



Installation manual
3.5" EZ-Flex suspension system
1987 - 2001
Jeep Cherokee 4x4 Sport
Part # 43801

sj04252012rev.01

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1987 - 2001 Jeep Cherokee 4x4 Sport
3.5" EZ-Flex Suspension System

<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
XJ3F-CL01	Front coil spring	2
TJ3A-01M	Front EZ-flex lower control arm	2
43800-02	Transfer case drop tube	2
44900-01	Front track bar relocation bracket	1
BL301	Rear block	2
5U-9231R	1/2" x 3 1/4" x 9 3/4" round u-bolts	4
5U-144R	1/2" x 2 3/4" x 9 3/4" round u-bolts	4
12NW	Hardware bag	1
43800NB	Hardware bag	1
43801NB1	Hardware bag	1
43800SL	Sleeve bag	1
43801INST	Instruction manual	1
MIRRORHANGER	Rear view mirror hanger	1
WARNINGDECAL	Warning decal	1

Congratulations on your selection to purchase a Tuff Country EZ-Ride Suspension System. We at Tuff Country EZ-Ride Suspension are proud to offer a high quality product at the industries most competitive pricing. Thank you for your confidence in us and our product.

If you desire to return your vehicle to stock, it is the customers responsibility to save all stock hardware and components.

The Tuff Country EZ-Ride Suspension product safety label that is included in your kit box must be installed inside the cab in plain view of all occupants.

Important customer information:

Tuff Country EZ-Ride Suspension highly recommends that a qualified or a certified mechanic performs this installation.

It is the responsibility of the customer/installer to wear safety glasses at all times when performing this installation.

This vehicles reaction and handling characteristics may differ from standard cars and/or trucks. Modifications to improve and/or enhance off road performance may raise the intended center of gravity. Extreme caution must be utilized when encountering driving conditions which may cause vehicle imbalance 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.

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.

After the original installation, Tuff Country EZ-Ride Suspension also recommends having the alignment checked every 6 months to ensure proper tracking, proper wear on tires and front end components. Tuff Country EZ-Ride Suspension takes no responsibility for abuse, improper installation or improper suspension maintenance.

Limited lifetime warranty

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 commercial vehicle, or twelve thousand (12,000) miles (which ever occurs first). Tuff Country does not warrant or make 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 or 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 set forth in this warranty are exclusive. This warranty excludes all labor charges or other incidental of 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 prepaid by the customer under this warranty.

Important information that needs to be read before installation begins:

The stock wheels will not work in conjunction with this suspension system. Tuff Country recommends a 4.5" back spacing or less wheel. Tuff Country recommends a 31x10.50 tire package. If larger than a 31x10.50 tire is installed on your vehicle in conjunction with part # 43801; Tuff Country assumes no liability and the warranty will be VOID.

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.

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 occur on the test drive, 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 to inform the customer of these issues if they exist.

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 front and rear shocks. Tuff Country recommends installing a 23" fully extended cellular shock in the front and a 26" fully extended cellular shock in the rear.

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

Recommended tools selection:

- Cut off wheel
- Torque wrench
- Standard socket set
- Standard wrench set
- Metric socket set
- Metric wrench set
- Tape measure
- Hydraulic floor jacks
- Vise grips

Hardware bag 12NW includes:

<u>Description</u>	<u>Quantity</u>
SUW-12 (1/2" u-bolt washer)	8
12HN (1/2" u-bolt high nut)	8

Hardware bag 43800NB includes:

<u>Description</u>	<u>Quantity</u>
M1050B (10 mm x 50 mm bolt)	4
M1070B (10 mm x 70 mm bolt)	1
M10UN (10 mm unitorque nut)	1
14WA (1/4" USS flat washer)	6
5161B (5/16" x 1" bolt)	3
516UN (5/16" unitorque nut)	3
516WA (5/16" USS flat washer)	4
381B (3/8" x 1" bolt)	1
38UN (3/8" unitorque nut)	1
38LWA (3/8 lock washer)	4
38SAE (3/8" SAE washer)	4

Hardware bag 43801NB1 includes:

<u>Description</u>	<u>Quantity</u>
BLR02 (front brake line bracket)	2
BLR03 (rear brake line bracket)	1
BLR05 (front brake line bracket)	2
BP07 (clevis mount)	2
BP20 (clevis mount)	2
LUBE (poly lube pack)	2
S10048 (.620" x .500" x 1.250")	1

Please follow instructions carefully:

Before installation begins, measure from the center of the hub, to the bottom of the fender well, and record measurements below.

