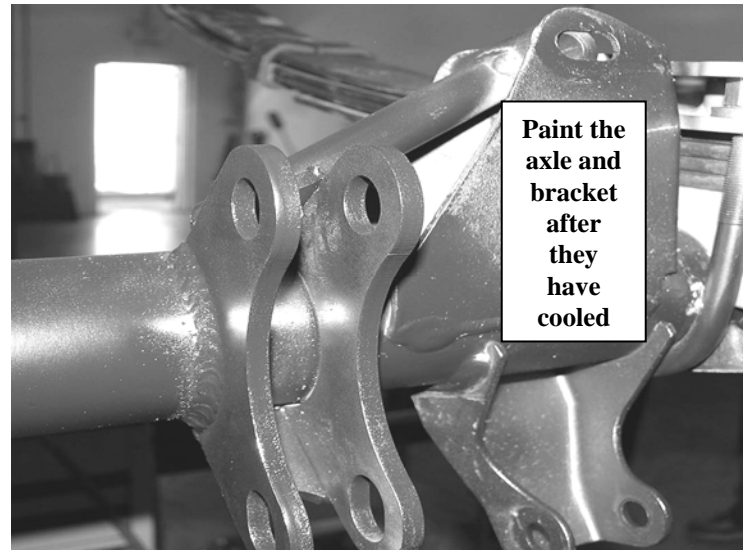
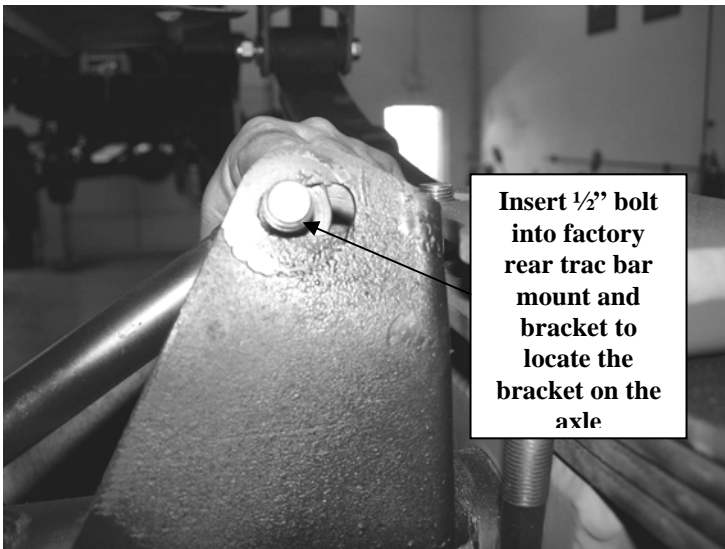


13. Locate FT50243 Rear Axle Saddles, FT50244 Rear U-bolt Plates, and supplied U-bolts. Place the Saddles on top of the axle inside the factory leaf spring perch (**the longer side of the Saddle goes towards the rear of the Jeep**). Raise the axle enough for the saddle to make contact with leaf springs. Place the u-bolt plates on top of the springs and install the u-bolts and supplied hardware. Torque to 75 ft. lbs. SEE PHOTO ON NEXT PAGE.

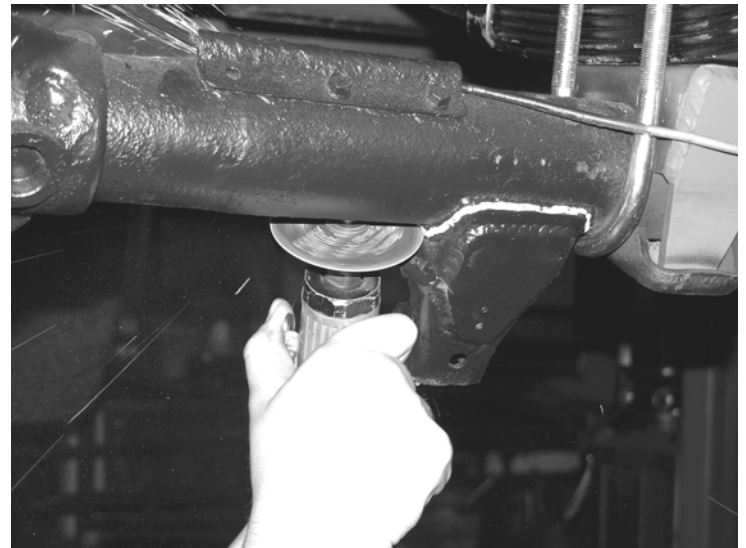


14. Locate FT50255 Traction Bar Axle Mount “weld on” and supplied 2 $\frac{3}{4}$ ” hardware. Position the bracket on the driver’s side axle and into the factory trac bar mount (clean the axle tube of any paint or grease). Insert the $\frac{1}{2}$ ” hardware and tighten only enough to hold the bracket to the axle for welding at this time (**make sure bracket is flush on axle tube**). Weld the bracket to axle housing. Paint the bracket and axle housing after they have cooled. SEE PHOTOS BELOW AND IN NEXT COLUMN.

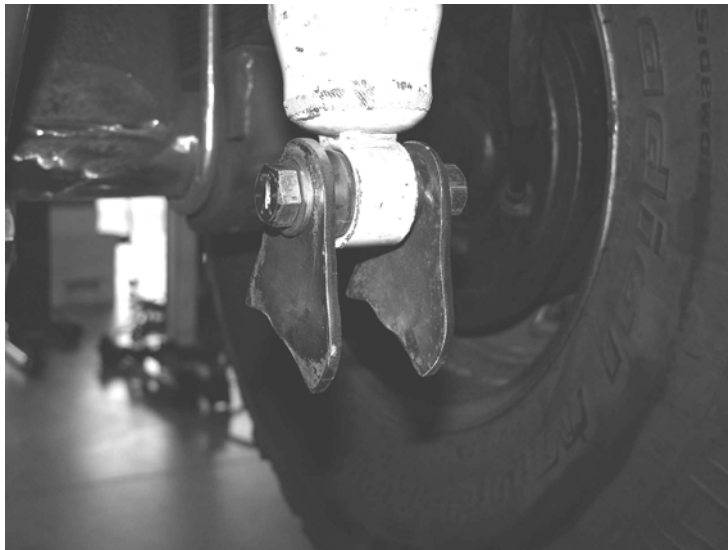
ONLY AN EXPIRENCED CERTIFIED WELDER SHOULD COMPLETE THIS INSTALLATION



15. Locate the factory lower shock mounts on the axle. Using a die grinder with a cut-off wheel, cut and remove both of the factory mounts from the axle. Once they are removed, use a die grinder with a sanding disc to remove the remainder of the bracket. SEE PHOTOS BELOW.



