



INSTALLATION INSTRUCTIONS

2016-2017 NISSAN TITAN XD 4WD 6" SYSTEM

FTS25014

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.

| K6005 6" BASIC SYSTEM W/PERFORMANCE SHOCKS | | |
|---|----------|--------------------------|
| 1 | FTS25014 | COMPONENT BOX 1 |
| 1 | FTS25015 | COMPONENT BOX 2 |
| 2 | FTS7240 | PERFORMANCE SHOCK (REAR) |

| K6005M 6" BASIC SYSTEM W/STEALTH SHOCKS | | |
|--|----------|----------------------|
| 1 | FTS25014 | COMPONENT BOX 1 |
| 1 | FTS25015 | COMPONENT BOX 2 |
| 2 | FTS6240 | STEALTH SHOCK (REAR) |

| K6005DL 6" PERF SYSTEM W/DIRT LOGIC SHOCKS N/R | | |
|---|-----------|----------------------------------|
| 1 | FTS25018 | COMPONENT BOX 1 |
| 1 | FTS25015 | COMPONENT BOX 2 |
| 1 | FTS25016 | 2.5 DIRT LOGIC C/O N/R |
| 2 | FTS811322 | DIRT LOGIC 2.25 N/R SHOCK (REAR) |

| K6006DL 6" PERF SYSTEM W/DIRT LOGIC SHOCKS W/R | | |
|---|-----------|----------------------------------|
| 1 | FTS25018 | COMPONENT BOX 1 |
| 1 | FTS25015 | COMPONENT BOX 2 |
| 1 | FTS25017 | 2.5 DIRT LOGIC C/O W/RESI |
| 2 | FTS811322 | DIRT LOGIC 2.25 N/R SHOCK (REAR) |

| FTS25014 COMPONENT BOX 1 (BASIC) | | |
|---|----------|---------------------|
| 2 | FT44016 | TIE ROD END |
| 1 | FT60074D | KNUCKLE (DRIVER) |
| 1 | FT60074P | KNUCKLE (PASSENGER) |
| 1 | FT60075 | SPACER (DRIVER) |
| 1 | FT60076 | SPACER (PASSENGER) |
| 2 | FT60078 | SWAY BAR BRACKET |

| FTS25018 COMPONENT BOX 1 (PERFORMANCE) | | |
|---|----------|---------------------|
| 2 | FT44016 | TIE ROD END |
| 1 | FT60074D | KNUCKLE (DRIVER) |
| 1 | FT60074P | KNUCKLE (PASSENGER) |
| 2 | FT60078 | SWAY BAR BRACKET |

| FT60080 HARDWARE SUBASSEMBLY | | |
|-------------------------------------|-----------|---------------------------------|
| 8 | FT1004 | SWAY BAR BUSHING |
| 1 | FT25014i | INSTRUCTIONS |
| 2 | FT60070 | NUT TAB |
| 2 | FT60073 | TIE ROD CENTER SECTION |
| 2 | FT60083 | REAR DIFF WASHER |
| 1 | FT60084 | CROSSMEMBER WASHER DRIVER REAR |
| 2 | FT60085 | CROSSMEMBER WASHER DRIVER FRONT |
| 6 | FT60086 | CAM WASHER |
| 1 | FT60089 | REAR BRAKELINE BRACKET |
| 2 | FT70014 | E-BRAKE BRACKET |
| 4 | FT404739 | SLEEVE |
| 1 | FTREGCARD | REGISTRATION CARD |
| 1 | FTAS12 | STICKER FT BLUE 10X4 DIE CUT |
| 1 | FTAS16 | DRIVER WARNING DECAL |

| FT60081 - HARDWARE KIT | | LOCATION |
|-------------------------------|--------------------------------|-----------------|
| 10 | 3/8-16 C-LOCK NUT | |
| 14 | 3/8 SAE WASHER | |
| 4 | 3/8-16 X 1-1/4" HEX BOLT | |
| 2 | 7/16-14 X 1" HEX BOLT | |
| 6 | 7/16-14 X 1 1/4 HEX HD | |
| 16 | 7/16 SAE WASHER | |
| 6 | 7/16-14 C-LOCK NUT | |
| 2 | 1/4-20 X 3/4 HEX BOLT G5 ZINC | |
| 2 | 1/4 SAE WASHER | |
| 4 | M8-1.25 X 20MM HEX BOLT | |
| 4 | M8 FLAT WASHER | |
| 4 | M8 SPLIT LOCK WASHER | |
| 3 | 5/8-11 X 5-1/2" HEX HEAD | |
| 12 | 5/8 SAE WASHER G8 | |
| 3 | LOCK NUT STOVER 5/8"-11 | |
| 3 | 9/16-12 X 1-3/4 HEX HEAD | |
| 2 | 9/16-12 X 6" HEX BOLT | |
| 1 | 1/2-13 X 1-1/4 HEX BOLT | |
| 2 | 1/2 SAE WASHER | |
| 1 | 1/2-13 C-LOCK NUT | |
| 5 | 9/16-12 NYLOCK NUT | |
| 26 | 9/16 SAE WASHER | |
| 8 | 9/16-18 NYLOCK NUT | |
| 2 | 5/16-18 X 1" HEX BOLT | |
| 2 | 5/16-18 X 1-1/2" HEX BOLT | |
| 8 | 5/16" SAE WASHER | |
| 4 | 5/16-18 C-LOCK NUT | |
| 4 | M12-1.75 X 70MM HEX BOLT | |
| 8 | M12 FLAT WASHER | |
| 4 | M12-1.75 C-LOCK NUT | |
| 6 | COTTER PIN 1/8" X 2" | |
| 6 | 7.5" CABLE TIE BLACK | |
| 2 | CLAMP 3/8X1/2W .26THK NEOPRENE | |
| 1 | THREAD LOCKING COMPOUND 1 MIL | |

| FTS25015 COMPONENT BOX 2 | | |
|---------------------------------|------------|---------------------------------|
| 4 | FT737U | UBOLT SQ 9/16-18 X 12.50 X 3.10 |
| 2 | FT1599-2-4 | 5" SWAY BAR LINK |
| 1 | FT60071 | FRONT CROSSMEMBER |
| 1 | FT60072 | REAR CROSSMEMBER |
| 1 | FT60080 | HARDWARE SUBASSEMBLY |
| 1 | FT60081 | HARDWARE KIT |
| 1 | FT60082 | SKID PLATE |
| 1 | FT60090 | BUMP STOP (DRIVER) |
| 1 | FT60091 | BUMP STOP (PASS) |
| 2 | FTBK3 | BLOCK 3" |

- TOOL LIST -

Required Tools (Not Included)

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

- 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.

FOOTNOTES -

- Diesel Models Only
- Fits Crew Cab, Short Bed models only

ALIGNMENT TIP -

-Please note that the factory alignment specification describes a negative camber spec. This suspension system is designed to align within the factory specifications including the negative camber call out. Please align the vehicle to the factory specification for the year, make and model in which the suspension is installed on.

