

# 2011-2015 FORD F-250/350 SUPER DUTY 4WD FTS22142 FRONT DUAL SHOCK SYSTEM

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	FTS22142	2011 F250/350 MULTI SHK KIT		FT30446 Hardware Kit
1	FT30167BK	UPPER HOOP DRVR 05 FORD SD	10	1/2-13 X 3 HEX CAP SCREW ZINC
1	FT30168BK	UPPER HOOP PASS 05 FORD SD	36	1/2 FLAT WASHER SAE ZINC
1	FT30179BK	LOWER RR SHOCK MOUNT DRVR	13	
1	FT30180BK	LOWER RR SHOCK MOUNT PASS	4	M8-1.25 X 30 HEX CAP SCREW GRADE ZINC
1	FT30185BK	FRONT BUMP STOP DRVR BLACK	4	M8 FLAT WASHER ZINC
1	FT30186BK	FRONT BUMP STOP PASS BLACK	2	1/2-13 X 5 HEX CAP SCREW ZINC
1	FT30437BK	SHOCK MOUNT DRIVER BLACK	5	1/2 SPLIT LOCK WASHER ZINC
1	FT30438BK	SHOCK MOUNT PASS BLACK	4	3/4-16 HEX JAM NUT ZINC
2	FT30439	BRAKE LINE RELOCATOR	8	7/16-14 X 1 ½ HEX CAP SCREW ZINC
1	FT30440	SWAY BAR RELOCATOR DRVR	24	7/16 SAE FLAT WASHER ZINC
1	FT30441	SWAY BAR RELOCATOR PASS	15	7/16-14 C-LOCK ZINC
2	FT30442	SWAY BAR EXTENSION	1	7/16 SPLIT LOCK WASHER ZINC
2	FTS89902	DIRT LOGIC CLEVIS KIT	4	3/8-16 X 1 ½ HEX CAP SCREW ZINC
1	FT30444BK	HOOP MOUNT DRIVER	8	3/8 SAE FLAT WASHER ZINC
1	FT30446	HARDWARE KIT	4	3/8-16 C-LOCK NUT ZINC
1	FT30445	HARDWARE SUBASSEMBLY	5	1/2-13 X 1-1/2 HEX CAP SCREW ZINC
8	FT30443	HEIM MISALIGNMENT	2	1/4-20 X 3/4 HEX CAP SCREW ZINC
2	FT22142I	INSTRUCTIONS	4	1/4 SAE FLAT WASHER ZINC
3	FT30182	SWAY BAR NUT TAB CLEAR ZINC	2	1/4-20 C-LOCK NUT ZINC
2	FT30187	BRAKE LINE BRACKET CLEAR ZINC	2	ADEL CLAMP
2	FT30293	FRAME NUT TAB	6	5/16-18 X 1 HEX CAP SCREW ZINC
1	FT30297	SWAY BAR PLATE NUT TAB PASS	4	5/16-18 C-LOCK NUT ZINC
2	FT30303	BRAKE LINE BRACKET	8	5/16 SAE FLAT WASHER ZINC
2	FT57-1	WASHER 2.188 X .656 X .188	4	7/16-14 X 2-1/4 HEX CAP SCREW ZINC
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT	1	M10-1.5 X 25 HEX CAP SCREW ZINC
1	FTREGCARD	REGISTRATION CARD	1	M10 FLAT WASHER ZINC
4	FTS98003	3/4" ROD END L.D.	3	M16-2 X 130 HEX CAP SCREW ZINC
	-		3	M16 FLAT WASHER ZINC
			1	THREAD LOCKING COMPOUND
			4	8" CABLE TIE BLACK 75 LB CAPACITY
	-		2	5/16" X 1" LONG SELF TAP SCREWS



## 2011-2015 FORD F-250/350 SUPER DUTY 4WD FTS22142 FRONT DUAL SHOCK SYSTEM

CHECK PARTS INCLUDED IN THIS KIT TO THE PARTS LIST ABOVE BEFORE BEGINNING INSTALLATION OF THE KIT. IF ANY PIECES ARE MISSING, CONTACT FABTECH AT 909-597-7800

 $READ\ ALL\ INSTRUCTIONS\ THOROUGHLY\ FROM\ START\ TO\ FINISH\ BEFORE\ BEGINNING\ INSTALLATION.$ 

THIS KIT MUST BE INSTALLED WITH FABTECH FRONT SHOCKS, NOT INCLUDED WITH THIS KIT.

