

INSTALLATION INSTRUCTIONS **Rugged Ridge**

1984-01 Cherokee 3" Lift Kit #: 18401.70 / 18415.70
1993-98 Grand Cherokee 3" Lift Kit #: 18401.75 / 18415.75

A FEW WORDS ABOUT SAFETY:

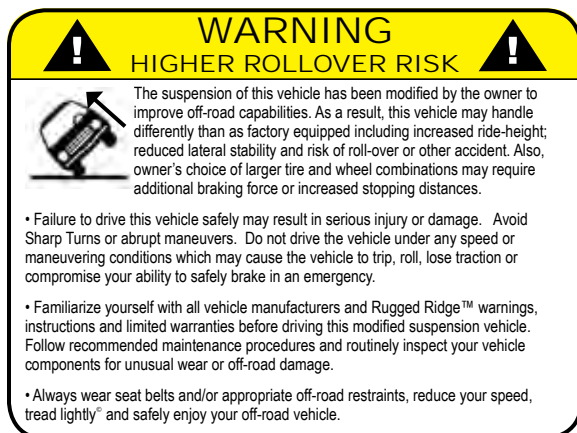
Your safety and the safety of other motorists is very important. As the owner of a modified suspension vehicle you are the person choosing the combination of suspension, wheels, tires and drive train that best fit your intended use. Likewise, you are the person responsible for the safety and legality of the vehicle you modify. In modifying your vehicle's suspension, balance your off-road capabilities against how the vehicle may actually be used off-road and on-road.

It is not practical or possible to warn about all hazards associated with modifying your suspension for improved off road capabilities. To help you make informed decisions about safety, we have provided certain information in the form of "Notices" and "Warnings". This information alerts you to potential hazards that could hurt you or others.

Notice: This is a caution against anything which may cause damage to the vehicle or its equipment if the caution is ignored. The Notice includes information about how you can avoid or reduce those risks.

Warning: This is a signal telling you that you CAN be KILLED or SERIOUSLY HURT if you don't follow the Warning. The Warning includes information about what you must or must not do in order to reduce the risk of injury to yourself and others.

The following Warning label is included with your Rugged Ridge™ suspension kit and should be placed on the vehicle visor or other conspicuous location after installation:



PRE-INSTALLATION NOTES:

Notice: This kit should only be installed by a professional mechanic or individual with significant automotive experience.

- Refer to parts list and inventory your kit to insure all parts and hardware pieces are available before beginning installation. Contact your independent dealer immediately if parts are missing.

- Installed lift will vary depending on vehicle options and configuration. As a reference and important guide should technical assistance be required, establish base ride-height measurements before beginning installation. Park vehicle on hard, level surface. Carefully measure the four corners of the vehicle (front and rear –both sides) from the ground up to the center of the fender opening above the axle. Record below and save.

Driver Side Front: _____ Passenger Side Front: _____

Driver Side Rear: _____ Passenger Side Rear: _____

RECOMMENDED TOOLS :

! Warning: Improper use of air and power tools can cause serious injury. Familiarize yourself with tool manufacturers warnings and instructions before use. Always wear approved safety glasses.

IMPORTANT NOTES :

- On models outfitted with extra bolt-on equipment and accessories, Rugged Ridge offers new coil spring isolator pads made from polyurethane to boost the front ride height 3/4" .

COMPONENT BOX LISTING :

- Two front coil springs,
- Two rear add-a-leaf springs (Cherokee) or two rear coil spring (Grand Cherokee)

OPTIONAL ACCESSORIES :

- Heavy Duty OEM steering stabilizer - # 18475.02
RR-I-18450-11

FRONT:

1. Secure and properly block the tires of vehicle on a level concrete or asphalt surface.

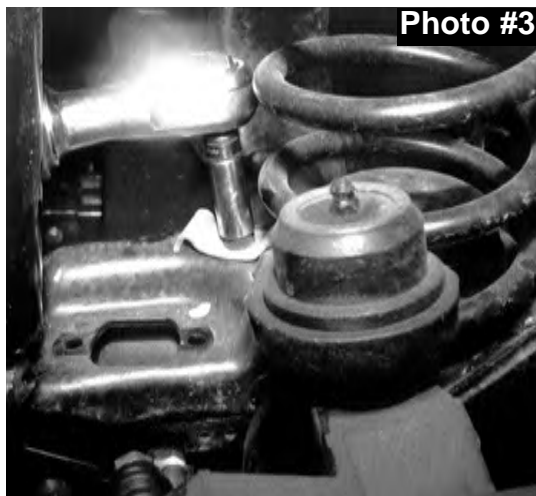
2. Jack up front of vehicle and install jack stands under frame behind the lower link rear brackets. Remove tires and front shocks. Now remove the track bar bolt on axle end only and lower track bar down (it may be necessary to pry bar loose). See photo #1.

