



INSTALLATION INSTRUCTIONS

2019 FORD RANGER 4WD 3.5" LIFT SYSTEM

FTS22293

NOTE: TO ORDER WEARABLE REPLACEMENT COMPONENTS DO NOT USE PART NUMBERS SHOWN ON THIS INSTRUCTION SHEET. GO TO FABTECH WEBSITE AND LOOK UP WEARABLE REPLACEMENT PARTS TO FIND THE PROPER PART NUMBER TO ORDER.

FTS22293		FORD RANGER 3.5" KIT
1	FT30847	UPPER CONTROL ARM (DRIVER)
1	FT30848	UPPER CONTROL ARM (PASS)
2	FT30846	SHOCK SPACER
2	FT20154	BALL JOINT
4	FT1500U	UBOLT 9/16-18 X 10.00 X 2.63
1	FT30849	HARDWARE SUBASSEMBLY
2	FTBK15	BLOCK 1.5"

FT30849		HARDWARE SUBASSEMBLY
4	FT1037	UPPER CONTROL ARM BUSHING
4	FT1038	UPPER CONTROL ARM BUSHING
2	FT20836	WASHER
1	FT22293i	INSTRUCTIONS
1	FT30850	HARDWARE KIT
4	FT30870	CONTROL ARM BUSHING WASHER
4	FT30871	SLEEVE
2	FT30872	COIL SPRING SPACER
2	FT30881	SLEEVE
1	FTAS12	STICKER FT BLUE 10X4
1	FTAS16	DRIVER WARNING DECAL
1	FTLUBE	URETHANE PACKET
1	FTREGCARD	REGISTRATION CARD
4	FT622	REAR SHOCK SLEEVE

FT30850 - HARDWARE KIT		LOCATION
4	GREASE FITTING 1/4-28	
2	M14-2.0 NYLOCK NUT	
6	3/8" SAE WASHER	
6	3/8-16 C-LOCK NUT	
4	1/2-13 X 2-3/4" HEX BOLT	
8	1/2" SAE WASHER	
4	1/2-13 C-LOCK NUT	
8	9/16" SAE WASHER	
8	9/16-18 NYLOCK NUT	
8	5/16-18 X 1" HEX BOLT	
16	5/16" SAE WASHER	
8	5/16-18 C-LOCK NUT	
1	THREAD LOCKING COMPOUND	

- TOOL LIST -

Required Tools (Not Included)

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

- 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.

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.

USING FOUR-WHEEL DRIVE PER FORD MOTOR CO.

- Do not use 4H or 4L mode on dry, hard surfaced roads. Doing so can produce excessive noise, increase tire wear and may damage drive components. 4H or 4L mode is only intended for consistently slippery or loose surfaces. Use of 4L mode on these surfaces may produce some noise, such as occasional clunks, but should not damage drive components.

FOOTNOTES -

- Fits SuperCrew models only

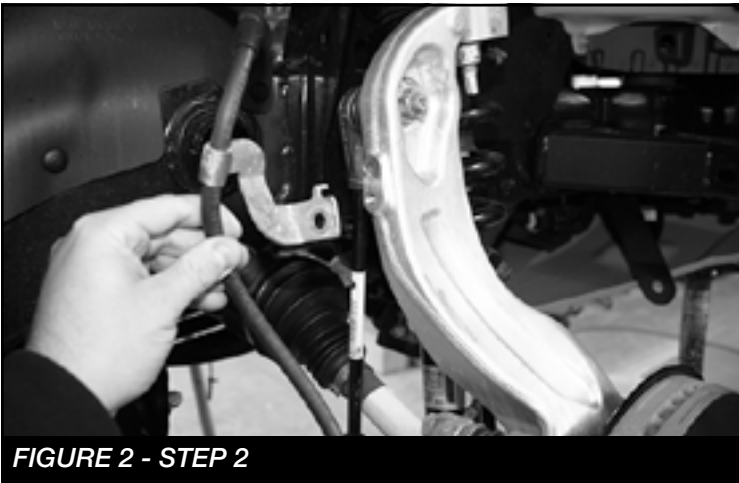
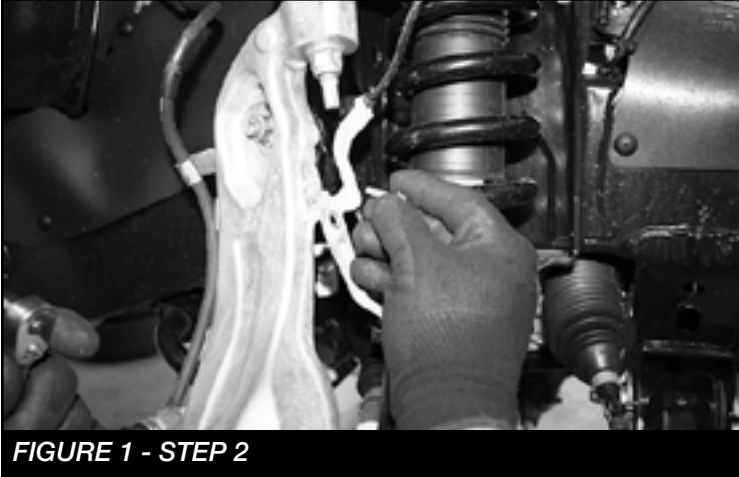
TIRE & WHEEL SIZES -

