

## Installation manual 6" suspension system 1973 - 1987 Chevy or GMC 1/2 ton New part # 16710 Old part # C61B sj080408rev.02

New part # 16710 Important customer information: Old part # C61B 1973 - 1987 Chevy or GMC 1/2 ton Tuff Country EZ-Ride Suspension highly recommends that a qualified or a certified mechanic performs this 6" suspension system installation. It is the responsibility of the customer/installer to wear **Description** Qty. <u>Part #</u> safety glasses at all times when performing this instal-81250 Box kit - rear add-a-leaf 1 lation. 5U-3512R 5/8" x 3" x 14" round u-bolt 4 5/8" x 3 1/2" x 9 5/8" round u-bolt 5U-6109R 1 It is the customers/installers responsibility to read and 5U-3507R 5/8" x 3" x 7 5/8" round u-bolt 3 understand all steps before installation begins. If you 79004 Box kit - rear block 1 have any questions or concerns, please contact our 2 58NW Hardware bag technical department @ (801) 280-2777. Also, the OEM 1 10701NB Hardware bag manual should be used as a reference guide. 1 10703NB Hardware bag 1 GMSBNB1 Hardware bag 1 This vehicles reaction and handling characteristics GMBL Hardware bag 2 LUBE Poly lube pack may differ from standard cars and/or trucks. 16710INST Instruction manual (installer copy) 1 Modifications to improve and/or enhance off road per-16710INST Instruction manual (customer copy) 1 formance may raise the intended center of gravity. MIRRORHANGER Rear view mirror hanger 1 Extreme caution must be utilized when encountering WARNINGDECAL Warning decal 1 driving conditions which may cause vehicle imbalance DECAL Window sticker 1 or loss of control. DRIVE SAFELY! Avoid abrupt maneuvers: such as sudden sharp turns which could cause a roll over, resulting in serious injury or death. Congratulations on your selection to purchase a Tuff Country EZ-Ride Suspension System. We at Tuff It is the customers responsibility to make sure that a Country EZ-Ride Suspension are proud to offer a high re-torque is performed on all hardware associated with quality product at the industries most competitive pricthis suspension system after the first 100 miles of ing. Thank you for your confidence in us and our prodinstallation. It is also the customers responsibility to uct. do a complete re-torque after every 3000 miles or after every off road use. If you desire to return your vehicle to stock, it is the customers responsibility to save all stock hardware. After the original installation, Tuff Country EZ-Ride Suspension also recommends having the alignment The Tuff Country EZ-Ride Suspension product safety checked every 6 months to ensure proper tracking, label that is included in your kit box must be installed proper wear on tires and front end components. Tuff inside the cab in plain view of all occupants. Country EZ-Ride Suspension takes no responsibility for abuse, improper installation or improper suspension maintenance.