- 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. Remove the factory differential skid plate and discard. **SEE FIGURE 1**



FIGURE 1 - STEP 2

3. Disconnect the tie rod ends from the steering knuckle by striking the knuckle to dislodge the tie rod end. USE CARE NOT TO DAMAGE THE THREADS ON THE TIE ROD END WHEN REMOVING. **SEE FIGURE 2**



FIGURE 2 - STEP 3

4. Locate the sway bar end links and remove from the factory lower control arms and the sway bar. Discard the end links and hardware. **SEE FIGURE 3**



FIGURE 3 - STEP 4

5. Working from the driver side of the truck, remove the brake caliper and place it next to the frame. **DO NOT HANG THE BRAKE CALIPER FROM THE BRAKE HOSE.** Retain the hardware for reinstallation. Remove the brake rotor and save. Unplug the ABS wire at the plug next to the upper control arm and remove all the ABS line clips. Remove the ABS line bracket from the spindle and save along with the hardware. Disconnect the ABS sensor from the hub assembly. Save hardware. **SEE FIGURES 4-6**



FIGURE 4 - STEP 5

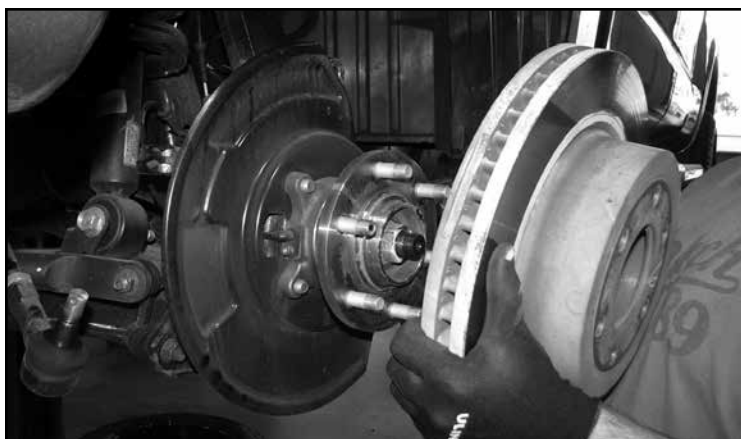


FIGURE 5 - STEP 5

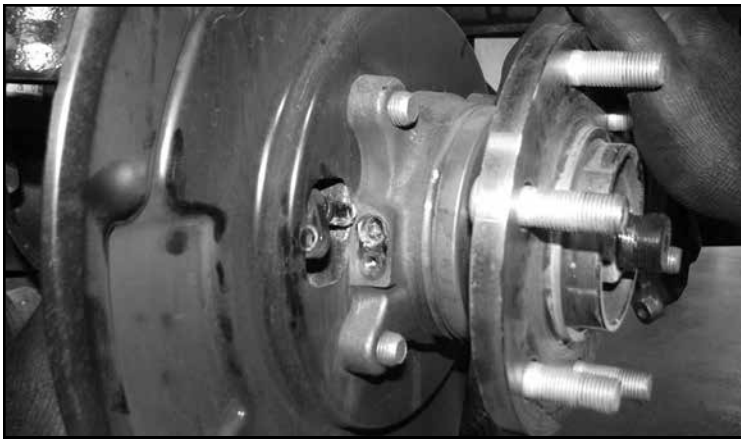


FIGURE 6 - STEP 5

6. Remove the cotter pin and nut from the C.V. Axle at the spindle and save the nut and discard the cotter pin. **SEE FIGURE 7**

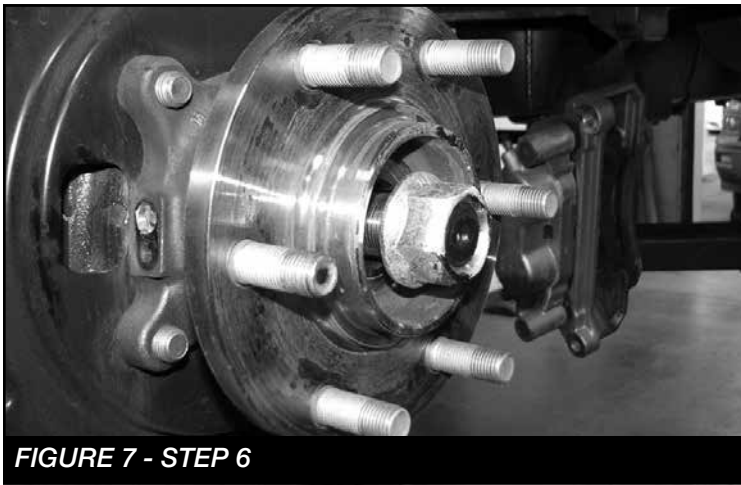


FIGURE 7 - STEP 6

7. Loosen both upper and lower ball joint nuts. Using a large hammer strike the spindle to dislodge the ball joints from the spindle. Remove the spindle from the upper ball joint first than the C.V. axle from the hub bearing, than from the lower ball joint. USE CARE TO NOT DAMAGE THE THREADS ON THE BALL JOINTS WHEN REMOVING. **SEE FIGURES 8-9**



FIGURE 8 - STEP 7

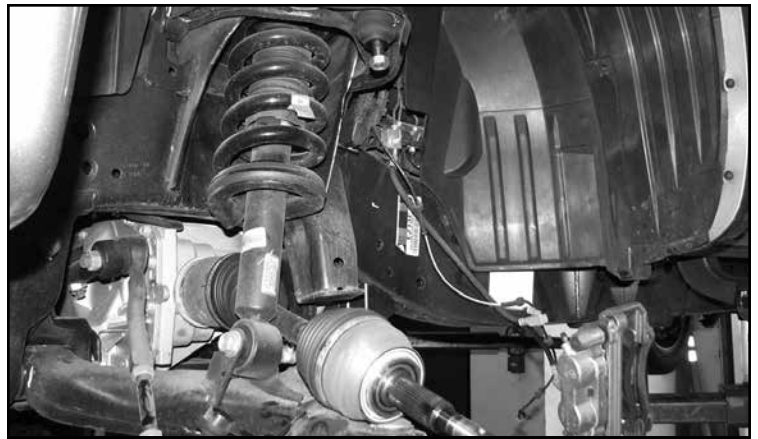


FIGURE 9 - STEP 7

8. Remove the three upper strut assembly nuts and lower shock bolt and save. Remove the strut assembly from the truck. The factory shock assembly will be reused if you are installing the 6" Basic System. If you are installing the 6" Performance System you can discard the factory shock assembly. **SEE FIGURE 10**



FIGURE 10 - STEP 8

9. Remove the lower control arm from the factory pivots. **SEE FIGURE 11**



FIGURE 11 - STEP 9

10. Repeat steps 5 through 9 on the passenger side of the truck.

11. Remove the factory sway bar from the vehicle. Save hardware. **SEE FIGURE 12**



FIGURE 12 - STEP 11

12. Remove the factory rear crossmember from the vehicle and discard. **SEE FIGURE 13**



FIGURE 13 - STEP 12

13. Disconnect the front drive shaft from the front differential and save hardware. Disconnect the vent hose from differential. **SEE FIGURES 14-15**