- 275/65R17 tires w/18x9 wheels w/5" BS w/minor trimming
- 255/75R17 tires w/Factory Wheels w/minor trimming
- 265/70R17 tires w/Factory Wheels w/minor trimming
- 255/75R17 tires w/Factory Wheels w/minor trimming
- 265/65R18 tires w/Factory Wheels w/minor trimming
- 285/55R20 tires w/20x9 wheels w/6-1/2" BS w/minor trimming

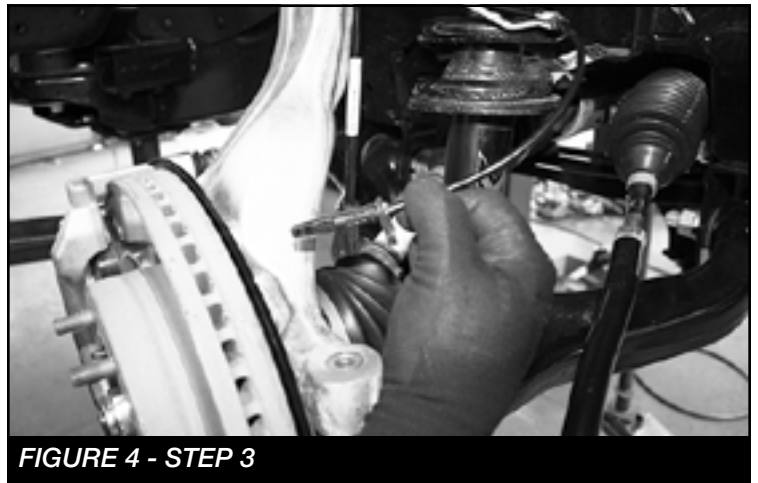
- INSTRUCTIONS -

FRONT SUSPENSION

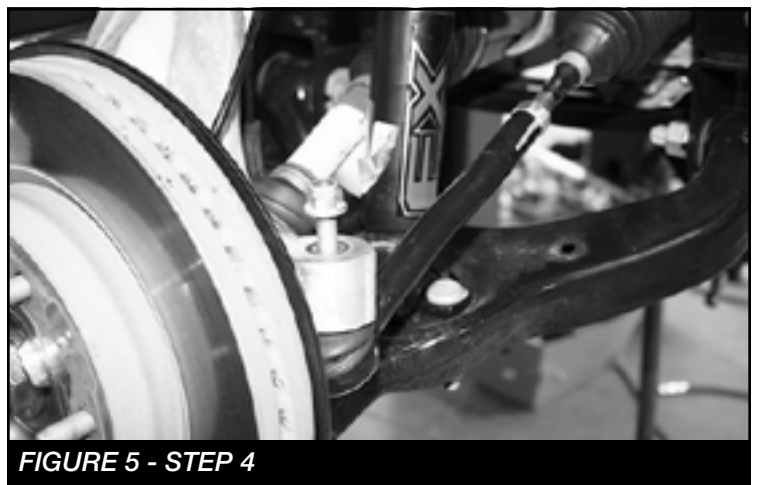
1. Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the front tires.
2. Using an 8mm & 10mm socket, remove the ABS line and brake line brackets from the knuckle. Save hardware. **SEE FIGURES 1-2**



3. Remove the ABS sensor from the knuckle using an 8mm socket. Secure the sensor in the wheel well so it does not get damaged. **SEE FIGURES 3-4**



4. Use a 15mm socket to loosen the tie rod nut. Using a hammer strike the knuckle to unseat the tie rod, then remove the tie rod from the knuckle. Save hardware. **SEE FIGURES 3-4**



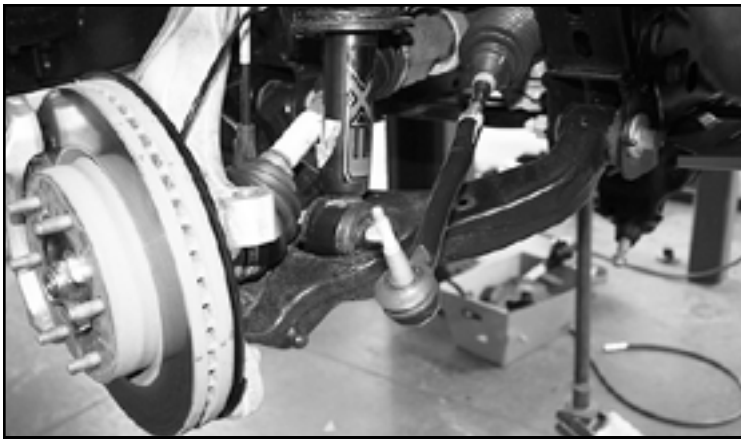


FIGURE 6 - STEP 4

5. Using an 18mm socket, remove the sway bar end link nut attaching the link to the knuckle. Then, detach the link from the back side of the knuckle. Save hardware. **SEE FIGURES 7-8**



