

# ROUGH COUNTRY

## SUSPENSION SYSTEMS®

### 08-10 2500/3500 Dodge 5" Long Arm Kit

Thank you for choosing Rough Country Suspension for your Off Road needs.

Rough Country recommends a certified technician installs this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle. Average professional install time for this kit is 4-6 hours.

Please read all the instructions before beginning the installation. Check the kit hardware against the kit contents list on the last page. Be sure you have all the needed parts and understand where they go.

#### **⚠ WARNING**

#### **Product Use Information**

As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend, because of roll-over possibility, that the vehicle be equipped with a functional roll-bar and cage system. Seat belts and should harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Also check the steering stabilizer. It is a good idea when adding larger than stock tires to go with a larger bore steering stabilizer or a dual unit for tires 35+and above. Inspect the stabilizer and replace as necessary.

Braking performance and capability are decreased when significantly large/heavier tires and wheels are used. Take this into consideration while driving.

Do not add, alter, or fabricate any factory or after-market parts which increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands, lifts, and/or combining body lift with suspension lifts voids all warranties. Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

#### **⚠ NOTICE**

This suspension system was developed for 37x12.50 tire on the stock 17+x 9+or 20+wheels at 5+of lift. On an aftermarket wheel you will need to purchase a 8+wide wheel with minimum of 4-5/8+of backspacing. When larger tires are installed, speedometer recalibration is necessary. Due to ride height inconsistencies from the factory you may need to slightly trim the front plastic valance for proper tire clearance.

This kit can also be used a 3500 single rear wheel truck. Use of this kit on a dual rear wheel pickup is not recommended. Block and u-bolt combinations may vary with 3500 models.

#### **⚠ NOTICE**

On vehicles equipped with a two piece driveshaft & carrier bearing as on the Mega Cab, there is the potential for take off vibration, depending on the severity this can be corrected with shimming down the carrier bearing.

Carrier bearing drop kit Part # 1110 is available from Rough Country. Also 2500/3500 trucks with factory overload springs the overload will have to be removed for the new block and u-bolt installation.

#### **⚠ NOTICE**

#### **Notice to Dealer and Vehicle Owner**

Any vehicle equipped with any Rough country product must have the ⚠Warning to Driver+decal installed on the sun visor or dash. The decal is to act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics. By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable Federal, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.

**INSTALLING DEALER—It is your responsibility to install the warning decal and to forward these installation instructions to the vehicle owner for review and to be kept in the vehicle for its service life.**



### Tools and Supplies Needed to Install Kit

1. Torque Wrench	8. Pitman Arm Puller
2. ½+Drive Ratchet and Sockets	9. Hammers
3. Assorted Combination Wrenches	10. 17/32+Drill Bit
4. Heavy Duty Jack Stands	11. 15/32+Drill Bit
5. Hydraulic Floor Jacks	12. Die Grinder with Cut Off Wheel
6. Center Punch	13. Safety Glasses
7. Grinder	14. WD-40

### FRONT SUSPENSION INSTALLATION

1. Secure and block the rear tires of the vehicle on a level concrete or asphalt surface
2. Open the hood and remove the shock nuts, retaining washers and rubber bushings from both upper shock mounts located inside the engine compartment. The shocks will be removed when the coils are removed.
3. Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and tires and set aside. Position a hydraulic jack under the front axle and raise the jack until the front suspension begins to compress
4. On both sides of the vehicle, scribe alignment marks on the adjustment cam and axle bracket at the lower link to axle attachment point for later reference. **See Photo 1.**
5. Unbolt the brake line brackets from the control arm mount on the axle using a 13mm wrench to ensure brake line free play during the suspension system installation.
6. Remove the stock front upper sway bar links from the sway bar as shown in **Photo 2** using a 15mm wrench.



