



## EZ - Ride Suspension

### Installation manual

#### Front leveling kit

2000 - 2004 Ford Super Duty

F250 - F350

Old part # F2358B

New part # 22958

sj052206rev.01

Old part # F2358B  
 New part # 22958  
 2000 — 2004 F250 / F350 Super Duty  
 2.5" leveling kit

#### Parts list:

<b>Part #</b>	<b>Description</b>	<b>Qty.</b>
5U-230SR	9/16" x 3" x 10" semi round u-bolt	4
916NW	Hardware bag	1
F2355-08	Upper driver side track bar relocation bracket	1
CB716	Hardware bag	1
22958INST	Instruction sheet (customer copy)	1
22958INST	Instruction sheet (installer copy)	1
MIRRORHANGER	Rear view mirror hanger	1
WARNINGDECAL	Warning decal	1

**Special note:** Lift heights may differ from vehicle to vehicle due to the inconsistencies of spring rate from the factory. All lift heights are approximate. Any questions, please feel free to contact Tuff Country or your local Tuff Country dealer.

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.

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

It is the responsibility of the installers to make sure that the rear view mirror hanger is hung from the rear view mirror. The rear view mirror hanger has instructions on proper post installation procedures.

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 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.

## 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 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 us 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:

This box will not fit on the Ford Super Duties manufactured before 2000. If the vehicle that you are working on was manufactured before 2000, please box the kit up and send it back the company that you purchased it from.

It has recently come to Tuff Country's attention that Ford Motor Company has once again made a change to their front track bar for the Super Duty 4WD truck and Excursion. Ford Super Duty 4WD trucks and Excursions have had problems with the stock track bar on these vehicles breaking off in the STOCK form. We know of at least 3 different changes to this part since the first vehicles in 1998. The most recent change that has been made to the front track bar is that they have reduced the diameter of the bar from 1" to  $\frac{3}{4}$ ". By doing this, Tuff Country feels that this is weakening a very important part of the vehicle and could cause serious damage if an after market lifted suspension system is installed.

Before any Tuff Country parts are installed on the vehicle listed above, it is highly recommended that a visual inspection be done on the vehicle to make sure that the vehicle does not have the  $\frac{3}{4}$ " diameter stock track bar. If the vehicle that you are working on does have the  $\frac{3}{4}$ " diameter stock track bar and you still want to install any Tuff Country parts, you must order Part # 20950 from your local Tuff Country Suspension dealer. Part # 20950 is an after market 1" diameter track bar. If any Tuff Country parts are installed on a vehicle with a  $\frac{3}{4}$ " track bar, Tuff Country claims no liability nor does Tuff Country's warranty apply to any vehicle that is lifted with the  $\frac{3}{4}$ " diameter track bar.

Thank you for you attention to this issue. If you have any further questions and/or concerns, please feel free to contact Tuff Country.

If the vehicle that you are working on has a 2.5" stock rear block, the 2.5" leveling system is not going to level the vehicle. Too much height is going to be gained in the front end. To level the vehicle, new rear add-a-leafs are needed to be installed. If this is the case with the vehicle that you are working on, please contact Tuff Country or your local Tuff Country dealer and order part # 82150.

**Please follow instructions carefully:**

**Before installation begins, drive and check to make sure there are no uncommon sounds and/or frame damage. Also at this time 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:** \_\_\_\_\_

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

**Please follow instructions carefully:**

**Front end installation:**

1. To begin installation, block the rear tires of the vehicle so 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 jack stands. Place a jack stand on both the driver and passenger side. Next, remove the tires and wheels from both sides.

2. Place two hydraulic floor jacks under the front axle. One on the driver side and one on the passenger side. Raise up on both hydraulic floor jacks at the same time until they come in contact with the front axle.

3. Working on the driver side, remove the stock shock absorber from the stock upper and lower location and save the stock hardware for later re-installation. Repeat procedure on passenger side. **Special note: New shocks are not needed for the suspension system. If you desire to install new shocks after the completion of the suspension system, the stock shocks may be discarded.**

4. Working on the driver side, remove the stock sway bar from the front lower axle location. Save hardware for later re-installation. Repeat procedure on passenger side.

5. On the driver side, remove the stock bolt that connects the stock brake line bracket to the inner frame rail and save hardware for later re-installation. Repeat procedure on passenger side.

6. Locate the stock front track bar bracket located on the driver side of the vehicle. Remove the stock bolt that connects the stock track bar to the stock track bar bracket and save the bolt and hardware for later re-installation.

