



INSTALLATION INSTRUCTIONS

2015-2020 FORD F-150 2WD 6" BASIC & PERFORMANCE SYSTEMS

FT22254i

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.

Fabtech Motorsports | 4331 Eucalyptus Ave. Chino, CA 91710

Tech Line: 909-597-7800 | **Fax:** 909-597-7185 | **Web:** www.fabtechmotorsports.com

- PARTS LIST -

FTS22254		COMPONENT BOX 1 - BASIC
1	FT30558BK	SHOCK SPACER (DRIVER)
1	FT30601D or FT30600D	SPINDLE (DRIVER)
1	FT30601P or FT30600P	SPINDLE (PASSENGER)
1	FT30742	HARDWARE SUBASSEMBLY
1	FT30747	HARDWARE KIT
1	FT30605BK	SHOCK SPACER (PASSENGER)

FTS22255		COMPONENT BOX 1 - PERFORMANCE
1	FT30601D or FT30600D	SPINDLE (DRIVER)
1	FT30601P or FT30600P	SPINDLE (PASSENGER)
1	FT30742	HARDWARE SUBASSEMBLY
1	FT30747	HARDWARE KIT

FTS22256		COMPONENT BOX 2
1	FT30590	SWAY BAR DROP BRACKET (PASSENGER)
1	FT30591	SWAY BAR DROP BRACKET (DRIVER)
1	FT30737	FRONT CROSSMEMBER
1	FT30738	REAR CROSSMEMBER
4	FT737U	UBOLT SQ 9/16-18 X 12.50 X 3.10
2	FTBK52	BLOCK

K2247		6" BASIC SYSTEM W/ PERFORMANCE SHOCKS
1	FTS22254	COMPONENT BOX 1
1	FTS22256	COMPONENT BOX 2
2	FTS7266	REAR PERFORMANCE SHOCK

K2247M		6" BASIC SYSTEM W/ STEALTH SHOCKS
1	FTS22254	COMPONENT BOX 1
1	FTS22256	COMPONENT BOX 2
2	FTS6266	REAR STEALTH SHOCK

FT30742		HARDWARE SUBASSEMBLY
1	FT22254i	INSTRUCTIONS
2	FT20277	OUTER TIE ROD
2	FT292	ALIGNMENT CAM KIT
2	FT70032	BRAKE LINE BRACKET (FRONT)
1	FT70033	BRAKE LINE BRACKET (REAR)
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT
1	FTAS16	DRIVER WARNING DECAL
1	FTREGCARD	REGISTRATION CARD
4	FT30746	SPACER - 1.00 X .515 X .950

FT30747 - HARDWARE KIT		LOCATION
6	5/16 SAE WASHER	
3	5/16-18 NYLOCK NUT	
3	5/16-18 X 1" HEX BOLT	
14	7/16 SAE WASHER G8 ZINC	
10	7/16-14 C-LOCK NUT ZINC	
4	7/16-14 X 1 1/4 HEX HD	
8	1/2 SAE WASHER	
4	1/2-13 C-LOCK NUT	
4	1/2-13 X 4" HEX BOLT	
8	9/16 SAE WASHER	
8	9/16-18 NYLOCK NUT	
1	THREAD LOCKING COMPOUND 1 MIL	

K2248DL		6" PERFORMANCE SYSTEM W/ 2.5" COILOVER
1	FTS22255	COMPONENT BOX 1
1	FTS22256	COMPONENT BOX 2
1	FTS22266	2.5" COILOVER
2	FTS810292	2.25" N/R DLSS (REAR)

K2259DL		6" PERF SYSTEM W/ 2.5" RESI COILOVER
1	FTS22255	COMPONENT BOX 1
1	FTS22256	COMPONENT BOX 2
1	FTS22265	2.5" COILOVER W/ RESI
2	FTS810292	2.25" N/R DLSS (REAR)



- 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 Spring Compressor

- PRE-INSTALLATION NOTES -

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

READ THIS BEFORE YOU BEGIN INSTALLATION -

Check all parts to the parts list above before beginning installation. If any parts are missing contact Fabtech at 909-597-7800 and a replacement part will be sent to you immediately.

Read all instructions thoroughly from start to finish before beginning the installation. If these instructions are not properly followed severe frame, driveline and / or suspension damage may occur.

Check your local city and state laws prior to the installation of this system for legality. Do not install if not legal in your area.

