



EZ - Ride Suspension

Installation manual

4.5" Suspension system

2005 - 2007 Ford Super Duty

F250 / F350

Part # 24970

sj060308rev.03

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2005 - 2007 Ford Super Duty F250 / F350
4.5" Suspension system

<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
24970-CL01	Front coil springs	2
24970-02	DS radius arm relocation bracket	1
24970-03	PS radius arm relocation bracket	1
24970-04	Track bar relocation bracket	1
24970-06	DS & PS front brake line relocation bracket	2
24970-10	DS & PS front bump stop relocation bracket	2
24970-11	DS & PS ABS relocation bracket	2
24970-14	Rear carrier bearing relocation bracket	1
25975-02	Front steering stabilizer bracket	1
24970NB	Hardware bag	1
24970PL	Hardware bag	1
SB-05	Front sway bar end links	2
70205	Pitman arm - Kit box	1
24970INST	Instruction manual (customer copy)	1
24970INST	Instruction manual (installer copy)	1
WARNINGDECAL	Warning decal	1
MIRRORHANGER	Rear view mirror hanger	1
DECAL	Window decal	1

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

Before installation begins, it is the customers/installers responsibility to make sure that all parts are on hand. If any parts are missing, please feel free to call one of our customer service representatives @ (801) 280-2777.

Tuff Country EZ-Ride Suspension packages (2) sets of instruction manuals 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.

Important customer information:

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

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

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.

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

It is the customers/installers responsibility to read and understand all steps before installation begins. OEM manual should be used as a reference guide.

Make sure to use lock tite on all new and stock hardware associated with this installation.

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.

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:

Tuff Country recommends a 36x13.50 tire package. If larger than a 36x13.50 tire is installed on your vehicle in conjunction with part # 24970; Tuff Country assumes no liability and the warranty will be VOID.

Part # 24970 comes complete with the front end components. The rear box kit needs to be ordered as a separate part #. If you have not already ordered your rear box kit, please contact Tuff Country or your local Tuff Country dealer and order part # 24971.

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 26" fully extended nitrogen gas shock on the front and a 33" fully extended nitrogen gas shock in the rear.

Tuff Country highly recommends installing shock boots once the new shocks have been installed and the shock boots need to be ordered as a separate part #. If you have not already ordered your new shock boots, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new shock boots. Tuff Country EZ-Ride suspension offers; Red, light blue, dark blue, black, yellow or gray shock boots. If shock boots are not installed on the new shocks, damage could be caused to the piston of the new shock. If the new shock is damaged due to not having a shock boot installed, warranty will be void.

After the installation of this suspension system, Tuff Country highly recommends taking the vehicle directly to an alignment shop for a proper front end alignment.

Tuff Country uses the same coil spring on vehicles with gas or diesel engines. If the vehicle that you are working on is a gas engine and you are sitting high in the front end, please contact Tuff Country or you local Tuff Country dealer and order part # 82150 (rear add-a-leaf).

Hardware bag 24970NB includes:

<u>Description</u>	<u>Quantity</u>
5/16" flat washers	4
3/8" nylock nuts	4
9/16" x 1 1/2" bolts	14
1/2" flat washers	30
9/16" unitorque nuts	14
5/16" x 1" bolts	6
1/4" flat washers	12
5/16" unitorque nuts	6
7/16" x 2" bolts	2
3/8" flat washers	2

Hardware bag 24970PL includes:

<u>Description</u>	<u>Quantity</u>
MO3808 (sway bar end link bushing)	4
S10113 (Sway bar end link washer)	4
12UN (1/2" unitorque nut)	2
9163B (9/16" x 3" bolt)	2
12WA (1/2" USS flat washer)	4
916UN (9/16" unitorque nut)	2
MO2220 (poly bushing)	4
S10175 (.6875" x .565" x 1.500" sleeve)	2
PB6199 (short bump stop)	2
PB6052 (tall bump stop)	2
PB8297 (upper shock bushing)	4
S10107 (upper shock washer)	4
M30JN (30 mm jam nut)	1
LUBE (Poly lube pack)	2

Special note: Before installation begins, it is the customers/installers responsibility to make sure that all parts are on hand. If any parts are missing, please feel free to call one of our customer service representatives @ (801) 280-2777.

