# **TUNDRA 07-19 2WD/4WD 4-6" LIFT KIT**

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

Pipe wrench Needle nose pliers Tin shears / cutters Shop hammer Reciprocating-Saw

This kit will fit both 4WD and 2WD models, all brackets will be used for 4WD models. On 2WD models the differential brackets will not be used. In this instruction sheet, the 4WD model is shown.

# 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 6" kit was developed to accommodate a Maximum tire size of 35x 12.5x 18" tire on a 18x 8.5 with a maximum backspacing of 6 3/16" on a wheel. 18" or larger 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.

# A 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 in-

Tools Needed:	<u>TORQUE SPECS:</u>		
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	Size 5/16" 3/8" 7/16" 1/2" 9/16" 5/8" 3/4"	Grade 5 15 ft/lbs 30 ft/lbs 45 ft/lbs 65 ft/lbs 95 ft/lbs 135 ft/lbs Class 8.8 18ft/lbs 32ft/lbs	Grade 8 20 ft/lbs 35 ft/lbs 60 ft/lbs 90 ft/lbs 130 ft/lbs 175 ft/lbs 280 ft/lbs Class 10.9 23 ft/lbs 45ft/lbs
9/16 socket / wrench	12MM	55ft/lbs	75ft/lbs
5/8 socket / wrench	14MM 16MM	85ft/lbs 130ft/lbs	120ft/lbs 165ft/lbs
1 1/16 socket / wrench	18MM	170ft/lbs	240ft/lbs
1 3/16 socket / wrench	. 3		_ 1010100



Kit Boxes				
75330 (07-15 4.5" w/ N3 Rr Shocks):	75430 (07-15 6" Kit w/ N3 Rr Shocks):	75230 (16-19 6" Kit w/ N3 Rr Shocks):		
751BOX1	752BOX1	752BOX1		
752BOX2	752BOX2	752BOX2		
752BOX3	752BOX3	752BOX3		
1775BOX2	1775BOX2	1773BOX1		
23208	23208	23208		
75370 (07-15 4.5" Kit w/ V2 Rr	75431 (07-15 6" Kit w/ N3 Struts & N3	75231 (16-19 6" Kit w/ N3 Struts & N3		
Shocks):	Rr Shocks):	Rr Shocks):		
751BOX1	752BOX1	752BOX1		
752BOX2	752BOX3	752BOX3		
753BOX3	1775BOX2	1773BOX1		
1775BOX2	23208	23208		
760797	649017 x 2	649017 x 2		
75130 (16-19 4" Kit w/ N3 Rr Shocks):	75450 (07-15 6" Kit w/ Fr & RR Vertex	75250 (07-15 6" Kit w/ Fr & RR Vertex		
751BOX1	Shocks):	Shocks):		
752BOX2	752BOX1	752BOX1		
752BOX3	752BOX3	752BOX3		
1773BOX1	1775BOX2	1773BOX1		
23208	680013L	680013L		
	680013R	680013R		
75170 (16-19 4" Kit w/ V2 Rr Shocks): 751BOX1	690013 x 2	690013 x 2		
752BOX2	75470 (07-15 6" Kit w/ V2 Rr Shocks):	75270 (07-15 6" Kit w/ V2 Rr Shocks):		
753BOX3	752BOX1	752BOX1		
1773BOX1	752BOX2	752BOX2		
760797	752BOX3	752BOX3		
700707	1775BOX2	1773BOX1		
	760797	760797		
	75471 (07-15 6" Kit w/ N3 Struts & V2	75271 (07-15 6" Kit w/ N3 Struts & V2		
	Rr Shocks):	Rr Shocks):		
	752BOX1	752BOX1		
	752BOX3	752BOX3		
	1775BOX2	1773BOX1		
	649017 x 2	649017 x 2		
	760797	760797		
	75457 (07-15 6" Kit w/ Vertex Coil			
	overs & V2 Rr Shocks):	overs & V2 Rr Shocks):		
	752BOX1	752BOX1		
	752BOX3	752BOX3		
	1775BOX2	1773BOX1		
	680013L	680013L		
	690043D	6900420		