Prior to the installation of this suspension system perform a front end alignment and record. Do not install this system if the vehicle alignment is not within factory specifications. Check for frame and suspension damage prior to installation.

The installation of this suspension system should be performed by two professional mechanics.

This suspension must be installed with Fabtech shock absorbers.

Use the provided thread locking compound on all hardware.

WARNING- Installation of this system will alter the center of gravity of the vehicle and may increase roll over as compared to stock.

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

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

FOOTNOTES -

- Can not use OEM wheel and tire.
- Does not fit standard cab models.
- Will not fit raptor models.

Wheels & Tires -

- 35/12.50R18 - 18X9 w/5" BS w/Minor Trimming
- 325/65R18 - 18X9 w/5" BS w/Minor Trimming
- 285/55R22 - 22X9.5 w/5" BS w/Minor Trimming
- 35/12.50R20 - 20X9 w/5" 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. Starting on the driver's side. Remove the 2 bolts securing the brake caliper assembly to the spindle. Tie the brake caliper to the frame. **DO NOT ALLOW THE BRAKE CALIPER TO HANG FROM THE BRAKE LINE HOSE.**
3. Remove the brake rotor from the vehicle.
4. Remove the sway bar and sway bar end links. Save hardware.
5. Locate the Antilock Brake System (ABS) sensor attached to back side of the spindle, remove the bolt attaching the sensor to the spindle. Save the bolt, and hang the sensor aside.
6. Remove the nut securing the tie rod end to the spindle. Using a large hammer strike the spindle to break loose the tie rod end. Save the factory hardware. **USE CARE TO NOT HIT THE THREADS OF THE TIE ROD END.**
7. Loosen the upper and lower ball joint nuts. Disconnect the upper and lower ball joints from the steering knuckle by striking the knuckle with a large hammer next to each ball joint on the knuckle to dislodge the ball joints. **USE CARE NOT TO HIT THE BALL JOINTS WHEN REMOVING.** Retain the hardware and discard the knuckle with the dust shield. The factory dust shield will not be reused. **SEE FIGURE 1**



8. Locate the lower shock mount bolt and remove. Save the hardware. Locate the three upper nuts and remove. Save the hardware. Remove the shock assembly from the truck and set it aside for disassembly later. **DO NOT REMOVE THE CENTER NUT FROM THE TOP OF THE SHOCK ASSEMBLY.**
9. Remove the lower control arm bolts from the frame pivots and remove the lower control arm from the truck. Save the hardware and lower control arm.
10. Repeat steps two through nine on the passenger side of the truck.
11. Locate the Fabtech rear crossmember FT30738. Install the crossmember into the factory rear lower control arm pockets and attach using the original hardware. Leave loose at this time. **SEE FIGURE 2**



12. Locate the Fabtech front crossmember FT30737. Install into the factory front lower control arm pockets and attach using the original hardware. Leave loose at this time. **SEE FIGURE 3**



13. Locate the factory lower control arms previously removed from the truck. Install into the new Fabtech crossmembers using the supplied FT292 alignment cams. Leave loose at this time. **SEE FIGURES 4**

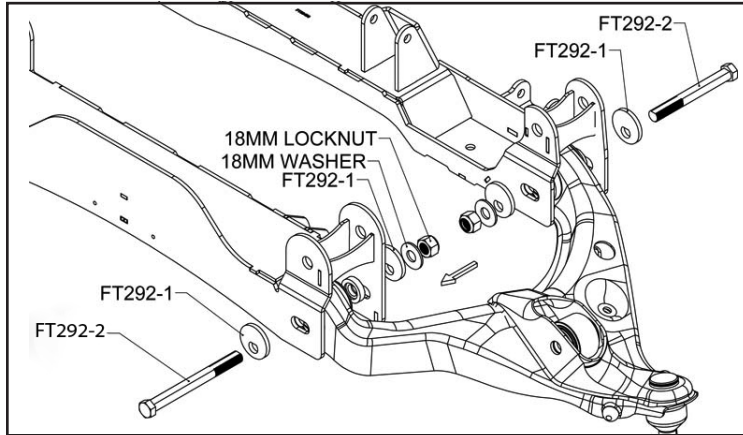


FIGURE 4 - STEP 13

14. If installing Dirt Logic coilovers do so at this time, using the instructions provided in the shock box. Once finished, continue to STEP 20.