Recommended tools selection:

Torque wrench
Standard socket set
Standard wrench set
Metric socket set
Metric wrench set
Tape measure
Hydraulic floor jacks

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: _____

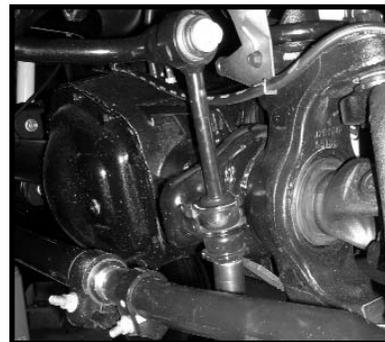
Passenger side rear: _____

Front end installation:

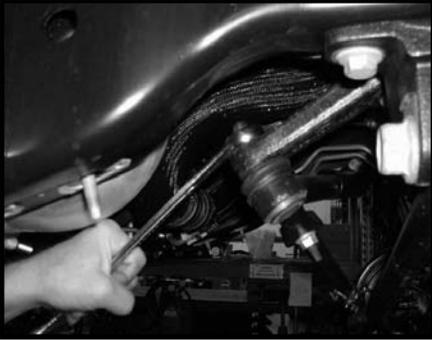
Steps # 1 — # 8 are performed with the weight of the vehicle on the ground.

1. Safely block the rear tires of the vehicle so the vehicle is stable and can not roll backwards.

2. Working on the driver side, remove the stock sway bar end link from the stock lower mount on the axle. Now remove the stock end link from the stock sway bar. The stock end link and hardware may be discarded. Next, remove the stock sway bar from the stock frame rail. Save the stock hardware. Repeat procedure on the passenger side. Remove the stock sway bar completely from the vehicle.



3. Working on the driver side, remove the stock cotter pin and re-taining nut that connects the stock tie rod to the stock pitman arm. Save the stock hardware. Loosen, but do not fully remove the stock nut that connects the stock tie rod to the stock pitman arm.



4. Remove the stock steering stabilizer hardware from the stock tie rod. Save the stock hardware.



5. Move back to the stock hardware attaching the stock tie rod end to the stock pitman arm and remove. Set the stock hardware aside. Carefully break the stock taper and remove the stock tie rod from the stock pitman arm.



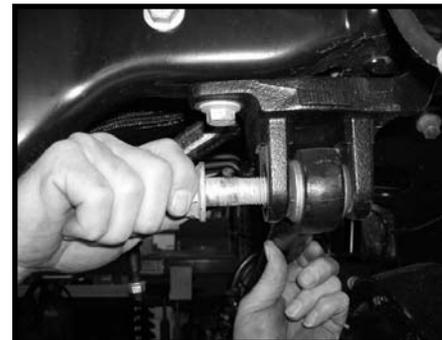
6. Working on the driver side, remove the stock lower brake line bracket from the stock front axle. Save the stock hardware. Repeat procedure on the passenger side.



7. Working on the driver side, remove the stock brake line bracket from the stock location. Save the stock hardware. Repeat procedure on the passenger side. **Special note: On some vehicles, the stock brake line bracket is attached to the stock coil spring bucket.**



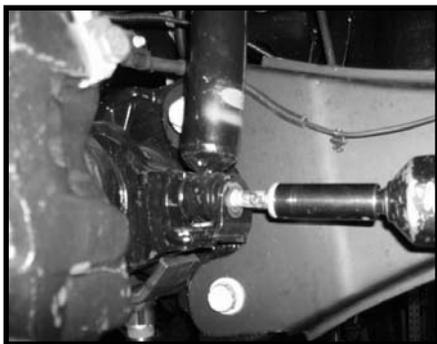
8. Working on the driver side, remove the stock track bar hardware from the stock track bar bracket and save the stock hardware. Let the stock track bar hang.



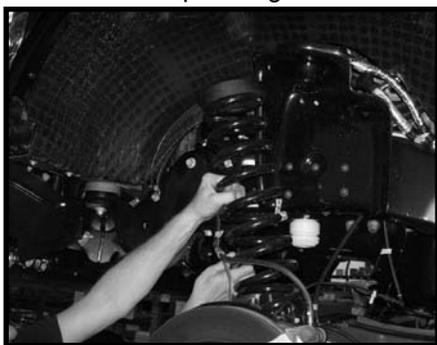
9. Safely lift the front of the vehicle, and support the frame with a pair of jack stands. Place a jack stand on both the driver and passenger side. Next, remove the tires and wheels from both sides.

10. Place a pair of hydraulic floor jacks under the front differential, and carefully raise up on both hydraulic floor jacks at the same time, until they come into contact with the front differential.

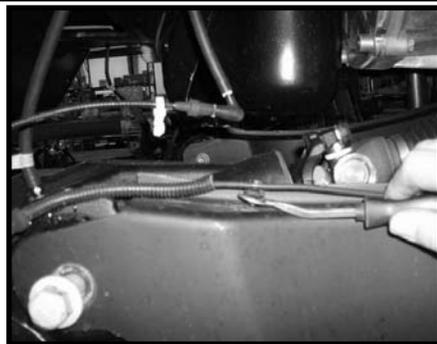
11. Working on the driver side, remove the stock shock from the stock location. Save the stock lower mounting hardware. The stock upper mounting hardware and the stock shock may be discarded. **Special note: New longer front shocks are needed, if you have not already ordered shocks, please contact Tuff Country or your local Tuff Country dealer and order the proper shocks. Tuff Country recommends using a 30" fully extended nitrogen gas shock.** Repeat procedure on the passenger side.



