INSTALLATION INSTRUCTIONS

	K2211	4” RADIUS ARM SYSTEM W/PERF SHOCKS
1	FTS22207	4” COIL BOX
1	FTS22209	4” BASIC SYSTEM BOX
1	FTS22211	4” REAR BOX KIT
2	FTS7236	PERFORMANCE SHOCK (FRONT)
2	FTS7266	PERFORMANCE SHOCK (REAR)

	K2211M	4” RADIUS ARM SYSTEM W/ STEALTH SHOCKS
1	FTS22207	4” COIL BOX
1	FTS22209	4” BASIC SYSTEM BOX
1	FTS22211	4” REAR BOX KIT
2	FTS6236	STEALTH MONOTUBE SHOCK (FRONT)
2	FTS6063	STEALTH MONOTUBE SHOCK (REAR)

	K2210DL	4” RADIUS ARM SYSTEM W/ DLSS SHOCKS
1	FTS22207	4” COIL BOX
1	FTS22209	4” BASIC SYSTEM BOX
1	FTS22211	4” REAR BOX KIT
2	FTS810962	2.25 DIRT LOGIC SS N/R (FRONT)
2	FTS810052	2.25 DIRT LOGIC SS N/R (REAR)

	K2223DL	4” RADIUS ARM SYSTEM W/ DLSS 4.0 C/O RESI
1	FTS22209	4” BASIC SYSTEM BOX
1	FTS22310	4” REAR BOX KIT
1	FTS835252D	4.0 DLSS C/O RESI (DRIVER)
1	FTS835252P	4.0 DLSS C/O RESI (PASS)
2	FTS810052	2.25 DIRT LOGIC SS N/R (REAR)

2008-16 FORD F250/350 4WD
4” RADIUS ARM KIT

FTS22209

Fabtech Motorsports | 2213 Industrial Park Rd. Lancaster, SC 29720

Tech Line: 909-597-7800 | **Web:** www.fabtechmotorsports.com

	FTS22207	4” FORD F250/350 FRONT COILS
2	FT30648	4” FRONT COIL

	FTS22209	4” RADIUS ARM BOX
1	FT30122	PITMAN ARM
1	FT30468BK	FRONT BUMP STOP (DRIVER)
1	FT30469BK	FRONT BUMP STOP (PASS)
1	FT31117	RADIUS ARM (DRIVER)
1	FT31118	RADIUS ARM (PASS)
1	FT30273BK	TRACK BAR SUPPORT TUBE
1	FT30373BK	TRAC BAR DROP BRACKET
1	FT30287	HARDWARE KIT
1	FT30682	HARDWARE SUBASSEMBLY
1	FT30402	STEERING STABILIZER BRACKET (08-10)
1	FT30583BK	STEERING STABILIZER BRACKET (11-UP)
1	FT3400-112D	SWAY BAR DROP (DRIVER)
1	FT3400-112P	SWAY BAR DROP (PASSENGER)

	FTS22211	4” REAR BOX KIT
4	FT728U	UBOLT RD 5/8-18 X 16.50 X 3.50
2	FTBK41	4” BLOCK W/ BUMP STOP
1	FT58H	5/8” U-BOLT HARDWARE KIT
2	FT30166	SLEEVE .500 X .370 X 1.485
1	31000005252	5/16” LOCK WASHER
1	31182001081	5/16-18 X 2” HEX BOLT

	FTS22310	5” REAR BOX KIT - 4.0 DLSS C/O KIT
4	FT742U	UBOLT RD 5/8-18 X 18.00 X 3.50
2	FTBK53	5” BLOCK
1	FT30681	HARDWARE SUBASSEMBLY
1	FT30891	BUMP STOP EXT.

	FT30681	HARDWARE SUBASSEMBLY
1	FT58H	5/8” UBOLT HARDWARE KIT
2	FT30166	SLEEVE .500 X .370 X 1.485
1	31182001081	5/16-18 X 2” HEX BOLT
1	31000005252	5/16” LOCK WASHER

	FT30682	HARDWARE SUBASSEMBLY
1	FT22209i	INSTRUCTIONS
1	FT30258	SECTOR SHAFT NUT
2	FT20098	BRAKE HOSE BRACKET
2	FT30277	FRONT ABS LINE BRACKET
1	FT30059	REAR DIFF BRAKE BRACKET
4	FT1006	BUSHING
2	FT102	SLEEVE 1.000 X .732 X 3.280
1	FT292	ALIGNMENT CAM KIT
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT
1	FTAS16	DRIVER WARNING DECAL
1	FTREGCARD	REGISTRATION CARD

