



Installation Instructions



4" Performance Suspension System 2011-2012 GM 4WD 2500HD/3500HD

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6" 2011-2012 GM 4WD 2500HD/3500HD
FTS21104, FTS21105, FTS21106, FTS21108, FTS21109

	FTS21104	4" 2011 GM 2500HD/3500HD KIT W/O REAR BLOCKS
1	FTS20503D	SPINDLE MACHINED DRIVER
1	FTS20503P	SPINDLE MACHINED PASSENGER
1	FT20533BK	UCA DRIVER
1	FT20534BK	UCA PASSENGER
2	FT20538	HIGH TRAVEL BALL JOINT
2	FT20531	TORSION KEY - 2011 GM HD
1	FT20539	HARDWARE KIT
1	FT20540	HARDWARE SUBASSEMBLY
	FT20539	HARDWARE KIT
1	FTLOCK	THREAD LOCKING COMPOUND 1 MIL
2	FTCLAMP	CLAMP 3/8X1/2W .26THK NEOPRENE
2	FTCLAMP10	ADEL CLAMP #10
4	25200751052	SCREW 1/4-20 X 3/4 HEX G5 Z1
4	FT84	GREASE FITTING 1/4-28
	FT20540	HARDWARE SUBASSEMBLY
1	FT90111	BUSHING KIT
1	FTREGCARD	REGISTRATION CARD
1	FTAS16	DRIVER WARNING DECAL
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT
2	FT21104I	INSTRUCTIONS
	FT90111	BUSHING KIT
8	FT1038	BUSHING BLACK URETHANE 88 A
4	FT77	SLEEVE 1.000 X .630 X 2.620
1	FTLUBE	URETHANE LUBE 1 PACKET
	FTS21105	4" GM SYSTEM W/ PERF SHOCKS 11 C/K2500HD
1	FTS21104	4" 2011 GM 2500HD KIT
2	FTBK13	1" BLOCK 9/16" PIN
4	FT754U	UBOLT SQ 3/4-16X12.000X3.100
1	FT34H	NUT 3/4" AND WASHER KIT
2	FTS7341	PERFORMANCE SHOCK
2	FTS7299	PERFORMANCE SHOCK
	FTS21106	4" GM SYSTEM W/ PERF SHOCKS 11 C/K3500HD
1	FTS21104	4" 2011 GM 2500HD KIT
2	FTBK13	1" BLOCK 9/16" PIN
4	FT755U	UBOLT SQ 3/4-16X14.000X3.100
1	FT34H	NUT 3/4" AND WASHER KIT
2	FTS7341	PERFORMANCE SHOCK
2	FTS7299	PERFORMANCE SHOCK
	FTS21108	4" GM SYSTEM W/ PERF SHOCKS 11 C/K2500HD
1	FTS21104	4" 2011 GM 2500HD KIT
2	FTS7341	PERFORMANCE SHOCK
2	FTS7299	PERFORMANCE SHOCK
	FTS21109	4" GM SYSTEM W/ DL SHOCKS 11 C/K3500HD

1	FTS21104	4" 2011 GM 2500HD KIT
2	FTS810931	PERFORMANCE SHOCK
2	FTS810941	PERFORMANCE SHOCK

INSTALLATION OF THIS SUSPENSION SYSTEM WILL NOT ALLOW THE USE OF THE FACTORY WHEELS

WITH THE INSTALLATION OF THIS KIT YOU MUST RUN A 18x9 OR 20X9 RIM WITH A 5 3/4" BACK SPACING.

VEHICLES THAT WILL RECEIVE OVERSIZED TIRES SHOULD CHECK BALL JOINTS, TIE RODS ENDS AND IDLER ARM EVERY 2500-5000 MILES FOR WEAR AND REPLACE AS NEEDED

THE INSTALLATION OF THIS SUSPENSION SYSTEM SHOULD BE PERFORMED BY TWO PROFESSIONAL MECHANICS.