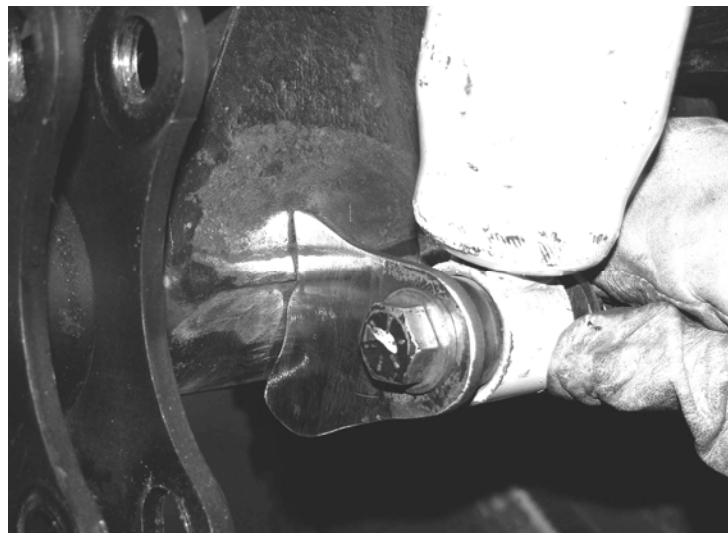
16. Working from the driver's side, locate FT50272 Driver Side shock tabs, FTT20 Passenger side shock tabs, supplied $\frac{1}{2}$ " x $2\frac{3}{4}$ " hardware, factory upper shock hardware, and FTS7129 rear shocks (not included in this kit). Insert one of the provided shock sleeves into the bushings on the body end of each shock. Mount the shocks (with the body down) to the upper shock mount with the factory hardware. Fully extend the shocks. Mount the tabs to the shocks with the $\frac{1}{2}$ " hardware and leave loose. **Fabtech shocks must be used with this system. They are the suspension / driveline limiting stop.** SEE PHOTO BELOW.



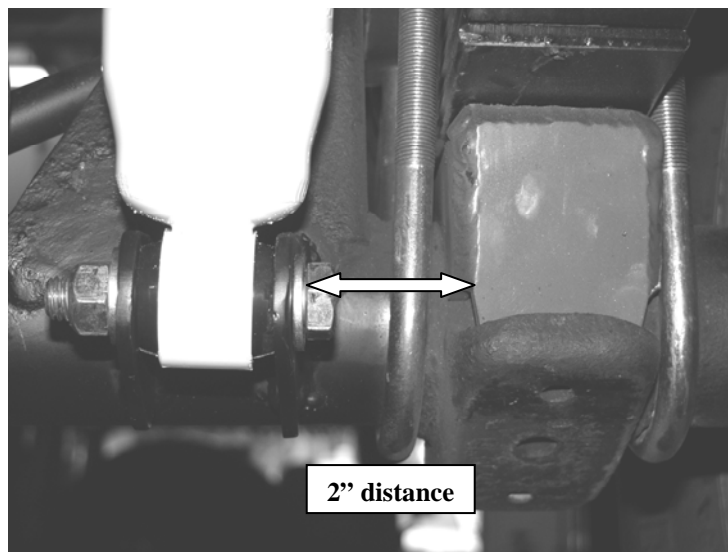
Driver Side Shown

17. Use a floor jack to raise the axle so that the axle hub-to-fender height is **28 3/8" on both sides of the Jeep**. On the driver's side, place the tabs up to the axle and position them so the tab fits on the trac bar bracket and axle with the shocks fully extended. The outer tab mounts **2"** inward from the Fabtech axle saddle. Place tack welds on the corners of each tab to the axle. On the passenger side, place the tabs up to the axle and position them so they are at the same position as the driver's side tabs with the shocks fully extended. The outer tab mounts **2"** inward from the Fabtech axle saddle. Place tack welds on the corners of each tab to the axle. Double check all of the measurements and remove the shocks. Weld both sides on each of the gussets to the axle tube. Once cooled, paint the axle and tabs and re-install shock. Torque the upper hardware to 44 ft. lbs and the lower to 75 ft. lbs. SEE PHOTOS IN NEXT COLUMN.