	FT30287- HARDWARE KIT	LOCATION
8	7/16 SAE WASHER G8 ZINC	SWAY BAR
4	7/16-14 C-LOCK NUT ZINC	
4	7/16-14 X 1 1/4 HEX HD	
2	5/16-18 1-1/4” HEX BOLT	BRAKE LINE
2	5/16-18 NYLOCK NUT	
4	5/16” WASHER	
12	1/4 SAE WASHER	
6	1/4-20 GR C-LOCK NUT	
6	1/4-20 X 1” HEX BOLT G5 ZINC	
2	5/16-18 X 1” SELF TAP BOLT	
2	5/16-18 X 1-1/4” HEX BOLT	BUMP STOP
2	5/16” WASHER	
2	5/16 SPLIT WASHER	
1	COTTER PIN	
1	M12-1.75 X 70MM HEX BOLT	STEERING STABILIZER
2	M12 WASHER	
1	M12-1.75 C-LOCK	
4	7/16-14 X 1-1/2” HEX BOLT	BUMP STOP BRACKET
4	7/16-14 NYLOCK NUT	
8	7/16 WASHER	
1	THREAD LOCKING COMPOUND 1 MIL	
2	HOSE CLAMP	
7	8” ZIP TIES	
2	ZERK FITTING	

- TOOL LIST -

Required Tools (Not Included)

-Basic Hand Tools
-Assorted Metric and S.A.E sockets, and Allen wrenches
-Torque Wrench
-Die Grinder w/ Cutoff Wheel or Sawzall

-Basic Hand Tools
-Floor Jack
-Jack Stands
-Drill

- PRE-INSTALLATION NOTES -

For technical assistance call: **909-597-7800** or e-mail: **info@fabtechmotorsports.com**

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.

This suspension must be installed with Fabtech shock absorbers.

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.

Vehicles that receive oversized tires should check ball joints, uniballs, tie rods ends, pitman arm and idler arm every 2500-5000 miles for wear and replace as needed.

Verify differential fluid is at manufactures recommended level prior to kit installation. Installation of the kit will reposition the differential and the fill plug hole may be in a different position. (For example, if the manufacture recommends 3 quarts of fluid, make sure the diff has 3 quarts of fluid). Check your specific manual for correct amount of fluid.

Recommend Tires and Wheels:

-Use 325/65R18 tire w/ 18x9.5 wheels w/ 4-3/4” BS
-Use 35/12.50R20 tire w/ 20x9 wheels w/ 5” BS

FOOTNOTES -

- ***FRONT DRIVESHAFT MODIFICATION MAY BE REQUIRED TO CLEAR EXHAUST ON GAS MOTOR.***

- INSTRUCTIONS -

FRONT SUSPENSION

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. Working from both sides of the truck, remove the brake calipers and tie them up out of the way. DO NOT ALLOW THE CALIPERS TO HANG FROM THE BRAKE LINES! Remove the brake line and ABS lines from the front side and the rear side of the lower spring perch on the axle and save the hardware.

3. Locate the ABS lines on the radius arms and disconnect it at the plug on the fender well. Remove the ABS line brackets from the radius arms and save the hardware.

4. Supporting the front axle with two floor jacks, remove the front shocks and discard. Remove the sway bar end links from the axle mount and save with the hardware.

5. Lower the front axle allowing the coil springs to come free of tension. EXERCISE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS UNDERLOAD! Remove the coil springs from the truck and discard, save the factory upper coil isolator.

6. Remove the factory steering stabilizer from the frame mount and save the hardware. Remove the steering stabilizer frame bracket and save the hardware. Discard the frame bracket. Leave the steering stabilizer connected to the drag link. **SEE FIGURE 1**



FIGURE 1 - STEP 6

7. Remove the drag link from the pitman arm and save factory hardware. You will need to use a two jaw puller to remove drag link from the pitman arm. USE CARE NOT TO DAMAGE THE THREADS ON THE DRAG LINK!

8. Remove the track bar from the frame bracket and save the original hardware. Remove the track bar bracket from the frame and save the original hardware and discard the factory track bar bracket. SEE PHOTO BELOW. **SEE FIGURE**



FIGURE 2 - STEP 8

9. Remove the factory pitman arm from the steering box using a large pitman arm puller or large two-jaw puller. Discard the hardware and the pitman arm. SEE PHOTO BELOW. **SEE FIGURE 3**



FIGURE 3 - STEP 9

10. Locate FTS30122 new drop pitman arm. Attach to the steering box in the same indexed position as the factory pitman arm was when removed. Install the provided FT30258 Sector Shaft Nut and torque to 350 ft. lbs. (Note: this is a one-time only use nut, once it is tightened on the sector shaft and removed, it must be discarded.