THIS IS DESIGNED TO BE INSTALLED ALONG WITH FABTECH'S 6", 8", OR 10" COIL SPRING LIFT SYSTEMS.

THIS KIT IS DESIGNED TO ONLY FIT DIESEL ENGINE MODEL TRUCKS. IT WILL NOT FIT THE V-8 MODEL TRUCKS

## **INSTRUCTIONS:**

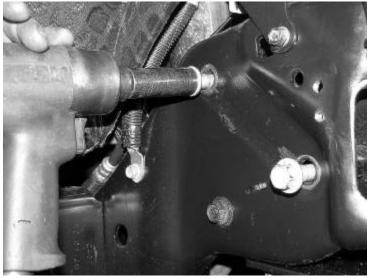
- Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the front axle with jack stands. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the front tires.
- 2. Working from both sides of the truck, remove the front sway bar from the truck and save the sway bar and the U-shaped frame mounts with bushings (take note of how it was removed). Discard the end links. You will also need to discard the Fabtech sway bar frame drop included with the suspension kits. Take note on how the sway bar is mounted before removing it.
- 3. Locate the brake line and ABS line mounts on the lower coil perch. Disconnect both lines from the front and back of the coil perch and save the hardware. Disconnect the ABS sensors at the connection point at the bottom of the inner wheel well and from the mounting bracket on the radius arm / or four link bracket. Remove and discard the Fabtech Brake Line Drop Brackets w/ the hardware.
- 4. Working from both sides of the truck, support the front axle with two floors jacks and remove the front shocks from the truck and discard along with hardware. Carefully lower the jacks enough to remove the coil springs. Save the isolators. If removing Fabtech coils that have been driven on prior to the installation of this kit, mark them driver and passenger, they will be re-installed. If removing factory coils, discard them.
- 5. Locate and remove the factory front bump stops and save. These can be removed by pulling on the bump stop itself free from the cup. Remove the factory mounting cup from the Fabtech Bump Stop extensions (FT30143 and FT30144) and save the hardware. Locate FT30185 and FT30186 front bump stop drop brackets provided with this kit and install in the same location (if your truck is stock and has not had

the Fabtech bumpstops installed, refer to the main instructions provided with the lift kit for the proper bumpstop assembly. Just make sure that the FT30185 + FT30186 are used from this kit). Attach the factory bump stop cup to the new bracket using the previously removed 5/16" x 1 ½" bolt, flat washer, and split washer. Press the factory bump stop back into the cup. SEE PHOTO BELOW.

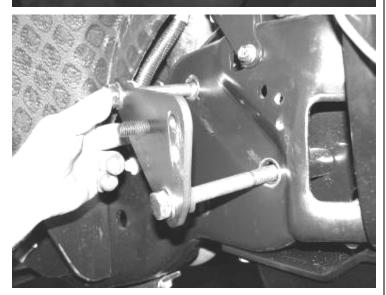


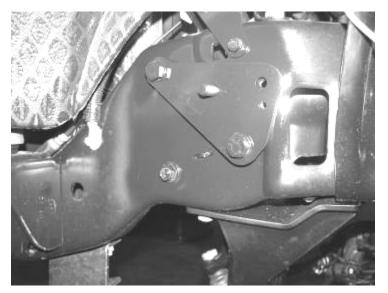
Picture shown without bump stop

6. Working from the driver side of the truck, locate FT30444BK Drv. Side Hoop Mount Plate and the supplied 16mm x 2.0 x 130mm bolts w/ washers. Remove the top and rearward bolt from the steering box and discard. Position the mount plate onto the frame and install the 16mm bolts, split, and flat washers (use supplied thread-locking compound) into the steering box. Install the 10mm bolt into the frame where the stock brake line brake bolt was originally. Leave loose. SEE PHOTOS BELOW.









