



## J1455, J1456 Installation Instructions 1984-2001 Jeep Cherokee XJ 4.5" Suspension Lift

### Read and understand all instructions and warnings prior to installation of product and operation of vehicle.

Zone Offroad Products recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known. Minimum tool requirements include the following: Assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands. See the "Special Tools Required" section for additional tools needed to complete this installation properly and safely.

#### » PRODUCT SAFETY WARNING

Certain Zone Offroad Products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle roll-over. Failure to drive your modified vehicle safely may result in serious injury or death. Zone Offroad Products does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

#### » TECHNICAL SUPPORT

**Live Chat** provides instant communication with Zone tech support. Anyone can access live chat through a link on [www.zoneoffroad.com](http://www.zoneoffroad.com).

[www.zoneoffroad.com](http://www.zoneoffroad.com) may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to [tech@zoneoffroad.com](mailto:tech@zoneoffroad.com) detailing your issue for a quick response.

**888.998.ZONE** Call to speak directly with Zone tech support.

#### » PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
7. Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.

#### Difficulty Level

easy 1 2 **3** 4 5 difficult

Estimated installation hours: 5-6

#### Special Tools Required

T-50 Torx socket

C-Clamps (Pair)

#### Tire/Wheel Fitment

31x10.50 tire/15x8, 3.5-4" B.S. wheel

32x11.50 tire/15x8, 4.5" B.S. wheel

## Kit Contents

**\*Important\*** Verify you have all of the kit components before beginning installation.

### » J1450 Box Kit

Qty	Part
2	4.5in coil spring
2	LCA with rubber bushings
1	1/8 x 1-1/4 cotter pin
<b>Sway Bar Links</b>	
2	Sway bar link
2	U-bracket
2	U-bracket stem washer
4	5/8" ID hourglass bushing
2	5/8" x .475" ID sleeve
2	5/8" x .407" ID sleeve
1	Bolt pack 746
4	3/8" flat washer
2	3/8"-16 x 2-1/2" bolt
2	3/8"-16 lock nut
2	10mm x 40mm bolt
2	10mm lock nut
4	7/16" flat washer
<b>Bump Stop Extensions</b>	
2	3in wide x 2in tall bump stop extension
1	Bolt pack 439
2	3/8" x 2-1/2" bolt
2	3/8" flat washer
1	3/8"-16 x 1" self-tapping bolt
<b>Front Brake Line Relocation</b>	
2	Front Brake Line Relocation Bracket
1	Bolt pack 704
2	1/4" lock nut
2	1/4" flat washer
<b>Transfer Case Drop</b>	
2	Transfer case drop bracket
1	Bolt pack 703
4	10mm-1.50mm x 50mm bolt
4	10mm flat washer
4	10mm lock washer

### » J1455/J1456 Box Kit

Qty	Part
4	1/2 x 3 x 6-3/4 Round U-bolt (J1455 only)
4	1/2 x 2-3/4 x 6 1/2 Round U-bolt (J1456 only)
8	1/2in washer
8	1/2 x 20 Fine high nut
<b>Rear Brake Line Relocation</b>	
1	Rear brake line bracket
1	3/8 x 1 bolt
2	3/8 USS flat washer
1	3/8 x 16 hex nut
<b>Add-A-Leafs</b>	
2	Rear Add-A-Leaf
2	5/16 x 3.5 center pin & nut
4	2.5in spring clamp
<b>Rear Shackles</b>	
2	Rear shackle
4	Shackle bushing
2	3/4" x 2-3/4" sleeve
2	Grease zerk

## INSTALLATION INSTRUCTIONS

1. Park the vehicle on an appropriate work surface. Ensure that the vehicle is in park for automatic transmission or in first gear for manual transmissions and the parking brake is applied. Block the wheels for added safety.

### » FRONT INSTALLATION

2. Remove the bolt mounting the front track bar to the passenger's side of the axle **Figure 1**. Save track bar bolt and nut tab. Allow the track bar to hang free.

