



## 2003-13 2500/3500 Dodge Long Arm Upgrade

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

Rough Country recommends a certified technician install 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 2-3 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.

### Product Use Information

As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend, because of rollover 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.

This suspension system was developed using a 5+Rough Country standard kit and upgrading it to a long arm kit. With the new heavy duty y-link long arm setup your truck has a better ride, more articulation, and stronger control arms with clevis bushings. Also included the heavy duty skid plate for added protection of the transfer case.

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.

**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.**

### 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. **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 Needed:

Heavy Duty Jack Stand	24mm Socket/wrench
Floor Jack	17/32 Drill Bit
Center Punch	15/32 Drill Bit
13mm socket/wrench	Die grinder with cut off wheel
18mm socket/wrench	Grinder
19mm socket/wrench	Hammer
21mm socket/wrench	Safety Glasses
22mm socket/wrench	

## FRONT SUSPENSION INSTALLATION

1. Secure and block the rear tires of the vehicle on a level concrete or asphalt surface
2. Raise the front of the vehicle and support the frame with jack stands. Position the jack under the axle to raise and lower the front suspension.
3. 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.
4. 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. **See Photo 1.**
7. 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 2.** Retain hardware for reuse.



8. 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.
9. 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 3.**
10. After the factory bracket has been removed grind the frame smooth and paint to prevent rust.
11. Support the transmission cross member with a jack and remove the two bolts on end with a 18mm socket and a 21mm wrench.
12. 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 4.** 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.



13. Place flag nut in-between trans cross-member **See Photo 5** 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 bolts (Do not tighten inside bolt it will be used to hold the skid plate later) and a 19mm for the 1/2+bolts.
14. Install lower control arm into new bracket using stock hardware. **See Photo 6**. 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.



Photo 5



Photo 6

15. 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 7**. Then install lower control arm to axle using stock cam bolts. Do not tighten at this time, hand tighten only.
16. Repeat steps 7-14 on the passenger side.
17. 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.
18. Hang the new skid plate on the 2 bolts and reinstall the nuts. Tighten with a 22mm socket and wrench.
19. Make sure the skid plate is center before drilling the holes for the self tapping bolts
20. Drill the 4 holes using a 15/32+drill and install the 4 self tapping bolts with a 9/16 socket. **See Photo 8**.



Photo 7



Photo 8

21. Lower vehicle to the ground. Install the tires / wheels.
22. 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

Kit Contents:	Poly Bags:	
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	1390Bag1: Instruction Sheet Bag 1-Instruction Sheet 1-Warning to Driver Sticker	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



**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 inspec-

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