15. Locate the FT30558BK (Driver) and FT30605BK (Pass) shock spacers.

16. Locate the factory coilovers. Using a press, press the factory studs out of the bar pins. **SEE FIGURE 5**



FIGURE 5 - STEP 16

17. Install the Driver side spacer on the driver side coilover using the factory hardware and torque to 35 ft-lbs. Repeat on the passenger side. **SEE FIGURE 6**



FIGURE 6 - STEP 17

18. Install the coil over into the frame bucket using the supplied 7/16" nuts & washers. Torque 59 ft-lbs. **SEE FIGURE 7**

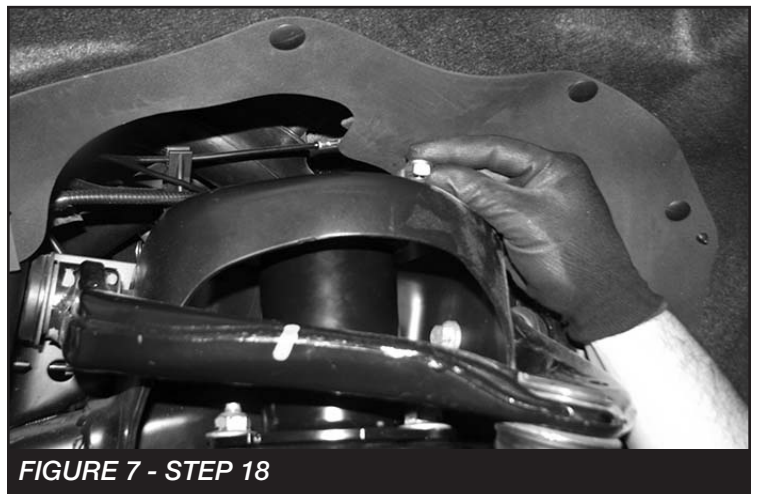


FIGURE 7 - STEP 18

19. Rotate the lower control arm up and mount to the lower coilover bar pin using the supplied 1/2 X 4" hardware. **NOTE: Install the FT30746 (Spacer) between the shock bar pin and the lower control arm.** Torque to 127 ft-lbs.

20. Locate the factory spindles and remove the hub assemblies. Save hardware. Reinstall the hub assembly onto the new Fabtech spindles using the factory bolts. Torque to 160 ft-lbs. **SEE FIGURE 8**

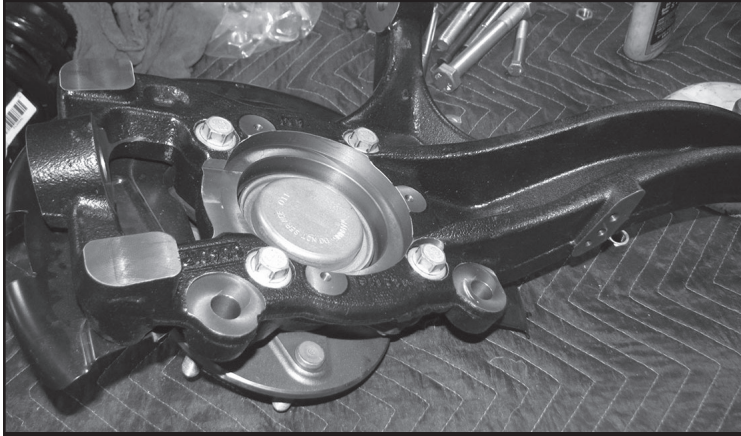


FIGURE 8 - STEP 20

21. Attach the new Fabtech spindle onto the lower ball joint using the original nut. Torque to 85 ft-lbs. Holding the top of the spindle inboard set the upper ball joint into the spindle. Attach the upper ball joint to the spindle using the factory nut. Torque to 110 ft-lbs. **NOTE: If installing FT30600D&P install the attached spacer to the bottom of the knuckle. SEE FIGURE 9-10**

