



## INSTALLATION INSTRUCTIONS



### **2007-15 TOYOTA TUNDRA 2WD/4WD** **4" SYSTEM w/ BALL JOINT UPPER CONTROL ARM**

**FTS26035 - w/ REAR PERFORMANCE SHOCKS (TRD ONLY)**

**FTS26036 - w/o SHOCKS**

**NOTE: WILL NOT WORK WITH TRD PRO MODELS**



**- PARTS LIST -**

	<b>FTS26035</b>	<b>COMP BOX W/ PERFORMANCE SHOCKS</b>
1	FTS70168D	SPINDLE MACHINED (DRIVER)
1	FTS70168P	SPINDLE MACHINED (PASSENGER)
1	FT70172BK	BALL JOINT UCA (DRIVER)
1	FT70173BK	BALL JOINT UCA (PASSENGER)
2	FT20538	HIGH TRAVEL BALL JOINT
2	FT70170BK	SHOCK SPACER
2	FTS7188	PERFORMANCE SHOCK
1	FT70175	HARDWARE KIT
1	FT70195	HARDWARE SUBASSEMBLY
2	FTBK12	1" BLOCK 9/16" PIN
4	FT1500U	U-BOLT SQ 9/16-18X10.00X2.63

	<b>FTS26036</b>	<b>COMP BOX W/O SHOCKS</b>
1	FTS70168D	SPINDLE MACHINED (DRIVER)
1	FTS70168P	SPINDLE MACHINED (PASSENGER)
1	FT70172BK	BALL JOINT UCA (DRIVER)
1	FT70173BK	BALL JOINT UCA (PASSENGER)
2	FT20538	HIGH TRAVEL BALL JOINT
1	FT70175	HARDWARE KIT
1	FT70195	HARDWARE SUBASSEMBLY
2	FTBK12	1" BLOCK 9/16" PIN
4	FT1500U	U-BOLT SQ 9/16-18X10.00X2.63

	<b>FT70195</b>	<b>HARDWARE SUBASSEMBLY</b>
4	FT1037	BUSHING
4	FT1038	BUSHING
4	FT196	SLEEVE
2	FT26035I	INSTRUCTIONS
8	FT57-1	WASHER 2.188 X .656 X .188
1	FT70111	BRAKE HOSE MOUNT (DRIVER)
1	FT70112	BRAKE HOSE MOUNT (PASSENGER)
2	FT70171	FRONT DIFF SPACER
4	FT70174	BUMP STOP SPACER
1	FT916H	9/16" U-BOLT HARDWARE KIT
1	FTAS16	DRIVER WARNING DECAL
1	FTLUBE	URETHANE LUBE 1 PACKET
1	FTREGCARD	REGISTRATION CARD

	<b>FT70175 - HARDWARE KIT</b>	<b>LOCATION</b>
2	1/2-13 X 6 HEX BOLT G8 ZINC	Diff
2	1/2-13 C-LOCK NUT ZINC	
4	1/2 SAE WASHER G8 ZINC	
4	1/4-20 X 3/4 HEX BOLT G8 ZINC	Brake Line Mount
4	1/4 SAE WASHER G8 ZINC	
4	1/4 LOCK WASHER ZINC	
2	1/4-20 X 1/2 HEX BOLT G8 ZINC	Brake Line Clamp
2	1/4 SAE WASHER G8 ZINC	
2	1/4 LOCK WASHER ZINC	
8	3/8-16 C-LOCK NUT ZINC	Coilover Shock
8	3/8 SAE WASHER G5 ZINC	
4	CLAMP 3/8X1/2W .26THK NEOPRENE	Wheelspeed sensor wire
1	THREAD LOCKING COMPOUND 1 MIL	
4	GREASE FITTING 1/4-28	
2	ZIP TIE 8" BLACK 40 LBS	

**- 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



## - 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.

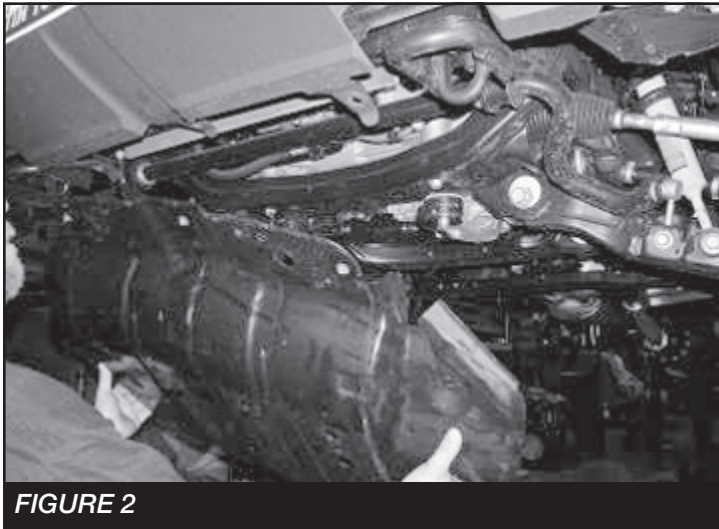
Verify differential fluid is at manufactures recommended level prior to kit installation. Installation of the kit will reposition the differential and the fill plug hole may be in a different position. (For example, if the manufacture recommends 3 quarts of fluid, make sure the diff has 3 quarts of fluid).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

**NOTE: BASIC NON-COILOVER KIT WILL NOT FIT NON TRD OR TRD PRO MODELS.**

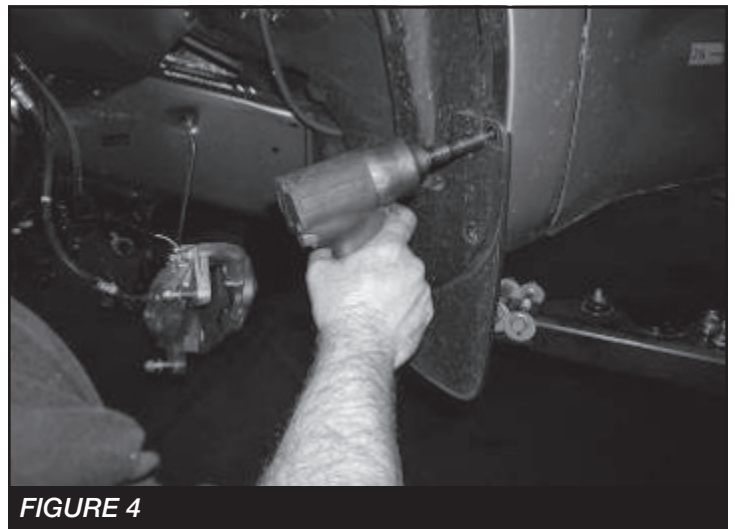
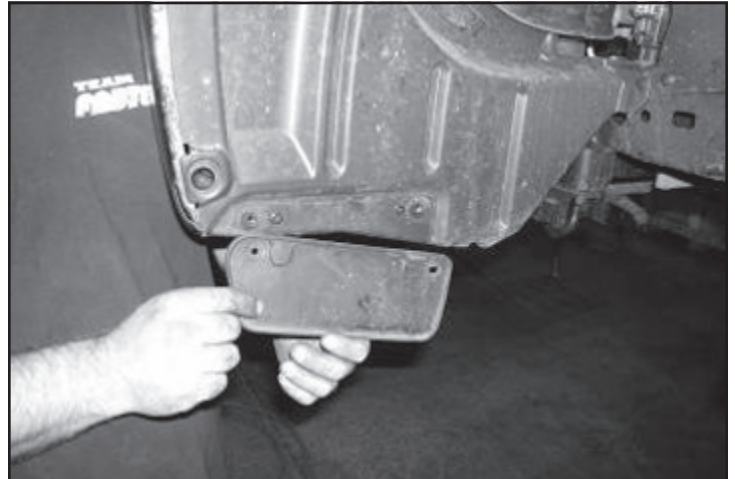
# - INSTRUCTIONS -

## 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 front of the truck, locate and remove the factory skid plate. Discard skid plate and hardware, these will not be reinstalled on the truck. **SEE FIGURES 1-2**



