



## **EZ - Ride Suspension**

# **Installation manual**

## **6" extended radius arms**

### **1981 - 1996**

### **Ford F150**

### **Part # 20861**

sj122109rev.01

**Part # 20861**

**1981 - 1996 Ford F150 or Bronco**  
**6" extended radius arms**

<b><u>Part #</u></b>	<b><u>Description</u></b>	<b><u>Qty.</u></b>
F2XRB-01	DS extended radius arm	1
F2XRB-02	PS extended radius arm	1
F6XRB-03	DS extended radius arm relocation bracket	1
F6XRB-04	PS extended radius arm relocation bracket	1
20801NB	Hardware bag	1
20861INST	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.**

### **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 20801NB includes:

<u>Description</u>	<u>Quantity</u>
12112B (1/2" x 1 1/2" bolt)	8
12UN (1/2" unitorque nut)	8
716WA (7/16" USS flat washer)	16
PB2408 (Poly bushing)	4
S10081 (.875" x .563" x 2.080" sleeve w/hole)	2
CAM-02 (cam washer)	4
CAM-03 (9/16" x 4" cam bolt)	2
916UN (9/16" unitorque nut)	2
SERT (sert fitting)	2
LUBE (poly lube)	2

Recommended tools selection:

Torque wrench  
Standard socket set  
Standard wrench set  
Metric socket set  
Metric wrench set  
Tape measure  
Hydraulic floor jacks  
Air chisel  
Drill bit  
Drill

**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, this will allow for the new extended radius arms to be installed.** Next, remove the front wheels and tires from both sides.

2. Working on the driver side, remove the stock shock from the stock upper and lower mounting location. Save the stock lower mounting hardware. The upper mounting hardware and shock may be discarded. **Special note: Some vehicles come stock with multiple shocks in the front end.** Repeat procedure on the passenger side.



3. Working on the driver side, remove the stock sway bar from the frame mounting location. Save the stock hardware. Now remove the stock sway bar from the stock end link and save the stock hardware. Repeat procedure on the passenger side. Set the stock sway bar aside.



5. 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. Also, place a pair of hydraulic floor jacks under the driver and passenger side stock radius arms. Carefully raise up on the hydraulic floor jacks until they come into contact with the stock radius arms.

6. Working on the driver side stock radius arm bracket, remove the stock hardware or the stock rivets that connect the bracket to the frame rail. The stock hardware and rivets may be discarded. Repeat procedure on the passenger side. **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.**



7. Make sure that the hydraulic floor jacks are supporting the front and rear twin eye beam axles and the stock radius arms.

8. Working on the driver side, remove the stock coil clip from the stock location and save the stock hardware and coil clip. Now remove the stock hardware that connects the coil spring to the stock front twin eye beam axle. Save the stock nut and coil washer. Remove the stock coil spring and set aside. Repeat procedure on the passenger side.



9. Working on the driver side, remove the stock lower coil spring/swerve bar bracket and set aside. Repeat procedure on the passenger side.



10. Working on the driver side, remove the top stock bolt that connects the stock radius arm to the stock front driver side twin eye beam axle. Save the stock bolt. Repeat procedure on the passenger side.



11. Working on the driver side, remove the bottom stock bolt that connects the stock radius arm to the stock front driver side twin eye beam axle. Save the stock bolt. Repeat procedure on the passenger side.



12. Working on the driver side, remove the (2) stock bolts that connect the lower shock bracket to the stock front twin eye beam axle. Save the stock hardware and bracket. Repeat procedure on the passenger side.



13. Working on the driver side, remove the stock radius arm from the stock location and discard. Repeat procedure on the passenger side.



14. Working on the driver side, place a reference mark in the middle of the rear stock radius arm bracket hole that was attached to the frame rail. **Special note: this is the hole that is under the body mount bushing.** Repeat procedure on the passenger side.



