



## INSTRUCTION SHEET

Rough Country recommends this system be installed by a certified technician. 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 instructions before beginning installation. Check the kit hardware against the parts list. Be sure you have all needed parts and know where they go.

With the installation of all lift kits and larger tires it is important to check the condition of your steering stabilizer. If the stabilizer is worn or is leaking it should be replaced. Steering stabilizers are designed to restrain “bump steering” and front end vibration, giving added life to tires, ball joints, and other steering components.

### PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is, the easier it will roll. 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.

We strongly recommend, because of rollover possibility, that the vehicle be equipped with a functional roll-bar and cage system. 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.

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 35 x 12.50R – 15 tire, on an 8” wheel with 4 ¾” backspacing. This tire size may require the installation of aftermarket fender flares. Before installing other combinations, please consult your local tire and wheel specialist.

The following tools and supplies are recommended for proper installation of this kit.

- |  |   |
|--|---|
| a. Spring Compressor                                 | b. Pitman Arm Puller                        |
| c. Silicone Spray                                    | d. ½” Drill                                 |
| e. Drill Assortment (1/8” to 1/2”)                   | f. Torque Wrench (250 ft lbs. Capacity)     |
| g. Hammer  | h. ½” Drive Ratchet and Sockets             |
| i. Combination Wrenches                              | j. Allen Wrenches                           |
| k. Torx Key Socket                                   | l. Tape Measure                             |
| m. File  | n. Large “C” Clamps and/or Bench Vise       |
| o. Hydraulic Floor Jacks                             | p. Heavy Duty Jack Stands                   |
| q. Wheel Chocks (Wooden Blocks)                      | r. Molybdenum Grease or Anti Seize Compound |
| s. Safety Glasses – Wear safety glasses at all times |   |

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STANDARD BOLT TORQUE SPECIFICATIONS						
INCH SYSTEM			METRIC SYSTEM			
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15 Ft – Lbs	20 Ft – Lbs	M 6	5 Ft – Lbs	9 Ft – Lbs	12 Ft – Lbs
3/8	30 Ft – Lbs	35 Ft – Lbs	M 8	18 Ft – Lbs	23 Ft – Lbs	27 Ft – Lbs
7/16	45 Ft – Lbs	60 Ft – Lbs	M10	32 Ft – Lbs	45 Ft – Lbs	50 Ft – Lbs
½	65 Ft – Lbs	90 Ft – Lbs	M12	55 Ft – Lbs	75 Ft – Lbs	90 Ft – Lbs
9/16	95 Ft – Lbs	130 Ft – Lbs	M14	85 Ft – Lbs	120 Ft – Lbs	145 Ft – Lbs
5/8	135 Ft – Lbs	175 Ft – Lbs	M16	130 Ft – Lbs	165 Ft – Lbs	210 Ft – Lbs
¾	185 Ft – Lbs	280 Ft – Lbs	M18	170 Ft – Lbs	240 Ft – Lbs	290 Ft – Lbs

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## 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.