FIGURE 7 - STEP 5



FIGURE 8 - STEP 5

6. Unbolt the caliper from the knuckle and remove. **NOTE:** Secure it to the frame so it does not hang from the hose. Then, remove the brake rotor and set aside. **SEE FIGURES 9-10**

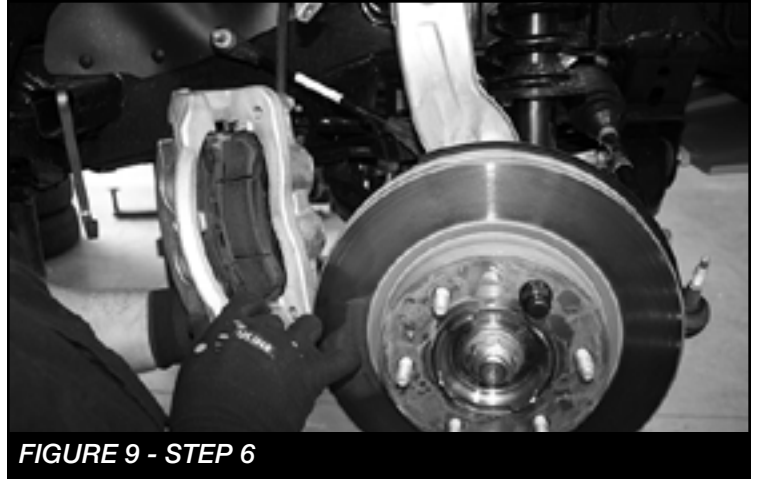


FIGURE 9 - STEP 6

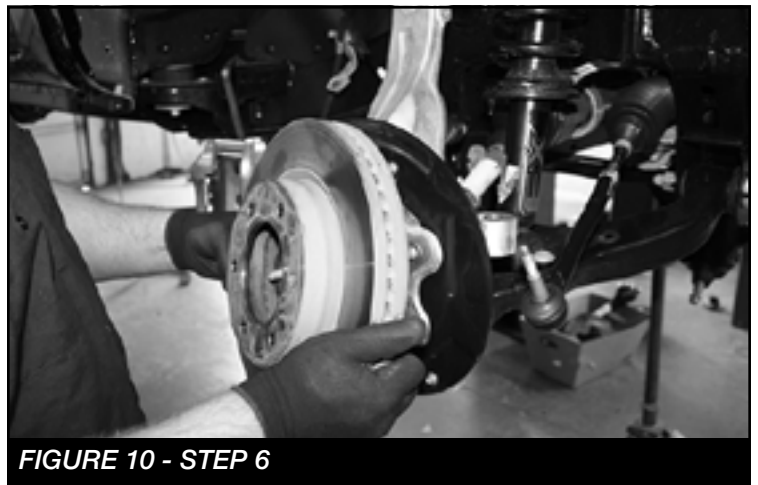


FIGURE 10 - STEP 6

7. Use a 35mm socket to remove the axle nut from the hub assembly. Save hardware. **SEE FIGURE 11**

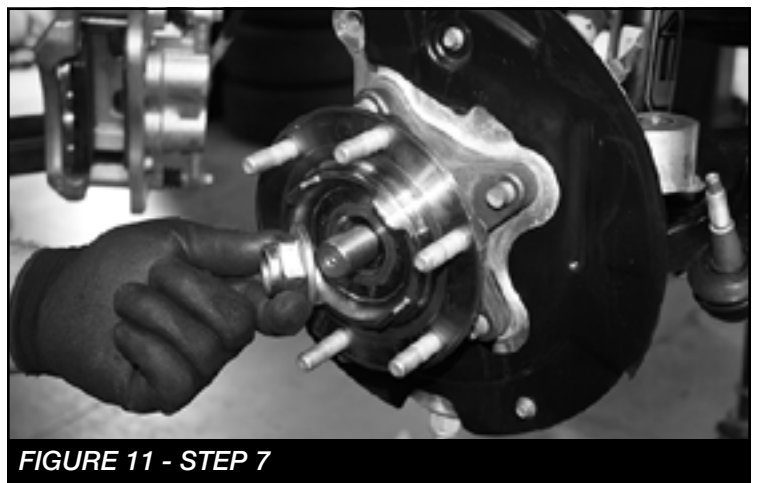


FIGURE 11 - STEP 7

8. Using a soft metal brass punch and hammer. Tap the axle shaft until its unseated from the hub assembly. **SEE FIGURE 12**

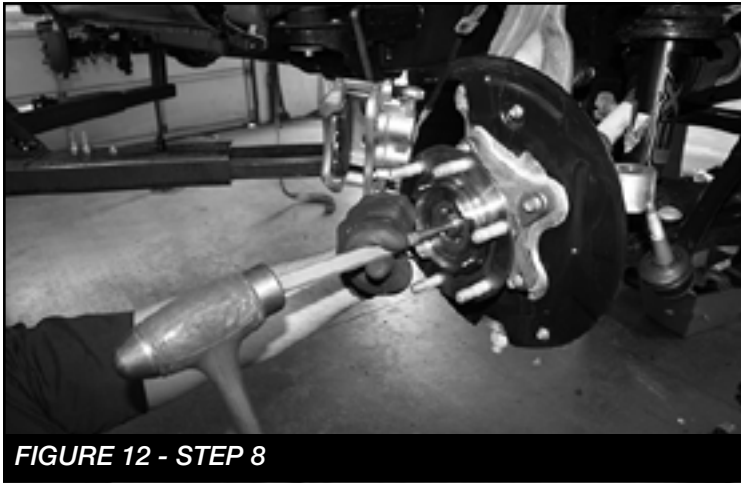


FIGURE 12 - STEP 8

9. Use an 18mm wrench to loosen the upper control arm ball joint nut. Strike the top of the knuckle to unseat the ball joint from the knuckle. Remove and save the nut. Make sure the CV axle is dislodged from the knuckle and let the knuckle rest to the side. **SEE FIGURES 13-15**