Pre-installation measurements:

Driver side front: _____
 Passenger side front: _____
 Driver side rear: _____
 Passenger side rear: _____

At the end of the installation take the same measurements and compare to the pre-installation measurements.

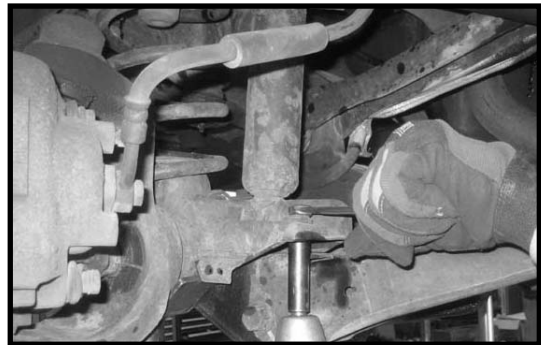
Post-installation measurements:

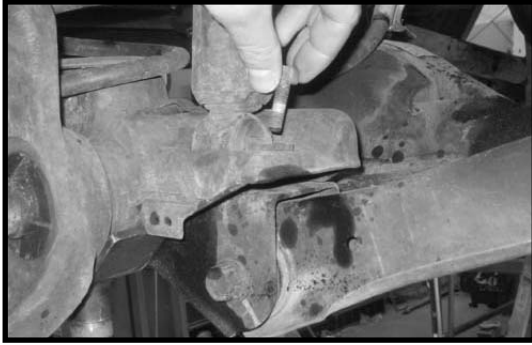
Driver side front: _____
 Passenger side front: _____
 Driver side rear: _____
 Passenger side rear: _____

Front end installation:

1. To begin installation, safely lift the front and rear of the vehicle and support the vehicle with jack stands on each corner of the vehicle. Next, remove the front wheels and tires from both sides.

2. Working on the driver side, remove the stock shock from the upper and lower mounting location. Save the lower mounting hardware. The upper mounting hardware and shock may be discarded. Repeat procedure on the passenger side. **Special note: New longer front shocks are needed after this suspension system has been installed and the front shocks need to be ordered as a separate part #. If you have not already ordered your front shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your front shocks. Tuff Country recommends installing a 23" fully extended cellular shock in the front.**

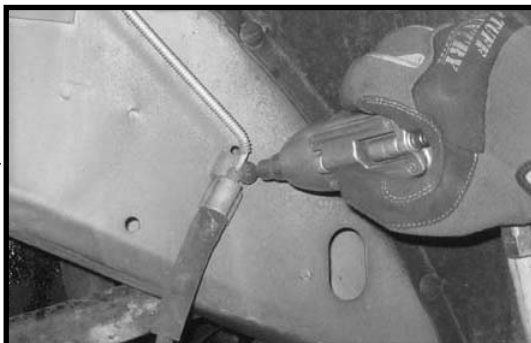




3. Working on the driver side, remove the sway bar endlink from the sway bar and axle location. Save the hardware and endlink. Repeat procedure on the passenger side



4. Working on the driver side, remove the brake line bracket from OE location. Save the hardware. Repeat procedure on the passenger side.

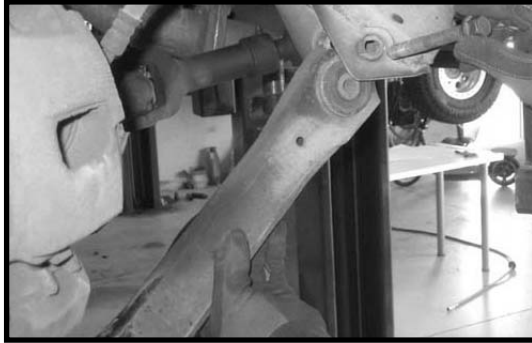


5. Place a pair of hydraulic floor jacks under the front axle and carefully raise up until they make contact with the front axle. Working on the driver side, remove the OE hardware that connects the track bar to the OE location. Save the OE hardware.



