INSTALLATION INSTRUCTIONS

2017-2020 GM C/K1500 SUV 2WD/4WD
6” REAR SYSTEM

FTS21247

Fabtech Motorsports | 4331 Eucalyptus Ave. Chino, CA 91710

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

	FTS21247	REAR COIL BOX KIT
2	FT1599-2BK	REAR COIL (AUTORIDE)
1	FT20292BK	TRAC BAR BRACKET
1	FT20307BK	TRAC BAR BRACKET SUPPORT
1	FT1599-2-2DBK	SHOCK DROP BRACKET (DRIVER)
1	FT1599-2-2PBK	SHOCK DROP BRACKET (PASSENGER)
1	FT20823	REAR UPPER LINK (DRIVER)
1	FT20824	REAR UPPER LINK (PASSENGER)
2	FT20825	LOWER LINK D/P
2	FT1599-2-4	REAR SWAY BAR END LINK
1	FT20299	BUSHING & SLEEVE KIT
1	FT20309	HARDWARE KIT
1	FT20319BK	REAR BUMP STOP BRACKET (DRIVER)
1	FT20320BK	REAR BUMP STOP BRACKET (PASSENGER)
1	FT20827	HARDWARE SUBASSEMBLY

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8	FT1004	SWAY BUSHING HALF
4	FT404739	SWAY BAR SLEEVE
1	FT20349	REAR BRAKE LINE BRACKET
4	12008007100	8" BLACK ZIP TIE
4	12001407100	14" BLACK ZIP TIE
1	FT21247i	INSTRUCTION SHEET

	FT20309 - HARDWARE KIT	LOCATION
1	9/16"-12 x 4" Bolt	REAR TRAC BAR BRACKET
1	9/16"-12 C-Lock Nut	
2	9/16" SAE Flat Washers	
2	7/16"-14 x 2 1/4" Bolt	
1	7/16"-14 x 1 1/2" Bolt	
3	7/16"-14 C-Locks	
6	7/16" SAE Flat Washer	
2	12mm x 1.50 x 75mm Bolt	REAR SWAY BAR LINKS @ BAR
2	12mm C-Lock Nut	
4	½" USS Flat Washer	
2	9/16"-12 x 3" Bolt	REAR SHOCK @ DROP BRACKET
2	9/16"-12 C-Lock Nut	
4	9/16" SAE Flat Washers	
1	5/16"-16 x 1" Bolt	REAR BRAKE LINE DROP
1	5/16"-16 C-Lock	
2	5/16" SAE Flat Washer	
4	3/8"-16 x 1 1/4" Bolt	BUMP STOP BRACKET
4	3/8"-16 C-Locks	
8	3/8" SAE Flat Washer	
2	1/4"-20 x 1" Bolt	AUTO RIDE DROP BRACKET
2	1/4"-20 C-Lock	
4	1/4" SAE Flat Washer	
8	1/4 Grease Fitting	ZERC FITTING
1	FTLube	BUSHING LUBE

- 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

- 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.

Due to variances vehicle may sit low in the rear. To achieve more lift order part number FTS21064 (1” spacer).

FOOTNOTES -

8. Will not fit all wheel drive models.
14. Cannot use OEM wheel and tire.
16. Utilizes stock rear shocks.
101. Some models may not sit level after install.
132. Will not fit 2WD Suburban models.
134. Will not fit 2WD Yukon XL models.

- INSTRUCTIONS -

REAR 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. Disconnect the sway bar end links from the frame and sway bar, discard the endlinks, save the hardware. Remove the bolt securing the brake line support tab to the differential housing and save. Remove the ABS wiring from the frame mounts on both sides. Save all the hardware. **SEE FIGURE 1**

FIGURE 1 - STEP 2

3. Using a floor jack, raise the differential just enough to slightly compress the rear shocks. Remove the bolts securing the top of the shocks to the frame (if equipped with the Auto Ride System, unplug the electric and air line connections) . Remove the lower pivot bolt that attaches the track bar to the axle bracket and save. **SEE FIGURE 2**