**The required installation time for this system is approximately 6-8 hours.**

### INSTALLATION INSTRUCTIONS

1. The front-end components are installed first.
2. Place the vehicle on a level surface. Set the parking brake. Center front wheels and chock rear wheels. From inside the engine compartment, remove the upper stud nut, retainer and grommet from both of the front shocks. Place jack stands on the frame rail behind the lower control arm mount on the frame and jack up the vehicle. Installation is done one side at a time.
3. Remove the front tires and wheels.
4. Place a floor jack underneath the axle for support and complete the removal of the front shock absorbers (Do not try to reuse the original factory shocks).
5. Remove the front track rod from both the axle housing and frame mount and remove the track rod from the vehicle. Save the axle mount bolt and flag nut they will be reused in a later step.
6. Remove the factory front sway bar end links to the frame and axle and remove the stock links from the vehicle. Retain the lower axle mount hardware to reuse in a later step.
7. On the pitman arm, remove the cotter pin and nut that secures the steering link to the arm. Retain the nut to be reused. Separate the drag link ball stud from the pitman arm with a puller tool. Do not use a pickle fork.
8. Mark the position of the original pitman arm. Remove the nut and washer from the steering gear box. Align and install new pitman arm on the steering gear shaft. Install the washer and nut. Tighten to 185 ft. lbs.
9. Remove the coil spring clip located on the bottom coil seat on the driver side of the vehicle. Lower the axle and remove the coil spring. A coil spring or strut compressor may be needed to remove the stock coil spring.
10. Remove the stock lower control arm from the axle bracket and the nut and bolt from the frame bracket, doing one side at a time. Lubricate bushings with a lithium grease or equivalent and install the new bushings and sleeves in the Rough Country control arm. Adjust the Rough Country adjustable control arm to a measurement of  $16\frac{1}{2}$ " from center to center and install on the vehicle using factory hardware – do not tighten at this time. **See Figure # 2.**
11. If equipped reinstall the ABS sensor wires using the original hardware.
12. Remove the stock upper control arm by removing the factory hardware from the axle bracket and then removing the nut and bolt from the frame bracket doing one side at a time. Do not remove the factory bushing in the axle mount –it is reused. Lubricate bushings with a lithium grease or equivalent and install the new bushings and sleeves in the Rough Country control arm. Adjust the upper Rough Country adjustable control arm to a measurement of  $15\frac{1}{2}$ " from center to center and install on the vehicle using factory hardware – do not tighten at this time. **See Figure 3.**

