



Installation Manual

2020 Chevy/GMC 2500&3500 HD 3" Lift Kit

Part # 13014 & 13015

SS07092020

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2020 Chevy/GMC 2500 & 3500 HD 3" Lift Kit

Part #	Description	Qty.
13014-01	Driver side upper control arm	1
13014-02	Passenger side upper control arm	1
13014-03	Rear lift block	2
12014-01	Torsion bar key	2
5U-3431416S	Rear U-bolt	4
34NW	U-bolt hardware bag	1
*13014NB	Hardware bag	1
13014NB1	Hardware bag	1
**14056-02	Rear shock extension bracket	2
**13015NB	Hardware bag	1

* = Included in the 13014 kit only

** = Included in the 13015 kit only

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.

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.

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

After the completion of the installation, a front end alignment is required.

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 or 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.

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.

This Suspension kit comes with (1) installation manual and some post installation procedure literature and it is the installers responsibility to make sure that the customer receives the post installation procedure literature. If a customer would like a copy of the installation manual, please have them visit our website at www.tuffcountry.com. Have them go to the customer care section to download these instructions. If you have any questions, please feel free to call us at (801) 280-2777.

Tire and wheel size recommendation: 35"x12.50" on 20" x 9" 0 offset. If a 20" x 10" -18 offset is used, trimming will be required. **Our tire and wheel fitments are only a guideline. Different production times or tolerances will vary and this size should only be used as a starting point. Each vehicle is different and will need to be treated as such.**

Recommended tool selection:

Torque wrench
Standard socket set
Standard wrench set
Metric socket set
Metric wrench set
Tape Measure
Torsion bar key removal tool

13014NB Hardware bag:

Part #	Description	Qty.
9165B	9/16" x 5" bolt	2
916412B	9/16" x 4 1/2" bolt	2
12WA	1/2" flat washer	8
916UN	9/16" unitorque nut	4
122B	1/2" x 2" bolt	4
716WA	7/16" flat washer	4
12UN	1/2" unitorque nut	4

13014NB1 Hardware bag:

<i>Part #</i>	<i>Description</i>	<i>Qty.</i>
S10237	2.250" x .625" x .730" spacer	2
S10238	.850" x .630" x 2.560" sleeve	4
S10330	2.250 x .625" x .500" spacer	2
S10084	.875" X .500" X .750" spacer	4
TC-001	Poly bushing	8
SERT06	Threaded Grease fitting	4

13015NB Hardware bag:

<i>Part #</i>	<i>Description</i>	<i>Qty.</i>
9165B	9/16" x 5" bolt	2
916412B	9/16" x 4 1/2" bolt	2
9163B	9/16" x 3" bolt	2
12WA	1/2" flat washer	12
916UN	9/16" unitorque nut	6
122B	1/2" x 2" bolt	4
716WA	7/16" flat washer	4
12UN	1/2" unitorque nut	4

With the vehicle sitting on a level surface and under its own weight, record ride height measurements by measuring from the center of the wheel hub up to the leading edge of the front fender. Record measurements below.

Pre Installation Measurements:

Driver side front : _____
Driver side rear: _____
Passenger side front : _____
Passenger side rear: _____

Post Installation Measurements:

Driver side front : _____
Driver side rear: _____
Passenger side front : _____
Passenger side rear: _____

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 both the driver and passenger side frame rail with jack stands. Remove the tires and wheels from both sides.

2. Remove the lower skid plate from the OE location. Save

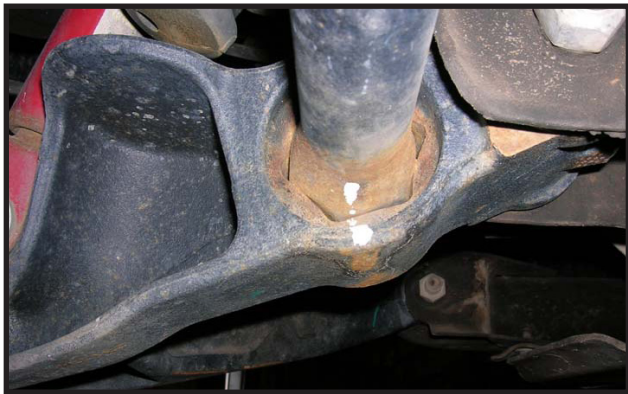
the lower skid plate and hardware for later re-installation.