Limited lifetime warranty	Important information that needs to be read before
Notice to all Tuff Country EZ-Ride Suspension customers: It is your responsibility to keep your original sales receipt! If failure should occur on any Tuff Country EZ-Ride Suspension component, your original sales receipt must accompany the warranted unit to receive warranty. Warranty will be void if the customer can not provide the original sales receipt. Do not install a body lift in conjunction with a suspension system. If a body lift is used in conjunction with any Tuff Country EZ-Ride Suspension product, your Tuff Country EZ-Ride Suspension WARRANTY WILL BE VOID. Tuff Country Inc. ("Tuff Country") suspension products are warranted to be free from defects in material and workmanship for life if purchased installed and maintained on a non-commercial vehicle otherwise, for a period of twelve (12) months, from the date of purchase and installation on a commercia vehicle, or twelve thousand (12,000) miles (which even occurs first). Tuff Country does not warrant or make	<ul> <li>installation begins:</li> <li>Tuff Country recommends a 35x12.50 tire package. If larger than a 35x12.50 tire is installed on your vehicle in conjunction with part # 16710; Tuff Country assumes no liability and the warranty will be VOID.</li> <li>The new front springs need to be ordered as a separate part #. If you have not already ordered your new front springs, please contact Tuff Country or your local Tuff Country dealer and order the new front springs. Part # for the new front springs are 18670 (old part # is TCI-C6H).</li> <li>Tuff Country recommends installing an after market steering arm once this suspension system has been installed. If you have not already ordered you new steering arm, please contact Tuff Country or your local Tuff Country dealer and order the new steering arm. Part # for the new steering arm is 70100 (old part # is</li> </ul>
any representations concerning Tuff Country Products when not installed and used strictly in accordance with the manufacturer's instructions for such installation and operation and accordance with good installation and maintenance practices of the automotive industry. This warranty does not apply to the cosmetic finish of Tuff Country products nor to Tuff Country products which have been altered improperly installed, maintained, used or repaired, or damaged by accident, negligence, misuse or racing ("Racing is used in its broadest sense, and, for example, without regards to formalities in relation to prizes, competition, etc.) This warranty is void if the product is removed from the original vehicle and re-installed on that or any other vehicle. This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose of other warranty of quality, whether express or implied except the warranty of title. All implied warranties are limited to the duration of this warranty. The remedies	<ul> <li>CSA).</li> <li>Tuff Country EZ-Ride Suspension packages (2) sets of instruction sheets with this box kit. (1) is for the installer and (1) is for the customer. The (1) for the customer has some post installation procedure literature and it is the installers responsibility to make sure that the customer receives a copy of the installation manual along with the literature.</li> <li>Before installation begins, Tuff Country EZ-Ride Suspension highly recommends that the installer performs a test drive on the vehicle. During the test drive, check to see if there are any uncommon sounds or vibrations. If uncommon sounds or vibrations will be enhanced once the suspension system has been installed. Tuff Country EZ-Ride Suspension highly recommends notifying the customer prior to installation will be installed.</li> </ul>
set forth in this warranty are exclusive. This warranty excludes all labor charges or other incidental or consequential damages. Any part or product returned for warranty claim must be returned through the dealer of the distributor from whom it was purchased Tuff Country reserves the right to examine all parts returned to it for warranty claim to determine whether or not any such part has failed because of defect in material or workmanship. The obligation of Tuff Country under this warranty shall be limited to repairing, replacing or crediting, at its option, any part or product found to be so defective. Regardless of whether any part is repaired, replaced or credited under this warranty, shipping and/or transportation charges on the return of such product must be prepaire by the customer under this warranty.	New longer front and rear shocks are needed after this suspension system has been installed and the front and rear shocks need to be ordered as a separate part #. If you have not already ordered your front and rear shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new front and rear shocks. Tuff Country recommends installing a 23" fully extended nitrogen gas shock in the front and a 30" fully extended nitrogen gas shock in the rear. If the vehicle that you are working on is equipped with dual shocks from the factory in the front end, Tuff Country recommends installing a 26" fully

Make sure to use thread locker or loctite on all new and stock hardware associated with the installation of this suspension system.