11. Locate FT30373BK Track Bar Frame Bracket. Attach to the frame using the original hardware in the same position. Torque bolts to 110 ft. lbs. DO NOT ATTACH THE TRACK BAR TO THE FRAME BRACKET AT THIS TIME.

12. With the front axle still supported by the floor jack, remove both of the front factory radius arms from the axle and the factory frame mounts. Save the factory hardware.

13. Locate both FT31117 and FT31118 radius arms and install two of the supplied bushings and one of the supplied sleeves into each radius arm end. Use the supplied FTLUBE on all the bushing surfaces before installing them into the radius arms. Install one grease fitting into each end of the radius arms with the bushings.

14. Working from the driver side of the truck, Install FT31117, driver side radius arm onto the truck. First attach the radius arm to the axle mounts using the factory upper pivot bolt and nut and the supplied alignment cam on the lower pivot. Then attach the rear pivot to the factory mount on the frame and use the factory bolt. Leave loose at this time. **SEE FIGURE 4**



FIGURE 4 - STEP 14

15. Repeat step thirteen thru fourteen on the passenger side of the truck.

16. Working from both sides of the truck, locate and remove the factory front bump stops and save. These can be removed by pulling on the bump stop itself free from the cup. Remove the factory mounting cup from the frame and discard the hardware. Locate FT30468BK Driver Side front bump stop drop brackets. Using a drill with a 7/16" drill bit,drill out the factory bump stop locator pin hole in the frame. Now attach the bump stop to the hole in the frame using the supplied 7/16" x 1 ½" bolt, nut, and washer. Once attached and aligned with the frame drill the second hole with the 7/16" drill bit. Locate FT30469BK Pass. side and center on the bottom of the frame between the factory rivets. (Pass. side does not have a locating hole). Mark the two holes from the new bracket to the frame and drill the two holes. Attach the bracket to the frame with the supplied 7/16" hardware.

17. Attach the factory bump stop cup to the new bracket using the supplied 5/16" x 1 ¼" bolt, flat washer, and split washer. Before tightening the bolt, align the flat part of the bump stop cup to the flat side of the drop bracket Press the factory bump stop back into the cup. **SEE FIGURE 5**

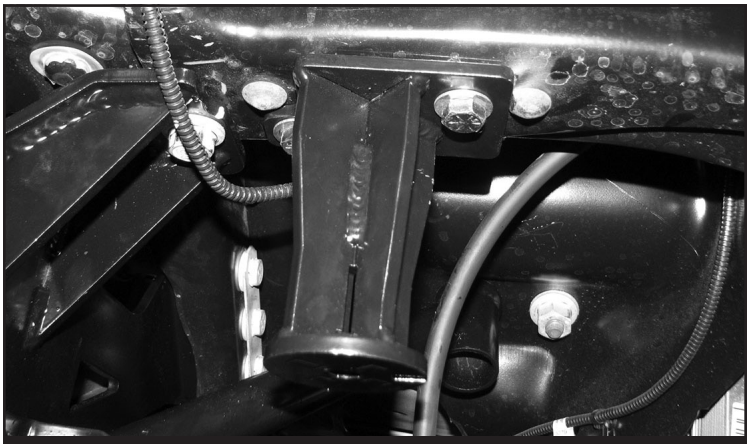


FIGURE 5 - STEP 17

- **IF INSTALLING A COILOVER CONVERSION KIT DO SO NOW AND SKIP TO STEP 20**

18. Install the coil springs FT30648 into in the factory location using the original factory upper coil isolator. **SEE FIGURE 6**

