



## #J1453 Installation Instructions 1993-1998 Jeep ZJ 4" 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, T-55 Torx sockets

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.**

Qty	Part	Qty	Part
2	Front Coil Spring	2	Rear Lower Control Arm (Longer)
2	Rear Coil Spring	16	LCA Bushing
1	Cotter Pin	8	LCA Sleeve - 0.750 x 0.090 x 2.620
2	Front Bump Stop Extension	4	Front LCA Spacer Washer
1	Bolt Pack - Front Bump Stops	4	90 Degree Grease Fitting
2	Front Sway Bar Link w/Bushings	4	Straight Grease Fitting
2	Sway Bar Link U-Bracket	4	Rear Pinion Cam Plate
2	Link Sleeve - 0.625 x 0.075 x 1.375	1	Bolt Pack - Rear Pinion Cams
2	Link Sleeve - 0.625 x 0.109 x 1.375	1	Rear Track Bar Brkt
1	Bolt Pack - Front Sway Bar Links	1	Track Bar Brkt Sleeve - 0.750 x 0.090 x 1.575
10	Stem Washer	1	Bolt Pack - Rear Track Bar Brkt
8	Stem Bushing	4	T-Case Drop Spacer
2	Rear Sway Bar Link Center Tube	1	Bolt Pack - T-Case Drop
2	Front Lower Control Arm	4	Rear Bump Stop Spacer
		1	Bolt Pack - Rear Sway Bar Links/Bump Stops

### Important—measure before starting!

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

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

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

## 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.
2. Locate the new lower control arms (4 total - 2 frt, 2 rear), control arm bushings, control arm sleeves (3/4" OD x 2.620" long) and provided grease fittings. **Figure 1** Apply grease to the bushings/sleeves and install them in each control arm end. Install the grease fitting in the threaded holes located in each control arm end. One straight and one 90 degree fitting will be used for each arm with the straight fitting installed in the short end of the arm (short length after the arm bend). Ensure the 90 degree fitting is pointed toward the body of the control arm.

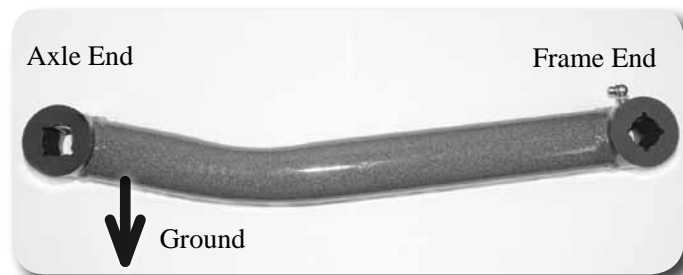


Figure 1

### »» FRONT INSTALLATION

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

### Step 3 Note

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

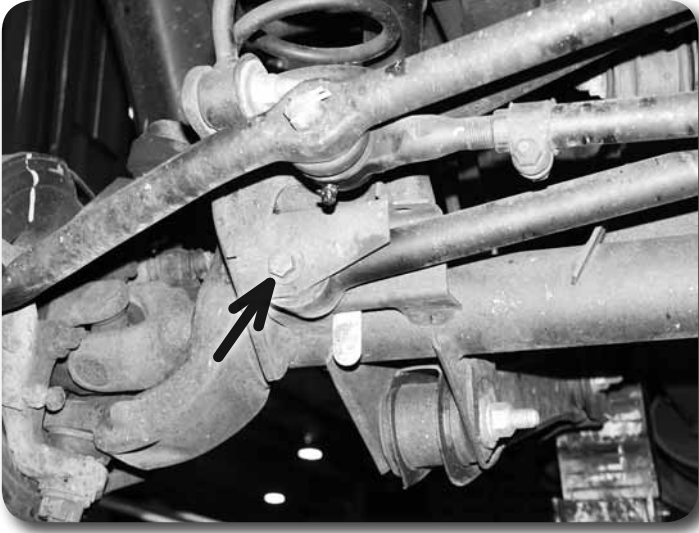


Figure 2

4. Raise the front of vehicle with a hydraulic jack and place jack stands under the frame rails, just behind the lower control arm pockets.
5. Remove the wheels.
6. Support the front axle with a hydraulic jack. Remove the shocks. Save the lower shock hardware.
7. Disconnect the front brake line brackets from the uni-body frame. Save hardware.
8. Remove the upper mounting nut from the sway bar links (Figure 3). Swing the sway bar up off the links.
9. Disconnect the sway bar links from the axle. Remove the nut and the sway bar link from the bolt Figure 3. Some early models will require a T55 torx socket to hold the bolt from rotating. Some 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 3

10. Remove the cotter pin and castellated nut from the drag link end at the pitman arm Figure 4. 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 4

11. If equipped with ABS, remove the two bolts mounting the ABS wire retaining bracket to each of the coil axle mounts. Save hardware.
12. 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.
13. 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.
14. Lower the axle with the hydraulic jack and remove the original coil springs. Take care not to over extend the brake lines.
15. Locate the center of the coil mounts on the axle and drill a 5/16" hole **Figure 5** in each mount. Using the provided 3/8" x 1" self-tapping bolt, tap the holes and remove the bolt. A lower bump stop extension will be installed here when the coil spring is installed.

