



## 07-UP TUNDRA 4 1/2" LIFT KIT

Thank you for choosing Rough Country for all your suspension needs.

### PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is, the easier it will roll. Too offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go "wide" as you go "tall". Many sportsmen remove their mud tires after hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as possible to enhance vehicle stability.

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 significantly 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.

We will be happy to answer any questions concerning the design, function, and correct use of our products by calling 1-800-222-7023.

**This 4 1/2" kit was developed to accommodate a 35x 12.5x 18" tire on a 18x 8.5 with a minimum backspacing of 6 3/16" on a wheel. Stock wheels can be used but no wider than a 11.5" tire can be used. Larger tires or different wheel offsets will need to be verified to work with this kit prior to usage.**

### 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.

#### **Tools Needed:**

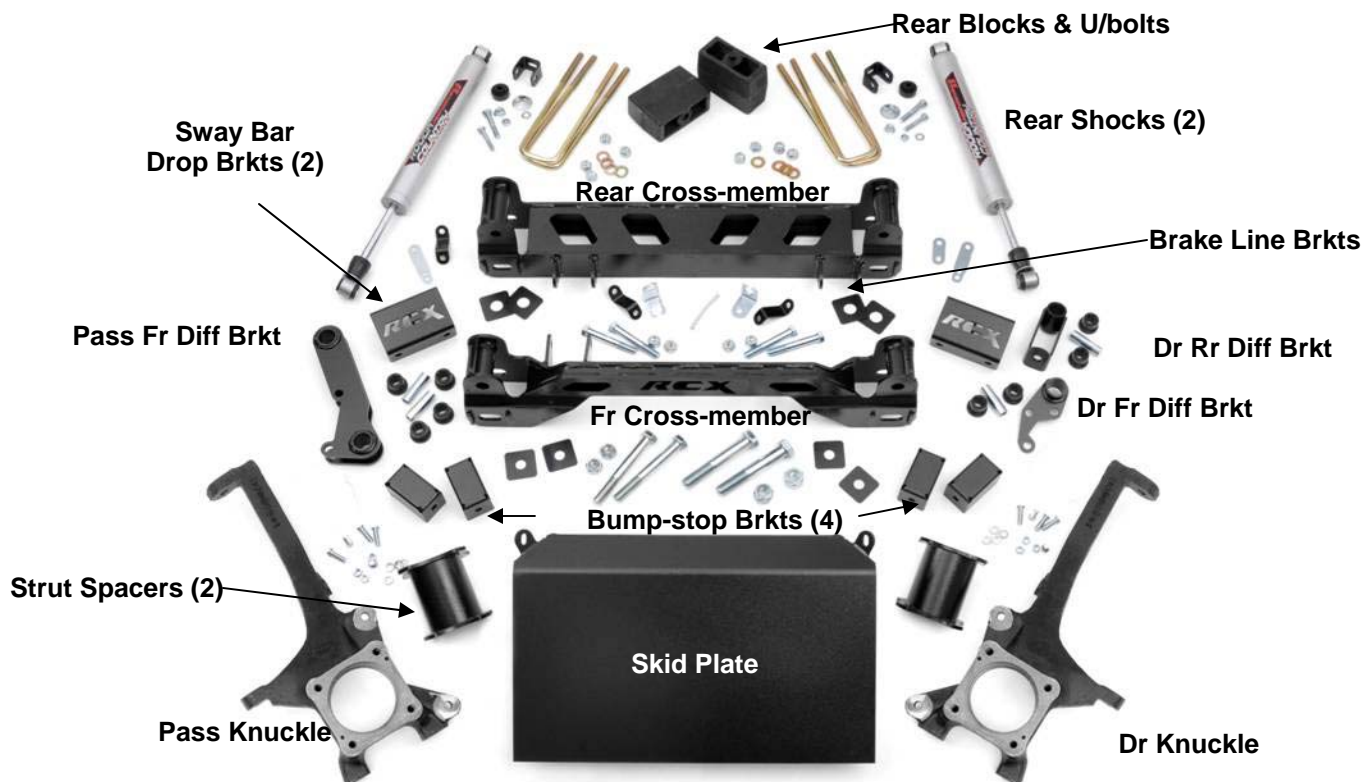
Floor Jack / Jack Stands  
 5mm Allen wrench  
 10mm socket / wrench  
 12mm socket / wrench  
 13mm socket / wrench  
 14mm socket / wrench  
 17mm socket / wrench  
 19mm socket / wrench  
 21mm socket / wrench  
 22mm socket / wrench  
 24mm socket / wrench  
 39mm socket / wrench  
 9/16 socket / wrench  
 5/8 socket / wrench  
 1 1/16 socket / wrench  
 1 3/16 socket / wrench  
 Pipe wrench  
 Needle nose pliers  
 Tin shears / cutters  
 Shop hammer  
 Reciprocating-Saw

#### **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
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
18MM	170ft/lbs	240ft/lbs

