

# ROUGH COUNTRY

## SUSPENSION SYSTEMS®

### 08-10 F250 8" SUSPENSION 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**

As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend 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 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 8+ and the back 7+. 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 block / u-bolt options.

This 8+ suspension system was developed for 37x12.50x17 tire on an after market wheel w/ 4.5+ back spacing.

#### **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.

#### **Kit Contents:**

9298	Diesel Coil Springs
1580Box1	Upper Control Arms
1580Box2	Lower Control Arms
1592Box2	Stabilizer Drop Brackets
	Track Bar Bracket
	Control Arm Bracket
	Sway Bar Link
	Hardware Bags
	Pitman Arm
	Stainless Front Lines
	Carrier Bearing Drop Brkt
1580Box4	Fr Shocks
	Rear Shocks
1563Box3	6.5+Block and U-Bolt Kit

#### **Tools Needed:**

8mm Wrench	1 1/8+Wrench
10mm Wrench	1 13/16+Wrench
12mm Wrench	Jack Stands
15mm Wrench	Jack
17mm Wrench	Drill
17mm Socket	Drill Bits-13/16-7/8
18mm Wrench	
18mm Socket	
19mm Wrench	
21mm Wrench	
24mm Socket	
30mm Socket	

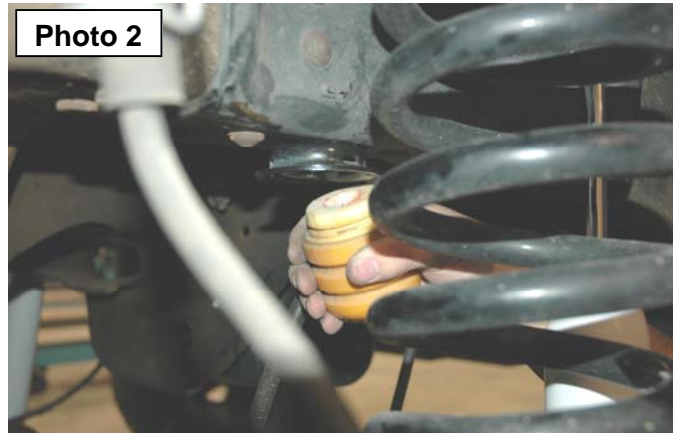
#### **Torque Specs:**

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
Size	Grade 8.8	Grade 10.9
8MM	18ft/lbs	23 ft/lbs

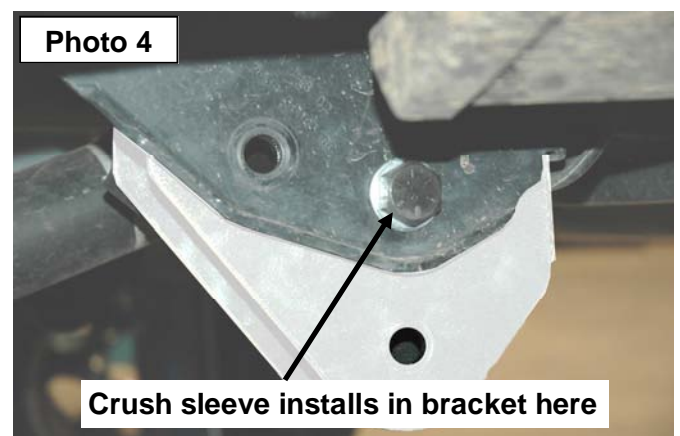
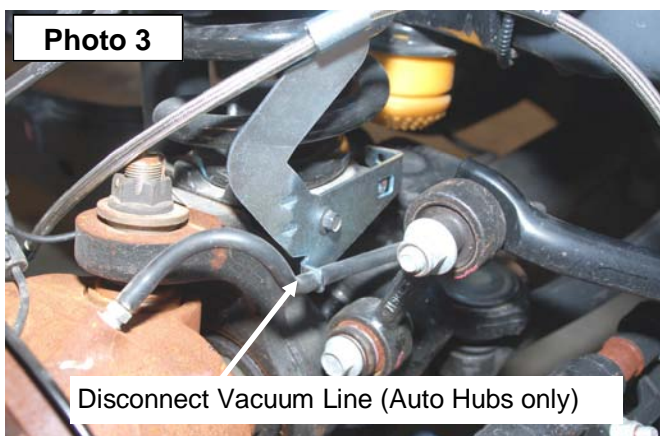