FIGURE 14 - STEP 13



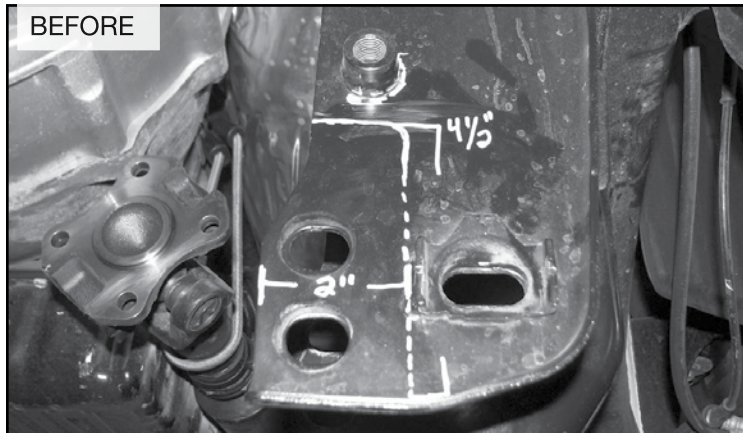
FIGURE 15 - STEP 13

14. Carefully remove the front differential from the vehicle. Save hardware. **SEE FIGURE 16**

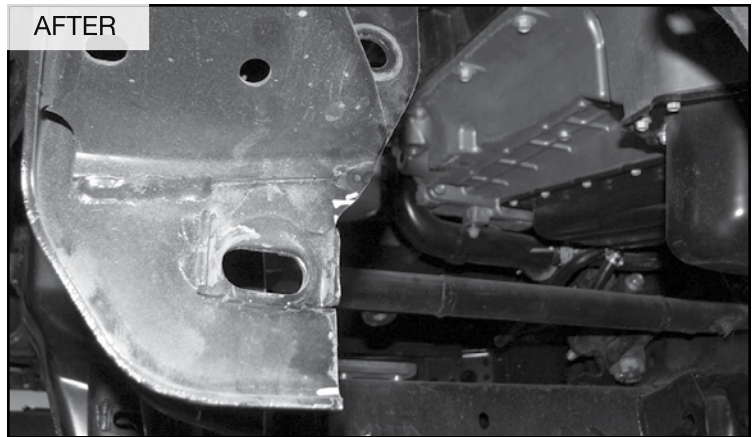
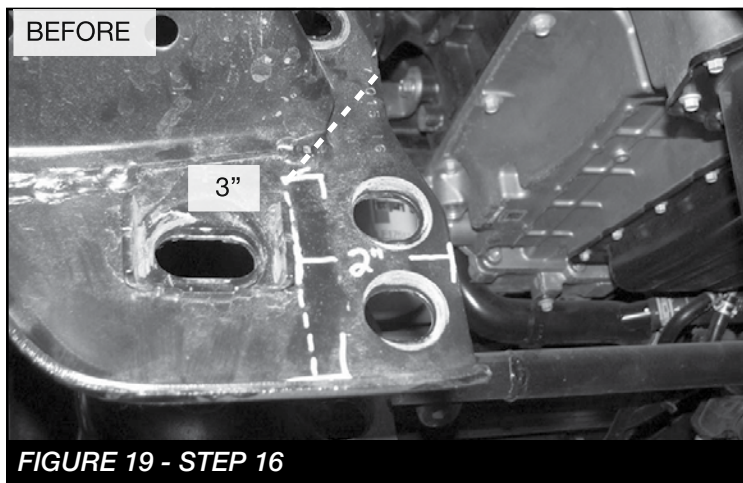


FIGURE 16 - STEP 14

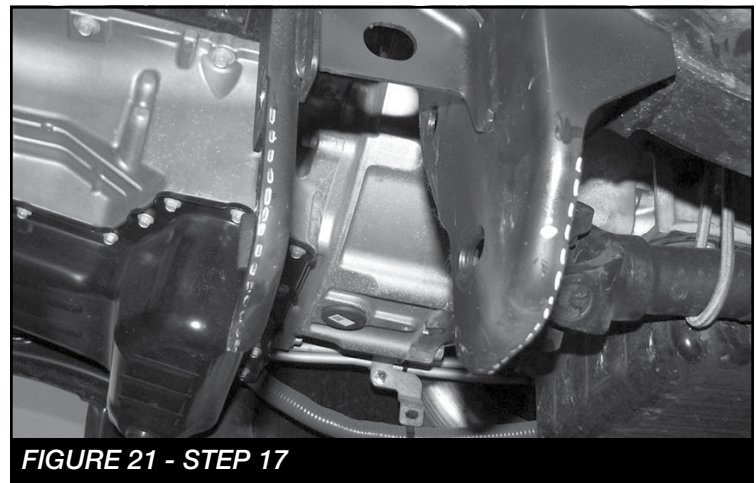
15. Locate the factory differential mount next to the driver side rear lower control arm pocket. On the front side measure 4 1/2" from the bottom of the pocket and 2" from the inside. Carefully cut the section from the vehicle. Next, cut off the existing threaded boss just above the section just cut. **SEE FIGURES 17-18**



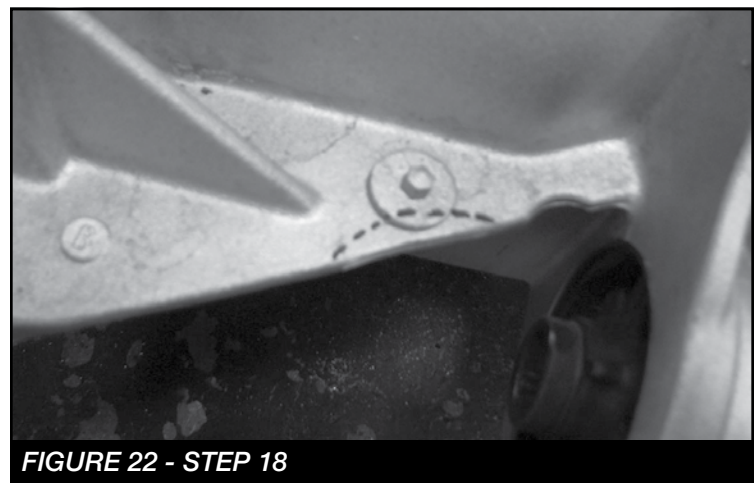
16. On the rear side of the same pocket measure 2" from the inside of the pocket and 3" from the bottom. From there make a 45 degree line from the corner of the section you marked to the edge of the inside pocket. **SEE FIGURE 19**
Cut the section from the vehicle. **SEE FIGURE 20**



17. Still on the same mount, sand an 1/8" off the edge on both the front and rear mount plates. **SEE FIGURE 21**



18. On the differential, locate the gusset between the rear diff mount and the drivers axle shaft. Grind a 1/4" radius like shown in **FIGURE 22**.



19. Locate FT60071 (Front Crossmember). Using the supplied 5/8" x 5-1/2" bolts, nuts, 6 washers and 4 FT60086 (Cam washer). Install the washers on the 5/8" bolt like shown in **FIGURE 23**. Next, install the crossmember to the factory front lower control arm pockets. Leave loose at this time. **SEE FIGURES 24-25**



FIGURE 23 - STEP 19

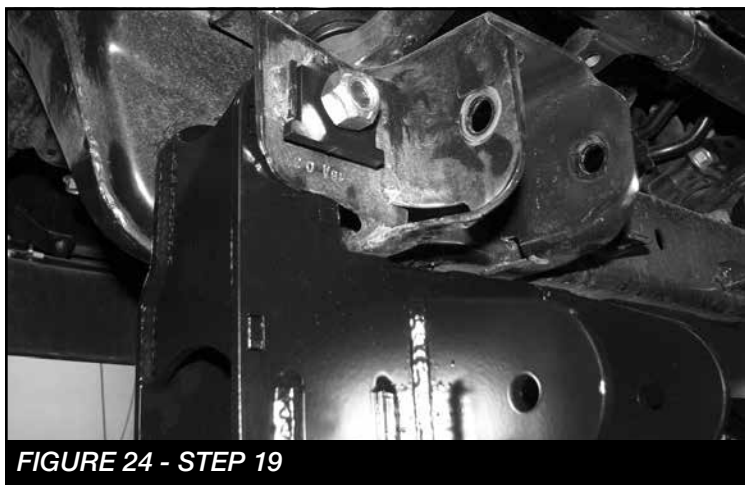


FIGURE 24 - STEP 19



FIGURE 25 - STEP 19

20. Reinstall the front differential back into the truck attaching the two front differential mounts on the differential to the new crossmember using the factory hardware on the passenger side diff mount and the supplied 9/16" x 6" bolt, nut, and washer on the driver side. Leave loose at this time. Using a HEAVY DUTY ratchet strap to support the rear of the differential as high as possible into the truck at this time. **SEE FIGURES 26-27**