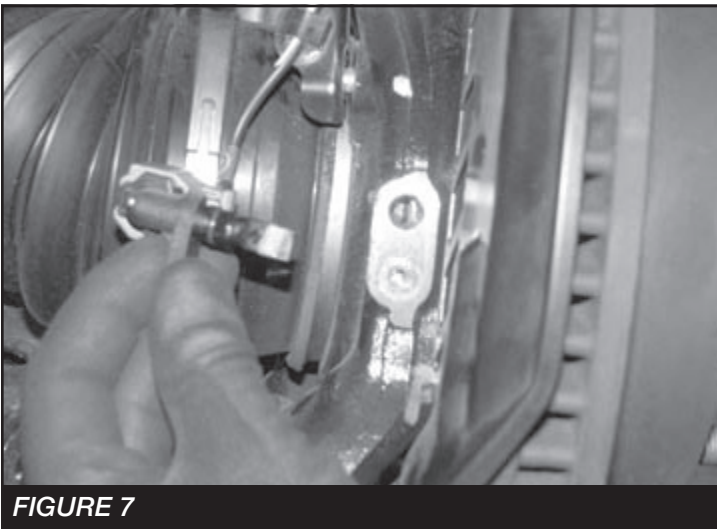
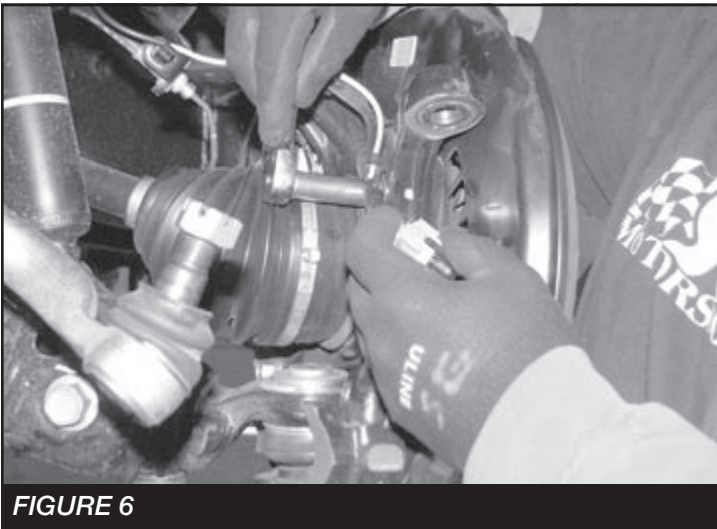
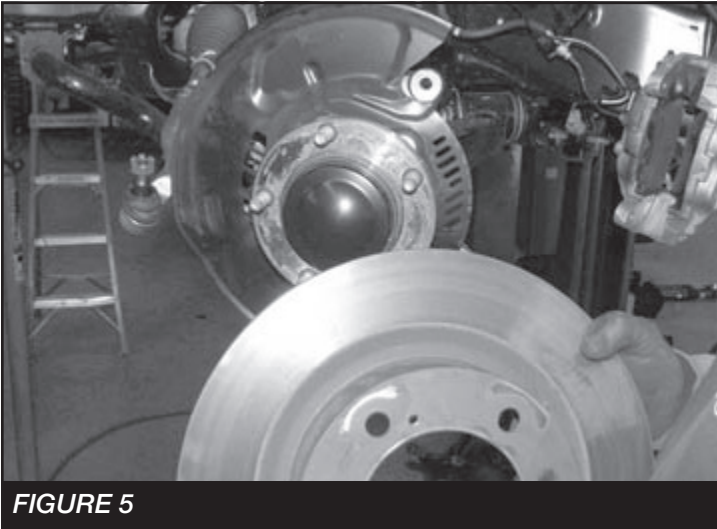
3. Remove factory mud flaps off front of the vehicle and discard. **SEE FIGURES 3-4**



4. Remove the sway bar link ends from the lower control arm.
5. Starting on the driver's side, disconnect the tie rod end from the steering knuckle by striking the knuckle to dislodge the tie rod end. Use care not to damage the ball joints.

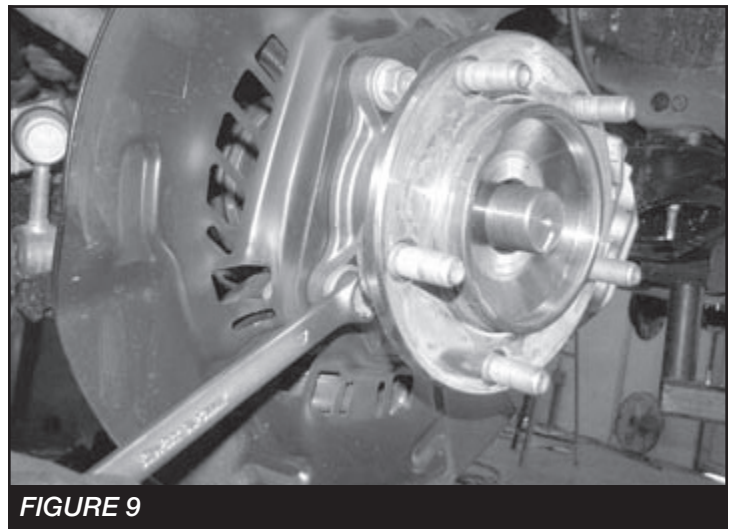
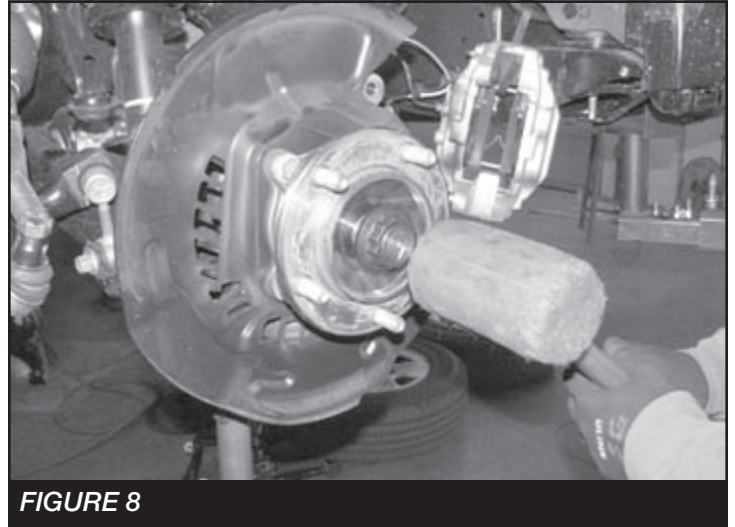


6. Remove the brake hose bracket from the top of the steering knuckle. Remove the caliper from the rotor and place above the upper control arm during this portion of the installation. Remove brake rotor from the steering knuckle. Unbolt the wheel speed sensor connection from the hub and control arm. **SEE FIGURES 5-7**

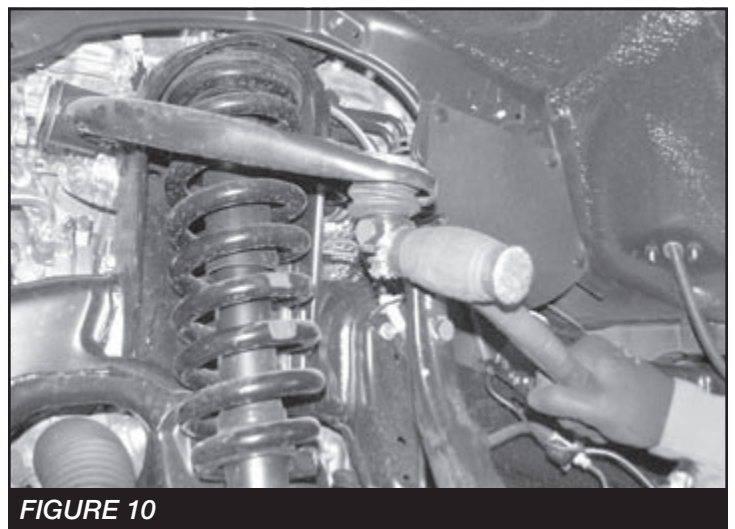


7. Remove axle nut, washer and the 4 hub bolts on backside of knuckle. Remove bearing hub assembly from knuckle. Retain parts and hardware for reinstallation.

**SEE FIGURES 8-9**

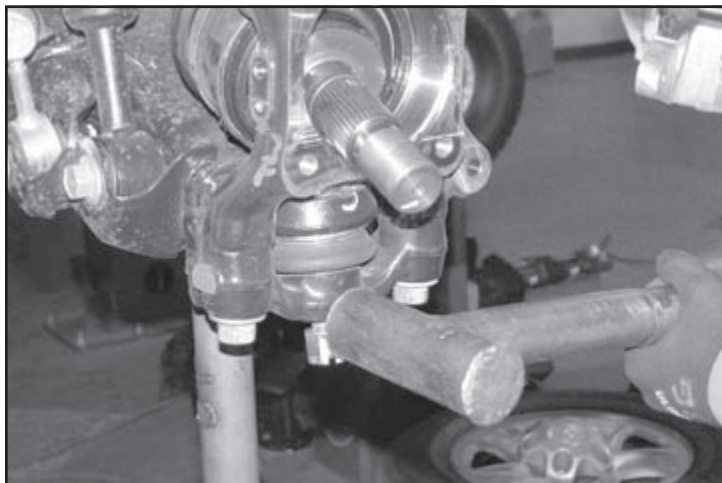


8. Remove the upper ball joint nuts. Disconnect the upper ball joints from the steering knuckle by striking the knuckle with a large hammer next to the ball joint on the knuckle to dislodge the ball joints. Use care not to hit the ball joints when removing. Retain nuts. **SEE FIGURE 10**