3. Working on the driver side shock absorber, remove the 2 upper mounting nuts, and lower mounting bolt with hardware. Remove the shock from the vehicle and set aside. Repeat on the passenger side.



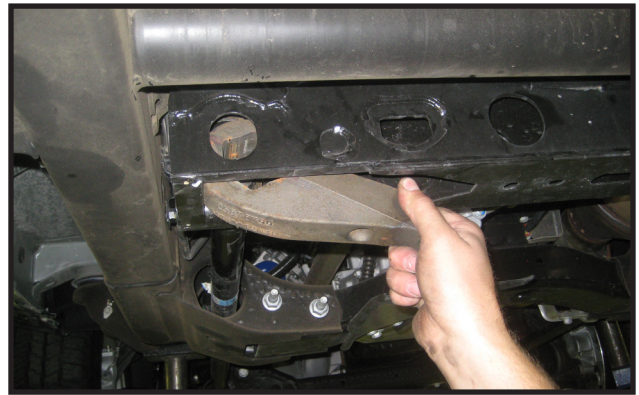
4. Working on the driver side. Scribe or color a mark on the torsion bar where it slides into the lower control arm. **Special note: this is done so that the torsion bar can be put back into the same location of the lower control arm once the new torsion bar key is installed.** Repeat on the passenger side.



5. Working on the driver side and using a proper torsion bar unloading tool **Special note: Tuff Country requires that a proper torsion bar unloading tool be used when performing this installation. If you do not have one, please contact your local GM dealer to purchase one from.** Carefully remove the torsion bar adjustment bolt and block and set aside.



6. Remove the torsion bar unloading tool and carefully tap the torsion bar forward until you can remove the torsion bar key from the crossmember. **Repeat Steps 5 & 6 on the passenger side.**



7. Working on the driver side, place a suitable jack under the lower control arm and carefully raise on it about 1".

8. Remove the hardware that attaches the upper ball joint to the top of the steering knuckle



9. Carefully separate the upper ball joint from the steering knuckle by using a hammer to strike the knuckle and breaking it loose.





10. Remove the cam adjusting bolts that hold the upper control arm to its frame mounts. **Take note of the location of these bolts.**



11. Remove the OE upper control arm from the vehicle.

Repeat steps 7 -11 on the passenger side.

12. Locate the new Tuff Country upper control arms.

Important Note: Included should be a Driver side arm and a Passenger side arm, It is important to make sure you have received the correct arms. driver side is marked with a single notch cut out of the gusset, and the passenger side arm is marked with a double notch.



