TRAIL FORTRESS

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Rough Country 7501 Installation Instructions

3-Inch Lift Knuckles for Silverado & Sierra 1500 RWD (1999-2007)

Part number: 7501

trailfortress.com/rough-country-3-inch-lift-knuckles-7501

Scan for fitment, price and install help



92750100

99-06 2WD CHEVY/GM 1500 3" LIFT

Thank you for choosing Rough Country for all of 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 Kit Contents list on next page. Be sure you have all the needed parts and understand where they go. Also please review the tools needed list to be certain that you have the tools necessary to complete the installation.

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 seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover 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 no 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, with this 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.

Due to differences in manufacturing, dimension and inflated measurements, tire and wheel combinations should be test fit prior to installation. This kit was developed using a 265/75-16 on stock wheel.

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 on too the vehicle owner for review and to be kept in the vehicle for its service life.

***If installing new shock absorbers*:The stock shock will appear longer than the new shock due to the factory using a longer upper stud. If measured correctly from base of upper mounting surface to center of mounting bar pin the new shock will essentially be the same measurement. A longer shock is *NOT* needed for a spindle lift.**

Kit Contents

1-Dr Side Knuckle
1-Pass Side Knuckle



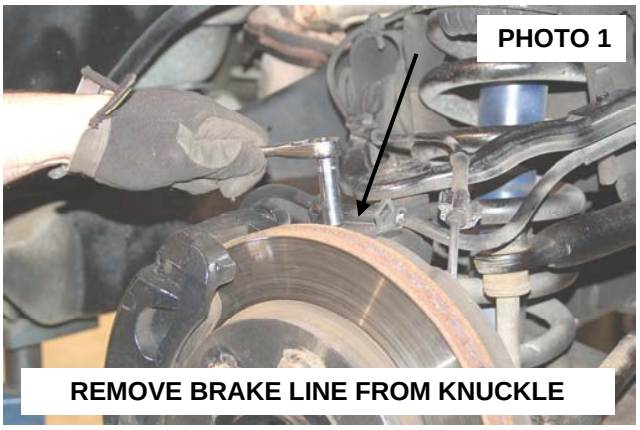
Tools Needed:

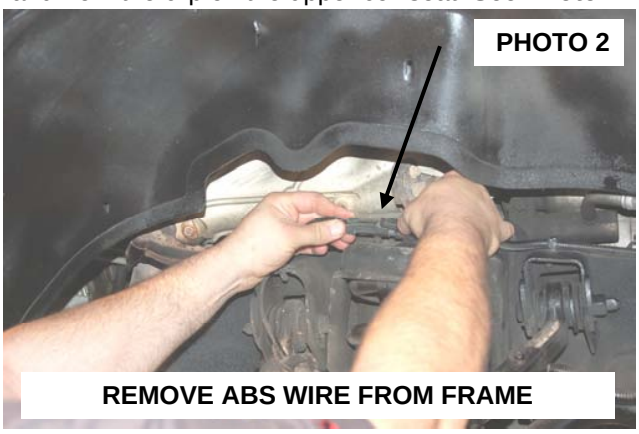
Floor Jack
Jack Stands
Hammer
Pry Bar
WD40
18mm Socket / wrench
15mm Socket / Wrench
12mm Socket / Wrench
10mm Socket / Wrench