Special note: Before installation begins		
customers/installers responsibility to make		
		Before installation begins, measure from the center of
free to call one of our customer service rep	resentatives	the hub, to the bottom of the fender well, and record
@ (801) 280-2777.		measurements below.
Hardware bag 58NW includes:		Pre-installation measurements:
Description	<u>Quantity</u>	Driver side front:
		Passenger side front:
SUW-58 (5/8" u-bolt harden washer)	8	Driver side rear:
58HN (5/8" u-bolt high nut)	8	Passenger side rear:
Hardware bag 10701NB includes:		At the end of the installation take the same
		At the end of the installation take the same
Description	<u>Quantity</u>	measurements and compare to the pre-installation measurements.
GMSB-01 (sway bar tube)	2	
716212B (7/16" x 2 1/2" bolt)	4	Post-installation measurements:
38WA (3/8" USS flat washer)	8	
716UN (7/16" unitorque nut)	4	Driver side front:
		Passenger side front:
Hardware bag 10703NB includes:		Driver side rear:
Description	<b>Quantity</b>	Passenger side rear:
	-	<b>-</b>
S10197 (transfer case drop sleeve)	2	Front end installation:
7163B (7/16" x 3" bolt)	4	
38WA (3/8" USS flat washer)	8	<ol> <li>To begin installation, block the rear tires of the vehicle so</li> </ol>
716UN (7/16" unitorque nut)	4	that the vehicle is stable and can't roll backwards. Safely lift
		the front of the vehicle and support the frame with a pair of
Hardware bag GMSBNB1 includes:		jack stands. Place a jack stand on both the driver and the
······································		
Description	<u>Quantity</u>	passenger side. Next, remove the front wheels and tires from both sides.
916512B (9/16" x 5 1/2" bolt)	2	
12WA (1/2" USS flat washer)	4	2. Place a pair of hydraulic floor jacks under the front differ-
916UN (9/16" unitorque nut)	4	ential. Place one on the driver and one on the passenger
7164B (7/16" x 4" bolt)	2	side. Carefully raise up on both hydraulic floor jacks at the
38WA (3/8" USS flat washer)	2	same time until they make contact with the front differential.
716UN (7/16" unitorque nut)	4	same time until they make contact with the nont differential.
	2	3. Working on the driver side, remove the stock shock from
Hardware bag GMBL includes:		the stock location. The stock shock may be discarded. Save
		the stock hardware. Special note: New longer front
Description	Quantity	
Description	<u>Quantity</u>	shocks are needed after this suspension system has been installed and the front shocks need to be ordered
PL P01 (rear broke line brocket)	4	
BLR01 (rear brake line bracket)	1	as a separate part #. If you have not already ordered
BLR02 (front brake line bracket)	2	your front shocks, please feel free to contact Tuff
5161B (5/16" x 1" bolt)	3	Country or your local Tuff Country dealer and order your
14WA (1/4" USS flat washer)	6	new front shocks. Tuff Country recommends installing a
516UN (5/16" unitorque nut)	3	23" fully extended nitrogen gas shock in the front. Also,
Becommended tools selection:		if the vehicle that you are working on is equipped with
Recommended tools selection:		dual shocks from the factory in the front end, Tuff Country recommends installing a 26" fully extended
Cut off wheel		hydraulic shock for the auxiliary shock. Repeat proce-
Sawzall		dure on the passenger side.
		dure on the passenger side.
Torque wrench		4 Marking on the driver side remains the start what is
Standard socket set		4. Working on the driver side, remove the stock u-bolts from
Standard wrench set		the stock location. The stock u-bolts and hardware may be
Metric socket set		discarded. Repeat procedure on the passenger side.
Metric wrench set		
Tape measure		5. Working on the driver side, remove the stock hardware
Hydraulic floor jacks		that connects the stock sway bar to the stock frame rail. The
		stock hardware may be discarded. Repeat procedure on the
		eter indianare may be dissurade. Repeat procedure off the

6. Carefully lower down on both hydraulic floor jacks at the same time allowing enough room for the new front springs to 12. Locate (3) 5/8" x 3" x 7 5/8" round u-bolts and (1) 5/8" x be installed. Special note: Take special care not to over 3 1/2" x 9 5/8" round u-bolt. Also, locate (8) 5/8" u-bolt high extend the front brake lines.

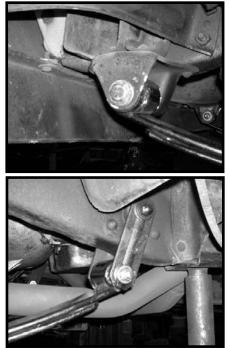
7. Working on the driver side, remove the stock spring from on the driver side, secure the newly installed front springs to the stock location. The stock spring and hardware may be the stock front differential using the new 5/8" x 3" x 7 5/8" discarded. Repeat procedure on the passenger side.

8. Locate the new front springs. Special note: The new Working on the passenger side, secure the newly installed front springs need to be ordered as a separate part #. If front spring to the stock front differential using the new 5/8" you have not already ordered your new front springs, x 3" x 7 5/8" round u-bolt, 5/8" x 3 1/2" x 9 5/8" round u-bolt, please contact Tuff Country or your local Tuff Country hardware and the stock sway bar/u-bolt plate. Working in a dealer and order the new front springs. Part # for the criss-cross direction, torque the new u-bolts on the driver new front springs are 18670 (old part # is TCI-C6H). and passenger side to 110 ft lbs.

Remove the bushings and sleeves from the new front springs and add some lithium or moly base grease to the bushings and sleeves and re-install them back into the new springs. This will help prevent squeaking, the life of the bushings and will also improve ride quality.

Working on the driver side, loosen but do not remove the stock hardware that connects the stock shackle to the stock frame rail. Repeat procedure on the passenger side.

