



## **INSTALLATION INSTRUCTIONS**

**2023-2024 FORD F250/350 4WD**

**2.5" RADIUS ARM KIT**

**SOR107**

## - PARTS LIST -

SOR107 2.5" RADIUS ARM KIT		
1	FT30913	TRACK BAR BRACKET
1	FT31086	RADIUS ARM (DRIVER)
1	FT31087	RADIUS ARM (PASSENGER)
2	FT31098	SWAY BAR DROP
2	FT31100	SWAY BAR EXT TAB
1	FT31103	HARDWARE KIT
2	FT31124	2.5" COIL SPRING SPACER
2	FT31125	BUMP STOP EXT
1	FT31126	HARDWARE SUBASSEMBLY

FT31126 HARDWARE SUBASSEMBLY		
4	FT1006	BUSHING
2	FT102	SLEEVE
1	FT292	CAM KIT
2	FT30290	SLEEVE 1.000 X .500 X .375
1	FT30610	6" BREATHER HOSE
2	FT30659	BRAKE LINE BRACKET
1	FT30929	ABS SPACER
2	FT31102	WASHER 1.000 X .500 X .375
2	FT84	ZERK FITTING
1	FTAS16	DRIVER WARNING DECAL
1	FTAS12	STICKER FT BLUE 10X4
1	FTREGCARD	REGISTRATION CARD
1	FTLUBE	URETHANE GREASE PACKET
1	SOR107i	INSTRUCTIONS

FT31103 - HARDWARE KIT		LOCATION
4	M10 WASHER	
4	M12 WASHER	
1	M12-1.75 C-LOCK NUT	
2	M12-1.75 NYLOCK NUT	
1	M12-1.75 X 70MM HEX BOLT	
4	5/16 SAE WASHER	
2	5/16-18 C-LOCK NUT	
2	5/16-18 X 1-1/4" HEX BOLT G8	
12	3/8" SAE WASHER	
2	3/8-16 NYLOCK NUT	
4	3/8-16 C-LOCK NUT	
4	3/8-16 X 1" HEX BOLT	
1	3/8-16 X 1-1/4" HEX BOLT	
1	3/8-16 X 1-1/2" HEX BOLT	
10	1/2" SAE WASHER	
4	1/2-13 C-LOCK NUT	
2	1/2-13 X 1-1/4" HEX BOLT	
2	1/2-13 X 1-1/2" HEX BOLT	
2	1/2-13 X 1-3/4" HEX BOLT	
1	CLAMP	
1	THREAD LOCKING COMPOUND	

## - TOOL LIST -

### ***Required Tools (Not Included)***

- |  |                   |
|--|-------------------|
| -Basic Hand Tools                                      | -Basic Hand Tools |
| -Assorted Metric and S.A.E sockets, and Allen wrenches | -Floor Jack       |
| -Torque Wrench   | -Jack Stands      |
| -Die Grinder w/ Cutoff Wheel or Sawzall                | -Drill            |
| - 1-1/4" Hole Saw                                      |                   |

## - PRE-INSTALLATION NOTES -

### ***READ THIS BEFORE YOU BEGIN INSTALLATION -***

Check all parts to the parts list above before beginning installation.

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.

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:***

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### ***FOOTNOTES -***

- *Non dually models only*
- *Will not fit gas motors.*
- *Does not fit vehicles equipped with Ford onboard scale system*