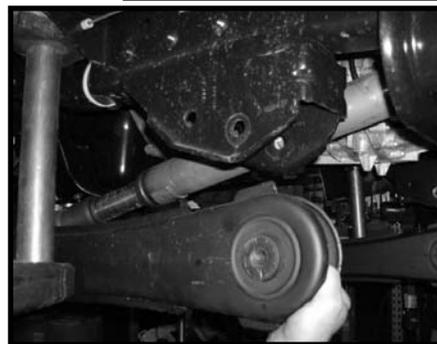
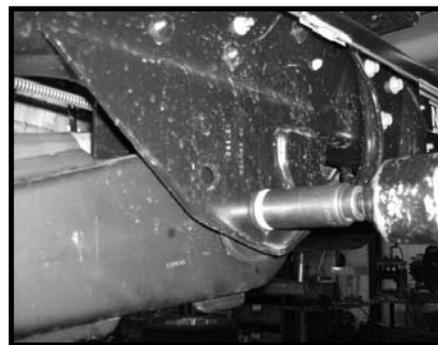
12. Carefully lower down on both hydraulic floor jacks at the same time allowing enough room for the stock coil springs to be removed. Working on the driver side, remove the stock coil spring from the stock location. Save the stock rubber isolator. The stock coil spring may be discarded. Repeat procedure on the passenger side.



13. Working on the driver side, remove the stock ABS line and breather hoses that attach to the stock radius arm. Let the stock ABS line and breather hoses hang. Repeat procedure on the passenger side.



14. Working on the driver side, remove the stock hardware that connects the stock radius arm to the stock radius arm drop bracket. Save the stock hardware. Carefully lower down on both hydraulic floor jacks, this will allow the radius arm to come out of the stock location. Repeat procedure on the passenger side.



15. Working on the driver side and using a chisel, carefully remove the stock rivets holding the stock radius arm bracket to the stock frame rail. **Special note: There are (4) rivets on the side of the stock frame rail and (3) on the bottom side of the stock frame rail. Making a cross cut on the head of the rivets with a die grinder then using an air chisel will help make the removal of the rivets easier.** Once the rivets have been removed the stock driver side radius arm bracket may be discarded. Repeat procedure on the passenger side.



16. Working on the driver side, carefully drill out each hole where the rivets were located to a 9/16" hole. **Special note: Take special care not to drill into any wires or hoses that travel down the stock frame rail. Drill out (4) on the side of the stock frame rail and (3) on the bottom of the stock frame rail.** Repeat procedure on the passenger side.

17. Carefully lower down on both hydraulic floor jacks at the same time approximately 5". **Special note: Take special care not to kink or over extend lines or hoses.**

18. Locate the driver and passenger side radius arm relocation brackets. Also, locate (14) 9/16" x 1 1/2" bolts, (28) 1/2" USS flat washers and (14) 9/16" unitorque nuts from hardware bag 24970NB. Working on the driver side, install the new driver side radius arm relocation bracket into the stock location and secure using the new 9/16" x 1 1/2" bolts and hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.



19. Working on the driver side, remove the stock hardware that attaches the stock track bar to the stock frame rail and cross member. **Special note: Heating up the bolts that connect the stock track bar to the bottom side of the stock frame rail will make removal easier. This will melt the thread locker.** Save the stock hardware for later re-installation. The stock track bar bracket may be discarded.

20. Working on the driver side, remove the stock nut that connects the stock pitman arm to the stock sector shaft. The stock nut may be discarded but save the lock washer. Carefully remove the stock pitman arm from the stock sector shaft. The stock pitman arm may be discarded.



21. Locate the new pitman arm and the stock lock washer. Also, locate the new 30 mm jam nut from hardware bag 24970PL. Install the new pitman arm to the stock sector shaft and secure using the stock lock washer and new 30 mm jam nut. Make sure to use thread locker or lock tite and torque to **350 ft lbs.**



22. Locate the new track bar relocation bracket and the stock hardware. Install the new track bar to the stock location and secure using the stock hardware. **Special note: Make sure to install the leg of the new track bar re-**

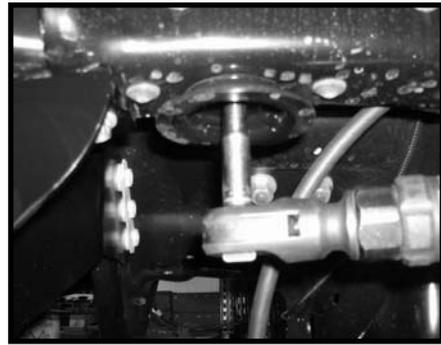
cation bracket to the back side of the stock cross member. Make sure to use thread locker or lock tite and torque all (5) nuts to **75 ft lbs.**



23. Working on the driver side, remove the stock front bump stop from the stock front bump stop cup. Save the stock bump stop. Repeat procedure on the passenger side.