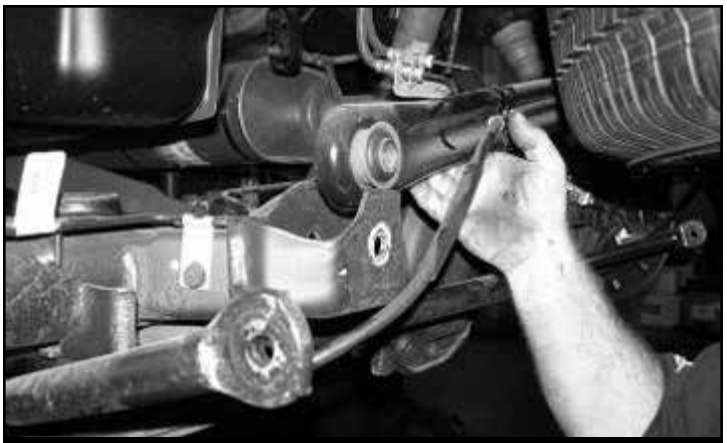

FIGURE 2 - STEP 3

4. Lower the floor jack to release the coil springs. Remove the coil springs from the vehicle and save the rubber upper and lower coil insulators

5. Support the rear axle with a floor jack and remove the factory lower links arms. Discard the links and save the hardware. **SEE FIGURE 3**

FIGURE 3 - STEP 5

6. Locate FT20319 (drv) & FT20320 (pass) Rear Bumpstop Brackets and the supplied 3/8"x1 ¼" hardware. Place the bump stop extension mounts onto the existing pads on the top of the differential. Using the 3/8" bolts, washers and C-lock nuts, secure the mount to the differential. There should be a flat washer on each side of the bolt. Do not fully tighten. Mark and drill the front 3/8" hole in the bumpstop and attach using the remaining 3/8" hardware on this new hole. Torque to 30 ft lbs. **SEE FIGURES 4-5**

FIGURE 4 - STEP 6

FIGURE 5 - STEP 6

7. Locate FT20823 (drv.) & FT20824 (pass) Rear Upper Link, FT20825 Rear Lower Links, and FT20299 Bushing and Sleeve Kit. Using an arbor press, press the bushings and sleeves (use supplied bushing lube) into each end of the links and install the supplied zerk fittings. On the upper links, use 2ea. FT1037 bushings and a short sleeve at each end. On the lower links, use (2) FT1038, and a long sleeve on each end.

8. Install the new Lower Link Arms into the factory rear axle mounts with the factory hardware. Then attach the arm to the frame mounts also with the factory hardware. Leave loose at this time. **SEE FIGURE 6**

FIGURE 6 - STEP 8

9. Support the rear axle with a floor jack and remove the factory upper links arms. If the rear is equipped with Auto Ride, locate the Auto Ride sensors on both the driver side and passenger side of the vehicle on the upper link arms. Disconnect from the link arm and save with the hardware. DO NOT REMOVE FROM THE TRUCK. Discard the links and save the hardware. Install the new Upper Link Arms into the factory rear axle mounts with the factory hardware. (install / match the driver and passenger links as they were removed). Then attach the arm to the frame mounts also with the factory hardware. Remove the Auto Ride bracket from the position sensor and use a die grinder to remove the bottom of the bracket. Connect the auto ride brackets to the tabs on the upper links with the factory hardware. Leave the link arm bolts loose at this time. **NOTE:** Trim the last rib off the bumpstop. **SEE FIGURES 7-10**

FIGURE 7 - STEP 9

FIGURE 8 - STEP 9

FIGURE 9 - STEP 9

FIGURE 10 - STEP 9

10. Locate FT20292 Trac Bar Bracket, FT20307 Trac Bar Bracket Support, and the 7/16” & 9/16“ hardware. Position the trac bar bracket into the factory mount on the axle and install with the factory bolt and hardware. Leave loose. Locate the two factory holes just forward of this mount, Using a drill with a 7/16” bit, drill these two holes out to 7/16” (carefully bend the brake line back from the inner hole). Position the support bracket over the two new holes and install with the 7/16” x 2 ¼” bolts and hardware. Insert the 9/16” x 4” bolt into the trac bar bracket and support bracket (tighten just enough to make the bracket and support make contact, over tightening without the trac bar installed will collapse the bracket) Torque the 7/16” bolts to 50 lbs. **SEE FIGURES 11-12**

FIGURE 11 - STEP 10

FIGURE 12 - STEP 10

11. Using a drill with a 7/16” bit, drill the hole on the new trac bar bracket to the factory mount. Use 7/16 x 1 ½” bolt and hardware to attach the bracket to the mount and torque to 50 lbs. **SEE FIGURES 13-14**