DO NOT ALTER THE FINISH OF THESE COMPONENTS, EXAMPLE- CHROMING, ZINC PLATING OR PAINTING. CHANGING THE FINISH CAN CAUSE STRUCTURAL FATIGUE OF COMPONENTS.

KIT DOES NOT FIT STANDARD CAB MODEL TRUCKS

SUSPENSION SYSTEM MUST BE INSTALLED WITH FABTECH SHOCK ASBORBERS

CHECK ALL 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! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED, SEVERE FRAME, DRIVELINE AND / OR SUSPENSION DAMAGE MAY RESULT.

NOTE- PRIOR TO THE INSTALLATION OF THIS SUSPENSION SYSTEM A FRONT END ALIGNMENT MUST BE PERFORMED AND RECORDED. DO NOT INSTALL THIS SYSTEM IF THE VEHICLE ALIGNMENT IS NOT WITHIN FACTORY SPECIFICATIONS. CHECK FOR FRAME AND SUSPENSION DAMAGE PRIOR TO INSTALLTION.

SUSPENSION SYSTEM WILL NOT WORK ON VEHICLES EQUIPPED WITH FACTORY AUTO RIDE SUSPENSION

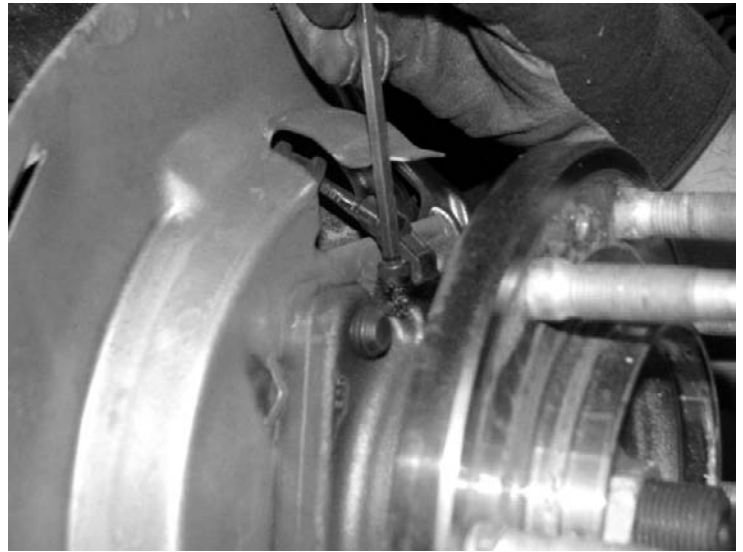
VERIFY DIFFERENTIAL FLUID IS AT MANUFACTURES RECOMMENDED LEVEL PRIOR TO KIT INSTALLATION. INSTALLATION OF THE KIT WILL RE-POSITION THE DIFFERENTIAL AND THE FILL PLUG HOLE MAY BE IN A DIFFERENT POSITION. (FOR EXAMPLE, IF THE MANUFACTURE RECOMMENDS 3 QUARTS OF FLUID, MAKE SURE THE DIFF HAS 3 QUARTS OF FLUID). CHECK YOUR SPECIFIC MANUAL FOR CORRECT AMOUNT OF FLUID.

FRONT SUSPENSION INSTRUCTIONS:

1. Disconnect the negative terminal on the battery. With the vehicle on level ground, set the emergency brake and block the rear tires. 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. Locate the torsion bar adjusting keys and threaded bolts. Measure exposed threads of torsion bar adjusting bolts and record for reinstallation. Mark torsion bars indicating driver and passenger. Using a torsion bar removal tool to unload the torsion bars and remove the crossmember and bars. Retain the hardware for reinstallation. NOTE- Do not attempt to unload or remove torsion bars without the proper torsion bar tool. Torsion Bars are under extreme spring load.
3. Remove the sway bar link ends from the lower control arm.
4. Beginning on the driver's side, disconnect the tie rod end from the steering knuckle by striking the knuckle to dislodge the tie rod end.
SEE PHOTO BELOW



