

# ROUGH COUNTRY

## SUSPENSION SYSTEMS®

### 2003-2009 4 Runner 3"Front 2"Rear Leveling 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 disassembly/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 this page and the product layout on the last page. 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.

**▲ NOTICE** Will fit X-REAS suspension models.

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

This suspension system was developed using a Maximum tire size of 285/70R-17 tire with factory wheels. For aftermarket wheel and tire combinations consult your tire and wheel specialist.

#### ▲ NOTICE NOTICE TO DEALER AND VEHICLE OWNER

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 of its unique handling characteristics.

**INSTALLING DEALER** - it is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service life.

#### Kit Contents:

762 Contents:

2-Front Strut Spacers

2-Rear Coil Spacers

2-Rear Shocks Relocation Brackets

1-Shock Relocation Hardware Bag Includes:

2. 3/4-10x 3.5+Bolts
2. 3/4-10 Nylock Nuts
4. 3/4 Flat Washers
2. 3/8-16 x 1.25 Bolts
2. 3/8-16 Flange Lock Nuts
2. Flag Washers

#### Tools Needed:

- 12 mm Wrench
- 14 mm Socket
- 17 mm Socket
- 17 mm Wrench
- 19 mm Socket
- Hammer
- 16mm Wrench
- 21mm Socket
- 9/16+wrench



## FRONT INSTALLATION

1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground.
2. Remove the front tires/wheels. Using a 21mm deep well socket.
3. Remove cotter pin from the outer tie rod end on the steering linkage. Using 19mm socket remove the nut. Using a hammer hit on the side of the cast knuckle to allow the tie rod end to separate from the knuckle. Remove the linkage from the knuckle. Push linkage forward to make room for installation. Retain factory nut. **See Photo 1.**
4. Using a 17mm wrench, remove the sway bar bolts, allowing the sway bar to drop. Retain factory hardware. **See Photo 2.**

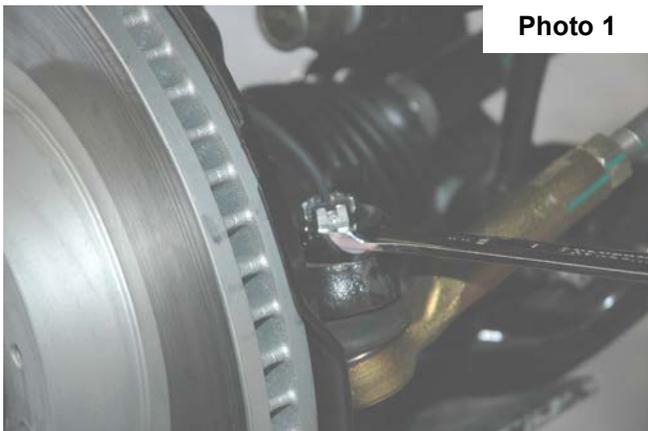


Photo 1



Photo 2

5. To allow the strut to be removed, remove the ABS bracket from the knuckle using a 12mm socket. Retain factory hardware for reuse. **See Photo 3.**
6. Using a 14mm socket, remove the strut nuts on the upper strut tower that holds the assembly in place. **See Photo 4.** One nut can be left on an upper stud to hold the strut in place .