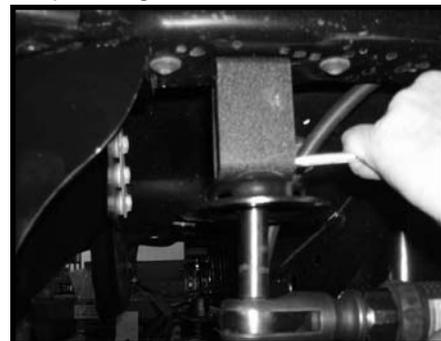
24. Working on the driver side, remove the stock bump stop cup from the bottom of the stock frame rail and save the stock bump stop cup and the stock hardware. Repeat procedure on the passenger side.



25. Locate the new bump stop relocation brackets. Also, locate the stock bump stop cup mounting hardware. Working on the driver side, secure the new bump stop relocation bracket to the stock location and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **18 ft lbs.** Repeat procedure on the passenger side.



26. Locate the stock bump stop cups. Also, locate the (2) 5/16" x 1" bolts, (4) 1/4" USS flat washers and (2) 5/16" uni-torque nuts from hardware bag 24970NB. Working on the driver side, install the stock bump stop cup to the newly installed bump stop relocation bracket and secure using the new 5/16" x 1" bolts and hardware. Make sure to use thread locker or loctite and torque to **18 ft lbs.** Repeat procedure on the passenger side.



27. Locate the stock bump stops. Working on the driver side, install the stock bump stop into the newly placed bump stop cup. Repeat procedure on the passenger side.



28. Locate the new driver and passenger side brake line relocation bracket. Also locate the stock brake line bracket hardware. Working on the driver side, install the new brake line relocation bracket to the stock location and secure using the stock hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.

29. Locate (2) 5/16" x 1" bolts, (4) 1/4" USS flat washers and (2) 5/16" unitorque nuts from hardware bag 24970NB. Working on the driver side, install the stock brake line to the newly installed brake line relocation bracket and secure using the new 5/16" x 1" bolt and hardware. Make sure to use thread locker or loctite and torque to **18 ft lbs.** Repeat procedure on the passenger side. Move back to the stock hardware holding the new bracket to the stock location and add some thread locker or loctite and torque to **12 ft lbs.** **Special note: This photo is attaching the new brake line relocation bracket to the mount on the stock coil spring bucket. Some vehicles will have the bracket attached to the frame rail.**



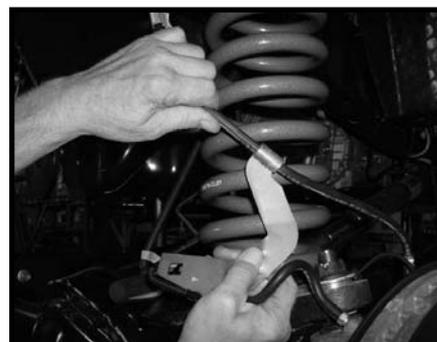
30. Locate the new coil springs. Also, locate the stock isolator. Working on the driver side, install the stock isolator on the new coil spring and install the new coil spring into the stock location. Carefully raise up on the hydraulic floor jack until the new coil springs seats properly into the stock upper and lower location. Repeat procedure on the passenger side.



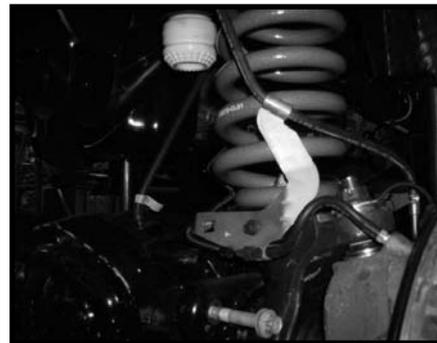
31. Locate the stock radius arm hardware that connected the stock radius arm to the stock radius arm bracket. Working on the driver side, install the stock radius arm to the new radius arm relocation bracket and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **125 ft lbs.** Repeat procedure on the passenger side.