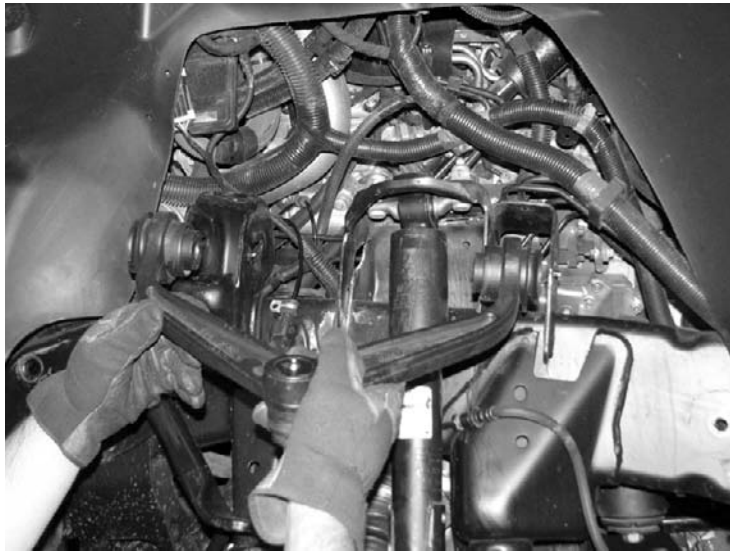
5. Remove the brake hose bracket from the top of the steering knuckle. Remove the caliper from the rotor and place above the upper control arm during this portion of the installation. Remove brake rotor from the steering knuckle. Unbolt the wheel speed sensor connection from the hub and control arm.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



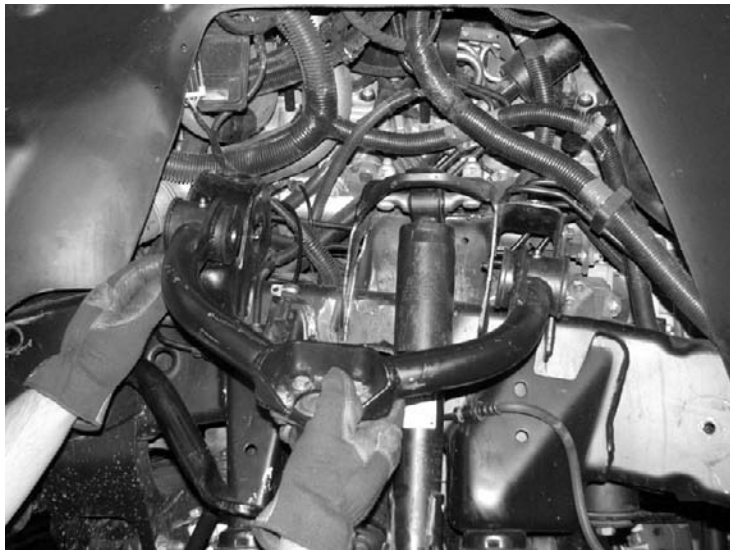
6. Remove axle nut, washer and the 4 hub bolts on backside of knuckle. Remove bearing hub assembly including O ring from knuckle. Retain parts and hardware for reinstallation.
7. Remove the upper and lower ball joint nuts. Disconnect the upper and lower ball joints from the steering knuckle by striking 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 nuts and discard knuckle.
SEE PHOTO BELOW