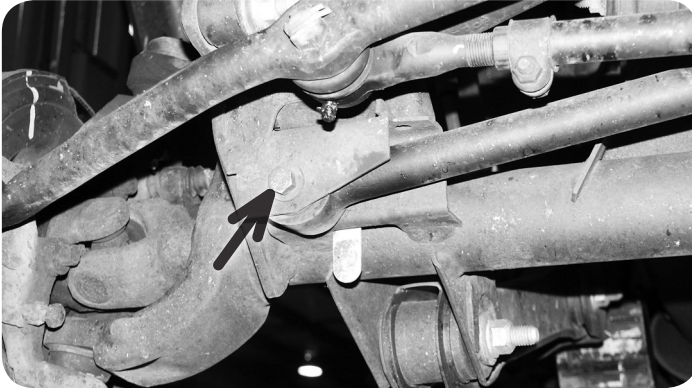


Figure 1

3. Raise the front of vehicle with a hydraulic jack and place jack stands under the frame rails, just behind the lower control arm pockets.
4. Remove the wheels.
5. Support the front axle with a hydraulic jack. Remove the shocks. Save the lower shock hardware.
6. Disconnect the front brake line brackets from the uni-body frame. Save hardware.
7. Remove the upper mounting nut from the sway bar links **Figure 3**. Swing the sway bar up off the links.
8. Disconnect the sway bar links from the axle. Remove the nut and the sway bar link from the bolt **Figure 2**. Some early models will require a T55 torx socket to hold the bolt from rotating. Later models used a bolt with a serrated neck that is pressed into the bracket so it will not rotate. Save axle mount hardware.



Figure 2

### Important—measure before starting!

Measure from the center of the wheel up to the bottom edge of the wheel opening

LF \_\_\_\_\_ RF \_\_\_\_\_

LR \_\_\_\_\_ RR \_\_\_\_\_

### Step 2 Note

The track bar bolt may require a T-50 Torx socket on early models.

9. Remove the cotter pin and castellated nut from the drag link end at the pitman arm **Figure 3**. Thread the nut back on a couple of turns. Strike the pitman arm near the drag link end to release the tapered seat. Take care not to damage the end. Remove the nut and the drag link from the pitman arm. Save hardware.

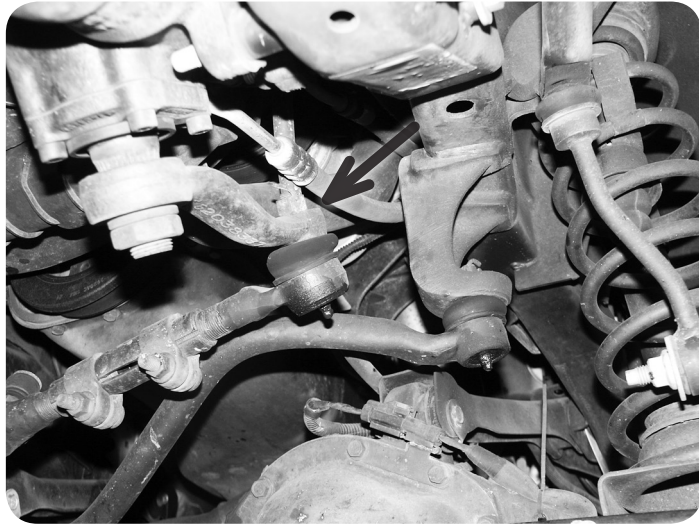


Figure 3

10. Remove the driver's and passenger's side coil spring retainer clips located on the back side of the axle coil seat. Save clips and bolts.
11. Ensure the axle is well supported with a jack. Loosen and remove the driver's and passenger's side lower control arm bolts at the axle and frame. Remove the control arms from the vehicle. Save the control arm hardware.
12. Lower the axle with the hydraulic jack and remove the original coil springs. Take care not to over extend the brake lines.
13. Locate the center of the coil mount on the axle and drill a 5/16" hole **Figure 4**. Using the provided 3/8" x 1" self-tapping bolts, tap the hole and remove the bolt. A lower bump stop extension will be installed here when the coil spring is installed.

### Step 13 Note

Be sure to drill the hole with 5/16" drill bit to ensure that the bolt can cut the threads properly. The 3/8" bolts needed for the front bump stop installation are located in hardware pack #439.



Figure 4

14. Install the provided new front coil springs in the vehicle. When installing the coils, insert a 2" bump stop spacer in the coil before placing it on the axle mount. Fasten the bump stop spacer with a provided 3/8" x 2-1/2" bolt and washer. Torque bolt to approximately 25 ft-lbs.
15. Raise the axle until the coils touch the upper mounts. Reinstall the driver's and passenger's side coil retainers and torque to 20 ft-lbs.