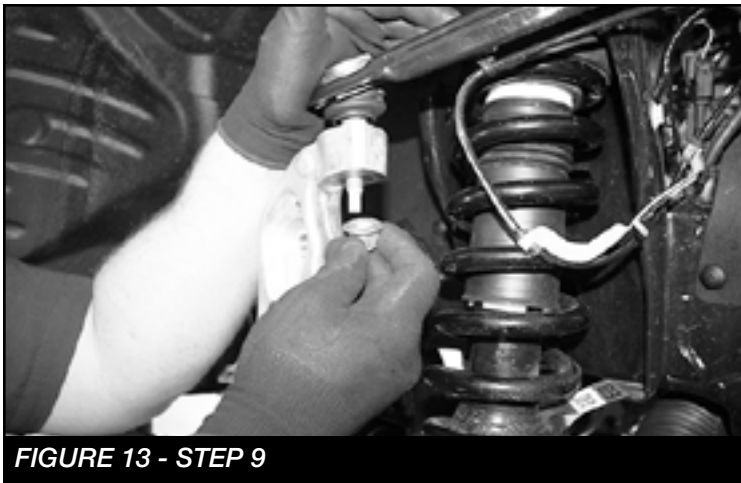


FIGURE 13 - STEP 9

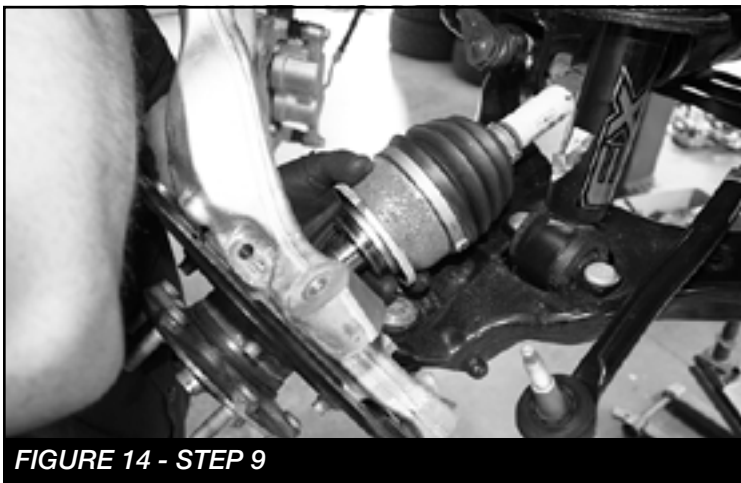


FIGURE 14 - STEP 9



FIGURE 15 - STEP 9

10. With a jack supporting the lower control arm. Use an 18mm socket to remove the two lower strut nuts on the bottom of the lower control arm. Save hardware. **SEE FIGURE 16**



FIGURE 16 - STEP 10

11. Loosen the lower control arm alignment cam bolts so the control arm can swing down freely. **SEE FIGURE 17**



FIGURE 17 - STEP 11

12. Mark a straight line down the strut top cap, spring plate and body to note correct orientation. **SEE FIGURE 18**

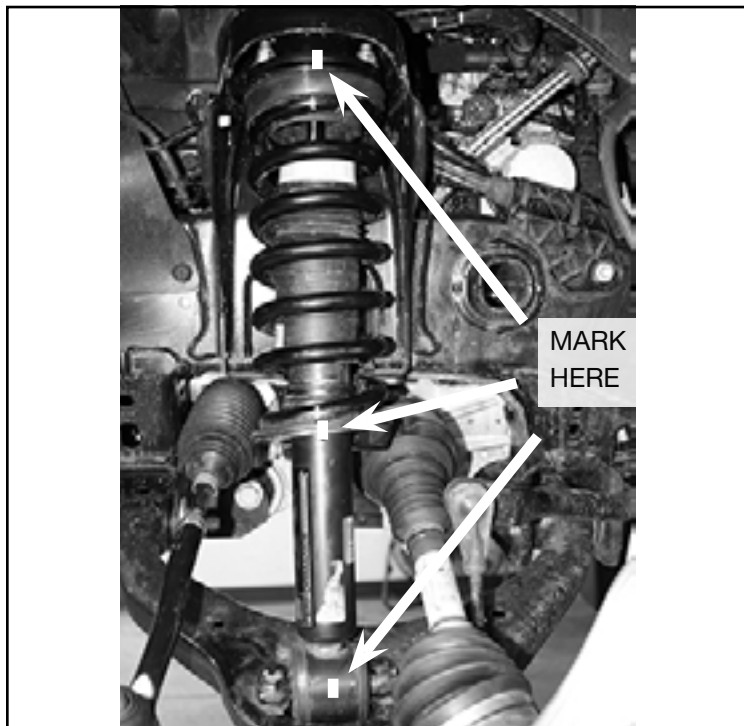


FIGURE 18 - STEP 12

13. Remove the three strut nuts from the top mount and remove the strut assembly from the vehicle. Save hardware. **SEE FIGURES 19-20**



