



INSTALLATION INSTRUCTIONS



**2011-17 GM C/K2500HD & C/K3500HD 2WD/4WD
3" UCA KIT W/ SHOCKS**

FTS21213 / FTS21214 / FTS21215 / FTS21216

Fabtech Motorsports | 4331 Eucalyptus Ave. Chino, CA 91710

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

- PARTS LIST -

FTS21213 3" GM HD UCA KIT W/ PERFORMANCE SHOCKS		
2	FT20550	FORGED TORSION KEY
1	FT20575BK	UCA DRIVER
1	FT20576BK	UCA PASSENGER
1	FT20708	HARDWARE SUBASSEMBLY
2	FTS7341	PERFORMANCE SHOCK
2	FTS7299	PERFORMANCE SHOCK

FTS21214 3" GM HD UCA KIT W/ STEALTH SHOCKS		
2	FT20550	FORGED TORSION KEY
1	FT20575BK	UCA DRIVER
1	FT20576BK	UCA PASSENGER
1	FT20708	HARDWARE SUBASSEMBLY
2	FTS6341	STEALTH SHOCK
2	FTS6019	STEALTH SHOCK

FTS21215 3" GM HD UCA KIT W/ DLSS N/R SHOCKS		
2	FT20550	FORGED TORSION KEY
1	FT20575BK	UCA DRIVER
1	FT20576BK	UCA PASSENGER
1	FT20709	HARDWARE SUBASSEMBLY
2	FT810932	2.25 DLSS N/R
2	FT810942	2.25 DLSS N/R

FTS21216 3" GM HD UCA KIT W/ DLSS R/R SHOCKS		
2	FT20550	FORGED TORSION KEY
1	FT20575BK	UCA DRIVER
1	FT20576BK	UCA PASSENGER
1	FT20709	HARDWARE SUBASSEMBLY
2	FT800932	2.25 DLSS R/R
2	FT810942	2.25 DLSS N/R
1	FT20717BK	RESI MOUNT DRIVER
1	FT20718BK	RESI MOUNT PASSENGER

FT20708 HARDWARE SUBASSEMBLY		
4	FT84	GREASE FITTING
4	FT147	HD MISALIGNMENT
2	FT20579	UNIBALL SPACER
1	FT90111	BUSHING KIT
1	FT90121	HARDWARE KIT
2	FT94500	UNIBALL ADAPTER PIN -I- 17-4
1	FTLOCK	THREAD LOCKING COMPOUND
1	FT21213i	INSTRUCTIONS
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT
1	FTAS16	DRIVER WARNING DECAL
1	FTREGCARD	REGISTRATION CARD

FT20709 HARDWARE SUBASSEMBLY		
2	FTSP01029	HARDWARE PACK STEM BUSHING
2	FT86040	HARDWARE & BUSHING KIT 40
2	FT20484	UPPER SHOCK MOUNT
4	FT147	HD MISALIGNMENT
2	FT20579	UNIBALL SPACER
1	FT90111	BUSHING KIT
1	FT86052	HARDWARE KIT
2	FT94500	UNIBALL ADAPTER PIN -I- 17-4
1	FT21213i	INSTRUCTIONS
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT
1	FTAS16	DRIVER WARNING DECAL
1	FTREGCARD	REGISTRATION CARD

FT20720 HARDWARE SUBASSEMBLY		
2	FTSP01029	HARDWARE PACK STEM BUSHING
2	FT86040	HARDWARE & BUSHING KIT 40
2	FT20484	UPPER SHOCK MOUNT
4	FT147	HD MISALIGNMENT
2	FT20579	UNIBALL SPACER
1	FT90111	BUSHING KIT
1	FT86051	HARDWARE KIT
2	FT94500	UNIBALL ADAPTER PIN -I- 17-4
1	FT21213i	INSTRUCTIONS
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT
1	FTAS16	DRIVER WARNING DECAL
1	FTREGCARD	REGISTRATION CARD

