



**TUFF
COUNTRY™**

EZ - Ride Suspension

Part # 20816

1983 - 1997 Ford Ranger

1991 - 1994 Ford Explorer

4" twin eye beam axle pivot relocation bracket kit

<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
R401	Front axle pivot relocation bracket	1
R402	Rear axle pivot relocation brackets	1
R405	Rear axle pivot support bracket	1
20816NB	Hardware bag	1
CAM1NB	Hardware bag	1
200816INST	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.

Please see the end of the installation manual for a picture of the hard parts that are included in this suspension system.

Installation manual
4" twin eye beam axle pivot
relocation bracket kit
1983 - 1997
Ford Ranger 4WD
1991 - 1994
Ford Explorer
Part # 20816

sj05052011rev.01

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.

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

Special note: Before installation begins, 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 20816NB includes:

<u>Description</u>	<u>Quantity</u>
716112B (7/16" x 1 1/2" bolt)	5
716UN (7/16" unitorque nut)	5
38WA (3/8" USS flat washer)	10
12112B (1/2" x 1 1/2" bolt)	2
12UN (1/2" unitorque nut)	2
716WA (7/16" USS flat washer)	4

Hardware bag CAM1NB includes:

<u>Description</u>	<u>Quantity</u>
CAM-01 (9/16" x 3 1/2" cam bolt)	2
CAM-02 (cam washer)	4
916UN (9/16" unitorque 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 jacks
Air chisel

Please follow instructions carefully:

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 vehicle with a pair of jack stands. Place a jack stand on both the driver and the passenger side. **Special note: Place the jack stands on the body mounts.**

2. Place a pair of hydraulic floor jacks under the front driver and passenger side twin eye beam axles. Carefully raise up on the hydraulic floor jacks until they come into contact with the front twin eye beam axles.

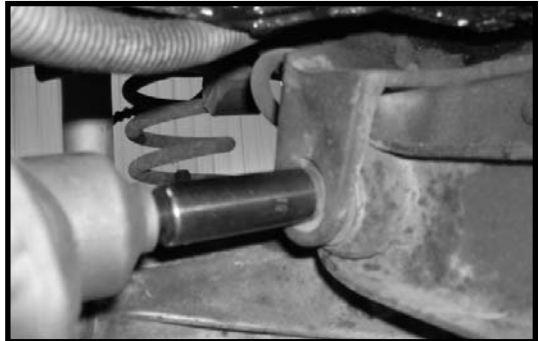
3. Working on the front driver side twin eye beam axle, remove the stock mounting hardware that connects the front twin eye beam axle to the stock bracket. The stock hardware may be discarded.



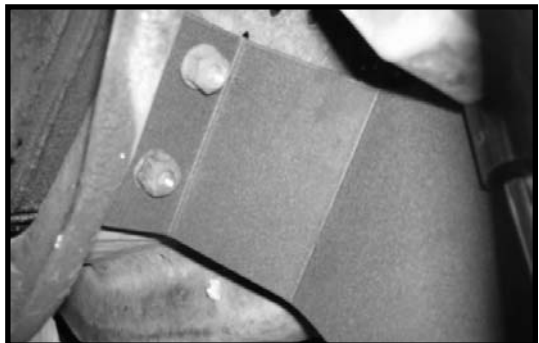
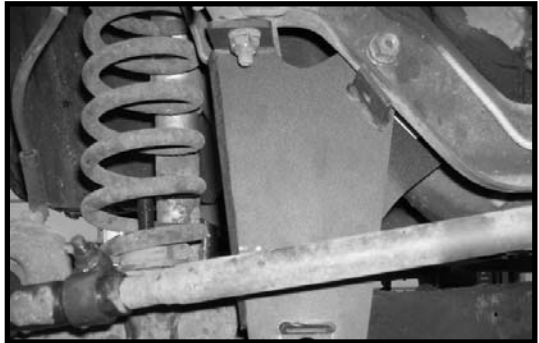
4. Working on the front driver side twin eye beam axle bracket, remove the stock bracket from the stock location. Save the stock hardware but the the stock bracket may be discarded.



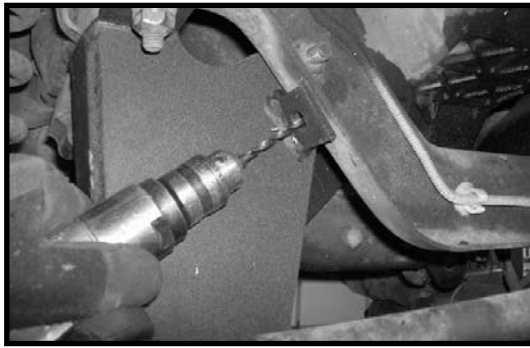
5. Working on the rear passenger side twin eye beam axle, remove the stock mounting hardware that connects the rear axle to the stock location. The stock hardware may be discarded.