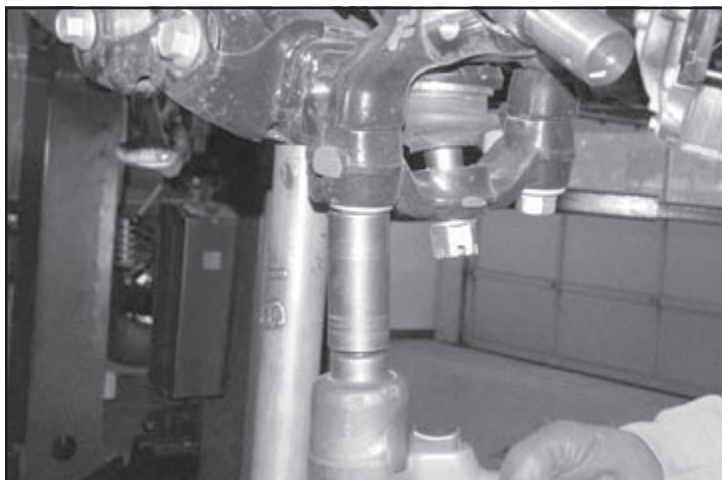


9. Loosen the castle nut on the lower ball joint and strike the lower ball joint boss assembly with a large hammer next to the ball joint to dislodge (use care not to hit the ball joint when removing). Remove the two bolts on each side connecting the lower ball joint assembly to the knuckle and remove the knuckle. Remove the castle nut from the lower ball joint and remove the boss from the ball joint. Save the castle nut and discard the knuckle.

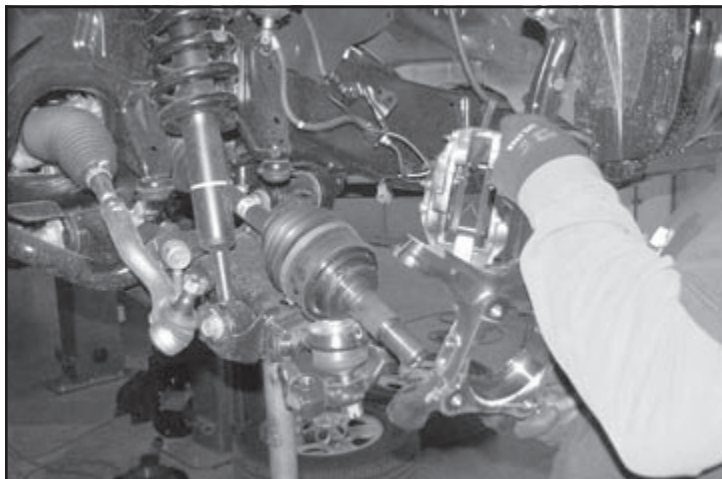
**SEE FIGURES 11-13**



**FIGURE 11**



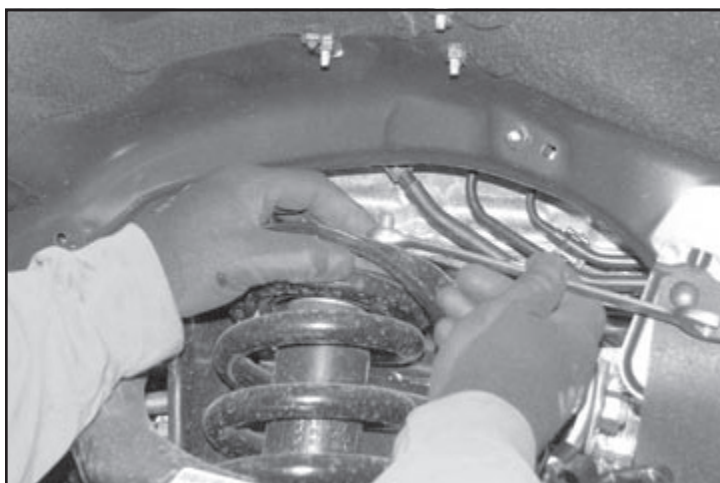
**FIGURE 12**



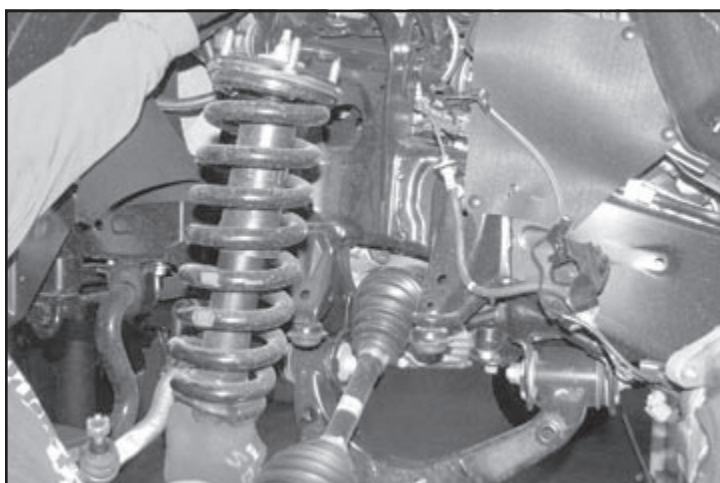
**FIGURE 13**

10. Remove the factory coil over shock. Save the factory shock and hardware if not installing Dirt Logic shock.

**SEE FIGURES 14-15**



**FIGURE 14**



**FIGURE 15**

11. Support the front differential with a transmission or floor jack. Remove the front passenger and driver diff bolts.

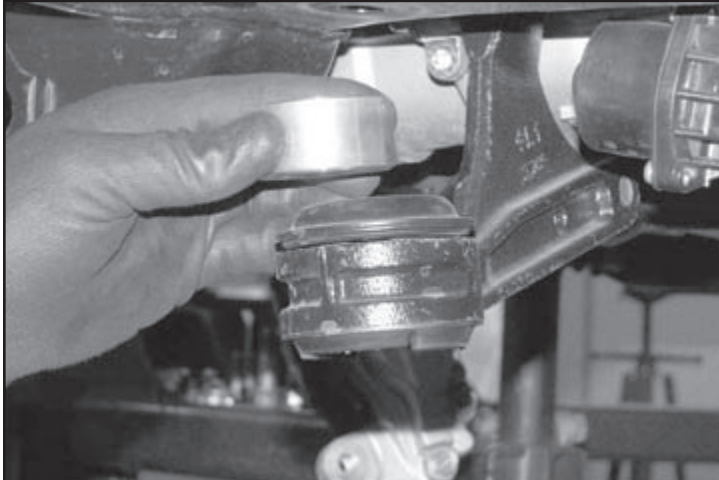
**SEE FIGURE 16**



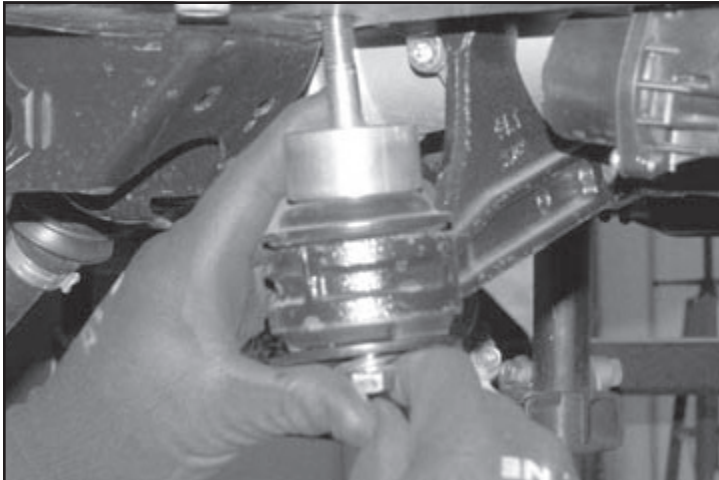
**FIGURE 16**



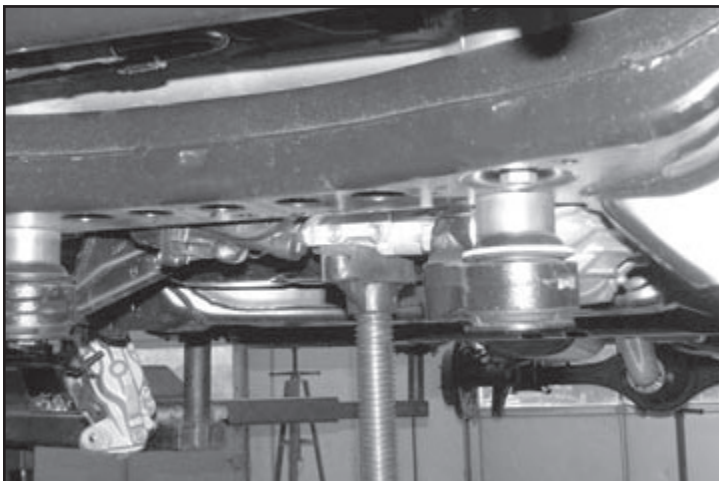
12. Locate two of the FT70171 front diff spacer and two ½" -13 x 6" bolts nuts and washers. Install the Diff spacers under the factory mounts. Torque to 90 ft-lbs. **SEE FIGURES 17-19**