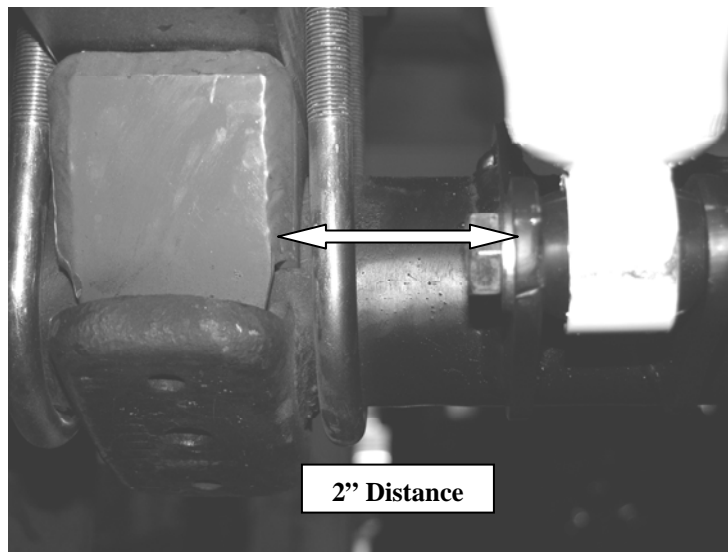
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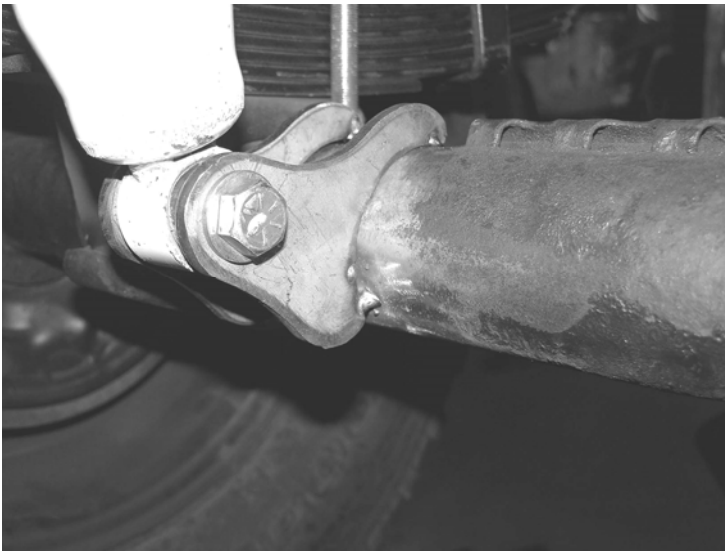
Driver Side Shown



Driver Side Shown



Passenger Side Shown

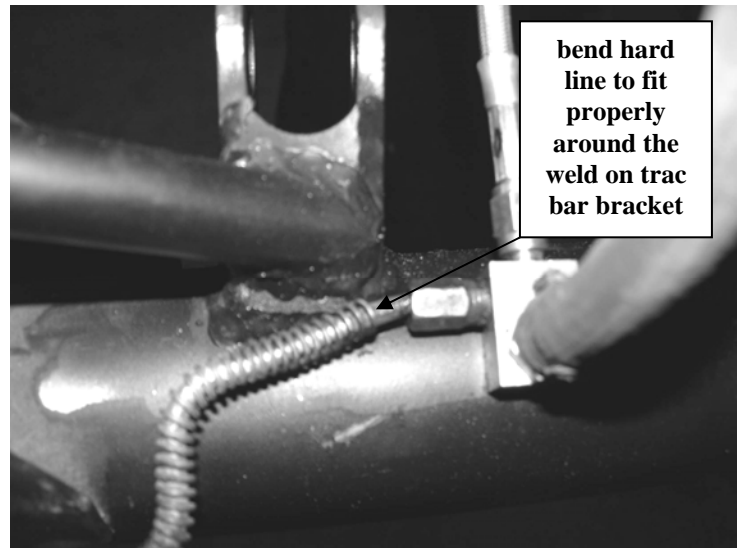
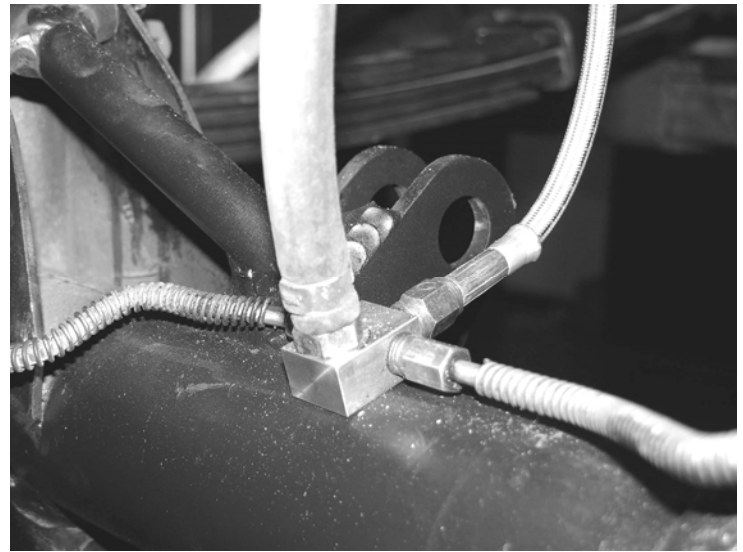


Passenger Side Shown

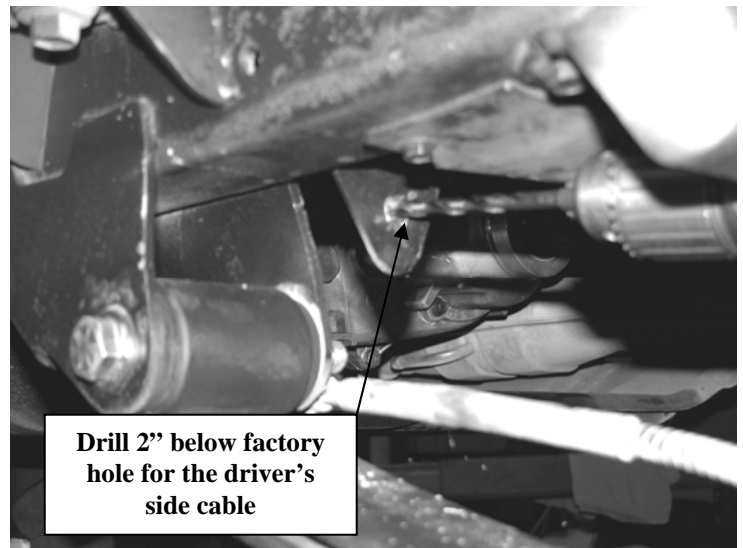
18. Locate the factory brake hose from the frame to the rear axle. Remove and discard hose. Locate the Fabtech rear brake hose FT50035 and FTT79 brake hose clip. Slide the new brake hose through the factory bracket and attach the brake hose to the hard line on the frame. Using the supplied brake hose clip FTT79, attach the brake hose to the bracket. Then attach it to the hard line on the axle using the factory hardware. SEE PHOTOS BELOW ON IN NEXT COLUMN.