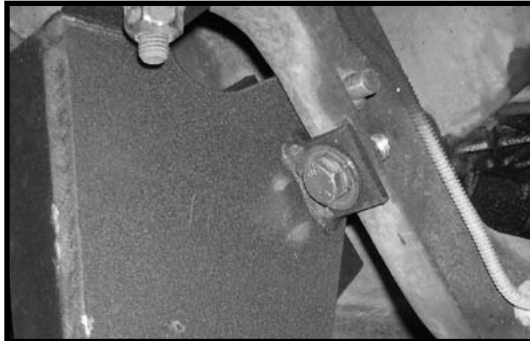
6. Locate the new front twin eye beam relocation bracket and the stock hardware. Install the new front relocation bracket to the stock location and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **85 ft lbs.**



7. Working on the newly installed front twin eye beam axle pivot relocation bracket and using the tab on the bracket as a guide, carefully drill a 1/2" hole into the stock front cross member. **Special note: Take special care not to drill into the cooling lines that wrap around the front cross member. Also, drilling a pilot hole first may make drilling easier.**



8. Locate (1) 1/2" x 1 1/2" bolts, (2) 7/16" USS flat washers and (1) 1/2" unitorque nuts from hardware bag 20816NB. Secure the newly installed front axle pivot relocation bracket to the front cross member using the new 1/2" x 1 1/2" bolt and hardware. Make sure to use thread locker or loctite and torque to **75 ft lbs.**

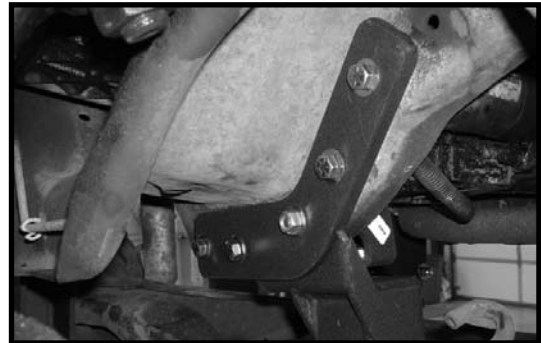


9. Working on the stock rear axle pivot relocation bracket, remove the rivets holding the bracket to the cross member. **Special note: Using a die grinder and making a cross cut on the rivets then using an air chisel will help make the removal of the rivets easier.** The stock bracket may be discarded. Carefully drill out the (5) rivet holes to 7/16".



10. Locate the new rear twin eye beam axle pivot relocation bracket and new support bracket. Also, locate (5) 7/16" x 1 1/2" bolts, (1) 1/2" x 1 1/2" bolts, (10) 3/8" USS flat washers, (2) 7/16" USS flat washers, (5) 7/16" unitorque nuts and (1)

1/2" unitorque nut from hardware bag 20816NB. **Special note: The stock axle pivot bracket was attached to the front of the stock cross member, the new bracket will be attached to the back side of the stock cross member.** Secure the new rear twin eye beam axle pivot relocation bracket to the back side of the stock cross member using the new 7/16" x 1 1/2" bolts and hardware. **Do not tighten at this point. Special note: For now, only attach the bracket by the (4) outer holes.** Attach the new support bracket to the top of the box portion of the new bracket using the new 1/2" x 1 1/2" bolts. **Do not tighten at this point.** Now secure the support bracket to the rear portion of the cross member and newly installed rear twin eye beam axle pivot relocation bracket using the new 7/16" x 1 1/2" bolts and hardware. **Special note: The stock cross member is going to be between the newly installed rear axle pivot bracket and support bracket.** Move back to the newly installed 7/16" x 1 1/2" bolts and add some thread locker or loctite and torque to **45 ft lbs.** Move back to the newly installed 1/2" x 1 1/2" bolt and hardware and add some thread locker or loctite and torque to **65 ft lbs.**



13. Locate (1) 9/16" x 3 1/2" cam bolt, (2) cam washers and (1) 9/16" unitorque nut from hardware bag CAM1NB. Carefully raise up on the hydraulic floor jack that is supporting the driver side front twin eye beam axle until it slides up into the newly installed bracket. Secure the axle to the new bracket using the new cam bolt and hardware. Make sure to

use thread locker or loctite and torque to **85 ft lbs.** **Special note: Make sure to install the bolt from the front of the vehicle to the rear of the vehicle. Also, for now place the cam washer in the center position.**



14. Locate (1) 9/16" x 3 1/2" cam bolt, (2) cam washers and (1) 9/16" unitorque nut from hardware bag CAM1NB. Carefully raise up on the hydraulic floor jack that is supporting the passenger side front twin eye beam axle until it slides up into the newly installed bracket. Secure the axle to the new bracket using the new cam bolt and hardware. Make sure to use thread locker or loctite and torque to **85 ft lbs.** **Special note: Make sure to install the bolt from the rear of the vehicle to the front of the vehicle. Also, for now place the cam washer in the center position.**



28. If you have not already done so, remove all the hydraulic floor jacks from under the vehicle. Check and double check to make sure that all steps have been performed properly and check again. Carefully lower the vehicle to the ground.

Installation completed!

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.



R401 / Qty. 1
Front axle pivot relocation
bracket / (large)



R402 / Qty. 1
Rear axle pivot relocation
bracket / (small)



R405 / Qty. 1
Rear axle pivot
relocation support bracket