



## Installation manual

### 3" Suspension Kit

2019 - Current Ram 3500 4x4

Part # 33150 AND 33151

SS01312020

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2019 - Current Ram 3500 4x4  
3" Suspension Kit

<b>Part #</b>	<b>Description</b>	<b>Qty.</b>
33118-01	Front Spring spacer	2
33130-01	Rear Spring spacer	2
*14056-02	Front shock relocation bracket	2
BL102	Rear blocks	2
5U-41815R	Rear U-bolts	4
916NW	U-bolt hardware bag	1
33150NB	Hardware bag	1

\* only included in the 33150 kit

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.

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.

#### 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

### 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.

Important information that needs to be read before installation begins:

Tuff Country recommends a 35" x 12.50" or 37" x 12.50" with a 0 Offset wheel. **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.**

Suspension kit #33150 comes with front shock relocation brackets to be used with the OE shocks. If after market front shocks are wanted, Tuff Country EZ Ride Suspension recommends installing a 25" fully extended front shock without the front shock relocation bracket. The stock rear shocks will work once this Suspension kit has been installed but if you want to replace the rear shocks, Tuff Country EZ Ride Suspension recommends installing a 30" fully extended shock.

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](http://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.

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 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.

Recommended tools selection:

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

Hardware bag 33150NB includes:

Part#	Description	Quantity
9163B	9/16" x 3" bolt	2
12WA	1/2" flat washer	4
916UN	9/16" unitorque nut	2
381B	3/8" x 1" bolt	4
516WA	5/16 flat washer	8
38UN	3/8" unitorque nut	4

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: \_\_\_\_\_

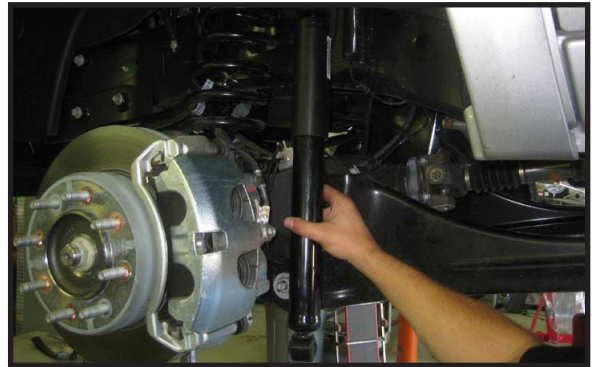
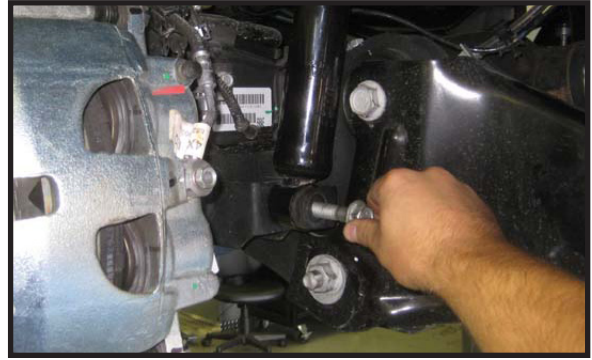
Passenger side rear: \_\_\_\_\_

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 vehicle 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. Place a pair of hydraulic floor jacks under the front axle. Place one on the driver side and passenger side. Carefully raise up on both hydraulic floor jacks at the same time until they come into contact with the front axle.

3. Working on the driver side, remove the shock from the lower mounting location and save the lower hardware. Repeat procedure on the passenger side. **Special note: This Suspension kit comes with front shock relocation brackets to be used with the OE shocks. If after market front shocks are wanted, Tuff Country EZ Ride Suspension recommends installing a 25" fully extended front shock without the front shock relocation bracket.**



4. Working on the driver side, remove the sway bar end link from the sway bar. Save the hardware. Repeat procedure on the passenger side.



5. Carefully lower down on both hydraulic floor jacks at the same time allowing enough room for the coil springs to be removed. Working on the driver side, remove the coil spring and set aside. Repeat procedure on the passenger side.

**Special note: Take special care not over extend any brake lines or hoses.**

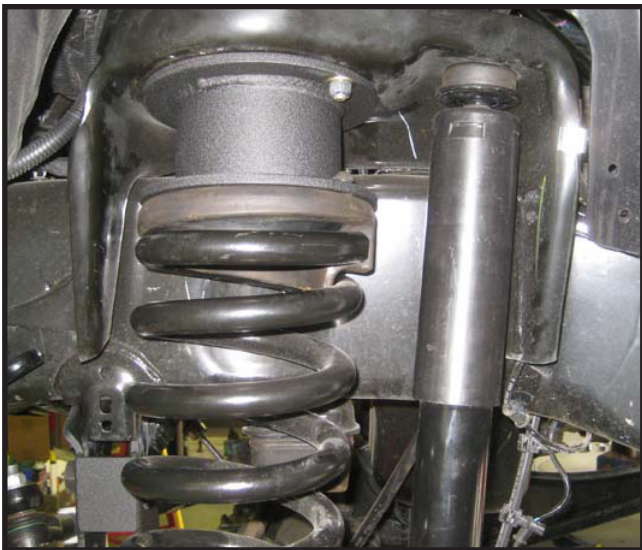


6. Locate the new front coil spring spacers. Also, locate (2) 3/8" x 1" bolts, (4) 5/16" USS flat washers and (2) 3/8" uni-torque nuts from hardware bag 33150NB. Working on the driver side, install the new spacer to the upper coil spring pocket and secure using the new 3/8" hardware. Make sure to add loctite and torque to **28 ft lbs.** Hole already provided. **Special note: When installing the new spacer into the vehicle, make sure that the fat side of the taper goes towards the outside of the vehicle. Also, there is a notch in the upper ring of the spacer also needs to be installed with the notch facing the outside of the vehicle.** Repeat procedure on the passenger side.