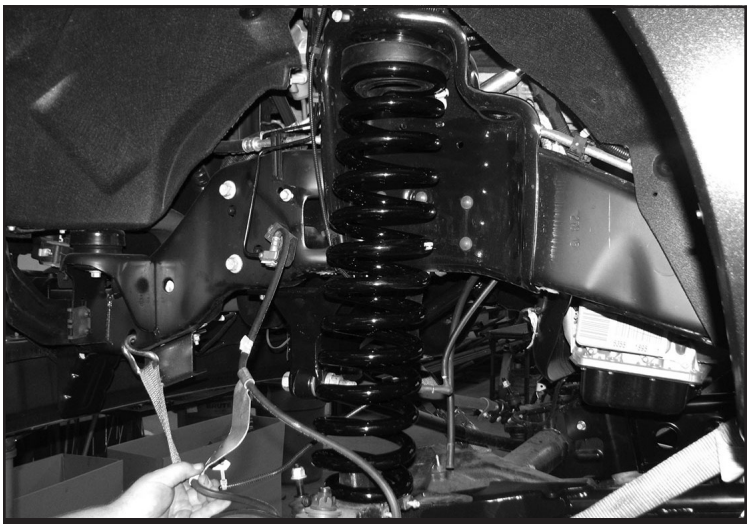


FIGURE 6 - STEP 18

19. Using a floor jack raise the front axle enough to compress the front coils approx. 1". Locate the front shocks FTS7236, FTS6063 or FTS810962 and install onto the truck. Note: Some shock mounts will require cutting a ¼" from the top of the factory shock tab. If required, use a die grinder with a cut-off wheel and remove the top ¼" of the tab. Sand and paint bare/ exposed metal. **SEE FIGURES 7-8**



FIGURE 7 - STEP 19

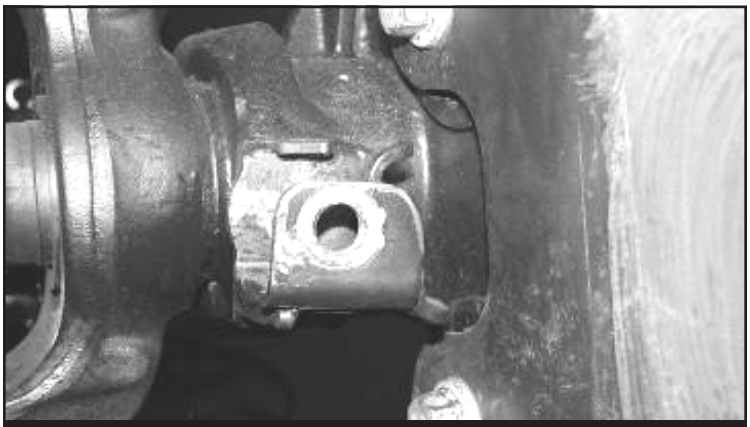


FIGURE 8 - STEP 19

20. Torque the front and rear radius arm pivot bolts to 200 ft. lbs. NOTE: SET THE ALIGNMENT CAMS IN THE LOWER FRONT RADIUS ARM IN THE MIDDLE OF ADJUSTMENT BEFORE TORQUING. MAKE SURE THE CAM IS SEATED INSIDE THE ALIGNMENT CAM GUIDES.

21. Locate the factory brake line mount on the front side of the frame. Remove the bracket from the frame and save the hardware. Locate FT20098 Brake line bracket. Install the new bracket to the factory bracket using 5/16" hardware. Then install the bracket back into the factory hole using the factory hardware. **SEE FIGURE 9**

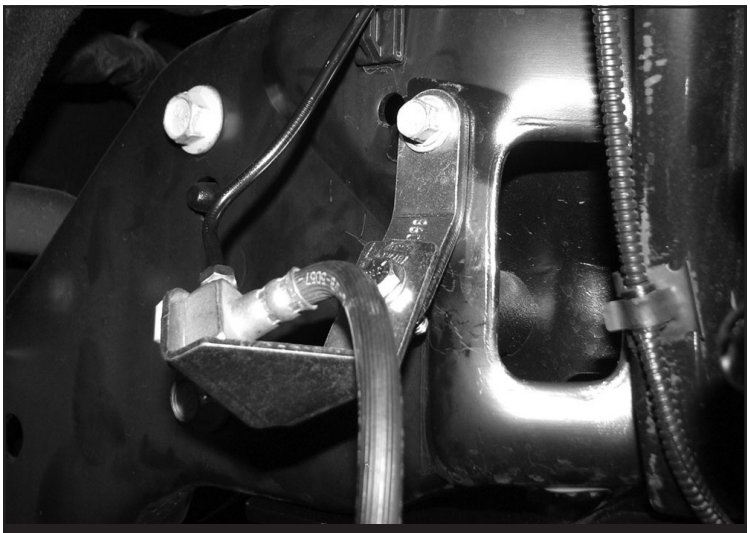


FIGURE 9 - STEP 21

22. Working on the driver side, disconnect the four wheel drive vacuum line from the front brake line bracket and reposition and reconnect behind the coil spring mount. Follow the 4wd vacuum line up to the 120 degree connector and remove it from the line and re-connect the lines with the existing line splint. Attach the vacuum line to the ABS line at the coil mount with 2 of the supplied zip ties and attach the vacuum line to the front differential vent hose with 2 more zip ties. (This keeps all the lines in place during suspension travel, failure to follow this step could cause ABS or 4wd failure). **SEE FIGURES 10-13**