3. Remove drag link assembly from pitman arm and lower it down. Now remove the sway bar end links lower bolt at axle housing on both sides (photo #2).

4. Lower front axle down until coil springs become loose. Remove spring bolt and clip on bottom of left front coil (see photo #3).

5. Install new coil springs (photo #4). Raise jack up so that enough load is applied to hold coil springs in place. Reinstall spring bolt and clip at bottom of left front coil (photo #5).

6. Install new shocks (see photo #6). Reinstall drag link to pitman arm and tighten (be sure to reinstall cotter pin). Install tires and lower front to ground.



7. Locate the front track bar mount on the axle, insert new bracket (see photo #7). Insert original bolt and keeper nut through original hole. Drill a 3/8" hole and install the 3/8 x 1" bolt with self lock nut. Tighten these two bolts. Attach track bar using new 7/16 x 2-1/2" bolt (it may be necessary to rotate steering wheel left or right to align hole). Be sure all track bar bolts are tight.

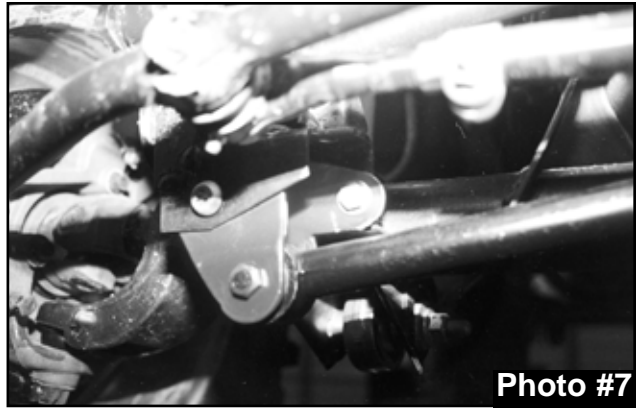


Photo #7

NOTE: For Best handling and steering, it is recommended to install the replacement adjustable track bar shown on page 6.

8. Reinstall sway bar end link bolts on both sides and tighten (unless new extended double quick-disconnect sway bar links were purchased (see photo #8). If so, follow their installation instructions at this time.



Photo #8

9. Install drive-in zerk fittings in each end of links by using a 1/4" socket over the fitting, tap with a hammer until fitting is completely tapped in. (see photo #9) Install poly bushings and steel sleeves (2.645" long) in each end of links. Be sure to slightly grease them prior to the installation.



Photo #9

10. Remove and replace the lower links with new Rugged Ridge extended links (one side at a time). On Grand Cherokee models, mark original position of eccentric cams (see photo #10). Do not tighten bolts until both sides are installed (see photo #11). On Grand Cherokee models, set the eccentric cams back in original position.



Photo #10

NOTE: So that the links can be greased while on the vehicle, install them with the zerk fittings positioned as follows: front eye of link has fitting pointing out the end, rear eye of link should have the fitting pointing down.

11. Install tires and lower vehicle to ground.

CHEROKEE / COMANCHE - REAR:

12. Place a floor jack under rear axle and raise vehicle. Place jack stands under the frame to support vehicle and remove the rear tires and shock absorbers.

13. Remove the axle U-bolts and lower axle down a few inches. Care should be taken because when U-bolts are removed, axle can move freely.



Photo #11

14. **ADD-A-LEAF INSTALLATION:** To perform the installation of add-a-leafs properly you must use two large C-clamps to contain the elastic potential energy in a leaf spring when the center tie bolt is removed. Attach and tighten a C-clamp on leaf spring on both sides of the center tie bolt to hold spring assembly securely together. Using vice grips to hold the head of the center bolt, loosen and remove it. With care slowly loosen and remove the C-clamps and springs bottom overload leaf, if equipped.