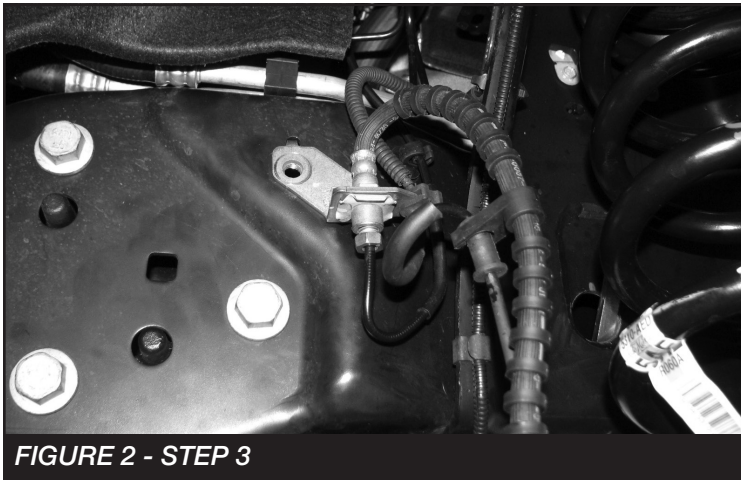
## - INSTRUCTIONS -

### FRONT SUSPENSION

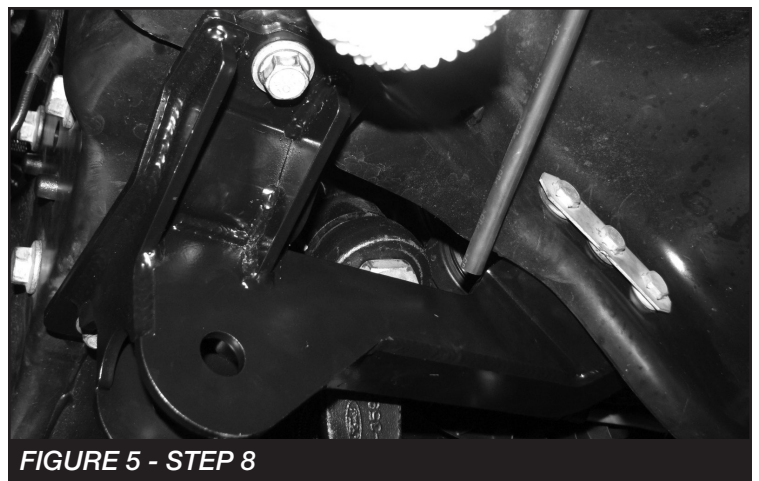
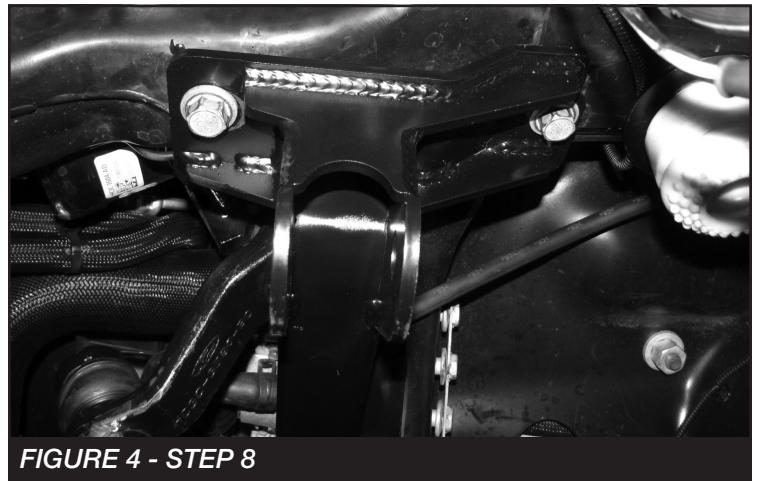
1. Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the front tires.
2. Disconnect the sway bar from the sway bar end links. Remove the sway bar and sway bar links from the vehicle. Save hardware. **SEE FIGURE 1**



3. Disconnect the brake line from the frame and axle on both driver and passenger sides. Save hardware. **SEE FIGURES 2-3**



