TRAIL FORTRESS

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Rough Country 859830RED Installation Instructions

3-Inch Lift Kit with Red Forged Aluminum Upper Control Arms

Part number: 859830RED

trailfortress.com/rough-country-3-inch-lift-kit-859830red

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

8596BAG6

GM 2001-10 2500 2WD/4WD 3” LIFT KIT

Thank you for choosing Rough Country for your suspension 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.

Please read instructions before beginning installation. Check the kit hardware against the parts list on the rear cover of these instructions. Be sure you have all needed parts and know where they go. Also please review 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. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur. Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

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. If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products.

⚠NOTICE This kit is packaged as a leveling kit—raising the front 3” and the back 1.5”. If you desire a different look or if the vehicle has a tool box or added weight in the rear, please consult with your sales representative about other block and U-bolt options.

This suspension system was developed using a 33 x 12.5 tire with factory aluminum wheels. **Note** if wider tires are used, offset wheels will be required and trimming may be required.

NOTICE TO DEALER AND VEHICLE OWNER

⚠NOTICE Any vehicle equipped with any Rough Country product should have a “Warning to Driver” decal installed on the inside of the windshield or on the vehicle’s dash. The decal should act as a constant reminder for whoever is operating the vehicle.

⚠NOTICE Note to installer : Before installation begins we recommend that a test drive be performed. While driving check for uncommon sounds and/or vibrations . What you feel and hear during the test drive will only magnify once lift kit is installed. Advise you to discuss possible issues identified from drive with customer before proceeding to install this kit.

Tools Needed:

- 7/16” Wrench
- 18MM Wrench
- 15MM Wrench
- 21MM Wrench
- 10MM Wrench
- Floor Jack
- Jack stands

Torque Specs:

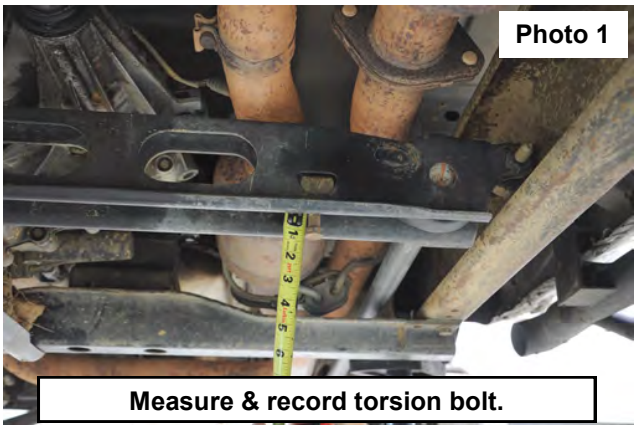
Size	Grade 5	Grade 8
5/16”	15 ft/lbs	20 ft/lbs
3/8”	30 ft/lbs	35 ft/lbs
7/16”	45 ft/lbs	60 ft/lbs
1/2”	65 ft/lbs	90 ft/lbs
9/16”	95 ft/lbs	130 ft/lbs
5/8”	135 ft/lbs	175 ft/lbs
3/4”	185 ft/lbs	280 ft/lbs

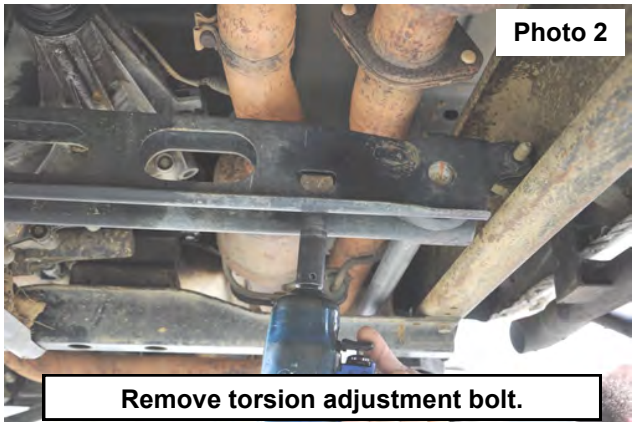
	Class 8.8	Class 10.9
6MM	5 ft/lbs	9 ft/lbs
8MM	18ft/lbs	23 ft/lbs
10MM	32ft/lbs	45ft/lbs
12MM	50ft/lbs	75ft/lbs
14MM	85ft/lbs	120ft/lbs
16MM	130ft/lbs	165ft/lbs
18MM	170ft/lbs	240ft/lbs