## FRONT INSTALLATION INSTRUCTIONS

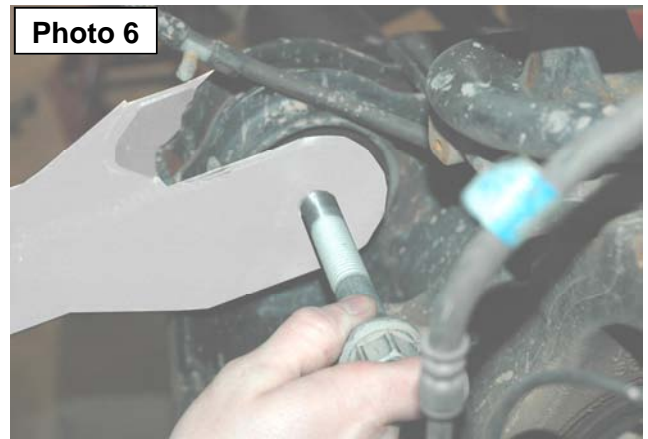
1. Block the rear wheels of the vehicle. Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and tires and set aside. Position a hydraulic jack under the front axle and raise the jack until the front suspension begins to compress
2. Disconnect the track bar from the driver side frame bracket, using a 30mm wrench.
3. Disconnect the sway bar end links from the axle and the sway bar, using a 18mm wrench. Remove end links and retain the hardware for reuse. **See Photo 1.**
4. Remove the bump stop from the cup shaped bracket. Remove the bracket from the frame rail using a 10mm wrench. **See Photo 2.**



5. Disconnect the ABS sensor wire from the lower spring seat and the radius arm, using a 8mm wrench.
6. Unbolt the brake line brackets from the axle, using a 10mm wrench. Remove the center disconnect vacuum lines from the clamp on the axle. ( If equipped with automatic hubs). Remove the stock brake line from the stock steel line and install the supplied braided brake lines in the factory location with the factory hardware. Please note there is a driver and passenger side brake hose . **Photo 3** Shows the new line being installed. Bleed brake system.
7. Using a 19mm wrench remove the nut, retaining washer and rubber bushing from the upper shock mounts. Using a 18mm wrench remove the lower shock bolts. Retain hardware for re-use.
8. Carefully lower the jack until the coil springs are free. Remove the coil springs from the vehicle. Note: use of a coil spring compressor may be required for spring removal.
9. Support both radius arms with jack stands. Using a 24mm wrench, and socket remove the bolt holding the radius arm to the frame. Using a 24mm wrench, and socket remove the 2 bolts each side holding the radius arm to the axle. Retain stock hardware for reuse.
10. Insert the radius arm drop bracket into the stock location. Bolt into place using a 3/4+x4.75+bolt, crush sleeve, nut and washer provided in the kit bag. Do not tighten at this time. **See Photo 4.**



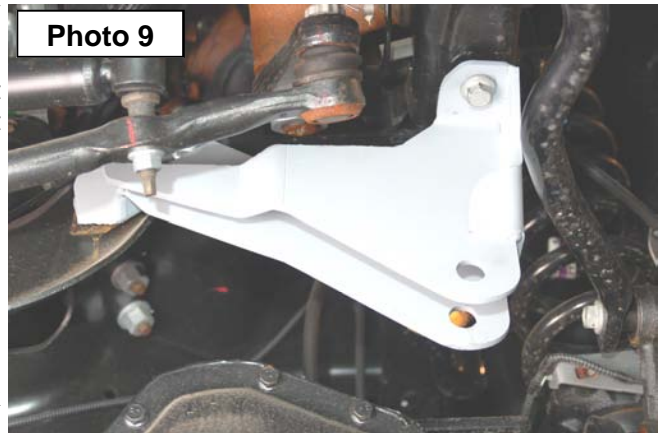
11. Insert bushings, and sleeves from kit bag into the upper control arm. **See Photo 5.**
12. Attach the upper control arm to the radius arm bracket in the top hole. Bolt into place using a 3/4+x4.75+ bolt, nut and washer provided in the kit bag. Do not tighten at this time
13. Attach the control arms to the axle using the stock hardware. **See Photo 6. It may be necessary to use the rear nut from the frame mount due to some models having the radius arm nut welded to the radius arm.**