6. Working on the driver side, remove the lower control arm from the frame and axle mount. Save the hardware. The control arm may be discarded. Repeat procedure on the passenger side.

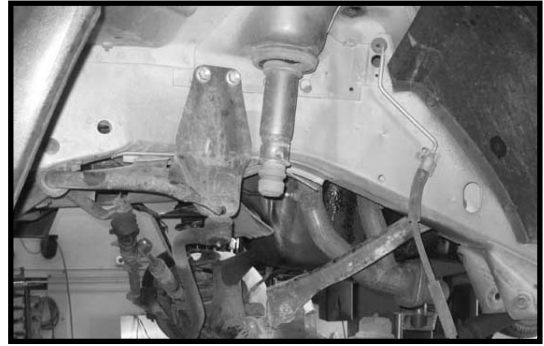
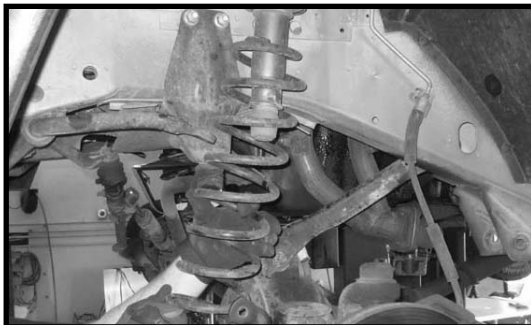




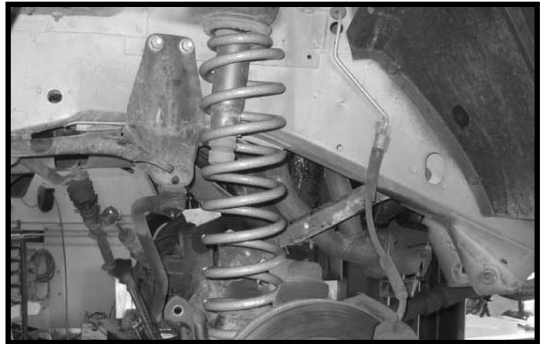
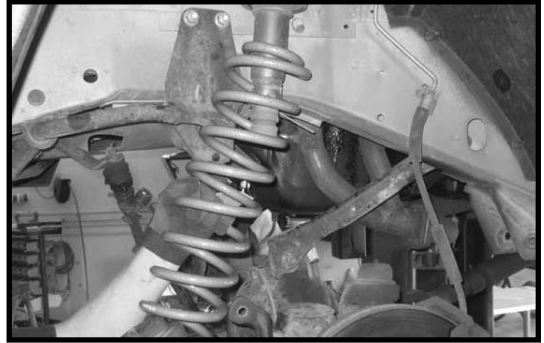
7. Working on the driver side, remove the coil spring clip from the axle. Save the clip and hardware. Repeat procedure on the passenger side.



8. Carefully lower down on both hydraulic floor jacks at the same time allowing enough room for the OE coil springs to be removed. Remove the OE coil spring and discard. Repeat procedure on the passenger side.



9. Locate the new coil springs. Working on the driver side, install the new coil spring into the OE location. Repeat procedure on the passenger side.