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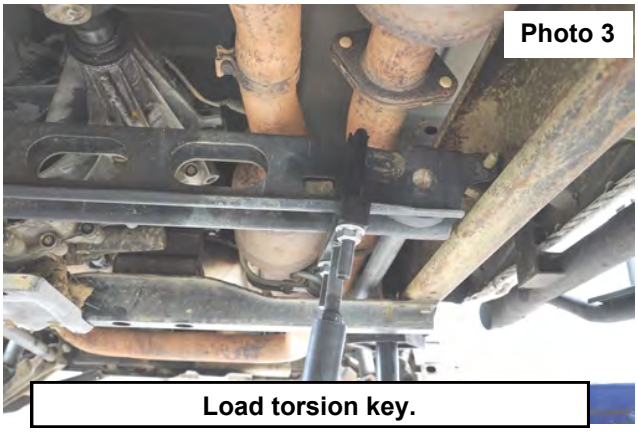
FRONT INSTALLATION

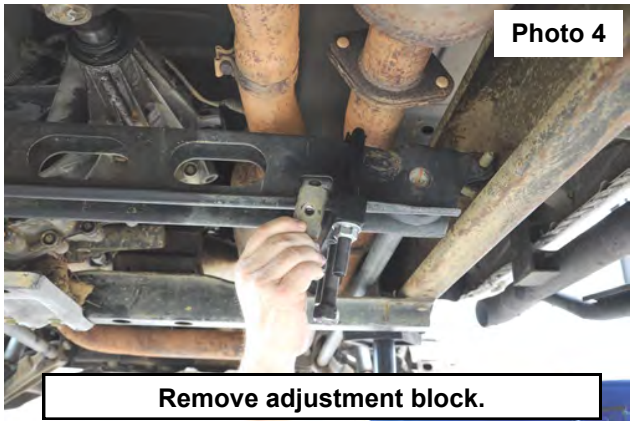
1. Park the vehicle on a level surface and chock the rear wheels.
2. Jack up the front of the vehicle. Place jack stands under the frame rails and lower onto jack stands letting the front suspension hang.
3. Remove the tires and wheels.
4. Measure and record torsion bar adjustment bolts. **See Photo 1**.
5. Using a 18mm socket, remove the torsion bar adjustment bolt. **See Photo 2**.