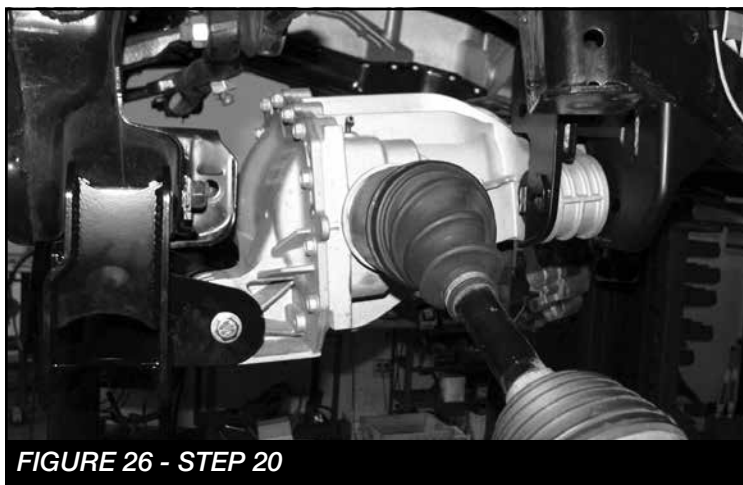


FIGURE 26 - STEP 20

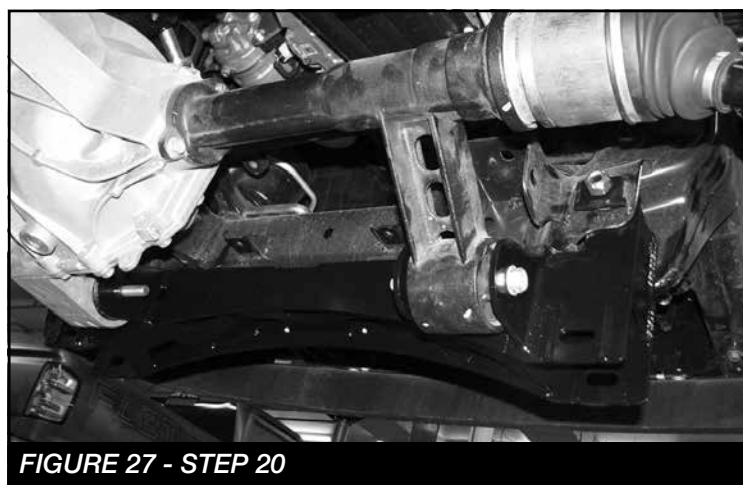


FIGURE 27 - STEP 20

21. **PASSENGER SIDE:** Locate FT60072 (Rear Crossmember). Using the supplied 5/8" x 5-1/2" bolts, nuts, 3 washers and 2 FT60086 (Cam washer). Install the washers on the 5/8" bolt like shown in **FIGURE 23**. Next, install the crossmember to the factory rear lower control arm pockets. Leave loose at this time. **SEE FIGURE 28**. **DRIVER SIDE:** Locate a 9/16" X 1-3/4" bolt, nut and washers. Install the hardware through the new crossmember and factory pocket on the front side upper most hole while also installing FT60085 (Small Spacer) between the Fabtech crossmember and factory pocket. Leave loose. **SEE FIGURE 29**

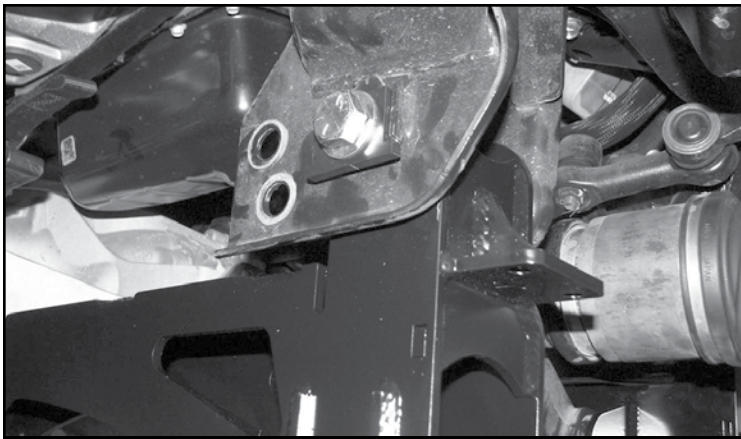


FIGURE 28 - STEP 21

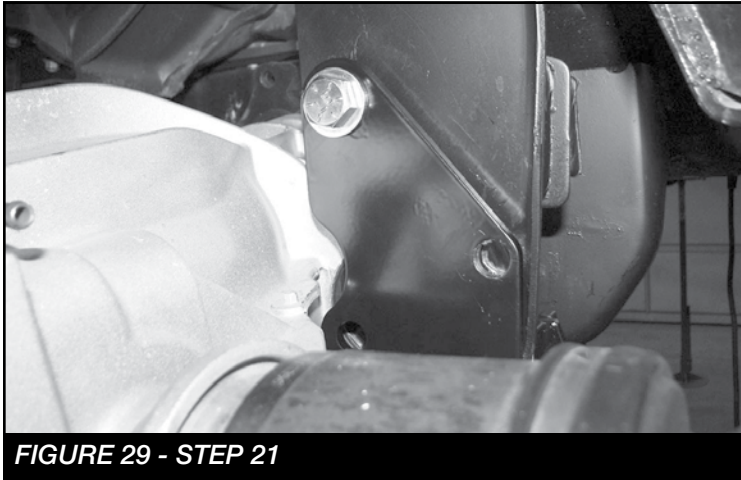


FIGURE 29 - STEP 21

22. Two holes will need to be drilled out to 9/16" on both the front and rear side of the factory pocket. Using the Fabtech crossmember as a guide mark and drill the two holes. **SEE FIGURES 30-31**

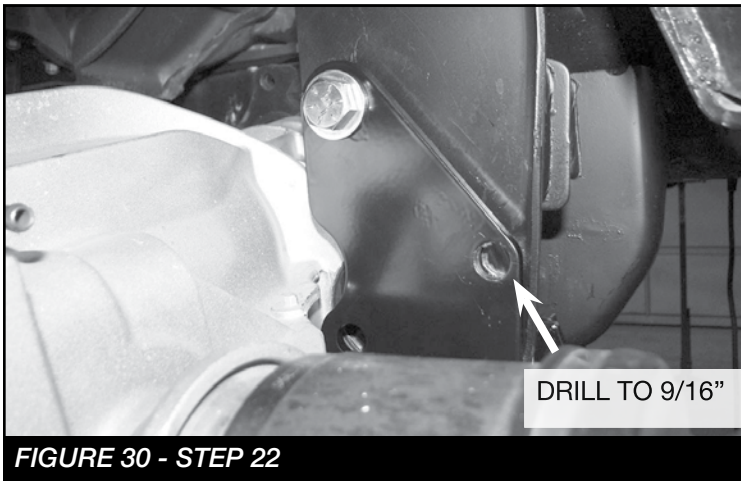


FIGURE 30 - STEP 22

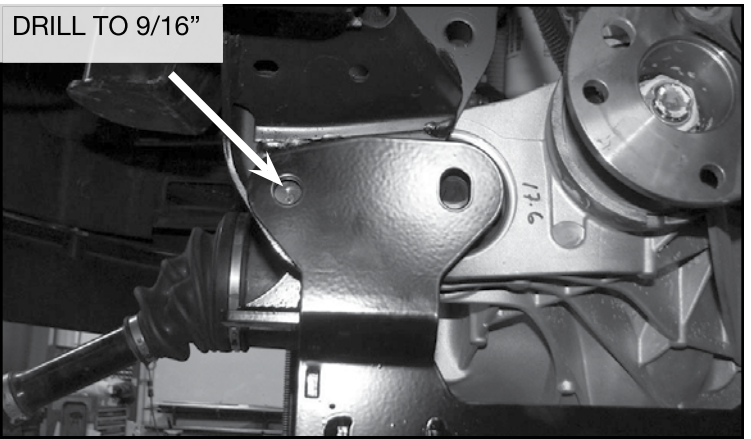


FIGURE 31 - STEP 22

23. Install the 9/16" X 1-3/4" hardware at the two locations drilled previously using the FT60084 (spacer) on the rear side between the crossmember and factory pocket and the FT60085 (Small spacer) on the front side between the crossmember and factory pocket. Leave loose. **SEE FIGURES 32-33**