- PARTS LIST -

FT86051 - HARDWARE KIT		LOCATION
4	GREASE FITTING	
2	M14-2 X 80MM HEX BOLT	
2	9/16"-18 X 1.5" HEX BOLT	
4	9/16" SAE WASHER	
2	9/16"-18 C-LOCK NUT	
1	THREAD LOCKING COMPOUND	
2	#48 HOSE CLAMP 2-9/16"- 3-1/2"	
4	M18 FLAT WASHER	
2	M18-2.5 GRADE C LOCK NUT	
2	M18-2.5 X 50MM HEX HEAD	
10	1/4 SAE WASHER	
2	1/4 LOCK WASHER	
4	1/4-20 GR C CROWNLOCK NUT	
6	1/4-20 X 3/4 HEX BOLT G5 ZINC	

FT86052 - HARDWARE KIT		LOCATION
4	GREASE FITTING	
2	M14-2 X 80MM HEX BOLT	
2	9/16"-18 X 1.5" HEX BOLT	
4	9/16" SAE WASHER	
2	9/16"-18 C-LOCK NUT	
1	THREAD LOCKING COMPOUND	
4	M18 FLAT WASHER	
2	M18-2.5 GRADE C LOCK NUT	
2	M18-2.5 X 50MM HEX HEAD	
10	1/4 SAE WASHER	
2	1/4 LOCK WASHER	
4	1/4-20 GR C CROWNLOCK NUT	
6	1/4-20 X 3/4 HEX BOLT G5 ZINC	

- PARTS LIST -

- 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.

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.

Required Tools (Not Included)

Basic Hand Tools
Floor Jack
Jack Stands
Assorted Metric and S.A.E sockets, and Allen wrenches
Torque Wrench
Torsion Bar removal tool is required for installation

Prior to installing this kit, with the vehicle on level ground. Measure the height of your vehicle. This measurement can be recorded from the center of the wheel, straight up to the top of the inner fender lip. Record the measurements below.