Hose needs run down from factory hard line and parallel the frame



19. Locate the factory bottom hole on the e-brake cable retainer for the driver's side. Measure down 2" and drill a 9/16" hole and insert the driver's side cable. SEE PHOTO BELOW.

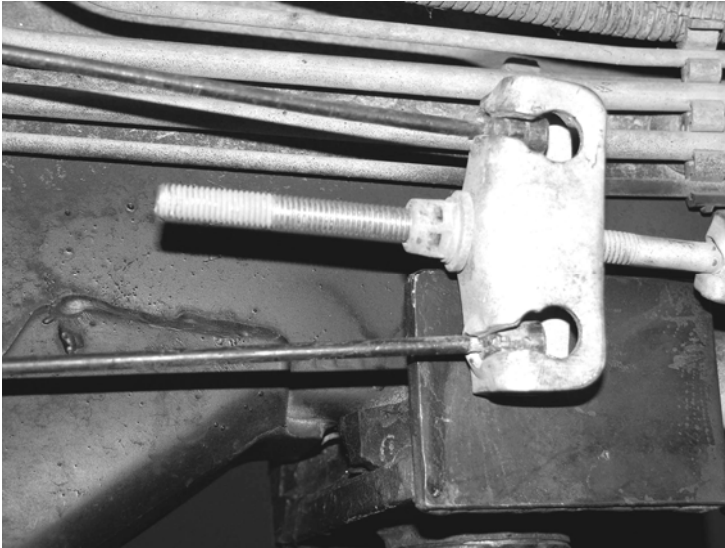


20. Route the passenger side cable over the top of the leaf spring and then over the top of the muffler hangers and insert into the retainer.

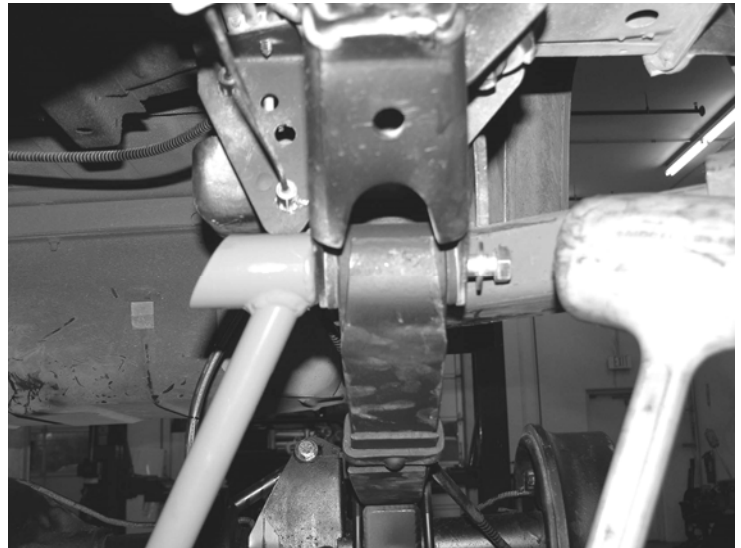
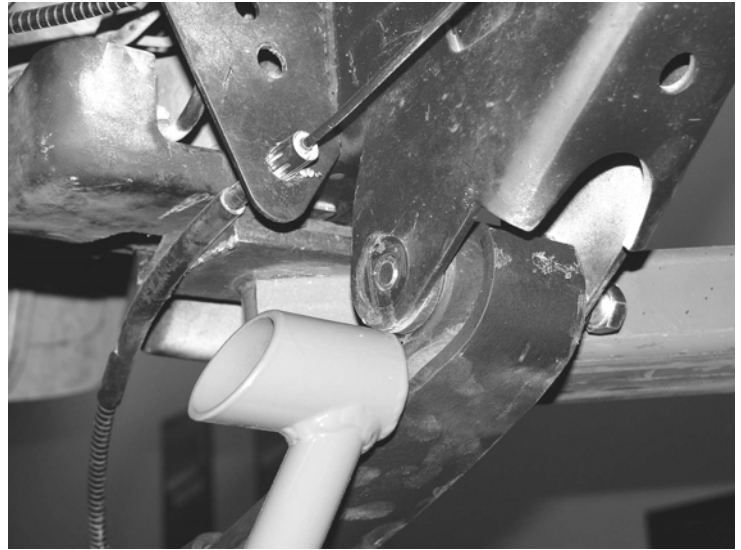
21. Install the passenger cable body bracket with factory hardware back into the factory location. Carefully bend the bracket just enough for the cable to clear floor pan. SEE PHOTO BELOW



22. Connect the cables back into the adjuster and set back at original setting (**refer to earlier measurement of threads above the adjuster nut**). If additional adjustments are required, refer to owners manual for proper procedure SEE PHOTO BELOW.



23. Locate the FT50258 Traction Bar Crossmember. Remove the C-Lock nuts from the front bolts on the leaf springs and pull the bolts out just so that the end of the bolt is flush with the spring mount. Place the crossmember up to the spring mounts (**main bar of the crossmember will mount in front of the leaf springs**) and re-install the bolts and hardware. (leave loose). SEE PHOTOS IN NEXT COLUMN.