Next, remove the (3) stock bolts that connect the stock track bar bracket to the stock frame rail and the stock cross member. **Special note: Do not use any air tools when working with the 3 stock bolts that hold the stock track bar bracket to the stock location. Also, if need be, carefully heat up the (2) stock bolts that hold the stock track bar bracket to the stock frame rail location. This will help melt the thread locker or lock tite that is on the stock bolts.** Save the stock hardware for later re-installation. Remove and discard the stock track bar bracket.

7. Working on the driver side, remove the stock u-bolts from the stock location. The stock u-bolts and hardware may be discarded. Place the stock upper and lower u-bolt plates aside for later re-installation. Repeat procedure on the passenger side. **Special note: There is not a stock lower u-bolt plate on the driver side, it is welded to the stock front axle.**

8. Carefully lower down on both hydraulic floor jacks at the same time about 3" allowing enough room for the new add-a-leaf spring pack to be installed. **Special note: Take special care not to kink or over extend the stock brake line.**

9. Working on the driver side, place a pair of "C" clamp vise grips on each side of the stock centering bolt. Carefully remove the stock centering bolt and nut and discard. Carefully remove the "C" clamp vise grips that are holding the stock springs together. **Special note: Be very carefully when removing the "C" clamps, the stock springs are under tension and can be dangerous.** Repeat procedure on passenger side.

10. Locate the new progressive add-a-leaf spring packs and remove the centering bolt that is holding the progressive add-a-leaf spring packs together and discard the bolt and nut.

11. Locate (2) 7/16" x 6" centering bolts and (2) 7/16" centering bolt nuts from hardware bag CB716. Working on the driver side, install the new progressive add-a-leaf spring pack between the stock spring assembly and the stock axle. **Special note: The new progressive add-a-leaf spring pack has a bend on one end of the main leaf, the bend on the main leaf needs to be installed towards the front of the vehicle.** Secure the new progressive add-a-leaf spring pack to the stock spring assembly using the new 7/16" centering bolt and nut. **Torque to 42 ft lbs. Special note: To make installation easier, use a pair of "C" clamps to help bring the new progressive add-a-leaf spring pack and stock spring assembly together as one. Also Tuff Country E-Z Ride Suspension highly recommends not using any air tools when installing the new progressive add-a-leafs into the stock spring assembly. If air tools are used, the new centering bolt may strip, causing the stock spring assembly to come apart.** With a suitable cutting tool, cut off the extra thread from the new center-

ing bolt. Repeat procedure on passenger side.

**Photo # 1**

12. Carefully raise up on both hydraulic floor jacks at the same time until the stock axle perch seats properly into the newly installed progressive spring packs.

13. Locate (4) 9/16" x 3" x 10" semi-round u-bolts. Also, locate (8) 9/16" u-bolt high nuts and (8) 9/16" u-bolt washers from hardware bag 916NW. Working on the driver side, re-install the upper and lower u-bolt plates into the stock location and secure using the new 9/16" hardware. Torque to **120 ft lbs.** **Special note: If the progressive add-a-leaf spring pack that you are working on has not had the spring clamps bent around the stock springs, bend the spring clamps around the stock spring.** Repeat procedure on the passenger side.

14. Locate the new upper driver side track bar relocation bracket and the stock hardware that was removed from step # 6. Install the new upper driver side track bar relocation bracket to the stock location on the bottom side of the stock frame rail and secure using the stock hardware. **Do not tighten at this point. Make sure to use thread locker or lock tite.** Next, secure the ear of the new track bar relocation bracket to the back side of the stock cross member and secure using the stock hardware. **Make sure to use thread locker or lock tite. Special note: The stock track bar relocation bracket was installed towards the front of the stock cross member, the new track bar relocation bracket is going to be installed towards the rear of the stock cross member.** Torque the stock bolt to the stock cross member to **80 ft lbs.** Torque the stock bolts that hold the new track bar relocation bracket to the bottom side of the stock frame to **68 ft lbs.** **Special note: Do not use any air tools when working with the (3) stock bolts that hold the new track bar bracket into the new location. If air tools are used, the stock hardware may strip. Also make sure to use locktite.**

**Photo # 2**

15. Locate the stock track bar hardware that was removed in step # 6. Install the stock track bar to the previously installed track bar relocation bracket and secure using the stock hardware. Make sure to use thread locker or lock tite and torque to **135 ft lbs.** **Special note: If you are not able to install the stock track bar into the newly installed track bar relocation bracket, you may need to perform this step once the weight of the vehicle is on the ground.**

