Rough Country 351.20 Installation Instructions

3-Inch Lift Kit for 1994–2002 Dodge Ram 2500 4WD

Part number: 351.20

trailfortress.com/rough-country-3-inch-lift-kit-351-20

Scan for fitment, price and install help

921351200A

ROUGH COUNTRY SUSPENSION SYSTEMS®

1351BAG3

94-02 2500 DODGE 3” SUSPENSION LIFT KIT

Thank you for choosing Rough Country for your suspension 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.

Please read all the instructions before beginning the installation. Check the kit hardware against the parts list. Be sure you have all the needed parts and understand where they go. Also please review the tools needed list and make sure you have needed tools.

PRODUCT USE INFORMATION

⚠WARNING As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend, because of roll-over possibility, that seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side roll-over may occur.

Braking performance and capabilities are decreased when significantly larger/heavier tires and wheels are used. Take this into consideration while driving. Also, speedometer recalibration is necessary when larger tires are installed.

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 kit is packaged as a leveling kit—raising the front 3” and the back 2”. If you desire a different look or if your truck has a tool box or added weight in the rear please consult with your sales repetitive about option higher block and u-bolt options or the use of an add-a-leaf.
The 3” suspension system was developed for 35x12.50 tire on an after market wheel with 5” of back spacing.

⚠NOTICE NOTICE TO DEALER AND VECHICLE 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 on too the vehicle owner for review and to be kept in the vehicle for its service

Kit Contents:

9280:Front Coil Springs
1351BOX1:
- Upper Control Arms
- Lower Control Arms
- Sway bar Brackets
- Brake Proportioning Valve Bracket
- Track Bar Relocation Bracket

1351BOX3:
- 5.75” Blocks
- U-bolt
- Front Shocks
- Rear Shocks

Tools Needed:

Torque Wrenches
½” Drive Ratchet and Sockets
Assorted Combination Wrenches
Heavy Duty Jack Stands
Hydraulic Floor Jacks
Channel Locks
Drill
Hammers
C-Clamps
Rubbing Alcohol
Safety Glasses
Anti-Seize Compound

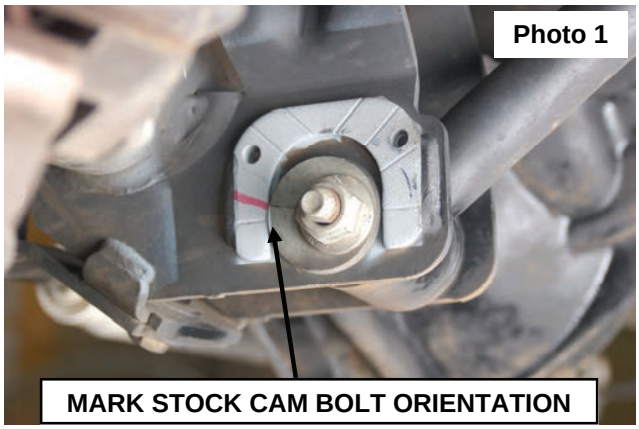
Torque Specs:

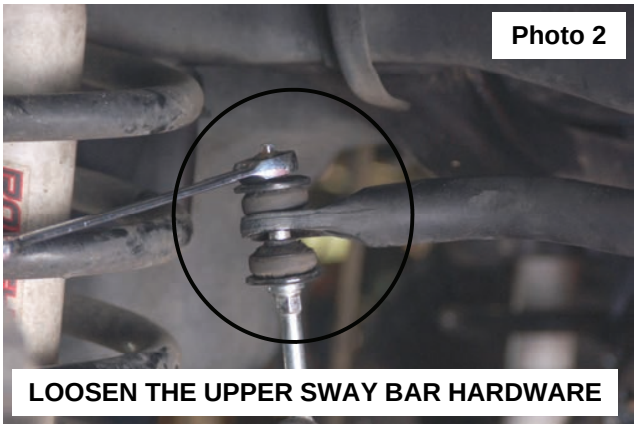
Size	Grade 5	Grade 8
5/16”	15 ft/lbs	20 ft/lbs
3/8”	30 ft/lbs	35 ft/lbs
7/16”	45 ft/lbs	60 ft/lbs
1/2”	65 ft/lbs	90 ft/lbs
9/16”	95 ft/lbs	130 ft/lbs
5/8”	135 ft/lbs	175 ft/lbs
3/4”	185 ft/lbs	280 ft/lbs

