



**Installation manual
2.5" suspension system
2009 - 2013 Dodge Ram 1500 4WD
(Except Mega-Cab)**

Part # 32102

sj02272013rev.01

**Part # 32102
2009 - 2013 Dodge Ram 1500 4WD
(Except Mega-Cab)
2.5" Suspension System**

Part #	Description	Qty.
32902-01	Front Strut Spacers	2
32102-01	Front Bump Stop Bracket	2
32102-02	Rear Coil Spring Spacer	2
32102NB	Hardware bag	1
D2P-NB	Hardware bag	1
32102INST	Instruction manual	2
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 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.

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

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.

Important information that needs to be read before installation begins:

Tuff Country recommends a 35" x 11.50" tire with a wheel that has a back spacing of 5.5" or less. The stock tires and wheels can be used in conjunction with this lift kit. If a wider tire is installed on the stock wheel, contact with the upper control arm will occur, and is not recommended.

Please be aware that some Dodge Ram owners may experience a vibration in the front end or a violent shaking vibration of the front wheels when going over a bump at certain speeds. This is due to the front differential and suspension when Dodge Ram trucks are in 4x4 mode. These two symptoms are often lumped together and called a "death wobble" however it is actually two different problems with the Ram Truck.

The 4HI mode vibration is a vibration or shudder that occurs when accelerating in 4x4 high mode. This symptom appears isolated to 2006-2013 1500 non-Mega Cab model trucks and only when in 4-hi mode. Dodge could not discover why their stock trucks would do this for some customers and not others so the final official statement from Dodge was that there is no problem and that all of the new Rams will shudder or shake when in 4x4 high.

Therefore, after installing this kit on your Dodge Ram truck, if you experience either of the two symptoms mentioned above, Tuff Country recommends two options. 1). Remove the kit from the vehicle and send it back to the company you purchased it from for a full refund or 2). Install High angle CV joints that will stabilize the factory vehicles issues.

Tuff Country EZ-Ride Suspension highly recommends that a copy of the rear view mirror hanger, the warning decal and a copy of the installation manual are given to the customer once the installation is completed and the customer picks up their vehicle.

The OE rear shocks will be long enough once this suspension system has been installed but Tuff Country highly recommends replacing the rear shocks. If you have not already ordered your rear shocks, please contact Tuff Country or your local Tuff Country dealer and order your new rear shocks. Tuff Country recommends install a 26" fully extended nitrogen gas shock.

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.

Hardware bag 32102NB includes:

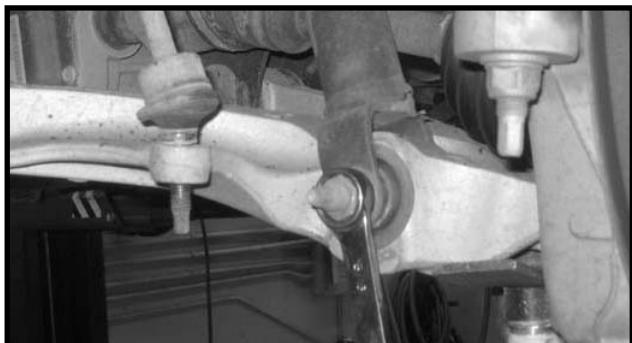
<u>Description</u>	<u>Quantity</u>
32102-03 (Specialty washer)	2
124B (1/2" x 4" bolt)	2
716WA (7/16" USS flat washer)	4
12UN (1/2" unitorque nut)	2
716112B (7/16" x 1 1/2" bolt)	2
38WA (3/8" USS flat washer)	4
716UN (7/16" unitorque nut)	2
516WA (5/16" USS flat washer)	2
38NLN (3/8" nylon nut)	2
PB6052 (poly bump stop)	2
ZIP TIE (Zip tie)	2

3. Working on the driver side, remove the sway bar end link hardware that attached the sway bar end link to the lower control arm. Save the hardware. **Special note: To help make removal easier, place a wrench or a pair of needle nose vise grips on the end link so the end link does not spin.** Repeat procedure on the passenger side.

**Hardware bag D2P-NB includes:**

<u>Description</u>	<u>Quantity</u>
516WA (5/16" USS flat washer)	6
38NLN (3/8" nylon nut)	6

4. Working on the driver side, remove the hardware that attaches the coil over to the lower control arm. Save the hardware. Repeat procedure on the passenger side.