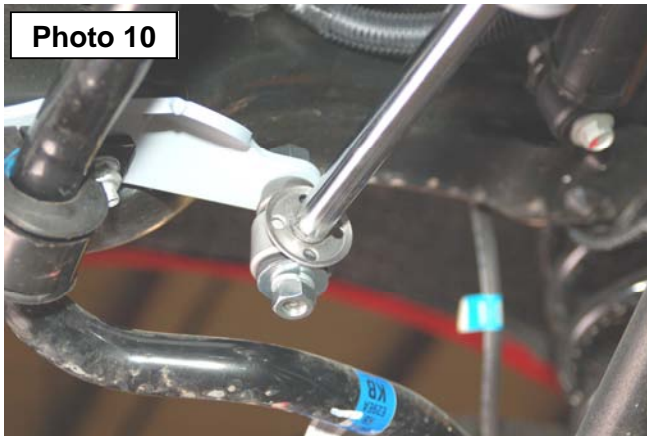
14. Attach the lower control arm to the axle using the stock hardware. Do not tighten at this time.
15. Insert the end of the lower control arm into the radius arm drop bracket. Bolt into place using a 3/4+x4.75+ bolt, nut and washer provided in the kit bag. **See Photo 7.** Using a 1 7/8+ wrench tighten the jam nut against the arm body. Center of bushing to center hole of opposite bushing should be 36 1/8+
16. Reattach the ABS wire to the upper control arm. **See Photo 8.**
17. Repeat step 12-18 on the opposite side.



18. Using a 21mm wrench and 18 mm wrench socket remove the factory track bar bracket. Retain stock hardware for re-use.
19. Remove the cotter pin and nut using a 21mm wrench, from the drag link end where it attaches to the pitman arm. Dislodge link with a tie rod end puller, or a pickle fork. Note: replace the link if any stud looseness is detected, or if you can twist the studs in its socket with your fingers. Using a 34mm socket, remove the nut from the steering sector and remove the pitman arm with a puller tool. Inspect the splines on the shaft for excessive wear, repair if needed.
20. Install new arm, lock washer, and nut. Using a 34mm or 1 13/16+socket, tighten bolt.
21. Attach the drag link stud to the pitman arm. Torque nut to factory specs, and install cotter pin. Check for adequate linkage clearances while turning steering wheel full lock in both positions
22. Position the Rough Country track bar bracket on the frame in the same position as the original and secure using the factory hardware. Tighten hardware using a 18mm & 21mm wrench. **See Photo 9.**
23. Using the nylon bump stop extension provided, place the extension between the frame and the bump stop cup. Bolt back into the original location using the 8mmx95mm bolt supplied using a 13mm wrench. Torque to 15 ft. lbs.
24. Lower the front axle enough to install the new coil springs. Position the coil springs in the lower coil buckets on the axle and rotate as necessary to be sure that the pigtail of the coil is indexed properly in the bucket. Position the factory rubber isolator on top of each coil, then raise the axle enough to seat the coil springs in the upper spring buckets.
25. Install the bushings and sleeves on the front gas shock absorbers part # 658459
26. Compress the front springs enough to install the front shocks. Bolt the lower end of the shock to the axle using the stock hardware , using a 18mm wrench. Attach the upper end of the shock using the stock hardware, and a 18mm wrench, tighten only enough to bulge the bushing.
27. Remove the factory steering stabilizer from the passenger factory frame mount using a 18mm wrench.
28. On the passenger side, install the new stabilizer bracket in between the frame and the factory sway bar mount with the factory hardware. **See Photo 10.** On the driver side, remove the sway bar bracket from the frame using a 15mm wrench and install the supplied spacer plate as shown in **Photo 11** with factory hardware.