LF: _____ **RF:** _____

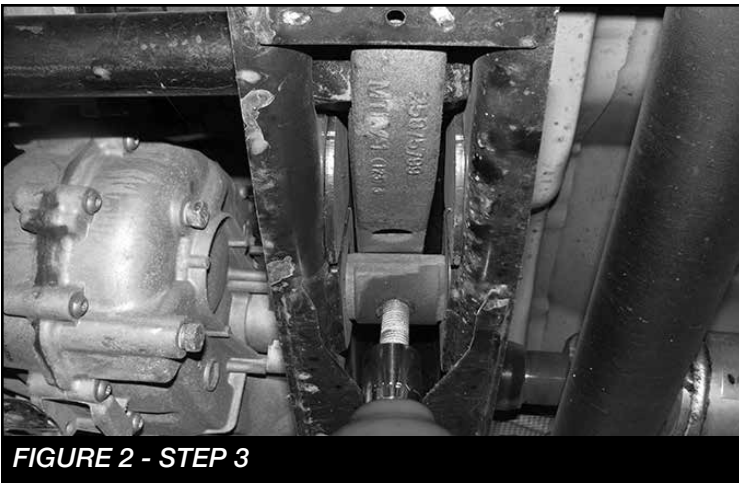
LR: _____ **RR:** _____

- INSTRUCTIONS -

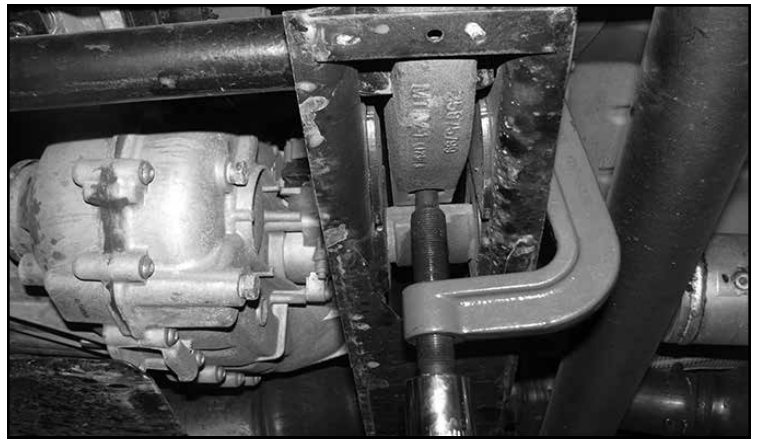
1. Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the front tires.
2. Peel back wheel well liner and remove the (2) upper shock mounting nuts. Remove the lower shock bolt and remove the shock. **SEE FIGURE 1**



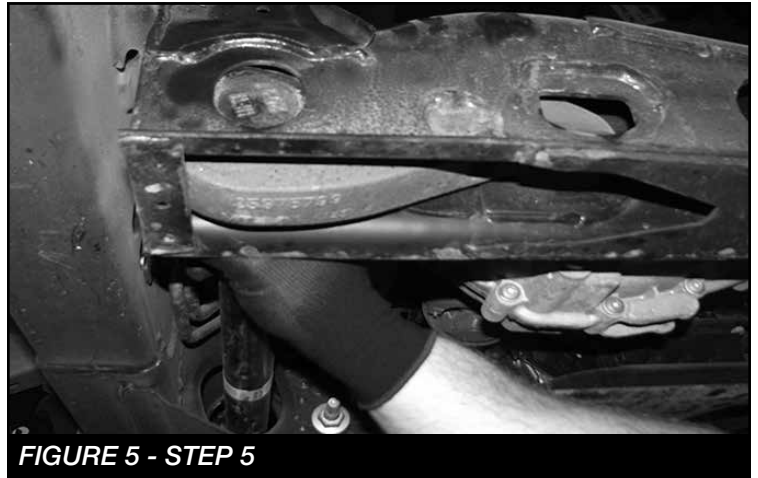
3. Locate and remove the torsion bar adjusting bolts. Save for re-installation. **SEE FIGURE 2**



4. Using a torsion bar removal tool, run the torsion key up and remove the torsion key adjusting block from the crossmember. **SEE FIGURES 3-4**



5. Carefully unload the torsion key and tool. Next, slide the torsion bar forward (**note the key clocking position**) then remove the factory torsion key. **SEE FIGURE 5**



6. Repeat steps 2-5 on the passenger side.

7. Remove the upper ball joint nut. Disconnect the upper ball joint from the knuckle by striking the knuckle with a large hammer next to the upper ball joint on the knuckle to dislodge the ball joints. Use care not to hit the ball joints when removing.
8. Mark the location of the alignment cams on the frame of the upper control arm pocket. Remove the upper control arm and retain the factory hardware. **SEE FIGURE 6**

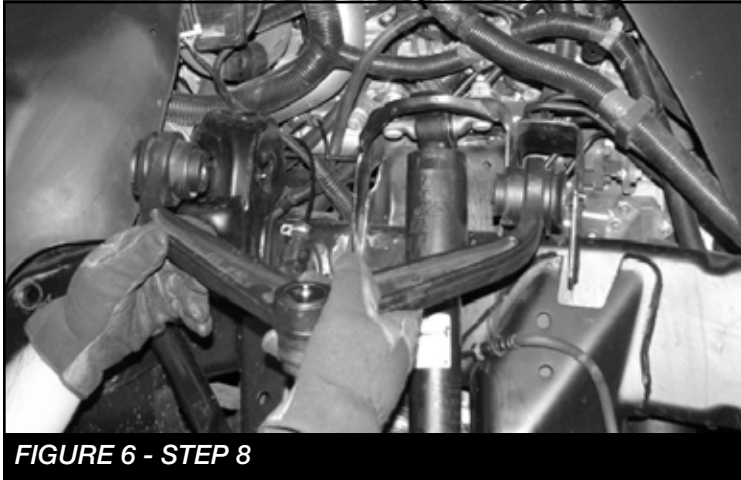


FIGURE 6 - STEP 8

9. Locate the Fabtech driver's side control arm FT20575BK, Install four bushings FT1038; two grease zerks FT84, and two sleeves FT77. **SEE FIGURE 7**