7. Locate the two holes in the front side of the coil bucket. With a drill and 3/8" drill bit, drill out the two holes in the front side of the coil bucket. SEE PHOTO BELOW



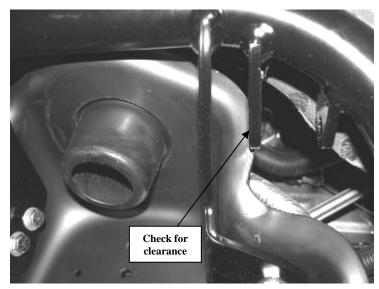
Driver side shown above

8. Locate FT30167BK shock hoop. Place the front leg of the hoop onto the bolt / stud on the mounting plate and secure with a provided 1/2" C-Lock nut and washer. Leave loose. Then position the hoop inside the coil bucket and install the 3/8" x 1 1/2" bolts, SAE flat washers, and nylock nuts. Next, use a supplied ½" x 1 ½" bolt, SAE flat washer, FT57-1 large washer, and nylock nut to bolt hoop where the factory shock was. Place the bolt with a SAE washer through the bottom of the hoop going upwards through the coil bucket. The FT57-1 washer will go on top of the coil bucket followed by a flat washer and nylock nut. Finger tighten at this time. Note: Due to tolerances in vehicle manufacturing the coil bucket may need to be trimmed. If the hoop makes contact with the coil bucket, mark the coil bucket, remove the hoop, and use a grinder to remove excess material from the bucket. Re-install the hoop. SEE PHOTOS BELOW

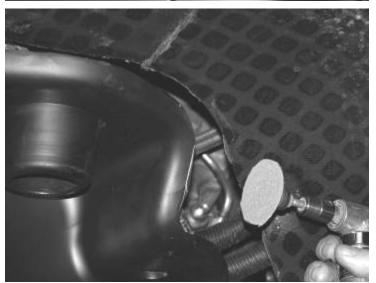




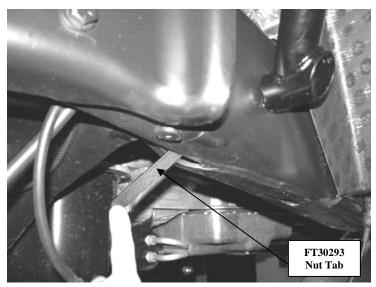




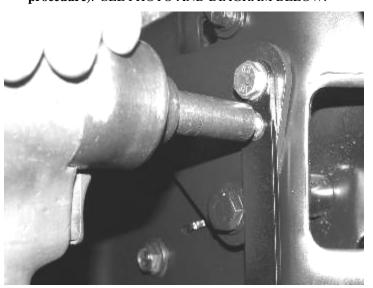


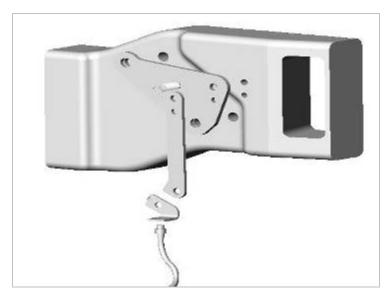


9. With the hoop in place on the bucket, use a center punch and mark the hole of the rear leg of the hoop to the frame. Using a drill and drill the new hole out to ½", (start with a smaller size bit and work up to the ½" bit). Locate FT30293 Frame Nut Tab and the supplied ½"x1½" bolt w/ a flat and a split washer. Insert the nut tab into the bottom of the frame up to the back of the hoop and attach the hoop with the ½" bolt with both washers (use provided thread-lock on the bolt). Torque the ½" hardware to 90 ft-lbs., the 16mm to 200 ft-lbs and the 3/8" hardware to 30 ft-lbs. SEE PHOTO BELOW

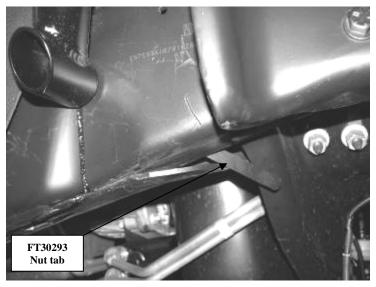


10. Locate FT30303 brake line bracket and the supplied 10mm x 25mm bolt and washer and the 5/16" thread forming bolt. Mount the new bracket to the hoop mounting plate in the factory brake line position with the new 10mm bolt (the top of the bracket has two holes). Next install the new threadforming bolt into the bottom hole on the bracket. Attach the factory brake line bracket to the new drop bracket with the supplied 5/16" hardware. Torque to 20 ft-lbs. (if you are installing a brake line drop bracket for the first time with the lift kit, see the instructions included with the lift kit for installing the brake line extension and proper routing procedure). SEE PHOTO AND DIAGRAM BELOW.