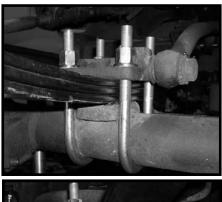
10. Locate hardware bag GMSBNB1. Working on the driver side, install the new springs into the stock location and secure using the new hardware from hardware bag GMS-BNB1. Torgue the new 9/16" x 5 1/2" bolt and hardware to 95 ft lbs. Make sure to use thread locker or loctite. Special note: at this time, do not torgue the new 7/16" x 4" bolt and hardware that connects the new spring to the stock shackle, this will be done once the weight of the vehicle in on the ground. Repeat procedure on the passenger side.



11. Carefully raise up on both hydraulic floor jacks at the same time until they come into contact with the new front springs. Special note: Make sure that the centering bolt

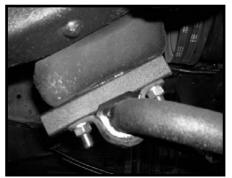
passenger side. Set the stock sway bar/u-bolt plates aside. on the new springs fits properly into the stock spring perches.

> nuts and (8) 5/8" u-bolt harden washers from hardware bag 58NW. Also, locate the stock sway bar/u-bolt plates. Working round u-bolts, hardware and the stock sway bar/u-bolt plate. Tighten but do not torque the new u-bolts at this time.





13. Locate hardware bag 10701NB. Working on the driver side, install the new sway bar relocation bracket between the stock sway bar mount and the stock "D" bushing. Secure using the new 7/16" x 2 1/2" bolts and hardware. Do not tighten at this point. Repeat procedure on the passenger side. Move back to the driver side and add some thread locker or loctite to the new hardware and torque to 42 ft lbs. Repeat procedure on the passenger side. Special note: If you are not able to perform this step with the weight of the vehicle in the air, this step may need to be performed once the weight of the vehicle is on the ground.



14. Locate the new front shocks. Special note: New longer Special note: After the front and rear installation has front shocks are needed after this suspension system been complete. Tuff Country recommends filling up the has been installed and the front shocks need to be brake fluid reservoir with proper brake fluid and then ordered as a separate part #. If you have not already with a help from a buddy, bleed the brake lines. ordered your new front shocks, please feel free to con-

tact Tuff Country or your local Tuff Country dealer and 17. Remove both hydraulic floor jacks from under the vehiorder your new front shocks. Tuff Country recommends cle.

installing a 23" fully extended nitrogen gas shock in the

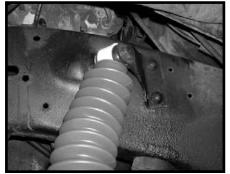
front. Working on the new shocks, install the new bushings Tuff Country recommends installing an after market and proper sleeves that are packaged with the new shocks steering arm once this suspension system has been into each eyelet of the new shocks. Special note: Make installed. If you have not already ordered you new steersure to use a lithium or moly base grease prior to ing arm, please contact Tuff Country or your local Tuff installing the new bushings and sleeves into the eyelets Country dealer and order the new steering arm. Part # of the new shocks. This will help with the life of the for the new steering arm is 70100 (old part # is CSA). bushings as well as prevent squeaking.

18. Working on the driver side, remove the stock drag link 15. Locate the stock upper and lower shock mounting hard-cotter pin and hardware that connects the stock drag link to ware. Working on the driver side, install the new shocks into the stock steering arm. Save the stock castle nut but the the stock location using the stock upper and lower hardware. stock cotter pin may be discarded. Make sure to use thread locker or loctite and torgue both the

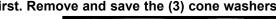
upper and lower hardware to 65 ft lbs. Repeat procedure on 19. Working on the driver side, remove the (3) stock nuts that the passenger side. Special note: Tuff Country highly rec-connects the stock steering arm into the stock location. The ommends installing shock boots onto the new shocks. If stock hardware may be discarded.

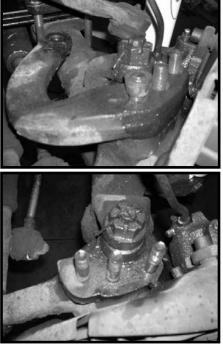
shocks boots are not installed, damage may occur to the piston of the new shock. If you have not already ordered 20. Working on the driver side, remove the stock steering

your new shocks boots, please contact Tuff Country or arm from the stock location. Special note: There are cone your local Tuff Country dealer and order some new washers that are around the stock studs. To make shock boots. Tuff Country offers, dark blue, light blue, remove easier, these cone washers should be removed gray, black, red or yellow shock boots. first. Remove and save the (3) cone washers.