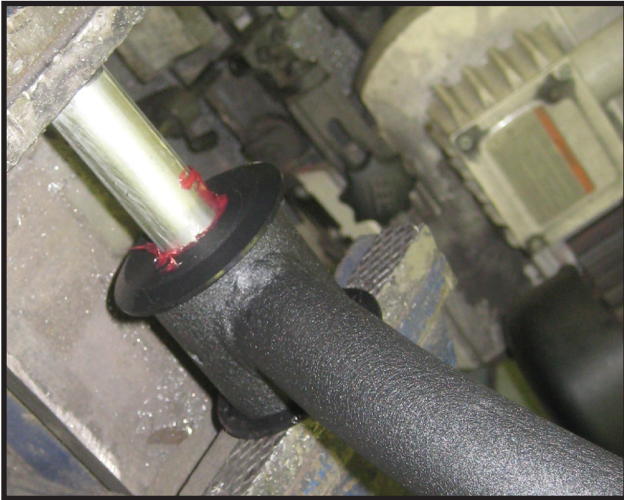
Driver side arm



Passenger side arm

13. Locate (8) TC-001 poly bushings, (4) S10228 sleeves, and (4) threaded grease fittings from hardware bag 13014NB1.

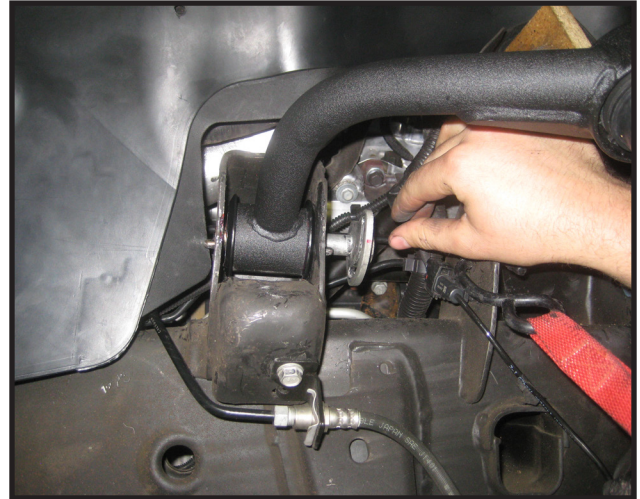
14. Install the new bushings and crush sleeves into the upper control arms. **Special note: Make sure to use a fair amount of lithium or moly based grease before installing the new bushings and sleeves into the control arms. This will increase the life of the bushings and help prevent squeaking.**



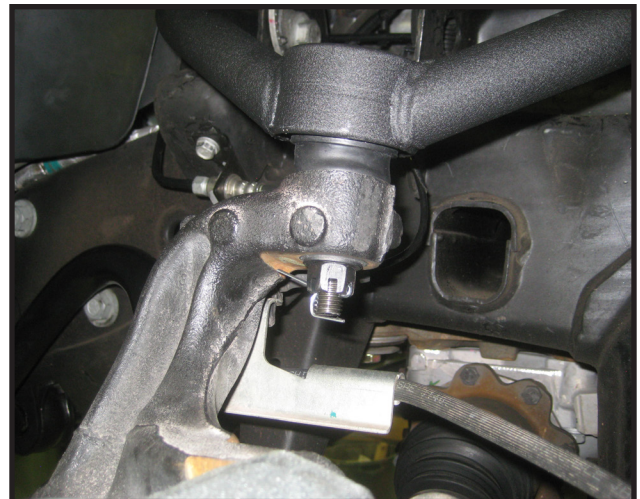
15. Install the threaded grease fittings into each eyelet, be sure to not over tighten these. Also make sure to point them towards the outside of the vehicle to allow for easy access.



16. Install the new upper control arms into the vehicle using the OE cam adjusting bolts and hardware. Make sure to install the bolts in the same orientation they were removed. **Torque to 125 ft lbs.**



17. Carefully raise up on the lower control arm so that you can install the new upper ball joint into the steering knuckle. Secure using the new castle nut and cotter pin. **If you are not able to install the cotter pin because the hole in the ball joint does not line up with the castle nut, DO NOT loosen the nut, but instead, tighten it until the cotter pin can be installed. Torque to 70 ft lbs.**



18. Locate the OE front shocks that were removed earlier. Carefully remove the pressed in studs from the top bar pin mount of the shock. They need to be hit out with a hammer while supporting the bar pin of the shock.