KIT SHOWN WITH NITRO N2.0 SHOCKS AND REAR LIFT BLOCKS / U-BOLTS

INSTALLATION INSTRUCTIONS

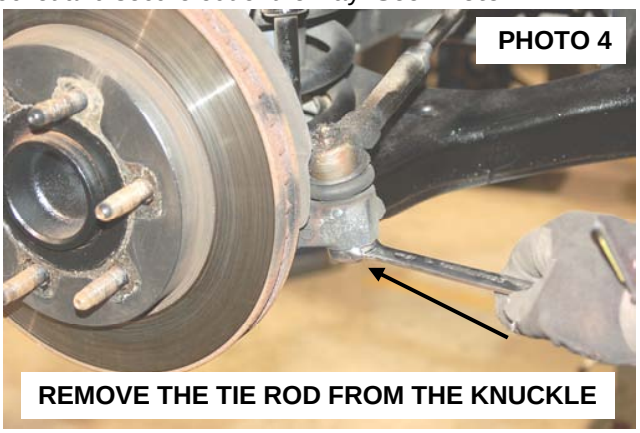
1. Set the emergency brake and chock rear tires to prevent rolling.
2. Jack up the front of the vehicle with a floor jack. Place jack stands on the frame rail directly behind the lower control arm mounts. Lower the vehicle onto the jack stands.
3. Remove the tires\wheels.
4. Remove the bolt on the top of the knuckle that secures the brake line to the knuckle using a 10mm wrench. **See Photo 1.**
5. Remove the ABS wire from the mounts on the control arm and from the clip on the upper coil seat. **See Photo 2.**



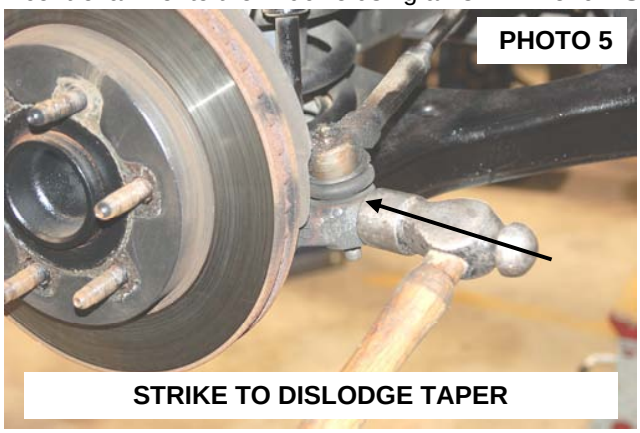


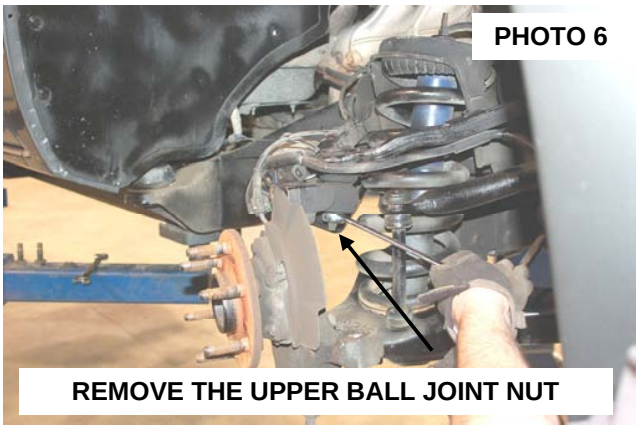
6. Remove the brake caliper using a 18mm socket and secure out of the way. **See Photo 3.** Remove the brake rotor and set aside.
7. Remove the tie rod end from the knuckle using a 18mm socket and secure out of the way. **See Photo 4.**





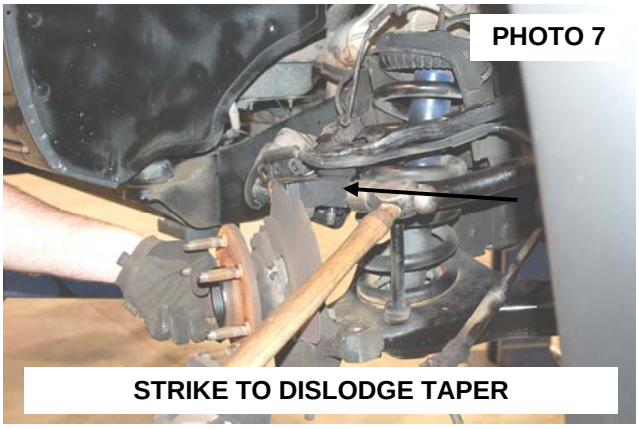
8. Loosen and remove the tie rod by striking the knuckle as shown to dislodge the tie rod. **See Photo 5.**
9. Place the floor jack directly underneath the lower control arm and loosen the upper ball-joint nut holding the upper control arm onto the knuckle using a 18mm wrench. **See Photo 6.**