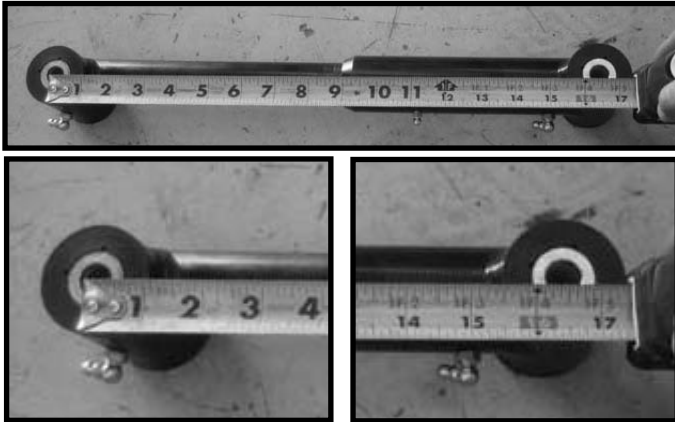


10. Carefully raise up on both hydraulic floor jacks until the newly installed coil springs seat properly into the lower coil spring pockets. Locate and install the OE coil spring clip using the OE hardware on the driver side. Make sure to use loctite and torque to **12 ft lbs**. Repeat procedure on the passenger side.

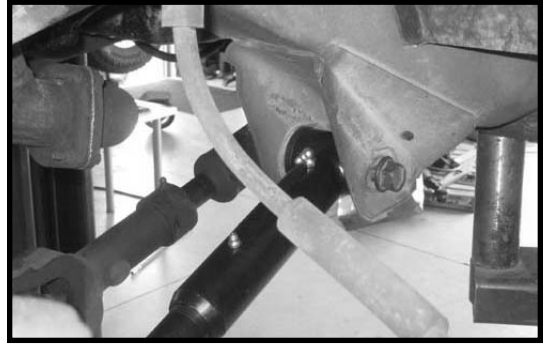




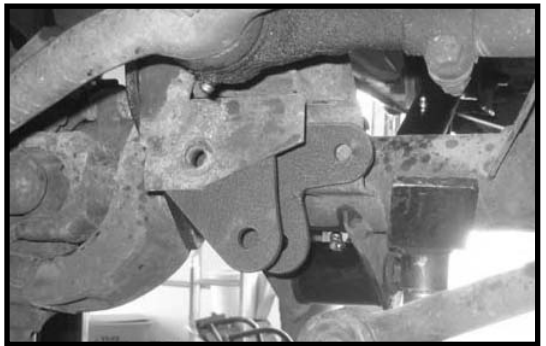
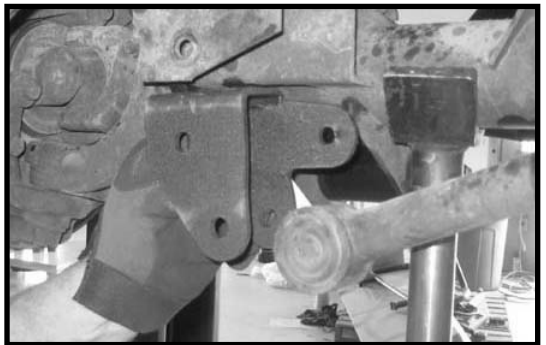
11. Locate the new EZ-Flex control arms. Set each control arm to 16 1/2" from the center of eye to the center of eye.



12. Working on the driver side, install the new EZ Flex lower control arm into the OE location using the OE hardware. **Special note: Make sure that when installing the new lower control arms the sert fitting are facing the upward position. Do not tighten at this point.** The lower control arm hardware will be torqued once the weight of the vehicle is on the ground. Repeat procedure on the passenger side.

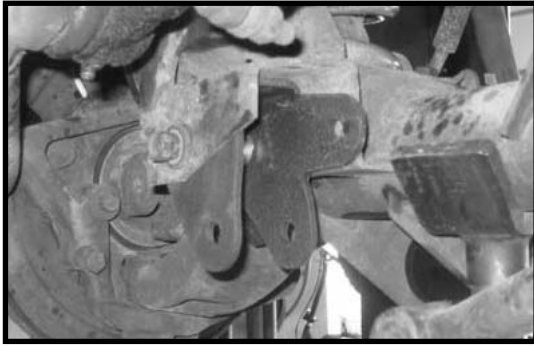


13. Locate the new track bar relocation bracket. Install the new bracket into the OE track bar pocket.



14. Locate (1) S10048 sleeve from hardware bag 43800SL. Secure the new track bar relocation bracket to the OE pocket using the OE hardware and new sleeve. **Do not tighten at this point.**