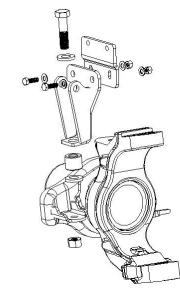
- 11. Working from the passenger side, locate the two holes in the front side of the coil bucket. With a drill and 3/8" drill bit, drill out the two holes in the front side of the coil bucket. Position the FT30168BK Shock Hoop inside the coil bucket and install the 3/8" x 1 1/2" bolts, SAE flat washers, and nylock nuts. Next, use a supplied ½" x 1 ½" bolt, SAE flat washer, FT58-1 large washer, and nylock nut to bolt hoop where the factory shock was. Place the bolt with a SAE washer through the bottom of the hoop going upwards through the coil bucket. The FT58-1 washer will go on top of the coil bucket followed by a flat washer and nylock nut. Finger tighten at this time. **Note: Due to variances from** truck to truck, some will need to have the coil bucket trimmed where the front shock mounting tab on the rear shock. If the hoop makes contact with the coil bucket, mark the coil bucket, remove the hoop, and use a grinder to remove excess material from the bucket. Re-install the hoop.
- 12. With the hoop in place on the bucket, use a center punch and mark the hole of the front and the rear leg of the hoop to the frame. Use a drill and drill the new hole out to ½", (start with a smaller size bit and work up to the ½" bit). Locate FT30182 Frame Nut Tab and the supplied ½"x1½" bolt w/ a flat and a split washer. Insert the nut tab into the bottom of the frame up to the front of the hoop and attach the hoop with the ½" bolt with both washers (use provided thread-lock on the bolt). Locate FT30293 Frame Nut Tab and the supplied ½"x1½" bolt w/ a flat and a split washer. Insert the nut tab into the bottom of the frame up to the back of the hoop and attach the hoop with the ½" bolt with both washers (use provided thread-lock on the bolt). Torque the ½" hardware to 90 ft lbs. and the 3/8" hardware to 30 lbs. SEE PHOTO BELOW.

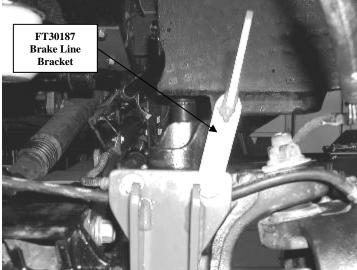


13. Working on the Drivers side, locate the FT30437BK Lower Front driver Shock Mount and the FT30187 Brake line Bracket. Using the supplied 8mm-1.25x30mm bolts and flat washers attach the new shock mount along with the brake line bracket to the front of the coil perch. The brake line bracket will mount on the outer bolt. Mount the lower boss on the shock Bracket to the factory sway bar mount on the axle using the ½-13x3 bolt, washers and crimp lock nut. Torque the 8mm bolts to 17 ft-lbs and the ½" bolt to 127 ft lbs. On 10" kits, locate the FT30291 Lower Shock Mount Spacer Plate and 5/16" hardware in the shock box and install per diagram below. SEE PHOTO BELOW



Driver side shown in photo

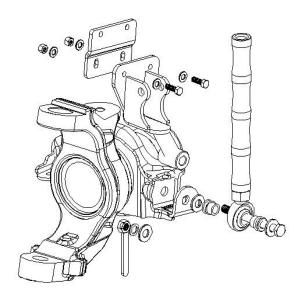




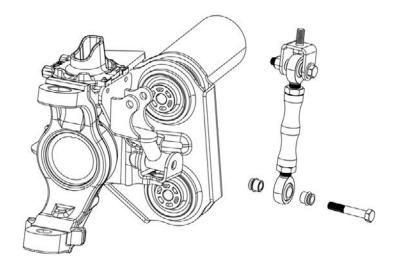
14. Locate FT30179BK Lower Rear Shock Mount. Position the shock mount into the factory lower shock mount on the axle. The plastic mounts that hold the ABS lines need to be flipped over so that the line will mount on above the new shock mount. Using the original 6mm hardware attach the shock mount along with the ABS line mount back to the rear of the coil perch. Leave loose at this time. On 10" kits, locate the FT30291 Lower Shock Mount Spacer Plate and 5/16" hardware in the shock box and install per diagram below. SEE PHOTO BELOW