Photo 3

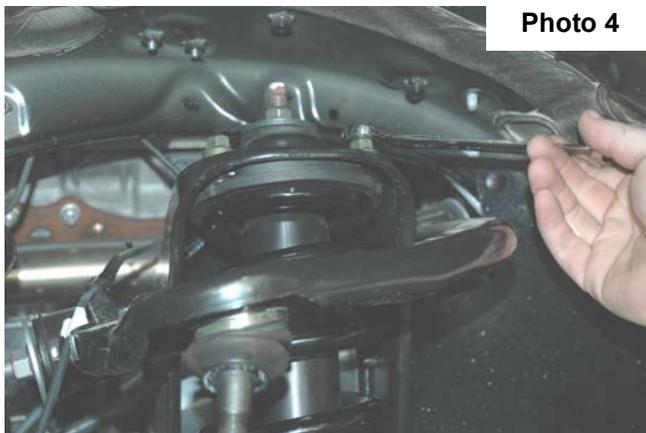


Photo 4

7. Place jack stand under the knuckle for support.
8. Using 19 mm socket remove nut from the ball joint on the upper control arm. Using a hammer hit the knuckle to allow the ball joint to separate from the upper control arm **See Photo 5. Do not** allow the knuckle to pull out far enough that it pulls the CV shaft out of the differential or over extends the brake line.
9. Using a 19mm socket and wrench, remove the strut bolt from the lower control arm and remove the strut assembly. Retain the factory lower hardware for reassembly. Note the direction of the bolt for reassembly. **See Photo 6.**

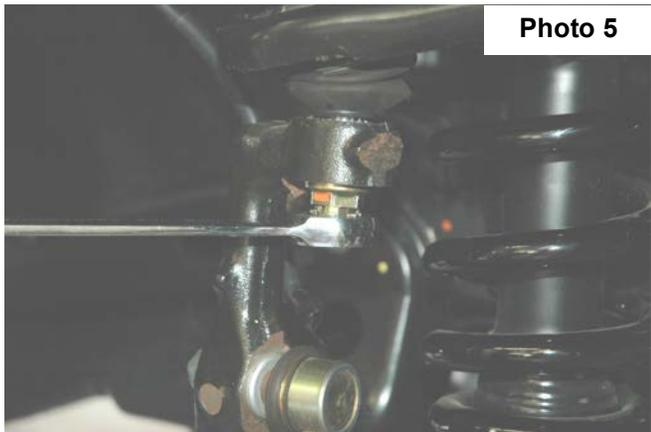


Photo 5

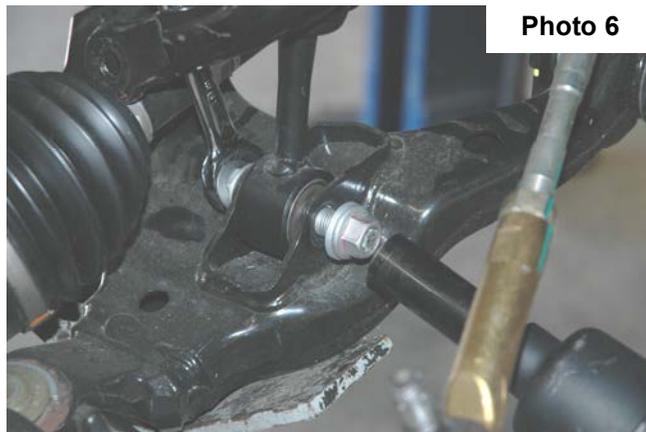


Photo 6

10. Install the new strut extension bracket. Align the holes on the strut extension with the bolts on top of the strut plate and secure with factory hardware. Torque fasteners. **See Photo 7.**
11. Install the strut assembly into the strut tower and start the supplied 10mm nuts. Using a 17mm wrench torque to 47ft. lbs **See Photo 8.**



12. Position the strut assembly to reinstall the lower strut bolt in its original position that it was removed. Using original hardware and a 19mm socket torque to 100ft lbs.
13. Using a floor jack, raise the lower control arm and connect the upper ball joint on the upper control arm to the spindle. Using a original nut and a 19mm socket, torque to 40ft lbs.
14. Reinstall the tie rod end off steering linkage into knuckle using original factory nut. Using a 19mm socket torque nut to 65ft. Lbs. Install supplied new cotter pin
15. Repeat steps 3-14 on opposite side of vehicle.
16. Using 17 mm wrench reinstall sway bar links using factory hardware. Torque to 52 ft. lbs.
17. Install the wheels / tires. Using a 21mm socket. Torque to 85 ft. lbs. With vehicle on the ground, check the clearance between the tire and upper control arm to make sure the arm does not rub the tire.
18. Jack up the vehicle and remove the jack stands. Lower the vehicle to the ground and re-check all bolts, to assure they are tight.
19. This vehicle must have a front-end alignment after installation of the suspension kit. The vehicle will be aligned to factory specs.