**Photo 9**



**Photo 10**



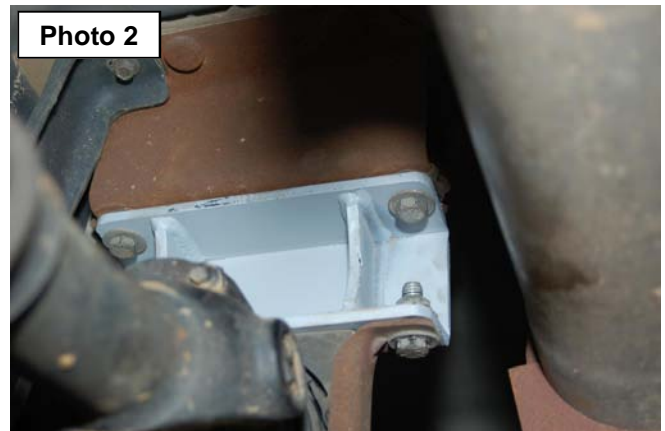
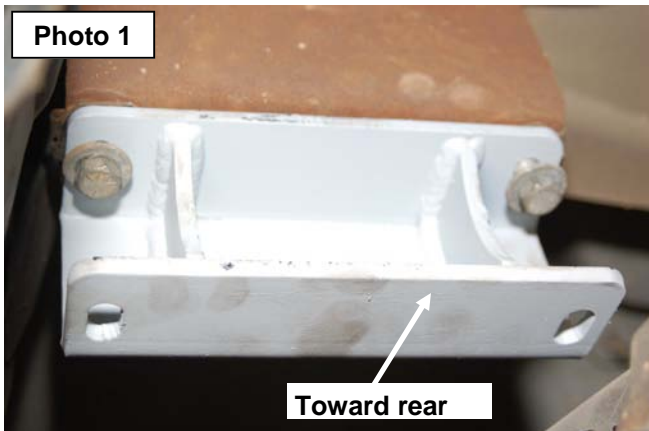
**Photo 11**

29. Reinstall the factory unit install in the new stabilizer bracket using the factory bolt that was removed from the factory steering stabilizer.
30. Install tires and wheels and lower the vehicle to the ground.
31. Install the new sway bar links in the factory location with the factory hardware and using a 18mm wrench. **See Photo 13.**
30. Tighten the radius arm hardware.
31. Install the track bar in the new track bar bracket using a 30mm wrench. **NOTE:** It may be necessary to start the truck and turn the wheels in the direction the track bar needs to go in order to align the track bar with the hole. Install using the stock track bar hardware.



### CARRIER BEARING DROP INSTRUCTIONS

1. For vehicles with 2 piece drive shafts, support the driveshaft, using a 15mm socket remove the bolts from the carrier bearing bracket.
2. Lower the drive shaft and install the drop bracket in the stock location. Reuse the factory hardware to secure the carrier bearing drop bracket to the frame. Tighten hardware. Please note the direction of the drop bracket. The bracket is installed with the tall part of the bracket toward the rear. Flat part of the bracket installs on the stock frame location and the drive shaft carrier bearing installs on the angled part of the bracket. **See Photo 1.**
3. Using the supplied 7/16+x 1 1/2+bolts, secure the carrier bearing to the new drop bracket as shown in **Photo 2.**