FIGURE 32 - STEP 23

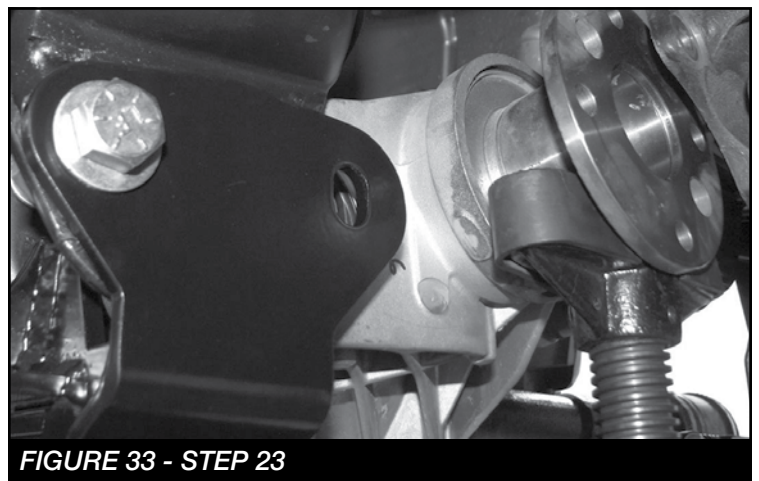
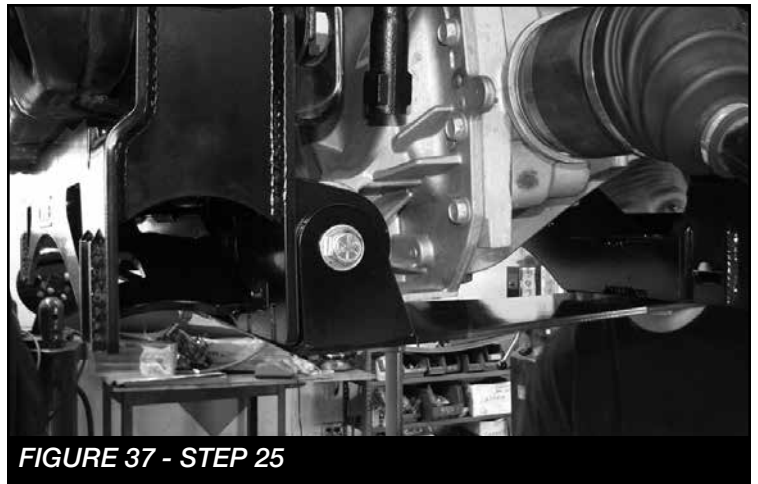
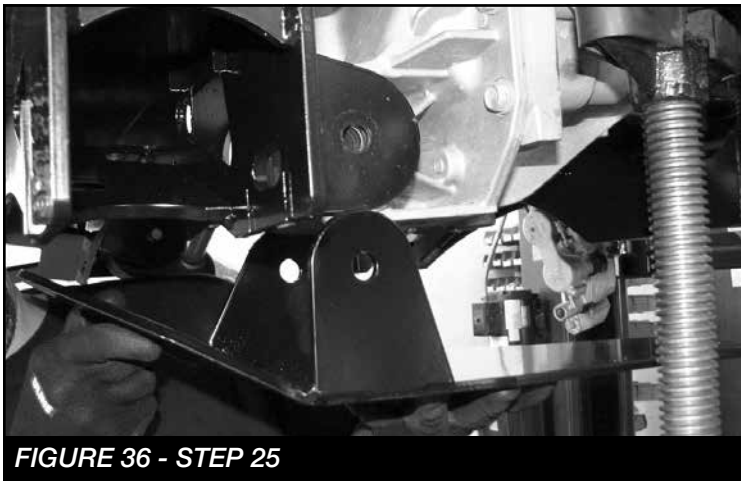


FIGURE 33 - STEP 23

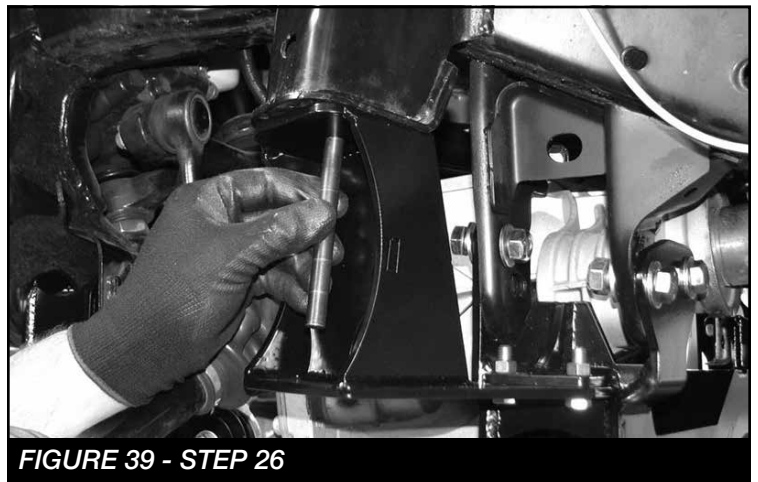
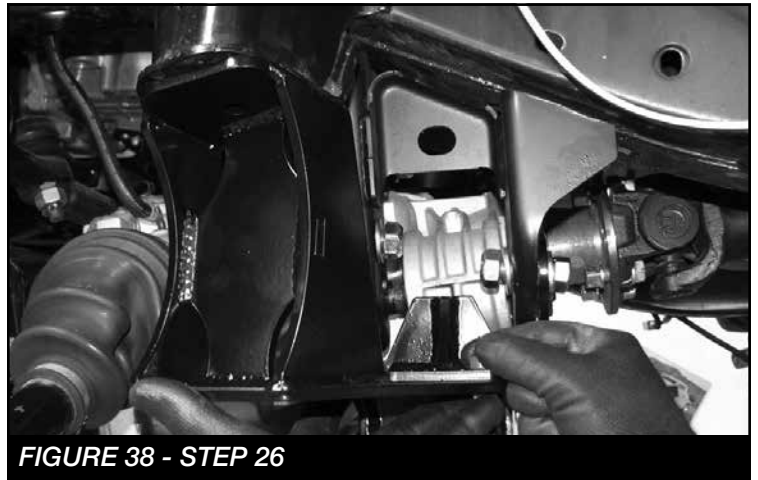
24. Locate a 9/16" X 6" bolt, nut, washers and (2) FT60083 (larger spacer). Install the bolt through from the back side while installing FT60083 (larger spacer) between the crossmember and diff on both the rear and front sides. Leave loose. **SEE FIGURES 34-35**



25. Locate the FT60082 (skid plate) and 1/2" X 1-1/2" hardware. Install the new skid plate by removing the driver front diff mount bolt and reinstalling it when mounting the skid plate on. Install the rear of the skid plate to the rear crossmember using the 1/2" hardware. **SEE FIGURES 36-37**



26. Locate the FT60090 (Driver Bumpstop). Partially install the bumpstop onto the rear crossmember using the 3/8" X 1-1/4" hardware. Once mounted, center punch the factory bumpstop pad. Remove bumpstop and drill the marked hole to 7/16" **SEE FIGURE 38-40**



DRILL TO 7/16"