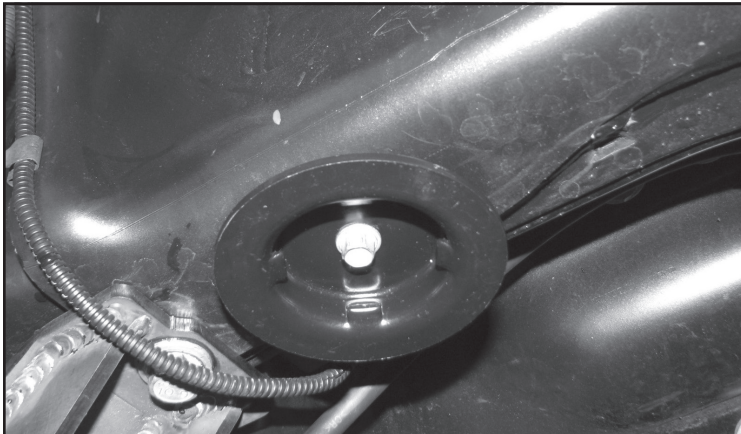
4. Remove the front shocks and discard, save hardware.
5. Lower the front axle allowing the coil springs to come free of tension and remove the coil springs. **EXERCISE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS UNDER LOAD!**
6. Disconnect the factory steering stabilizer from the frame mount. Remove the steering stabilizer frame bracket. Discard the frame bracket. Leave the steering stabilizer connected to the drag link. Save all hardware.
7. Disconnect the trac bar from the frame bracket. Remove the trac bar bracket from the frame, save the original hardware and discard the factory trac bar bracket.
8. Locate FT30913 (Track Bar Bracket). Attach to the frame using the original hardware in the same position. Torque bolts to 120 ft-lbs. **DO NOT ATTACH THE TRAC BAR TO THE FRAME BRACKET AT THIS TIME. SEE FIGURE 4-5**



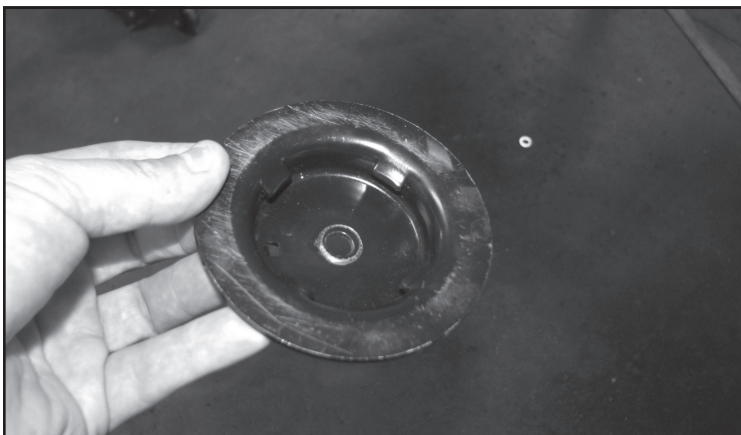


## **- Option 1 -**

9. Working from both sides of the truck, locate and remove the factory front bump stops and save. Pull on the bump stop itself to free from the cup. Remove the factory mounting cup from the frame and discard the hardware. Drill out the center hole on the factory cup to 1/2". **SEE FIGURES 6-7**