### REAR INSTALLTION

1. Jack up the rear of the vehicle and support the vehicle with jack stands, so that the rear tires are off the ground
2. Remove the rear tires/wheels. Using a 21mm deep well socket.
3. Using a 17mm socket remove the rear lower shock hardware. Retain the lower shock hardware for reuse. **See Photo 10.**



4. Using a 17mm socket or wrench disconnect the sway bar links. **See Photo 12.**
5. Using a 12mm wrench remove the bolt holding the brake line bracket to the frame on the drivers side, and the ABS wire on the passengers side.
6. Lower the axle and remove the factory coil spring.
7. Install new coil spring spacer in the factory pocket with the supplied 1/2"x 1 1/4"+bolts, washers & nuts. **See Photo 13.**



8. After the new spacer has been secured to the frame, reinstall the stock coil spring as shown in **Photo 14**. Make sure the lower coil is positioned correctly in the lower spring seat. **See Photo 15.**



9. Using a 12mm wrench, reinstall the brake line bracket on the drivers side, and ABS bracket on the passengers side.
10. Using 17mm wrench reinstall sway bar links using factory hardware. Torque to 52 ft. lbs.

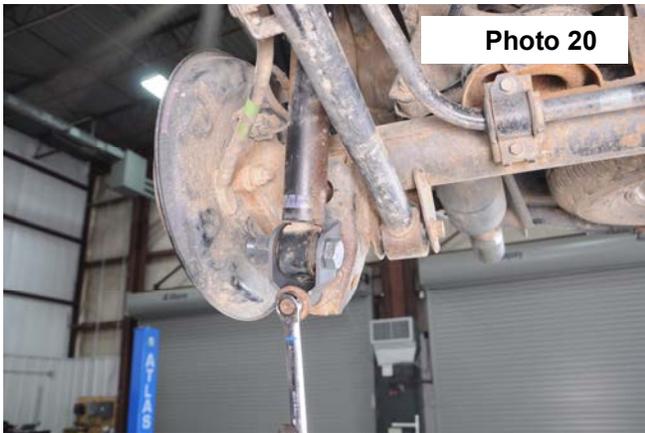
11. Place the shock bracket onto the lower shock mount. **See Photo 16.**
12. Use factory hardware to attach the bracket on the lower mount. **See Photo 17.**



13. Place supplied 3/8+bolt into upper hole on shock bracket. **See Photo 18.**
14. Attach shock to bracket using supplied 3/4+bolts, nuts and washers. Tighten using 1 1/16+wrench and 1 1/8-socket. **See Photo 19.**



15. Tighten lower mount bolt using a 17mm wrench, torque to 71 ft. lbs. **See Photo 20.**
16. Place flag washer into rear of factory shock mount. Using supplied 3/8+flange lock nut, tighten with 9/16+socket and wrench. **See Photo 21.** Repeat process for opposite side.



17. Reinstall tire/wheels. Using a 21mm socket. Torque to 82 ft. lbs. Jack up the rear of the vehicle and remove the jack stands.
16. Lower the vehicle to the ground.

## POST INSTALLATION

1. Check and recheck all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check clearance between upper control arm and sidewall of tire for proper clearance. Check steering for interference and proper working order. Test brake system.
2. Perform steering sweep. Cycle the steering from full turn to full turn to check for clearance. 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. Adjust headlights to proper settings given increased vehicle height.

## MAINTENANCE INFORMATION

It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 500 miles and then every 1000 miles. Wheel alignment steering system, suspension and driveline systems must be inspected by a qualified professional mechanic at least every 3000 miles.

### **Thank you for purchasing a Rough Country Suspension System.**

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.