Picture shows coils already installed for proper ABS placement



- 15. Locate FT30442 Billet sway bar end links. Attach one FTS98003 heim joint and one jam nut to each end of the end links. You will want to thread the jam nuts all the way down the heim joints and the heims all the way into the billet end links.
- 16. Position one end of the end link with two of the supplied FT30443 mis-alignments against the rear lower shock mount. Using the supplied ½" –13 x 5"bolt, flat washers, split washer, and FT30182 nut tab and attach the end link to the factory lower shock mount. The split and flat washer will mount against the nut tab on the inside of the mount. Repeat on the passenger side. SEE PHOTO AND DIAGRAM BELOW.





Driver side shown above

17. Locate FT30440 (drv) & FT30441 (pass) Sway Bar Relocation Brackets. The brackets have two sets of mounting holes. The set of holes with out the spacer are used to mount the bracket to the frame. The other set of holes which have the spacer welded on top opposite the gusset are used to mount the sway bar to the bracket itself. Position the bracket on the frame so the 31/4" sway bar mounting holes are inside the frame rail and 3" back of the oval hole in the bottom side of the frame. Use a paint pen or center punch and mark the holes in the bracket to the frame. Use a drill and drill the new hole out to 7/16" (start with a smaller size bit and work up to the 7/16" bit). Using the supplied 7/16"-14 x 1 1/2" bolts, flat washers, and C-Lock nuts, attach the bracket to the frame. Torque the bolts to 83 ft-lbs. The passenger front bracket will use FT30297 Sway Bar Plate Nut Tab on the front bolt with a split washer (use supplied thread-loc on this bolt). SEE PHOTOS BELOW.



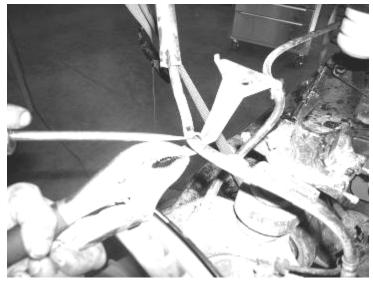
18. Locate the factory sway bar and sway bar frame mounts. Attach the sway bar to the previously installed frame brackets using the 7/16" x 1 ½"bolts, flat washers, and nylock nuts as shown in the photo below (the sway bar will need to be mounted as it was factory. DO NOT turn the bar upside down). Do not connect the end links at this time. Torque the bolts 85 ft - lbs. SEE PHOTO BELOW



19. Locate the front coils and install them accordingly. Make sure to have the isolators on the top of the coils prior to putting them on the truck. SEE PHOTO BELOW



- 20. Using the floor jacks, raise the front axle enough to compress the front coils approx. 1". Locate the correct front shocks and install onto the truck use the supplied ½"-13 x 3" bolts, flat washers, and nylock nuts. Torque the bolts to 70 ft-lbs. If you are installing Fabtech Performance shocks, the white body of the shock must be mounted down with shafts of the shocks mounted at the hoop. If installing Fabtech Dirt Logic shocks, the body of the shock mounts on the hoop and the shafts mount on the lower brackets.
- 21. The factory brake line bracket will need to be removed and discarded. Carefully pry the tab open so the brake line can be removed from the bracket. Next, you will need to separate the vacuum line for the Automatic Locking Hubs for the 4wd system and remove it from the loop bracket on the differential and brake line bracket. SEE PHOTO BELOW

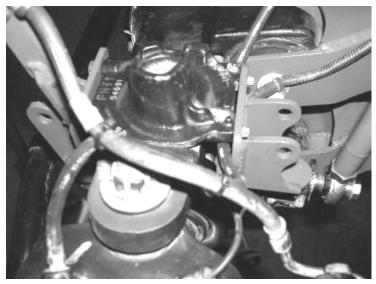


22. Locate the supplied adel clamp, ¼" –20 x ¾" bolt, washers, and nylock nut. Place the clamp around the brake hose and attach it to the FT30187 Brake Line Bracket. The FT30187 bracket will need to be as close to the coil as possible without making contact with it. This is done for maximum tire clearance. Route the 4wd vacuum line from the knuckle up to