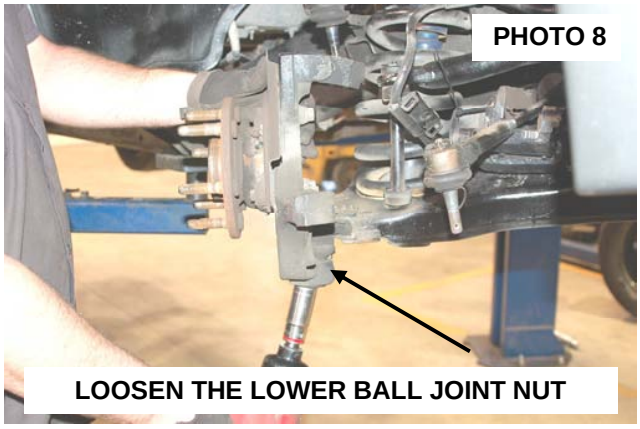




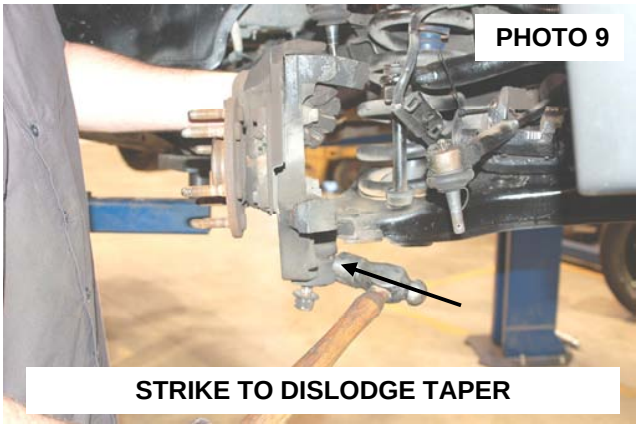
ROUGH COUNTRY SUSPENSION SYSTEMS

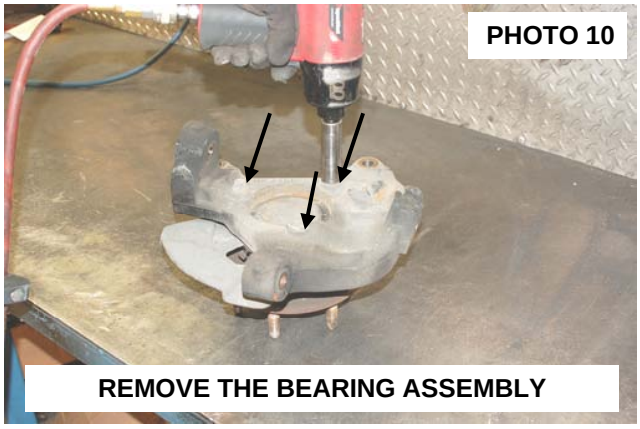
10. Remove the ball joint by either by using a ball joint separator tool or by striking on the upper portion of the knuckle until the upper ball joint is free. **See Photo 7.**
11. Loosen the lower ball joint nut using a18mm wrench. **See Photo 8.** Do not remove the lower ball joint nut at this time.