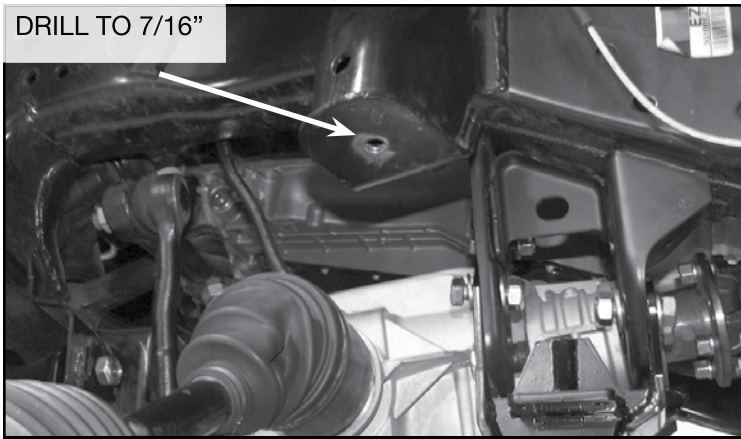


FIGURE 40 - STEP 26

27. Reinstall the bump stop using the 3/8" hardware. Install the FT60070 (nut tab) through the hole on the back side of the factory bumpstop using the supplied 7/16 X 1" bolt and washer. Torque 3/8" hardware to 52 ft-lbs and 7/16" 83 ft-lbs. **SEE FIGURES 41-42**

FT60070 Nut Tab



FIGURE 41 - STEP 27

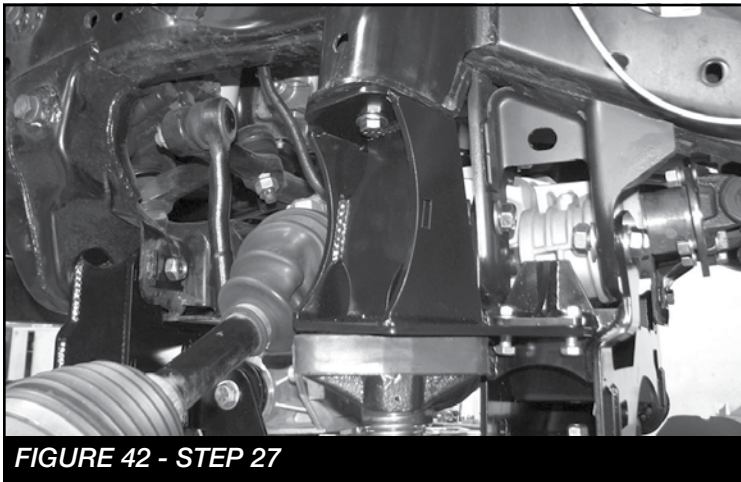


FIGURE 42 - STEP 27

28. Repeat steps 26 & 27 on the passenger side using FT60091 (passenger bump stop).

29. Reinstall driver and passenger factory lower control arms using the factory hardware. **SEE FIGURE 43**

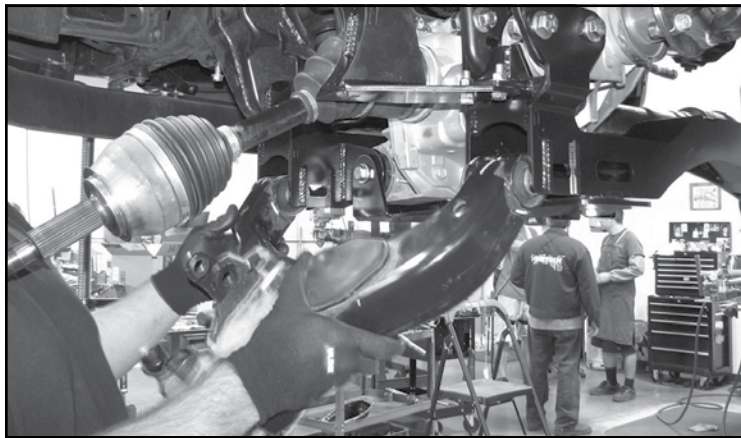


FIGURE 43 - STEP 29

30. Torque all crossmember, differential and skid plate hardware as follows.

- 5/8" - 254 ft-lbs
- 9/16" - 184 ft-lbs
- 1/2" - 127 ft-lbs

31. **NOTE: If installing dirt logic coilovers do so now with the instructions provided and skip to step 33.** Locate FT60075 (Driver shock spacer). Install the spacer into the coilover mount. Using the spacer, mark the hole on the side of the mount. Remove the spacer and drill to 7/16". **SEE FIGURE 44**



FIGURE 44 - STEP 31

32. Install the FT60075 (Driver shock spacer) onto the factory coilover assembly using the factory hardware. **SEE FIGURE 45.** Next, install the assembly into the vehicle using the supplied 3/8" hardware at the top mount, 7/16" hardware at the side where you drilled previously and factory hardware at the lower control arm mount. **SEE FIGURES 46-47.** Torque 7/16" to 83 ft-lbs and 3/8" to 52 ft-lbs.



FIGURE 45 - STEP 32



FIGURE 46 - STEP 32



FIGURE 47 - STEP 32

33. Repeat steps 31 & 32 on the passenger side.

34. Locate the driver side factory knuckle. Remove the factory brake line bracket on the back side. **SEE FIGURE 48.** Remove the steering stop bolt as well as the (4) hub bolts and save. Remove knuckle from the hub assembly. **SEE FIGURES 49-50**



FIGURE 48 - STEP 34



FIGURE 49 - STEP 34



FIGURE 50 - STEP 34

34. Repeat steps 31 & 32 on the passenger side.

35. Install the steering stop bolt all the way into the FT60074D (Driver knuckle). **SEE FIGURE 51**

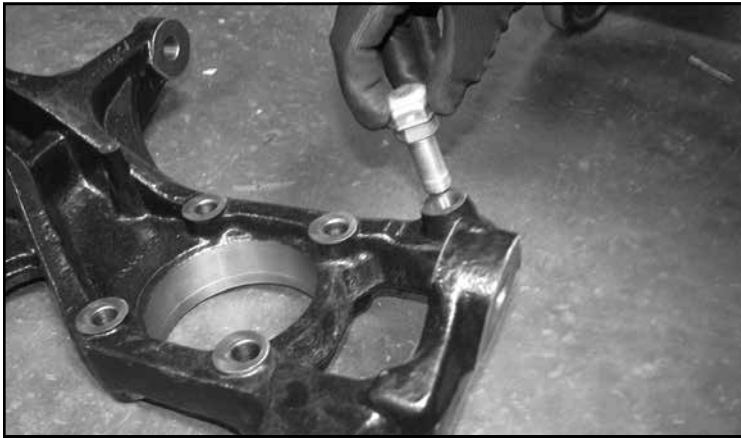


FIGURE 51 - STEP 35

36. Locate the factory dust shield. Mark and cut using **FIGURE 52** as a guide.



FIGURE 52 - STEP 36

37. Install the new FT60074D (Driver knuckle) into the vehicle by inserting the axle shaft through the opening for the hub assembly. Torque upper and lower ball joint nuts to 70 ft-lbs. **SEE FIGURE 53**