Photo 1

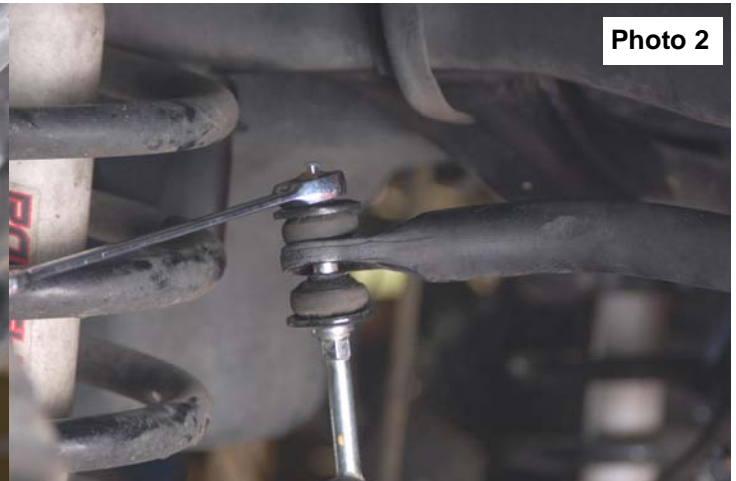


Photo 2

7. Remove the lower link from the axle using a 21mm wrench. **See Photo 3.**
8. Remove the track bar from its upper mounting point on the frame using a 24mm wrench and rest it on the axle. It may be helpful to loosen the lower track bar bolt on the axle. Retain hardware for reuse.
9. Remove the cotter pin, and castle nut from the drag link where it connects to the pitman arm. A pitman arm tool may be needed to separate the drag link from the pitman arm. Remove the stock nut, and lock washer from the sector shaft on the steering box. Save hardware for later installation. Using a pitman arm puller carefully remove the stock pitman arm.



Photo 3

10. The new control arms will be installed one side at a time on the vehicle. This is done to make it easier to remove the hardware from the arms and to not cause bind in the front suspension. Remove the lower suspension arm nut, cam, and cam bolt from the axle using a 21mm and a 24mm socket and wrench. Remove the nut and bolt from the frame attachment point and remove the lower suspension arm from the vehicle. **See Photo 4.** Retain hardware for reuse.
11. Using a 21mm socket remove the upper control arm from the axle and frame. Note- the passenger side upper control arm frame bolt will have to be cut or remove the exhaust before the bolt can be removed.
12. Use a cut off wheel on a die grinder and cut the welds around the lower control arm frame bracket. The frame bracket has to be removed to allow clearance for the new longer arms. **See Photo 5.**
13. After the factory bracket has been removed grind the frame smooth and paint to prevent rust.



14. Support the transmission cross member with a jack and remove the two bolts on end with a 18mm socket and a 21mm wrench.
15. Install the new lower control arm mount with the supplied 14mm x 200mm long bolts. Do not tighten at this time. Hold the bracket up close to the frame and use a transfer punch to mark the frame. **See Photo 6.** Drill the frame with a 17/32+drill bit (clearance for the new 1/2+bolts). Remove the two bolts and the new control arm bracket from the cross member.
16. Place flag nut in-between trans cross-member **See Photo 7.** and frame mount where you have just drill holes and reinstall lower control arm bracket with the 14mm bolts, washers, and nuts. Insert the supplied 1/2+x 1+bolts into the drilled holes to secure bracket. Tighten all bolts using a 22mm for 14mm long bolts (Do not tighten inside bolt it will be used to hold the skid plate later) and a 19mm for the 1/2+bolts.





17. Install lower control arm into new bracket using stock hardware. **See Photo 8.** NOTE new lower control arm will be install with the pocket facing outward. Assemble the upper control arm and adjust the length to 17.25+for the 5inch lift.
18. Install upper control arm into pocket on axle using stock hardware then attach it to lower control arm using supplied 9/16+x 3.75+bolts. **See Photo 9.** Then install lower control arm to axle using stock cam bolts. Do not tighten at this time, hand tighten only.



Photo 8



Photo 9

19. Repeat steps 10-18 on the passenger side.
20. Remove the nuts on the two center bolts of the cross member that was installed earlier. This will be the mounting point of the new skid plate.
21. Hang the new skid plate on the 2 bolts and reinstall the nuts. Tighten with a 22mm socket and wrench.
22. Make sure the skid plate is center before drilling the holes for the self tapping bolts
23. Drill the 4 holes using a 15/32+drill and install the 4 self tapping bolts with a 9/16 socket. **See Photo 10.**
24. Remove the lower shock bolts on the axle, and save for later installation. The shock absorbers will be removed from the vehicle at the same time the coils are removed from the vehicle.
25. Carefully lower the jack until the coil springs are free (the upper suspension arm will be contacting the axle bracket) Remove the coil springs and shocks from the vehicle. Note: use of a coil spring compressor may be required for spring removal.
26. Assemble shock absorbers Part #658732 or 2.2 upgrade part #660574 with the supplied sleeves and install the shock in the upper mount.
27. Install the Rough Country coil springs in the stock mounts by sliding the shock through the middle of the coil. The use of a coil spring compressor will be required for installation
28. Lower the axle until the spring can be seated in the mount. Check to be sure the wrap on the coil spring in relation to the lower mount properly seats the spring by turning the coil spring until it seats.
29. Remove the coil spring compressor at this time.
30. Place the track bar bracket on the factory upper track bar mount. Insert the supplied 3/4"x 1 3/8"+long sleeve inside the factory mount and line it up with the mounting hole. **See Photo 11.** Install the supplied 16mm x 80mm bolt and nut through the bracket, sleeve and factory mount. Tighten slightly.