16. Install the new driver's and passenger's side lower control arms with the factory bolts/nuts/washers with the short side from the bend towards the axle with the bend down. **Figure 5** Snug the bolts but do not tighten completely. The bolts will be tightened with the weight of the vehicle on the suspension.

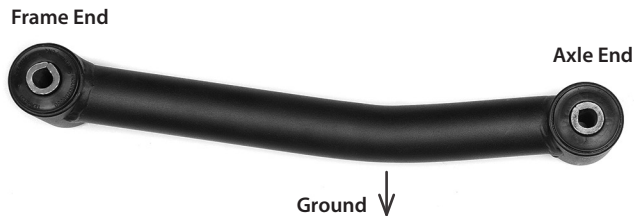


Figure 5

17. Install the new shocks with the provided upper bushings/hardware. Leave the upper nut loose.
18. Attach the shock to the axle with the original shock hardware. Torque bolts to 20 ft-lbs. Go back and tighten the upper shock stem nut until the stem bushings begin to swell. Install the thin jam nut on the stem and tighten it against the first nut.
19. Locate the factory track bar mount on the passenger's side of the axle. Measure from the center of the original track bar mounting hole  $\frac{3}{4}$ " toward the driver's side and mark. Drill a  $\frac{13}{32}$ " hole at the mark through the front and back faces of the track bar mount **Figure 6**. This will be the new mounting point for the track bar. Do not install the track bar at this time.

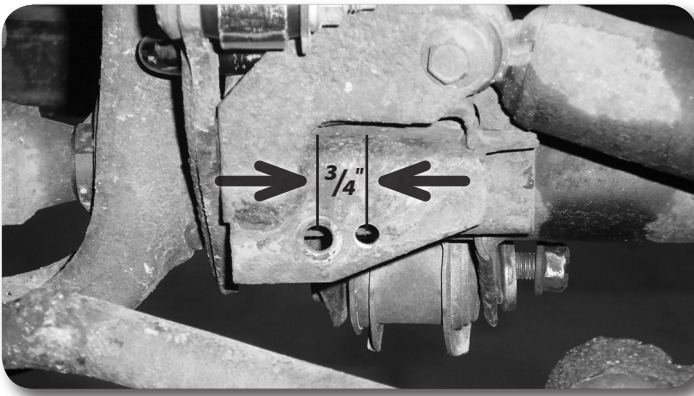


Figure 6

20. Reattach the drag link to the pitman arm with the original castellated nut. Torque the nut to 60 ft-lbs. Align the cotter pin hole with the slots in the nut and install the cotter pin. Never loosen the nut to align the cotter pin, only tighten. If the original cotter pin is damaged, replace it with a new one.
21. Install the provided sway bar link u-brackets to each end of the sway bar using 10mm x 40mm bolts, nuts, a  $\frac{7}{16}$ " washer and curved a stem washer. Install the bolt up through the bracket and sway bar hole. Fasten the bracket to the sway bar by place a stem washer on the bolt followed by the nut. The washer is curved to match the concave sway bar hole. Position the bracket so that the through holes are parallel with the sway bar link axle mount hole. Torque bolt to 40 ft-lbs.
22. Locate the new front sway bar links. The front links have offset eyes. Install a  $\frac{5}{8}$ "OD x 0.475" ID steel sleeve in one end and a  $\frac{5}{8}$ "OD x 0.407" ID sleeve in the other end of each link. The links will have the bushings preinstalled.

### Step 21 Note

Hardware for the sway bar link installation is located in hardware pack #746.

23. Attach the new sway bar links to the axle mount with the factory hardware and to the new sway bar u-bracket with 3/8" x 2-1/2" bolts, nuts and washers run from inside out. The end with the smaller ID sleeve will mount to the u-bracket. When mounted correctly, the links will taper in toward the center of the vehicle as the run from the axle to the sway bar **Figure 7**. Torque the factory hardware to 55 ft-lbs and 3/8" hardware to 30 ft-lbs.



Figure 7

### Step 24 Note

Hardware for the front brake line relocation is located in hardware pack #704.