**FIGURE 17**

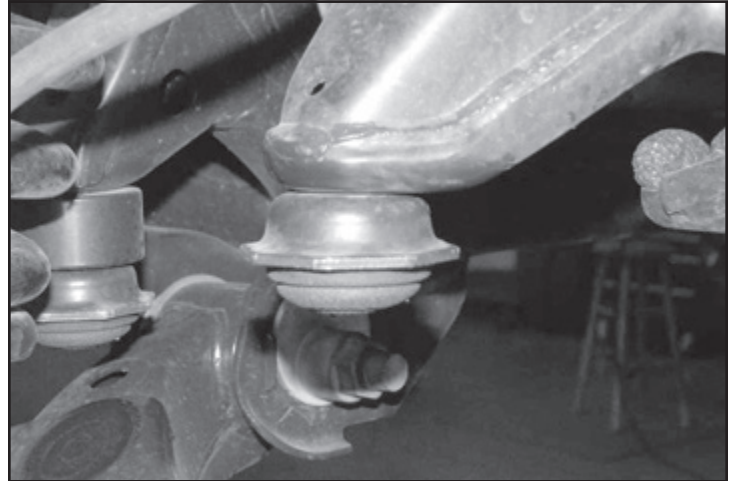


**FIGURE 18**



**FIGURE 19**

13. Locate the four factory compression bump stops and remove and save. **SEE FIGURE 20**

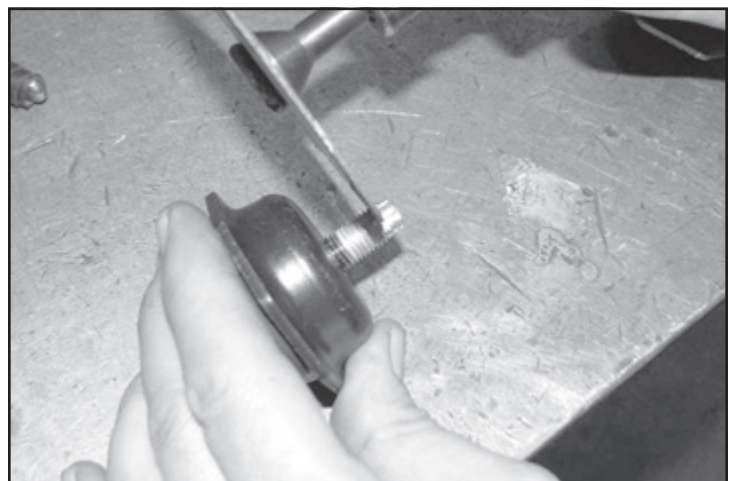


**FIGURE 20**

14. Using a die grinder remove a ¼" of thread from the threaded portion of the bump stop. **SEE FIGURES 21-22**

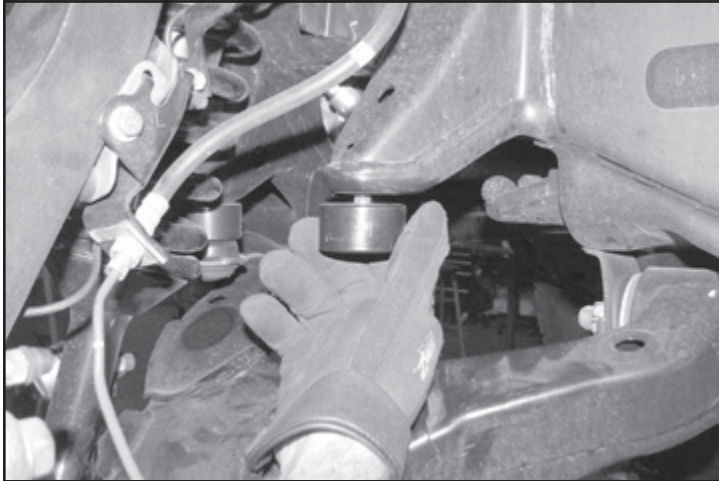


**FIGURE 21**



**FIGURE 22**

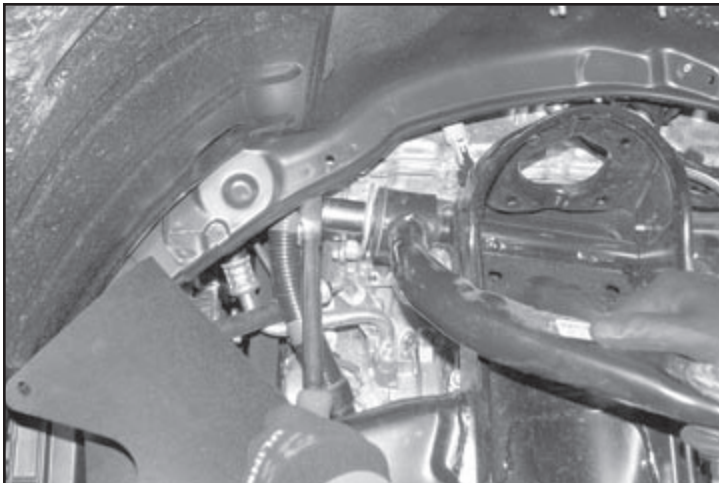
15. Locate the four FT70174 bump stop spacers and thread in to the factory bump stop mounts. **SEE FIGURE 23**



**FIGURE 23**

16. Thread the cut bump stop into the new spacer. Torque to 17 ft-lbs.

17. Remove the upper control arm. Retain the factory hardware. **SEE FIGURES 24-25**



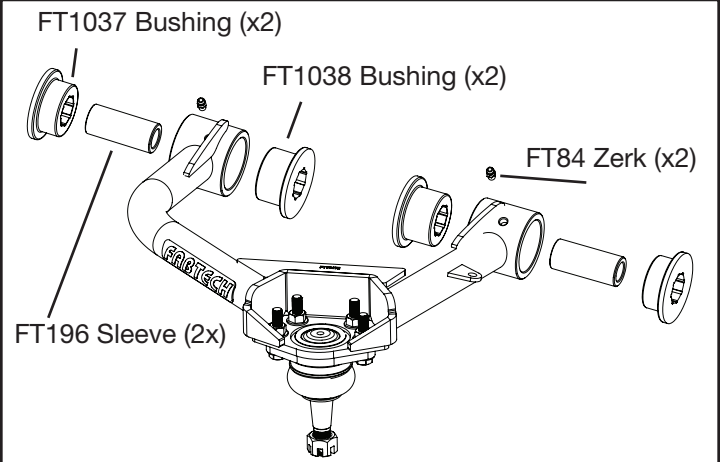
**FIGURE 24**



**FIGURE 25**

18. Locate the Fabtech driver's side control arm FT70172BK, Two FT1038, two 1037 bushings two grease zerks FT84, two FT196 sleeves and the ball joint FT20538.

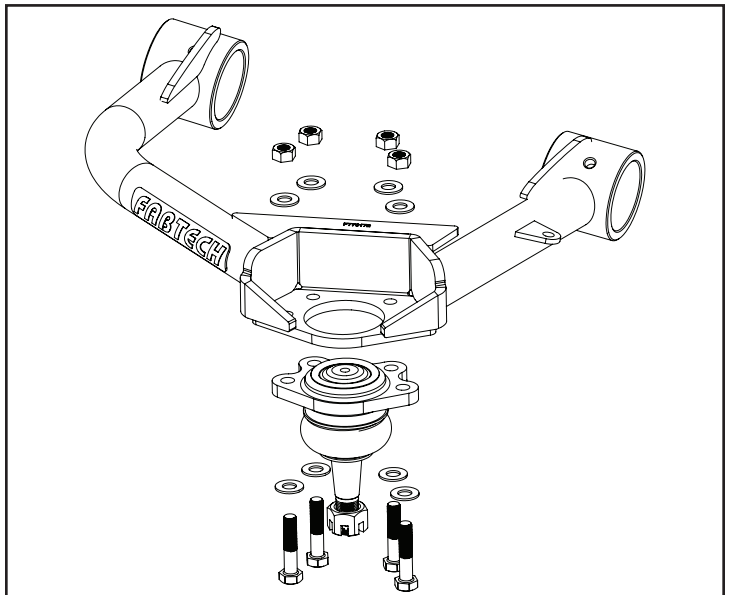
19. Install all these components in the control arm barrels. Install the ball joint onto the bottom side of the control arm ball joint plate. Use the supplied 5/16" bolts, nuts and washers. Torque to 29 ft-lbs. **SEE FIGURES 26-30**