**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:

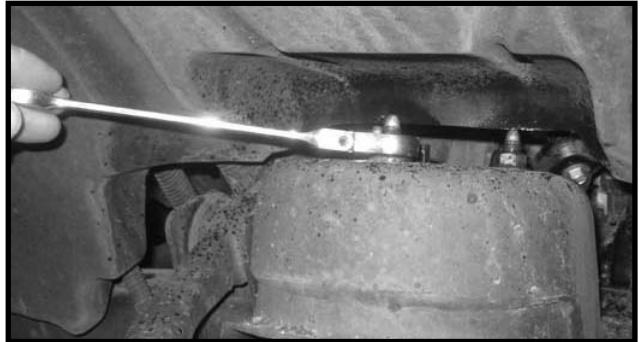
1. To begin installation, block the rear tires of the vehicle so that the vehicle is stable and can't roll backwards. Safely lift the front of the vehicle and support the vehicle with a pair of jack stands. Place a jack stand on both the driver and the passenger side. Next, remove the front wheels and tires from both sides.

2. Working on the driver side, place a hydraulic floor under the lower control arm and carefully raise up on the hydraulic floor jack until it makes contact with the lower control arm. Repeat procedure on the passenger side.



5. Working on the driver side, place a reference mark on the cam washer and cam stops that attach the lower control arm to the front and rear lower control arm mounts. Repeat procedure on the passenger side.





6. Working on the driver side, remove the hardware that attaches the lower control arm to the front and rear lower control arm mounts. Save the hardware. Repeat procedure on the passenger side. **Special note: Let the lower control arms hang and rest on the hydraulic floor jacks.**



7. Working on the driver side, remove the (3) nuts that attach the coil over into the upper location. Save the hardware. Remove and set the coil over aside. Repeat procedure on the passenger side.



9. Locate (6) 3/8 nylon nuts and (6) 5/16" USS flat washers from hardware bag D2P-NB. Working on the driver side, install the newly modified coil over into the upper location and secure using the new hardware. Make sure to use loctite and torque to **32 ft lbs**. Repeat procedure on the passenger side.



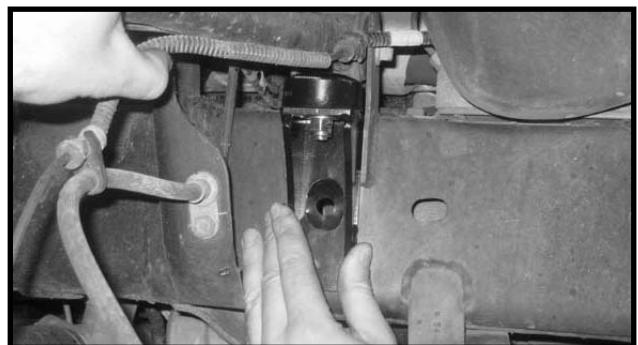
10. Working on the driver side, install the lower portion of the coil over to the lower control arm using the OE hardware. Do not tighten at this point. Repeat procedure on the passenger side.



11. Working on the driver side, install the lower control arm into the front and rear lower control arm pockets using the OE hardware. Make sure to use loctite, refer back to the marks that were scribed on the cam washer and cam stops and torque the front and rear mounting hardware to **105 ft lbs**. Repeat procedure on the passenger side.

12. Locate the new front bump stop brackets. Also, locate (2) poly bump stops, (2) 3/8" nylon nuts and (2) 5/16" USS flat washers from hardware bag 32102NB. Install the new bump stops to the new bump stop brackets and secure using the new hardware. Make sure to use loctite and torque to **24 ft lbs**.

13. Locate (2) 32102-03 specialty washers, (2) 1/2" x 4" bolts, (4) 7/16" USS flat washers and (2) 1/2" unitorque nuts from hardware bag 32102NB. Working on the driver side, install the bump stop bracket to the frame rail under the rear portion of the upper control arm (**hole provided**) and secure using the new hardware. **Special note, the specialty washer will be installed on the inside of the frame rail. Also, the special washer will fit into the dimple on the inside of the frame rail.** Make sure to use loctite and torque to **65 ft lbs**. Repeat procedure on the passenger side.





14. Locate the (2) zip ties in hardware bag 32102NB. Working on the driver side, zip tie the ABS line to the upper control arm so that ABS line does not get pinched between the upper control arm and the newly installed bump stop bracket. Repeat procedure on the passenger side.



15. Remove the hydraulic floor jacks from under the lower control arms and check and double check to make sure all steps were performed properly on the front end.

Special note: The lower sway bar end link will not be attached to the lower control arm until the rear installation is complete and the vehicle is on the ground.