12. Strike to dislodge the lower ball joint as shown in **Photo 9** and remove the lower nut and remove the knuckle from the vehicle.
13. Remove the three bolts that secure the bearing assembly to the stock knuckle and remove using a 15mm socket. These bolts will be reused later in installation of new knuckles. **See Photo 10 & 11.**



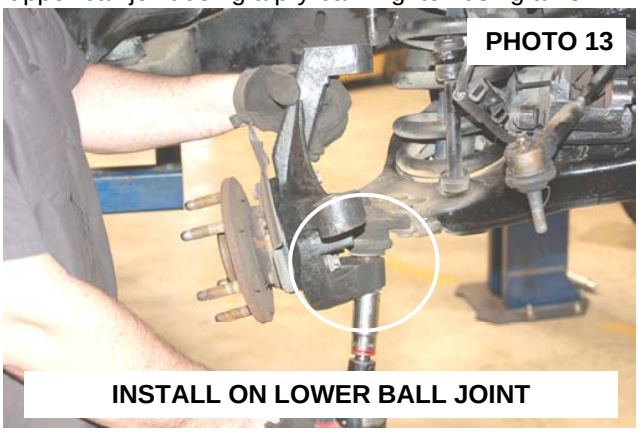


14. Install the bearing assembly on the new knuckle with the three factory bolts making sure to align the brake cover and tighten using a 15mm socket to factory specs. **See Photo 12.**





15. Install the new knuckle onto the lower ball joint using a 18mm socket. **See Photo #13**.
16. Make sure the brake line bracket runs under the upper ball joint as shown in **Photo 14** and install the knuckle on the upper ball joint using a pry bar. Tighten using a 18mm wrench.



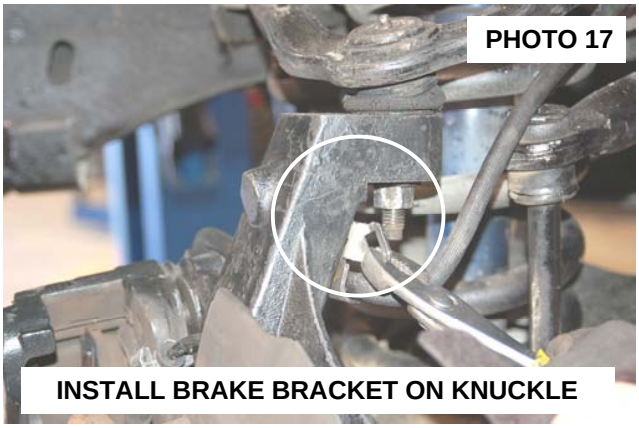


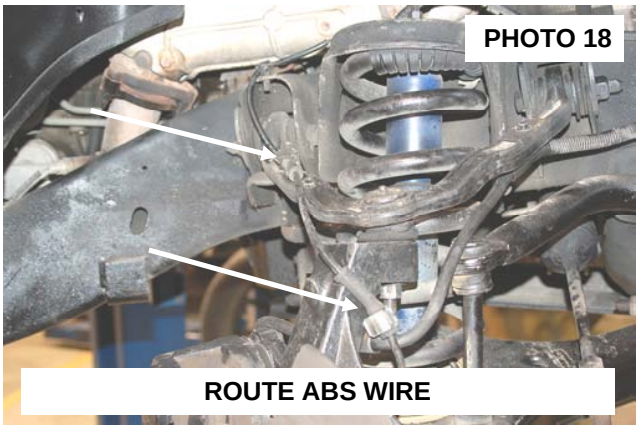
17. It may be necessary to reposition the brake line mounting bracket to allow the bracket to bolt up to the new mounting hole on the knuckle. If needed remove the bracket from the control arm using a 10mm wrench and spray the control arm bracket and knuckle bracket with WD40 and slide the brackets to allow the brake line to install on the knuckle. Move the knuckle from full left turn and right turn to make sure the brackets are positioned correctly and the brake line is not pulled. Move brackets as needed and install the brake line bracket bolt onto the hole on the under side of the new knuckle, near the upper ball joint with stock hardware. **See Photo 15 & 16.** Tighten using a 10mm wrench.