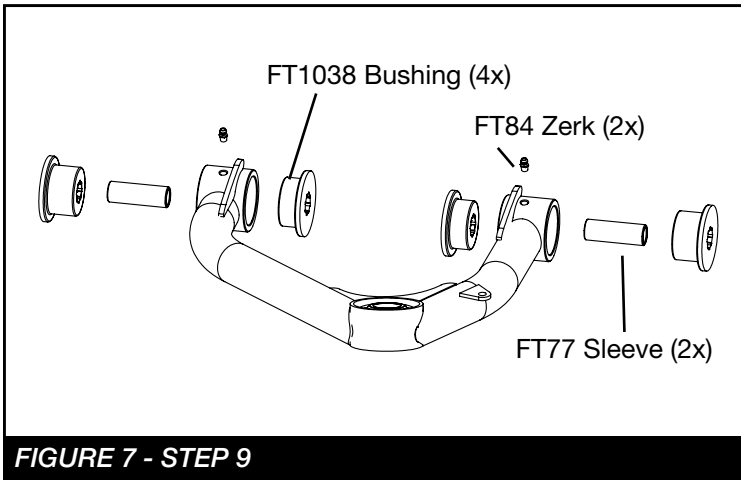


FIGURE 7 - STEP 9

10. Install the new Fabtech upper control arm in the factory upper control arm pockets using the factory hardware at the previously marked alignment cam location. When installing the arm on the truck make sure the barrel gussets are up. Torque to 150 ft- lbs. **SEE FIGURE 8**



FIGURE 8 - STEP 10

11. Locate FT94501 Uniball adapter pin, and two 147 uniball misalignment spacers.
12. Using a 19/32" drill, chase out the upper ball joint on the factory knuckle.
13. **SEE FIGURE 9 FOR STEPS 13-17** Insert the uniball pin into the factory knuckle upper ball joint taper. Install the 9/16"-18 lock nut with thread lock compound and flat washer on to the bottom side of the pin. This will lock the pin into the knuckle. Torque to 150 ft-lbs.
14. Install one FT147 uniball misalignment spacer on to the pin.
15. Swing the control arm down, slide the pin into the uniball on the control arm seating the lower FT147 spacer in the control arm.
16. Install the upper FT147 uniball misalignment spacer onto the pin.
17. Install the 3/4" -16 lock nut on the top side of the pin with thread lock compound and torque to 150 ft-lbs.