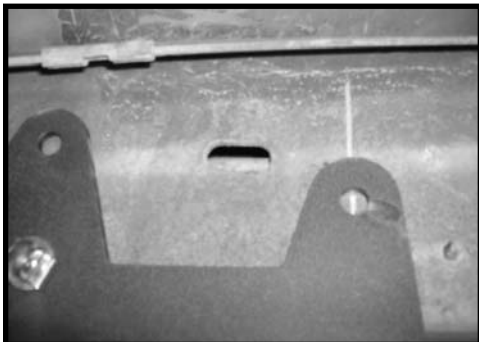
15. Working on the driver side, measure from the line that was scribed in step # 14 towards the rear of the vehicle 15" and scribe another line. **Special note: Check and double check to make sure that this measurement is correct. If this measurement is not correct, once the new bracket and new extended radius arms are installed the front axles may be sitting to far forward or to far back.** Repeat procedure on the passenger side.



16. Working on the driver side, remove the stock nut that connects the stock transfer case cross member to the stock frame rail. Save the stock hardware. Repeat procedure on the passenger side.

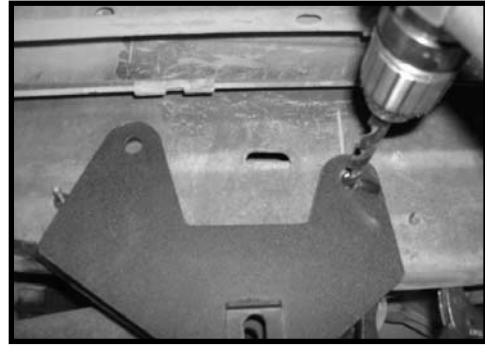


17. Locate the new driver and passenger side extended radius arm relocation bracket. Working on the driver side and using a pair of vise grips, clamp the new driver side extended radius arm relocation bracket to the stock frame rail making sure that the rear hole in the new bracket is centered with the marked that was scribed in step # 15. Repeat procedure on the passenger side. **This photo is showing the driver side extended radius arm relocation bracket.**



18. Working on the driver side and using the new extended radius arm bracket as a guide, carefully drill (4) 1/2" hole into the frame rail. **Special note: there will be (2) holes on the side of the frame rail and (2) on the bottom of the frame rail. Also, take special care not to drill into any wires or hoses that could be running down the inside of the stock frame rail.** Repeat procedure on the passenger side. **This photo is showing the driver side extended radius**

#### arm relocation bracket.



19. Locate (8) 1/2" x 1 1/2" bolts, (16) 7/16" USS flat washers and (8) 1/2" unitorque nuts from hardware bag 20801NB. Also, locate the stock transfer case cross member nuts that were removed. Working on the driver side, secure the new driver side extended radius arm relocation bracket to the stock frame rail using the new 1/2" x 1 1/2" bolts and hardware. Make sure to use thread locker or loctite and torque to **75 ft lbs.** Now install the stock transfer case cross member nut into the stock location. Make sure to use thread locker or loctite and torque to **55 ft lbs.** **These photos are showing the driver side extended radius arm relocation bracket.** Repeat procedure on the passenger side.



20. Locate the new driver and passenger side extended radius arms. Locate (2) sert fittings from hardware bag 20801NB. Install the new sert fittings into the eyelet ends of the new extended radius arms. **Take special care not to**

damage the sert fitting during installation.



21. Locate (4) PB2408 poly bushings, (2) S10081 sleeves from hardware bag 20801NB. Install the bushings and sleeves into the eyelet ends of the new extended radius arms. **Special note: Make sure to use a lithium or moly base grease prior to inserting the bushings and sleeves into the new extended radius arms. This will help increase the life of the bushings as well as prevent squeaking.**



22. Locate the stock lower shock bracket and hardware. Also, locate the top stock bolt that connected the stock radius arm to the stock front twin eye beam axle. Working on the driver side, install the new driver side radius arm to the stock front twin eye beam using the lower shock bracket and the stock hardware. Make sure to use some thread locker or loctite. Torque the top stock bolt to **145 ft lbs.** and the shock bracket hardware to **45 ft lbs.** **Special note: A good way to tell the difference between the new driver and passenger side extended radius arms is when they are installed, they will angle towards the center of the vehicle then out to the new extended radius arm relocation brackets.** Repeat procedure on the passenger side.