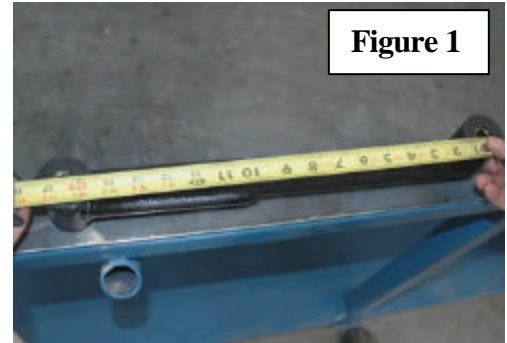


Figure 1

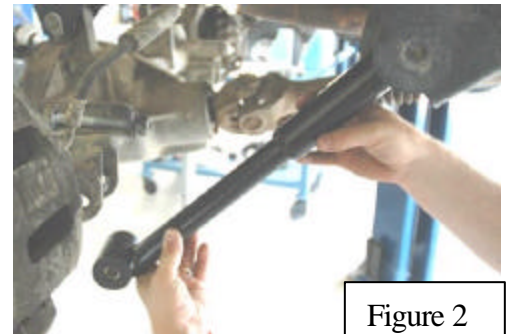


Figure 2

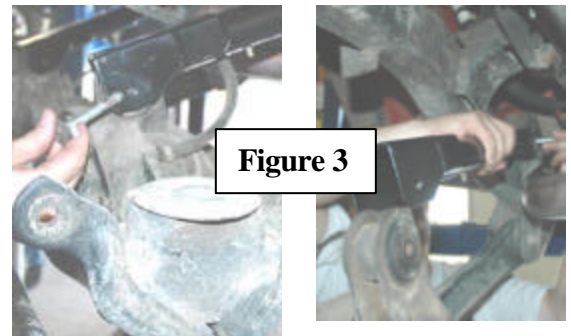


Figure 3

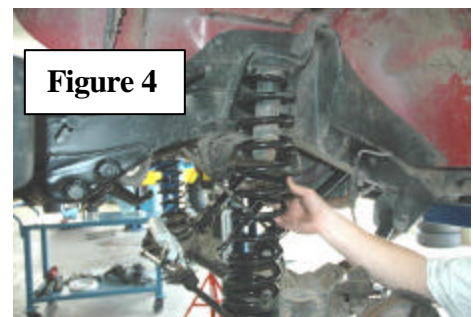


Figure 4

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13. Install the front coil spring. A coil spring or strut compressor will be needed for the new coil spring installation. Compress the new coil spring and install the new spring into the upper and lower spring pockets and carefully remove the compressor. Make sure the coil is seated properly in the coil seat by rotating the spring so the pig tail end fits in the spring pocket. Install the coil spring clamp if factory equipped and torque the spring clip bolt to 16ft.-lbs. **See Figure 4.**
14. Repeat steps on other side.
15. Install the Rough Country adjustable track rod in the factory location axle mount using factory hardware. Do not attach the frame end of the new track rod at this time. Installation is done after the vehicle is on the ground and axle is centered. **See Figure 5.**
16. Assemble the boots on the front shock absorbers, part #651896 Hydro /651997 Nitro and install in the factory lower mount using stock hardware. Install the upper stud bushings and tighten the upper mounting point. Repeat this on the opposite side of the vehicle. Install the tires, wheels and lug nuts. Lower the vehicle to the ground.
17. Install the sway bar hoop on the sway bar where the stock link was secured, using the supplied 3/8" x 1.25" bolt and flanged lock nut. Install the bushings and 12mm sleeves provided on the bottom of the link at this time and use the factory hardware with supplied thick washer in between the stock mount and new link (for link alignment) and install. Install upper sway bar bushings and the 12mm sleeves. Install the upper part of the new link in the hoop bracket with the 12mm bolts & hardware. **See Figure 6.**

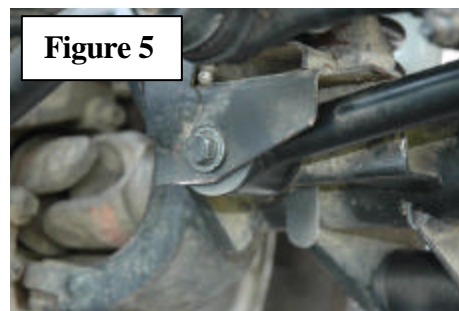


Figure 5

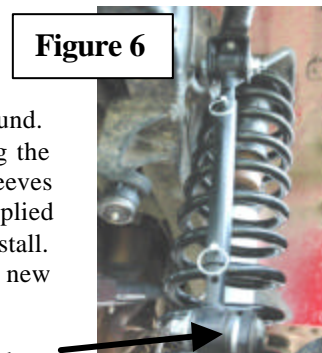


Figure 6

Notice thick washers between the factory mount and sway bar link to align link.

18. Brake lines brackets are supplied with this kit to relocate the brake lines.
19. Remove the stock brake line bracket from the frame rail. Install the new brake line bracket on the frame rail with supplied hardware. Reform the stock metal line to allow the stock bracket to fasten the new bracket. Install.
20. Install the drag link ball stud to the pitman arm. Install the nut and tighten to 60 ft lbs. Install supplied cotter pin. **See Figure 8.**
21. After the vehicle has been centered on the axle adjust the Rough Country track rod to the proper length and install the frame end of the new adjustable track rod that was installed in **Step 15** and tighten.
22. Bleed brake system.