FIGURE 13 - STEP 11

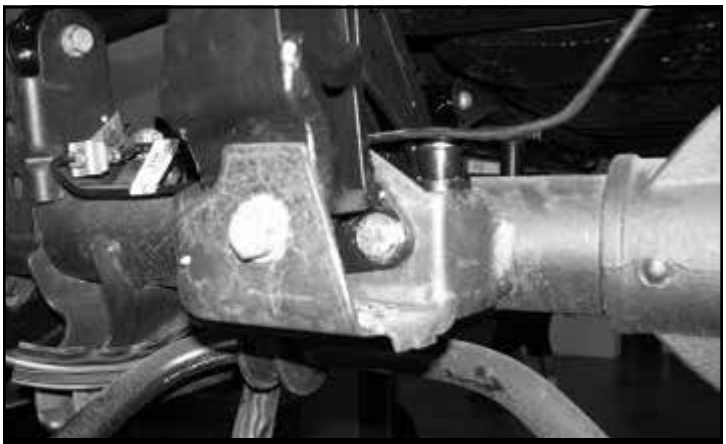

FIGURE 14 - STEP 11

12. Working from the driver’s side, locate FT1599-2-2D Shock Drop Bracket. Slide the shock mount extension into the original frame mount and insert one of the factory shock bolts and hardware through the original shock mount side and hand tighten. Take one of the new sway bar links and insert 2 bushing halves and a sleeve into each end (use the supplied lube). Install one end of the end link into the frame mount and insert the original bolt through the sleeve, (the factory hole may have to be drilled out with a ½” drill bit to align properly) securing the shock mount drop bracket. Torque the factory bolt to 75lbs and the upper bolt shock bolt to 85lbs. **SEE FIGURES 15-16**

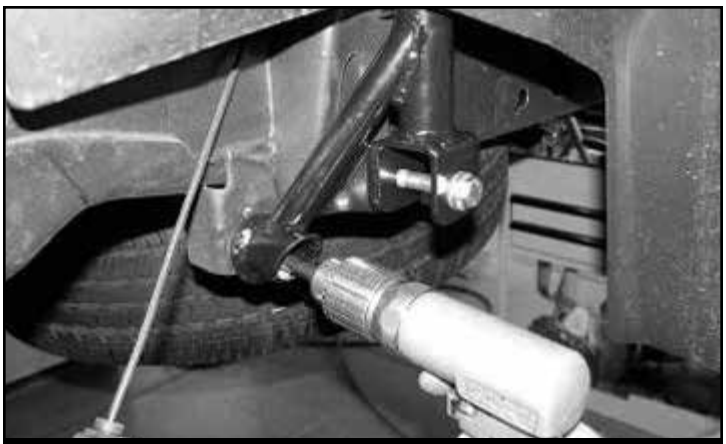

FIGURE 15 - STEP 12

FIGURE 16 - STEP 12

13. Repeat step 12 on the passenger side of the truck.

14. Place a floor jack under the rear axle. Attach your coil spring compressor onto the new rear coil spring and compress the coil 1”-2”. Set the upper coil insulator on top of the coil spring and position the top of the coil into the frame pocket. Push the bottom of the coil spring onto the axle pad and raise the floor jack under the axle to hold the coil spring in position. Remove the coil spring compressors. Repeat this with the opposite coil spring. USE CAUTION WHEN WORKING WITH COIL SPRING COMPRESSORS, THEY CAN BE UNDER EXTREME LOAD. **SEE FIGURES 17-18**