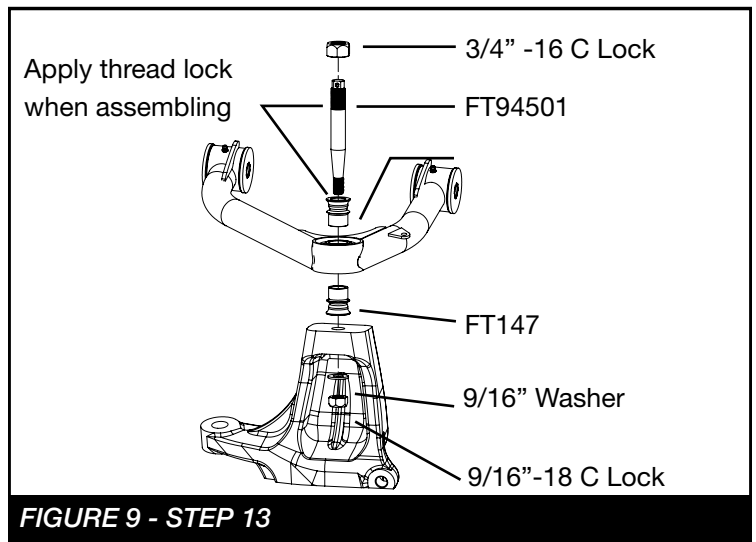


FIGURE 9 - STEP 13

18. Repeat steps 7-17 on passenger side of the vehicle.

19. Install the new torsion key (FT20550) into the original position. **SEE FIGURE 10**

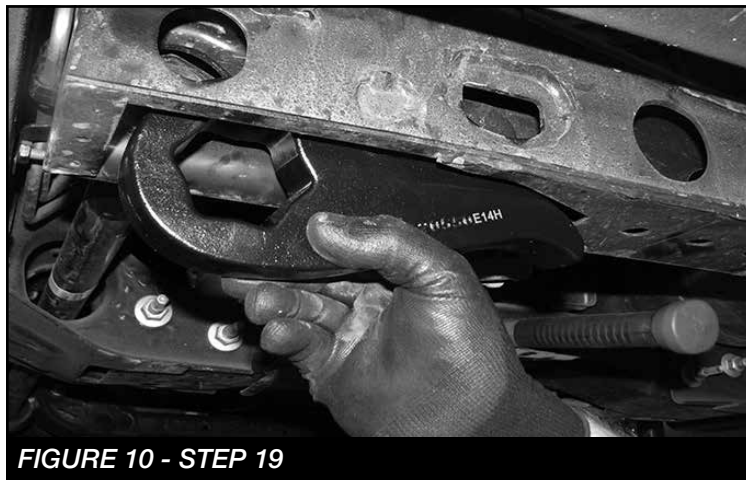


FIGURE 10 - STEP 19

20. Reinstall the torsion key tool and adjust upward enough to reinsert the adjustment block. Remove the tool and install the factory bolt so that it is flush with the bottom of the crossmember. **SEE FIGURE 11-13**



FIGURE 11 - STEP 20



FIGURE 12 - STEP 20



FIGURE 13 - STEP 20

21. **NOTE: If installing Dirt Logic Shocks skip this step.** Locate and install either FTS7341 (Performance Shock) or FTS6341 (Stealth Shock) using the bushings, sleeves and bar pin included with the shock. **NOTE: If installing FTS6341 (stealth) without blue shaft seal install FT20740.** If your FTS6341 has a blue shaft seal you do not have to install the FT20740. **SEE FIGURE 14**



FIGURE 14 - STEP 21

22. **DIRT LOGIC SHOCKS:** Locate and install FT20484 (Upper Shock Mount) using the supplied 9/16 hardware. **SEE FIGURE 14.** **NOTE: If installing Resi shocks install FT20717BK (Driver side resi mount) at this time.** Torque to 129 ft-lbs. **SEE FIGURES 15-17**



FIGURE 15 - STEP 22



FIGURE 16 - STEP 22



FIGURE 17 - STEP 22

23. Locate and install FT810932 or FT800932 (Dirt Logic Shocks) with the provided 9/16" hardware for the upper mount and factory hardware for the lower mount. Mount the resi with the supplied hose clamps. **SEE FIGURE 18**



FIGURE 18 - STEP 23

24. REAR SUSPENSION

25. Remove the rear shocks and save hardware.
26. Locate the new Fabtech shocks. **NOTE: Use the supplied 14mm Bolt on the upper shock mount when installing FT810942 (Dirt Logic Shock).**

FTS7299 - Performance Shock
FTS6019 - Stealth Shock
FT810942 - Dirt Logic N/R Shock

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. **NOTE: Initial height can now be set. Final adjustments of torsion bars may, and should be performed by the alignment shop.**
29. Check front end alignment and set to factory specifications. Re-adjust headlights.
30. Recheck all bolts for proper torque.
31. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
32. 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.**
33. 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