	Class 8.8	Class 10.9
6MM	5 ft/lbs	9 ft/lbs
8MM	18ft/lbs	23 ft/lbs
10MM	32ft/lbs	45ft/lbs
12MM	55ft/lbs	75ft/lbs
14MM	85ft/lbs	120ft/lbs
16MM	130ft/lbs	165ft/lbs

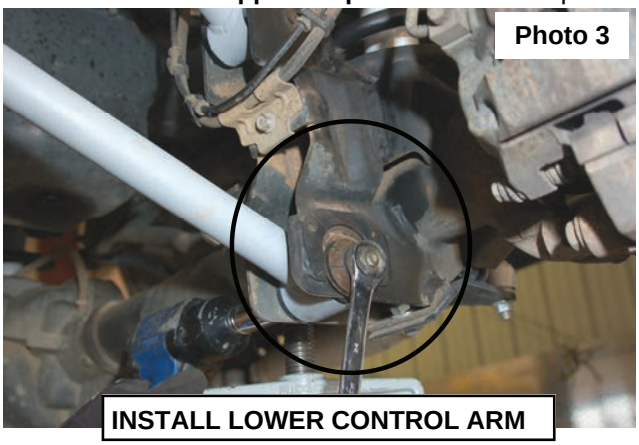
FRONT SUSPENSION INSTALLATION

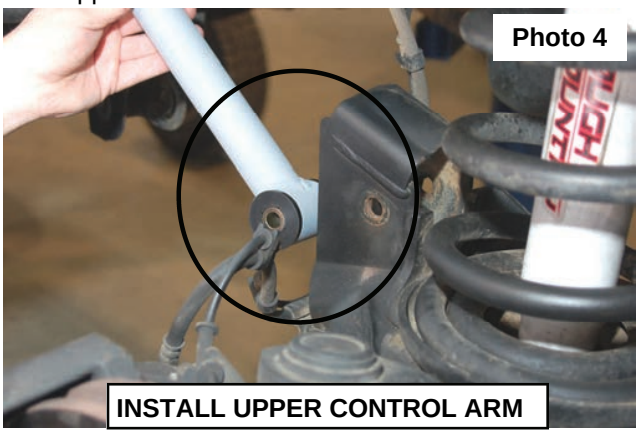
1. Secure and block the rear tires of the vehicle on a level concrete or asphalt surface
2. Open the hood and remove the shock nuts, retaining washers and rubber bushings from both upper shock mounts located inside the engine compartment. The shocks will be removed when the coils are removed.
3. Raise 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. Loosen the stock front upper sway bar links on the sway bar as shown in **Photo 2** using a 15mm wrench.
7. 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.
8. 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.
9. The new lower control arms will be installed first on both sides of 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. Refer to **Photo 1**. Remove the nut and bolt from the frame attachment point and remove the lower suspension arm from the vehicle. Repeat this step for the opposite side of the vehicle. Retain hardware for reuse.
10. Attach the grease fittings provided with the new Rough Country lower suspension arms (longer arm) using a 5/16″ wrench. Using the lithium-based grease, grease the inside of the lower suspension arm bushing tubes and the bushings themselves. Insert the two bushing halves into the lower suspension arm with the 16mm sleeves for the frame end and the 18mm sleeves for the axle end. The use of a vice or C-clamp may facilitate the insertion of the sleeves.





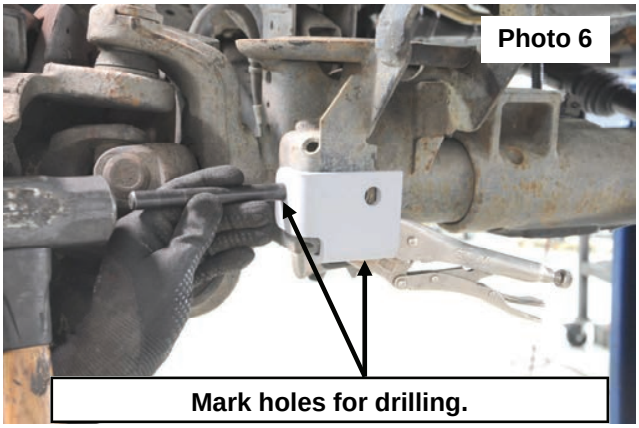
11. Install the new Rough Country lower suspension arms in place of the stock lower suspension arms. **See Photo 3.** Slight prying of the mounts apart may be necessary for arm installation. Install the original rear suspension arm bolt and slightly tighten the nut. Install the original front suspension arm bolt and slightly tighten the nut. Refer to the reference mark on the cam bolt and the axle when installing the cam bolt. Repeat on the other side of the vehicle
12. Remove the upper suspension arm nut and bolt at the axle. Remove the nut and bolt at the frame and remove the upper suspension arm. Repeat this step for the opposite side of the vehicle. **Note: If your truck has a diesel engine it may be necessary to unbolt the exhaust from the turbo to allow for clearance to remove the upper front bolt.** Retain hardware for reuse.
13. Attach the grease fittings provided to the new Rough Country upper suspension arms using a **5/16"** wrench. Using a lithium based grease, grease the inside of the upper suspension arm bushing tubes and the bushings themselves. Insert the two bushing halves into the upper suspension arm and press in the 14mm ID sleeve provided. The use of a vice or C-clamp may facilitate the insertion of the sleeve.
14. Install the upper suspension arms in place of the stock upper suspension arms. **See Photo 4.** Slight prying of the mounts may be necessary for arm installation. Install the original front and rear suspension arm bolt and slightly tighten the nuts. **Note: Raising the axle to ride height and rotating the lower arm cam adjusters will facilitate insertion of the upper suspension arms**. Repeat steps for the opposite side of the vehicle.