680013R 760797



680013R 760797

Kit Bag: Kit Contents: 1775BAG3: 751BOX1: For Rear Cross-member 1775BAG1 18mm X 150mm Bolt (2) 752BAG2 752INSTBAG 18mm Lock Nut (2) For Front Cross-member 1775BAG3 7/8" x 5.5" Bolt (2) 9/16BAG **Driver Front Diff Bracket** 7/8" Lock Nut (2) For Front Driver Diff Bracket (4WD) Driver Rear Diff Bracket Pass Diff Bracket Bushing (2) Skid Plate Sleeve 9/16" x 4" Bolt Front Bump-stop Bracket (4) 9/16" Lock Nut Sway Bar Drop Bracket (2) 14mm x 60mm Bolt (3) Dr Side Steering Stop For Driver Rear Diff Bracket (4WD) Pass Side Steering Stop Bushing (2) Rear U-bolts (4) Sleeve Rear 3" block (2) 9/16" x 4" Bolt 752Box2: 9/16" Lock Nut (1) Strut Spacer (2) 14mm x 25mm Bolt 10MMSTUDBAG-2 (2) For Pass Side Diff Bracket (4WD) Bushing (4) 752BOX3 Sleeve (2) 9/16" x 4" Bolt (2) Front Cross-member 9/16" Washer (1) Rear Cross-member 9/16" Lock nut (2) 1775BAG1: 1775Box2 or 1773BOX1(16-19): For Front Bump-Stops Driver Side Knuckle 10mm x 35mm Bolt (4) Pass Side Knuckle 10mm Washer (4) 10mm Lock Nut (4) 23208-N3 Shock Pair For Front Sway Bar Bracket 7/16" x 1 1/4" (4) 649017- N3 Strut 7/16" Washer (8) 7/16" Lock Nut (4) 760797-V2 Shock Pair 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 (5) 3/8" x Washer (5) 3/8" Lock Nut (2) For Differential 1/4" Vent Hose 4" Long 1/4" Vent Hose Coupler 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

## 10MMSTUDBAG-2:

For Upper Strut Spacer
10mm Stud( 6)
10mm Flange Lock Nut (6)
10mm Nut
1/2" Jam Nut

#### 9/16BAG:

*U-bolt Bag* 9/16" Washers (8) 9/16" Nuts (8)

#### 752BAG2:

Fr Crssmber Square Washer (4) Rr Crssmber Square Washer(4) Rear E-Brake Bracket (2) Rear ABS Bracket Front Brake Bracket (2)



Kit Bag: Kit Contents: 1775BAG3: 752BOX1: For Rear Cross-member 1775BAG1 18mm X 150mm Bolt (2) 752BAG2 752INSTBAG 18mm Lock Nut (2) For Front Cross-member 1775BAG3 7/8" x 5.5" Bolt (2) 9/16BAG 7/8" Lock Nut (2) Driver Front Diff Bracket For Front Driver Diff Bracket (4WD) Driver Rear Diff Bracket Pass Diff Bracket Bushing (2) Skid Plate Sleeve 9/16" x 4" Bolt Front Bump-stop Bracket (4) 9/16" Lock Nut Sway Bar Drop Bracket (2) 14mm x 60mm Bolt (3) Dr Side Steering Stop For Driver Rear Diff Bracket (4WD) Pass Side Steering Stop Bushing (2) Rear U-bolts (4) Sleeve Rear 4" block (2) 9/16" x 4" Bolt Preload Spacer (2) 9/16" Lock Nut (1) 752Box2: 14mm x 25mm Bolt Strut Spacer (2) For Pass Side Diff Bracket (4WD) 10MMSTUDBAG-2 (2) Bushing (4) Sleeve (2) 9/16" x 4" Bolt (2) 752BOX3 9/16" Washer (1) Front Cross-member 9/16" Lock nut (2) Rear Cross-member 1775BAG1: For Front Bump-Stops 1775Box2 or 1773BOX1(16-19): 10mm x 35mm Bolt (4) Driver Side Knuckle 10mm Washer (4) Pass Side Knuckle 10mm Lock Nut (4) For Front Sway Bar Bracket 23208-N3 Shock Pair 7/16" x 1 1/4" (4) 7/16" Washer (8) 649017- N3 Strut 7/16" Lock Nut (4) 760797-V2 Shock Pair For Front Brake Line Brackets 5/16" x 3/4" Bolt (2) 5/16" Washer (4) 680013L-Vertex Coilover 5/16" Lock Nut (2) For Front Skid Plate 680013R-Vertex Coilover 3/8" x 1" Bolt (5) 3/8" x Washer (5) 690013-RR Vertex Shock 3/8" Lock Nut (2) For Differential 1/4" Vent Hose 4" Long 1/4" Vent Hose Coupler 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