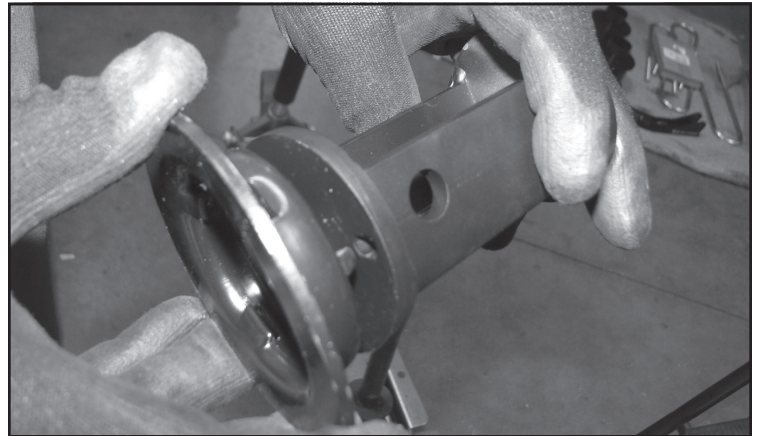


**FIGURE 6 - STEP 9**



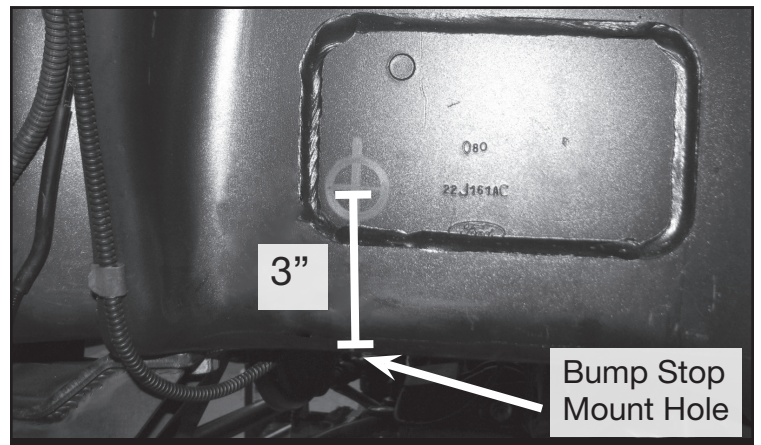
**FIGURE 7 - STEP 9**

10. Install FT31125 (Bump Stop Extension) onto the factory cup using the supplied 1/2" x 1-1/4" hardware and set aside. Torque to 127 ft-lbs. **SEE FIGURE 8**



**FIGURE 8 - STEP 10**

11. Locate the factory bump stop mounting hole. Measure 3" straight up from the bottom of the frame. Mark and drill a 1-1/4" hole using a hole saw into the frame. **SEE FIGURES 9-10**