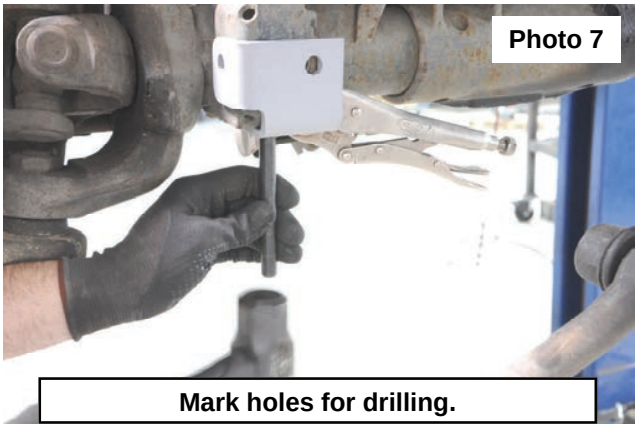


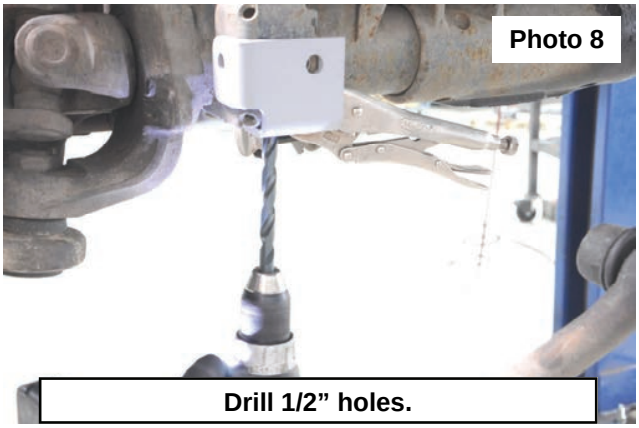
15. Remove the lower shock bolts on the axle, and save for later installation. The shock absorbers will be removed from the vehicle at the same time the coils are removed from the vehicle.
16. Carefully lower the jack until the coil springs are free (the upper suspension arm will be contacting the axle bracket) Remove the coil springs and shocks from the vehicle. Note: use of a coil spring compressor may be required for spring removal.
17. Assemble the hydraulic shock absorbers Part #658700 with the supplied poly bushings and install the shock in the upper mount.
18. 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
19. 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.
20. Remove the coil spring compressor at this time.
21. Remove the front track bar from the axle mount. **See Photo 5.**
22. Using the supplied relocation bracket, mark the holes for drilling. **See Photos 6 & 7.**