# 10MMSTUDBAG-2:

For Upper Strut Spacer 10mm Stud( 6) 10mm Flange Lock Nut (6) 10mm Nut 1/2" Jam Nut

#### 9/16BAG:

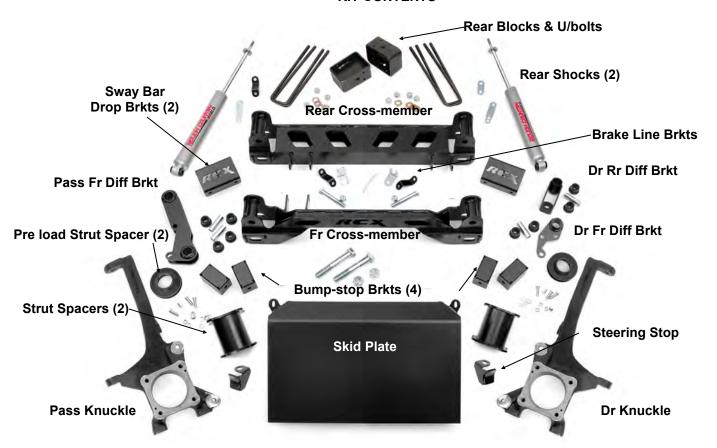
U-bolt Bag 9/16" Washers (8) 9/16" Nuts (8)

#### 752BAG2:

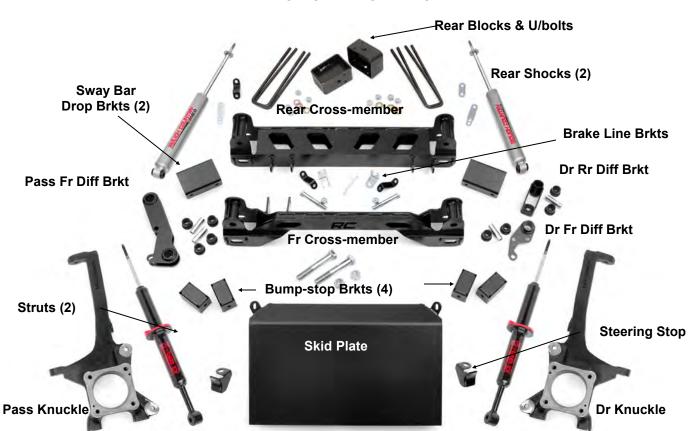
Fr Crssmber Square Washer (4) Rr Crssmber Square Washer(4) Rear E-Brake Bracket (2) Rear ABS Bracket Front Brake Bracket (2)



# **KIT CONTENTS**



# STRUT KIT CONTENTS



# **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.**





- 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.**





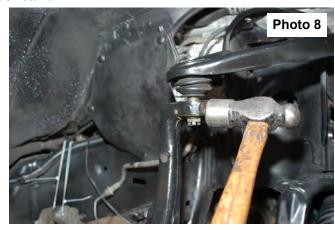
- 6. Using a 1 1/16 and a 1 3/16 wrench loosen the tie-rod end from inner tie-rod as shown in **Photo 5**. Remove cotter key from tie-rod end. Using a 24mm wrench remove nut as shown in **Photo 6**. Use a hammer to break loose tie-rod from knuckle
- 7. Remove brake caliper using a 17mm wrench. Tie caliper 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 reinstalled.