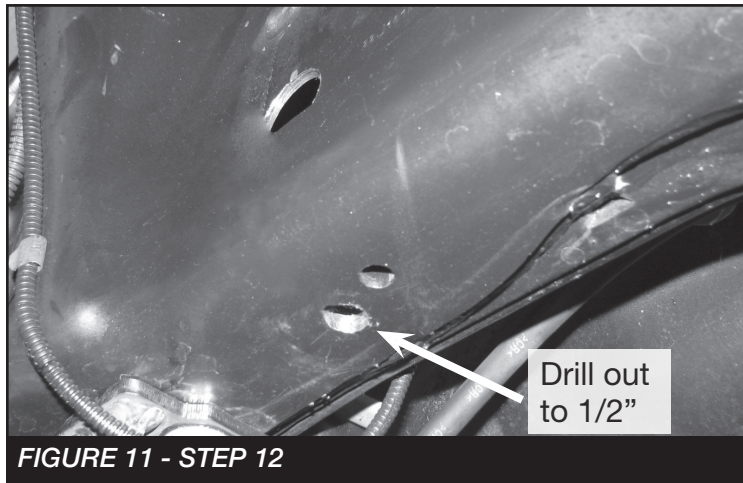


**FIGURE 9 - STEP 11**

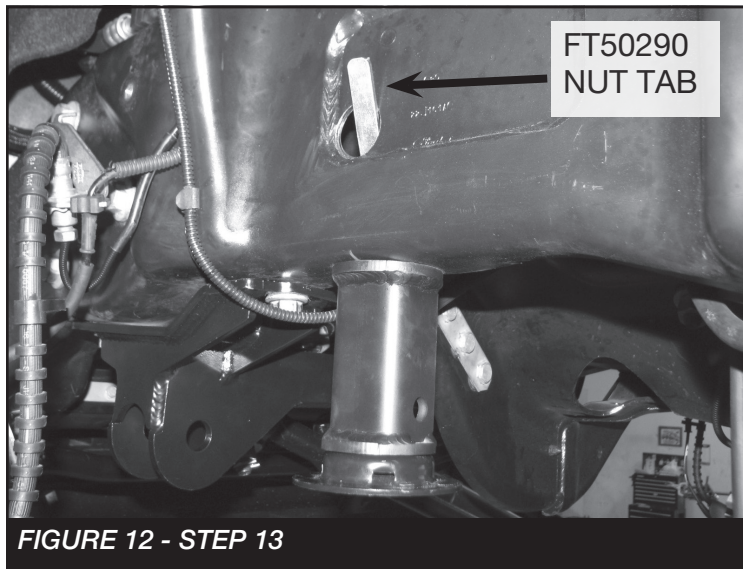


**FIGURE 10 - STEP 11**

12. Drill out the factory bump stop mount hole to 1/2". **SEE FIGURE 11**



13. Using FT50290 (Nut Tab) and 1/2" X 1-1/2" bolt and washer. Mount the new bump stop extension to the frame. Route the Nut tab through the 1-1/4" hole that was made in Step 11. Torque to 127 ft-lbs. **SEE FIGURE 12**



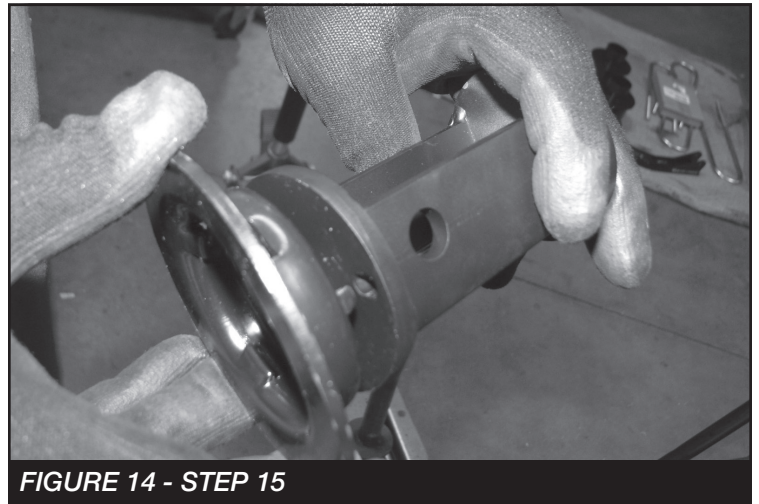
**REPEAT BUMP STOP INSTALLATION ON PASSENGER SIDE**

## **- Option 2 -**

14. Working from both sides of the truck, remove the factory front bump stops. Pull on the bump stop itself to free from the cup. Remove the factory mounting cup from the frame. **SEE FIGURES 13**

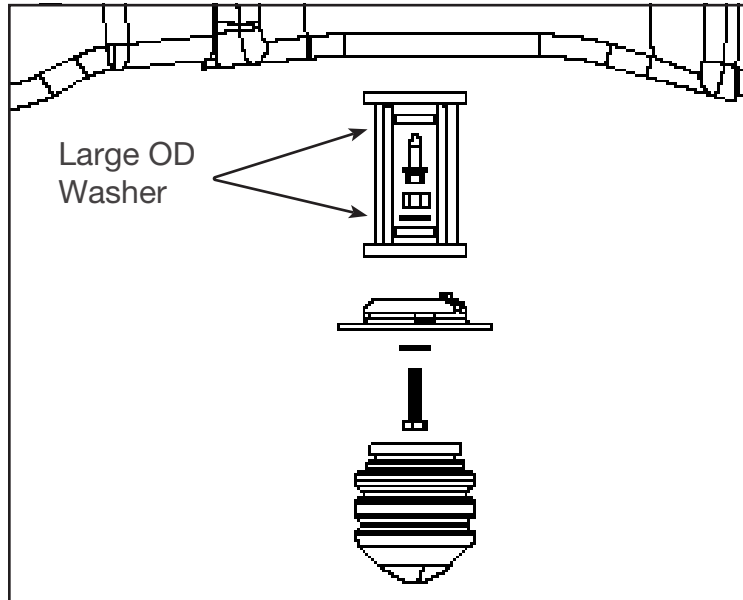


15. Install the factory bumpstop cup to the new FT30653 (Bumpstop Extension) using provided 5/16" x 1-1/4" hardware and 10mm large OD washer. **SEE FIGURE 14**