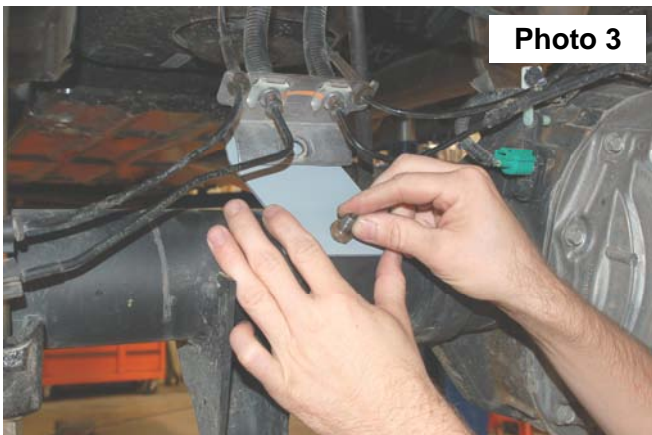


## REAR INSTALLATION (for 4.5" Kit)

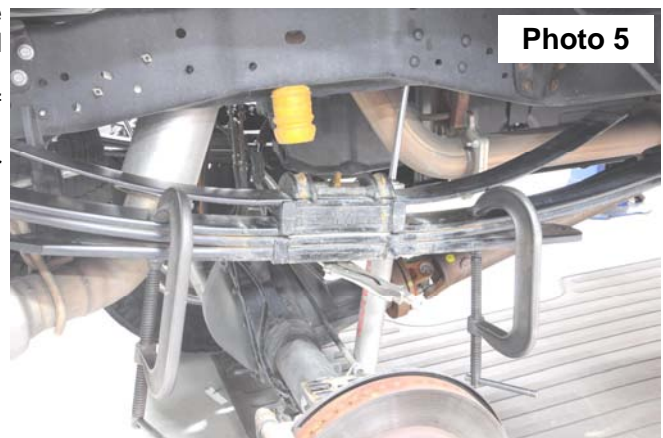
1. Chock front wheels and jack up the rear of the vehicle. Secure with jack stands on the frame rail.
2. Place a floor jack under the rear differential on the rear axle. Using a 18mm wrench for the upper, and 19mm and 15mm wrench for the lower, remove the stock shock absorbers, retain the stock hardware for reuse.
3. Remove the diff vent hose from the differential. **See Photo 1.**
4. Remove the diff vent tube using a 5/8+wrench. Retain the vent tube for reuse. **See Photo 2.**



5. Install the supplied bracket in the stock location using the stock hardware. Tighten using a 5/8+wrench. **See Photo 3.**
6. Install the stock brake line bracket to the new bracket with the supplied 7/16+x 1+Bolts, washers and lock nuts and tighten using 5/8+wrench. Reinstall the diff vent hose as shown. **See Photo 4.**



7. Using a 24mm socket, remove the stock u-bolts. Use the floor jack to lower the axle assembly to allow for lifted block installation.
8. Using C-clamps, clamp the spring pack on each side of the center pin.
9. Using locking pliers, lock onto the bottom of the center pin. **See Photo 5.**