**ROUGH  
 COUNTRY**  
 SUSPENSION SYSTEMS

## KIT CONTENTS



### Kit Contents:

#### 1775Box1

Front Cross-member  
Rear Cross-member  
Sway Bar Drop Bracket (2)

#### 1775Box2:

Driver Side Knuckle  
Pass Side Knuckle

#### 1774Box3:

Strut Spacer (2)  
Rear RCX 2.2 Shock-660564  
Rear 3" block (2)  
Rear U-bolts (4)

#### 1774Box4:

Driver Front Diff Bracket  
Driver Rear Diff Bracket  
Pass Diff Bracket  
Skid Plate  
Fr Crssmber Square Washer (4)  
Rr Crssmber Square Washer (4)  
Rear E-Brake Bracket (2)  
Rear ABS Bracket  
Front Brake Bracket (2)  
Front Bump-stop Bracket (4)

### Kit Bag:

#### For Rear Cross-member

18mm X 150mm Bolt (2)  
18mm Lock Nut (2)  
Square Washers (4)

#### For Front Cross-member

7/8" x 5" Bolt (2)  
7/8" Lock Nut (2)  
Square Washer (4)

#### For Front Driver Diff Bracket

Bushing (2)  
Sleeve  
9/16" x 4" Bolt  
9/16" Lock Nut  
14mm x 60mm Bolt (3)

#### For Driver Rear Diff Bracket

Bushing (2)  
Sleeve  
9/16" x 4" Bolt  
9/16" Nut on Skid Plate  
14mm x 25mm Bolt

#### For Pass Side Diff Bracket

Bushing (4)  
Sleeve (2)  
9/16" x 4" Bolt (2)  
9/16" Washer (1)  
9/16" Nut on Skid Plate  
9/16" Lock nut (1)

#### For Front Bump-Stops

10mm x 35mm Bolt (4)  
10mm Washer (4)  
10mm Lock Nut (4)

#### For Front Sway Bar Bracket

7/16" x 1 1/4" (4)  
7/16" Washer (8)  
7/16" Lock Nut (4)

### For Strut Spacers

3/8" Studs (8)  
3/8" Nut (8)  
3/8" Lock Washer (8)  
3/8" Washer (8)

### For Front Brake Line Brackets

5/16" x 3/4" Bolt (2)  
5/16" Washer (4)  
5/16" Lock Nut (2)

### For Front Skid Plate

3/8" x 1" Bolt (2)  
3/8" x Washer (2)  
3/8" Lock Nut (2)

### For Rear Shock Mount

Shock Bracket (2)  
10mm x 55mm Bolt (2)  
Mounting Bushing (2)  
Cup Washer (2)  
10mm Lock Nut (2)  
10mm Flat Washer (2)  
12mm x 65mm Bolt (2)  
12mm Flange Lock Nut (2)

### For Rear E-Brake Bracket

5/16" x 3/4" Bolt (2)  
5/16" Washer (4)  
5/16" Lock Nut (2)

### For Rear Brake Line Bracket

5/16" x 3/4" Bolt  
5/16" Washer (2)  
5/16" Lock Nut

### For Rear ABS Wire Bracket

5/16" x 3/4" Bolt  
5/16" Washer (2)  
5/16" Lock Nut

## INSTALLATION INSTRUCTIONS

1. Park the vehicle on a level surface and chock the rear wheels.
2. Jack up the front of the vehicle and place jack stands under the frame rails. Lower the vehicle onto the jack stands letting the front suspension hang at full droop. Remove tires and wheels with a 21mm socket.
3. Take ABS wire loose from upper control arm using a 10mm wrench & ABS/ brake line on the knuckle using a 12mm wrench. Retain the stock hardware. **Photo 1 & 2.**