24. Loosely attach the new front brake line bracket to the unibody with the factory brake line bolt. Attach the brake line to the stud on the relocation bracket with the provided 1/4" nut and washer. When install the bracket will set on a 45 degree angle toward the axle which relocated the brake line both down and toward the axle for adequate slack. Torque all hardware to 10 ft-lbs.
25. Install the wheels and torque the lug nuts to the manufacturer's specs. See vehicle owner's manual.
26. Remove the jack stands and lower the vehicle to the ground.
27. Bounce the front of the vehicle to settle the suspension.
28. Connect the front track bar to the newly drilled hole in the axle mount with the original hardware. Torque bolt to 50 ft-lbs. Note: To aid in aligning the track bar hole have an assistant turn the steering wheel to shift the trackbar in the correct direction.
29. Torque the lower control arm bolts to 85 ft-lbs.
30. Check all hardware for proper torque.

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## » REAR INSTALLATION

31. Block the front wheels for safety.
32. Raise the rear of the vehicle with a hydraulic jack and support with jack stands at the frame rails just ahead of the leaf spring hanger.
33. Remove the wheels.
34. Remove the rear brake line retaining clip at the frame. Remove the brake line from the bracket. Save clip.
35. Support the rear axle with a hydraulic jack. Remove the shocks. Save all shock hardware.
36. Disconnect the sway bar from each frame rail (two bolts per side). Allow the sway bar to rest on the springs. When both link ends are removed from the u-

### Step 4 Note

The upper factory shock bolts are prone to corrosion. Take care removing the bolts, they can break easily.

bolts (during the add-a-leaf installation) the sway bar will be removed from the vehicle.

*Complete the following one side at a time, starting with the passenger's side.*

37. With the rear axle well supported with a hydraulic jack, remove the leaf spring u-bolts. The sway bar link bracket will be free with the removal of the outer u-bolt.
38. Lower the axle from the spring.
39. Remove the factory bend-over style leaf spring clamps. These will not be reused.
40. Place C-clamps on each side of the leaf spring center pin to hold the leaf pack together. Remove the leaf spring center pin and then release the C-clamps. This will allow the leaf pack to come apart. Take note each leaf's position and orientation (front to rear).
41. Place the provided new leaf in between the 2nd and 3rd leaf in the factory leaf pack. The leaf lengths get shorter as they go from the top leaf in a pyramid shape **Figure 8**. Using the C-clamps on each side of the center pin hole, compress the leaves together while aligning the new center pin through all of leaf center pin holes (from the bottom up). With the pack completely compressed together with the clamps, fasten the center pin with the provided nut. Torque nut to 20 ft-lbs. Cut off any excess center pin. Do not use the center pin to compress the pack together.

### Step 8 Note

Slightly loosening the driver's side u-bolts will allow the axle to lower from the spring with less restriction.

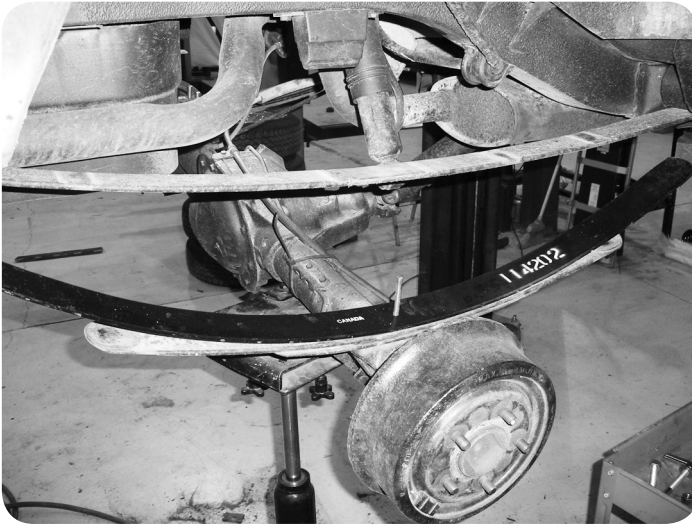


Figure 8

42. Remove the C-clamps from the leaf pack and ensure the individual leaves are all inline with each other. Install the provided bend-over style clamps on the leaf pack **Figure 9**. Install one clamp on each side of the center pin about 12" from the center pin. Bend the ends of the clamps over to secure them to the spring.