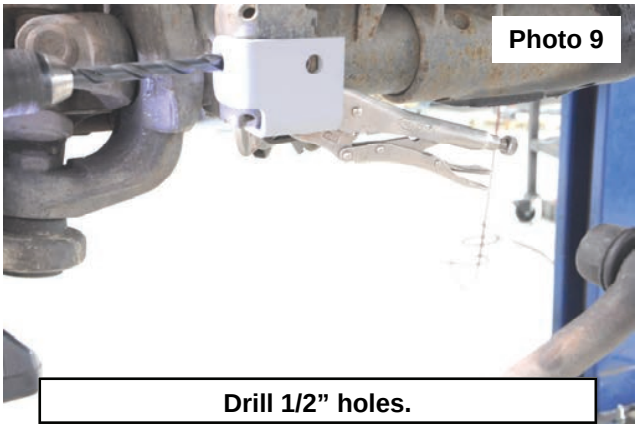


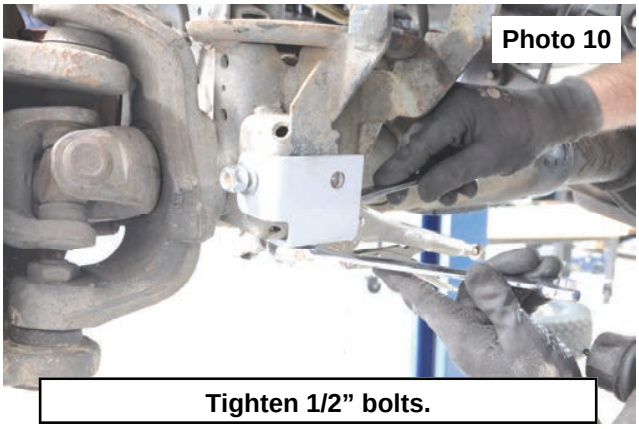
23. Using a 1/2” drill, drill the side and bottom holes. **See Photos 8 & 9.**



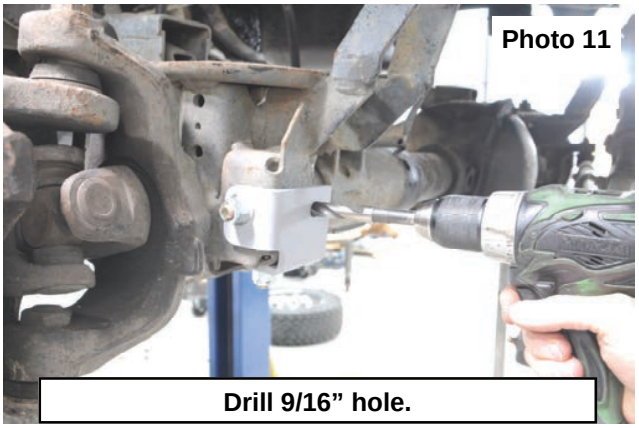


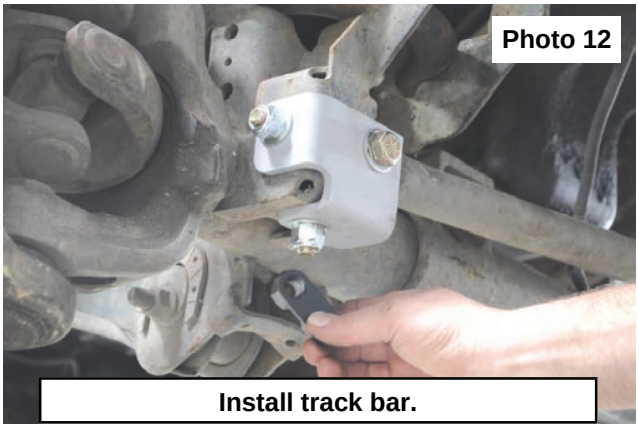
24. Install the supplied 1/2” bolts, washers, and nuts from 1351BAG2. Tighten using 3/4” wrenches. **See Photo 10.**



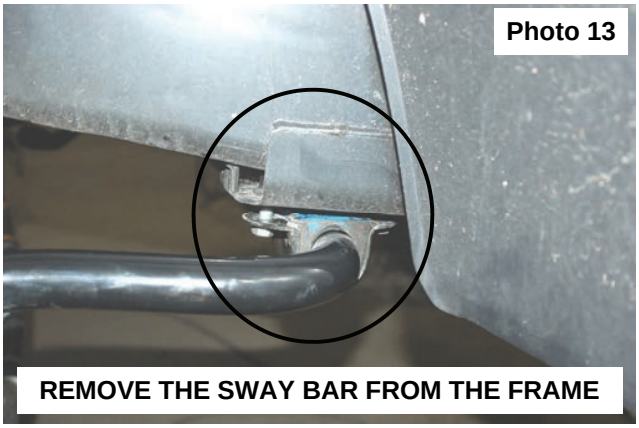


25. Using a 9/16” drill, drill front hole using the bracket as a guide. **See Photo 11.**
26. Attach track bar using the supplied 9/16” bolt and flag nut from 1351BAG2. Tighten using a 13/16” wrench. **See Photo 12.**