**FIGURE 26**



**FIGURE 27**



**FIGURE 28**



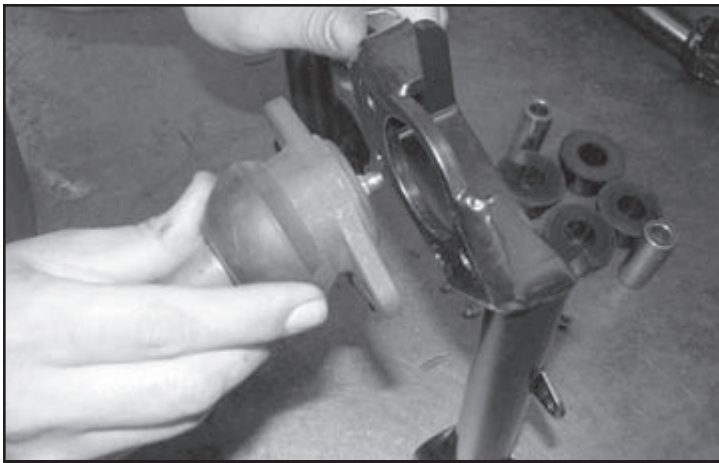


FIGURE 29

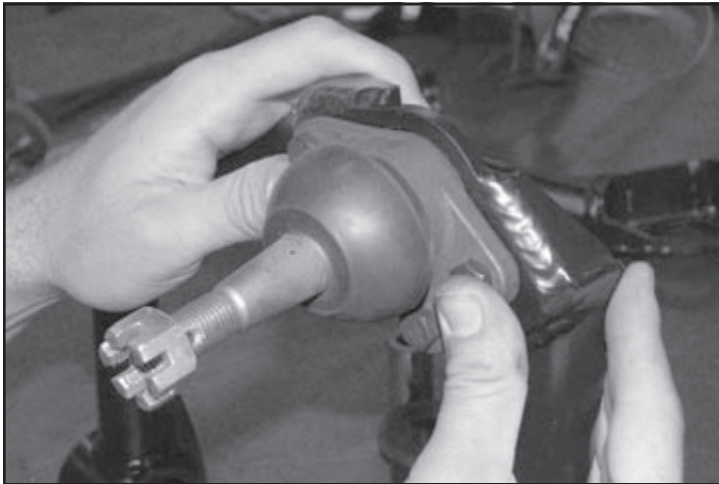


FIGURE 30

20. Install the upper arm using the factory hardware. Place the new FT57-1 washers on the inside and outside of the bushings. When installing the arm on the truck make sure the barrel gussets are up. Torque to 200 ft-lbs.

**SEE FIGURES 31-32**

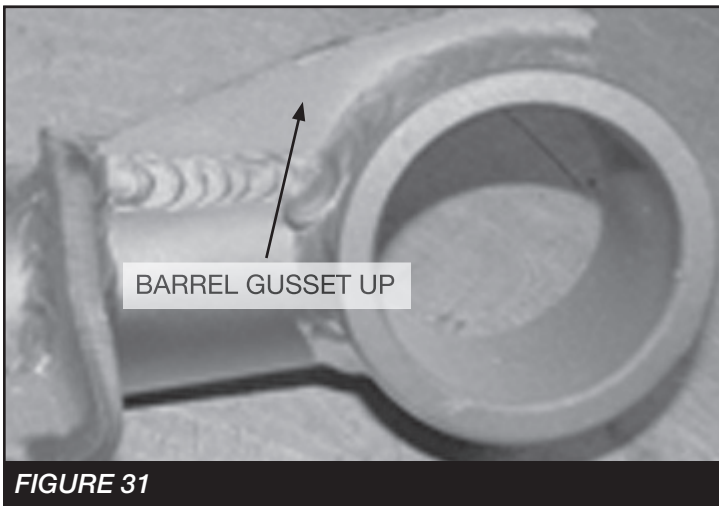


FIGURE 31

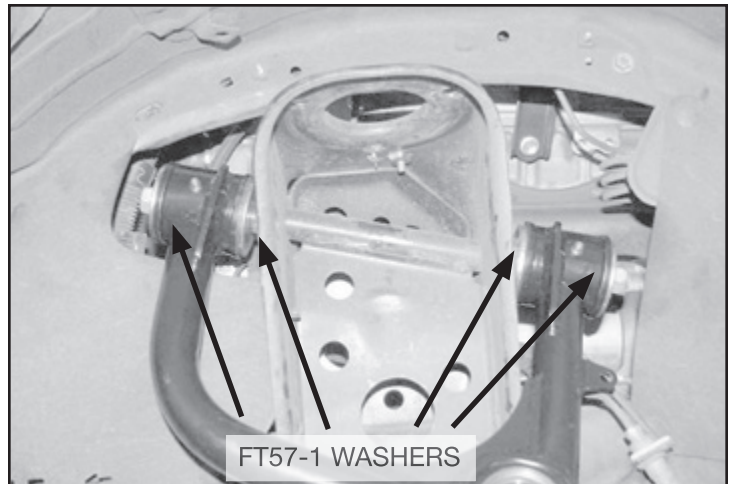


FIGURE 32

21. Locate the factory lower control arm shock mount. The inside gusset plate will need to be cut back to allow for the extra shock clearance. Use a 1.5 "barrel sander and cut back 3/8" in to the shock mount towards the center of the vehicle. **SEE FIGURES 33-34**

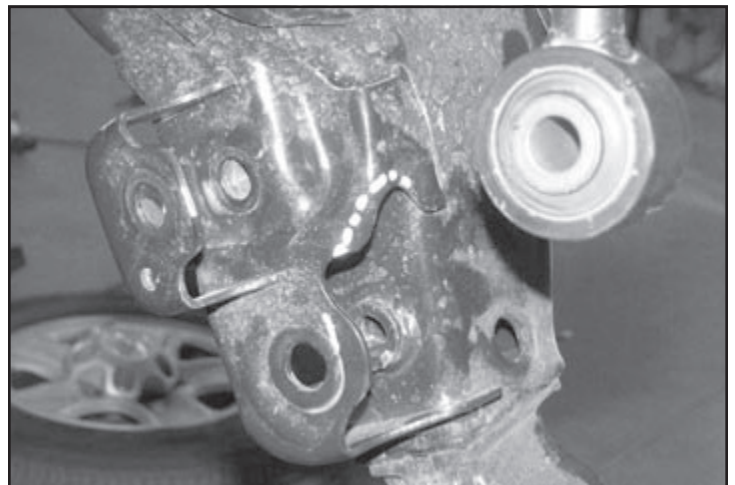


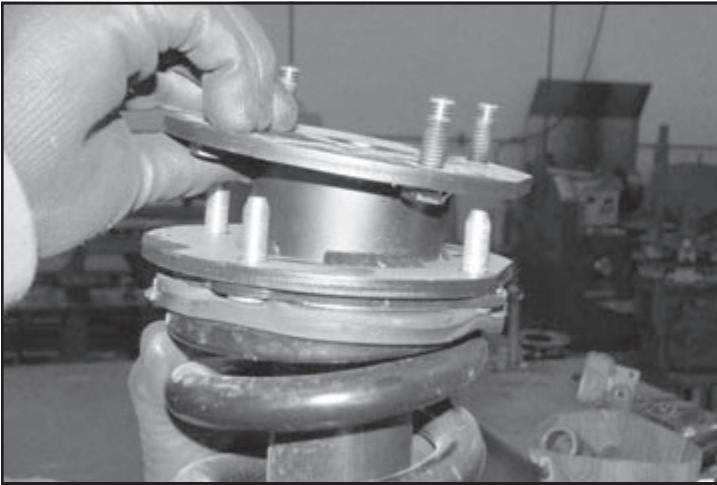
FIGURE 33



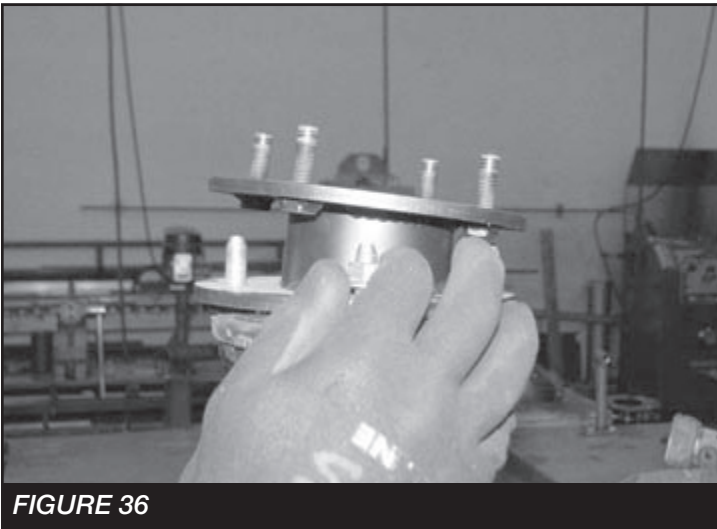
FIGURE 34

*If installing Dirt Logic shock, skip steps 22-23 and refer to the instructions provided with the Dirt Logic shock.*

22. Locate the FT70170BK shock spacer and install it onto the top of the factory coil over using the factory hardware and torque 35 ft-lbs. **SEE FIGURES 35-36**

