



EZ - Ride Suspension

INSTALLATION MANUAL 2" SUSPENSION SYSTEM 2001 — 2004 JEEP LIBERTY PART # 42025

SJ071404rev.01

PART NUMBER : 42025
2001— 2004 JEEP LIBERTY
2" SUSPENSION SYSTEM

PARTS LIST:

Part #	Description	Qty.
42025-01	Strut spacer	2
42025-02	Rear poly spacer	2
42025SL	Sleeve bag	1
42025INST	Instruction sheet	1

Special Note:

A strut compressor is going to be needed to perform this installation. If you do not have a strut compressor you may rent one from your local Auto Parts store.

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 locktite on all new and stock hardware associated with this installation.

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 500 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 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.

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.

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.

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 procedure.

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.

Hardware bag 42025SL includes:

<u>Description</u>	<u>Quantity</u>
S10090 / 1.000" x .500" x .400	8

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.

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 Front: _____
Passenger Side Front: _____
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 Front: _____
Passenger Side Front: _____
Driver Side Rear: _____
Passenger Side Rear: _____

1. To begin installation, working in the engine compartment, carefully remove the stock air box from the stock location. Place the stock air box a side for later re-installation.

2. 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 wheels and tires from both sides.

3. Working on the passenger side, remove the stock nut and bolt from the bottom of the stock strut fork and save for later re-installation. Next, remove the stock bolt from the top of the strut fork and set a side for later re-installation. **Special note: Remove the bolt from the stock strut fork not the stock strut.**

4. Working on the passenger side, remove the stock upper ball joint nut from the stock upper control arm and save the stock nut for later re-installation. Carefully break the stock taper on the stock ball joint and the stock upper control arm. **Special note: Take special care not to rip or tear the stock ball joint dust boot. If damage occurs during removal, Tuff Country highly recommends replacing the stock ball joint boot.**

5. Working on the passenger side, carefully remove the stock strut fork from the stock strut assembly. Place the stock strut fork a side for later re-installation. **Special note: The use of a pry bar may be need to make removal of the stock strut fork easier.**

6. Working on the passenger side, carefully remove the 2 stock nuts holding the cruise control bracket to the stock location above the stock strut and save the stock hardware for later re-installation. Carefully lift the stock cruise control bracket up and out of the way to make access to the stock hardware on top of the stock strut.

7. Working on the passenger side, carefully remove the stock nuts that secure the stock strut into the stock upper location. Save the stock nuts for later re-installation. Remove the stock strut from the stock location and set a side for further instruction.

Special note: A strut compressor is going to be needed to perform this installation. If you do not have a strut compressor you may rent one from your local Auto Parts store.

8. Working on the passenger side strut, scribe a line down the entire strut from the top of the strut to the bottom. **Special note: If this step is not performed properly re-installing the strut back into the vehicle will be difficult.**

9. Working on the passenger side strut, using a strut compressor, carefully compress the stock strut and remove the stock nut and washer holding the stock strut together. Set the stock nut aside for later re-installation. Carefully release the tension from the stock strut.

10. Working on the passenger side strut, carefully remove the stock top plate and remove the stock rubber isolator from the stock top plate.

11. Locate (1) new front strut spacer. Install the stock rubber isolator that was removed in step # 10 to the new front strut spacer and insert the new strut spacer and the stock rubber isolator into the stock spring with the small

diameter facing downwards.

12. Working on the passenger side strut and using a strut compressor, carefully compress the stock strut enough so that the stock strut upper plate can be installed.

13. Locate the stock strut upper plate that was removed in step # 10. Working on the passenger side strut assembly, install the top plate onto the new strut spacer. **Special note: Make sure that you align the marks that where scribed in step # 8, if this is not done properly, re-installation of the stock strut will be not be possible.** Once the stock upper plate is installed, locate the stock upper strut nut and washer that was removed in step # 9 and secure into the stock location. **Special note: Make sure to use thread locker or lock tite.** Torque the stock hardware to **30 ft lbs.** Carefully remove the strut compressor.

14. Locate (4) S10090 spacer sleeves from hardware bag 42025SL. Working on the passenger side strut assembly, install the new S10090 spacer sleeves over the stock studs on the top of the stock strut.