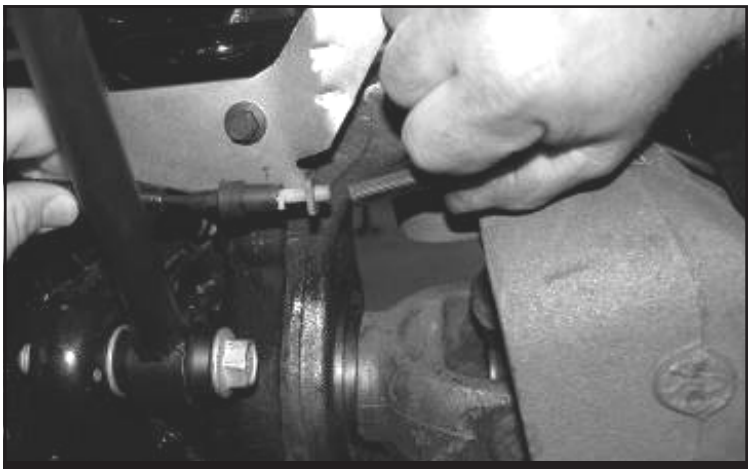


FIGURE 10 - STEP 22

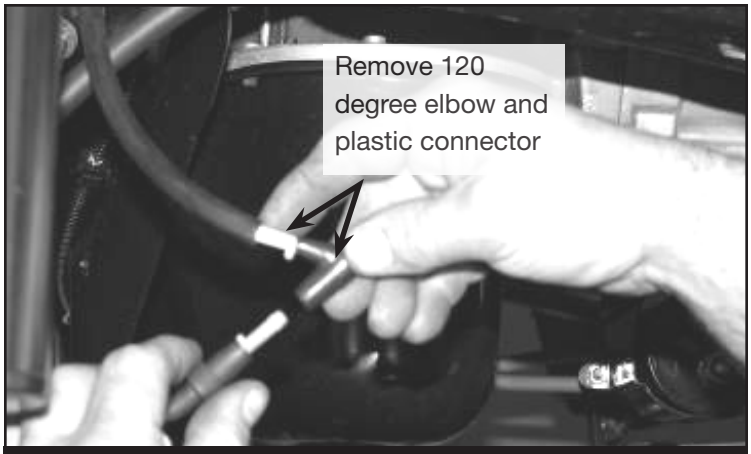


FIGURE 11 - STEP 22

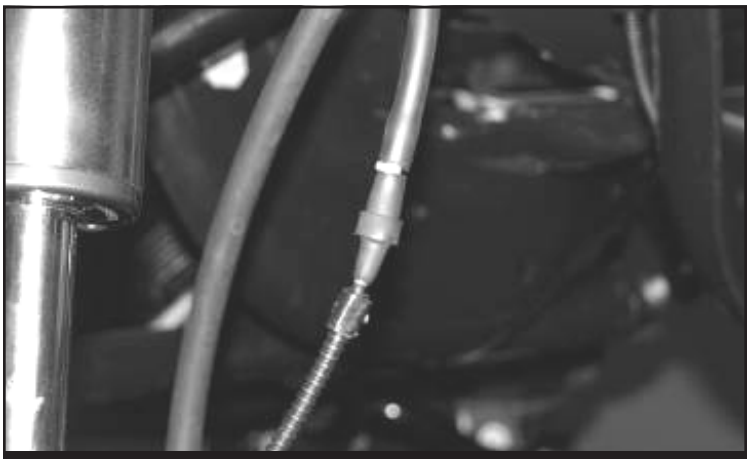


FIGURE 12 - STEP 22

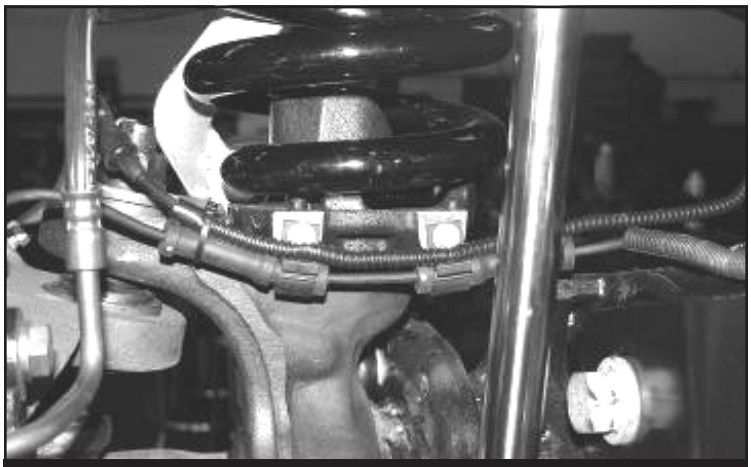


FIGURE 15 - STEP 22

23. Locate FT30277 ABS Line Bracket and the supplied ¼" hardware, adel clamp, and thread-forming bolts. Locate the two slotted holes on the radius arm, measure a ½" in front of the upper hole and ¾" from the top of the radius arm. Mark and drill a 7/32" pilot hole. Using a thread-forming bolt, attach the line bracket to the radius arm in the middle hole. Now mark and drill the bottom hole in the line bracket to the radius arm. Remove the ABS socket connector from the frame and re-connect the ABS line. Install the factory front ABS mount onto the front of the radius arm. Place the provided adel clamp onto the ABS line mount (this may need to be moved) and attach to the new bracket with the supplied ¼" hardware. **SEE FIGURES 14-17**

