

# 84-01 Cherokee XJ 93-98 Grand Cherokee <u>3" Value Flex Lifts</u> Installation Instructions

Before beginning the installation, read these instructions & the enclosed driver's WARNING NOTICE thoroughly & completely. Also affix the WARNING decal in the passenger compartment in clear view of all occupants. Please refer to the Parts List to insure that all parts & hardware are received prior to disassembly of the vehicle.

Make sure you park the vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from the factory, but usually not noticed until a lift kit has been installed which makes the difference more visible. Using a measuring tape, measure the front & rear (both sides) from the ground up to the center of the fender opening above the axle. Record this information below for future reference.

Driver Side Front: \_\_\_\_\_ Passenger Side Front: \_\_\_\_\_

Driver Side Rear: \_\_\_\_\_ Passenger Side Rear: \_\_\_\_\_

#### IMPORTANT NOTES:

• On models outfitted with extra bolt-on equipment & accessories, SKYJACKER<sup>®</sup> offers new coil spring isolator pads made from polyurethane to boost the front ride height 3/4" (order part # SIP275, pair). Also 1/2" rear spring plates are available (order part # SP1225, each).

#### **PRE-INSTALLATION NOTES:**

- A professional mechanic is recommended to perform the installation.
- Read the instructions *carefully* & *study* the photo illustrations before attempting the installation.
- Secure & properly block the vehicle on a level concrete or asphalt surface.
- Always wear safety glasses.

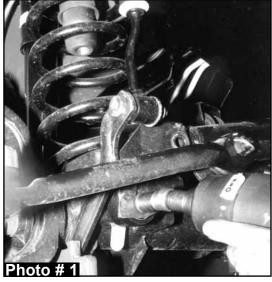
### ACCESSORIES:

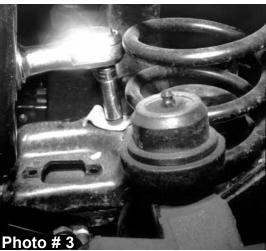
<ul> <li>3/4" spring isolator pad spacers, pr</li> </ul>	#SIP275
Transfer case lowering kit (with shifter linkage lowering bracket)	#TCL30 or #TCL31
<ul> <li>Heavy duty OEM steering stabilizer</li> </ul>	#7009
<ul> <li>Front double disconnect extended sway bar links.</li> </ul>	#SBE320

I-JC30-SVX REV1 6-12

## **Front Installation:**

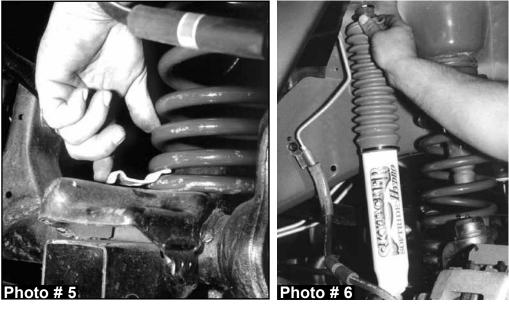
- 1. Secure & properly block the rear tires / wheels of the vehicle on a level concrete or asphalt surface.
- 2. Raise the front of the vehicle & install jack stands under the frame behind the lower link rear brackets. Remove the front tires / wheels & front shocks. Remove the track bar bolt on the axle end only & lower the track bar. (It may be necessary to pry the track bar loose). (See Photo # 1)
- 3. Remove the drag link assembly from the pitman arm & lower it down. Remove the sway bar end links lower bolt at the axle on both sides. (See Photo #2)
- 4. Lower the front axle down until the coil springs become loose. Remove the spring bolt & clip on the bottom of the left front coil. (See Photo # 3)
- 5. Install the new Skyjacker coil springs. (See Photo # 4) Raise the jack so that enough load is applied to hold the coil springs in place. Reinstall the spring bolt & clip at the bottom of the left front coil. (See Photo # 5)











6. Install the new Skyjacker front shocks (See Photo # 6) Reinstall the drag link to the pitman arm & tighten. (Be sure to reinstall the cotter pin). Install the front tires / wheels & lower the vehicle to the ground. I-JC30-SVX

- 7. Locate the front track bar mount on the axle, insert the new Skyjacker bracket. (See Photo # 7) Insert the OEM bolt & keeper nut through the OEM hole. Drill a 3/8" hole & install the 3/8 x 1" bolt & nut. Attach the track bar using the supplied 7/16 x 2 1/2" bolt. (It may be necessary to rotate the steering wheel left or right to align the hole). Be sure all track bar bolts are tight.
- 8. Using the supplied 7/16" x 1 1/2" bolt place the new Skyjacker end link mounting bracket to the bottom of the sway bar with the bolt pointing up through the sway bar & the nut & 7/16 USS washer applied on top. Insert the metal sleeve (# 54314) into each sway bar end link eyelet.

Photo #8

The top 1/2" x 2 1/2" bolt connecting the bracket to the sway bar end link must be installed with the nut to the outside of the vehicle to provide adequate clearance to the frame. Install the new Skyjacker double disconnect end links on the inboard side of the axle bracket, being sure that the offset is turned inward. (See Photo #8)

9. Set the length of the new Skyjacker Flex Series link assemblies.

A) It is very important to position the swivel ball socket so the bushings are exactly centered.