Photo 10



Photo 11

31. Install the 12mm x 3-bolt through the bracket and slotted existing hole in the frame cross member. **See Photo 12.** The bolt should be installed from the bottom. Install the supplied square washer and lock nut. Tighten track bar hardware. The track rod will be installed into the new mount after the vehicle is on the ground.
32. Install the new pitman arm into the stock location on the sector shaft, using stock hardware and torque nut to 185 ft. lbs. **See Photo 13.**

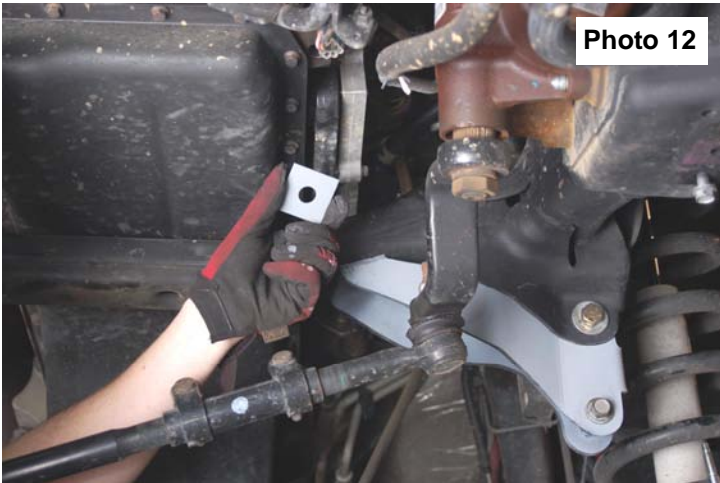


Photo 12



Photo 13

33. Reinstall the drag link onto the pitman arm using stock hardware.
34. Install the supplied sway bar link bracket as shown in **Photo 14** with the supplied 10mm x 55mm hardware.
35. Install the supplied bushings / sleeves in the new sway bar links and install in the new sway bar bracket as shown **Photo 15.**



Photo 14



Photo 15

28. Install on the axle location with supplied 12mm x 65mm hardware. **See Photo 16.** Tighten hardware.
29. Raise the front axle with a floor jack to slightly compress the coil springs.
30. Install the lower end of the shocks in the stock location and tighten using stock hardware.
31. Lower vehicle to the ground. Install the tires / wheels.
32. Torque the fasteners to the following specifications:

Lower suspension arm cam nut ♂ ♂ 110 ft/lbs  
 Lower suspension arm rear nut ♂ ♂ .88 ft/lbs  
 Upper suspension arm axle nut ♂ ♂ .89 ft/lbs  
 Upper suspension arm frame nut ♂ ♂ .62 ft/lbs  
 Track Rod Bolt ♂ ♂ ♂ ♂ ♂ ♂ ... ♂ .110 ft/lb



Photo 16

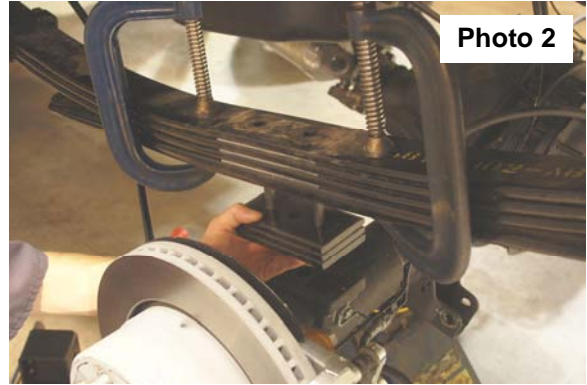


## REAR BLOCK INSTALLATION

1. Secure and block the front tires of the vehicle on a level concrete or asphalt surface.
2. Raise the rear of the vehicle and support the frame with jack stands. Remove the rear wheels and tires and set aside.
3. Place a floor jack under the center of the axle, and remove the stock u-bolts. Also remove the stock shocks.
4. Lower the axle down away from the springs, to allow clearance for the block. Make sure you do not overextend the brake lines.
5. Using C clamps, clamp on each side of the leaf pack and remove the two spring bolts using an 18mm socket as shown in **Photo 1**.
6. Remove the factory mini spring pack and bolts. **See Photo 2.**



**Photo 1**

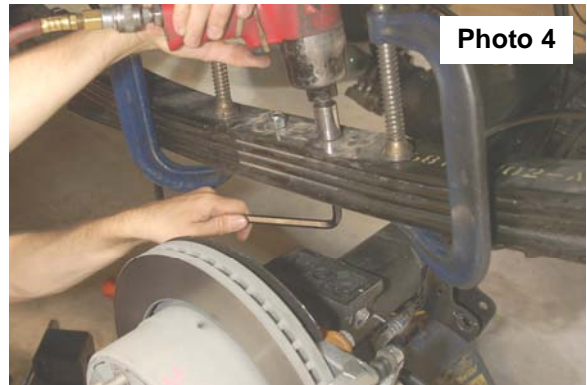


**Photo 2**

7. Install supplied 1/2"x 3" Allen head bolts and lock nuts. **See Photo 3.**
8. Tighten using a 3/4" socket and 3/8" Allen. **See Photo 4.**

