



**EZ - Ride Suspension**

**Installation manual**

**3" rear box kit**

**1980 - 1996**

**Ford F150 or Bronco**

**Part # 24813**

sj121809rev.01

**Part # 24813**

**1980 - 1996 Ford F150 or Bronco**

**3" rear box kit**

<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
TCI-R22	Rear add-a-leaf	2
5U-283R	9/16" x 3 1/2" x 10 1/2" round u-bolts	4
24813NB	Hardware bag	1
916NW	Hardware bag	1
24813INST	Instruction manual	2
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.

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

**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.

It is the customers/installers responsibility to read and understand all steps before installation begins. If you have any questions or concerns, please contact our technical department @ (801) 280-2777. Also, the OEM manual should be used as a reference guide.

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:

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 rear shocks are needed after the rear box kit 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 nitrogen gas shock in the rear.

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.

Hardware bag 24813NB includes:

<u>Description</u>	<u>Quantity</u>
BLR14 (brake line bracket)	1
ECLIP (brake line E-clip)	1
5161B (5/16" x 1" bolt)	1
516UN (5/16" unitorque nut)	1
14WA (1/4" USS flat washer)	2
CB381 (3/8" x 6" centering bolt)	2
38FN (3/8" fine nut)	2

Recommended tools selection:

Cut off wheel  
Torque wrench  
Standard socket set  
Standard wrench set  
Metric socket set  
Metric wrench set  
Tape measure  
Hydraulic floor jack

**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 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 rear: \_\_\_\_\_

Passenger side rear: \_\_\_\_\_

**Rear end installation:**

1. To begin installation, carefully block the front tires and wheels so that the vehicle can not roll forward. Safely lift the rear of the vehicle and support the vehicle with a pair of jack stands. Place a jack stand on both the driver and the passenger side. Next, remove the rear wheels and tires from both sides.

2. Working on the driver side, remove the stock shock from the stock location. The stock shock may be discarded but save the stock upper and lower hardware. Repeat procedure on the passenger side. **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 nitrogen gas shock in the rear.

3. Working on the driver side, remove the stock sway bar end link from the stock sway bar. Save the stock hardware. Repeat procedure on the passenger side.



4. Place a pair of hydraulic floor jacks under the rear differential. Carefully raise up on the hydraulic floor jacks until they make contact with the rear differential.

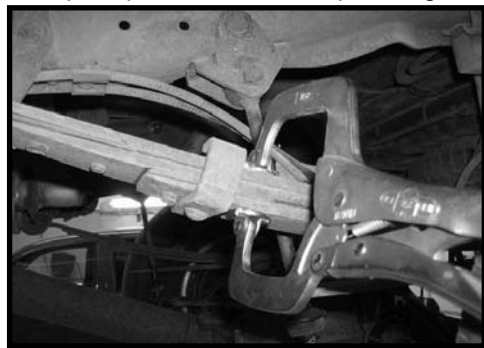
5. Working on the driver side, remove the stock u-bolts from the stock location. The stock u-bolts and hardware may be

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



6. Carefully lower down on both hydraulic floor jacks at the same time allowing enough room for the new rear add-a-leaves to be installed. Working on the driver side, remove the stock block from the stock location and set aside. Repeat procedure on the passenger side.

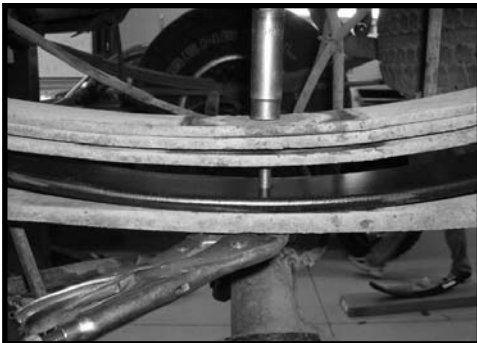
7. Working on the driver side and using a pair of "C" channel vise grips, clamp the stock rear springs together. Place one towards the front of the stock centering bolt and one towards the rear. **Special note: Make sure not to clamp the stock over load.** Repeat procedure on the passenger side.



8. Carefully remove the stock centering bolt from the stock location and discard. **Special note: Once the stock centering bolt has been removed, the stock over load will fall out.** Save the stock over load. Repeat procedure on the passenger side.