24. Locate FT50256 (driver) and FT50257 (pass.) Crossmember frame brackets and supplied $\frac{1}{2}$ " x $4\frac{1}{2}$ " bolts and hardware. Place the brackets on the crossmembers so the angled face of the bracket is facing forward on the truck and install the hardware (leave loose). Rotate the crossmember with the brackets up onto the frame until the bottom of the bracket is flush with the bottom of the frame. Using a paint pen or punch, mark the holes of the brackets onto the frame. Swing the crossmember and brackets down from the frame. SEE PHOTOS AND DIAGRAMS ON NEXT PAGE

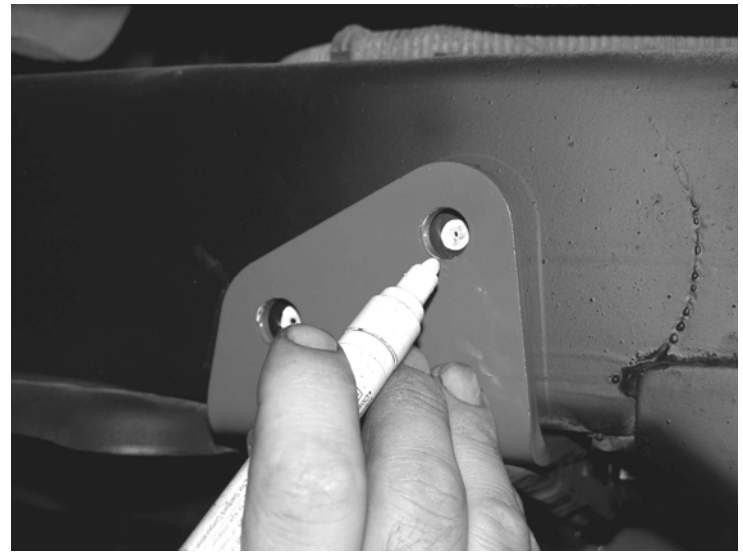
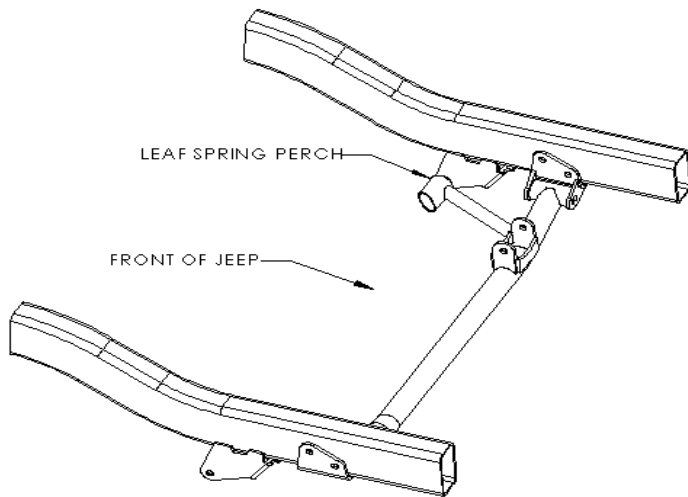


Photo of Driver's side

25. Use a drill with a long 1/4" drill bit, drill the two holes on the outside of the frame completely through the frame. **IT IS VERY IMPORTANT TO DRILL THESE HOLES STRAIGHT!!** Follow with a 7/16" drill bit completely through both sides of the frame. Using a 5/8" drill bit, **ONLY** drill the outer hole out to 5/8". **USE CARE WHEN DRILLING THROUGH THE FRAME AS THERE ARE FUEL LINES AND ELECTRICAL ON THE BACKSIDE OF THE FRAME, USE CARE NOT TO DRILL INTO THEM. SEE PHOTOS BELOW AND ON NEXT PAGE**