- 8. Remove the dust shield and remove cotter key from axle and remove axle nut using a 39mm socket (4WD Model) 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.





- 10. With a dead blow hammer loosen the axle from hub bearing. (4WD Model) 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. (4WD Model)
- 11. Remove sway-bar bolt from lower control arm using a 19mm wrench as shown in Photo 10.





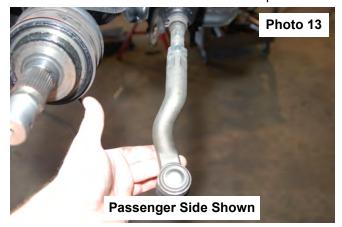
- 12. Remove lower strut bolt using 22mm wrench for both ends of bolt as shown in **Photo 11**. Use a 14mm wrench for nuts on top of strut. Remove strut from vehicle.
- 13. With a 24mm wrench loosen lower control arm bolts and remove control arm from vehicle.
- 14. Repeat steps 3-12 on opposite side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

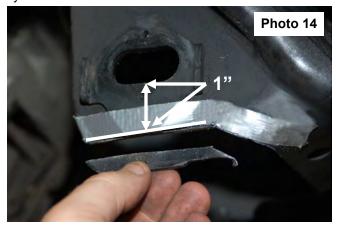






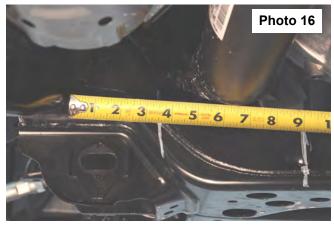
- 16. Remove sway-bar using a 17mm wrench.
- 17. Swap left and right outer tie-rod ends as shown in **Photo 13**. This is done for wheel clearance.
- 18. Trim the front and rear lower control arm pocket front side only 1 inch from hole as shown in Photo 14.



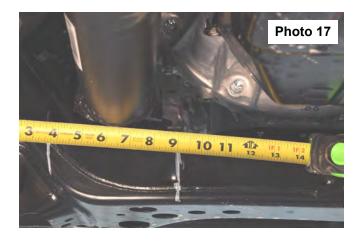


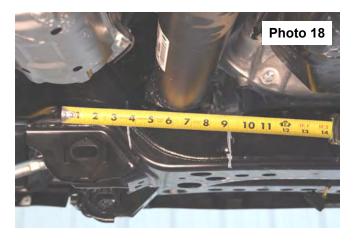
- 19. Support differential with jack stand and remove the 3 differential mounts using a 19mm wrench. There should be 10 bolts to remove. Remember too remove the nuts on top of frame from front diff mounts.(4WD Model)
- 20. Lower differential down being careful with vent hose and wiring. Let the diff rotate down slightly. (4WD Model) **See Photo 15**.
- 21. Measuring from the inside of the frame, measure 3.5" inches and mark the rear crossmember. See Photo 16.





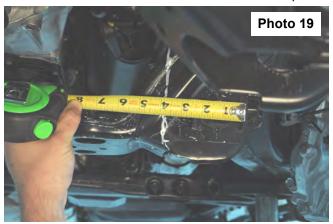
22. Measure over 9" and mark the rear crossmember. See Photos 17 & 18.







- 23. On the front of the rear crossmember, measure from the outside of the cam tab 3.75" and mark the crossmember. **See Photo 19.**
- 24. Cut the rear crossmember and remove the cut portion from the vehicle? See Photo 20.