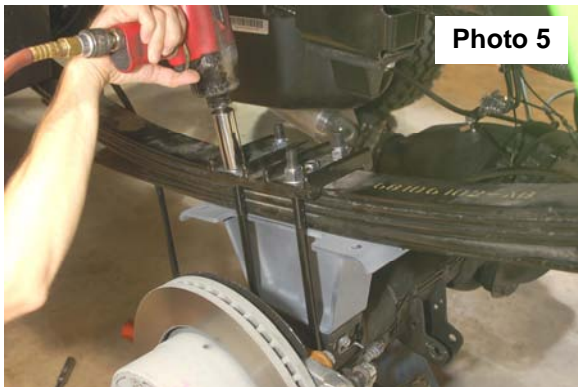


**Photo 3**

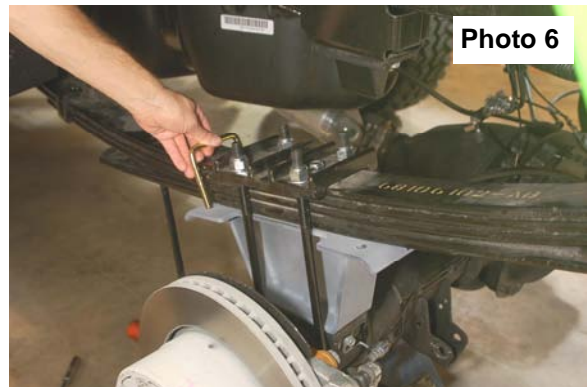


**Photo 4**

9. Remove C clamps and install supplied anti-wrap block and u-bolts. Tighten using a 13/16" socket. Torque to 90 ft-lbs. **Larger end of the block will go toward the rear of the truck. See Photo 5.**
10. Install supplied anti-wrap u-bolts, washers, and nuts as shown in **Photo 6**. Tighten using a 5/8" socket. Torque to 45 ft-lbs.



**Photo 5**



**Photo 6**

11. Assemble the new shock absorbers part # 658694 or 2.2 upgrade part #660562 with bushings/sleeves and install on the vehicle.
12. Install the wheels / tires. Jack up the vehicle and remove the jack stands.
13. Lower the vehicle to the floor.

### **POST INSTALLATION INSTRUCTIONS**

Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering gear for interference and proper working order. Test brake system. Perform steering sweep. Check to ensure brake hoses have sufficient slack and will not contact rotating, mobile, or fixed members, adjust lines/brackets to eliminate interference and maintain proper working order. Failure to perform inspections may result in component failure.

Re-torque all fasteners after 500 miles. Visually inspect components and re-torque fasteners during routine vehicle service.

Readjust headlights to proper settings.

It is the buyer's responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 1000 miles. Suspension components every 3000 miles.

<b>Kit Contents:</b>	<b>Poly Bags:</b>
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2-Coil Spring  
1-Front Track Bar Bracket  
2-Front Sway Bar Links  
1-Pitman Arm  
    (6616) 2008  
    (6615) 2009-10  
2-Rear Lift Block  
4-Rear U-bolt  
2-Front Shock Absorber (658732)  
2-Rear Shock Absorber (658694)  
2-Lower Control Arm Brackets  
2-Control Arm Bracket Flag Nut  
1-Skid Plate  
1-Driver Lower Control Arm  
1-Passenger Lower Control Arm  
2-Upper Adjustable Control Arms  
1-1390Bag1  
1-1390Bag2

#### **1394Bag2:**

1-16mm Locknut  
1-16mm X 80mm Bolt  
5-12mm Flange Locknut  
1-12mm X 80mm Bolt  
4-12mm X 65mm bolt  
4-12mm Sway Bar Bushing Washer  
1-Square Track Rod Washer  
4-Sway Bar Link Sleeve  
2-Sway Bar Reloc. Stud Bushing  
2-Sway Bar Reloc. Bushing Cup Washer  
2-10mm X 55mm Bolt  
2-10mm Locknut  
2-10mm Sway Bar Bracket Washer

#### **1394Bag5: Shock Bag**

6-Shock Sleeves  
4-Stem Bushings  
4-Bushings retainers  
2-Stem Nuts

#### **1390Bag2: Hardware Bag**

4-14mm x 200mm Long Bolts  
4-14mm Lock Nuts  
2-9/16+x 3.75+Bolts  
2-9/16+Locking Nuts  
4-1/2+x 1.0+Bolts





**Thank you for choosing Rough Country Suspension for your Off Road needs.**

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable Federal, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.