7. Locate the OE coil spring isolator. Working on the driver side, install the OE coil spring isolator to the newly installed coil spring spacer. **Special note: Make sure that the nipple of the isolator fits properly into the hole on the lower ring of the new coil spring spacer.** Repeat procedure on the passenger side.



8. Locate the OE coil springs. Working on the driver side, install the coil spring back into the vehicle. Carefully raise up on the hydraulic floor jack until the coil spring seats properly into the newly installed isolator and coil spring spacer. Repeat procedure on the passenger side.



9. Locate the new front shock relocation brackets. Locate (2) 9/16" x 3" bolts, (4) 1/2" USS flat washers and (2) 9/16" unitorque nuts from hardware bag 33150NB. Install the new shock relocation brackets to the bottom of the stock shocks and secure using the new hardware. **Do not tighten at this point. Special note: This Suspension kit comes with front shock relocation brackets to be used with the OE shocks. If after market front shocks are wanted, Tuff Country EZ Ride Suspension recommends installing a 25" fully extended front shock without the front shock relocation bracket.**



10. Working on the driver side, install the modified shock into lower location using the OE hardware. Make sure to use loctite and torque the lower mounting hardware to **85 ft lbs.** Move back to the new 9/16" hardware and add some loctite and torque to **85 ft lbs.** Repeat procedure on the passenger side.

11. Working on the driver side, install the sway bar back to the sway bar end link and secure using the OE hardware. Make sure to use loctite and torque to **40 ft lbs.** Repeat procedure on the passenger side.

12. Carefully remove the (2) hydraulic floor jacks from under the front axle.

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

**Front end installation complete.**

**Rear end installation.**

14. To begin installation, 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.

15. 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.

16. Working on the driver side, remove the shock and save the hardware for later installation. **Special note: The stock rear shocks will work once this suspension kit has been installed, but if you want to replace the rear shocks, Tuff Country recommends installing a shock that measures 30" fully extended. If you have not already ordered your shocks, please contact Tuff Country or your local Tuff**

**Country dealer and order them.** Repeat on passenger side.

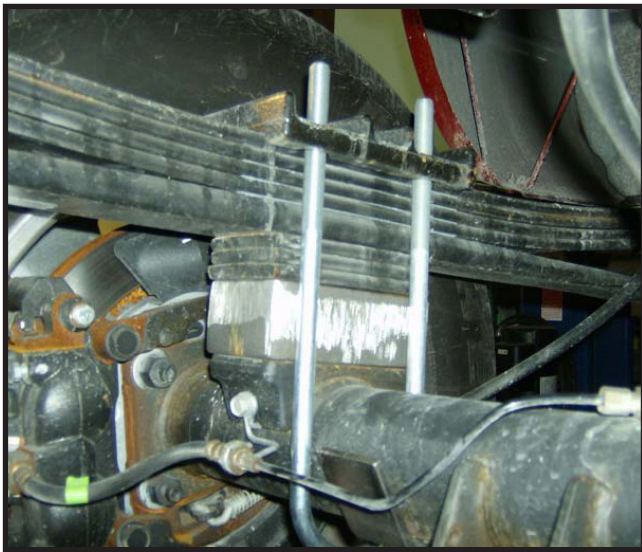
17. Working on the driver side, remove the rear u-bolts. The rear u-bolts and hardware may be discarded. Set the stock upper u-bolt plate aside for later re-installation. Repeat procedure on passenger side.

18. Carefully lower down on both hydraulic floor jacks at the same time until the springs separate from the rear axle. Lower down approximately 2". **Special note: make sure not to over extend any brake lines or wires when lowering the axle.**

19. Locate the new rear blocks. Working on the driver side, install the new rear block between the rear axle and the leaf spring assembly. Repeat procedure on the passenger side.

20. Raise up on both hydraulic floor jacks at the same time until the leaf springs seat against the top of the new blocks.

21. Locate (4) new u-bolts, also locate the new u-bolt hardware bag 916NW. Locate the OE upper u-bolt plate, working on the driver side, install the new u-bolts into the OE location using the new 9/16" hardware. Torque to 120 ft lbs. Repeat on the passenger side.



22. Locate the rear shocks. **Special note: The stock rear shocks will work once this suspension kit has been installed, but if you want to replace the rear shocks, Tuff Country recommends installing a shock that measures 30" fully extended. If you have not already ordered your shocks, please contact Tuff Country or your local Tuff Country dealer and order them.** Locate the upper and lower shock hardware, install the proper metal crush sleeve into the upper and lower eyelets of the shocks. Working on the driver side, install the rear shock back into the vehicle using the OE hardware. torque to 85 ft lbs. Repeat on the passenger side. **Special note: Tuff Country highly recommends that the shocks are installed with the shock boots. if the shock boots are not installed, damage may occur to the piston of the new shock.** Repeat procedure on the passenger side.

23. Check and double check to make sure all steps have been performed properly.

24. Re-install the tires and wheels and carefully lower the vehicle back down to the ground. Remove both hydraulic floor jacks.

**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.**