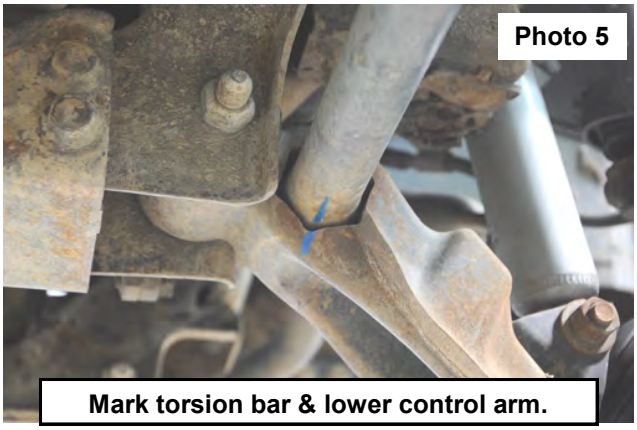


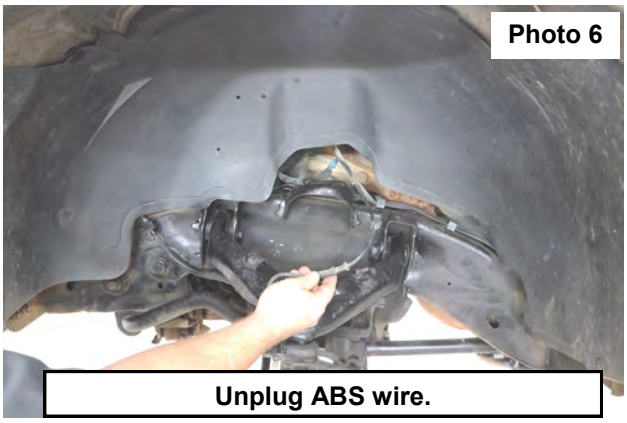
6. Use a torsion bar tool to load the torsion key. **See Photo 3.**
7. Remove the torsion bar adjustment block. **See Photo 4**.



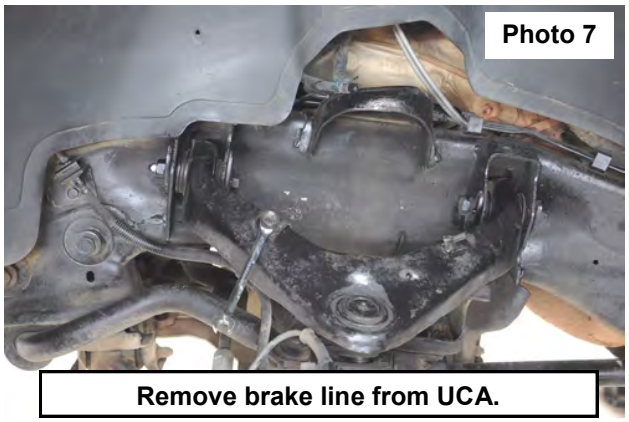


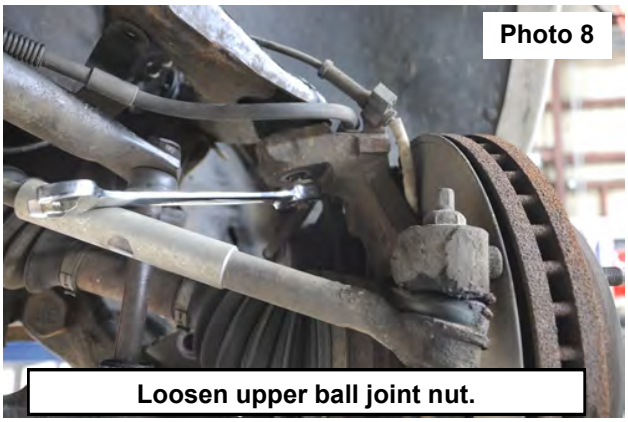
8. Place a mark on the torsion bar and the lower control arm. **See Photo 5**.
9. Unplug the ABS wire at the frame, remove from clips on upper control arm. **See Photo 6**.





10. Using a 10mm wrench, remove the brake line from the upper control arm. **See Photo 7.**
11. Using an 18mm wrench, loosen the upper ball joint nut. **See Photo 8.** **NOTICE** **Do not completely remove nut.**





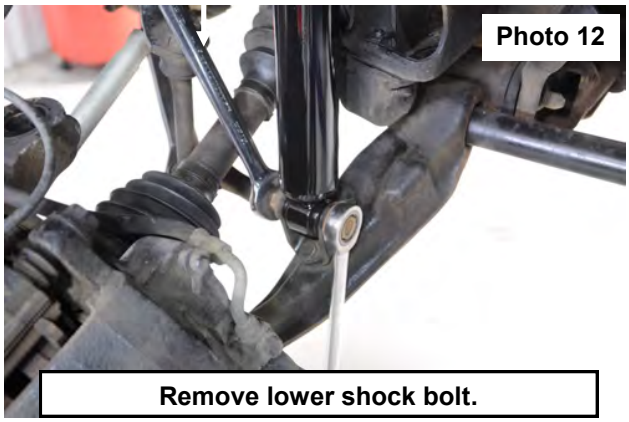
12. Using a hammer, strike the side of the steering knuckle to dislodge the upper ball joint. **See Photo 9.** Remove ball joint nut.
13. Using a 21mm wrench to remove the upper control arm from the frame mounts. **See Photo 10.** Retain factory cam bolts , plates, and hardware.



