TUFF COUNTRY™

EZ - Ride Suspension

Installation manual
2007 - 2012 Chevy/GMC
1500 4x4
Front leveling kit
Part # 12000

sj11152011rev.03

Part # 12000
2007 - 2012 Chevy/GMC
1500 4x4
2" front leveling kit

Part #	***Description***	***Qty.***
12000-01	Front strut spacers	2
12000NB	Hardware bag	1
12000INST	Instruction sheet (customer copy)	1
12000INST	Instruction sheet (installer copy)	1
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 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. If any parts are missing, please feel free to call one of our customer service representatives @ (801) 280-2777.

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.

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.

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.

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**

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:

Once part # 12000 has been installed. Tuff Country recommends a 285/70 tire package. If larger than a 385/70 tire package is installed on your vehicle in conjunction with part # 12000; Tuff Country assumes no liability and the warranty will be VOID.

If upgrading to a larger tire with aftermarket rims, a positive 30 mm offset is required. If lower than a positive 30 mm offset wheel is used, trimming is required. If this kit is installed with factory rims, no trimming will be required.

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.

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.

Tuff Country EZ-Ride Suspension recommends a wall mounted strut compressor be used when performing the steps that talk about installing the strut spacer into the strut. If you do not have a wall mounted strut compressor, please have these steps performed by your local Toyota Dealership.

Hardware bag 12000NB includes:

Description	Quantity
M10FHN (10 mm fine high nut)	6
7161B (7/16" x 1" bolt)	6
38WA (3/8" flat washer)	6
716LWA (7/16" lock washer)	6

Recommended tools selection:

Torque wrench
Standard socket set
Standard wrench set
Metric socket set
Metric wrench set
Tape measure
Hydraulic floor jacks

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:_____

At the end of the installation take the same measurements and compare to the pre-installation measurements.

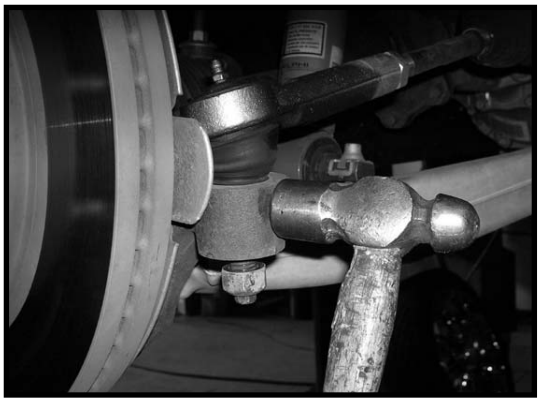
Post installation measurements:

Driver side front:_____
Passenger side front:_____

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 the passenger side. Next, remove the front wheels and tires from both sides.

2. Working on the driver side, loosen but do not remove the nut that connects the outer tie rod to the knuckle. Carefully break the taper from the outer tie rod and the knuckle. Once the taper had been broken, remove the nut and set aside. **Special note: Take special care not to damage the outer tie rod or the dust boot. A helpful tip is to hit the knuckle with a hammer to break the taper.** Repeat procedure on the passenger side.

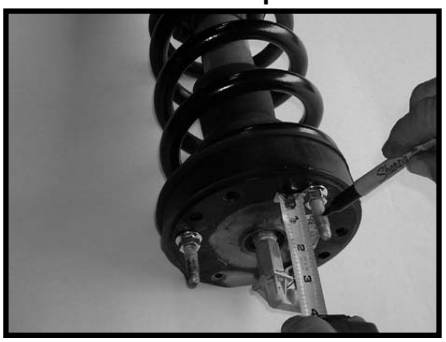


3. Working on the driver side, loosen but do not remove the nut that connects the upper control arm ball joint to the knuckle. Carefully break the taper from the upper control arm ball joint and the knuckle. Once the taper had been broken, remove the nut and set aside. **Special note: Take special care not to damage the upper control arm ball joint or the dust boot. A helpful tip is to hit the knuckle with a hammer to break the taper.** Repeat procedure on the passenger side.

4. Working on the driver side, remove the hardware that connects the strut to the lower control arm. Save the hardware for later re-installation. Repeat procedure on the passenger side.

5. Working on the driver side, remove the (3) nuts that hold the strut into the upper location. The nuts may be discarded. Remove the strut from the vehicle and set aside. Repeat procedure on the passenger side. **Special note: Make sure to mark the driver side and passenger side strut before removal. This is done so that when you re-install the modified struts back into the vehicle you will install the driver side strut on the passenger side of the vehicle and install the passenger side strut on the driver side.**

6. Locate (6) new 10 mm flange nuts from hardware bag 12000NB. Install the new 10 mm flange nuts on the studs of the struts. Make sure to tighten the nuts all the way down on the strut. Measure each stud to 7/8" and cut of the excess thread using a die grinder. Once all (6) studs have been cut to 7/8" remove the new 10 mm flange nuts from the studs and set aside for later re-installation. **Special note: You must install the 10 mm flange nuts before you cut the excess threads off. Then when you remove the new 10 mm flange nuts, it will clean the thread so you can install the new front spacer.**

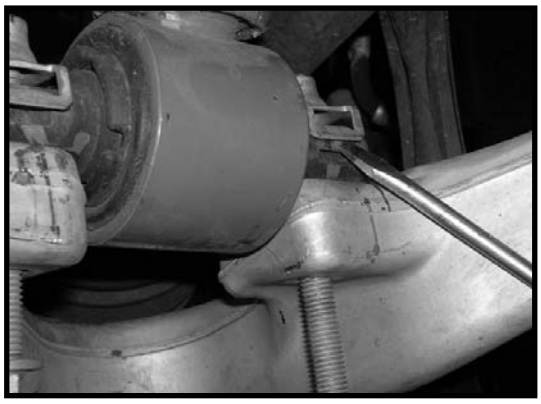


7. Locate the new front strut spacers. Install the new front strut spacers onto the strut and secure using the new 10 mm flange nuts. Make sure to use loctite and torque to **45 ft lbs.**

8. Locate the modified driver side strut. Also, locate (3) 7/16" x 1" bolts, (3) 3/8" USS flat washers and (3) 7/16" lock washers from hardware bag 12000NB. Install the modified driver side strut into the **PASSENGER** side upper location and secure using the new 7/16" x 1" bolts and hardware. **Do not tighten at this point.**

9. Locate the modified passenger side strut. Also, locate (3) 7/16" x 1" bolts, (3) 3/8" USS flat washers and (3) 7/16" lock washers from hardware bag 12000NB. Install the modified passenger side strut into the **DRIVER** side upper location and secure using the new 7/16" x 1" bolts and hardware. **Do not tighten at this point.**

10. Locate the lower strut hardware. Working on the driver side, install the lower front strut to the lower control arm and secure using the OE hardware. Make sure to use loctite and torque to **40 ft lbs.** Repeat procedure on the passenger side.



11. Locate the upper control arm mounting hardware. Place a hydraulic floor jack under the driver side lower control arm and carefully raise up on the hydraulic floor jack until the upper control arm can be attached to the knuckle. Secure using the hardware and torque to **65 ft lbs.** Repeat procedure on the passenger side.

12. Locate the outer tie rod hardware. Working on the driver side, attach the outer tie rod to the knuckle. Secure using the hardware and torque to **65 ft lbs.**

13. Working on the driver side, add some loctite to the (3) new 7/16" x 1" bolt holding the strut into the upper location and torque to **45 ft lbs.** Repeat procedure on the passenger side.

14. Remove the hydraulic floor jack from under the lower control arms.

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

16. 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!

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.