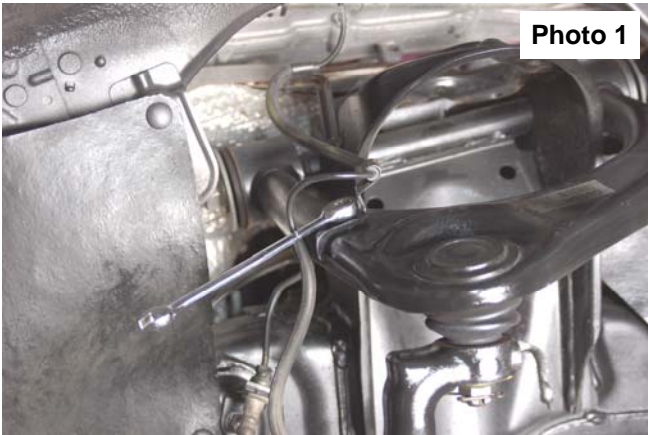


Photo 1

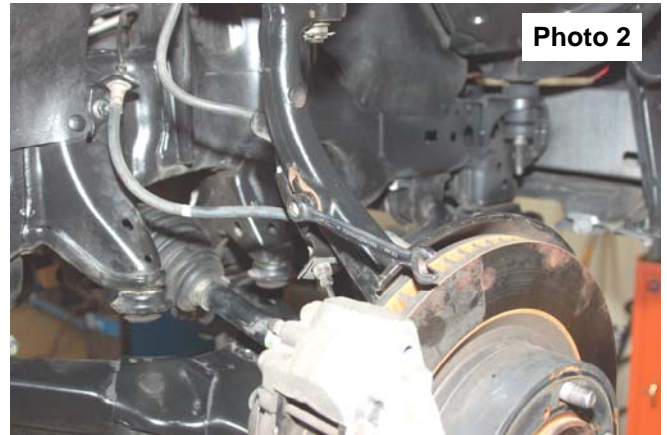


Photo 2

4. Remove the sensor as shown in **Photo 3** using a 5mm allen wrench.
5. Remove the ABS bracket from the knuckle and remove the wire from the bracket. Cut the bracket as shown to install on the new knuckle. Retain the stock hardware for reuse. **See Photo 4.**

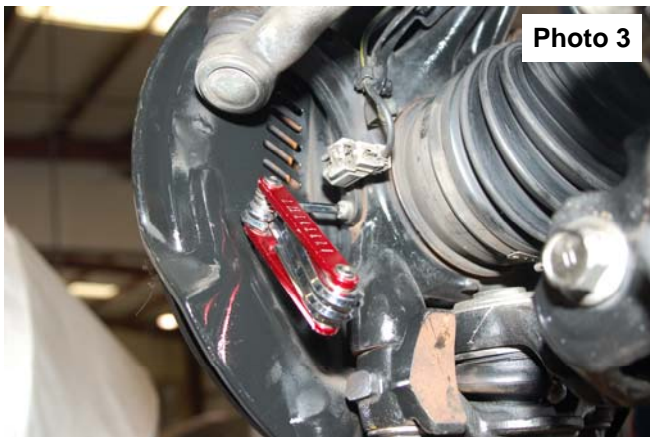


Photo 3



Photo 4

6. Using a 1 1/16 and a 1 3/16 wrench loosen the tie-rod end from inner tie-rod as shown in **Photo 5**. Remove cotter key from tie-rod end. Using a 24mm wrench remove nut as shown in **Photo 6**. Use a hammer to break loose tie-rod from knuckle.
7. Remove brake caliper using a 17mm wrench. Tie caliper out of way, but do not let the caliper hang by the brake line. Next remove the rotor and check for wear on brake pads and rotor. Any worn parts should be replaced before re-installed.

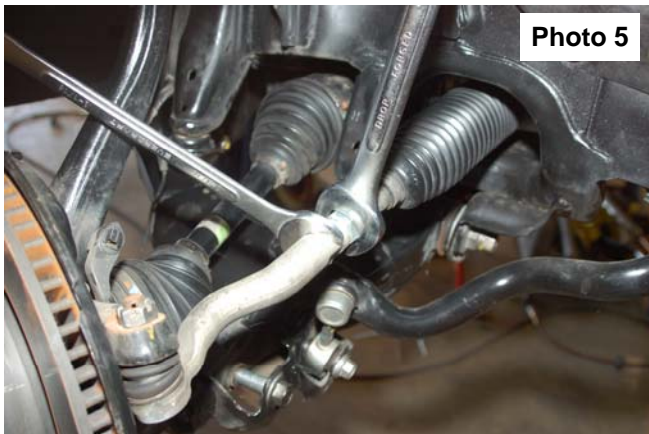


Photo 5

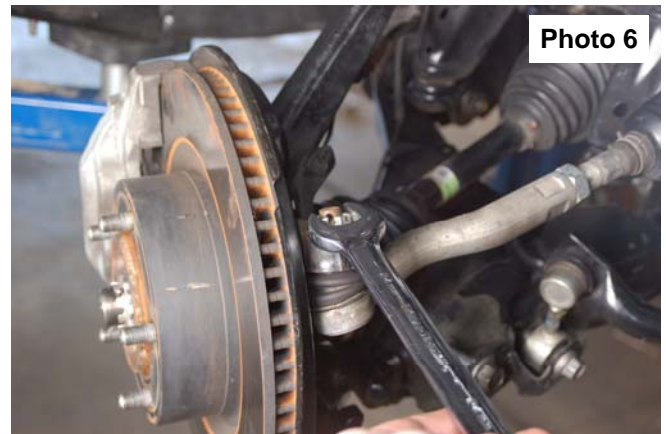


Photo 6

8. Remove the dust shield and remove cotter key from axle and remove axle nut using a 39mm socket as shown in **Photo 7**.
9. Remove cotter key from upper ball joint. Using a 19mm wrench remove nut. Using a hammer as shown in **Photo 8**, loosen ball joint from knuckle. Support the lower arm with jack stand.