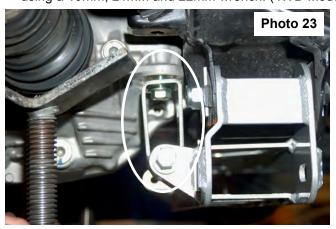


- 25. Grind or file the cut edges and paint to prevent rust. See Photo 21.
- 26. Install rear cross-member using supplied 18mm x 150mm bolts square washers (4) and nuts as shown in **Photo 16**. Do not tighten at this time. Please note, there is a front and rear cross-member square washer.
- 27. Install 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 22**. (4WD Model) **Do not install nuts on the 9/16" bolts, the nuts for this bolt are located on the skid plate.**



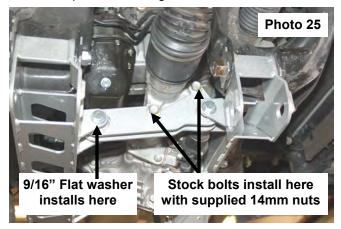


- 28. Install front cross-member using 7/8 x 5" bolts and square washers (4) in **Photo 23**. Please note, there is a front and rear cross-member square washer. Do not tighten at this time.
- 29. Install supplied bushings & sleeve into driver side diff mount and install on vehicle using 9/16 x 4" bolts & nut on the cross-member and three 14mm x 60mm long bolts on the differential drop bracket as shown in **Photo 24**. Tighten using a 19mm, 21mm and 22mm wrench. (4WD Model)



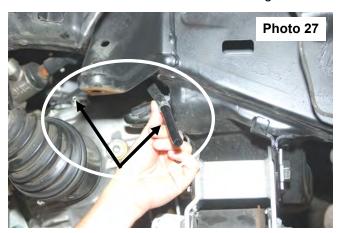


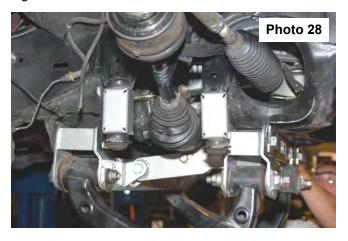
- 30. Install bushing into passenger side diff bracket. Using 2- 9/16 x 4" long bolts and nuts and 21 and 22mm wrench on vehicle. Use stock bolts for bracket to diff with supplied 14mm nuts. **See Photo 25.** Tighten using a 19mm wrench. (4WD Model)
- 31. Install lower control arms with stock hardware as shown in Photo 26.Do not tighten.
- 32. 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. (4WD Model) 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.





- 33. Assemble supplied 1/4" coupler and hose and install new vent tube ext to differential as shown in **Photo 27**. (4WD Model)
- 34. 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 28**. Tighten hardware using a 17mm wrench.3





35. 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 29**. Attach sway bar links to lower control arms with factory hardware using a 19mm wrench as shown in **Photo 30**.





**A NOTICE** If you purchased a kit with replacement lifted struts or Vertex coilovers, refer to the instructions included in those kits and skip to step 42.

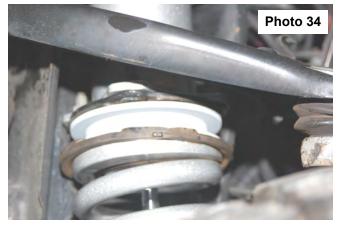
- 36. Disassemble the factory strut assembly with a strut compressor using a 17mm wrench and remove the strut cylinder as shown in **Photo 31**.
- 37. Install the strut preload spacer on the strut as shown with the stock hat on top, spacer and stock isolator as shown in **Photo 32**.





- 38. Re-assemble the strut with the factory hardware. Tighten hardware using a 17mm wrench.
- 39. Install the strut spacer on the strut with the factory hardware. Tighten using a 14mm wrench. See Photo 33.
- 40. Install the 10mm stude into strut ext. using a 10mm nut and a 17mm socket torque the stud to 35-45 ft/lbs as shown in **Photo 33**.
- 41. Install strut onto vehicle using factory hardware for bottom and supplied 10mm lock washers, flat washers & 10mm nuts for top. Tighten using a 22mm wrench & 17 mm wrench to tighten. **Photo 34** shows the top of the strut.