16. Install the factory bolt through the 10mm large OD washer then install through FT31125 (Bump Stop Extension). Install the new extension to the factory position. Then, reinsert the foam bumpstop. **SEE FIGURE 15**



**FIGURE 15 - STEP 16**

17. With the front axle still supported by the floor jack, remove the Driver side factory radius arm. Save the factory hardware.
18. Install FT1006 (Bushings) & FT102 (Sleeve) into the FT31086 (Driver Radius Arm) using the supplied Urethane grease.
19. Install the new radius arm using the factory hardware at the frame and upper axle mount. Use the supplied FT292 (Alignment cam kit bolt) at the lower axle location. Torque factory hardware to 222 ft-lbs and FT292 cam bolts to 287 ft-lbs. **SEE FIGURES 16-17**



**FIGURE 16 - STEP 19**



**FIGURE 17 - STEP 19**

- **REPEAT STEPS 17-19 ON PASSENGER SIDE**
20. Install FT31124 (Coil Spring Spacer) using the factory upper isolator.

21. Locate the factory bolts on the frame that attach to the sway bar. Both Driver and Pass side bolts need to be cut leaving 3/4" of thread left. **SEE FIGURE 18-19**



FIGURE 18 - STEP 21

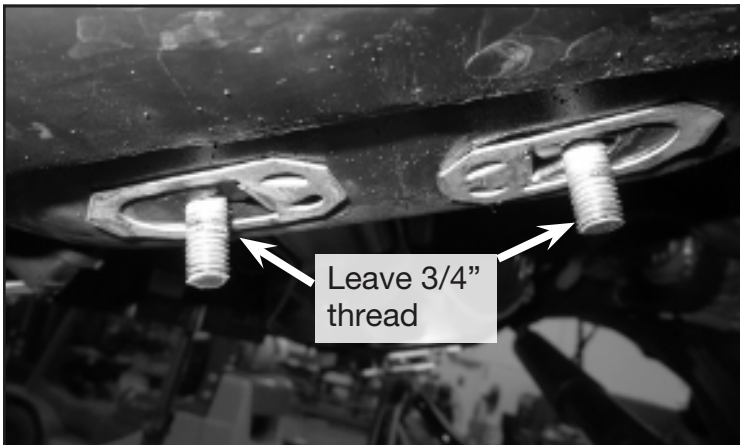


FIGURE 19 - STEP 21

22. Install FT31098 (Sway bar drop brackets) to the factory location using the factory nuts. **NOTE: Slide bracket forward until it stops.** Torque to 54 ft-lbs. **SEE FIGURE 20**

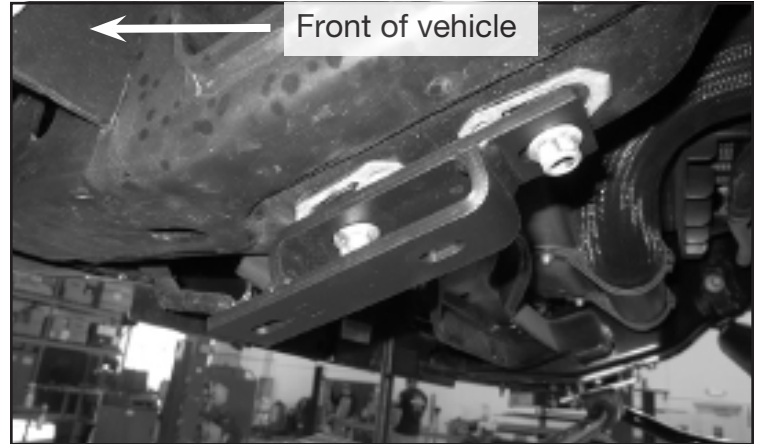


FIGURE 20 - STEP 22

23. Reinstall the factory sway bar to the new brackets using the provided 3/8" x 1" bolts, c-lock nuts and washers. **NOTE: Slide sway bar forward until it stops.** Torque to 52 ft-lbs.