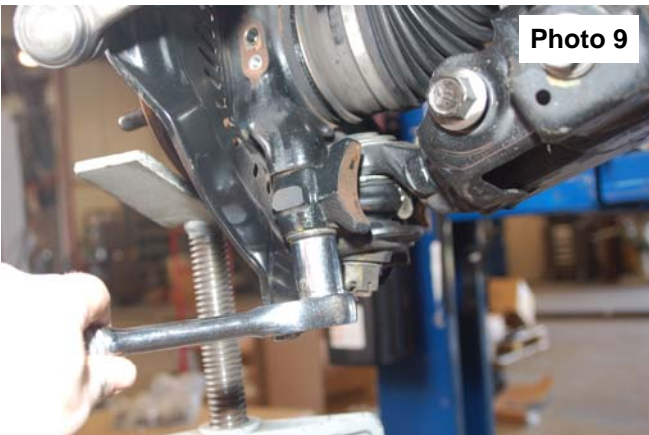


**Photo 7**



**Photo 8**

10. With a dead blow hammer loosen the axle from hub bearing. Using a 22mm wrench remove the 2 lower ball joint bolts as shown in **Photo 9**. Remove knuckle from vehicle. Do not let axle hang down and tie up out of the way.
11. Remove sway-bar bolt from lower control arm using a 19mm wrench as shown in **Photo 10**.



**Photo 9**



**Photo 10**

12. Remove lower strut bolt using 22mm wrench for both ends of bolt as shown in **Photo 11**. Use a 14mm wrench for nuts on top of strut. Remove strut from vehicle.
13. With a 24mm wrench loosen lower control arm bolts and remove control arm from vehicle.
14. Repeat steps 3-12 on opposite side of vehicle.
15. With a pipe wrench remove all 4 bump-stops. **See Photo 12**
16. Remove sway-bar using a 17mm wrench.



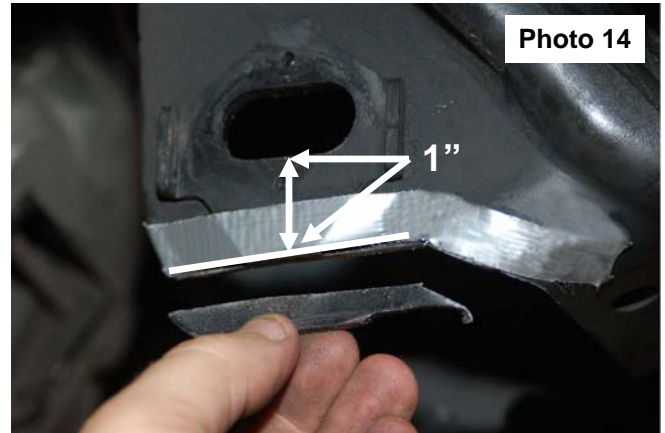
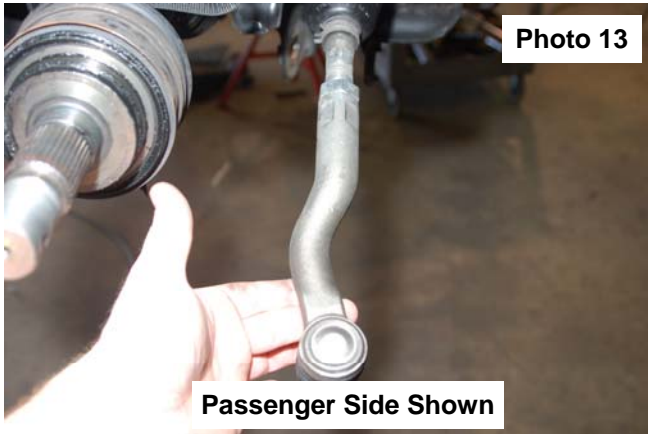
**Photo 11**



**Photo 12**

17. Swap left and right outer tie-rod ends as shown in **Photo 13**. This is done for wheel clearance.

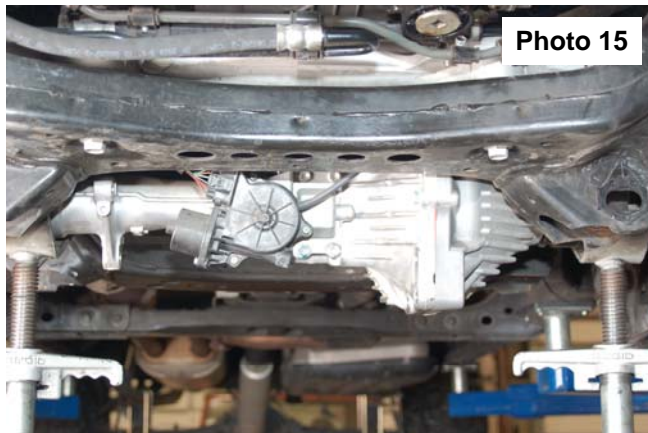
18. Trim rear lower control arm pocket front side only **1 inch** from hole as shown in **Photo 14**.



19. Support differential with jack stand and remove the 3 differential mounts using a 19mm wrench. There should be 10 bolts to remove. Remember too remove the nuts on top of frame from front diff mounts.

20. Lower differential down being careful with vent hose and wiring. Let the diff rotate down slightly. **See Photo 15**.