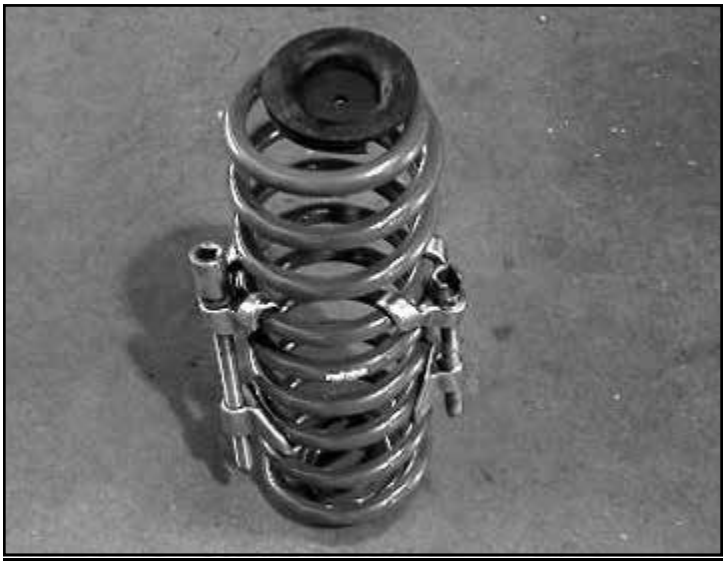

FIGURE 17 - STEP 14

FIGURE 18 - STEP 14

TRUCKS EQUIPPED WITHOUT AUTORIDE, FOLLOW STEP FIFTEEN, SKIP STEP SIXTEEN - EIGHTEEN

TRUCKS EQUIPPED WITH AUTORIDE, FOLLOW STEP SIXTEEN - EIGHTEEN AND SKIP STEP FIFTEEN

15. Reinstall the factory shocks onto the lower axle mounts with the factory hardware and into the new dropped upper mount using the supplied 9/16” x 3”. Torque to 75 lbs. **SEE FIGURE 19**

FIGURE 19 - STEP 15

16. Working from the driver’s side, electrical plug. Follow the electrical plug to the plastic loom, carefully open the loom and ONLY remove the ABS wires from it back approximately 10 inches. Route the plug and line down to the shock and plug in. **SEE FIGURE 20**

FIGURE 20 - STEP 16

17. Remove the air line manifold from its connection point in the rear wheel well. Bring the manifold forward just behind the rear shock. The supply line needs to be swapped on the manifold with the line to the driver side shock. Remove the clips from the ends and swap the two lines. Use a drill with a 15/64" drill bit and drill a hole into the plastic liner and insert the manifold into it. Use two of the supplied 8" zip ties and attach the ABS & Electrical lines to the shock extension. Use two of the supplied 14" zip ties and attach the ABS line to the shock ABOVE THE SHOCK BLADDER. **SEE FIGURES 21-28**

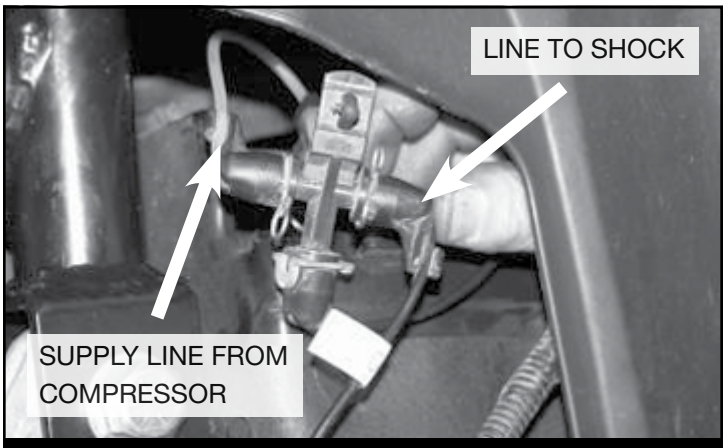

FIGURE 21 - STEP 17 (FACTORY ROUTING SHOWN)

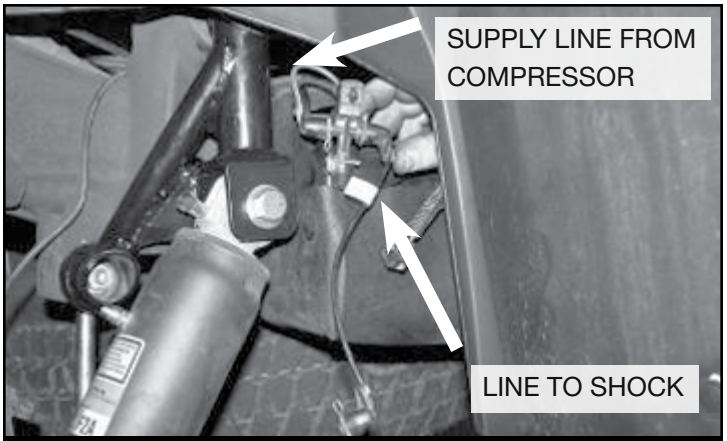

FIGURE 22 - STEP 17 (FACTORY ROUTING SHOWN)