24. Install FT31100 (Sway bar extension bracket) to the ends of the factory sway bar using the supplied 1/2" x 1-3/4" bolts, nuts and washers. Torque to 106 ft-lbs. **SEE FIGURES 21-22**



**FIGURE 21 - STEP 24**



**FIGURE 22 - STEP 24**

25. Reinstall the factory sway bar end link to the axle mount using the supplied FT30290 (.520 Spacer) and factory hardware. Torque to 38 ft-lbs. **SEE FIGURE 23**

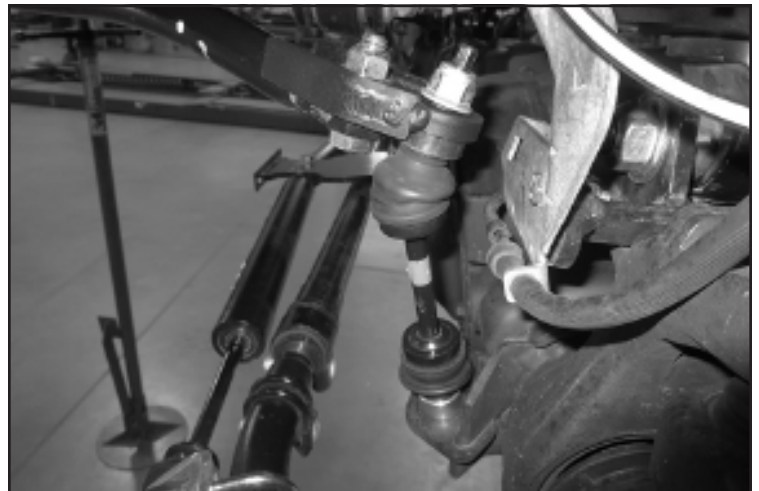


**FIGURE 23 - STEP 25**

26. Then, install the upper end of the sway bar end link to the new bracket on the sway bar using FT31102 (.375 Spacer) and factory hardware. Torque to 38 ft-lbs. **SEE FIGURES 24-25**



**FIGURE 24 - STEP 26**



**FIGURE 25 - STEP 26**

27. Install the new front shocks FTS6236 or FTS800962 with the supplied bushing kits. Use the factory hardware.  
**NOTE:** Due to vehicle variances the top of the lower shock mount may need to be sanded down to clear the shock body only if installing Stealth shocks. **SEE FIGURE ON LAST PAGE.**

28. Position the factory trac bar into the new trac 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. Torque the trac bar bolt to 400 ft-lbs.

29. **(DRIVER SIDE)** Install FT30659 (Brake line bracket) to the frame using the factory hardware. Next, Bend the hard line so the factory bracket is 180 degrees from original location. Then, install FT30929 (Spacer) between the new bracket and the factory bracket using the supplied 3/8" x 1-1/2" bolt, nut and washers. Torque hardware to 52 ft-lbs. **SEE FIGURES 26-27**