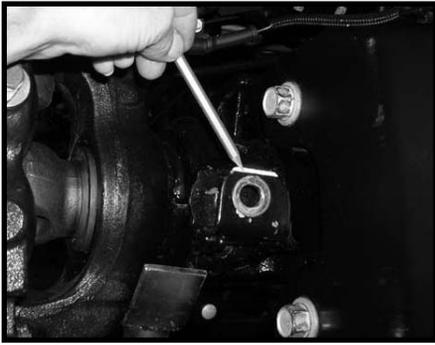
32. Working on the driver side and using a flat head screw driver, carefully open up the stock lower brake line bracket and slide the stock bracket down towards the axle to allow re-installation into the stock location. Repeat procedure on the passenger side.



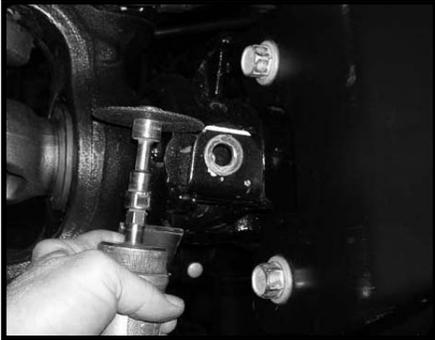
33. Locate the stock lower brake line bracket hardware. Working on the driver side, install the stock lower brake line bracket to the stock location and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **12 ft lbs.** Repeat procedure on the passenger side.



34. Working on the driver side, scribe a mark with some white out on the top of the outside lower shock bracket. **Special note: This is done so that when the new shock is installed, the body of the shock does not rub on this bracket.** Repeat procedure on the passenger side.



35. Working on the driver side and using a die grinder, carefully cut off the top of the outside lower shock bracket. Repeat procedure on the passenger side. **Special note: Once the new shocks have been installed, check to make sure that there is no contact on the body of the shock and the outside lower shock bracket.**



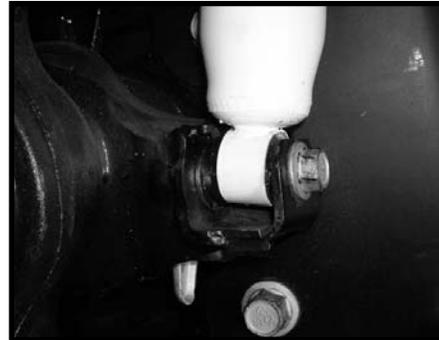
36. Locate the new front shocks. **Special note: New longer front shocks are needed, if you have not already ordered shocks, please contact Tuff Country or your local Tuff Country dealer and order the proper shocks. Tuff Country recommends using a 30" fully extended nitrogen gas shock.** Locate the new poly bushings and proper sleeves that are packaged with the new shock and install them into the lower eyelet of the new shocks. **Special note: Make sure to use a lithium or moly base grease prior to inserting the new lower shock bushings and sleeves into the new lower shock eyelet. This will increase the life of the bushing as well as prevent squeaking.**

37. Locate the new shock boots. **Special note: Tuff Country highly recommends installing shock boots once the new shocks have been installed and the shock boots need to be ordered as a separate part #. If you have not already ordered your new shock boots, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new shock boots. Tuff Country EZ-Ride suspension offers: Red, light blue, dark blue, black, yellow or gray shock boots. If shock boots are not installed on the new shocks, damage could occur to the piston of the new shock. If the new shock is damaged due to not having a shock boot installed, warranty will be void.** Install the new shock boots onto the new shocks and secure the lower part of the new shock boots to the new shocks with the new shock ties that are provided with the new shock boots.

38. Locate (2) PB8297 upper shock bushings and (2) S10107 upper shock washers from hardware bag 24970PL. Install (1) PB8297 and (1) S10107 onto the stem of the new

shocks.

39. Locate the stock lower shock mounting hardware. Locate (2) PB8297 upper shock bushings and (2) S10107 upper shock washers from hardware bag 24970PL. Also, locate (2) 9/16" USS flat washers from hardware bag 24970NB. Locate the new shock stem nuts that were packaged with your new shocks. Working on the driver side, install the new shock into the stock upper location using the upper shock bushing, washers and nut. Torque to **28 ft lbs**. Secure the bottom of the new shock to the stock location and secure using the stock hardware and the 9/16" USS flat washer in the forward position. Make sure to use thread locker or loctite. Torque to **45 ft lbs**.



40. Locate the new ABS line relocation bracket and the stock ABS line hardware. Working on the driver side, install the new ABS line relocation bracket to the stock radius arm using the stock hardware. Make sure to use thread locker or loctite and torque to **12 ft lbs**. Repeat procedure on the passenger side.

41. Locate (2) 5/16" x 1" bolts, (4) 1/4" flat washers and (2) 5/16" unitorque nuts from hardware bag 24970NB. Working on the driver side, secure the stock ABS line bracket to the newly installed ABS 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**. Repeat procedure on the passenger side.