16. Locate the new front brake line extension brackets, (2) 5/16" x 1" bolt, (4) 1/4" USS flat washers and (2) 5/16" unitorque nuts from hardware bag GMBL. Special note: The front brake line extension brackets are the larger brack et in the bag. Working on the driver side, disconnect the stock front brake lines from each other. Special note: Brake fluid will leak out so make sure to have something under the stock brake lines to catch brake fluid. Install (1) front brake line relocation bracket into the stock hole on the stock frame rail using the new 5/16" x 1" bolt and hardware. Make sure to use thread lock-







er or loctite and torque 21. Locate the new steering arm. Install the new steering to **12 ft lbs.** Now pull arm to the (3) stock studs. Install the (3) stock cone washers the stock brake lines then using the (3) new 9/16" unitorque nuts that were packdown under the frame aged with the new steering arm, secure the new steering rail and install them arm to the stock location. Make sure to add some thread back together to the locker or loctite and torgue to 115 ft lbs. newly installed brake

line relocation bracket. 22. Locate the stock drag link castle nut. Install the stock Repeat procedure on drag link to the newly installed steering arm and secure passenger side. using the stock castle nut. Make sure to use thread locker or the

loctite and torque to 95 ft lbs. Special note: Once the stock Rear end installation:

drag link castle nut has been torqued, install the new

cotter pin that was packaged in the hardware bag that 30. To begin installation, block the front tires of the vehicle so came with the new steering arm. If the new cotter pin that the vehicle is stable and can't roll forward. Safely lift the can not be installed because the hole in the stock drag rear of the vehicle and support the frame with a pair of jack link does not line up with the stock castle nut, DO NOT stands. Place a jack stand on both the driver and the pasloosen the stock castle nut so that the cotter pin can fit, senger side. Next, remove the front wheels and tires from tighten the stock castle nut some more so that the cot-both sides. ter pin can be installed.



31. Place a pair of hydraulic floor jacks under the rear differential. Place one on the driver and one on the passenger side. Carefully raise up on both hydraulic floor jacks at the same time until they make contact with the rear differential.

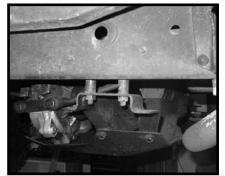
Working on the driver side, remove the stock shock from the stock location. The stock shock may be discarded. Save the stock hardware. Special note: New longer rear shocks are needed after this suspension system has been installed and the rear shocks need to be ordered as a separate part #. If you have not already ordered your 23. Place a pair of hydraulic floor jacks under the transfer rear shocks, please feel free to contact Tuff Country or case cross member and carefully raise up on both hydraulic your local Tuff Country dealer and order your new rear floor jacks at the same time until they come into contact with shocks. Tuff Country recommends installing a 30" fully extended nitrogen gas shock in the rear. Repeat procedure on the passenger side.

24. Working on the driver side, remove the stock hardware that connects the stock transfer case cross member to the 33. Working on the driver side, remove the stock u-bolts from stock frame rail. The stock hardware may be discarded. the stock location. The stock u-bolts and hardware may be Repeat procedure on the passenger side.

the transfer case cross member.

Carefully lower down on both hydraulic floor jacks at the drop sleeves to be installed.

26. Locate the new hardware bag 10703NB. Working on the 35. Locate the rear brake line relocation bracket, (1) 5/16" x driver side, install (2) sleeves between the stock transfer 1" bolt, (2) 1/4" USS flat washers and (1) 5/16" unitorque nut case cross member and the stock frame rail. Secure using from hardware bag GMBL. Install the new rear brake line the new 7/16" x 3" bolt and hardware that was packaged in relocation bracket to the stock rear differential using the hardware bag 10703NB. Do not tighten at this point. stock hardware. Make sure to use thread locker or loctite Repeat procedure on the passenger side.



27. Move back to the new 7/16" x 3" bolts on the driver and passenger side and add some thread locker or loctite and torque all (4) new 7/16" x 3" bolts to 42 ft lbs.

28. Remove the hydraulic floor jacks from under the transfer same time allowing enough room for the new rear add-acase cross member.

29. Check and double check to make sure that all steps associated with front end have been completed and check again.

discarded. Save the stock u-bolt plates. Repeat procedure on the passenger side.

same time allowing enough room for the new transfer case 34. Remove the stock rear brake line bracket from the stock rear differential. Save the stock hardware.