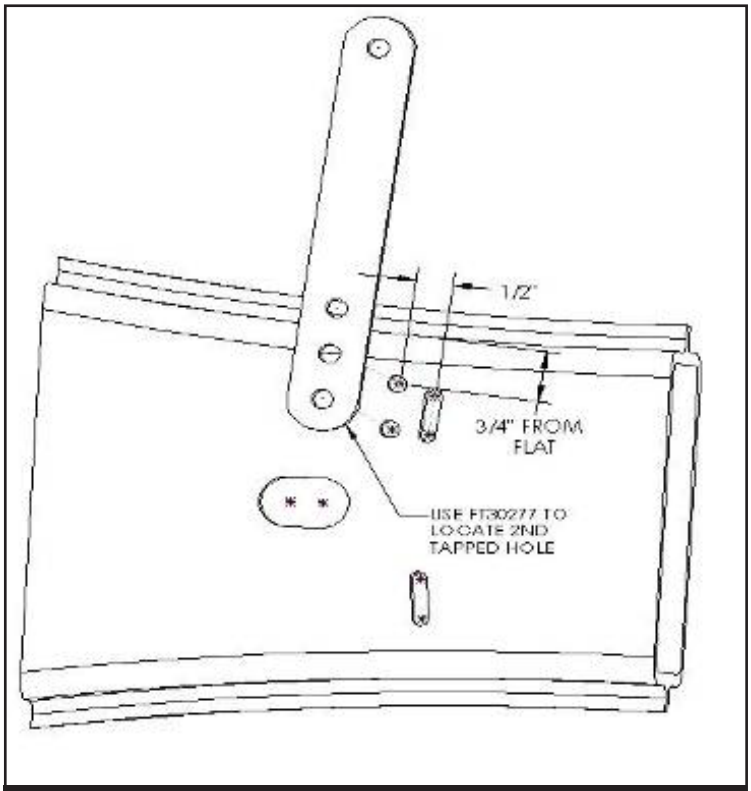


FIGURE 13 - STEP 23

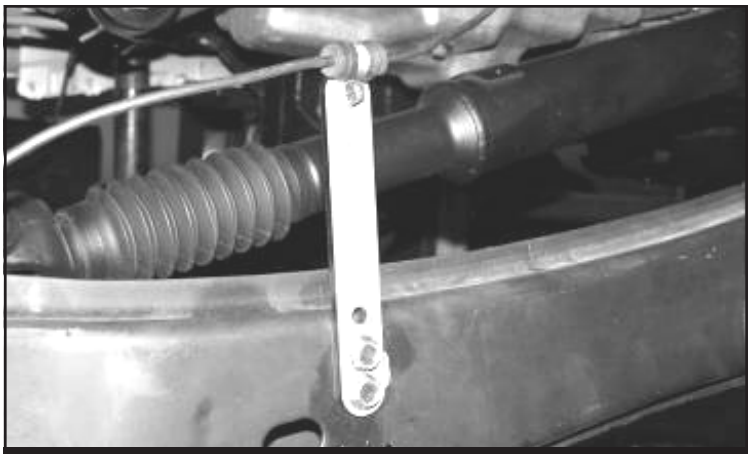


FIGURE 14 - STEP 23

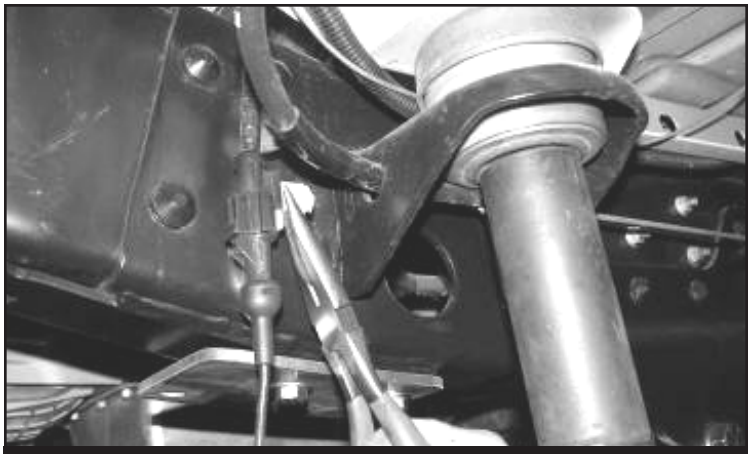


FIGURE 16 - STEP 23

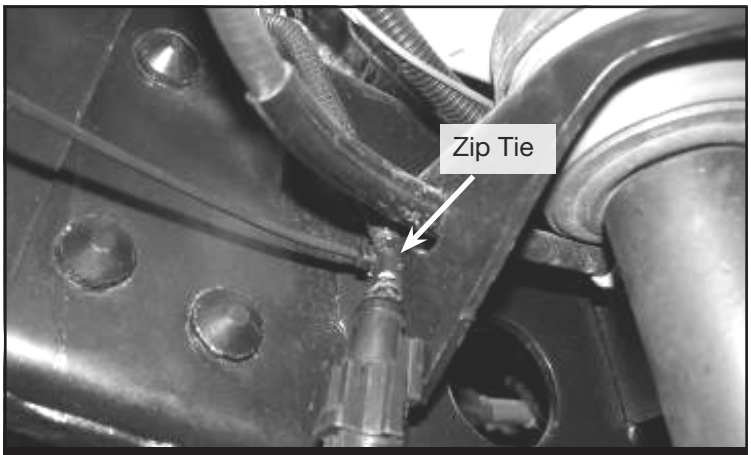


FIGURE 17 - STEP 23

24. Locate FT30402 (08-10) or FT30583BK (11-UP) steering stabilizer drop bracket and install in the factory location using the original hardware. Torque to 50 ft. lbs. Reattach the factory stabilizer to the frame bracket using the original hardware. **SEE FIGURES 18-19.** If installing on 11-UP vehicle, use supplied M12 hardware. If installing a Fabtech stabilizer do so at this time. **SEE FIGURE 20**



FIGURE 18 - STEP 24



FIGURE 19 - STEP 24



FIGURE 20 - STEP 24

25. Remove the front sway bar from the frame mounts and save the hardware. Install FT3400-112D & P sway bar frame drop brackets to the frame where the sway bar was originally attached using the factory hardware. MOUNT THE DRIVER SIDE BRACKET ON THE PASSENGER SIDE, AND THE PASSENGER SIDE ON THE DRIVER SIDE. Using the supplied 7/16" X 1 ¼"hardware, attach the sway bar to the new drop brackets. Reattach the factory sway bar end links to the axle mounts using the original hardware (Torque to 40 ft. lbs. once the truck is on the ground; do not tighten while the suspension is in the air). The new drop brackets are slotted at both mounting points. For the 6" lift, position the frame mount and sway bar all the way forward. torque to 35 ft. lbs. For an 8" lift, position the frame mount and sway bar all the way toward the rear. Torque to 35 ft. lbs. **SEE FIGURES 21-22**