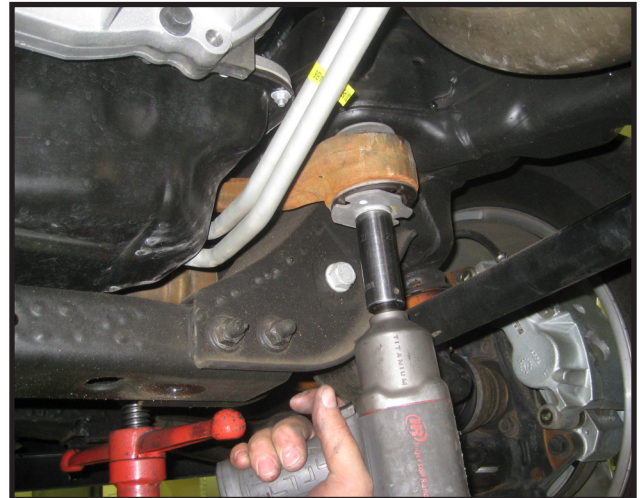
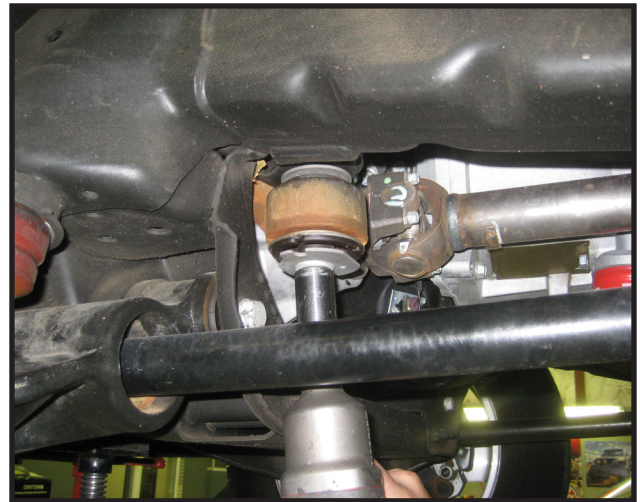
19. Locate (4) 1/2" x 2" bolts, (4) 7/16" flat washers, (4) 1/2" unitorque nuts, and (4) S10084 spacers. Install the new 1/2" bolts into the shock bar pin mounts. No washer is necessary on the head of the bolts.

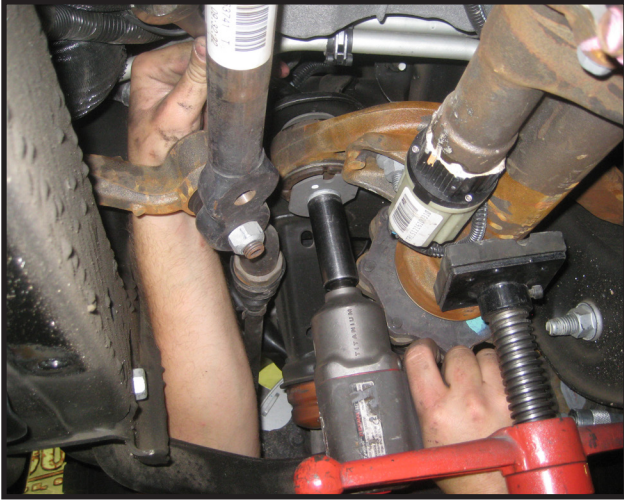


20. Install the new S10084 spacers over each bolt, and re-install the shock into the vehicle. Secure using the new 1/2" unitorque nuts with 7/16" flat washers on the top, and the OE bolt with hardware on the bottom.



21. Working on the front differential, support the differential with a hydraulic or screw jack, Locate the 4 mounting locations and remove the OE hardware.





22. Carefully lower the front differential down approximately 1 inch.

23. Locate the following parts and hardware and install in between the frame and FRONT OE differential mounts: (2) S10237 spacers, (2) 9/16" x 5" bolts, (2) 9/16" unitorque nuts, and (4) 1/2" flat washers. **Do not tighten at this time.**

24. Locate the following parts and hardware and install in between the frame and the REAR OE differential mounts: (2) S10330 spacers, (2) 9/16" x 4 1/2" bolts, (2) 9/16" unitorque nuts, and (4) 1/2" flat washers.



25. Tighten all 4 differential mounting locations and torque to **85 ft lbs.**

26. Locate the new torsion bar keys Part # 12014-01. Using the correct torsion bar puller tool, and making sure to line up your reference marks on the torsion bar and lower control arms, install the new keys and set the adjustment bolts about 1/2 way in. **Final ride height adjustments will be made later.**



27. Re-install the front skid plate using the OE hardware

28. Check and double check to make sure all the steps were performed correctly with the front end.

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

Front end installation complete.