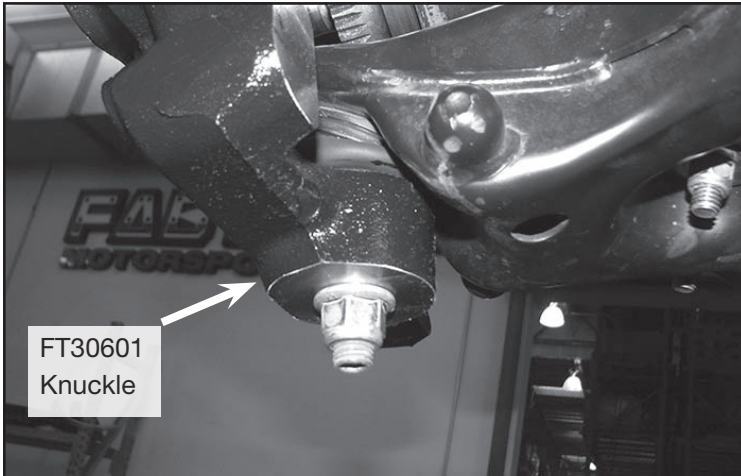


FIGURE 9 - STEP 21

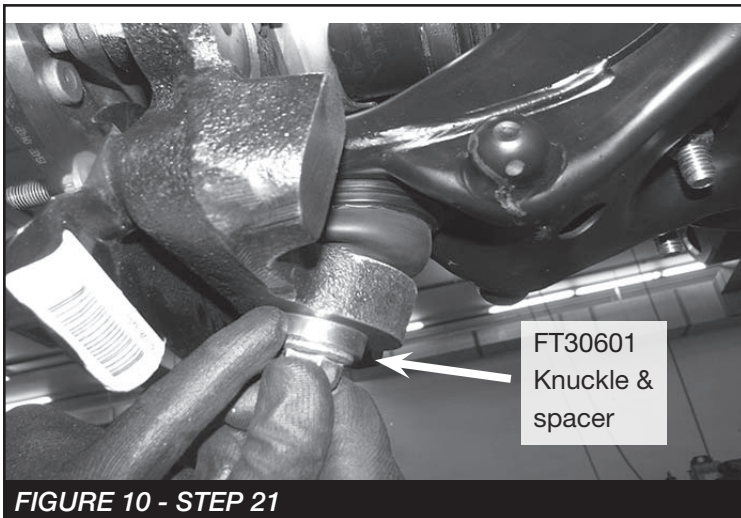


FIGURE 10 - STEP 21

22. Repeat steps 13-21 on the passenger side.
23. Install the new brake line bracket (FT70032) using the factory hardware and supplied 5/16" hardware. Torque to 29 ft-lbs. **SEE FIGURE 11**

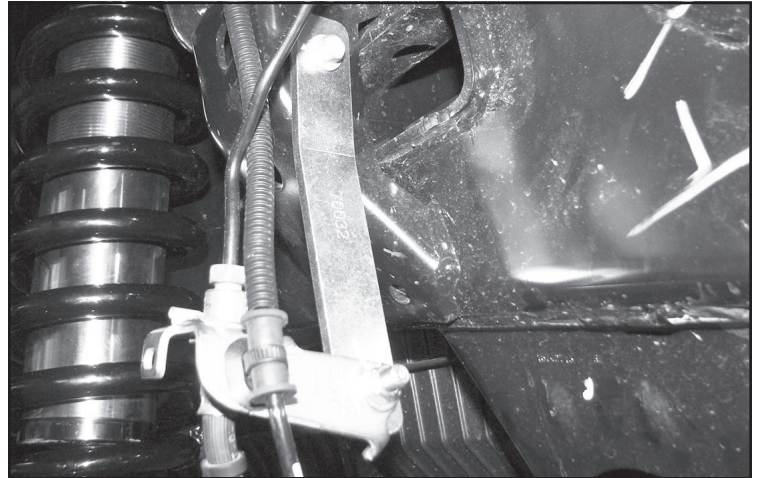


FIGURE 11 - STEP 23

24. Reinstall the ABS sensor to the new spindle using the factory bolt and brake rotor.
25. Torque the factory lower control arm cam bolts to 145 ft lbs. Before torquing the cam bolts place the cam so it is in the center of its adjustment. Torque the crossmember to control arm pocket bolts to 130 ft lbs.
26. Using the stock hardware along with the supplied thread locking compound reinstall the brake caliper onto spindle. Torque the bolts to 80 ft lbs.