16. Install the tires and wheels and lower the front of the vehicle to the ground.

17. To begin rear 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 stand on both the driver and the passenger side. Next, remove the rear wheels and tires from both sides.

18. Place a pair of hydraulic floor jacks under the rear differential. Place one on the driver side and one on the passenger side.

19. Working on the driver side, remove the shock from the axle mount only. Save the hardware and let the shock hang. Repeat procedure on the passenger side. **The OE rear shocks will be long enough once this suspension system has been installed but Tuff Country highly recommends replacing the rear shocks. If you have not already ordered your rear shocks, please contact Tuff Country or your local Tuff Country dealer and order your new rear shocks. Tuff Country recommends install a 26" fully extended nitrogen gas shock.**



20. Working on the driver side, remove the sway bar end link from the sway bar. Save the hardware and repeat procedure on the passenger side.

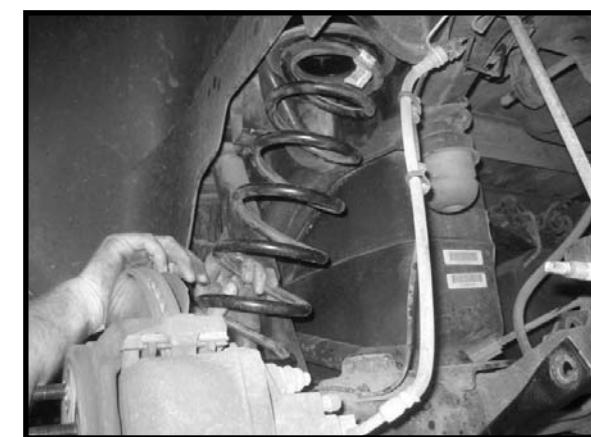




21. Working on the driver side, remove the track bar from the track bar location. Save the hardware.



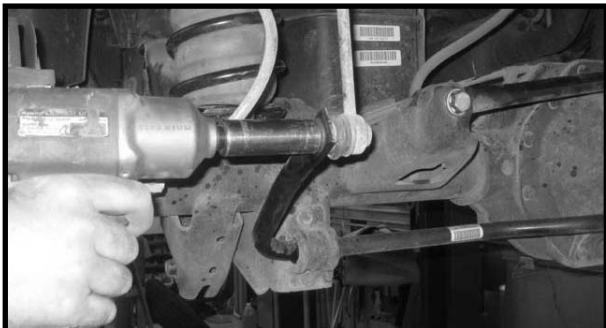
22. Carefully lower down on both hydraulic floor jacks allowing enough room for the rear coil spring to be removed. Working on the driver side, remove the rear coil spring and set aside. Repeat procedure on the passenger side.



23. Locate the new rear coil springs spacers. Also, locate (2) 7/16" x 1 1/2" bolts, (4) 3/8" USS flat washers and (2) 7/16" unitorque nuts from hardware bag 32102NB. Working on the driver side, install the new 7/16" bolt into the upper coil spring bucket. Hole provided. Then install the new rear coil springs spacer into the upper coil spring bucket and secure using the new hardware. Make sure to use loctite and torque to **42 ft lbs**. Repeat procedure on the passenger side.



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



27. Working on the driver side, install the lower shock to the lower mount using the OE hardware. Make sure to use loctite and torque to **85 ft lbs**. Repeat procedure on the passenger side. **The OE rear shocks will be long enough once this suspension system has been installed but Tuff Country highly recommends replacing the rear shocks.** If you have not already ordered your rear shocks, please contact Tuff Country or your local Tuff Country dealer and order your new rear shocks. Tuff Country recommends install a 26" fully extended nitrogen gas shock.



28. Remove the hydraulic floor jacks from under the rear differential.

29. Check and double check to make sure all steps were performed properly on the rear end. Install the tires and wheels and carefully lower the vehicle to the ground.

30. With the weight of the vehicle on the ground and working on the drivers side, install the front lower end link to the lower control arm using the OE hardware. Make sure to use loctite and torque to **40 ft lbs**. Repeat procedure on the passenger side.



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.

Tuff Country EZ-Ride Suspension highly recommends that a copy of the rear view mirror hanger, the warning decal and a copy of the installation manual are given to the customer once the installation is completed and the customer picks up their vehicle.

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



32902-01 / Qty (2)
DS & PS Upper Strut Spacer



32102-01 / Qty (2)
Front bump stop brackets



32102-02 / Qty (2)
Rear coil spring spacer