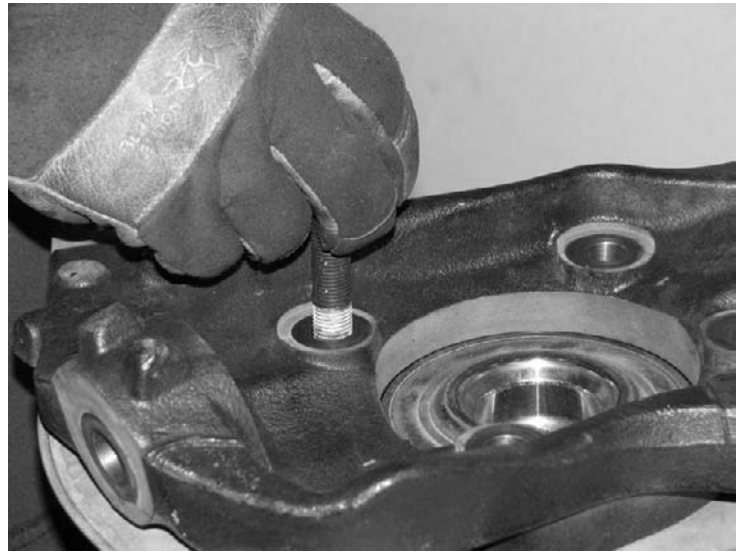
8. Remove the upper control arm. Retain the factory hardware.
SEE PHOTO BELOW



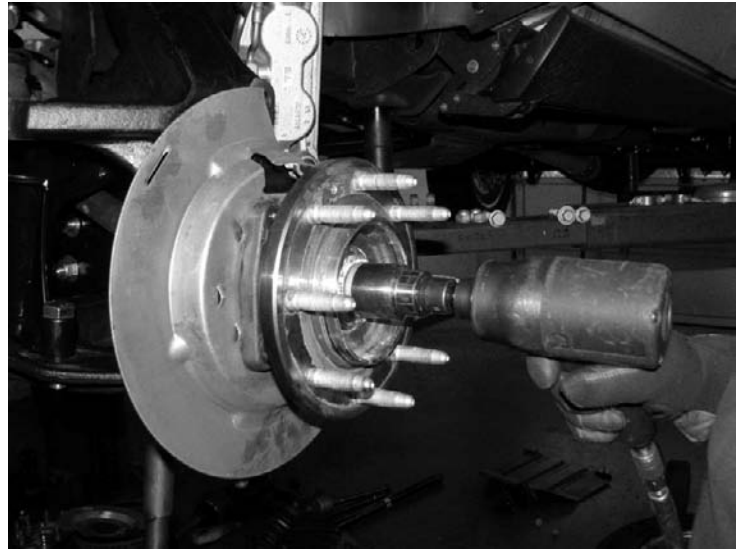
9. Remove the factory shock and discard.
10. Locate the FT7341 shock and install using the factory lower hardware. Torque the upper bar pin bolts to 60 ft-lbs and the lower to 129 ft-lbs.
11. Locate the Fabtech driver's side control arm FT20533BK, four bushings FT1038; two grease zerks FT84, and two FT77 sleeves.
12. Install all these components in the control arm barrels. Locate the ball joint FT20538 and install onto the control arm ball joint plate. Use the supplied 5/16" bolts, nuts and washers. Torque to 29 ft-lbs.
13. Install the new Fabtech upper control arm in the factory upper control arm pocket using factory hardware.
SEE PHOTO BELOW



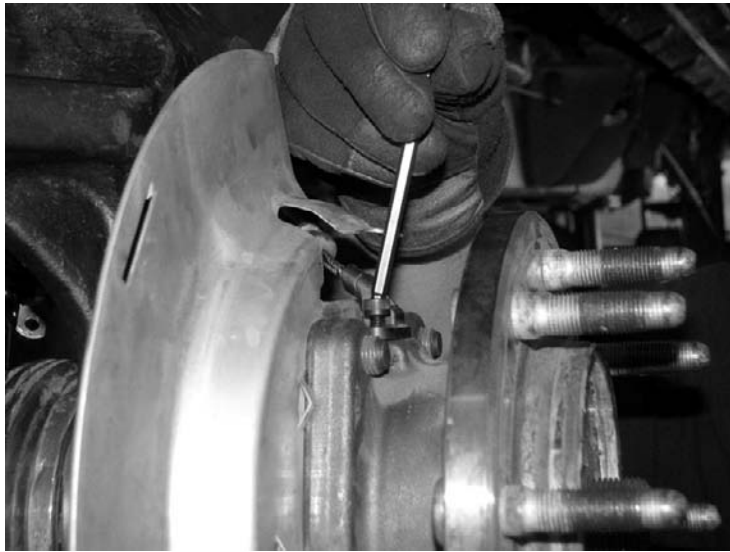
14. Locate the new Fabtech driver side spindle FTS20503D. Locate the o-ring, dust shield and hub. Install into the Fabtech spindle. Torque the factory hub bolts 184 ft-lbs.
SEE PHOTO BELOW