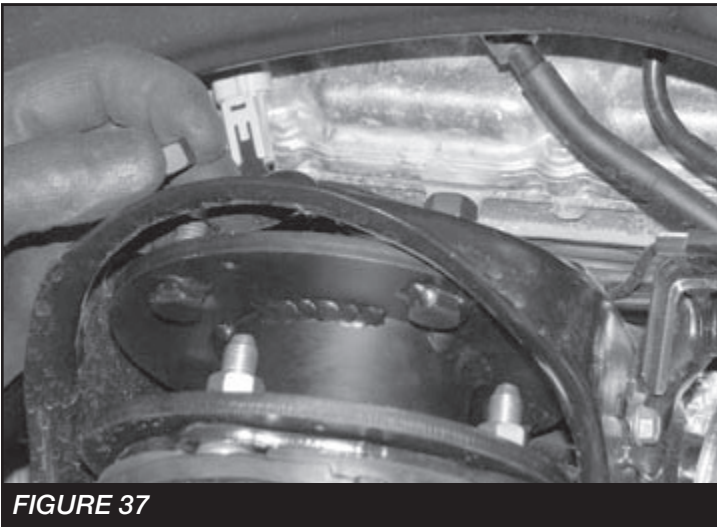


**FIGURE 35**

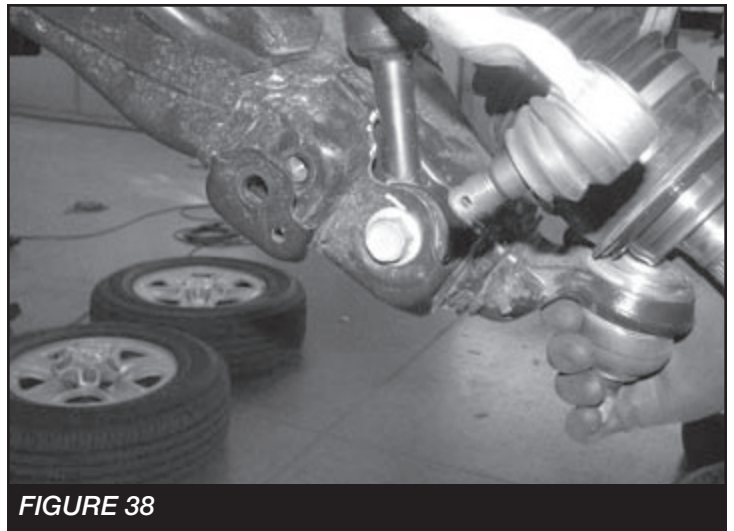


**FIGURE 36**

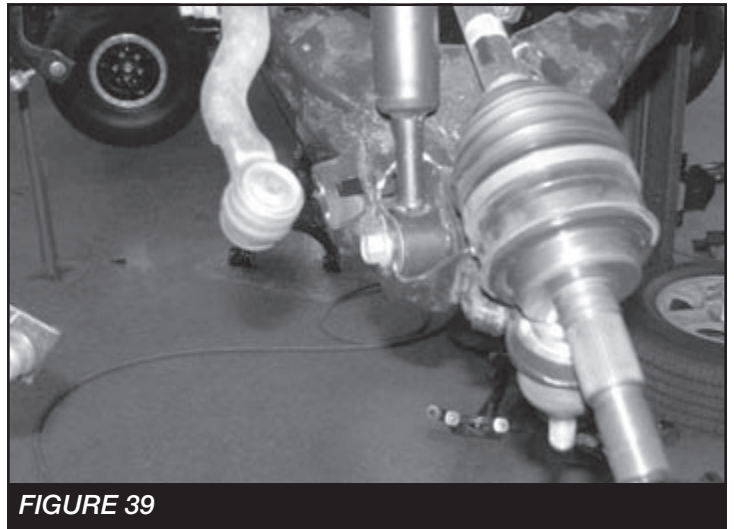
23. Install the coil over into the upper shock mount using four 3/8" washers and nuts. Install the lower factory rod end into the lower control mount using factory hardware. Torque the upper bolts to 37 ft-lbs and the lower 160 ft-lbs. **SEE FIGURES 37-39**



**FIGURE 37**

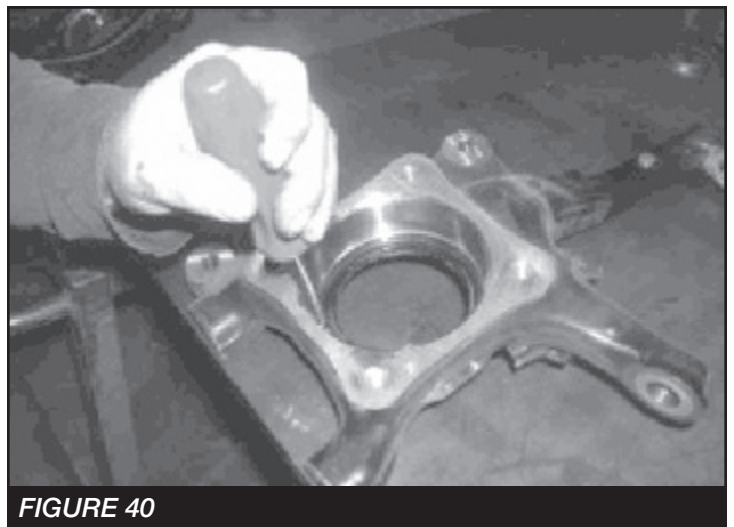


**FIGURE 38**



**FIGURE 39**

24. Locate the factory steering knuckles and remove inner seal.
25. Locate the new Fabtech FTS70168D and steering knuckle. Install the factory inner seal. **NOTE:** 2wd models have a dust shield that must be taken out of the stock knuckle and installed in the new Fabtech knuckle. **SEE FIGURE 40-44**



**FIGURE 40**





FIGURE 41



FIGURE 42



FIGURE 43



FIGURE 44

26. Position the knuckle onto the lower ball joint and CV Axle (4wd only) at the same time and install the lower ball joint nut. Leave loose (make sure not to damage the CV & CV Boot or the seal in the knuckle). Then attach top of the knuckle to the upper ball joint with the nut. Torque the upper ball joint nut to 81 ft-lbs and the lower ball joint nut to 123 ft-lbs. **SEE FIGURES 45-46**