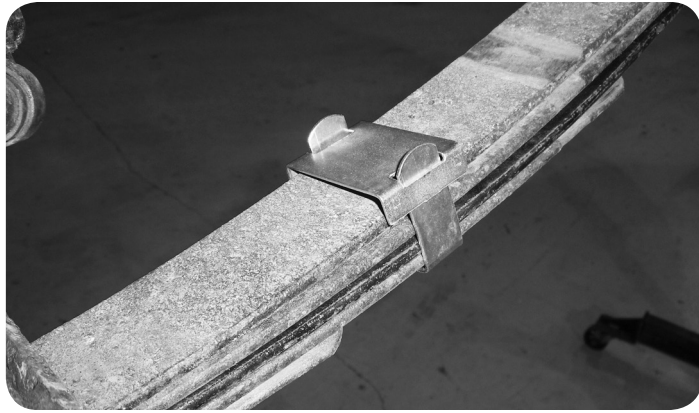


Figure 9

### Sway Bar Note

The add-a-leaf will compensate for the removal of the rear sway bar for body roll control. Removing the sway bar will greatly improve the suspension's ability to articulate. This will help to increase stability during off-road use.

43. Raise the axle to the leaf spring, aligning the center pin with the center pin hole in the axle. Fasten with the provided u-bolts, nuts and washers. Snug u-bolts but do not tighten completely. U-bolt torque will be set with the weight of the vehicle on the suspension.
44. Repeat procedure on the driver's side. Remove the sway bar from the vehicle at this time. It will not be reinstalled.
45. Locate the new extended shackles, shackle bushings (4), straight grease fittings (2) and 0.750 x 0.095 x 2.750 sleeves (2). Install the grease fittings in the threaded holes in each the shackle eye. Lightly grease and install the bushings and sleeves in the shackles.
46. With the axle still well supported with a jack, remove the factory shackles from the leaf spring and frame. Save hardware.
47. Locate the bumper bolt that is protruding into the shackle pocket. This bolt needs to either be trimmed off flush to the nut or removed. This will provide clearance for the shackle to travel its full range of motion **Figure 10**.



Figure 10

48. Loosely attach the new shackles to the frame with the factory bolts. Adjust the axle height with the jack to align the leaf springs with the shackles and loosely fasten with the factory bolt/nut.
49. With both sides complete, install the new shocks with the factory hardware. Torque the upper hardware to 25 ft-lbs and the lower nut to 50 ft-lbs.



50. Install the provided brake line drop bracket to the factory brake line bracket on the frame with a 3/8" x 1" bolt, nut and 3/8" washers. The open hole in the bracket mounts toward the ground and is where the line is installed. Torque hardware to 25 ft-lbs. Carefully reform the brake hardline and install it in the new bracket. Fasten with the factory brake line clip.
51. Install the wheels and lower the vehicle to the ground.
52. Bounce the rear of the vehicle to settle the suspension. Torque the u-bolts to 75-90 ft-lbs. Torque the shackle bolts to 65 ft-lbs.

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## »» **TRANSFER CASE DROP**

53. Support the transfer case with a hydraulic jack.
54. Remove the two bolts and two nuts (one each per side) holding the transfer case crossmember to the frame rails.
55. Lower the transfer case about 1-1/8". The stud in each frame rail must be removed. This can be done with the double nut method. Install one nut followed by another and tighten the nuts against each other. Remove the stud by turning the top nut (one closest to the frame).
56. Position the provided transfer case drop spacers between the frame rails and the crossmember. Align the holes in the crossmember with the holes in the spacers. The outer face of the spacer should be relatively flush with the outer edge of the crossmember, if not turn the spacer around. Fasten the crossmember and spacers to the frame with 10mm x 60mm bolts and lock washers. Torque hardware to 35 ft-lbs.
57. Check the transfer case shift level operation. The linkage may need to be adjusted in some cases.

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## »» **POST-INSTALLATION**

58. A complete front end alignment is required.
59. Adjust headlights.
60. Grease the new lower control arms (4 places total) as well as the rear shackles (2 places total). Grease these points at each scheduled service interval.

### **Step 3 Note**

If the double nut method will not work, the nut can be tack welded to the stud to form a "bolt". Thread the nut on the stud and tack the end of the stud so the nut cannot be threaded off. Remove the stud. BE SURE to disconnect the battery before welding.

### **Post-Installation Warnings**

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.