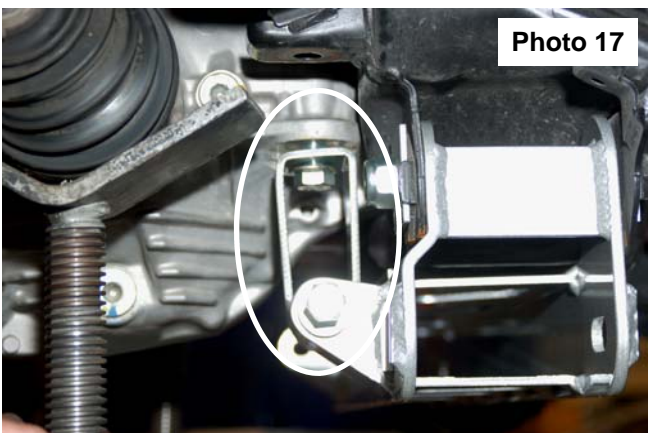
21. Install rear cross-member using supplied 18mm x 150mm bolts square washers (4) and nuts as shown in **Photo 16**. Do not tighten at this time. Please note, there is a front and rear cross-member square washer.



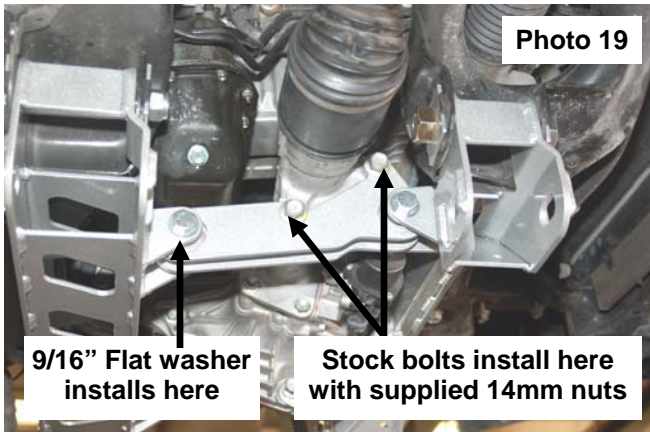
22. Install supplied bushings & sleeve into rear diff mount and using 22mm and 21mm wrench install on vehicle with 9/16 x 4" bolt Install the 14mm x 25mm bolt in the differential as shown in **Photo 17**. **Do not install nuts on the 9/16" bolts, the nuts for this bolt are located on the skid plate.**

23. Install front cross-member using 7/8 x 5" bolts and square washers (4) in **Photo 18**. Please note, there is a front and rear cross-member square washer. Do not tighten at this time.

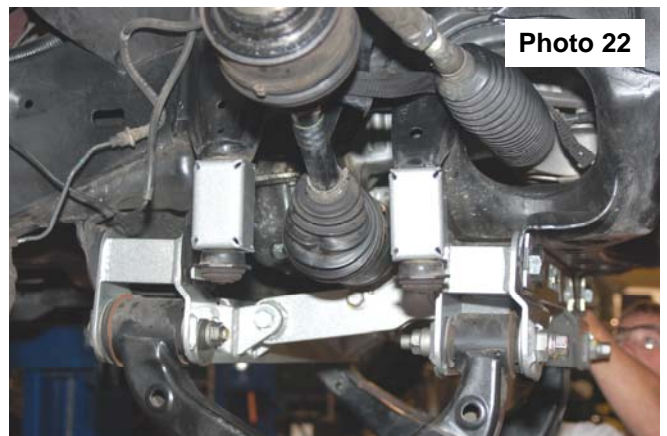
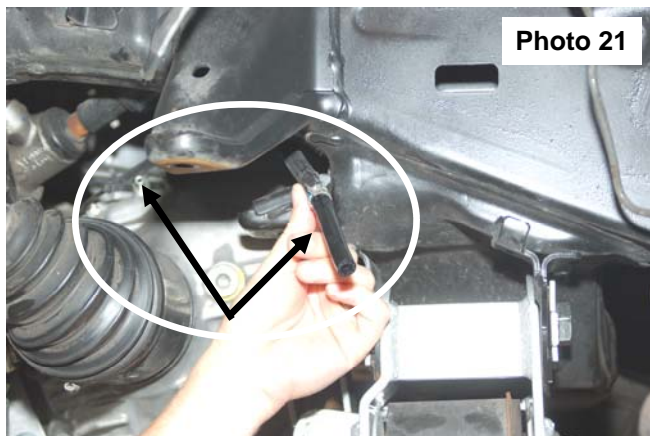
24. Install supplied bushings & sleeve into driver side diff mount and install on vehicle using 9/16 x 4" bolts & nut on the cross-member and three 14mm x 60mm long bolts on the differential drop bracket as shown in **Photo 18**. Tighten using a 19mm, 21mm and 22mm wrench.