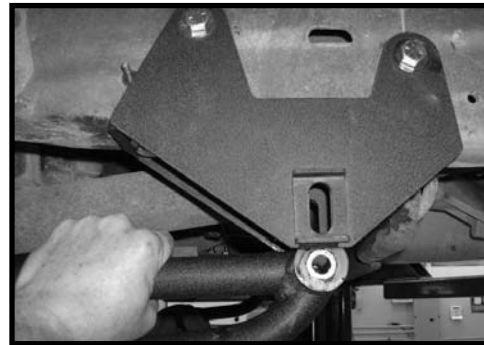


23. Locate the bottom stock bolt that connected the stock radius arm to the stock front twin eye beam. Working on the driver side, secure to newly installed driver side extended radius arm to the bottom of the stock front twin eye beam using the stock hardware. Make sure to use thread locker or loctite and torque to **145 ft lbs.** Repeat procedure on the

passenger side.



24. Locate (2) 9/16" x 4" cam bolts, (4) cam washers and (2) 9/16" unitorque nuts from hardware bag 20801NB. Working on the driver side, install the newly installed driver side extended radius arm into the newly installed driver side extended radius arm relocation bracket and secure using the new cam bolts and hardware. Make sure to add some thread locker or loctite and torque to **95 ft lbs.** **Special note: For now, place the cam washer in the center position.** Repeat procedure on the passenger side. **These photos are showing the driver side extended radius arm and the extended radius arm relocation bracket.**



25. Locate the stock lower coil spring/sway bar brackets. Working on the driver side, install the stock lower coil spring/sway bar bracket into the stock location. Repeat procedure on the passenger side.





26. Locate the front coil springs. Also, locate the stock lower coil spring washer and hardware. Working on the driver side, install the coil spring into the stock location and secure using the stock hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.



27. Locate the stock upper coil clip and hardware. Working on the driver side, secure the coil spring into the stock location and secure using the stock coil clip and hardware. Make sure to use thread locker or loctite and torque to **14 lbs.** Repeat procedure on the passenger side. Move back to the driver and passenger side stock hardware holding the coil spring into the stock lower location and add some thread lock or loctite and torque to **145 ft lbs.**



28. Locate the stock sway bar and the stock sway bar lower hardware. Working on the driver side, install the stock sway bar end link into the stock location and secure using the stock hardware. **Do not tighten at this point.** Repeat pro-

cedure on the passenger side. Let the stock sway bar hang.



29. Locate the stock upper frame sway bar mounting hardware. Working on the driver side, secure the sway bar to the stock location using the stock hardware. Repeat procedure on the passenger side. Add some thread locker or loctite on the stock hardware and torque to **38 ft lbs.** Move back to the stock lower sway bar end link mounting hardware and add some thread locker or loctite on both the driver and passenger side and torque to **65 ft lbs.**

30. Locate the shocks that were removed and stock hardware. Working on the driver side, install the shocks into the stock location using the stock hardware. Make sure to use thread locker or loctite on the bottom hardware and torque to **65 ft lbs.** and the upper hardware to **18 ft lbs.** Repeat procedure on the passenger side.

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

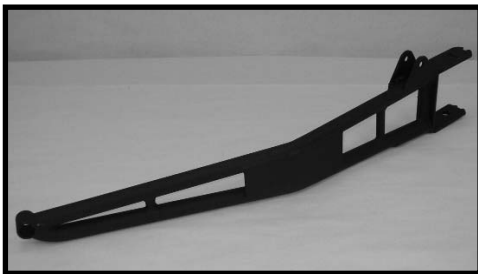
**Congratulations, installation complete!**

**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.**

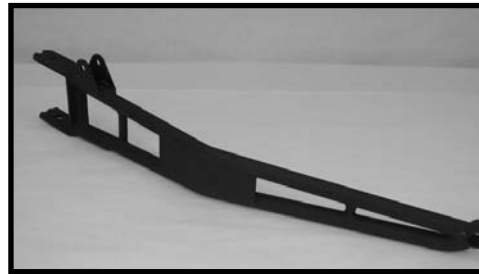
**Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation.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



**F2XRB-01 / Qty. 1**  
**DS extended radius arm**



**F2XRB-02 / Qty. 1**  
**PS extended radius arm**



**F6XRB-03 / Qty. 1**  
**DS extended radius arm  
relocation bracket**



**F6XRB-04 / Qty. 1**  
**PS extended radius arm  
relocation bracket**