Rear End Installation:

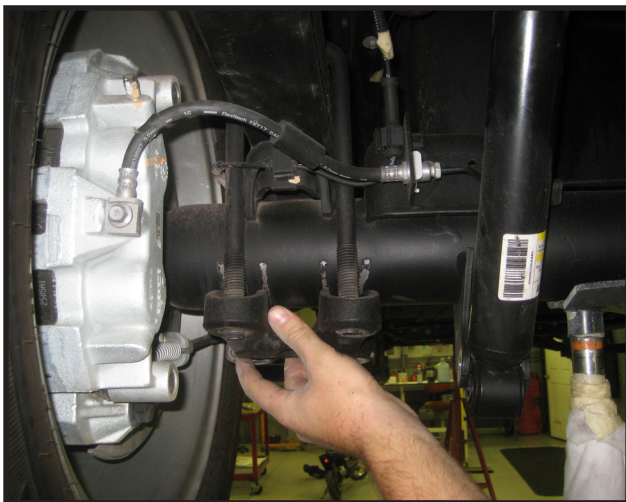
30. To begin installation, carefully block the front tires and wheels so that the vehicle can not roll forward. Safely lift the rear of the vehicle and support the vehicle with a pair of jack stands. Place a jack on both the driver side and passenger side. Remove the wheels and tires from the vehicle.

31. Place a hydraulic floor jack under the rear axle to support it.

32. Working on the Driver side, remove the lower shock bolt and hardware. **Special note: If you are installing new shocks with this suspension system, remove the rear shock completely. If you are installing the 13015 kit with rear shock extension brackets, you will also need to completely remove the shock.**



33. Working on the driver side, remove the u-bolts and discard. Set the u-bolt plate aside for re-installation.

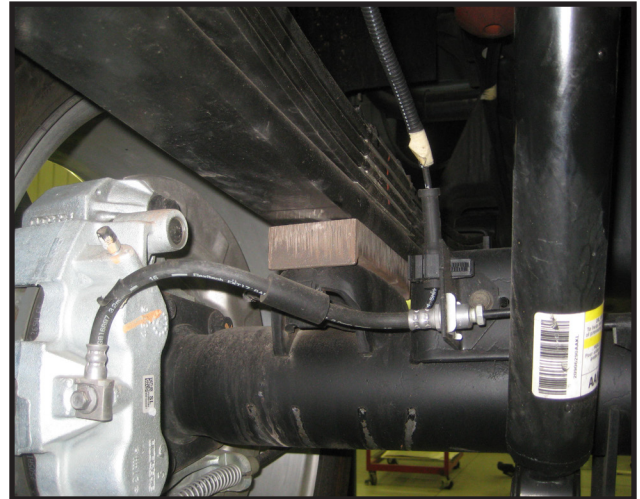


34. Working on the Passenger side, loosen but DO NOT remove the u-bolts.

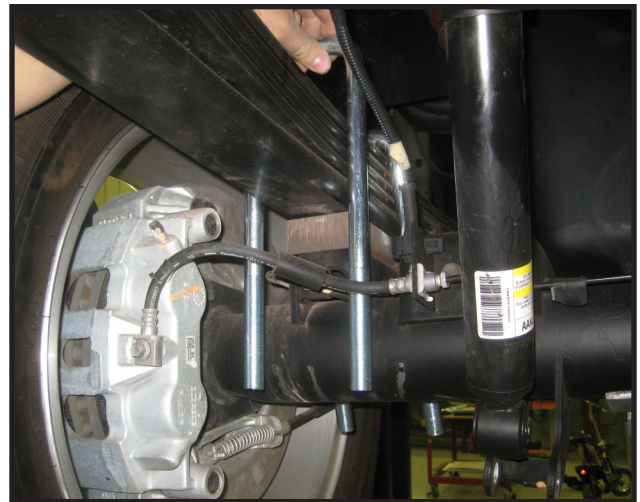
35. Carefully lower down on the jack so that the axle drops away from the rear leaf spring enough to install the new spacer block..