FIGURE 19 - STEP 13



FIGURE 20 - STEP 13

14. Remove the inner fender rubber liners and save. **SEE FIGURE 21**



FIGURE 21 - STEP 14

15. Remove the factory upper control arm and save the factory bolt. Discard arm. **SEE FIGURES 22-23**



FIGURE 22 - STEP 15

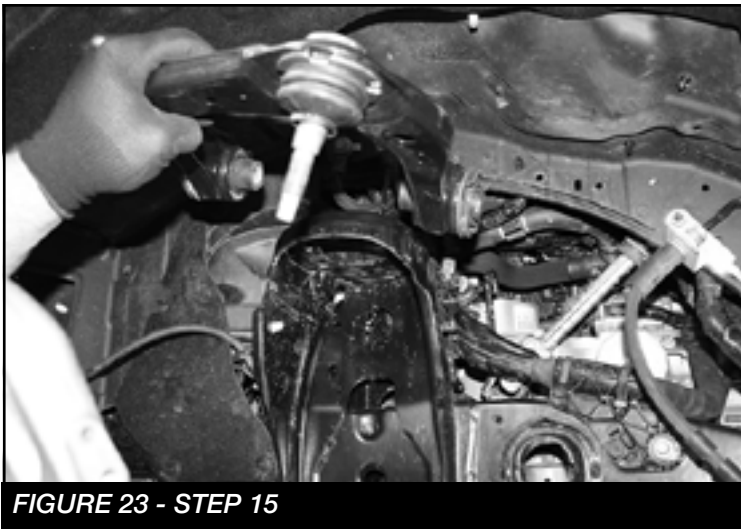


FIGURE 23 - STEP 15

16. **NOTE:** On the passenger side remove and save the upper control arm heat shield to remove the upper control arm. **SEE FIGURE 24**



FIGURE 24 - STEP 16

17. Remove the factory studs from both lower strut mounts. **SEE FIGURE 25**



FIGURE 25 - STEP 17

18. Using a coil spring compressor. Compress the coil spring enough to release the tension off the top cap. Next, remove the top cap and set aside. **SEE FIGURES 26-28**



FIGURE 26 - STEP 18

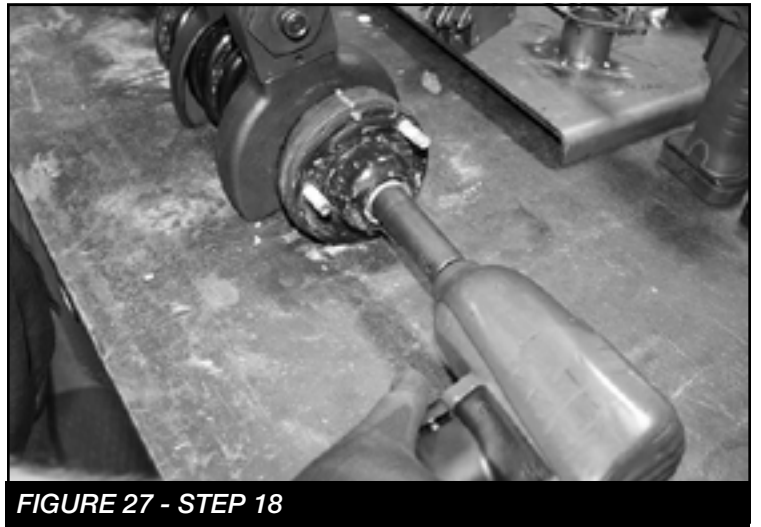


FIGURE 27 - STEP 18



FIGURE 28 - STEP 18

19. Remove the coil spring from the strut. Next, remove the foam bumpstop. Then, remove the plastic dust cover. **SEE FIGURES 29-31**

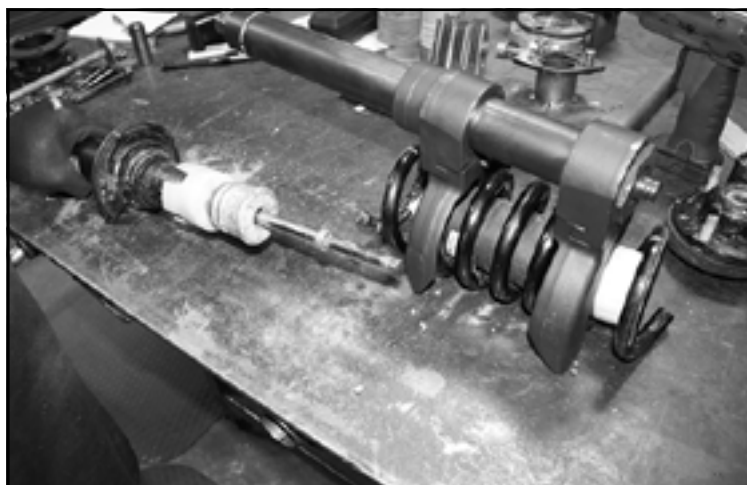


FIGURE 29 - STEP 19



FIGURE 30 - STEP 19



FIGURE 31 - STEP 19

20. Using a hammer, tap the lower spring perch until it comes loose from the strut assembly. Remove and save. **SEE FIGURE 32**