15. Install the Fabtech knuckle on to the lower ball joint. Pull the CV shaft back through the Hub and install the new Fabtech upper ball joint into the upright of the spindle. Torque the upper to 83 ft-lbs and the lower 101 ft-lbs.
16. Install the axle nut and torque to 165 ft-lbs. Replace axle nut cover.
SEE PHOTO BELOW



17. Install the wheel speed sensor into the factory hub.
SEE PHOTO BELOW

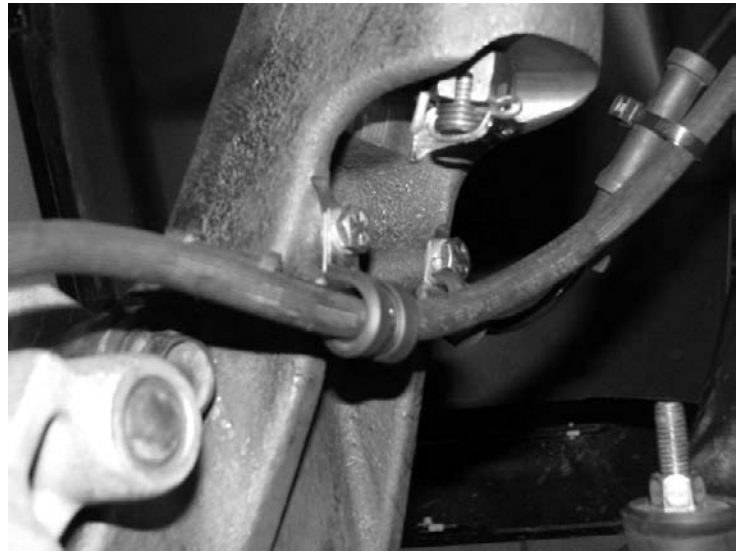


18. Install the factory tie rod end into the Fabtech spindle and torque to 220 ft-lbs.

19. Install the rotor and the small bolt retaining the rotor and torque to 12 ft-lbs. Install the caliper and torque to 220 ft-lbs.
SEE PHOTO BELOW



20. Locate the supplied adel clamps, 1/4" lock washers and 1/4"- 20 x 3/4" bolts. Clamp the brake line and the wheel speed wire to the spindle as shown in the photos below.
SEE PHOTO BELOW