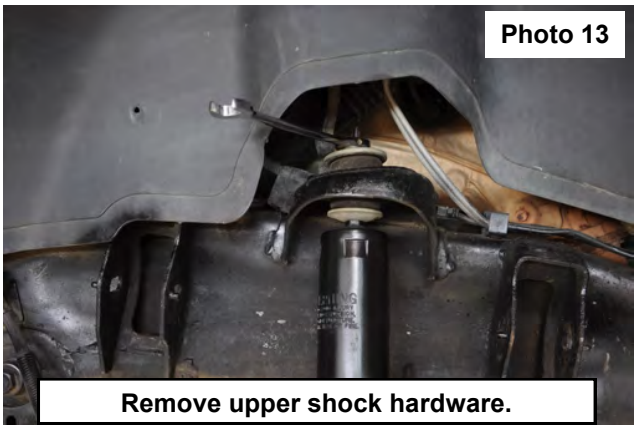


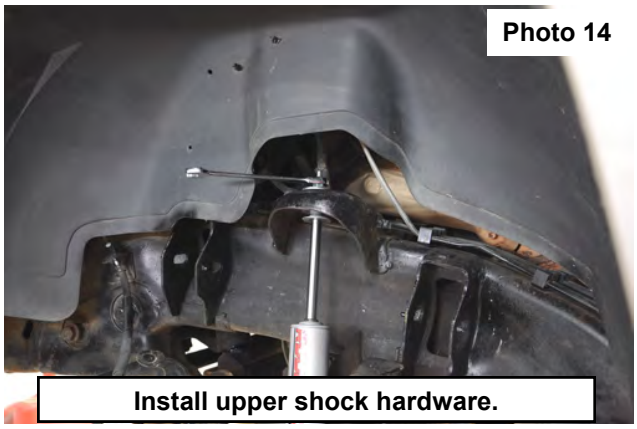
14. Remove the stock upper control arm from the vehicle. **See Photo 11.**
15. Using 21mm wrenches, remove the lower shock mounting bolt. **See Photo 12.** Retain hardware for reuse.





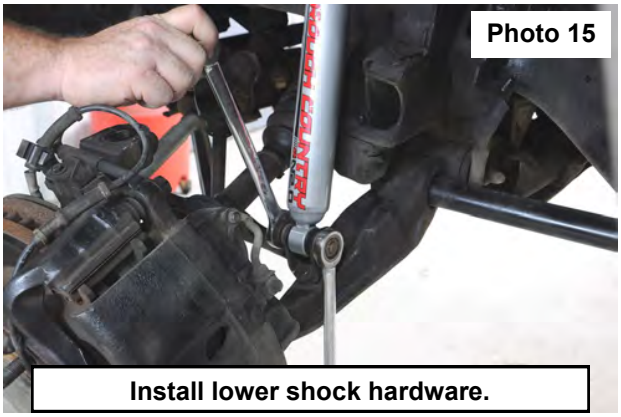
16. Using a 15mm wrench, remove the upper shock nut and bushings. Remove the stock shock from the upper mount. **See Photo 13.**
17. Install new Rough Country N3 shock (660763) using supplied upper hardware and stock lower hardware. **See Photo 14.**