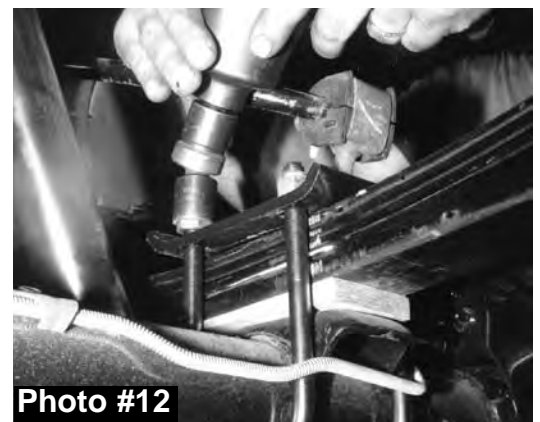
15. Place new leaf into the spring so that the leaves remain progressive longest to shortest while matching the long end and short end of add-a-leaf to leaf spring. (New add-a-leaf will install under top main leaf). Insert new tie bolt through original bottom overload leaf, if equipped, and then through spring pack. Only finger tighten the tie bolt nut.

16. **DO NOT USE THE CENTER TIE BOLT TO DRAW THE SPRING LEAVES TOGETHER.** Failure of any component can cause an explosive disassembly and possible injury! Place one C-clamp on each side of center tie bolt and tighten evenly. Once C-clamp has drawn the leaves securely together, hold center tie bolt head with vice-grips and tighten nut. Remove C-clamps.

17. Install leaf spring on vehicle and lower the rear axle back down, aligning spring pins into axle housing. Install original U-bolts and tighten evenly. Install rear shock absorbers, tires, remove jack stands and lower vehicle down.

18. **NEW REAR SPRING INSTALLATION:** (Cherokee Only)
Remove the spring eye bolts and remove original springs from vehicle. Install new springs with thick end of bottom degree shims pointing toward the rear bumper. (Which is also the long end of the spring toward the rear bumper). See photo # 12.

19. Raise the axle back up, aligning spring pins into axle housing. Install and tighten new U-bolts evenly. Install rear shock absorbers, tires, remove jack stands and lower vehicle down.



GRAND CHEROKEE - REAR:

20. Place a floor jack under rear axle and raise vehicle. Place jack stands under the frame ahead of lower link bracket to support vehicle and remove the rear tires and shock absorbers. Remove rear track bar and sway bar end link bolts at axle housing. Lower rear axle down and remove coil springs.

21. Install new coil springs. Raise jack up so that enough load is applied to hold coil springs in place.

22. Install drive-in zerk fittings in each end of links by using a 1/4" (.625cm) socket over the fitting, tap with a hammer until fitting is completely tapped in. Install poly bushings and steel sleeves (2.645" or 6.61cm long) in each end of links. Be sure to slightly grease them prior to installation.

23. Remove and replace the rear links with the new Rugged Ridge extended links (one side at a time). Only start these bolts and nuts, do not tighten at this time. **NOTE:** so that the links may be greased while on the vehicle, install the rear lower links with the zerk fittings positioned as follows: **rear** eye of link has fitting pointing out of the **end**, **front** eye of link should have the fitting pointing **down**.

24. Reattach original track bar and sway bar links into the original locations (use original bolts, but do not tighten at this time).

25. Install new shocks, install tires and lower rear to the ground. Now tighten the rear track bar bolts on each end and the sway bar end links. Thoroughly grease all zerk fittings in suspension links.

POST INSTALLATION CHECKS/ALIGNMENT:

- After installation is complete, double check that all nuts and bolts are tight. (Do not retighten nuts and bolts where Loctite was used.) Check to ensure there is adequate clearance between all rotating, mobile and fixed members.
- A transfer case lowering kit is available if a drive shaft vibration is present.
- Rotate driveshafts and check for interference at differential yoke and cardan joint. If necessary, lightly dress casting(s) and/or U-joint tabs in order to eliminate binding.
- Check clearance between inner side wall of tires and links. **It may be necessary to adjust steering stops.**

Notice: Adjust drag link so that steering wheel remains centered and wheel sweep from side to side remains equal. Failure to do so may cause computer errors, odd handling characteristics and poor performance. Have a qualified alignment center check and realign to factory specifications.

Notice: With vehicle securely elevated, carefully inspect and adjust to assure adequate clearance between tires (inner side wall), body and suspension components throughout range of steering and suspension travel. Additionally, carefully inspect and adjust to maintain clearance between suspension components, wiring harnesses, exhaust, brake and fuel lines, fuel tank, floorboards and body panels. Complete by properly torquing all fasteners.

Notice: With vehicle now on floor, again check clearances, cycle steering lock to lock and test proper brake operation. Raised vehicle height requires realigning headlights. Consult your state's lighting regulations. Wheels must be realigned by qualified service center to factory specifications.

Notice: Re-torque fasteners after 500 miles. Thereafter, regularly inspect and re-torque as needed. Follow vehicle manufacturer's recommended maintenance procedures and routinely inspect your vehicle components for unusual wear or off-road damage.