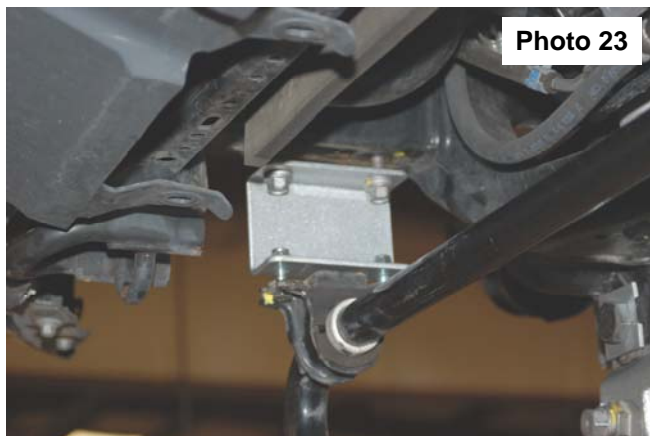
25. Install bushing into passenger side diff bracket. Using 2- 9/16 x 4" long bolts and 21 and 22mm wrench on vehicle. Use stock bolts for bracket to diff with supplied 14mm nuts. **See Photo 19.** Tighten using a 19mm wrench. **Do not install nuts on the 9/16" bolts on the rear cross member ,the nuts for this bolt are located on the skid plate.**
26. Install lower control arms with stock hardware as shown in **Photo 20.** Do not tighten.
27. At this time tighten all cross-member bolts using 1- 5/16" wrench on front cross-member and 1 -1/16" on rear. Tighten all differential mounting bolts .Rear diff bracket bolt are not tighten because the nuts are welded to the skid plate. Do not tighten lower control arm bolts at this time.



28. Assemble supplied 1/4" coupler and hose and install new vent tube ext to differential as shown n **Photo 21.**
29. Install bump-stop to bump-stop ext. using 10mm x 1.25 nuts & washers and thread into factory location with 10mm x1.25 bolts & washers. **See Photo 22.** Tighten hardware using a 17mm wrench.



30. Install sway-bar drop brackets using factory hardware at top with a 17 mm wrench. Install sway bar to drop brackets using supplied 7/16 X 1.25 bolts nuts and washers using a 5/8 wrench as shown in **Photo 23.** Attach sway bar links to lower control arms with factory hardware using a 19mm wrench as shown in **Photo 24.**



31. Install the strut spacer on the strut with the factory hardware. Tighten using a 14mm wrench. **See Photo 25.**
32. Install the 3/8 studs into strut ext. using a 3/8 nut and a 9/16 socket torque the stud to 35-45 ft/lbs as shown in **Photo 25**, this will cause the stud to clinch.
33. Install strut onto vehicle using factory hardware for bottom and supplied 3/8" lock washers, flat washers & 3/8" nuts for top. Tighten using a 22mm wrench & 14 mm wrench to tighten.
34. Remove hub bearing from stock knuckle using a 17mm wrench as shown in **Photo 26**. Remove seal and install seal into knuckle.

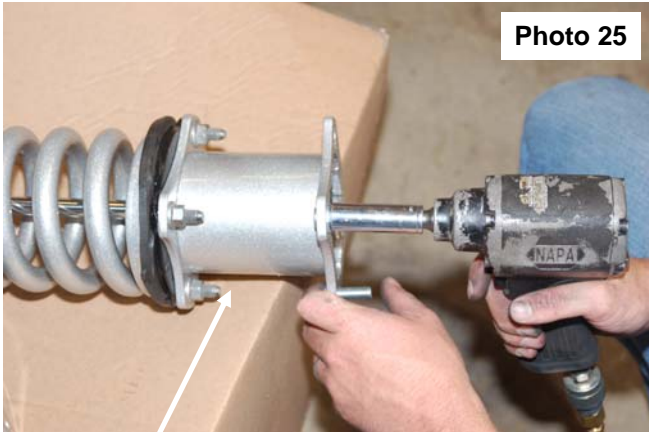


Photo 25

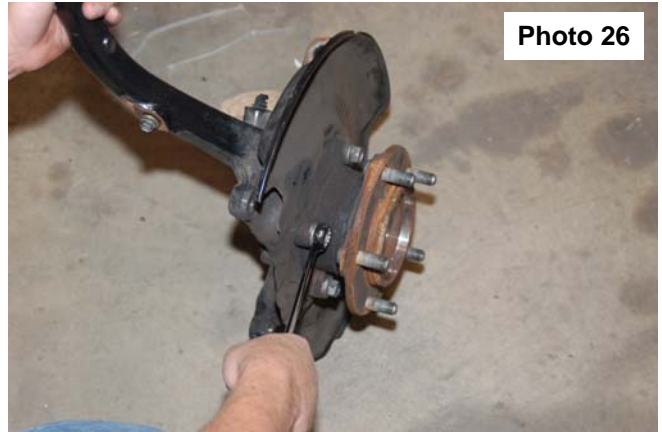


Photo 26

35. Install bearing assemble into new knuckle Take care not to damage seals. **See Photo 27. Tighten using a 17mm wrench.**
36. Install knuckle onto vehicle with factory hardware. Tighten upper ball joint using 19mm on lower ball joint with 22mm and axle nut with 39mm socket or equivalent. Make sure the cotter key is installed on the axle nut.
37. Install new brake line drop brackets on the frame as shown in **Photo 28** using stock bolts. Secure the brake line to the new bracket using the supplied 5/16 x 3/4" bolts, washers & nuts. Tighten using a 12mm and a 13mm wrench.