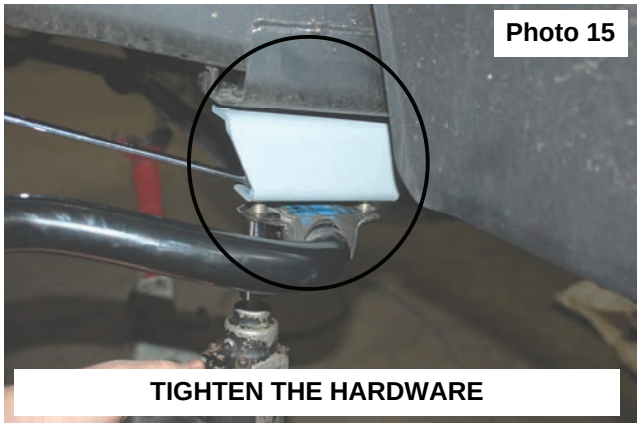


27. Remove the sway bar hardware using a 18mm wrench as shown in **Photo 5** and allow the sway bar to separate from the frame.
28. Install the sway bar drop bracket as shown in **Photo 6** and secure to the frame using the factory hardware. Tighten with a 18mm wrench.
29. Install the sway bar to the new bracket with the supplied 7/16” x 1 1/4” bolts, flat washers and nuts. **See Photo 7.** Tighten using a 9/16” socket and wrench.



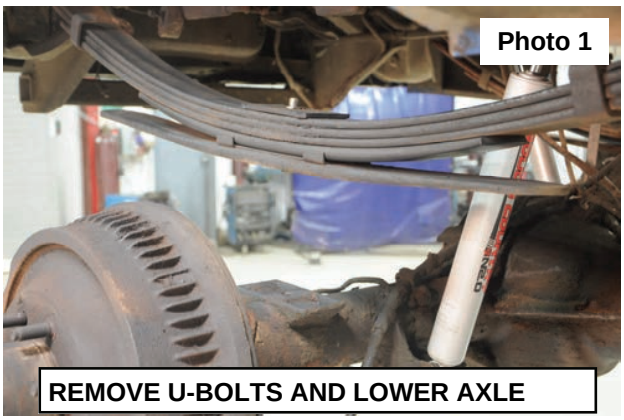


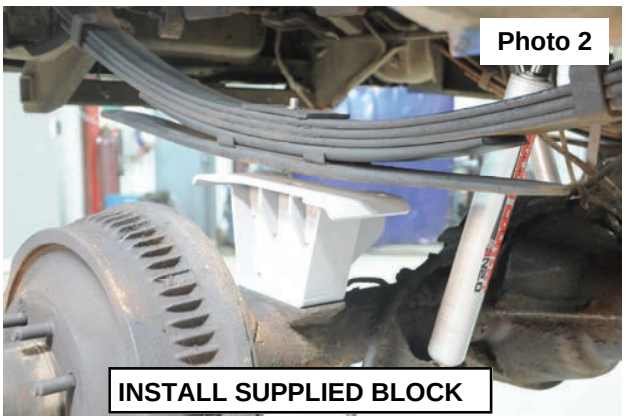
30. Raise the front axle with a floor jack to slightly compress the coil springs.
31. Install the lower end of the shocks in the stock location and tighten using stock hardware.
32. Lower vehicle to the ground. Install the tires / wheels.
33. Re-install the track rod using factory hardware.
34. Torque 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