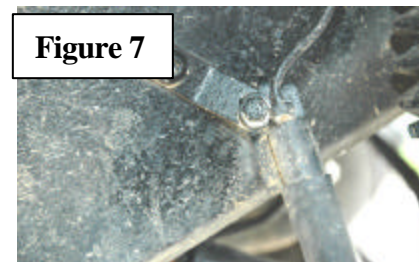


Figure 7



Figure 8

### REAR INSTALLATION INSTRUCTIONS

1. Chock the front tires and jack up the rear of the vehicle and secure with jack stands on the frame rail just behind the leaf spring mount.
2. Lower the vehicle on the jack stands and remove tires /wheels.
3. Remove the stock shock absorbers. Save factory hardware for reuse.
4. Place a floor jack underneath the axle and remove the factory u-bolts. Lower the axle out of the way with the floor jack.
5. Remove the leaf springs from the frame and shackle and remove from the Jeep. Remove the stock shackles from the frame. Retain factory hardware for reuse.
6. Remove the stock shackles from the frame. Retain factory hardware for reuse.
7. Install the supplied bushings and sleeves in the new Rough Country shackles and install the new Rough Country lifted shackles with factory hardware. Do not tighten at this time. Please note the Rough Country Shackle has two spring mounting holes. Normally the spring would install in the lower hole. If less lift is desired the upper hole can be used.
8. Install the new Rough Country lifted leaf springs part number 8047 with factory spring mount hardware. Do not tighten at this time.
9. Jack the axle back up to meet the axle, making sure the center pin seats correctly in the axle seat.
10. Secure with supplied u-bolts and tighten u-bolts. **NOTE: The u-bolts included in this kit are 1/2" x 2 3/4" x 6 3/4". If this vehicle is equipped with a 3" diameter axle then part number 7639 is required.**



Figure 9

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11. Remove the brake line from the factory bracket. Bolt in the extension bracket in the sway bar mounting hole as shown using factory hardware and reform the metal line to reach the extension bracket. Install the brake line clip. **See Figure 9.**
12. Assemble shock absorbers part #650328 Hydro / 650380 Nitro and install using factory hardware
13. Install the wheels / tires.
14. Jack up the vehicle and remove the jack stands.
15. Lower the vehicle to the floor and tighten spring shackle and frame spring hanger hardware to factory specs.

### TRANSFER CASE LOWERING INSTRUCTIONS

1. Position the floor jack under the transfer case crossmember.
2. Remove the bolt and nut on the drivers side, using a stud extractor remove the stud.
3. Lower the floor jack to allow clearance for installation of spacer.
4. Place the 1" spacer between the frame and crossmember, install the new bolt and washer. Torque to 35 ft/lbs.
5. Repeat on the passenger side.

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### Kit contents

1696 Box kit	Lower Control Arm Bushings Bag	T-Case bag	Shock Bag
Frt Sway Bar Disconnect Links (2)	Control Arm Bushing (8)	t-case spacer (4)	Stem Bushing (4)
Adjustable Lower Control Arms (4)	3 /4x 5/8" 2.6" Sleeve (4)	10mm-1.5x 60mm bolt (4)	Cup Washers (4)
Adjustable Upper Control Arms (4)		t-case spacer sleeve (4)	3/8" Hex Nut (2)
Frt Sway Bar hoop Bracket. (2)			Pal Nut (2)
Rear u-bolts (4)	Upper Control Arm Bushings Bag	Sway Bar Bag	Shock Sleeve (2)
Pitman arm	Control arm bushings (4)	3/8" - 1.25" Bolt (2)	Shock Bushing (2)
Rear lifted shackle (2)	Sleeve (2)	3/8" Flange Nut (2)	
	Shackle Bushings (4)	M12 – 1.75 x 60 mm bolts (4)	U-bolt bag
	Shackle sleeves (2)	M12 – 1.75 Flange Lock Nuts (4)	½"x 20 nylock nuts (8)
	Rear Leaf Springs	Sway bar bushings (8)	
	8047 (2)	Sway bar sleeve (4)	
		3/8" washer (2)	
		Spacer washer (2)	
Box 9275	Brake Line bag		
Fr coil springs	5/16"-18 x ¾" bolt (3)		
	5/16" washer (3)	1696Hydro / Nitro box	
	5/16" nylock nut	Front Shocks (2)	
7571	Rear Brake line bracket (1)	Rear Shocks (2)	
Adjustable track rod	Fr brake line bracket (2)	Shock Boots (4)	
Track rod poly bushing bag	Cotter pin (1)	Shock cable ties (4)	