FIGURE 53 - STEP 37

38. Install the dust shield and hub assembly using the factory hardware. **SEE FIGURE 54**. Torque to 160 ft-lbs

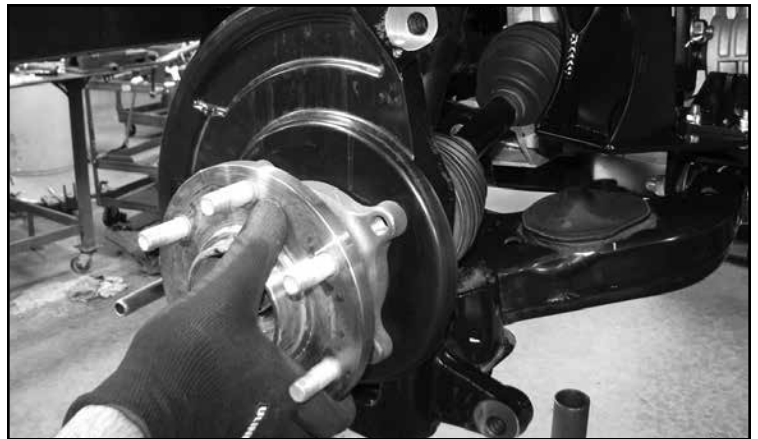


FIGURE 54 - STEP 38

39. Install the axle shaft center nut. Torque to 200 ft-lbs. And new cotter pin. **SEE FIGURE 55**

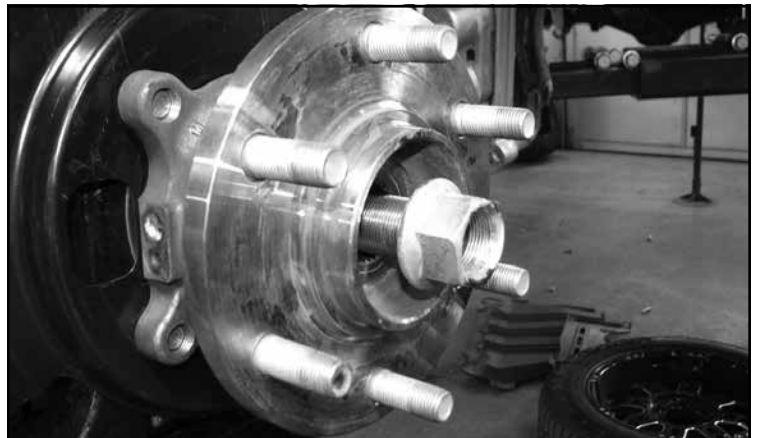


FIGURE 55 - STEP 39

40. Install the ABS sensor into the HUB assembly using the factory hardware. **SEE FIGURE 56**. Using the supplied clamp and M8 hardware. Clamp the ABS line to the back side of the new knuckle. **SEE FIGURE 57**.

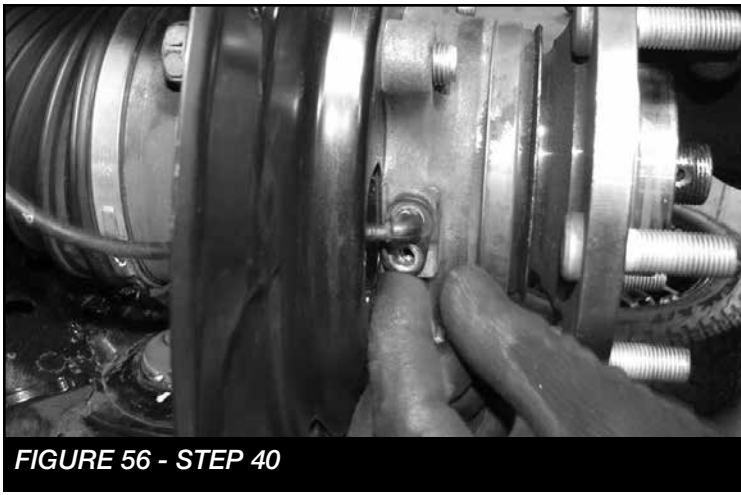


FIGURE 56 - STEP 40



FIGURE 57 - STEP 40

41. Install the factory brake line bracket to the new knuckle using the factory hardware. **SEE FIGURE 58**

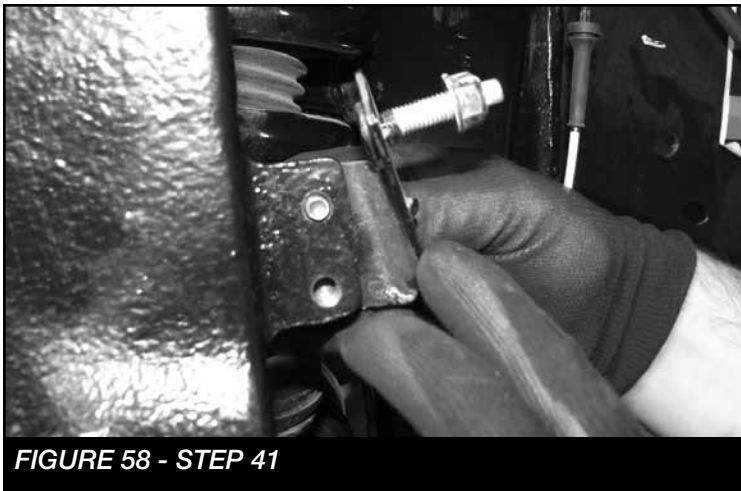


FIGURE 58 - STEP 41

42. Reinstall the brake caliper using the factory bolts. **SEE FIGURE 59** Torque to 160 ft-lbs. Next, install the brake line union to the bracket. **SEE FIGURE 60**

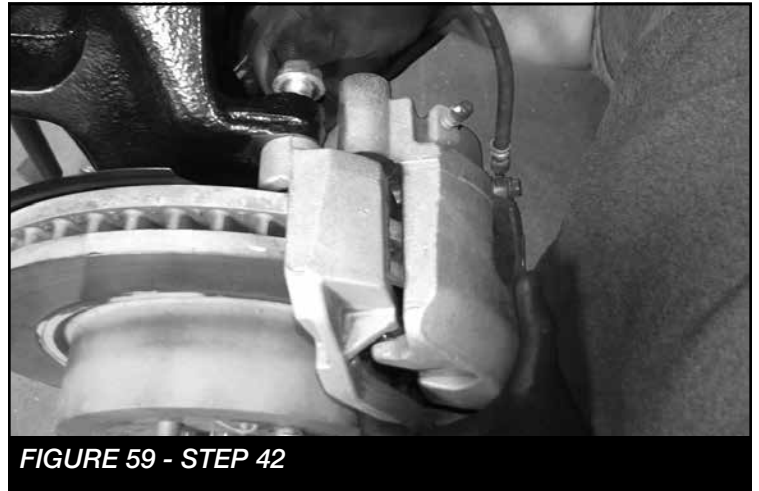


FIGURE 59 - STEP 42

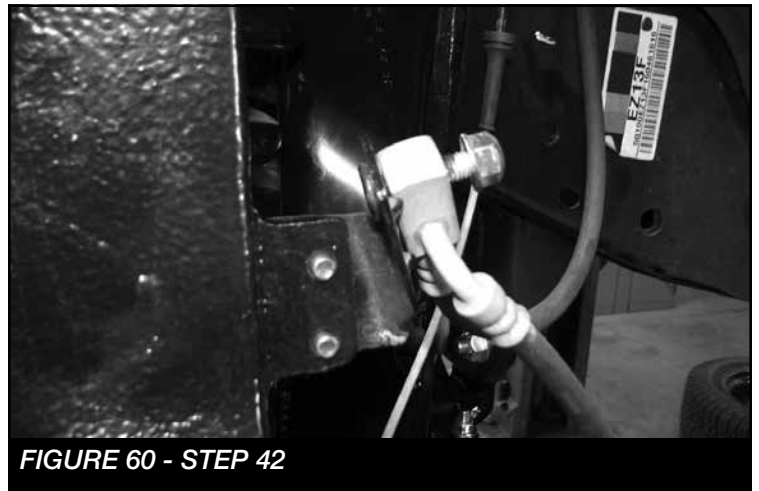


FIGURE 60 - STEP 42

43. Remove the factory tie rod end and center section. **SEE FIGURE 61**



FIGURE 61 - STEP 43

44. Reuse the factory jam nuts from the factory unit. Install FT60073 (Tie rod center section) into the inner tie rod. **SEE FIGURE 62.** Next, install FT44016 (Tie Rod) onto the new center section. Tighten all the way in. **NOTE: This is a starting point and will need to be adjusted when alignment is performed. SEE FIGURE 63**