15. Locate the stock hardware that was removed in step # 7. Working on the stock passenger side strut, install the stock passenger side strut into the stock location and secure using the stock hardware. **Special note: Make sure that the keyway on the lower strut is facing towards the outside of the vehicle. Make sure to use thread locker or lock tite.** Torque to the stock nuts to **80 ft lbs.**

16. Locate the stock nuts that hold the stock cruise control bracket into the stock location that was removed in step # 6. Working on the passenger side, re-install the stock cruise control bracket back into the stock location and secure using the stock hardware. **Make sure to use thread locker or lock tite.** Torque to **30 ft lbs.**

17. Locate the passenger side stock strut forks that were removed in step # 5. Working on the passenger side, install the stock lower strut fork, making sure that the keyway is lined up and seated properly to the stops.

18. Locate the stock lower fork hardware that was removed in step # 3. Working on the passenger side, secure the lower strut fork into the stock location and secure using the stock hardware. **Special note: Make sure to use thread locker or lock tite.** Torque to **100 ft lbs.** Now install the stock bolt to the top of the stock strut fork. **Special note: Make sure to use thread locker or lock tite.** Torque to **100 ft lbs.**

19. Locate the stock passenger side upper ball joint nut that was removed in step # 4. Working on the passenger side, install the stock upper ball joint to the stock upper control arm and secure using the stock hardware. **Make sure to use thread locker or lock tite.** Torque to **60 ft lbs.**

Complete step # 3 — 19 on the driver side. **Special note: There is not a cruise control bracket on the driver side. Please skip the steps that talk about the stock passenger side cruise control bracket.**

20. Replace the stock front tires and wheels and torque the stock lug nuts to **85 ft lbs.** Carefully lower the vehicle to the ground.

21. Locate the stock air box and filter that was removed in step # 1 and re-install the stock air box and filter into the stock location.

Special note: If installing after market wheels, you may need to remove the retaining clips on the stock wheel studs for trueness of wheels.

Congratulation, front end installation complete!

Rear end installation:

22. To begin installation, make sure that the parking brake is on. 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.

23. 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.

24. Working on the driver side, carefully remove the stock upper hardware that connects the stock shock into the stock location and save the stock hardware for later re-installation. Repeat procedure on the passenger side.

25. At the same time, carefully lower down on both hydraulic floor jacks at the same time until the rear suspension is fully dropped down.

26. Working on the driver side, carefully remove the stock bump stop out of the stock bump stop location and set a side for later re-installation. Repeat procedure on the passenger side.

27. Working on the driver side, carefully remove the stock rear coil spring from the stock location and set a side for later re-installation. **Special note: Tuff Country highly recommends using a coil spring compressor.** Repeat procedure on the passenger side.

28. Working on the driver side, remove the stock lower rubber insulator pad located on the rear differential and discard. Repeat procedure on the passenger side.

29. Locate the rear coil spring spacers. Working on the driver side, install the new rear coil spring spacer on the rear differential in place of the stock rubber insulator with the small diameter facing up. Repeat procedure on the passenger side.

30. Working on the driver side, re-install the stock rear coil spring into the stock location. Repeat procedure on the passenger side. **Special note: Tuff Country highly recommends using a coil spring compressor to make rear coil installation easier.**

31. Locate the stock bump stops that were removed in step # 26. Working on the driver side, install the stock bump stop into the stock location. Repeat procedure on the passenger side.

32. Locate the stock upper shock hardware that was removed in step # 24. Carefully raise up on both hydraulic floor jacks at the same time until the stock shock can be re-installed into the stock upper location. Working on the driver side, install the stock shock into the stock upper location using the stock hardware. **Make sure to use thread locker or lock tite.** Torque to **30 ft lbs.** Repeat procedure on the passenger side.

33. Carefully remove both hydraulic floor jacks from under the rear differential.

34. Replace the tires and wheels and torque to **85 ft lbs.** Carefully lower the vehicle to the ground.

Congratulations, installation complete

Tuff Country highly recommends have a front end alignment performed once the suspension system has been installed to ensure for proper tire wear.

If you have any questions and or concerns about the installation please feel free to contact our customer service department.