16. Locate the stock shocks and stock upper and lower shock hardware that was removed in step # 3. Working on the driver side, install the stock shock into the stock upper and lower location and secure using the stock hardware. **Special note: Make sure to use thread locker or lock tite and torque the lower mounting hardware to 65 ft lbs. and the upper stock shock hardware to 45 ft lbs. Also, if you are installing new shocks, Tuff Country E-**

**Z Ride Suspension recommends installing a 23" fully extended nitrogen gas shock.**

17. Locate the stock sway bar mounting hardware that was removed in step # 4. Working on the driver side, re-install the stock sway bar to the stock sway bar location and secure using the stock hardware. Repeat procedure on the passenger side. Torque the stock hardware to **14 ft lbs.**

18. Locate the stock brake line mounting hardware that was removed in step # 5. Working on the driver side, re-install the stock brake line bracket into the stock location and secure using the stock hardware. Repeat procedure on the passenger side.

19. Carefully remove both hydraulic floor jacks from under the vehicle.

20. Install the tires and wheels and safely lower the vehicle to the ground.

21. If you were not able install the stock track bar to the new track bar relocation bracket in step # 15, perform step # 15 now that the weight of the vehicle is on the ground.

22. If you were not able to install the stock track bar into the stock track bar location in step # 17, perform step # 17 now that the weight of the vehicle is on the ground.

23. Check and double to check to make sure that all steps were performed properly. Take your vehicle directly to an alignment center for proper alignment.

**Congratulations Installation Complete!**

**Take vehicle directly to a front end alignment shop and have a proper front end alignment performed.**

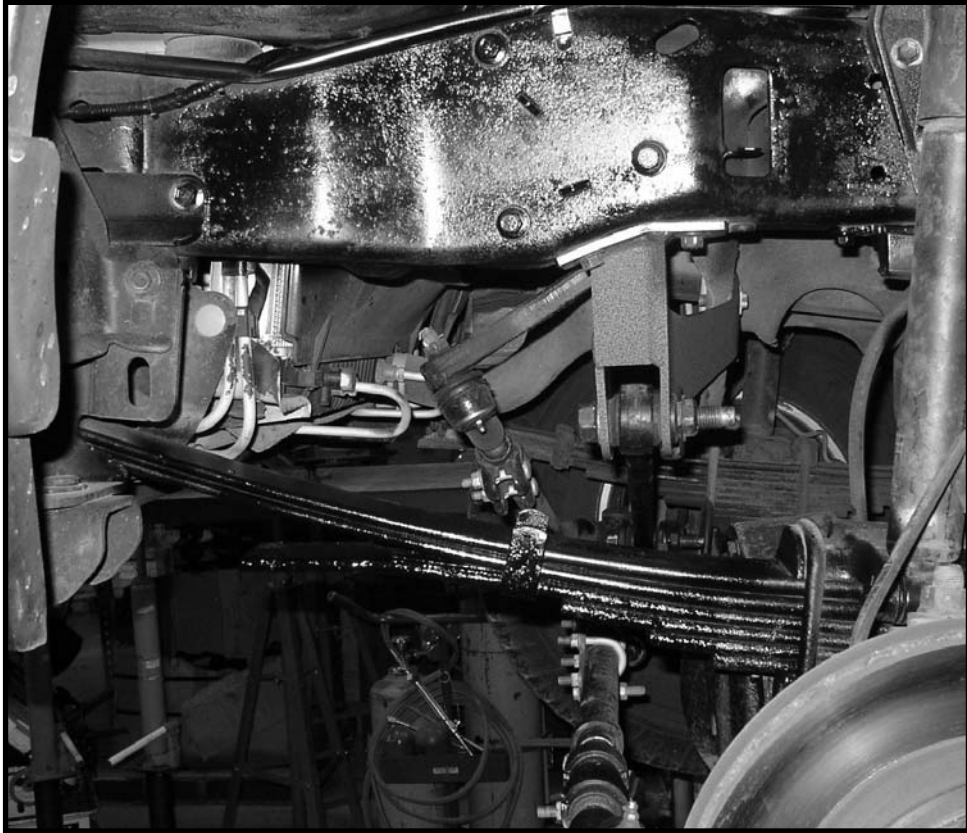
Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation.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

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

### **Torque Settings**

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



**Photo # 1**



**Photo # 2**