21. Repeat steps 4 – 20 on the passenger side.

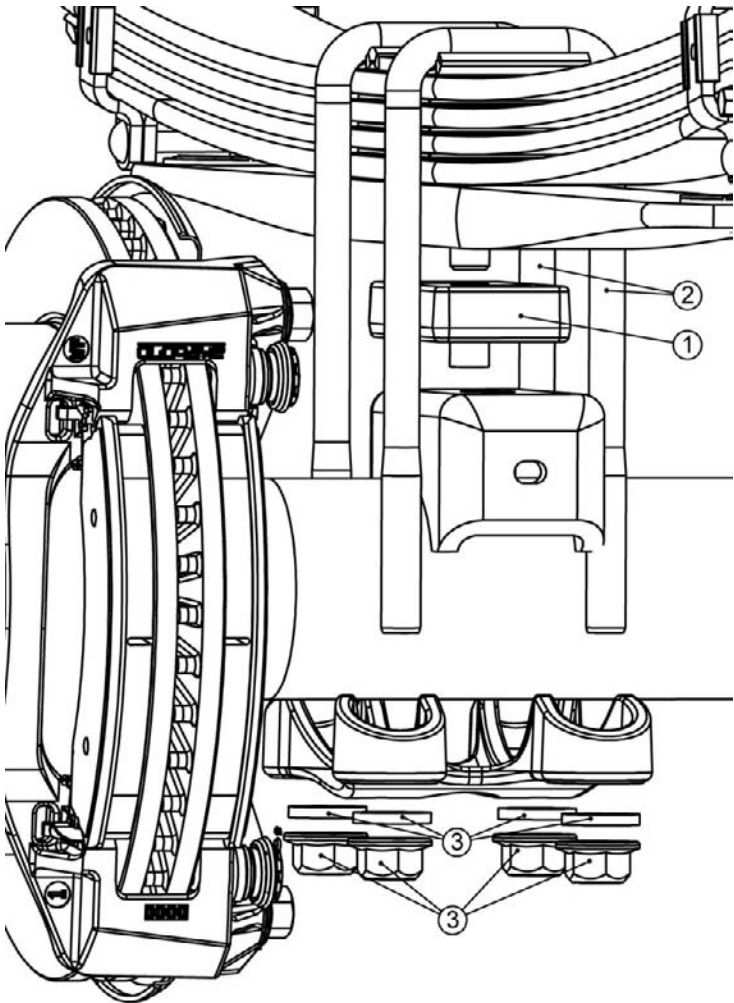
22. Locate the factory driver side torsion bar, crossmember and the FT20531 torsion key. Install the torsion bars crossmember and the new Fabtech torsion key. The torsion bar key adjuster bolt should be reset to the measurement taken before the insulation. This is a temporary setting. When the Vehicle is on its own weight the measurement from the lip of the fender to the center of the hub should be 28". Adjust torsion bars accordingly.
SEE DIAGRAM BELOW



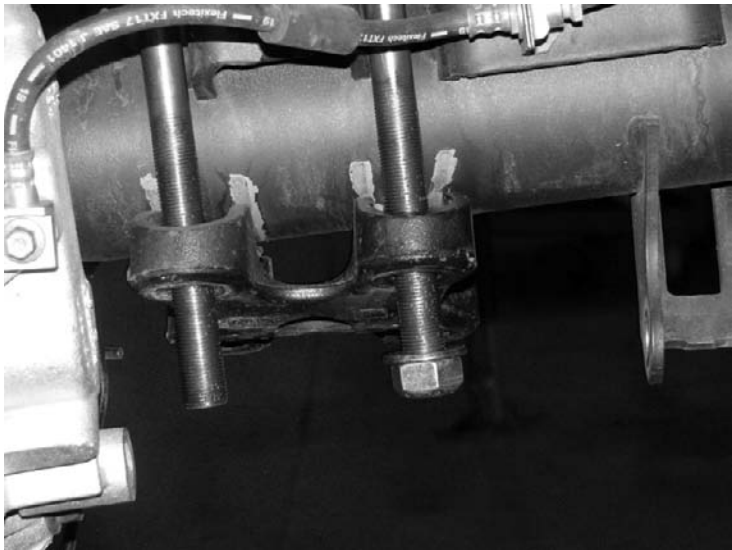
REAR SUSPENSION INSTRUCTIONS

23. Jack up the rear end of the vehicle and support the frame rails with jack stands. Supporting the rear differential, remove and discard the rear shocks and u-bolts. Lower axle down slowly. Use care not to over extend the brake hose.

24. Locate and install the rear lift blocks to the axle. Using the provided U bolts, nuts and washers, align axle, lift blocks, and springs and torque U Bolts to 317 ft-lbs. SEE DIAGRAM AND PHOTO BELOW.



ITEM	PN	DECSRIPTION
1	FTBK13	1" BLOCK 18MM PIN
2	FT755U	UBOLT SQ 3/4-16X14.000X3.100
3	FT34H	NUT 3/4" AND WASHER KIT



25. Install Fabtech shock part number FTS7299 (not included). Torque bolts to 100 ft-lbs.
26. Recheck all bolts for proper torque. Recheck brake hoses and lines for proper clearances.
27. 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.
28. Check front end alignment and set to factory specifications. Readjust headlights.

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 manufacturers 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 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.

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