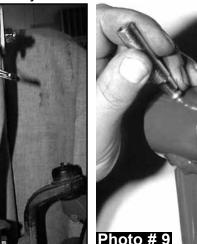
B) Measure the length of the link assembly between the center of each eye on each end. Rotate the rod end as needed, being sure to keep the ends square with each other until the link assembly measures:

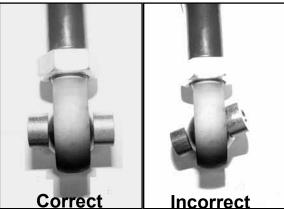
Lower Front should be 16 1/16" long. Lower Rear should be 16 7/8" long.

On each rod end, rotate the jam nut against the steel tubing. Hold the rod end in place with a crescent wrench & using a pipe or crescent wrench on the jam nut, completely tighten. Jam nuts must be tight against the steel tubing before installation.

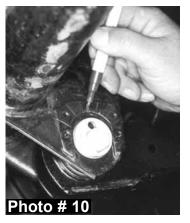
10. Remove & replace the lower links with the new Skyjacker lower links (one side at a time). On Grand Cherokee models, mark the OEM position of the eccentric cams. (See Photo # 10) Do not tighten the bolts until both sides are installed. (See Photo # 11) On Grand Cherokee models, set the eccentric cams back in the OEM position.













11. Install front tires wheels & lower the front of the vehicle to the ground.

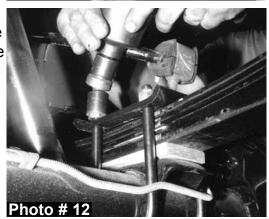
# CHEROKEE / COMANCHE - REAR:

- 12. Place a floor jack under the rear axle & raise the vehicle. Place jack stands under the frame to support the vehicle & remove the rear tires / wheels & rear shock absorbers.
- 13. Remove the axle U-bolts & lower the axle a few inches. Care should be taken because when U-bolts are removed, the axle can move freely.
- 14. <u>ADD-A-LEAF INSTALLATION:</u> 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 & tighten a C-clamp on the leaf spring on both sides of the center tie bolt to hold the spring assembly securely together. Using vice grips to hold the head of the center bolt, loosen & remove. With care slowly loosen & remove the C-clamps & springs bottom overload leaf, if equipped.
- 15. Place the new Skyjacker add a leaf into the spring so the leaves remain progressive longest to shortest while matching the long end & short end of add a leaf to leaf

spring. (The new add a leaf will install under the top main leaf.) Insert the new tie bolt through the OEM bottom overload leaf, if equipped, & then through the 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 & possible injury! Place one C-clamp on each side of the center tie bolt & tighten evenly. Once the C-clamp has drawn the leaves securely together, hold the center tie bolt head with vice-grips & tighten the nut. Remove the C-clamps.
- 17. Install the leaf spring on the vehicle & lower the rear axle down, aligning the spring pins into the axle housing. Install the OEM U-bolts & tighten evenly. Install the rear shock absorbers, rear tires / wheels, & lower the vehicle to the ground.
- NEW REAR SPRING INSTALLATION: (Cherokee Only) Remove the spring eye bolts & remove the OEM springs from the vehicle. Install the new Skyjacker springs with the thick end of the 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, aligning the spring pins into the axle housing. Install & tighten the new Skyjacker U-bolts evenly. Install the rear shock absorbers, rear tires / wheels, & lower the vehicle to the ground.





### **GRAND CHEROKEE - REAR**:

- 20. Raise the rear of the vehicle. Place jack stands under the frame ahead of lower link bracket to support the vehicle & remove the rear tires / wheels & rear shock absorbers. Remove the rear track bar & sway bar end link bolts at the axle. Lower the rear axle & remove the coil springs.
- 21. Install the new Skyjacker coil springs. Raise the jack up so enough load is applied to hold the coil springs in place.
- 22. Remove & replace the rear lower links with the new Skyjacker lower links (one side at a time). Only start these bolts & nuts, do not tighten at this time. **NOTE:** Install so the bushing is at the axle & the rod end at the frame.
- 23. Reattach the OEM track bar & sway bar end links into the OEM locations. (Do not tighten at this time.)
- 24. Install the new rear shocks, rear tires / wheels, & lower the vehicle to the ground. Tighten the rear track bar bolts on each end & the sway bar end links.

#### FINAL NOTES:

- After the installation is complete, double check that all nuts & bolts are tight. (Do not retighten nuts & bolts where thread locking compound was used.) Check to ensure there is adequate clearance between All rotating, mobile, & fixed members.
- A transfer case lowering kit is available if a drive shaft vibration is present. Part Number TCL30 ('84-'93) or TCL31 ('94-'01). (Includes shifter linkage relocation bracket.)
- Rotate the driveshafts & check for interference at the differential yoke & cardan joint. If necessary, lightly dress the casting(s) & / or the U-joint tabs in order to eliminate binding.
- Check clearance between the inner side wall of tires & lower links. It may be necessary to adjust the steering stops.
- Ensure there is adequate clearance between the exhaust, brakelines, fuel lines, fuel tank, floor board, & wiring harnesses. Check the steering gear for interference & proper working order. Inspect the brakelines for damage & adequate clearance.
- With the vehicle on the ground, cycle the steering lock to lock & inspect the steering, suspension, driveline, & brakeline systems for proper operation, tightness, & adequate clearance.
- Have the headlights readjusted to the proper settings.
- Have a <u>qualified</u> alignment center check & realign to the factory specifications.

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