9. Locate the new rear add-a-leaves. Also, locate the new 3/8" centering bolts and nuts from hardware bag 24813NB. Working on the driver side, install the new add-a-leaf between the stock spring and the stock overload. Secure using the new 3/8" centering bolt and nuts. Tighten the new centering bolt until all the springs come together and torque to **40 ft lbs**. **Special note: Tuff Country does not recommend using an air gun to tighten the nut all the way down. Once the springs are starting to come together, Tuff Country recommends using a hand wrench to finish tightening the nut. If an air gun is used to tighten the centering bolt all the way down, the centering bolt may strip causing the springs to come apart.** Repeat procedure on the passenger side.



10. Working on the driver side and using a die grinder, carefully cut off the excess thread from the new centering bolt. Repeat procedure on the passenger side.



11. Locate the stock blocks. Working on the driver side, install the stock block into the stock location. Repeat procedure on the passenger side. Carefully raise up on both hydraulic floor jacks that are holding the rear axle until the stock blocks make contact with the stock springs.



12. Locate (4) 9/16" x 3 1/2" x 10 1/2" round u-bolts. Locate (8) 9/16" u-bolt high nuts and (8) 9/16" u-bolt harden washers from hardware bag 916NW. Also, locate the stock upper u-bolt plate. Working on the driver side, secure the axle to the stock spring using the new u-bolts, u-bolt hardware and stock u-bolts plates. Torque to **110 ft lbs**. Repeat procedure on the passenger side.



13. Locate the new rear shocks. **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 nitrogen gas shock in the rear.** Working on the new shocks, install the new bushings and proper sleeves that are packaged with the new shocks into each eyelet of the new shocks. **Special note: Make sure to use a lithium or moly base grease prior to installing the new bushings and sleeves into the eyelets of the new shocks. This will help with the life of the bushings as well as prevent squeaking.**

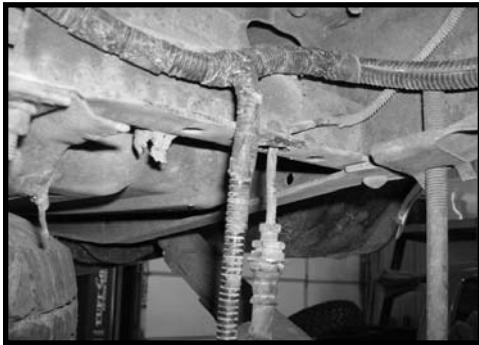
14. Locate the stock upper and lower shock mounting hardware. Working on the driver side, install the new shocks into the stock location using the stock upper and lower hardware. Make sure to use thread locker or loctite and torque both the upper and lower hardware to **65 ft lbs**. Repeat procedure on the passenger side. **Special note: Tuff Country highly recommends installing shock boots onto the new shocks. If shock boots are not installed, damage may occur to the piston of the new shock. If you have not already ordered your new shocks boots, please contact Tuff Country or your local Tuff Country dealer and order some new shock boots. Tuff Country offers, dark blue, light blue, gray, black, red or yellow shock boots.**

15. Remove both hydraulic floor jacks from under the vehicle.

**Special note: This kit comes with a rear brake line relocation kit. Sometimes the brake line relocation kit is not needed. Check the stock brake lines and if they are too tight, then the new rear brake line relocation kit will need to be installed. If the brake line relocation kit does not need to be installed, please skip to step # 19.**

16. Working on the driver side, remove the stock e-clip that is holding the stock brake line to the stock location. The stock e-clip may be discarded.

17. Carefully pull the stock brake line downward, pulling the line through the stock hole.



18. Locate the new rear brake line relocation bracket, (1) 5/16" x 1" bolt (2) 1/4" USS flat washers, (1) 5/16" unitorque nut and (1) e-clip from hardware bag 24813NB. Slide the open end of the new brake line over the stock brake line. Push the new bracket up on the cross member and carefully drill a 5/16" hole into the cross member. Secure the new brake line into the previously drilled hole and secure using the new 5/16" x 1" bolt and hardware. Make sure to use thread locker or loctite and torque to **12 ft lbs**. Now install the new e-clip into the stock location.



19. Locate the stock sway bar end link hardware. Working on the driver side, secure the stock sway bar end link to the stock sway bar using the stock hardware. Make sure to add some thread locker or loctite and torque to **32 ft lbs**. Repeat procedure on the passenger side.

20. Check and double check to make sure that all steps were performed properly and check again.

21. 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.**