FIGURE 62 - STEP 44



FIGURE 63 - STEP 44

45. Install the new tie rod assembly into the new knuckle. **SEE FIGURE 64** Torque to 58 ft-lbs.

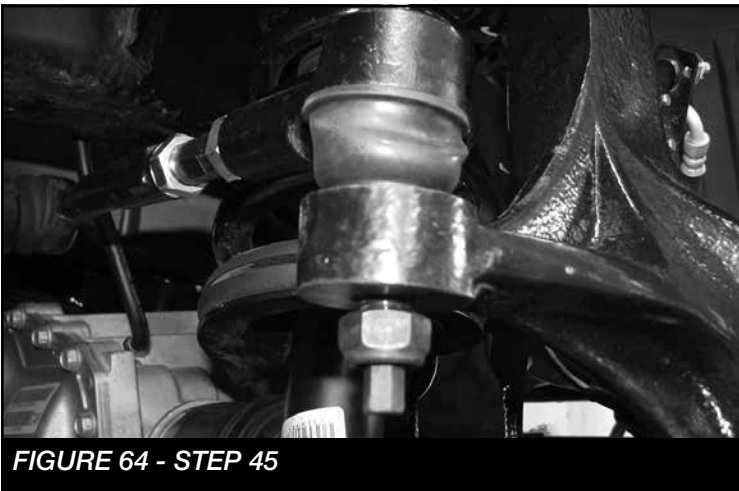


FIGURE 64 - STEP 45

46. Repeat steps 34-45 on the passenger side.

47. Remove the factory sway bar from the vehicle and save hardware.

48. Install FT60078 (Sway bar bracket) to the frame using the factory hardware. **NOTE: The flat side will face the outside of the vehicle. SEE FIGURE 65**



FIGURE 65 - STEP 48

49. Reinstall the sway bar using the supplied 7/16" hardware. Torque to 83 ft-lbs. Connect the sway bar links to the lower control arm. **SEE FIGURE 66**



FIGURE 66 - STEP 49

REAR SUSPENSION

50. Disconnect the factory rear brake lines at the diff and axle housing.
51. Remove the factory sway bar end links and discard.
52. With the rear axle supported, remove the ubolts. Lower the axle for a enough space to install the new blocks. **SEE FIGURE 67**



FIGURE 67 - STEP 52

53. Install the new block and ubolts. The shorter end of the block will face toward the front of the vehicle. Torque ubolts 127 ft-lbs. **SEE FIGURE 68**



FIGURE 68 - STEP 53

54. Install the new rear shocks. **NOTE: If installing Performance or Stealth shocks use the supplied 9/16" washers to fill the gap at lower mount. SEE FIGURE 69**

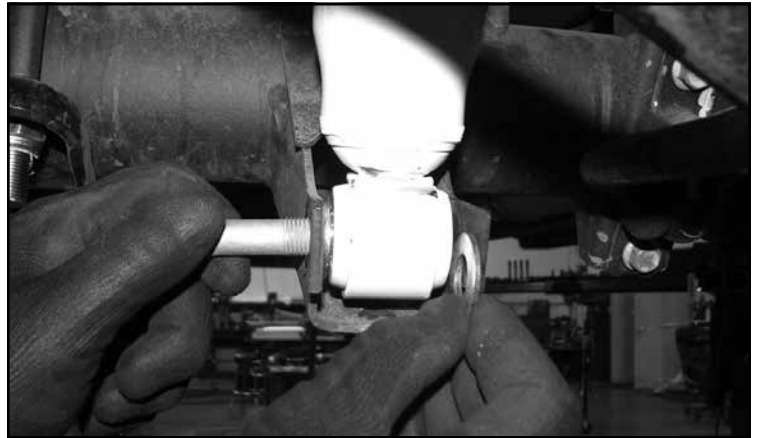


FIGURE 69 - STEP 54

55. Locate and install FT1004 (bushings) and FT404739 (sleeves) into the FT1599-2-4 (End links). Install the new end links to the frame and sway bar using the supplied M12 hardware. **SEE FIGURE 70.** Torque to 100 ft-lbs

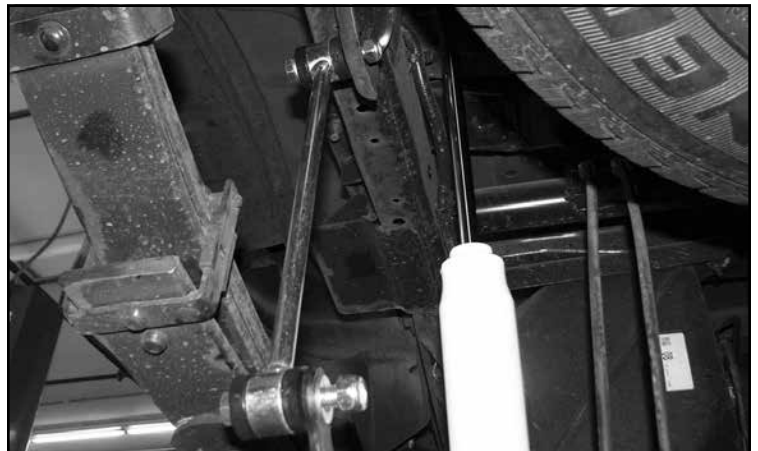


FIGURE 70 - STEP 55

56. Locate both FT70014 (Brake line brackets) Install using the factory hardware on top of the diff and on the passenger side axle housing. Install the brake lines to the new brackets using supplied 5/16" hardware. **SEE FIGURES 71-72.** Torque to 29 ft-lbs



FIGURE 71 - STEP 56



FIGURE 72 - STEP 56

57. Install FT60089 (Rear Brake line bracket) to the axle tube using the supplied M8 hardware. Next, install the brake line unions to the new bracket using the supplied 5/16" hardware. **SEE FIGURE 73.** Torque M8 and 5/16" hardware to 29 ft-lbs.

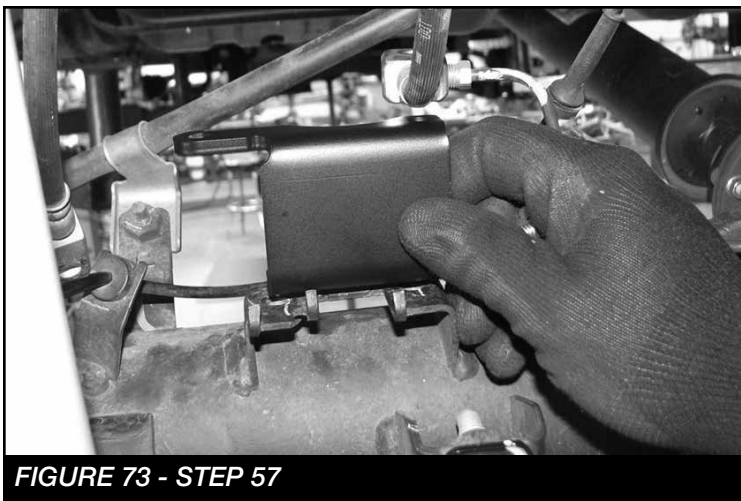


FIGURE 73 - STEP 57

58. 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.**
59. Check front end alignment and set to factory specifications. Readjust headlights.
60. Please note that the factory alignment specification describes a negative camber spec. This suspension system is designed to align within the factory specifications including the negative camber call out. Please align the vehicle to the factory specification for the year, make and model in which the suspension is installed on.
61. Recheck all bolts for proper torque.
62. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
63. 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.**
64. 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.