

Jeep CJ 1955-86 Suspension Lift Installation Instructions 18401.14 / 18415.14

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:



WARNING HIGHER ROLLOVER RISK





The suspension of this vehicle has been modified by the owner to improve off-road capabilities. As a result, this vehicle may handle differently than as factory equipped including increased ride-height; reduced lateral stability and risk of roll-over or other accident. Also, owner's choice of larger tire and wheel combinations may require additional braking force or increased stopping distances.

- Failure to drive this vehicle safely may result in serious injury or damage. Avoid Sharp Turns or abrupt maneuvers. Do not drive the vehicle under any speed or maneuvering conditions which may cause the vehicle to trip, roll, lose traction or compromise your ability to safely brake in an emergency.
- Familiarize yourself with all vehicle manufacturers and Rugged Ridge™ warnings, instructions and limited warranties before driving this modified suspension vehicle.
 Follow recommended maintenance procedures and routinely inspect your vehicle components for unusual wear or off-road damage.
- Always wear seat belts and/or appropriate off-road restraints, reduce your speed, tread lightly^o and safely enjoy your off-road vehicle.

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.

COMPONENT BOX LISTING:

Four Leaf Springs Eight U-bolts Hardware Bag

FRONT INSTALLATION:

- 1. Open the bushing bag that is marked "F" for front (on 55-75 models the front and rear bushings are the same so there is only 1 bag enclosed). Apply a thin coat of lithium-based grease around the polyurethane bushings and insert into each eye of the new front springs then apply a thin coat on the outside of bushings. Insert the metal sleeves into the springs eyes (on 76-86 models, sleeves are only required in the larger eyes).
- 2. Raise front of vehicle and support securely with jack stands under the frame behind front springs and block the rear wheels. Remove the tires, shocks, u-bolts (<u>Caution</u>: once the u-bolts are removed, the front axle will be free to move, so support securely on a floor jack). Loosen but do not remove, the bolts attached to the sway bar.
 - If a drop pitman arm was purchased, disconnect the tie rod from the original pitman arm; and install new arm following the instructions included with the drop pitman arm.
- 3. Unbolt each end of the front leaf springs and remove both springs from vehicle. (If new shackle bushings were purchased, grease and install them at this time) When installing the new springs on 76-86 models, be sure to install them so that the end with smaller-eyes are toward the front bumper. On 55-75 models, install the front springs in either direction. (NOTE: It is important to NOT tighten the spring eye bolts at this time. If springs are tightened, with no load being applied on the springs, a false lift and stiff ride will result. These bolts will be tightened later in step 6 once the vehicle is on the ground.)
- 4. While still supporting the front axle with the floor jack, lower axle down to the leaf springs. Be sure the tie bolt heads align and fit into the holes in the axle housing. Install the new u-bolts included in this lift and torque them to 80 ft.lbs. On all CJ models, one of the front u-bolts is wider than the other 3, as was originally. On 55-75 models the other 3 front u-bolt are only slightly narrower (2 ½") than the 4 rear u-bolts (2¾"), and some models may need to drill out holes in u-bolt pad to ½". If new bump stop brackets were purchased, they should be installed along with the u-bolts.
- 5. Install the new shocks and tires then lower vehicle down to the ground. Stand of the front bumper and bounce vehicle vigorously to help relieve any friction or binding. <u>Tighten the spring eye bolts at this time</u>. Finally, re-tighten the sway bar bolts that were loosened in step 3, or install the sway bar lowering kit, if purchased.

REAR INSTALLATION:

- 6. Open the bushing bag that is marked "R" for rear (on 55-75 models the front and rear bushings are the same so there is only 1 bag enclosed). Apply a thin coat of lithium grease around the polyurethane bushings and insert into each eye of the new front springs then apply a thin coat on the outside of bushings. Insert the metal sleeves into the springs eyes (on 76-86 models, sleeves are only required in the larger eyes).
- 7. Raise rear of vehicle and support securely with jack stands under the frame in front of the rear springs and block the front wheels. Remove the tires, shocks and u-bolts (<u>Caution</u>: once the u-bolts are removed, the rear axle will be free to move, so support securely on a floor jack).

- 8. Unbolt each end of the rear leaf springs and remove both springs from vehicle. (If new shackle bushings were purchased, grease and install them at this time) When installing the new springs on 76-86 models, be sure to install them so that the end with smaller-eyes are toward the rear bumper. On 55-75 models, install the rear springs in either direction. (NOTE: It is important to NOT tighten the spring eye bolts at this time. If springs are tightened, with no load being applied on the springs, a false lift and stiff ride will result. These bolts will be tightened later in step 11 once the vehicle is on the ground.)
- 9. While still supporting the rear axle with the floor jack, lower axle down to the leaf springs. Be sure the tie bolt heads align and fit into the holes in the axle housing. Install the new u-bolts included in this lift and torque to 80 ft.lbs. If new bump stop brackets were purchased, they should be installed along with the u-bolts.
- 10. Install the new shocks and tires then lower vehicle down to the ground. Stand on the rear bumper and bounce vehicle vigorously to help relieve any friction or binding. <u>Tighten the spring eye bolts at this time</u>.

NOTE: After driving the first 50 miles, retorque <u>ALL</u> nuts, bolts and <u>ESPECIALLY U-BOLTS</u>, torque again for another 100 miles and then check periodically thereafter.

TROUBLE SHOOTING

Upon completion of installing the entire lift (front and rear) if the vehicle appears to sit unlevel go to step 1 and record the AFTER measurements to verify the amount of lift obtained at each point. If the vehicle does sit unlevel and it did <u>not</u> in sit unlevel in step 1, the following can be checked:

- 1. Be sure all of the polyurethane bushings were greased well so that they will not restrict the spring's movement.
- 2. Check the condition of the shackle bushings in the frame (if not replaced with new ones) to be sure they are not worn, and if so, replace them with new polyurethane bushings, available from Omix-Ada. (See step 4 for part numbers.)
- 3. Check the body bushings between the frame and the body to be sure they are not showing wear. If so, Omix-Ada offers replacement polyurethane kits.
- 4. In order to be sure that the bushings are not restricting the spring from being at the correct ride height, loosen (do not remove) the spring eye bolts. Then stand on the bumpers and bounce the vehicle up and down vigorously to free up the bushings and then retighten spring eye bolts. (Even if this was done in steps 6 and 11, this should be done again after the entire lift is installed.)

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.
- 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 <u>qualified</u> 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.

RUGGED RIDGE LIFT KITS SUSPENSION SYSTEMS