

# WJ JEEP 4" WITH CONTROL ARM DROPS

#### 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 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. Also please review 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. 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.

This suspension system was developed using a 265 / 75R-16 tire . Different wheel and tire combinations my be used but different tire manufactures designs may result in a tire width that could result in contact with the lower control arm and/or front sway bar link in a sharp turn. Please consult with your tire and wheel expert before purchasing. Also note that if wider tires are desired, offset wheels will be required. If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products by calling 1-800-222-7023.

#### 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.

#### **Tools Needed:**

- Pitman Arm Puller 13mm Socket / Wrench
- 14mm Socket / Wrench Drill Motor
- 15mm Socket / Wrench 7/16" Drill Bit
- 18mm Socket / Wrench Pry Bar
- 19mm Socket / Wrench
  Floor Jack
- 21mm Socket / Wrench Jack Stands
- 22mm Socket / Wrench
  Spring Compressor
- 33mm Socket
- Lithium Based Grease

#### **Torque Specs:**

Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16"	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8"	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16"	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2"	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16"	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8"	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4"	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs

#### **KIT CONTENTS**



2-10mm-1.5 x 110mm Hex Head Bolts

2-10mm Flat Washers

1-7/16-14 x 1 1/4 Hex Head Bolt

1698BAG8

Instruction Sheet

## FRONT INSTALLATION INSTRUCTIONS

- 1. Chock the rear wheels and jack up the front of the vehicle and support the vehicle with jack stands.
- 2. Support the front axle with a floor jack.
- 3. Remove the lower sway bar link bolt using a 15mm & 18mm wrench. See Photo 1. Retain hardware for reuse.
- 4. Remove the shocks using a 15mm wrench/socket for the top mount and a 13mm wrench/socket for the bottom mount.
- 5. Lower the axle using the floor jack and remove the coil springs.
- 6. Remove the stock lower control arm using a 21mm wrench/socket. Retain factory hardware for re-use See Photo 2.





- 7. Install lower control arm drop bracket using the factory control arm bolt. See Photo 3.
- 8. Slide the new supplied flag nut into the unibody and align the nut with hole. See Photo 4.



- 9. Raise the back of the control arm drop bracket and secure with the supplied 1/2" x 1.0" bolts and tighten with a 19mm and a 21mm for the stock bolt. **See Photo 5.**
- 10. Install the new lower control arm in the drop bracket using the supplied cam bolt and hand tighten. See Photo 6.





- 11. Raise the lower control arm and insert the factory bolt in the axle end. Hand tighten. See photo 7.
- 12. Remove the cotter pin and nut from the pitman arm using a 19mm wrench. Retain nut for reuse.
- 13. Strike the arm as shown in **Photo 8** to dislodge the drag link.



- 14. Using a pry bar, remove the bump stop from the factory cup. See Photo 9.
- 15. Next remove the bump stop mounts using a 13mm wrench. See Photo 10.







- 16. Remove the track bar using a 19mm wrench/socket from the driver side mount. See Photo 11.
- 17. Mark the pitman arm in the center of the arm and steering box to ensure the new pitman arm is properly aligned and remove the pitman arm using a 33mm socket as shown in **Photo 12**. Note: A pitman arm puller may be needed.



- 18. Using the mark on the splines of the steering box install the new pitman arm centered of the mark and arm. Tighten using a 33mm socket. Proper placement of the pitman arm on the splines of the steering box is very important for alignment purposes. **See Photo 13.**
- Remove the engine mount bolts with a 15mm socket. Install the new track bar bracket and secure using the supplied 10mm x 110mm bolts. Mark the lower hole location and remove the bracket. Next drill the marked hole with a 7/16" drill bit. See Photo 14.





- 20. Reinstall the track bar bracket with the supplied 10mm and 7/16' bolts. Tighten with a 16mm and 17mm socket. See Photo 14 & 15.
- 21. Install the factory track bar bolt in the stock location with the supplied crush sleeve. Hand tighten. See Photo 11.
- 22. Install the new bump stop mounts with the supplied 8mm x 95mm (approx 3.75")bolts and washers from Bag2 using a 13mm wrench/socket. See Photo 16. Reinstall the factory rubber bump stops into the factory bump stop cups.







- 23. Install the new front coil spring using a coil spring compressor. On lower surface make sure coil end is rotated to stop and on upper mount re-use stock rubber coil isolator.
- 24. Install the new shock absorbers using the supplied 5/16" x 1" bolts in bag 2, washers and nuts on the bottom bar pin mount. Tighten using a 14mm wrench at the top using supplied stem bushings, washers and nuts and a 13mm wrench on the bottom.
- 25. Install the tires and wheels and tighten to factory specifications.
- 26. Jack up the vehicle and remove the jack stands.
- 27. Repeat steps on opposite side of vehicle.
- 28. Lower the vehicle to the ground.
- 29. Reinstall the sway bar links on the axle using the factory hardware. Tighten using a 15mm & 18mm socket / wrench.
- 30. Tighten the lower control arm hardware using a 21mm socket/wrench to factory specifications
- 31. Support the transmission cross member using a floor jack and remove the 4 bolts on each side using a 15mm socket. See Photo 17.
- 32. Lower cross member carefully leaving bolts installed but loose on one side. Install the transmission cross member spacers as shown in **Photo 18** and secure with the supplied 10mm x 140mm(approx. 5.5") bolts and washers from Bag2 and re-using the stock outside factory bolts on the inside mount. Repeat steps on other side.