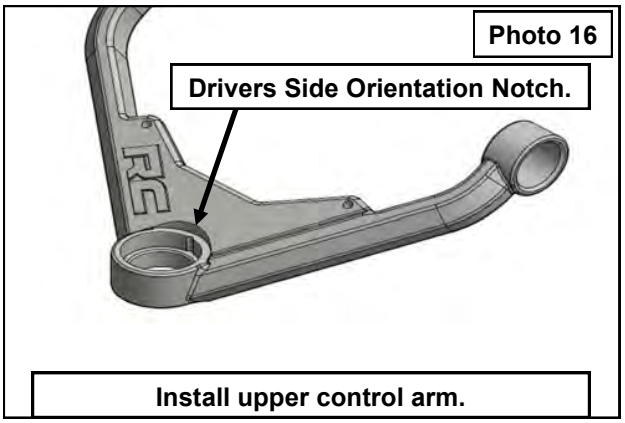




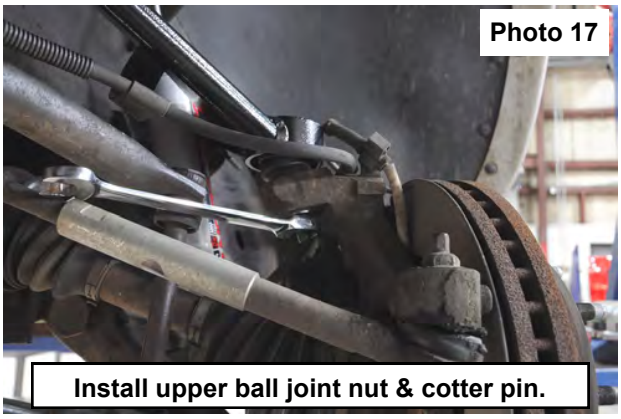
18. Tighten upper shock nut, using a 14mm wrench, until the bushings just start to bulge past the cup washers.
19. Using 21mm wrenches, tighten the lower shock bolt to factory specs. **See Photo 15.**
20. Install the supplied upper control arm using the factory cam bolts and supplied ball joint hardware. **See Photo 16.**

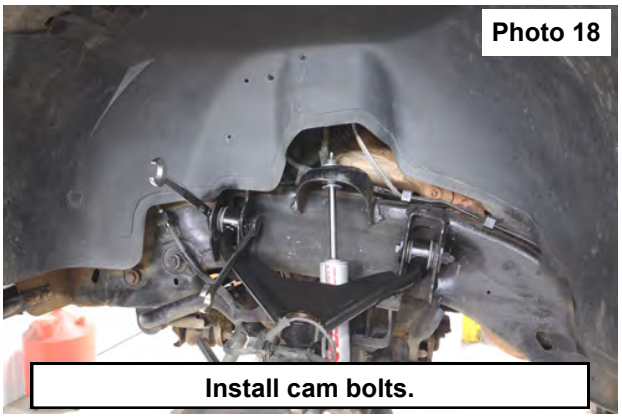
NOTICE The driver side upper control arm has an orientation notch on the inner bore of the ball joint housing. The passenger arm will have a orientation notch on the outer bore of the ball joint housing. The RC will be toward the front of the vehicle on each arm. Ball joint must be greased before use. Check ball joint grease after the first 100 miles and then every 3000 miles.