FIGURE 32 - STEP 20

21. Install FT30872 (Spring Spacer) onto the strut with the grooved end seating onto the lip on the factory strut. **SEE FIGURE 33**



FIGURE 33 - STEP 21

22. Reinstall the Lower spring perch, plastic dust cap, foam bumpstop, coil spring and upper top cap. Torque the top nut to 35 ft-lbs. Once the setup is aligned using the marks from Step 12. Rotate the top cap 60 degrees in either direction then remove the spring compressor.

23. Remove the factory locator pin on the top cap and discard. **SEE FIGURE 34**



FIGURE 34 - STEP 23

24. Remove 1/4" from the end of the strut top cap studs using a cut off wheel. **SEE FIGURE 35**



FIGURE 35 - STEP 24

25. Install FT30846 (Strut Spacer) onto the upper strut mount using the factory hardware. Torque to 53 ft-lbs. **SEE FIGURES 36-37**

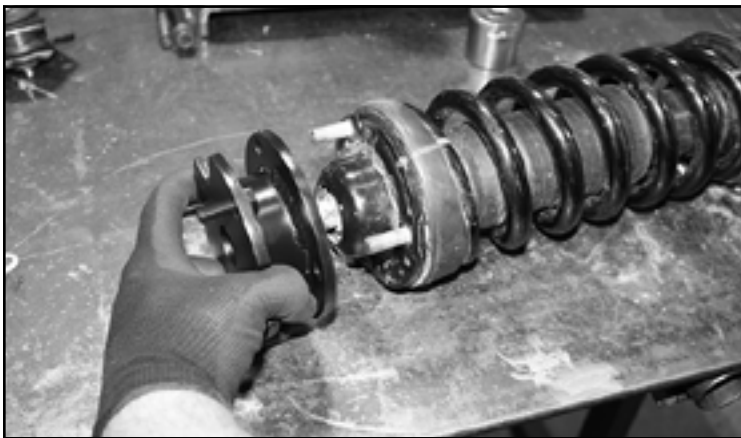


FIGURE 36 - STEP 25



FIGURE 37 - STEP 25

26. Install the strut assembly into the vehicle using the supplied 3/8" nuts and washers at the upper mount and 1/2" x 2-3/4" bolts, washers and nuts at the lower mount. Torque 3/8" hardware to 44 ft-lbs and 1/2" to 120 ft-lbs. **SEE FIGURES 38-39**



FIGURE 38 - STEP 26



FIGURE 39 - STEP 26

27. Repeat steps 17-26 on the opposite side.

28. Install the FT1037, FT1038 (Bushings), FT30871 (Sleeves) and zerk fittings into the FT30847 & FT30848 (Upper Control Arms). The excess of the sleeve will stick out on the inside. Then, Install FT20154 (Ball joints) onto the using the supplied 5/16 X 1" bolts, washers and nuts. Torque to 25 ft-lbs. **SEE FIGURES 40-42**