42. Working on the driver side, move back to the newly installed 9/16" x 1 1/2" bolts and hardware that is securing the new radius arm relocation bracket to the frame rail and add some thread locker or loctite. Torque all (7) bolts to **95 ft lbs.** **Special note: Torque the (3) bolts that hold the bracket to the bottom of the stock frame rail, then torque the (4) bolts that connect the bracket to the side of the stock frame rail.** Repeat procedure on the passenger side.

43. Working on the passenger side, remove the stock steering stabilizer from the stock bracket on the passenger side of the vehicle and save the stock hardware and the stock steering stabilizer.

44. Working on the passenger side, remove the stock steering stabilizer bracket from the stock cross member. Save the stock hardware. The stock bracket may be discarded.

45. Locate the new steering stabilizer relocation bracket and the stock hardware. Install the new steering stabilizer bracket to the stock location and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **45 ft lbs.**



46. Locate the stock tie rod hardware. Install the stock tie rod to the newly installed pitman arm and secure using the stock hardware. Make sure to add some thread locker or loctite and torque to **95 ft lbs.** Now install the stock re-retaining nut and cotter pin. **Special note: If the stock cotter pin can not be installed because the hole in the stock re-retaining nut does not line up with the stock ball joint, DO NOT loosen the stock nut so that the cotter pin can fit, tighten the stock nut some more so that the stock cotter pin can be installed.**



47. Locate the stock steering stabilizer hardware and the stock steering stabilizer. Install the stock steering stabilizer to the newly installed steering stabilizer bracket and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **45 ft lbs.**



48. Locate the stock steering stabilizer hardware. Install the stock steering stabilizer to the stock location on the stock tie rod and secure using the stock hardware. Make sure to add some thread locker or loctite and torque to **45 ft lbs.**



49. Locate the stock track bar mounting hardware. Working on the driver side, secure the stock track bar to the newly installed track bar relocation bracket and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **145 ft lbs.**



50. Carefully remove both hydraulic floor jacks from under the front differential.

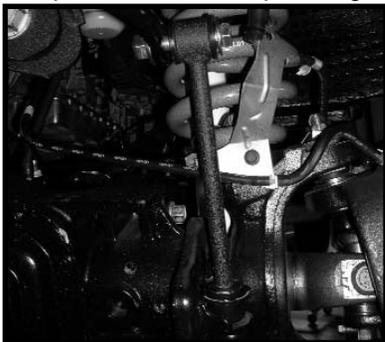
51. Locate the stock sway bar and the stock sway bar frame mounting hardware. Working on the driver side, install the stock sway bar to the stock frame rail using the stock hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.

52. Locate the new front sway bar end links. Also, locate (4) MO2220 poly bushings and (2) S10175 (.6875" x .565" x 1.500" sleeves) from hardware bag 24970PL. Install the new bushings and sleeves into the new front sway bar end links. **Special note: Make sure to use a lithium or moly base**

grease prior to inserting the bushings and sleeves into the new front sway bar end links. This will help with the life of the bushings as well as help prevent squeaking.

53. Locate (2) 9/16" x 3" bolt, (4) 1/2" USS flat washers and (2) 9/16 unitorque nuts from hardware bag 24970PL. Working on the driver side, install the new front sway bar end link to the outside of the stock sway bar and secure using the new 9/16" x 3" bolts and hardware. **Make sure to use thread locker or loctite and torque to 80 ft lbs.** Repeat procedure on the passenger side.

54. Locate (4) MO3808 bushings, (4) S10113 over size washers and (2) 1/2" unitorque nuts from hardware bag 24970PL. Working on the driver side, install the new front sway bar end link to the stock lower location and secure using the new bushings, washers and 1/2" unitorque nut. **Make sure to use thread locker or loctite and torque to 70 ft lbs.** Repeat procedure on the passenger side.



55. Working on the driver side, add some thread locker or loctite to the stock sway bar frame mounting hardware. **Torque to 42 ft lbs.** Repeat procedure on the passenger side.



56. Check and double check to make sure that all steps have been completed properly for the front end and check again.

57. Install the tires and wheels and carefully lower the vehicle to the ground.

Congratulations, front end installation complete!

Part # 24970 comes complete with the front end components. The rear box kit needs to be ordered as a separate part #. If you have not already ordered your rear box kit, please contact Tuff Country or your local Tuff Country dealer and order part # 24971.