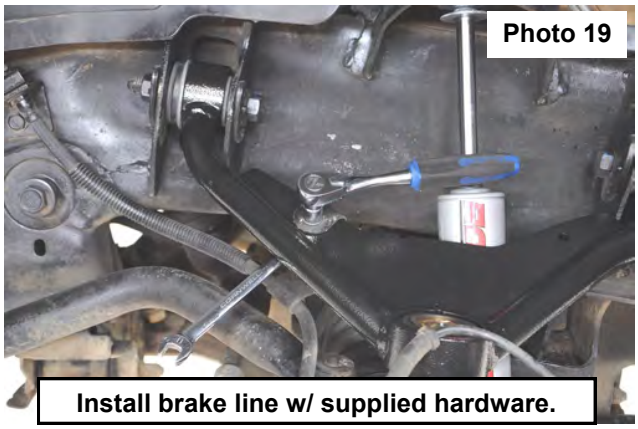


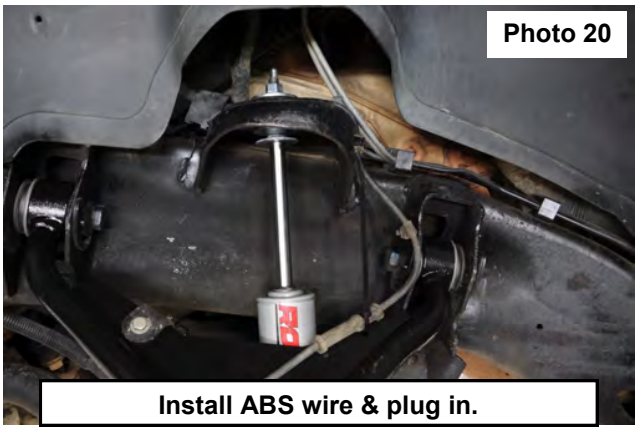
21. Using an 18mm wrench, tighten the upper ball joint nut and install the supplied cotter pin. **See Photo 17.**
22. Using 21mm wrenches, tighten the cam bolts to factory specs. **See Photo 18.**



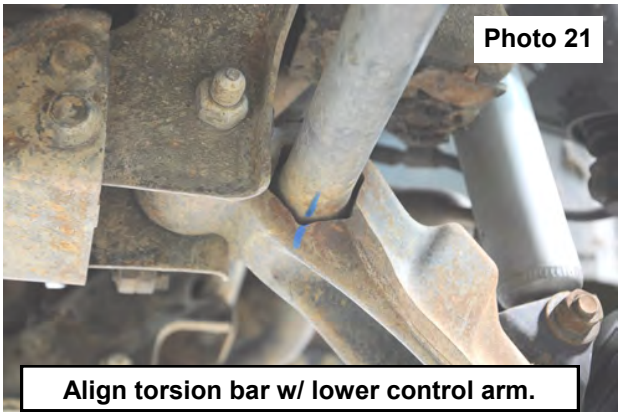


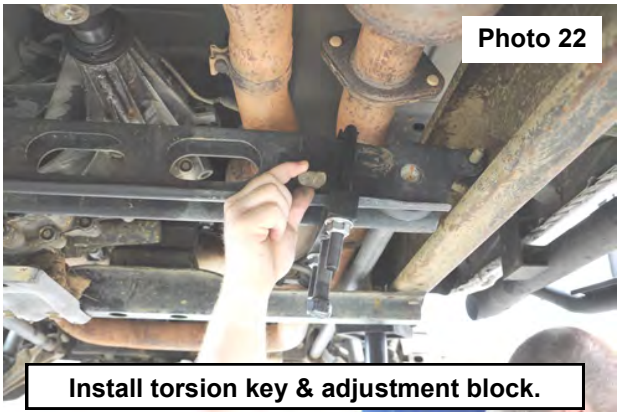
22. Install the brake line bracket on the upper control arm using the supplied 1/4” x .75” bolt, washer, and nut. Tighten using a 7/16” wrench. **See Photo 19.**
23. Use the supplied zip tie to secure the ABS wire to the control arm. Plug in ABS wire. **See Photo 20.**