10. Using a 9/16+socket, remove the nut from the center pin. **See Photo 6.**

11. Remove the factory ubolt plate. **See Photo 7.**

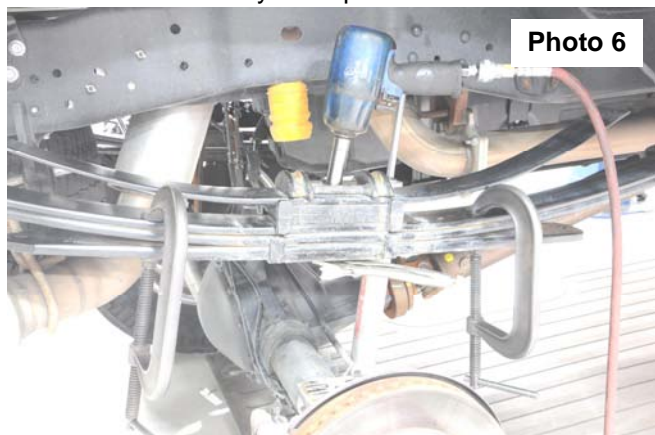


Photo 6

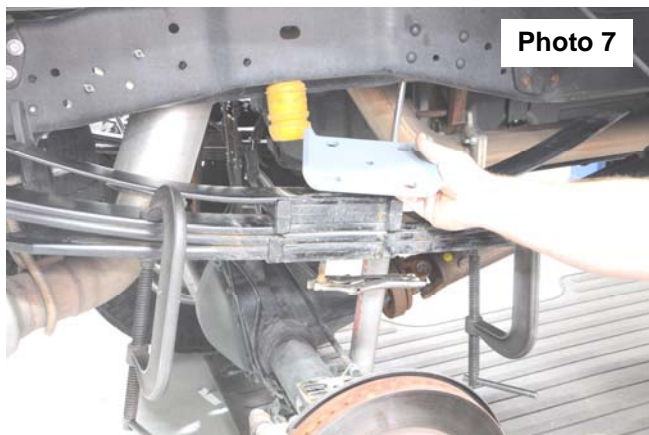


Photo 7

12. Using the stock hardware, attach the supplied ubolt plate and tighten the center pin using a 9/16+socket. **See Photo 8.**

13. Install the supplied shim plates between the block and the leaf spring. Install the supplied 7/16+square ubolts and hardware. Tighten using a 5/8+socket.

14. Install the new supplied 3/4+ubolts from the bottom. Use the supplied 3/4+ hardware and tighten using a 1-1/8+socket. **See Photo 9.**

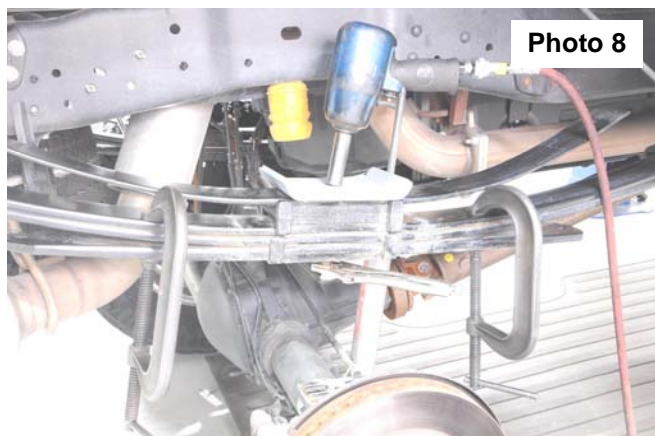


Photo 8

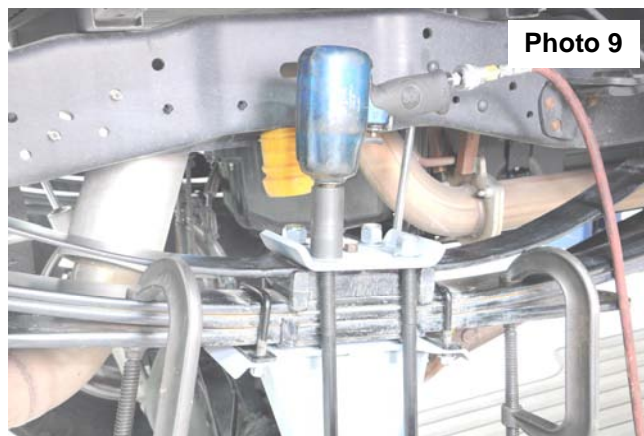


Photo 9

15. Locate shock part number 658601 gas shock and assemble poly bushings and sleeve in shock. Using a 18mm wrench, for the upper, and a 19mm and 15mm wrench for the lower. Install using factory hardware on upper and lower shock mount

16. Install the tires and wheels.

17. Jack up the rear of the vehicle and remove the jack stands. Lower the vehicle to the floor.

18. With the weight of the vehicle on the axle, torque the u-bolts to 130-150 ft-lbs.

19. Check all hardware for proper torque.

## POST INSTALLTION INSTRUCTIONS

1. Have a qualified alignment center realign front end to  
Caster min. 4.0 degree  
Camber . 0.6- .09 degree  
Toe . .10. .15 degree
2. Install Warning to Driver decal on sun visor.
3. All components must be retightened after 500 miles, and every three thousand miles after installation
4. Adjust headlights to proper settings.
5. Test brake system to make sure the is has been properly bled.

## KIT CONTENTS



Thank you for choosing Rough Country for your suspension needs.