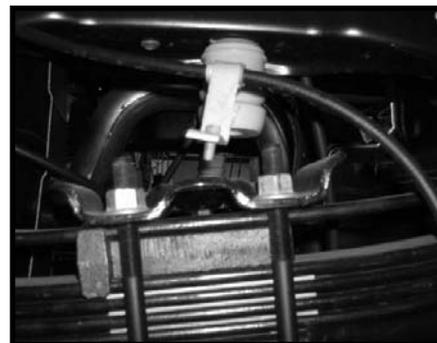
58. To begin installation, block the front tires of the vehicle so that the vehicle is stable and can't roll forward. Safely lift the

rear of the vehicle and support the frame with a pair of jack stands. Place a jack stand on both the driver and passenger side. Next, remove the wheels and tires from both sides.

59. Place a pair of hydraulic floor jacks under the rear differential and carefully raise up on both hydraulic floor jacks at the same time until they come into contact with the rear differential.

60. Working on the driver side, remove the stock shock from the stock location and save the stock hardware. The stock shock may be discarded. **Special note: New longer rear shocks are needed, if you have not already ordered your new rear shocks, please contact Tuff Country or your local Tuff Country dealer and order the proper shocks. Tuff Country recommends using a 33" fully extended nitrogen gas shock.** Repeat procedure on the passenger side.

61. Working on the driver side, remove the stock brake line bracket that connects to the stock u-bolt plate. Save the stock hardware for later re-installation.



62. Working on the driver side, remove the stock u-bolts from the stock location and discard the stock u-bolts and hardware. Set the stock upper u-bolt plate aside. Repeat procedure on passenger side.

63. Carefully lower down both hydraulic floor jacks at the same time approximately 5". **Special note: Take special care not to over extend any brake lines and/or hoses.** Working on the driver side, remove the stock block and discard. Repeat procedure on the passenger side.

64. Locate the new rear 5 1/2" blocks. Working on the driver side, install the new rear block between the stock spring assembly and the stock rear differential. Repeat procedure on the passenger side. Carefully raise up on both hydraulic floor jacks at the same time until the stock spring assembly sits flush with the newly installed 5 1/2" lifted block.

65. Locate the new 5/8" x 3 5/8" x 17" round u-bolts. Locate (8) 5/8" u-bolt high nuts and (8) 5/8" u-bolt washers from hardware bag 58NW. Also, locate the stock upper u-bolt plate. Working on the driver side, install the new u-bolts into the stock location and secure using the new hardware. **Torque to 135 ft lbs.** Repeat procedure on the passenger side.

66. Locate the stock brake line bracket hardware. Working on the driver side, secure the stock brake line bracket to the

stock location on the stock u-bolt plate using the stock hardware. Make sure to use thread locker or loctite and torque to **12 ft lbs.**

67. Locate the new rear shocks. **Special note: New longer rear shocks are needed, if you have not already ordered shocks, please contact Tuff Country or your local Tuff Country dealer and order the proper shocks. Tuff Country recommends using a 33" fully extended nitrogen gas shock.** Locate the new poly bushings and proper sleeves that are packaged with the new shock and install them into the upper and lower eyelet of the new shocks. **Special note: Make sure to use a lithium or moly base grease prior to inserting the new lower shock bushings and sleeves into the new lower shock eyelet. This will increase the life of the bushing as well as prevent squeaking.**

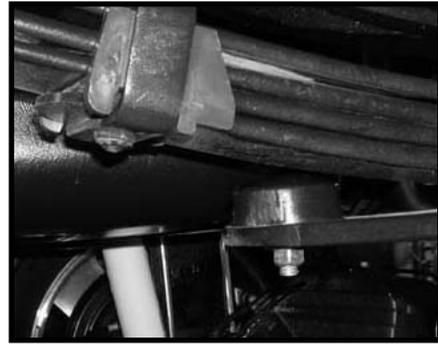
68. Locate the new shock boots. **Special note: Tuff Country highly recommends installing shock boots once the new shocks have been installed and the shock boots need to be ordered as a separate part #. If you have not already ordered your new shock boots, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new shock boots. Tuff Country EZ-Ride suspension offers: Red, light blue, dark blue, black, yellow or gray shock boots. If shock boots are not installed on the new shocks, damage could occur to the piston of the new shock. If the new shock is damaged due to not having a shock boot installed, warranty will be void.** Install the new shock boots onto the new shocks and secure the lower part of the new shock boots to the new shocks with the new shock ties that are provided with the new shock boots.

69. Locate the upper and lower stock shock hardware. Working on the driver side, install the new rear shock into the stock upper and lower location and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **80 ft lbs.** Repeat procedure on passenger side.