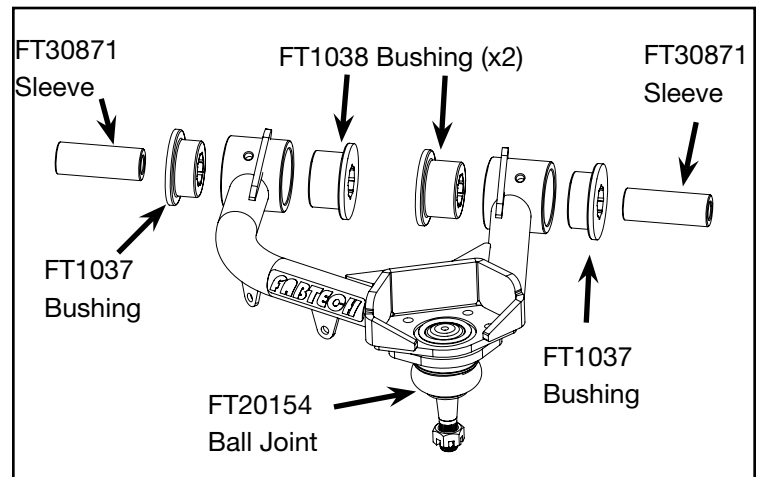


FIGURE 40 - STEP 28



FIGURE 41 - STEP 26

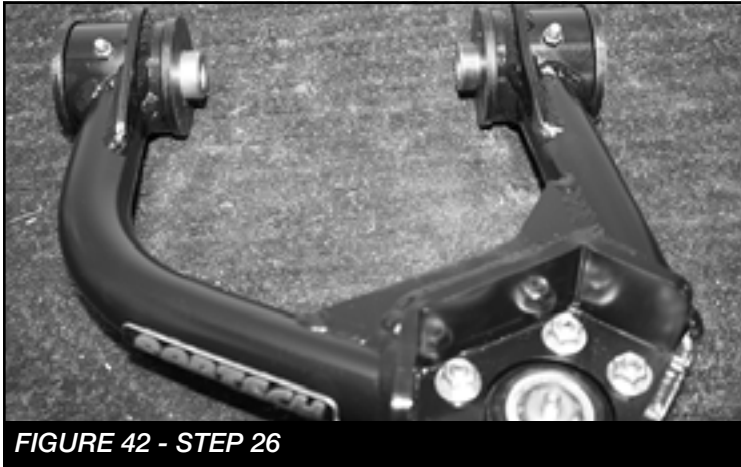


FIGURE 42 - STEP 26

29. Install two FT30870 (Bushing hat washer) onto each inside part of the sleeve. **SEE FIGURES 43-44**



FIGURE 43 - STEP 29

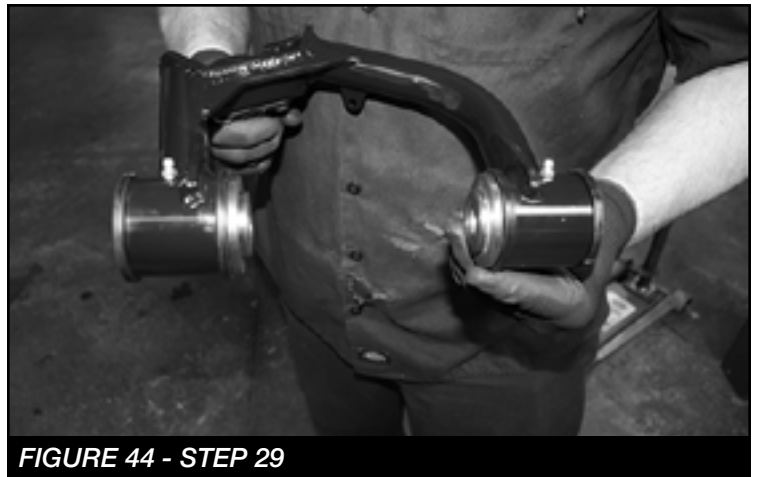


FIGURE 44 - STEP 29

30. Install the new Fabtech upper control arm using the factory bolt. **NOTE: The bolt will be installed from rear to front.** Install FT20836 (washer) on the threaded end. Hand tighten the new supplied M14 nut. Do not torque at this time. **SEE FIGURE 45**

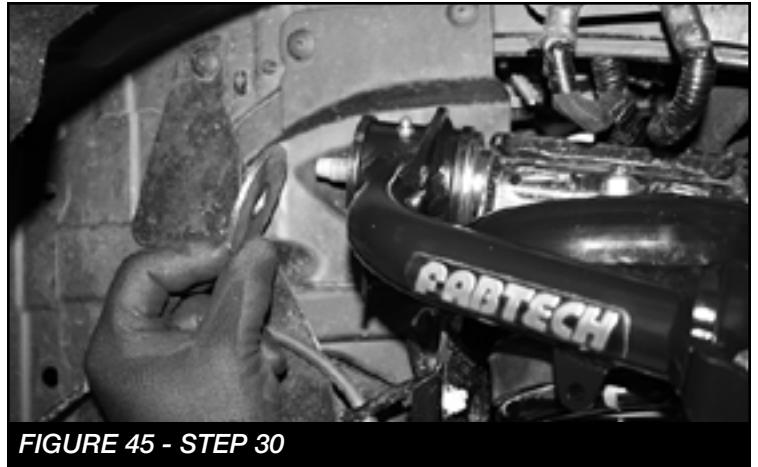


FIGURE 45 - STEP 30

31. Install the new Fabtech arm to the factory knuckle using the FT30881 (spacer), castle nut and cotter pin. Torque to 37 ft-lbs. **SEE FIGURES 46-48**