FIGURE 26 - STEP 29

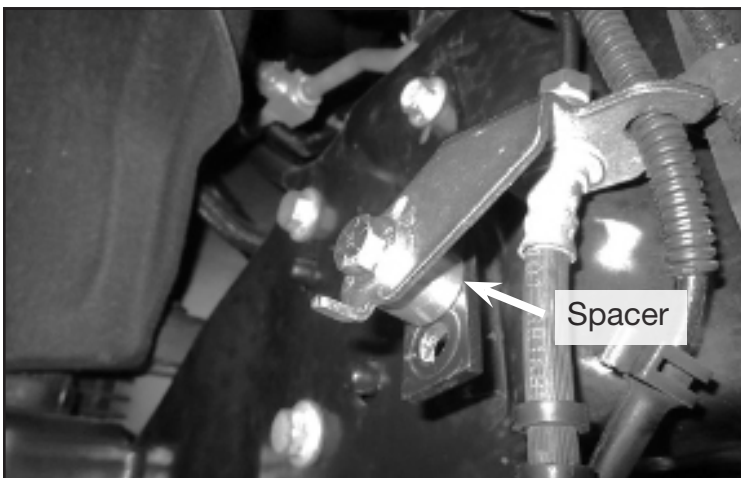


FIGURE 27 - STEP 29

30. **(PASSENGER SIDE)** Install FT30659 (Brake line bracket) to the factory brake line tab using the supplied 3/8" x 1-1/4" hardware (Use lower hole). Install the new bracket to the frame using the factory hardware. Torque 3/8" & factory hardware to 52 ft-lbs. Torque 1/4" hardware to 14 ft-lbs. Secure the ABS line to the bracket using a cable tie. **SEE FIGURE 28**

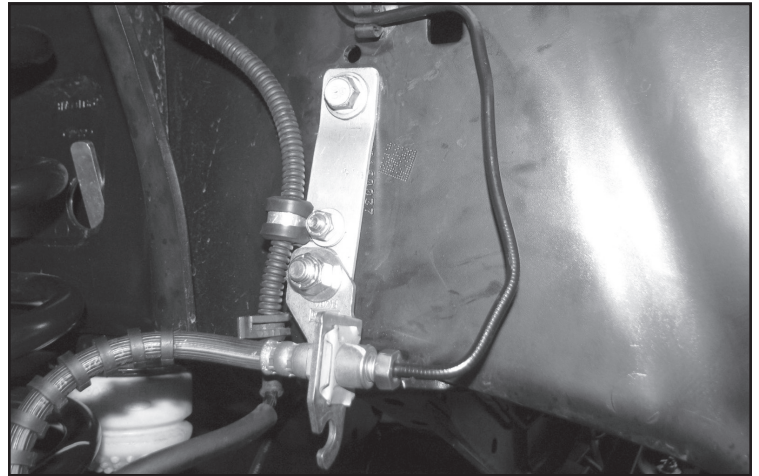


FIGURE 28 - STEP 30

31. Install the lower brake line bracket to the lower spring perch using the factory hardware. Torque to 29 ft-lbs.
32. Extend the diff breather hose using the supplied 5/16" vacuum hose. Then, Secure the ABS line to the front diff using the supplied clamp. **SEE FIGURE 29**



33. Install the front tires and wheels. Torque lug nuts to wheel manufacturer's specifications.

## **REAR SUSPENSION**

34. Locate and install the 4" rear lift blocks FTBK41. The factory block will need to be removed. The block should be installed with the bumpstop toward the inside of the truck. Using the supplied u-bolts, nuts and washers align axle, lift blocks and springs and torque to U-Bolts to 170 ft-lbs.
35. Install the new rear shocks FTS6063 or Dirt Logic FTS810052 using the factory hardware, torque to 90 ft-lbs.
36. 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.**
37. Check front end alignment and set to factory specifications. Readjust headlights.
38. Recheck all bolts for proper torque.
39. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
40. 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.**
41. 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**



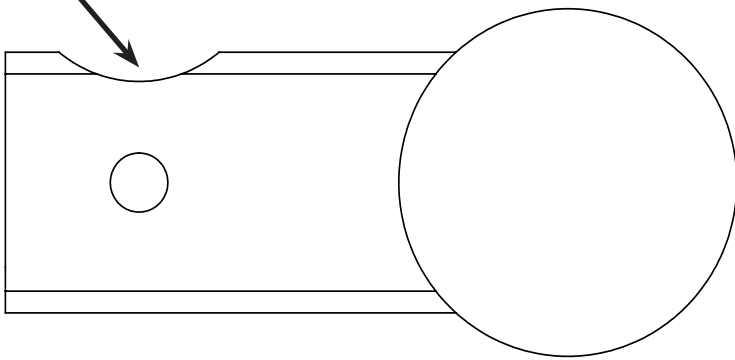
1/4" Radius



1/4" Radius



1/4" Radius



## - 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)