- 33. Install the track bar with supplied 12mm x 65mm (approx 2.6") bolt & flange locknut from Bag2,. Tighten using a 18mm / 19mm socket / wrench. Do not use a flat washer. See Photo 19.
- 34. Install the drag link in the new pitman arm with factory castle nut and tighten using a 19mm wrench to factory specifications. Install supplied cotter pin from Bag2. See Photo 20.







- 35. Install the new stabilizer bracket on the front side of the track bar with the supplied u-bolts. Use the 3/8 flange lock nuts to secure the bracket. See Photo 21.
- 36. Remove the stock bolt from the clamp closest to the pitman arm using a 15mm wrench. See Photo 22.



- 37. Press the supplied 1/2" sleeve into the body end bushing of the stabilizer. Use the supplied 1/2" x 2.5" bolt, washers, and nut to secure the stabilizer to the bracket. Tighten with a 19mm wrench. See Photo 23.
- 38. Insert the supplied 10mm x 90mm long bolt through the clamp on the steering link and stabilizer, secure with10mm washers and nuts. Tighten with a 15mm socket and wrench. **See photo 24.**







## **REAR INSTALLATION INSTRUCTIONS**

- 1. Chock the front tires and jack up the rear of the vehicle. Support the rear with jack stands.
- 2. Remove the rear shocks using a 15mm and 18mm wrench/socket.
- 3. Remove the top sway bar bolt using a 15mm wrench/socket. See Photo 1. Retain the factory hardware for reuse.
- 4. Using the floor jack, lower the rear end and remove the coil springs.
- 5. Using a 21mm socket remove the 3 bolts that secure the upper arm to the differential. See Photo 2.





- 6. Remove the e-brake and brake line cable from the upper control arm using a 10mm socket to allow the control arm spacer to be installed in the next step. **See Photo 3.**
- Slighlty lower rear axle enough to allow installation of control arm bracket. Install the upper control arm bracket using the supplied crush sleeves, and 14mm x 90mm (approx 3.5") bolts from Bag5. Tighten using a 22mm socket. See Photo 4.



Remove the Brake Line Bracket from the Upper Arm



- 8. Install the bump stop using the supplied body puck and 3/8" x 3 1/2" self tapping bolts from Bag5. See Photo 5. (On vehicles with Up Country suspension remove the factory bump stop spacer. )
- 9. Remove the sway bar brackets from the vehicle using a 15mm wrench/socket. See Photo 6.





- 10. Install the new sway bar drop brackets with the supplied 10mm x 90mm (approx. 3.5") bolts and washers from Bag5. See Photo 7.
- 11. Install the new coil springs using a coil spring compressor to make installation easier. See Photo 8.
- 12. Reinstall the e-brake and brake line on the upper control arm and tighten using a 10mm wrench.



- 13. Install the sway bar links in the sway bar bracket and tighten using a 15mm socket / wrench. See Photo 9.
- 14. Install the bushing and sleeves in rear shocks—a liquid soap may ease installation of bushing into shock eye. Install new rear shocks in the upper mount with the supplied shock sleeve /washer with the washer on the inside of the vehicle with the factory hardware. Tighten using a 15mm socket / wrench.
- 15. Install the lower shock brackets with the supplied 12mm x 100m (approx 4") bolts, nuts/washers and sleeves from Bag4 and bushings/sleeve from Bag3. Tighten using a 19mm wrench. See Photo 10. The relocation of the shock is needed to run wider tires with stock offset wheels. Without the bracket the shock will rub the tire under travel given the 3 link design of the Jeep.



- 16. Repeat steps on opposite side of vehicle.
- 17. Install the tires and wheels and tighten to factory specifications.
- 18. Jack up the vehicle and remove the jack stands.
- 19. Lower the vehicle to the ground.





## POST INSTALLATION

- 1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering for interference and proper working order. Test brake system.
- 2. Perform steering sweep. The distance between the tire sidewall and the brake hose must be checked closely. Cycle the steering from full turn to full turn to check for clearance. Failure to perform inspections may result in component failure.
- 3. An alignment by a certified alignment professional with experience in aligning lifted vehicles must be performed. Align vehicle to factory specifications.
- 4. Readjust headlights to proper settings.
- 5. Check hardware after the first 500 miles and then every 1000 miles.

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.

## **Rough Country WJ Accessories**



## Thank you for purchasing a Rough Country lift for your Jeep.

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.