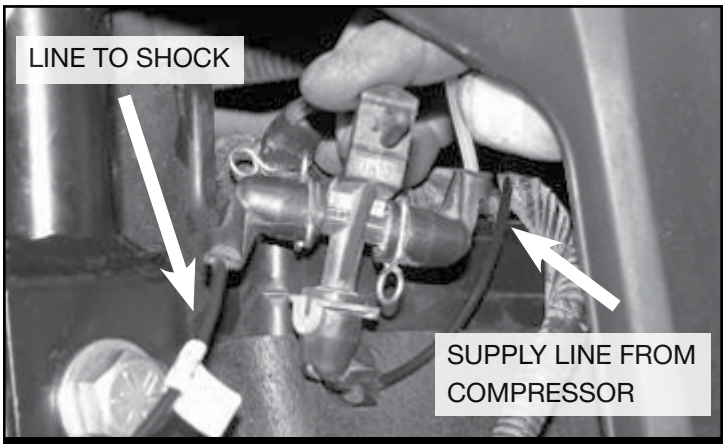

FIGURE 23 - STEP 17 (NEW ROUTING SHOWN)

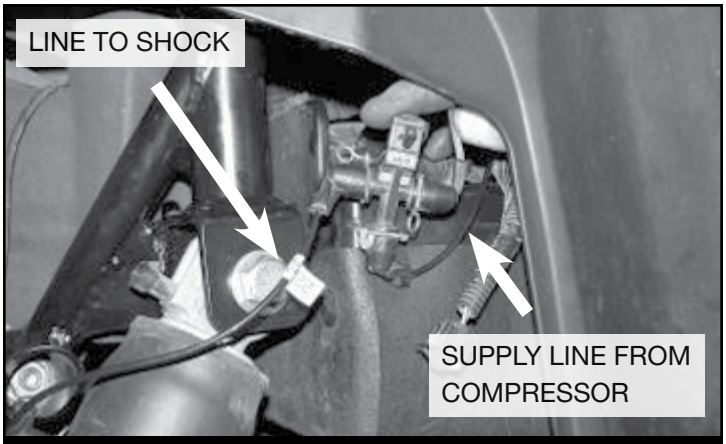

FIGURE 24 - STEP 17 (NEW ROUTING SHOWN)


FIGURE 25 - STEP 17

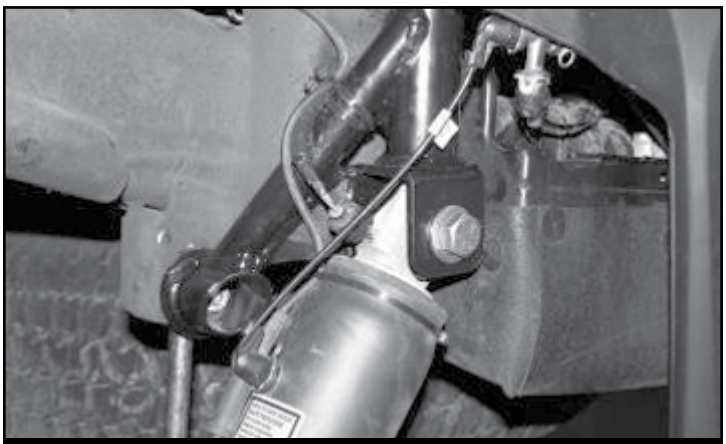
FIGURE 26 - STEP 17


FIGURE 27 - STEP 17

FIGURE 28 - STEP 17

18. Repeat steps sixteen and seventeen on the passenger side (there is no air line manifold on the passenger side)

19. Remove the 9/16" x 4" bolt from the trac bar bracket and install the trac bar into the bracket (some trucks require sanding the edge / flashing off of the end of the trac bar for fitment into the new bracket). Torque to 75 lbs. **SEE FIGURE 29**

FIGURE 29 - STEP 19

20. Connect the bottom of the sway bar end link onto the sway bar using the supplied 12mm-1.5 x 75 bolts, ½" large flat washers and nylock nuts. Install the brake line extension tab using the original bolt and the supplied 5/16" hardware. **SEE FIGURES 30-31**

FIGURE 30 - STEP 20

FIGURE 31 - STEP 20

21. 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.**

22. Check front end alignment and set to factory specifications. Readjust headlights.

23. Recheck all bolts for proper torque.

24. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.

25. 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.**

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

27. Have vehicle properly aligned to factory specs.

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 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 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