Photo 27



Photo 28

38. Install rotor and brake caliper using a 17mm wrench as shown in **Photo 29**.



Photo 29

39. Install the stock brake line bracket onto the knuckle as shown in **Photo 30** using the stock hardware. Tighten using 12mm wrench.
40. Install the ABS sensor into the knuckle using a 5mm allen wrench and install the factory bracket back onto the upper a-arm using a 10mm wrench and stock bolt . **It may be necessary to slightly pull the ABS wire to create slack . WD-40 can be used to lub the line to allow it to slide in the upper control arm mount.** Reinstall the ABS bracket on the knuckle as shown using the stock hardware. Tighten using a 12mm wrench. **See Photo 31.**



Photo 30

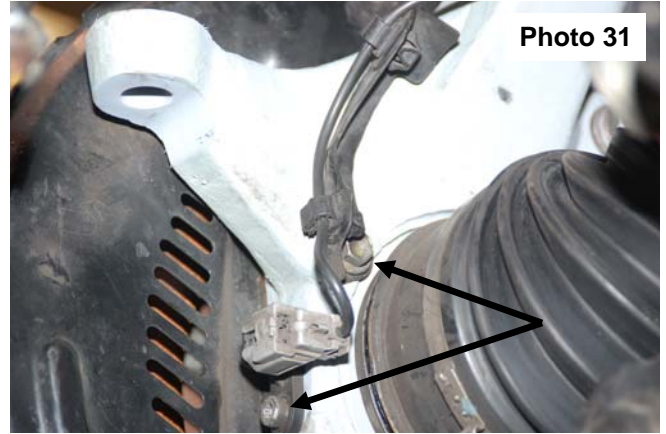


Photo 31

41. Install the tie-rod end into the knuckle using a 24mm wrench to tighten in **Photo 32**. Make sure the cotter key is installed. Tighten the jam nut on the tie-rod end using a 1 1/16" and a 1 3/16" wrench.
42. Install skid plate as shown in **Photo 33** using the previously installed 9/16" rear diff. bracket bolts and supplied 3/8" x 1" bolts and nuts and 2 washers. Use a 9/16" wrench for the front bolts and a 21mm for the rear diff bolts that secure the skid plate.

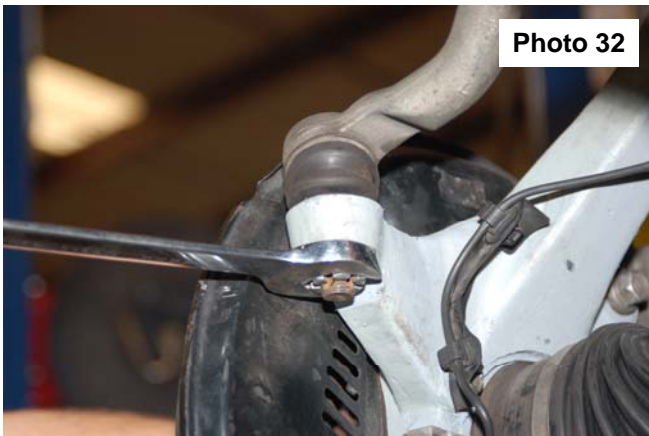


Photo 32



Photo 33

43. Install the wheels and tires. Jack up the front of the vehicle and remove the jack stands. Lower the vehicle to the ground and tighten lower control arm bolts using a 21mm wrench.



## REAR INSTALLATION INSTRUCTIONS

1. Chock the front tires. Jack up the rear of the vehicle and place jack stands under the frame rails, remember to raise the rear high enough so the axle can be lowered to install the blocks. Lower the jack and let the vehicle rest on the jack stand, keep the jack under the axle this will be used to move the axle up and down during installation.
2. Remove the bolts from the 4 factory brake line and ABS wire brackets. Also remove the emergency brake cable bolts from brackets. Use 12mm wrench to remove bolts. **See Photo 1.**
3. Remove shocks using a 17mm for both top and bottom bolts. **See Photo 2.**



Photo 1



Photo 2

4. Using a 19mm socket remove the factory U-bolts and lower the axle with the jack. Be careful not to over extend the brake lines or ABS wires. Install lift blocks and new U-bolts. **See Photo 3.** Tighten with a 22mm socket.
5. Insert the new rear shock relocation bracket in **Photo 4** through the frame with a 10mm x 55 bolt and a male stem shock bushing.