> and torque to 12 ft lbs. Now secure the stock brake line bracket to the newly installed brake line relocation bracket using the new 5/16" x 1" bolt and hardware. Make sure to use thread locker or loctite and torque to 12 ft lbs.



Carefully lower down on both hydraulic floor jacks at the leafs and new rear blocks to be installed. Special note: Take special care not to over extend any brake lines and or hoses.

37. Working on the driver side, place a pair of "C" clamp vise

grips on each side of the stock centering bolt. Carefully 42. Locate the new rear shocks. Special note: New longer rear shocks are needed after this suspension system has been installed and the rear shocks need to be ordered as a separate part #. If you have not already ordered your rear shocks, please feel free to contact Tuff under tension and can be dangerous. Repeat procedure on passenger side.

**30" fully extended nitrogen gas shock in the rear.** 38. Locate (2) new rear add-a-leaf, (2) 3/8" x 6" centering bolt and (2) 3/8" fine nut from box kit 81250. Install the new rear add-a-leaf into the stock spring assembly. Secure the new rear add-a-leaf to the stock spring assembly using the new 3/8" center bolt and nut. Torque to 28 ft. Ibs. Special note: If the new add-a-leaf that you are installing into the stock spring assembly has an offset center hole location, place the longest side of the add-a-leaf towards the

rear of the vehicle. Also the new add-a-leaf should be installed into the stock spring assembly in progression in order, from longest to shortest. The new add-a-leaf should be installed between the stock overload and the stock spring pack. The stock overload is usually the unarched spring at the bottom of the stock leaf pack. Also, Tuff Country EZ-Ride Suspension recommends not using any air tools when installing the new add-a-leaf into the stock spring assembly. If air tools are used the centering bolt may strip, causing the stock spring assembly to come apart. With a suitable cutting tool, cut procedure on passenger side.

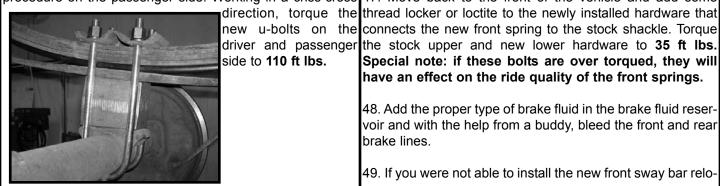
39. Locate the new 4" rear lifted blocks from box kit 79004. Working on the driver side, install the new 4" block between the modified stock spring assembly and the rear differential. **Special note: The new 4" block has a slight taper to it, make sure that the smaller end of the block is installed towards the front end of the vehicle.** Repeat procedure on the passenger side.

40. Carefully raise up on both hydraulic floor jacks at the same time until the modified stock spring comes into contact

with the newly installed 4" block. Special note: Make sure 44. Remove both hydraulic floor jacks from under the rear that the head of the centering bolts seats properly into differential. the newly installed blocks.

45. Install the tires and wheels and carefully lower the vehi-41. Locate (4) new 5/8" x 3" x 14" round u-bolts. Locate (8) cle to the ground. 5/8" high nuts and (8) 5/8" u-bolt harden washers. Also,

locate the stock u-bolt plates. Working on the driver side, 46. Check and double check to make sure that all steps were install the new u-bolts into the stock location and secure performed properly for the rear end and check again. using the new hardware and the stock u-bolt plates. Repeat procedure on the passenger side. Working in a criss-cross 47. Move back to the front of the vehicle and add some





cation bracket while the vehicle was up in the, perform this step now that the weight of the vehicle is on the ground.

## Congratulations, installation complete!

Special note: After the completion of the installation, Tuff Country EZ-Ride Suspension recommends taking the vehicle to an alignment shop and having a proper front end alignment performed.

Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use. Neglect of following these steps could cause brackets to come loose and cause serious damage to the suspension system and to the vehicle.

Tuff Country EZ-Ride Suspension packages (2) sets of instruction sheets with this box kit. (1) is for the installer and (1) is for the customer. The (1) for the customer has some post installation procedure literature and it is the installers responsibility to make sure that the customer receives a copy of the installation manual along with the literature.

If you have any questions or concerns, please feel free to contact Tuff Country or your local Tuff Country dealer.