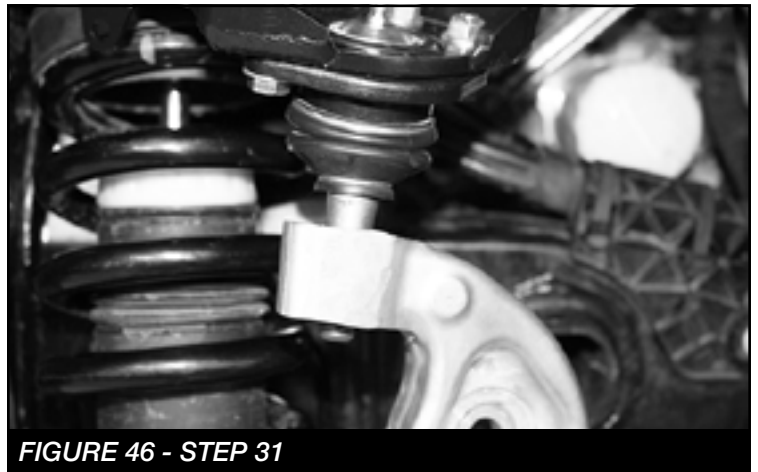


FIGURE 46 - STEP 31

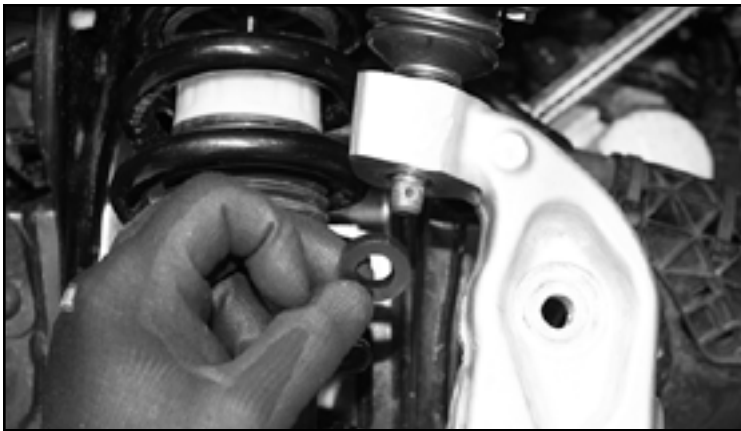


FIGURE 47 - STEP 31



FIGURE 48 - STEP 31

32. Using thread locking compound torque the upper control arm bolt and nut to 120 ft-lbs. **SEE FIGURE 49**



FIGURE 49 - STEP 32

33. Using the supplied clamps and 1/4" hardware. Attach the ABS line to the new upper control arm at both tabs. Reattach the brake line bracket to the knuckle using the factory hardware. Torque to 12 ft-lbs **SEE FIGURES 50-51.**



FIGURE 50 - STEP 33

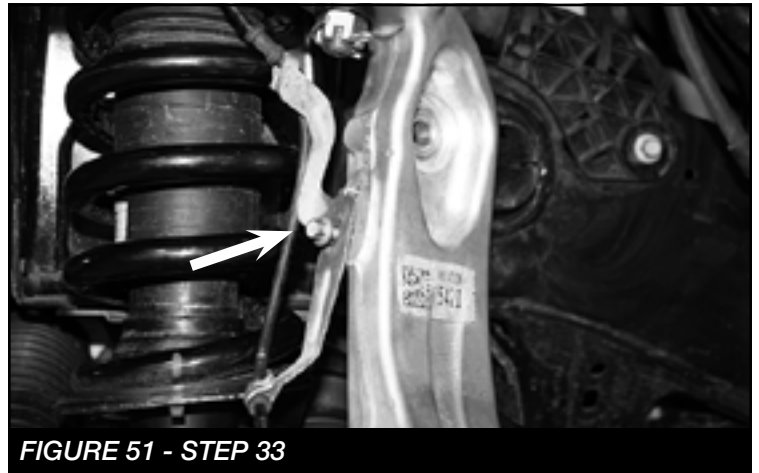


FIGURE 51 - STEP 33

34. Repeat steps 28-33 on the opposite side.

- REAR SUSPENSION -

35. Jack up the rear end of the truck and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the rear wheels/tires.
36. With the rear axle supported. Remove the rear shocks and discard. Save hardware.
37. Remove and discard the factory ubolts.
38. Lower the rear axle enough to install FTBK15 (1.5" Block)
DRIVER SIDE: The factory shim plate between the axle and factory leaf will remain installed under the new block. NOTE: The smaller taper of the block will face to the front of the vehicle. SEE FIGURES 52-53



FIGURE 52 - STEP 38

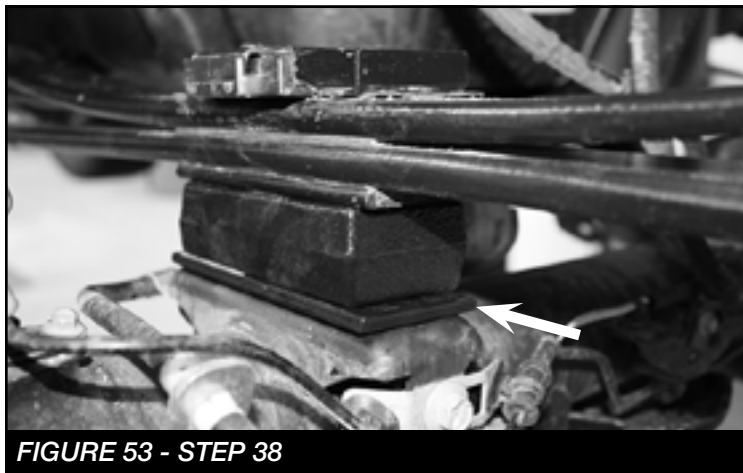


FIGURE 53 - STEP 38

39. Install the supplied ubolts with the factory axle bracket plate and supplied 9/16" nuts and washers. Torque to 90 ft-lbs in a cross pattern sequence. **SEE FIGURE 54**



FIGURE 54 - STEP 39

40. Install the new rear shocks FT7265 (Performance) or FTS811482 (Dirt Logic) using the supplied sleeves from the FT30849 Hardware Subassembly and the factory bolts and nuts. Torque to 70 ft-lbs.
41. 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.**
42. Check front end alignment and set to factory specifications. Readjust headlights.
43. Recheck all bolts for proper torque.
44. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
45. 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.**
46. 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.

RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 50 MILES AND PERIODICALLY THEREAFTER.