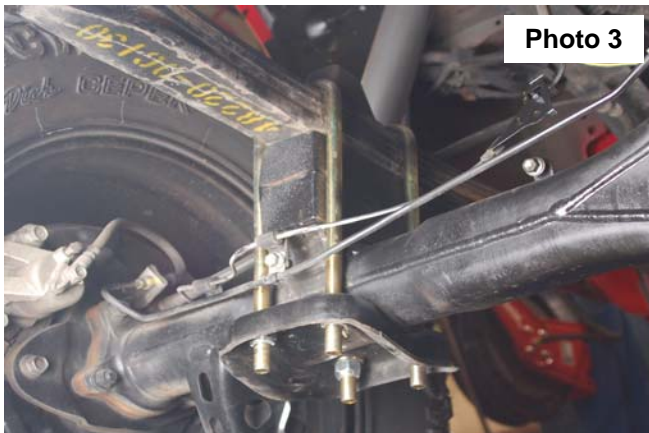


Photo 3



Photo 4

6. Using a 17mm wrench tighten the 10mm nut and cup washer to hold the shock relocation bracket in **Photo 5.**
7. Install the supplied Rough Country 2.2 series shock **Part # 660564** to the shock relocation bracket with supplied 12mm x 65mm bolt and flange lock nut. **See Photo 6.** Tighten using a 18mm socket and 19mm wrench.

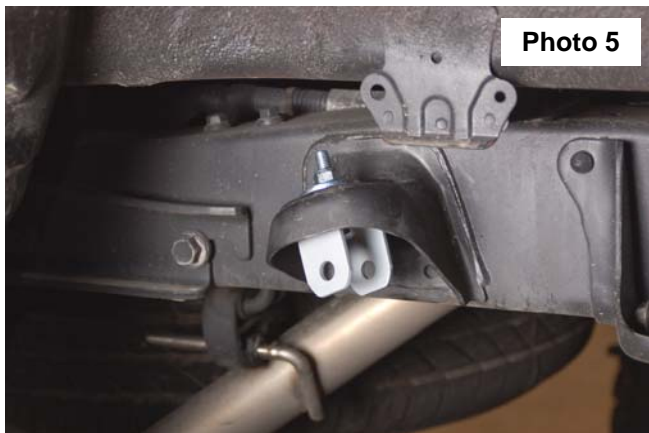


Photo 5



Photo 6

8. Install the shock on the lower shock mount with factory hardware and tighten using a 17mm wrench. **Note: The RCX 2.2 Series Shock Absorber is designed to run the piston down as shown. See Photo 7.**
9. Install new brake line brackets in **Photo 8** using stock and supplied 5/16 x 3/4" bolts. Tighten using 12mm wrench and 13mm wrench to tighten.
10. Install new emergency brake cable brackets on the driver and passenger side as shown in **Photo 9** using stock hardware to secure the new bracket to the stock location. Secure the new bracket to the stock brake bracket using 5/16 x 1" bolts . Tighten using a 12mm wrench and 13mm wrench to tighten.
11. Install tires and wheels.
12. Jack up the rear of the vehicle and remove the jack stand.
13. Lower the vehicle to the ground and check to make sure that all ABS and brake lines are clear from any moving parts.



Photo 7

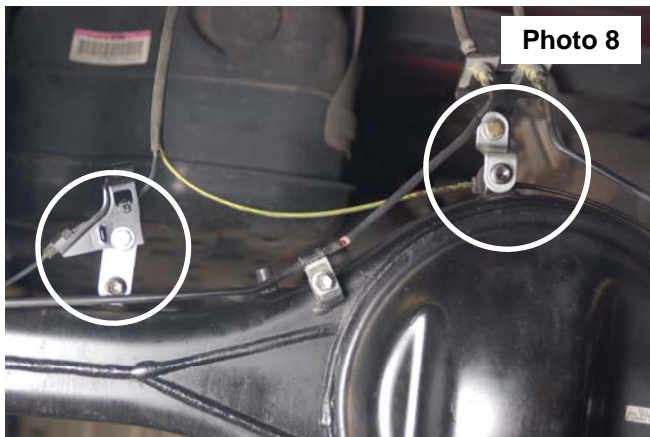


Photo 8

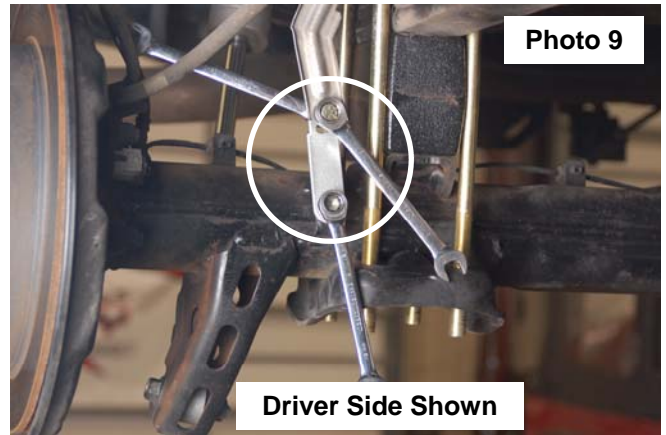


Photo 9

Driver Side Shown

### POST INSTALLATION INSTRUCTIONS

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.
5. An alignment will need to be performed on this vehicle to set proper alignment.

Thank you for choosing Rough Country for all your suspension needs and don't forget to visit us on the web @ [www.roughcountry.com](http://www.roughcountry.com) for your off road needs.

**ROUGH  
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SUSPENSION SYSTEMS