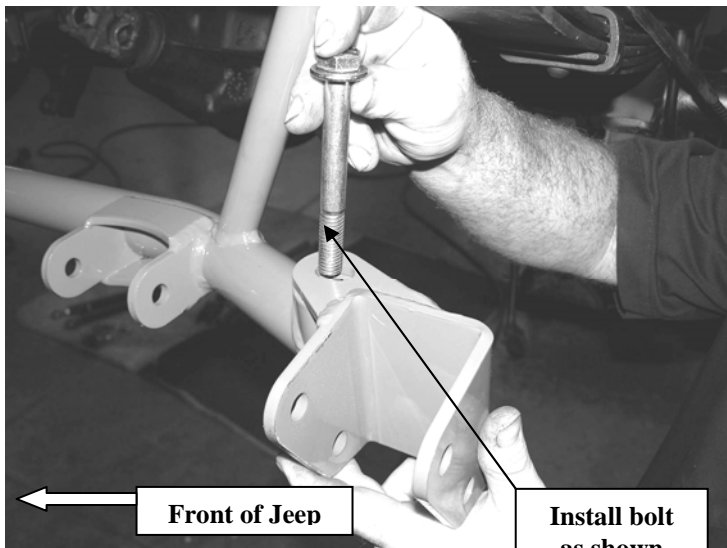


Photo of Driver's side

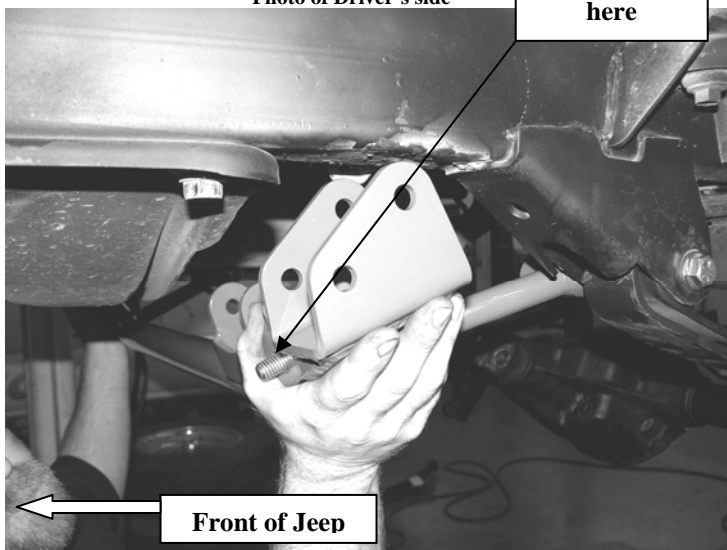
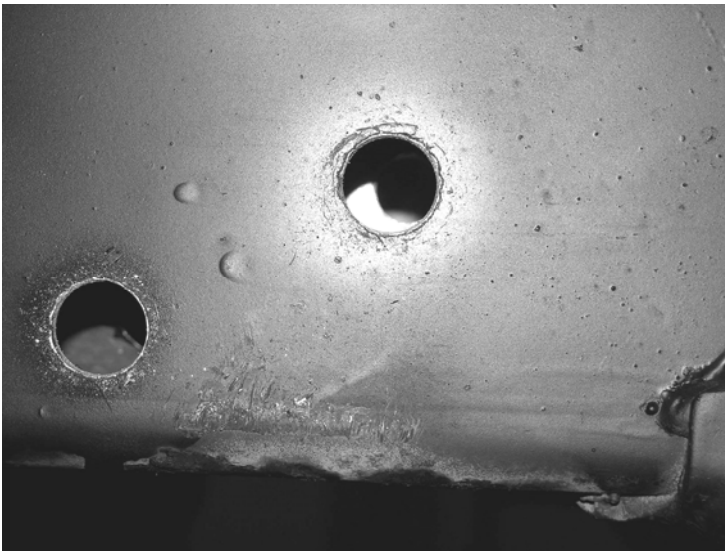
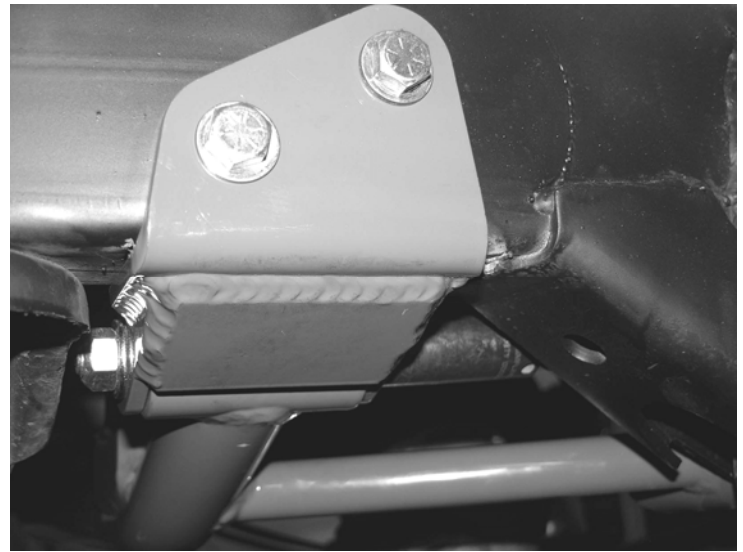
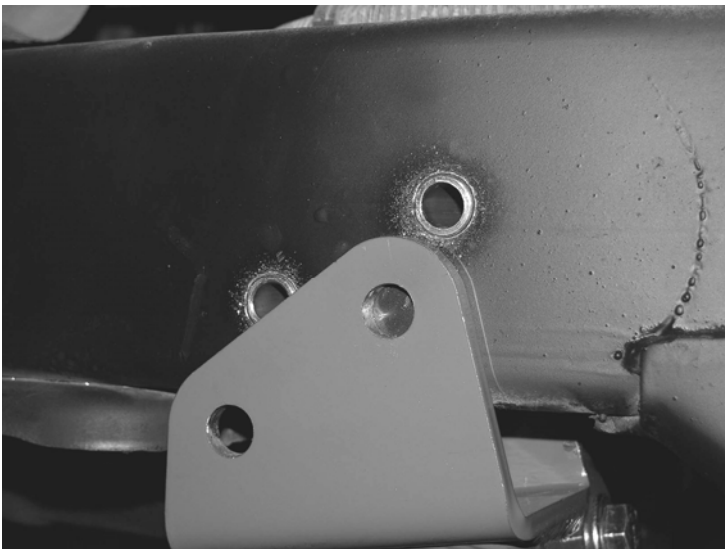


Photo of Driver's side

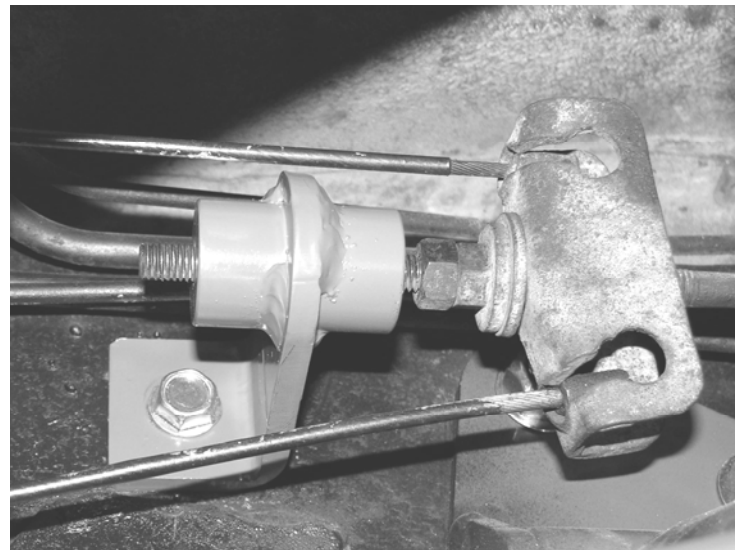




26. Insert two of the supplied 7/16" I.D. frame sleeves in into the previously drilled holes. Swing the crossmember back up onto the frame and attach the brackets using 7/16" x 3 3/4" " bolts and washers. Torque the 7/16" bolts to 50 ft. lbs. and the 1/2" bolts to 75 ft. lbs. SEE PHOTOS BELOW AND IN NEXT COLUMN.