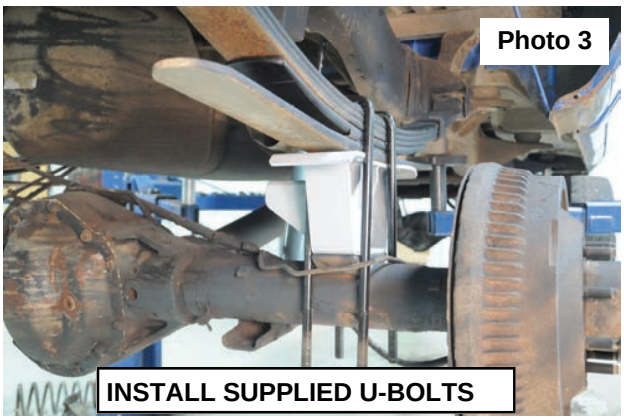


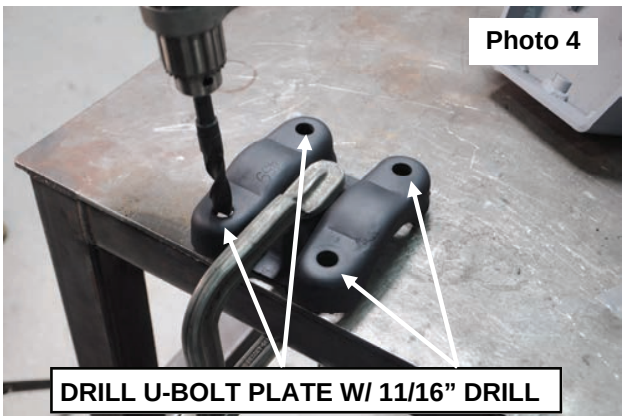
REAR INSTALLTION

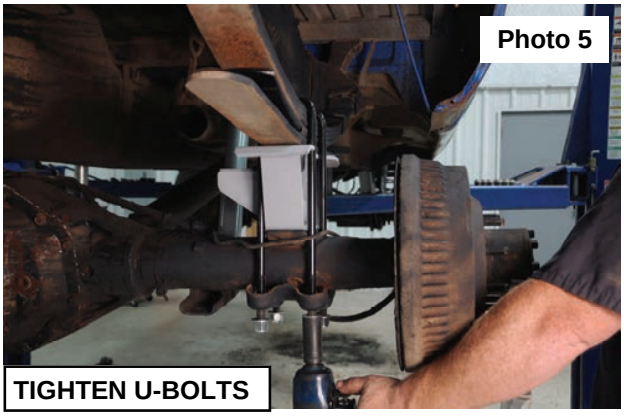
1. Chock front wheels and jack up the rear of the vehicle. Secure with jack stands on the frame rail.
2. Place a floor jack under the rear differential on the rear axle. Using a 18mm socket and wrench, remove the stock shock absorbers, retain the stock hardware for reuse.
3. Using a 24mm socket, remove the stock u-bolts. Use the floor jack to lower the axle assembly to allow for lifted block installation.
4. Install the Rough Country block in between the leaf spring and the axle. Jack up the axle and align the pins in the blocks and axle seat. **See Photos 1-3. **Bump stop nose on block goes to the inside of the truck.****
5. Using an 11/16" drill, drill the u-bolt plate. **See Photo 4.**

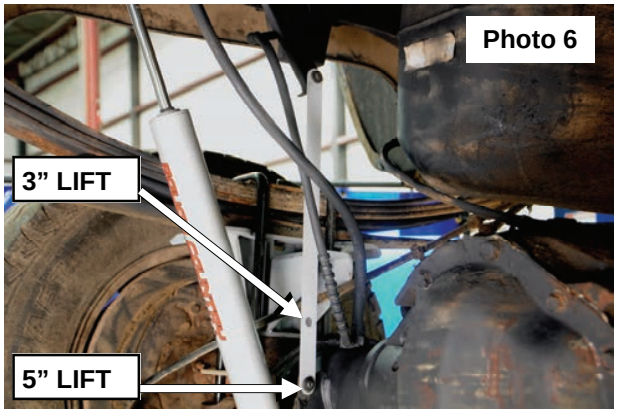












6. Install u-bolt plate. Tighten u-bolts in an alternating pattern. Torque to 85 ft-lbs. **See Photo 5.**
7. Install grommets into brake proportioning bracket. Install bracket on factory mounts. **See Photo 6. **Bottom hole is for 5" lift and next hole up from bottom is for the 3" lift.****
8. Locate shock part number 658726 and assemble poly bushings and sleeve in shock. Using a 18mm socket and wrench, install using factory hardware on upper and lower shock mount
9. Install the tires and wheels
10. Jack up the rear of the vehicle and remove the jack stands. Lower the vehicle to the floor.

POST INSTALLTION INSTRUCTIONS

1. 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.
2. 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.
3. Re-torque all fasteners after 500 miles. Visually inspect components and re-torque fasteners during routine vehicle service.
4. Readjust headlights to proper settings.
5. 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.

Alignment Specs

Front			
Total Toe	-0.00°	+0.10°	+0.20°
Front Camber	-0.75°	-0.25°	+0.25°
Caster	+2.25°	+3.25°	+4.25°
King-Pin	———	———	———
Incl. Angle	———	———	———
Rear			
Total Toe	°	°	°
Rear Camber	°	°	°
Thrust Angle	-.025°	+0.00°	+0.25°

THANK YOU FOR CHOOSING ROUGH COUNTRY SUSPENSION FOR YOUR SUSPENSION NEEDS.

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