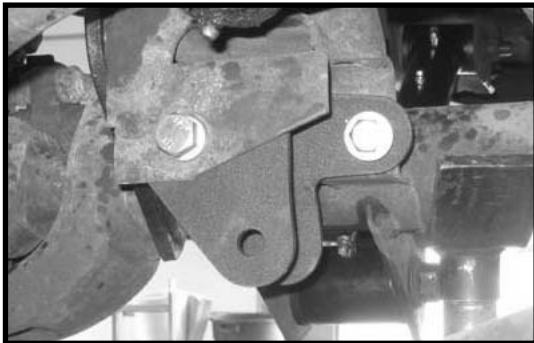




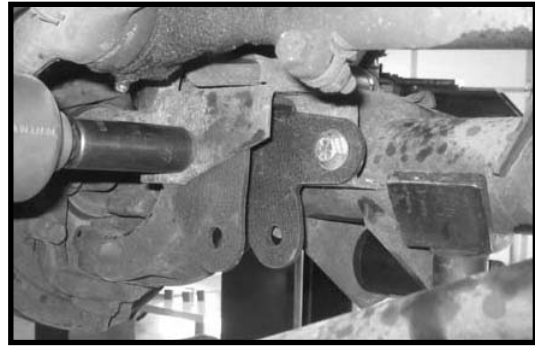
15. Make sure that newly installed track bar bracket is seating flush in the OE pocket. Using the new bracket as a guide, carefully drill a 3/8" hole into the OE bracket.



16. Locate (1) 3/8" x 1" bolt, (2) 5/16" USS flat washers and (1) 3/8" unitorque nut from hardware bag 43800NB. Secure the new track bar bracket to the OE bracket using the new 3/8" hardware. Make sure to use loctite and torque to **32 ft lbs.**



17. Move back to the OE bolt holding the new track bar bracket to the OE pocket and add some loctite and torque to **28 ft lbs.**



18. Locate (1) 10 mm x 70 mm bolt, (2) 5/16 USS flat washers and (1) 10 mm unitorque nut from hardware bag 43800NB. Install the track bar to the newly installed bracket and secure using the new 10 mm x 70 mm bolt and hardware. Make sure to use loctite and torque to **28 ft lbs.** **Special note: If you are not able to install the track bar to the newly installed bracket, this step will need to be performed once the weight of the vehicle is on the ground.**

19. Locate (2) BLR05's from hardware bag 43800NB1. Also, locate (2) 5/16" x 1" bolts, (4) 1/4" USS flat washers and (2) 5/16" unitorque nuts from hardware bag 43800NB. Working on the driver side, install the new brake line bracket to the OE brake line bracket and secure using new 5/16" hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.

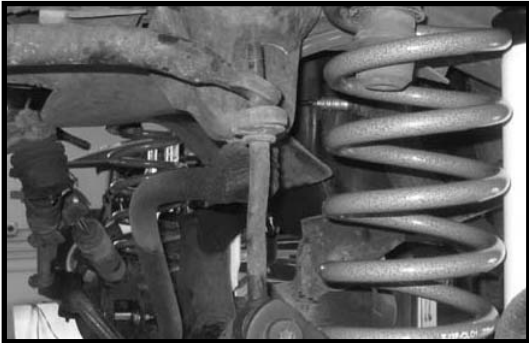
20. Working on the driver side, secure the new brake line relocation bracket to the OE location using the OE hardware. Make sure to use loctite and hand tighten with a wrench. Move back to the 5/16" hardware and add some loctite and torque to **18 ft lbs.** Repeat procedure on the passenger side.



21. Locate the new front shocks. **Special note: New longer front shocks are needed after this suspension system has been installed and the front shocks need to be ordered as a separate part #. If you have not already ordered your front shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your front shocks. Tuff Country recommends installing a 23" fully extended cellular shock in the front.** Also, locate the new front clevis mount from hardware bag 43800NB1. Install the new clevis mount into the lower end of the front shocks. Working on the driver side, install the new shock into the OE location using the lower mounting hardware and the upper hardware provided in the new shock. Make sure to use loctite and torque the lower hardware to **12 ft lbs.** and wrench tighten the upper hardware. Repeat procedure on the passenger side.



