



**Installation Instructions**

1 1/2" rear add-a-leaf  
 2003 - 2008  
 Dodge Ram 2500 / 3500  
 Part # 82450

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 1 1/2" rear add-a-leaf

<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
TCI-R24	Rear add-a-leaf	2
CB12	Hardware bag	2
82450INST	Instruction sheets	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.

**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.

**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 loctite on all new and stock hardware associated with this installation.

**Important information that needs to be read before installation begins:**

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.

**Special note:** Before installation begins, it is the customers/installers responsibility to make sure that all parts are on hand.

**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

**Hardware bag CB12 includes:**

<u>Description</u>	<u>Quantity</u>
CB121 (1/2" x 6" centering bolts)	2
12FN (1/2" fine nut)	2

**Rear add-a-leaf installation:**

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

1. To begin installation, remove the stock front end links from the stock location and save the stock hardware. Now, 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.

2. Position a pair of hydraulic floor jacks under the rear axle. Place one jack stand on the driver side and one on the passenger side. Raise up on both hydraulic floor jacks at the same time until they make contact with the rear axle.

3. Working on the driver side, remove the stock shock from the stock axle mount location. Save the stock hardware. The upper mount does not need to be removed, let the shock hang. Repeat procedure on the passenger side.

4. Working on the driver side, remove the (2) rear u-bolts. Save the rear u-bolts and hardware. Set the stock upper u-bolt plate aside. Repeat procedure on passenger side.

5. Lower down on both hydraulic floor jacks at the same time until the stock springs separate from the stock rear axle. Lower down approximately 4". **Special Note: Make sure not to over extended any brake lines or hoses when lowering axle.**

6. Place a pair of "C" clamps on both sides of the new centering bolts and tighten until the "C" clamps hold the stock springs together. Remove the stock centering bolts that connect the stock together and discard. Carefully remove the "C" clamps from the stock springs. **Special note: Take special care when removing the "C" clamps because the springs are under tension.**

7. Locate the new rear a-a-leaf. Also, locate (2) 1/2" x 6" bolts and (2) 1/2" fine nuts from hardware bag CB12. Working on the driver side, install the new add-a-leaf between the stock over load and the stock spring assembly. Secure using the new 1/2" centering bolts and nuts. For now, just get the nuts

started. Then using a pair of "C" clamp vise grips, carefully bring the new add-a-leaf and stock spring assembly together. Once the new add-a-leaf and the stock springs have been brought together, tighten the new 1/2" centering bolts to 54 ft lbs. **Special note: Using a die grinder, carefully cut off the excess thread on the centering bolts so that the upper u-bolt plate can be installed properly.**



8. Repeat step # 5 - 7 on the passenger side.

9. Carefully raise up on both hydraulic floor jacks at the same time until the rear axle makes contact with the stock spring assemblies.

10. Locate the u-bolts, u-bolt hardware and upper u-bolt plates. Working on the driver side, secure the new rear add-a-leaf and the stock spring assembly to the rear axle and secure using the u-bolts, u-bolt hardware and upper u-bolt plates. Torque to **120 ft lbs**. Repeat procedure on the passenger side.

11. Locate the stock lower shock hardware. Working on the driver side, secure the stock shock into the stock lower shock mounting point and secure using the stock hardware. Make sure to use thread locker or loctite and torque to **85 ft lbs**. Repeat procedure on the passenger side.

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

13. Check and double check to make sure that all steps have been performed properly and check again.

14. 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.**

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

**After completion of the installation, Tuff Country EZ-Ride Suspension highly recommends that the installer informs the customer that whenever they have their vehicle lifted in the air by the frame rail, the front sway bar end links need to be disconnected from the stock sway bar. If this is not done, damage will occur to the stock front end links.**