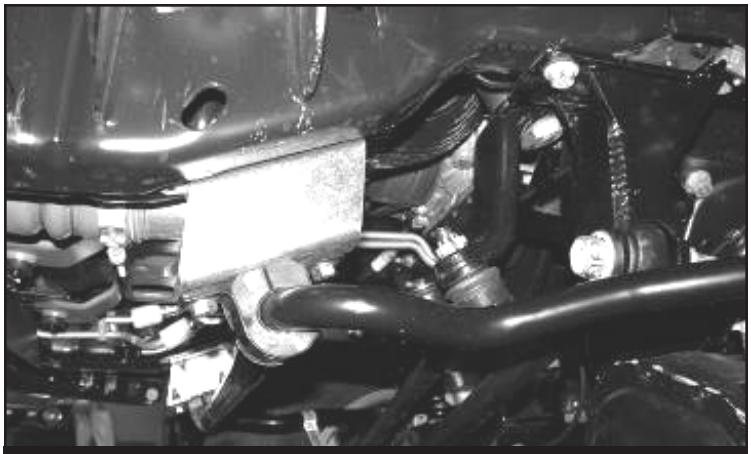


FIGURE 21 - STEP 25



FIGURE 22 - STEP 25

26. Position the factory track bar into the new track bar bracket. Note: You may need to raise the axle up or down to align the hole. Using the original bolt insert it from the front side of the bracket towards the back. Do not push the bolt fully through at this time.

27. Locate FT30273 trac bar support bracket and attach first to the forward motor mount bolt on the driver side of the truck, then line the other end up to the track bar bolt. Torque the factory motor mount bolt to 75 ft. lbs and the track bar bolt to 400 ft. lbs. **SEE FIGURE 23**

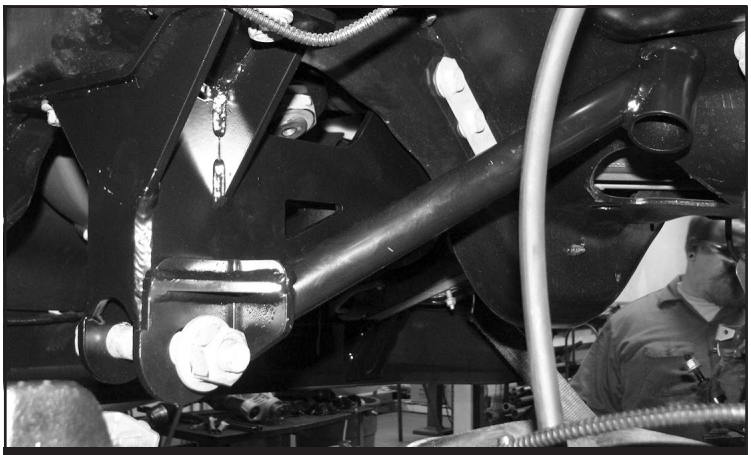


FIGURE 23 - STEP 27

REAR SUSPENSION

28. **(4" BLOCK)** Locate and install the 4"rear lift blocks FTBK41. The factory block will need to be removed. The short end of the blocks should face to the front of the vehicle. Using the supplied u-bolts, nuts and washers align axle, lift blocks and springs and torque to U-Bolts to 170 ft-lbs.

29. **(5" BLOCK)** Remove the rear factory shocks, ubolts and blocks. Locate and install the 5" rear lift blocks (FTBK53) using the supplied u-bolts, nuts and washers. Align axle, lift blocks and springs and torque to U-Bolts to 170 ft-lbs. Remove the factory rear bumpstop assemblies from the frame. Save hardware. Remove the foam bump from the mount plate. Install the factory foam bumpstop to FT30891 (Bumpstop bracket) Torque to 40 ft-lbs. Then, install the assembly to the frame using the factory nuts. Torque to 70 ft-lbs. **SEE FIGURE 24**



FIGURE 24 - STEP 29

30. Locate the E-Brake Cable mount on the driver side spring pack perch. Remove the bolt attaching it to the perch and discard the hardware.

31. Locate FT30166 E-Brake Cable Sleeve and attach between the spring perch and E-brake Cable bracket using the supplied 5/16"-18 x 2" bolt and split washer. **SEE FIGURE 25**



FIGURE 25 - STEP 31

32. Install the new rear shocks FTS7266, FTS6063 or DL FTS810052 using the factory hardware, torque to 90 ft-lbs.

33. 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.**

34. Check front end alignment and set to factory specifications. Readjust headlights.

35. Recheck all bolts for proper torque.

36. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.

37. Check the fluid in the front and rear differential and fill if needed with factory specification differential oil. **Note - some differentials may expel fluid after filling and driving. This can be normal in resetting the fluid level with the new position of the differential/s.**

38. 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, uniballs and all steering components every 2500-5000 miles for wear and replace as required.

RE-TORQUE 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 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 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