27. Remove the factory tie rod end. Cut 1" of the threaded end off using a cut off wheel. Install the new tie rod end FT20277. Torque to 70 ft lbs. **SEE FIGURE 12-14**



FIGURE 12 - STEP 27



FIGURE 13 - STEP 27



FIGURE 14 - STEP 37

28. Repeat steps 23-27 on Passenger side.

29. Using the factory hardware install FT30591 (driver side bracket) and the FT30590 (passenger side bracket) to the frame. When mounting, the sway bar will be offset towards the rear of the truck and the flat side towards the outside. Torque to 78 ft-lbs. Next, install the factory sway bar to the new sway bar drop brackets using the supplied 7/16 x 1-1/4" hardware. Torque to 78 ft-lbs. **SEE FIGURES 15-16**



FIGURE 15 - STEP 29

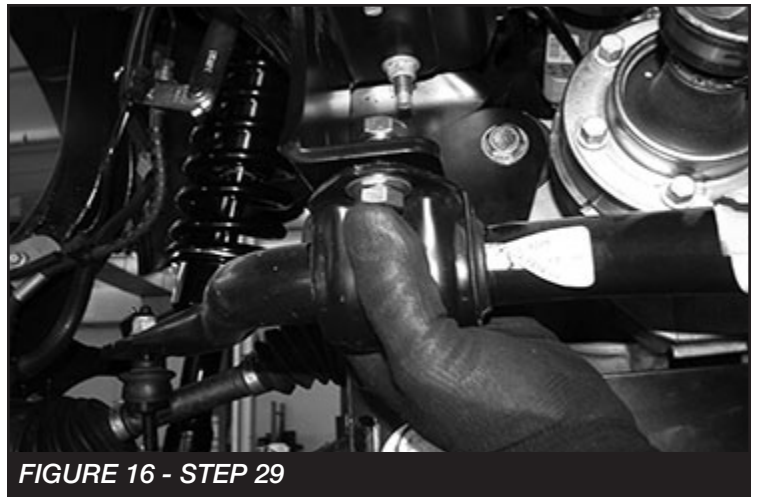


FIGURE 16 - STEP 29

30. Install the sway bar end to the factory lower control arm using the factory end links. Torque to 35 ft-lbs **SEE FIGURE 17**



FIGURE 17 - STEP 30

REAR SUSPENSION

31. Jack up the rear end of the vehicle and support the frame rails with jack stands. Release the parking brake at this time. Supporting the rear differential, remove the rear shocks, u-bolts, blocks and lower axle down. Use care not to over extend the brake hose.
32. Locate the factory brake line mount on the driver side of the frame. Locate the supplied brake line bracket (FT70033) and attach the bracket between the factory frame mount and the factory brake line using the factory and supplied 5/16"-18 X 1" bolts and hardware. Torque to 29 ft-lbs. **SEE FIGURE 18**



FIGURE 18 - STEP 32

33. Locate and install the rear lift blocks FTBK22. The extended bump stop perch will be facing inboard of the truck. Using the provided u-bolts, nuts and washers, align the axle, lift blocks, and springs and torque u-bolts to 184 ft-lbs. **SEE FIGURE 19**

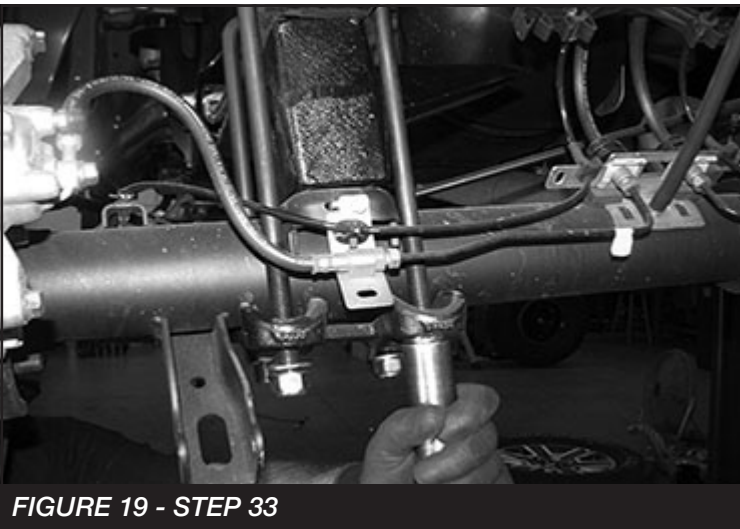


FIGURE 19 - STEP 33

34. Locate the Fabtech performance shocks (FTS7266), Stealth shocks (FTS6063) or Dirt Logic shocks (FTS810292). Install the shocks using the factory hardware and torque upper and lower bolts to 100 ft-lbs. **SEE FIGURES 20-21**