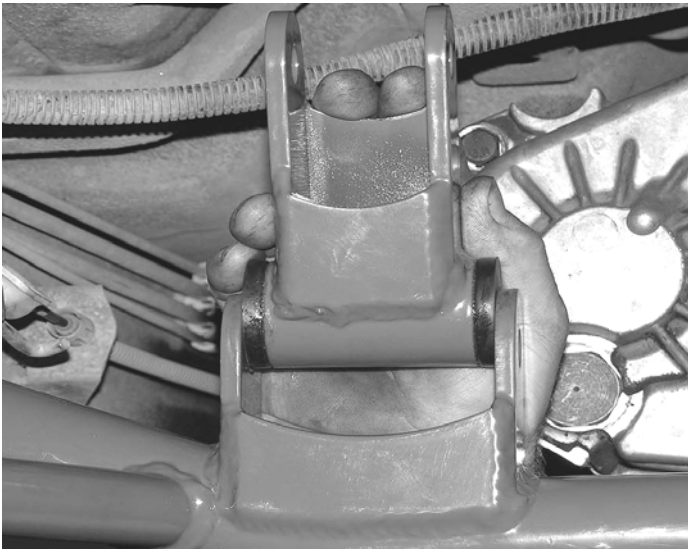
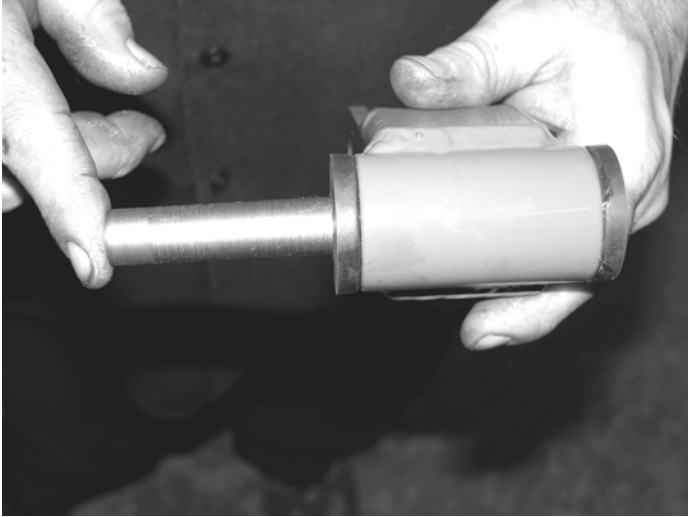


27. Locate FT50268 E-Brake Cable Guide and supplied 5/16" self-threading bolt. Place the cable guide onto the end of the e-brake adjuster so that it is in the middle of the stud and flush on the frame. **(this will keep the cable equalizer bar above the traction bar crossmember)**. Use a paint pen or punch to mark the location of the new hole. Remove the guide and drill a 17/64" hole. Place the guide back onto the frame and install the self-threading bolt. (do not over tighten). SEE PHOTO BELOW.



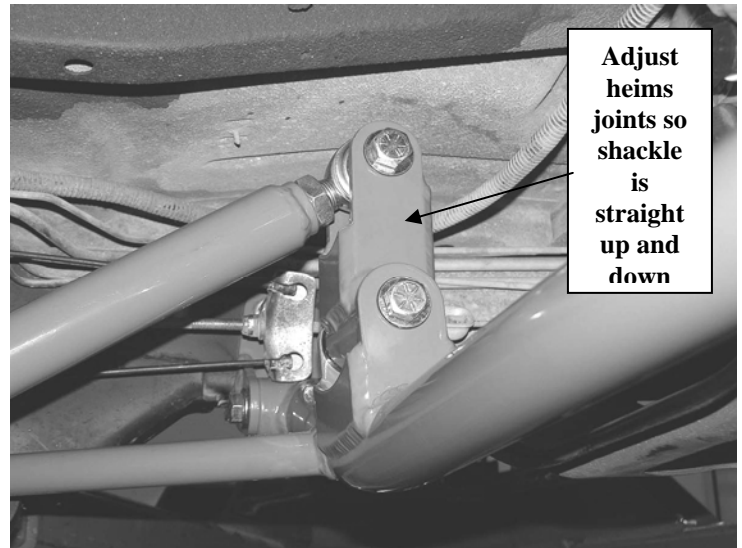
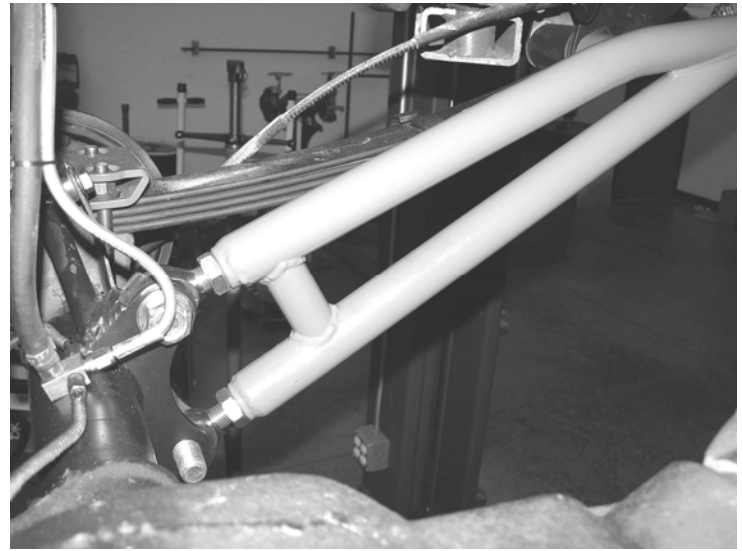
28. Locate FT50245 Traction Bar, FTS98003 Hiem Joint, FTS98002 (2) Solid Hiem Joints and supplied 3/4" jam nuts. Thread the jam nuts all the way down onto the heim joints. Thread the two solid hiems into the rear of the trac bar and the regular heim into the traction bar. Set all the hiems all the way into the traction bar. (this is just a starting point, final adjustments will be made when the Jeep is on the ground). Leave jam nuts loose.