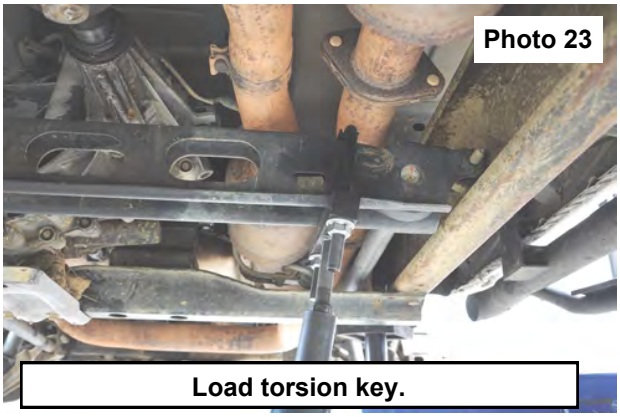


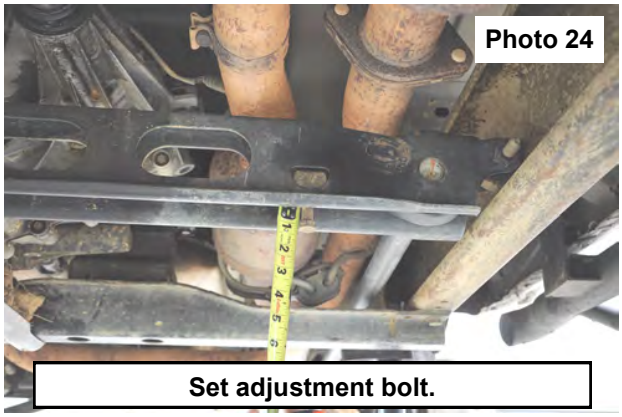
22. Align torsion bar mark with mark on lower control while installing new lifted torsion keys. **See Photo 21.**
23. Using a torsion bar tool, load the torsion key and install the adjustment block. **See Photo 22**.





24. Let tension off of torsion bar tool and install the adjustment bolt. **See Photo 23.**
25. Set torsion bar adjustment bolt to original measurement in step 4. **See Photo 24.**

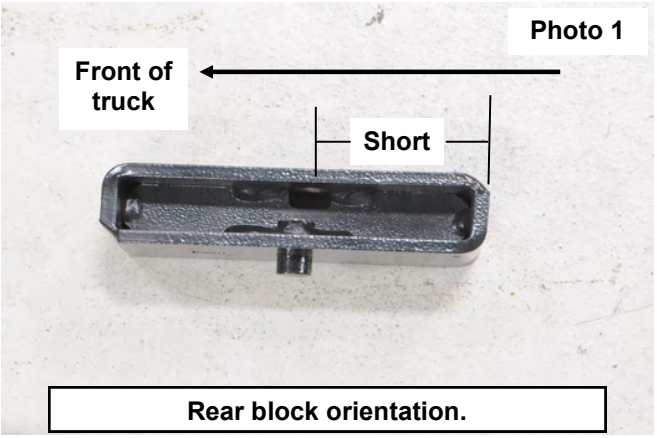




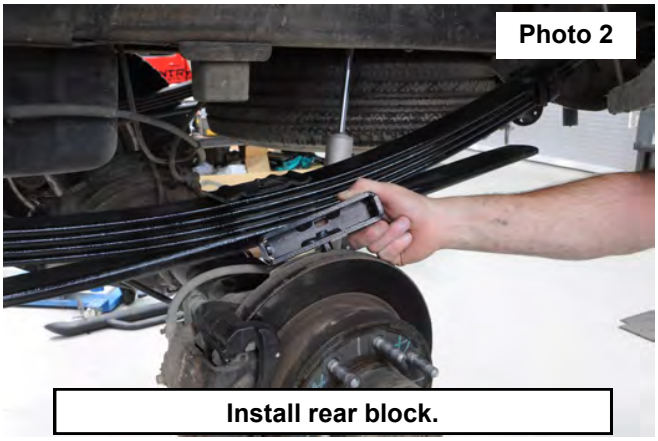
26. Repeat process on opposite side of vehicle.
27. Reinstall the wheels/tires.
28. Jack up the vehicle and remove the jack stands.
29. Lower the vehicle to the ground.