70. Carefully remove the (2) hydraulic floor jacks from under the rear differential.

71. Locate (2) PB6199 short poly bump stops and (2) PB6052 taller poly bump stops from hardware bag 24970PL. Also, locate (4) 3/8" nylock nuts and (4) 5/16" USS flat washers from hardware bag 24970NB. Working on the driver side of the stock rear spring assembly, remove the (2) stock teflon inserts located on the stock over load in the stock spring assembly. Discard the stock teflon inserts. Install (1) PB6052 (taller poly bump stop) in front location on the stock spring assembly. Secure using the new 3/8" hardware. Torque to **28 ft lbs.** Install (1) PB6199 (shorter poly bump stop) in the rear location on the stock spring assembly. Secure using the new 3/8" hardware. Torque to **28 ft lbs.** Repeat procedure on the passenger side.

Front location



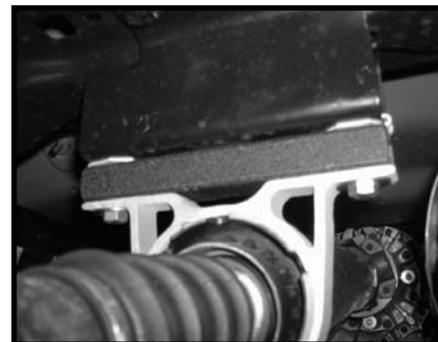
Rear location



Special note: If the vehicle that you are working has a 1 piece rear drive shaft, please skip to step # 74.

72. Place a hydraulic floor jack under the rear carrier bearing and carefully raise up on the hydraulic floor jack until it makes contact with the stock carrier bearing. Remove the stock hardware that connects the stock carrier bearing to the stock carrier bearing bracket. The stock bolt may be discarded but make sure to keep the nut bracket attached to the stock carrier bearing bracket. Carefully lower down on the hydraulic floor jack approximately 1 1/2".

73. Locate the new rear carrier bearing drop bracket. Also, locate (2) 7/16" x 2" bolts and (2) 3/8" USS flat washers from hardware bag 24970NB. Install the new rear carrier bearing drop bracket between the stock carrier bearing bracket and the stock carrier bearing and secure using the new 7/16" x 2" bolts and hardware. Make sure to use thread locker or loctite and torque to **65 ft lbs.** Carefully remove the hydraulic floor jack from under the rear carrier bearing.



74. Check and double check to make sure that all steps have

been completed properly for the rear end and check again.

75. Install the tires and wheels and carefully lower the vehicle to 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.

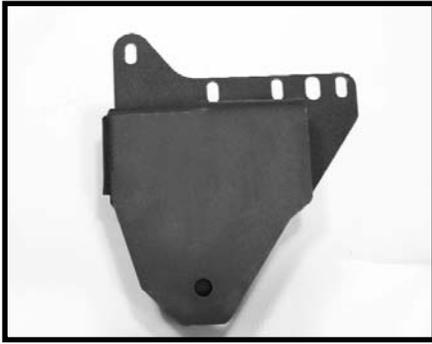
Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. 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.

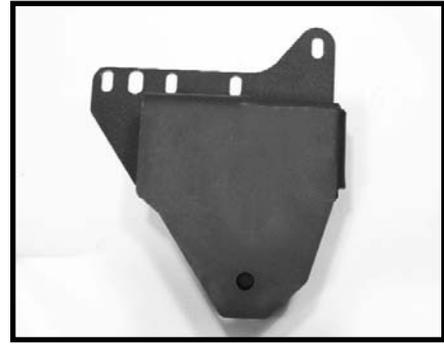
If you have any questions or concerns, please feel free to contact Tuff Country or your local Tuff Country dealer.

Torque settings:

5/16"	15—18 ft lbs.
3/8"	28—32 ft lbs.
7/16"	30—35 ft lbs.
1/2"	65—85 ft lbs.
9/16"	85—120 ft lbs.
5/8"	95—130 ft lbs.
3/4"	100—140 ft lbs.



24970-02 / Qty. 1
Driver side radius arm relocation bracket



24970-03 / Qty. 1
Passenger side radius arm relocation bracket



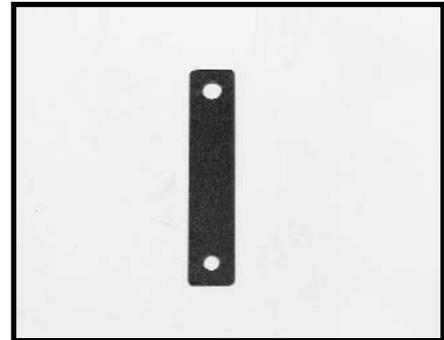
24970-04 / Qty. 1
Track bar relocation bracket



24970-06 / Qty. 2
DS & PS front brake line relocation bracket



24970-10 / Qty. 2
DS & PS front bump stop relocation bracket



24970-11 / Qty. 2
DS & PS ABS relocation bracket



24970-14 / Qty. 1
Rear carrier bearing relocation bracket



SB-05 / Qty. 2
Front sway bar end link



25975-02 / Qty. 1
Front steering stabilizer bracket