29. Locate FT50259 Traction Bar Shackle and the supplied bushings and 1/2" I.D. sleeves. Apply some of the provided lube to the bushings inside and out and insert them into the shackle. Then press the sleeve into the bushings. Use the supplied 1/2" x 4 1/2" bolt and hardware and install into the shackle mount on the traction bar crossmember with the short gusset toward the rear of the Jeep. Torque to 75 ft-lb. SEE PHOTOS BELOW.

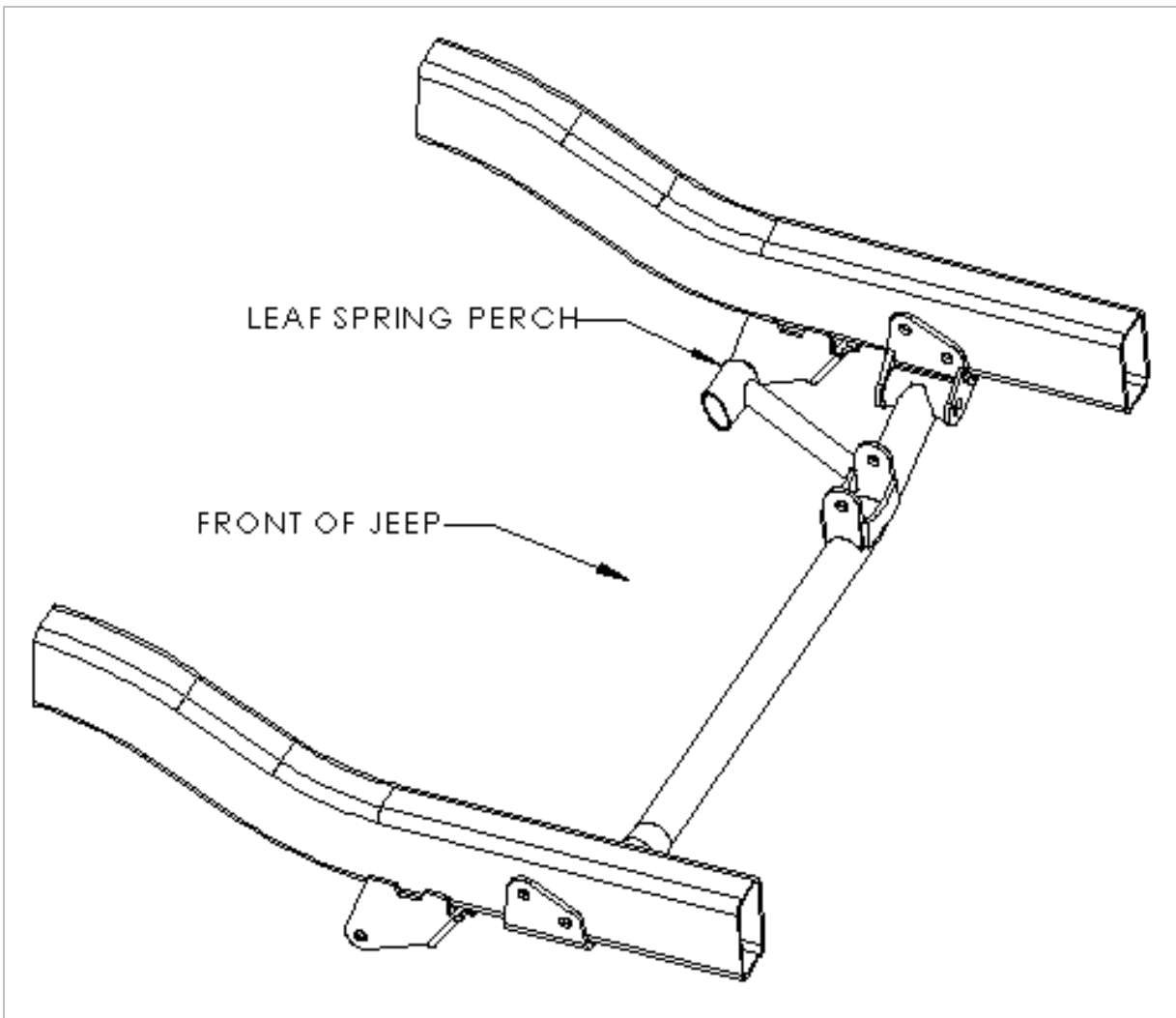


30. Install rear tires and wheels and torque lug nuts to wheel manufacturer's specifications.
31. Install the new C.V. Style rear drive shaft (not included with this kit). SEE NOTE AT THE BEGINNING OF INSTRUCTIONS.
32. With the Jeep on the ground, locate the supplied 3/4" x 2 1/2" and 1/2" x 3" bolts, FTS43 Mis-Alignments, and hardware. Position the assembled traction bar into the shackle with the mis-alignments and 1/2" hardware first, then the axle mount with the 3/4" hardware. Once installed, the shackle needs to be straight up and down. Make adjustments to the hiems equally as necessary to achieve this. Tighten the jam nuts

and on the hiems. Torque the 3/4" hardware to 110 ft. lbs. and the 1/2" hardware to 75 ft. lbs. SEE PHOTOS BELOW.



33. Torque the leaf spring 9/16" bolts to 95 ft. lbs. and the leaf spring shackle 1/2" bolts to 75 ft. lbs.
34. Refer to Owner's Manual for proper brake bleeding procedure.
35. Adjust headlights
36. Recheck all nuts and bolts for proper torque tightness before driving. Grease all the zerc fittings in all of the new rod ends and in all the factory steering components. Drive the truck for 50 miles and have it aligned to factory specifications. Re-torque all the hardware after 500 miles.



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 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 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.