22. Working on the driver side, install the OE sway bar endlink back to the OE location using the OE hardware. Repeat procedure on the passenger side.



23 Remove the hydraulic floor jacks from under the front axle.

24. Place a hydraulic floor jack under the transfer case cross member and carefully raise up until it makes contact with the transfer case cross member.

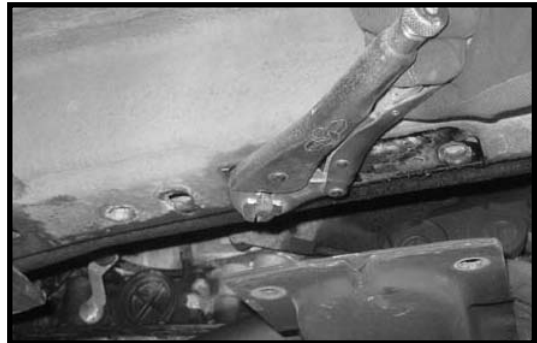
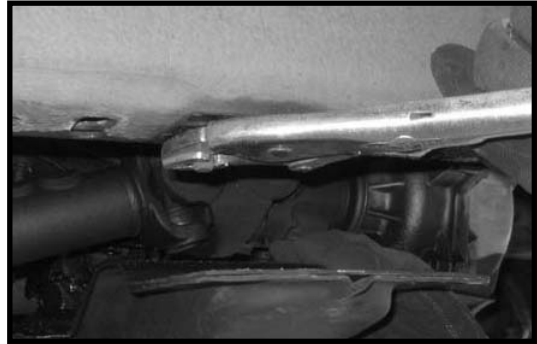


25. Working on the driver side, remove the hardware that attaches the transfer case cross member to the frame. The hardware may be discarded. Repeat procedure on the passenger side.

26. Carefully lower down on the on the hydraulic floor jack holding the transfer case cross member about 1 1/2". This will allow enough room for the transfer case spacers to be installed.

27. Working on the driver side, spray some lubricant on the all thread that is threaded into the body of the vehicle. Repeat procedure on the passenger side.

28. Working on the driver side and using a pair of vise grips, remove the all thread from the vehicle and discard. Repeat procedure on the passenger side.



29. Locate the new transfer case cross member. Locate (4) 10 mm x 50 mm bolts, (4) 3/8" lock washers and (4) 3/8" SAE washers from hardware bag 43800NB. Working on the driver side, install the new transfer case spacers between the cross member and the frame. Secure using the new hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.

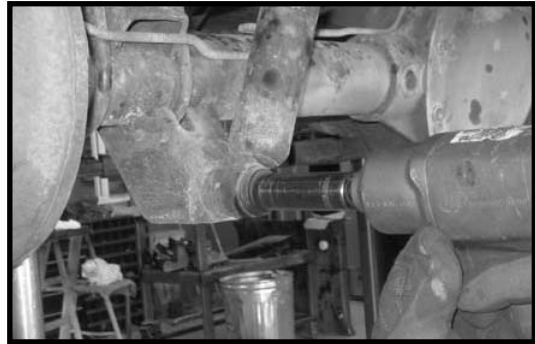


30. Working on the driver side, add some loctite to the newly installed transfer case spacer hardware and torque to **28 ft lbs**. Repeat procedure on the passenger side. Carefully remove the hydraulic floor jack from under the transfer case cross member.

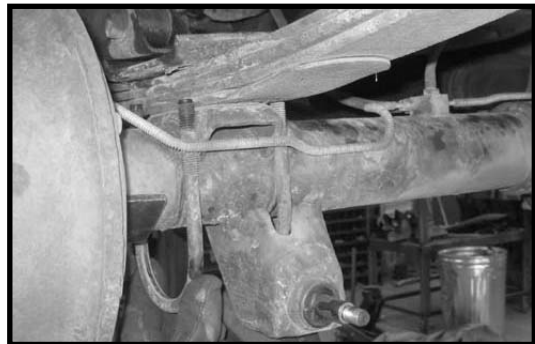


31. Place a pair of hydraulic floor jacks under the rear differential. Place one on the driver and passenger side. Carefully raise up on both floor jacks until they come into contact with the rear differential.