18. Reinstall the brake caliper and tighten using a 18mm socket to factory specs.
19. Install the tie rod end on the new knuckle. Tighten using a 18mm wrench to factory specs and install the cotter pin.
20. Bend the brake line bracket as shown to install the ABS wire as shown in **Photo 17 & 18.** If needed spray the line with WD40 and move the runner mounts to install the wire on the arm and on the upper coil seat. Reinstall the ABS wire in the clip on the upper coil seat. **Be sure to check for adequate clearance and move as necessary.**

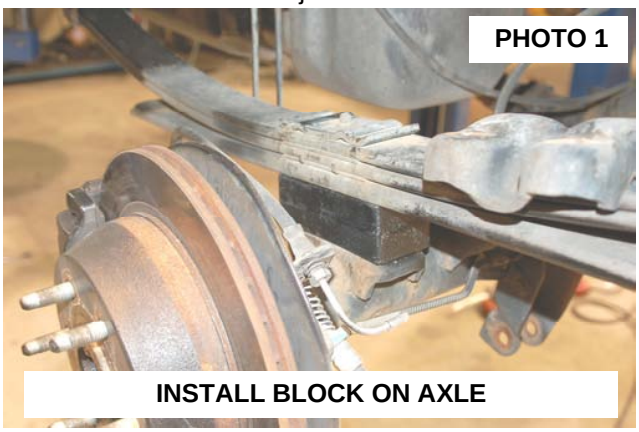


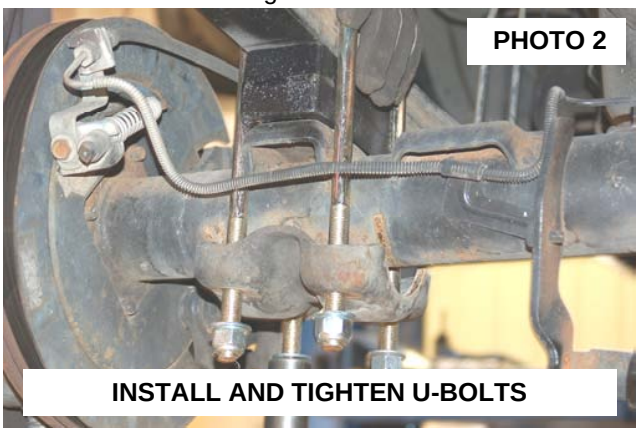


21. Remove the shocks using a 12mm socket on the lower arm and 9/16” on the upper mount. Retain lower hardware.
22. Install the new shock absorbers if purchased with the factory hardware.
23. Recheck all fasteners and install the wheels/tire. Repeat process for opposite side.

REAR BLOCK INSTALLATION INSTRUCTIONS
(If purchased with kit)

1. Chock the front wheels and jack up the rear of the vehicle. Support the vehicle with jack stands. Remove the tires/ wheels using 7/8" deep well socket.
2. Remove the factory shocks using a 21mm wrench and discard.
3. Support the rear axle with a floor jack and remove the factory u bolts.
4. Lower the jack and remove factory block and continue to lower until the lift block can be installed. **See Photo 1**. The thinner end of the supplied block faces the front of the truck with the flat part on the spring.
5. Install the new u bolts, washers, and nuts. **See Photo 2.** Do not tighten at this time. On the passenger side remove the u bolts and lower the jack and install the lift block. Tighten all the u bolts using a 7/8" socket.





6. Grinding may be required on the driver side e-brake bracket on the lower shock mount. If needed grind the threads to make sure there is no interference with the shock absorber.
7. Install the new shocks with the factory bolts and nuts using a 21mm wrench.
8. Install the wheels and tires. Tighten lug nut to factory specifications using crossing pattern. Lower the vehicle to the ground.
9. Tighten the lug nuts to 85 ft lbs.

POST INSTALLATION INSTRUCTIONS

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between brake lines. Check steering gear for clearance. Test and inspect brake system.
2. 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.
3. Have a qualified alignment center align the vehicle immediately. Realign to factory specifications. Have headlights adjusted to proper settings.
6. Perform head light check and adjustment to proper settings.
7. Check and retighten wheels at 50 miles and again at 500 miles.
8. All kit components must be retightened at 500 miles and then every three thousand miles after installation. Periodically check all hardware for tightness.
9. Install "Warning to Driver" decal on sun visor.

Note: Installation of larger tires will require speedometer recalibration.