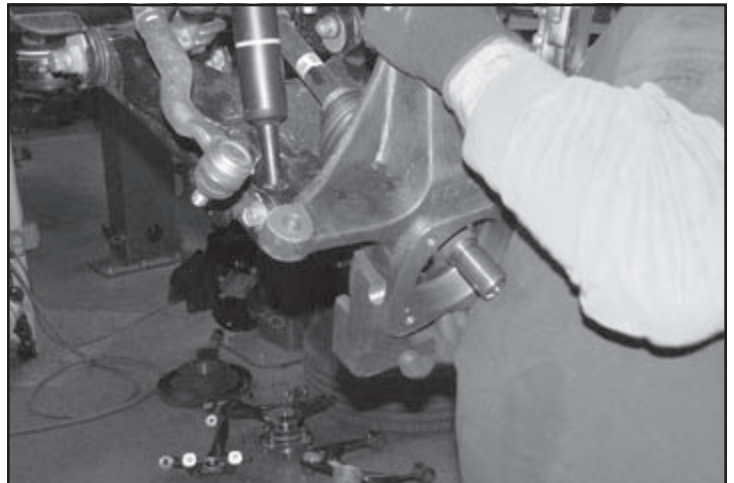


FIGURE 45

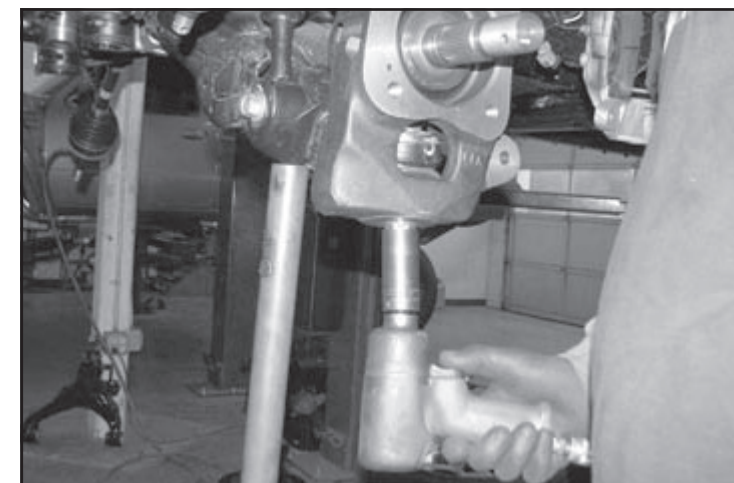


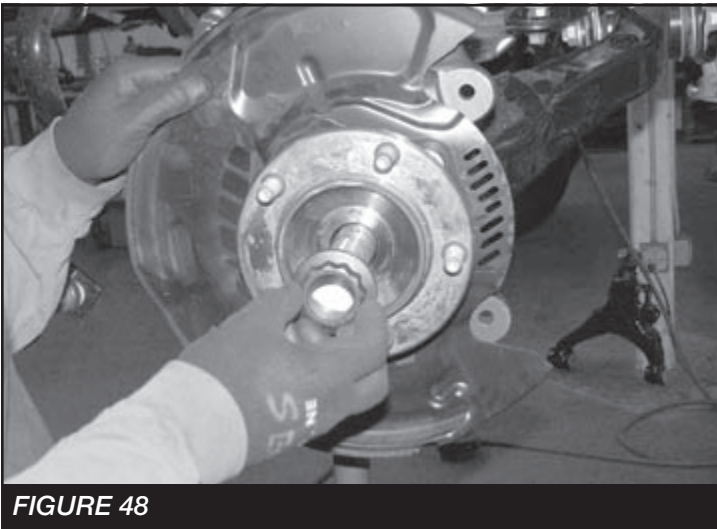
FIGURE 46



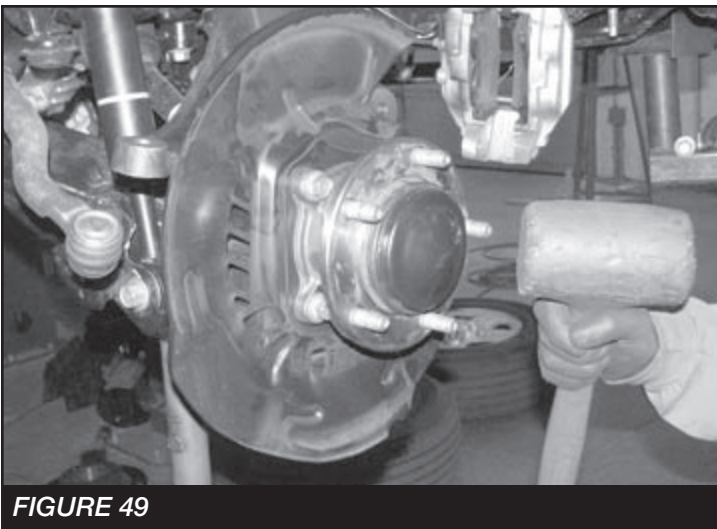
27. Install the factory hubs, backing plates, and the dust covers with the factory hardware and supplied thread-locking compound. Torque the hub bolts to 73 ft-lbs. Torque the CV Axle nut to 249 ft-lbs. & install axle nut retainer with new supplied cotter pin. **SEE FIGURE 47-49**



**FIGURE 47**

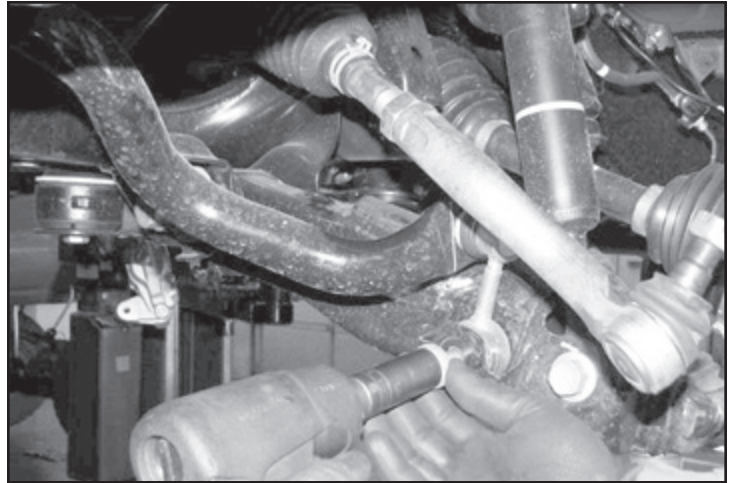


**FIGURE 48**



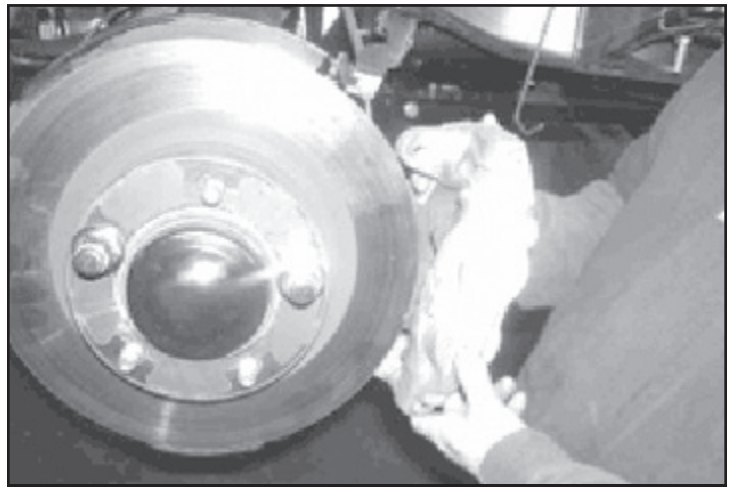
**FIGURE 49**

28. Reinstall the lower sway bar link to the lower control arm. Torque to 100 ft – lbs. **SEE FIGURE 50**

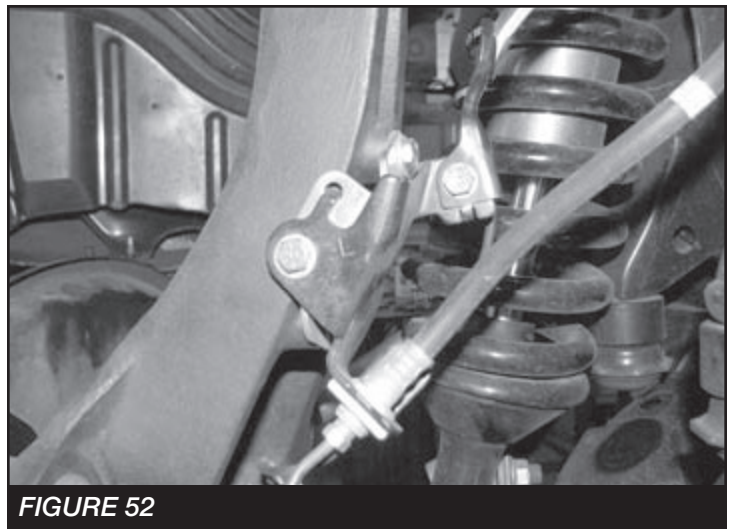


**FIGURE 50**

29. Install brake rotors & brake calipers with the factory hardware and thread locking compound. Torque the caliper bolts to 73 ft-lbs. Locate FT70111 (dry) Brake Hose Mount Bracket and the supplied  $\frac{1}{4}$ " x  $\frac{3}{4}$ " hardware. Mount the bracket to the knuckle. Mount the factory brake hose to the new bracket with the  $\frac{1}{4}$ " x  $\frac{1}{2}$ " hardware. Torque to 10 ft-lbs. Remove the factory tie rod end. Using a die grinder cut  $\frac{3}{8}$ " off the tie rod, and reinstall the tie rod end. **SEE FIGURES 51-52**



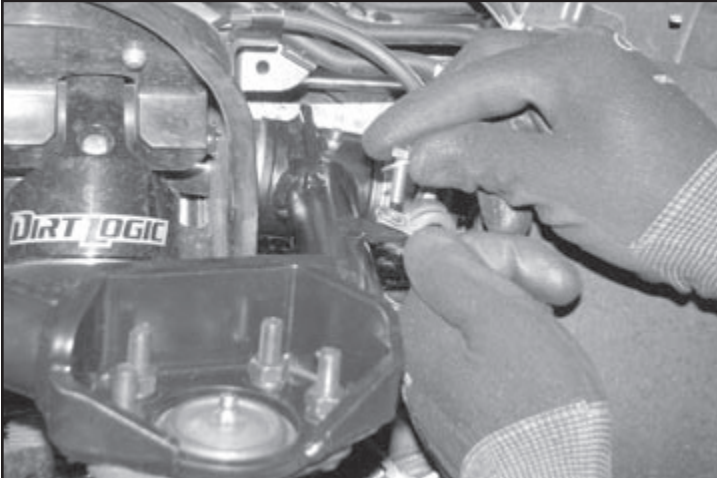
**FIGURE 51**



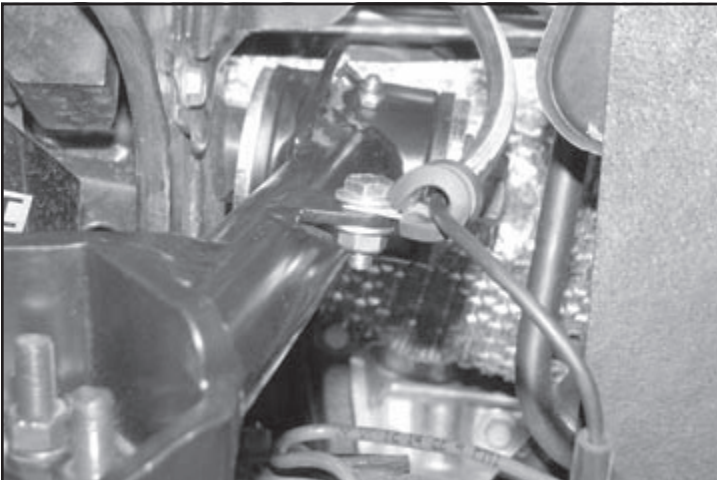
**FIGURE 52**



30. Locate the FTclamp , ¼ -20 x ½ bolt , nut and washer.  
Attach the wheel speed sensor to the tab on the upper control arm with the clamp and hardware. Torque to 10 ft-lbs. **SEE FIGURES 53-54**