REAR INSTALLATION

1. Chock the front wheels.
2. Place a floor jack under the differential and jack up the rear of the vehicle.
3. Place jack stands under the frame rails and lower onto the jack stands.
4. Remove the tires/wheels.
5. Remove the factory shock absorbers using a 21mm wrench & socket. Retain the factory hardware for reuse.
6. Remove the factory u-bolts using a 21mm socket, then remove the factory blocks. Lower the axle using the floor jack to allow for the new 1.5" block to be installed.
7. Install the block on the factory spring pad, **NOTICE** The center pin should be installed offset to the front of the vehicle. Jack up the axle to meet the springs, making sure to align the center pin. **See Photos 1 & 2**

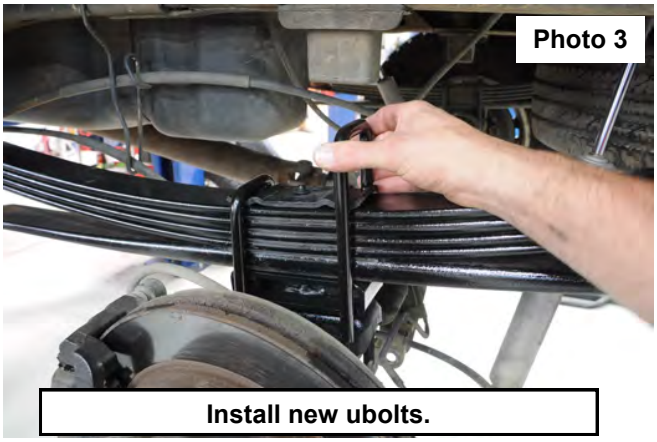


Rear block orientation.

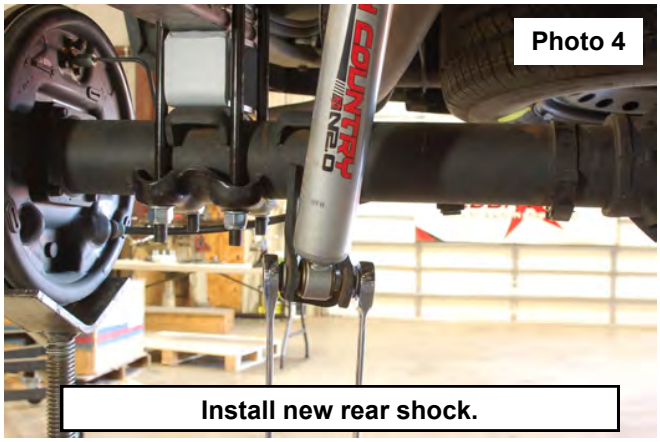


Install rear block.

8. With the floor jack applying slight pressure to the rear axle to keep the pin aligned, install the new supplied u-bolts and tighten in a crossing pattern, using a 7/8" socket. **See Photo 3.**
9. Locate the new shock absorbers part # 660782, and install the shock absorbers in the factory mounting locations using the factory hardware. Tighten using a 21mm wrench & socket. **See Photo 4.**



Install new ubolts.



Install new rear shock.

10. Install the tires/wheels.
11. Jack up the vehicle to remove the jack stands. Remove the jack stands and lower the vehicle to the ground.

POST INSTALLATION INSTRUCITONS

1. Have a qualified alignment center align the vehicle immediately.
2. Have headlights adjusted to proper settings.
3. Wheels must be retightened at 50 miles.
4. All kit components must be retightened at 500 miles and then every three thousand miles after installation. Periodically check hardware for tightness.
5. Install "Warning to Driver" decal on sun visor.
6. On some vehicles the front lower skirting will need to be trimmed if using certain wheel /tire combinations and with heavy offset wheels. Trim only as needed.

Box Kit

1-Driver Side Control Arm
1-Pass Side Control Arm
2-Torsion Keys.
4-9/16” x 10 1/2” U-bolts
2-1.5” Spacer Blocks
4-N3 Shock Absorbers

9/16BAG:
8-9/16” washers
8-9/16” lock nuts

8596BAG3:
2-1/4” x .75” Bolts
2-1/4” Flat Washers
2-1/4” Nylock Nuts
2-11” Black Cable Ties
Instructions
4-Shock Decals
1-Warning to Driver Decal

(2)8127BAG1:
2-Stem Bushings
2-Cup Washers
1-3/8” Nut

KIT CONTENT



Thank you for choosing Rough Country for your suspension needs.

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable , 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.