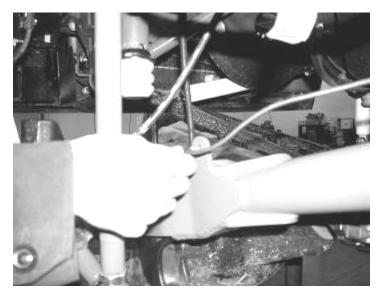
the brake line and down and behind the lower rear lower shock mount. Use the supplied zip ties and connect the vacuum line to the brake line. SEE PHOTOS BELOW



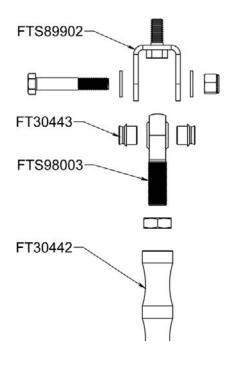
Completed picture used to show brake line routing

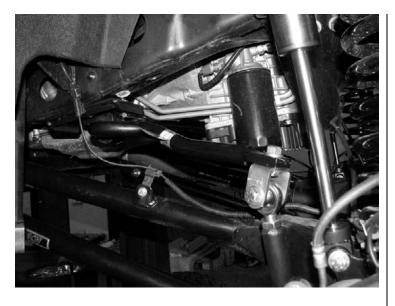


23. Route the ABS lines up the Radius / 4 Link arm and push the first ABS plastic clip into the tab at the front of the arm. Continue the line up to the next point where the factory tab is bolted to the arm that was removed from the stock radius arms. Make sure that the bracket is mounted up and with the opening facing outwards. Make sure to have some slack in the lines at all the connection points. The rubber sleeves on the lines are adjustable. If they need to be moved, use WD40 or a Silicone spray to lubricate the line so it will slide without damaging the line. Run the line the rest of the way up the arm and up to the fender well connection point. Make sure to run the line below the sway bar. SEE PHOTO BELOW



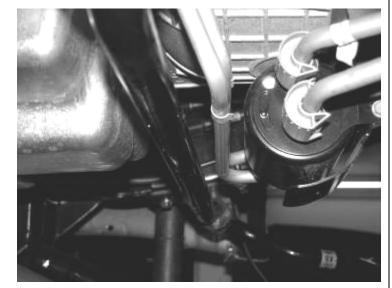
24. Locate the supplied clevis kit (FTS89902) and connect the sway bar end links to the sway bar. Torque the hardware to 127 ft-lbs. Repeat on pass side. SEE PHOTO AND DIAGRAM BELOW.

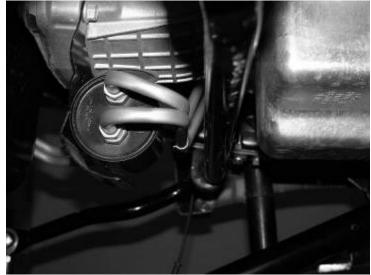




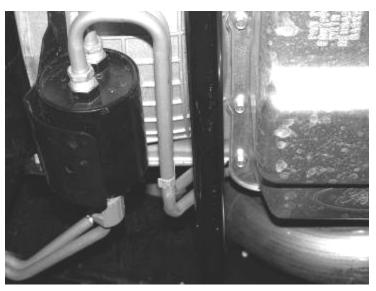
25. Once the sway bar is connected, check the sway bar by the transmission lines and filter for adequate clearance. DO NOT let the bar make contact with the lines or filter. CAREFULLY bend the line where needed without kinking it. SEE PHOTOS BELOW

#### **Driver Side Shown**

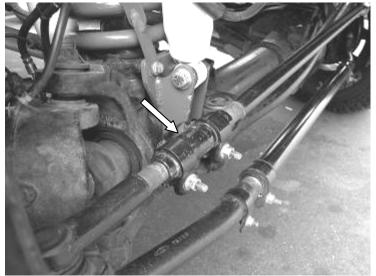




View from passenger side



26. Locate the adjuster on the drag link and adjust it so the bolts face towards the front of the truck. This is done for clearance of the Passenger front shock bracket. SEE PHOTO BELOW.



27. Re-install the front tires and set the truck back on the ground. Turning the steering wheel fully in each direction, check for

28. Check the front-end alignment and set to the factory specifications.

#### RETORQUE 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. 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.

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, powdercoating, 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 in the catalog, but due to unknown auto manufacturer's production changes and/or inconstancies 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 catalog 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'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 in our current catalog. 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.

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.

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 supercede, 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 catalog or price sheet.