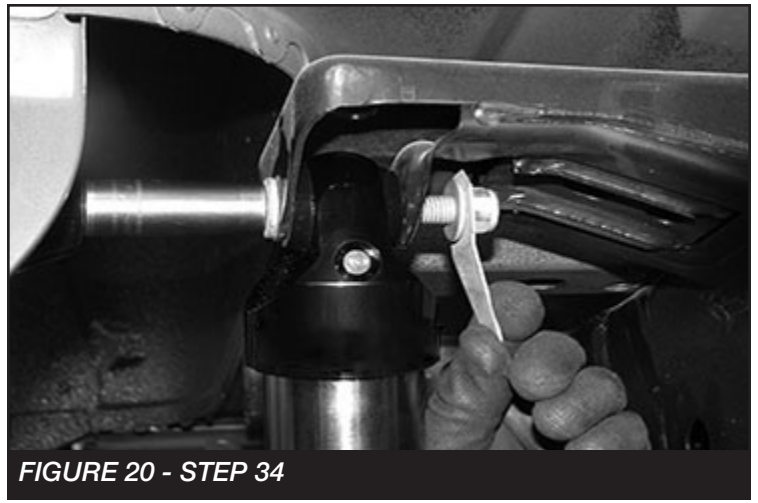


FIGURE 20 - STEP 34

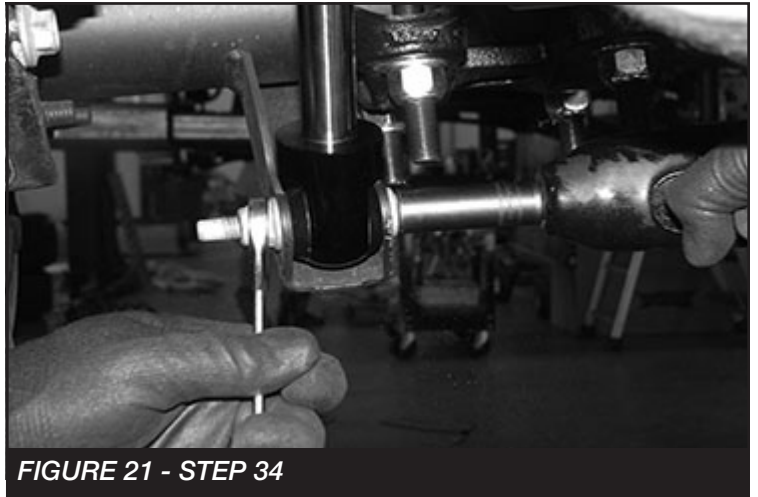


FIGURE 21 - STEP 34

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. Install Driver Warning Decal. Complete product registration card and mail to Fabtech in order to receive future safety and technical bulletins on this suspension.

Vehicles that will receive oversized tires should check ball joints, uniballs and all steering components every 2500-5000 miles for wear and replace as required.

RE-TORQUE ALL NUTS, BOLTS AND LUGS AFTER 50 MILES AND PERIODICALLY THEREAFTER.

For technical assistance call: **909-597-7800**

- Product Warranty and Warnings -

Fabtech provides a Limited Lifetime Warranty to the original retail purchaser who owns the vehicle, on which the product was originally installed, for defects in workmanship and materials.

The Limited Lifetime Warranty excludes the following Fabtech items; bushings, bump stops, ball joints, tie rod ends, limiting straps, cross shafts, heim joints and driveshafts. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days from the date of purchase for defects in workmanship.

Dirt Logic and Performance Coilover take apart shocks are considered a serviceable shock with a one year warranty on leakage only. Service seal kits are available separately for future maintenance. All other shocks are covered under our Limited Lifetime Warranty.

Fabtech does not warrant any product for finish, alterations, modifications and/or installation contrary to Fabtech's instructions. Alterations to the finish of the parts including but not limited to painting, powder coating, plating and/or welding will void all warranties. Some finish damage may occur to parts during shipping, which is considered normal and is not covered under warranty.

Fabtech products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (A "RACE" is defined as any contest between two or more vehicles, or any contest of one or more vehicle against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America.

Installation of most suspension products will raise the center of gravity of the vehicle and will cause the vehicle to handle differently than stock. It may increase the vehicle's susceptibility to a rollover, on road and off road, at all speeds. Extreme care should be taken to operate the vehicle safely at all times to prevent rollover or loss of control resulting in serious injury or death. Fabtech front end Desert Guards may impair the deployment or operation of vehicles equipped with supplemental restraining systems/air bag systems and should not be installed if the vehicle is equipped as so.

Fabtech makes every effort to ensure suspension product compatibility with all vehicles listed on the website, but due to unknown auto manufacturer's production changes and/or 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