36. Locate the new rear block Part # 13014-03 and install it in between the axle pad and bottom of the leaf spring.

37. Raise the axle back up until the alignment pin on the block is inside the hole in the axle pad, and the center pin of the rear leaf spring is in the hole of the new block.



38. Locate the new u-bolts and hardware, along with the OE u-bolt plate and install, making sure to leave u-bolt hardware slightly loose.

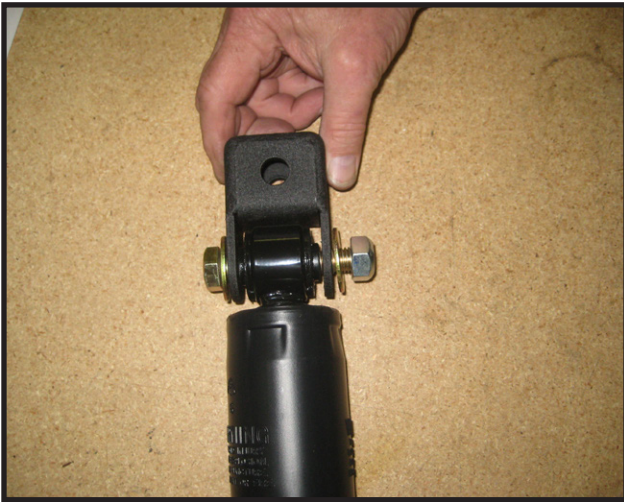


Repeat steps # 32 - 38 on the passenger side

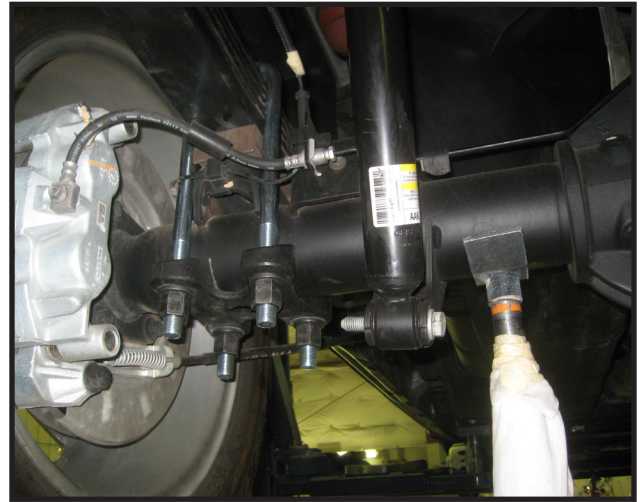
39. Torque all new u-bolt hardware to 135 ft lbs

40. If you are installing new shocks, install them at this time.

41. If you are installing part # 13015 with rear shock extension brackets. Install the brackets on the top eyelet of the rear shocks using the new 9/16" x 3" bolts and hardware.



42. Re-install the rear shocks using the OE hardware



43. Carefully remove the Hydraulic floor jack from the rear axle, and re-install the tires and wheels.

44. Check and double check that all steps have been performed properly on the rear end of the vehicle and lower the vehicle back down on the ground.

45. Start the vehicle engine and turn the steering wheel lock to lock a few times to settle the front suspension height.

46. Refer back to your BEFORE ride height measurements and adjust the torsion bars so that the new ride height is 3" higher than OE height. **Ride heights may vary with every truck, but its extremely important to not lift the truck any more than 3" above stock height, or damage to steering and drivetrain components may occur.**

Congratulations, installation complete!

After the completion of this installation, Tuff Country EZ-Ride Suspension recommends taking the vehicle to an alignment shop and having the proper front end alignment performed.

Tuff Country Ez-Ride Suspension recommends that a complete re-torque is done on all the 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 the system after the first 100 miles of installion. It is also the Customers responsibility to do a complete re-torque after every 3,000 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.