**FIGURE 53**



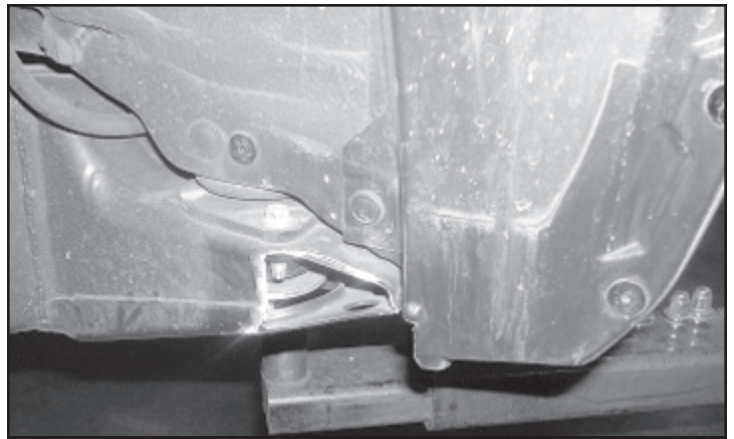
**FIGURE 54**

31. Repeat 5 – 30 on the passenger side.

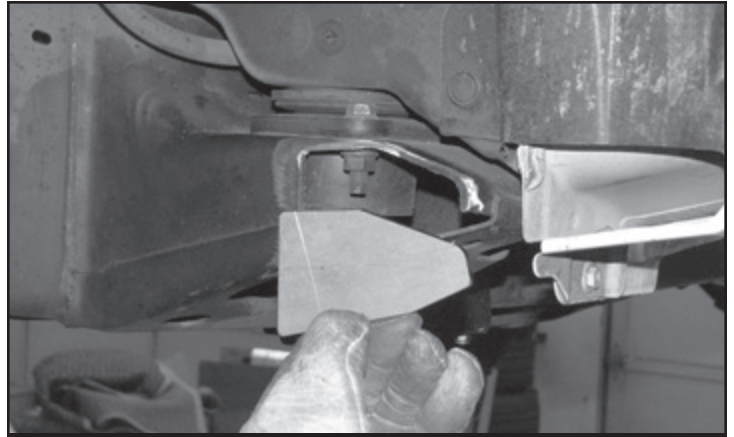
32. Locate the factory body mount in the back of the wheel well. Mark and cut as shown in photos. Locate FT70196 gusset and weld on as shown. Sand and paint all cut



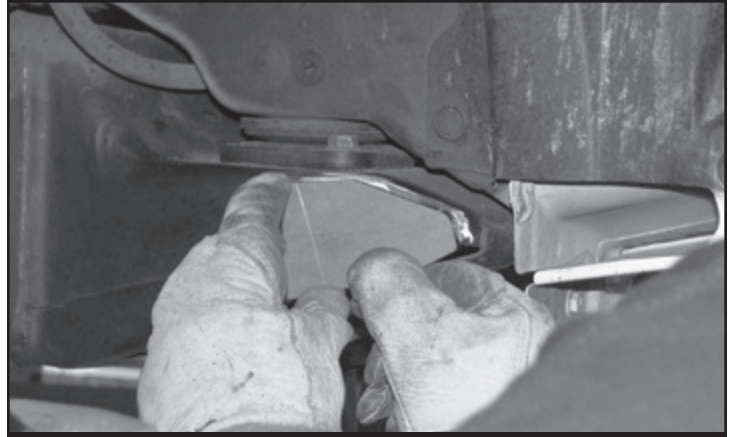
**FIGURE 55**



**FIGURE 56**



**FIGURE 57**



**FIGURE 58**



**FIGURE 59**

areas. **SEE FIGURES 55-59**

## REAR SUSPENSION

33. Locate and install the rear lift blocks FTBK12 to the axle. Using the provided U bolts FT1500U, nuts and washers, align axle, lift blocks, and springs and torque U-bolts to 130 ft-lbs. **SEE FIGURES 60-62**

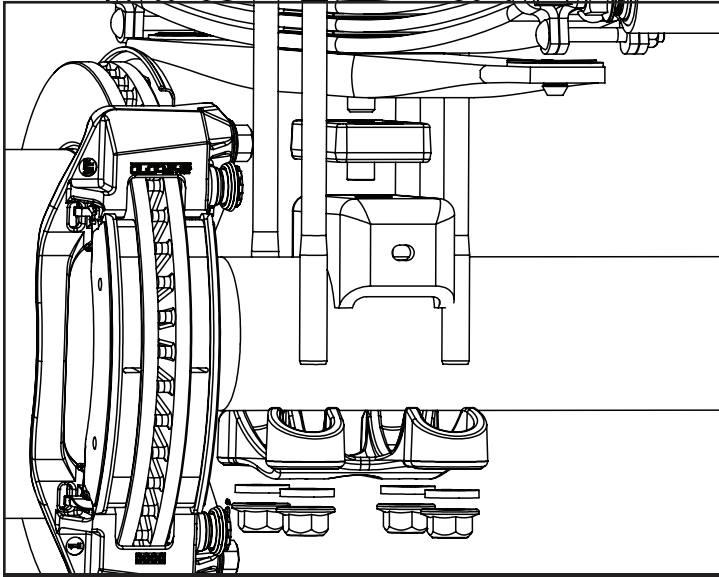


FIGURE 60

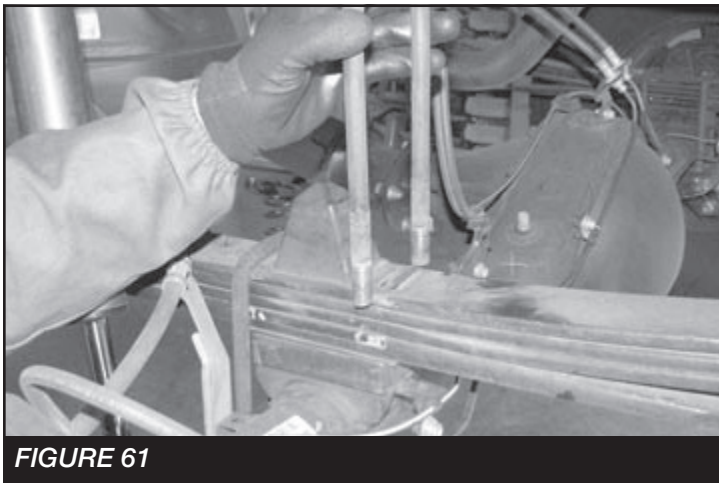


FIGURE 61

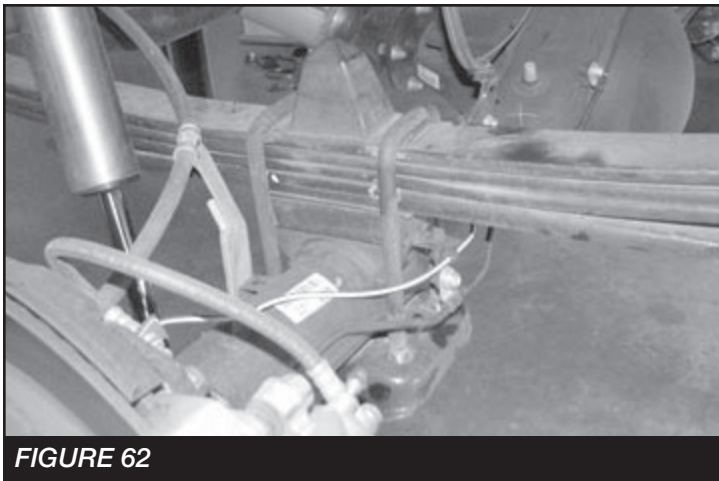


FIGURE 62

34. Install rear Performance shock (FTS7188) or Dirt Logic

35. 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.**
36. Check front end alignment and set to factory specifications. Readjust headlights.
37. Recheck all bolts for proper torque.
38. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
39. 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.**
40. Install Driver Warning Decal. Complete product registration card and mail to Fabtech in order to receive future safety and technical bulletins on this suspension.
41. Have vehicle properly aligned to factory specs.

**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.**