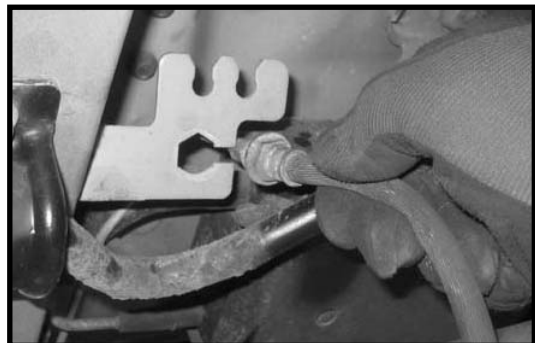
32. Working on the driver side, remove the shock from the OE location. Save the OE hardware. The shock may be discarded. **Special note: New longer rear shocks are needed after this suspension system has been installed and the rear shocks need to be ordered as a separate part #. If you have not already ordered your rear shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your rear shocks. Tuff Country recommends installing a 26" fully extended cellular shock in the rear.** Repeat procedure on the passenger side.



33. Working on the driver side, remove the u-bolts from the OE location. The u-bolts and hardware may be discarded. The upper u-bolt plate can rest on top of the spring. Repeat procedure on the passenger side.



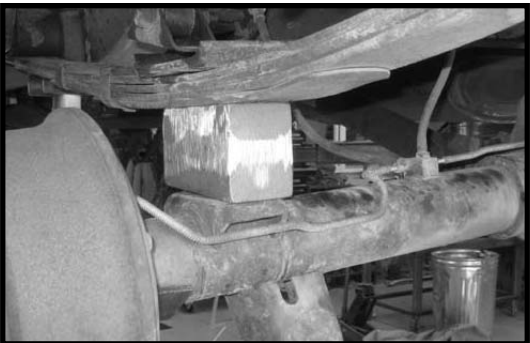
34. Remove the rear brake line from the OE brake line bracket.



35. Carefully lower down on both hydraulic floor jacks at the same time allowing enough room for the new rear block to be installed.

36. Locate the new rear blocks. Working on the driver side, install the new block between the rear axle and the spring. **Special note: There is a slight taper to the new rear block. The shorter end of the block needs to be installed towards the vehicle. Also, if the nipple of the block does not fit properly into the hole of the spring perch, carefully drill out the spring perch to 5/8".** Carefully raise up

on the hydraulic floor jack until the block seats properly between the rear axle and spring. Repeat procedure on the passenger side.



37. Locate the proper u-bolts. Also, locate (8) 1/2" u-bolt washers and (8) 1/2" high nuts from hardware bag 12NW. Working on the driver side, install the u-bolts into the OE location and secure using the new hardware. Torque to **85 ft lbs**. Repeat procedure on the passenger side.



38. 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 Country or your local Tuff Country dealer and order your rear shocks. Tuff Country recommends installing a **26" fully extended cellular shock in the rear.** Also, locate the new rear clevis mount from hardware bag 43800NB1.

Install the new clevis mount into the upper end of the rear shocks. Working on the driver side, install the new shock into the OE location using the OE hardware. Make sure to use loctite and torque to lower hardware to **38 ft lbs** and the upper hardware to **12 ft lbs**. Repeat procedure on the passenger side.

39. Re-install the rear brake line bracket back into the OE location.

40. Remove the hydraulic floor jacks from under the vehicle.

41. Check and double check to make sure that all steps have been performed properly and check again.

42. Install the tires and wheel and carefully lower the vehicle to the ground.

43. If you were not able to install the track bar into the newly installed track bar bracket, please perform this step now that the weight of the vehicle is on the ground.

44. Working on the driver side lower control arm, move back to the OE hardware and add some loctite to **95 ft lbs**. Repeat procedure on the passenger side.

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.

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