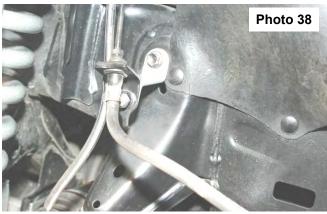
- 42. Remove hub bearing from stock knuckle using a 17mm wrench as shown in **Photo 35**. Remove seal and install seal into knuckle.
- 43. Install bearing assemble into new knuckle Take care not to damage seals. See Photo 36. Tighten using a 17mm wrench.





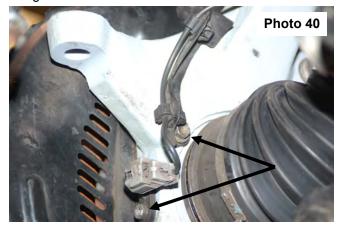
- 44. Install knuckle onto vehicle with factory hardware. Tighten upper ball joint using 19mm
- 45. Install the supplied steering stop on the lower ball joint front bolt hole and tighten with a 22mm wrench. **See Photo 37.** Tighten the axle nut with 39mm socket or equilavent. Make sure the cotter key is installed on the axle nut.
- 46. Install new brake line drop brackets on the frame as shown in **Photo 38** 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.





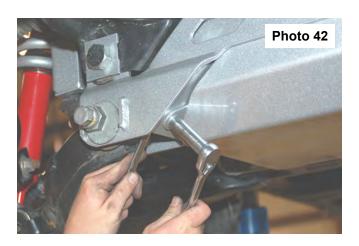
- 47. Install rotor and brake caliper using a 17mm wrench.
- 48. Install the stock brake line bracket onto the knuckle as shown in **Photo 39** using the stock hardware. Tighten using 12mm wrench.
- 49. Install the ABS sensor into the knuckle using a 5mm allen wrench and install the factory bracket back 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 allowit 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 40.





- 50. Install the tie-rod end into the knuckle using a 24mm wrench to tighten in **Photo 41**. 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.
- 51. Install skid plate as shown in **Photo 42** using the supplied 3/8" x 1" bolts and hardware. Using a 9/16" wrench for the bolts that secure the skid plate.
- 52. 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**

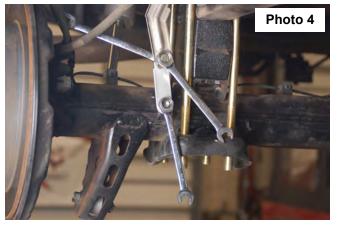
- 1. Chock the front tires. Jack up the rear of the vehicle and place jack stands under the frame rails, remember to raise the rear high enough so the axle can be lowered to install the blocks. Lower the jack and let the vehicle rest on the jack stand, keep the jack under the axle this will be used to 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.



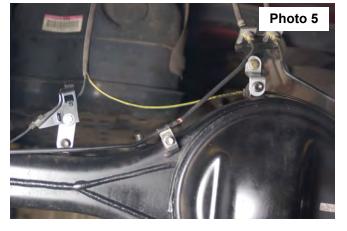


- 4. Using a 19mm socket remove the factory U-bolts and lower the axle with the jack. Be careful not to over extend the brake lines or ABS wires. Install lift blocks and new U-bolts. **See Photo 3**. Tighten with a 22mm socket.
- 5. Install the supplied rear shock in the stock location. **If installing V2 rear shocks or Vertex rear shocks, refer to the instructions included with those shocks and skip to next step.** Tighten stem end with a 17mm socket and the body end with a 17mm socket and wrench.
- 6. Install new brake line brackets in **Photo 4** using stock and supplied 5/16 x 3/4" bolts. Tighten using 12mm wrench and 13mm wrench to tighten.





- 7. Install new emergency brake cable brackets on the driver and passenger side as shown in **Photo 5** 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 wench to tighten.
- 8. Install tires and wheels.
- 9. Jack up the rear of the vehicle and remove the jack stand.
- Lower the vehicle to the ground and check to make sure that all ABS and brake lines are clear from any moving parts.





# 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 for your off road needs.

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