### Step 14/15 Note

Be sure to drill the hole with 5/16" drill bit to ensure that the bolt can cut the threads properly. The front bump stop hardware is located in pack #438.

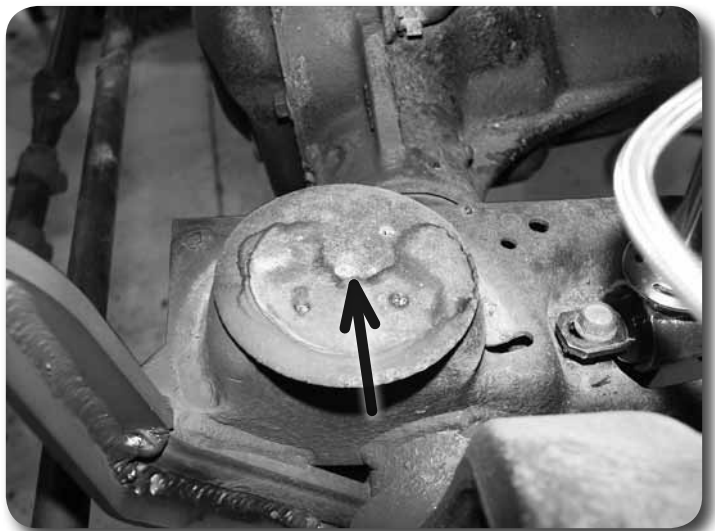


Figure 5

16. Install the provided new front coil springs in the vehicle. When installing the coils, insert a 3" bump stop spacer in the coil before placing it on the axle mount. Fasten the bump stop spacer with a 3/8" x 3-1/2" bolt and washer. Torque bolt to approximately 25 ft-lbs.

### Step 16 Note

The front coil springs are taller than the rear coil springs.

17. 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.
18. Install the new driver's and passenger's side lower control arms with the factory bolts/nuts/washers. At the frame, place a large 1/8" thick spacer washer on each side of the control arm end. Snug the bolts but do not tighten completely. The lower control arm bolts will be tightened with the weight of the vehicle on the suspension.
19. Install the new shocks with the provided upper bushings/hardware. Leave the upper nut loose.
20. 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.
21. 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 3/4" toward the driver's side and mark. Drill a 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.

### Step 18 Note

The front control arms are shorter than the rear control arms.

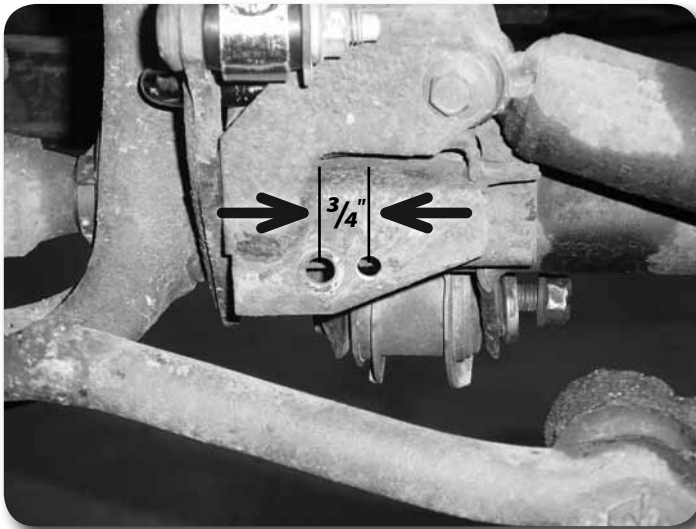


Figure 6

22. 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 new provided cotter pin. Never loosen the nut to align the cotter pin, only tighten.
23. Install the provided sway bar link u-brackets to each end of the sway bar using 10mm x 40mm bolts, nuts, a 3/8" USS 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.
24. Locate the new front sway bar links. The front links have offset eyes. Install a 5/8"OD x 0.480" ID steel sleeve in one end and a 5/8"OD x 0.407ID sleeve in the other end of each link. The links will have the bushings preinstalled.
25. Attached 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

### Step 23 Note

Hardware for the front sway bar links is located in hardware pack #746.



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 26 Note

Hardware for the front brake line relocation is located in hardware pack #437.

### Step 32 Note

To aid in aligning the track bar hole have an assistant turn the steering wheel to shift the trackbar in the correct direction.

### Step 2 Note

The track bar bolts require a T55 socket to remove.

26. Position the factory brake line bracket on the frame so that the alignment tab is in the threaded hole where the bracket mounted originally. Using the hole in the bracket as a guide, mark the location on the new mounting hole (this will be approximately 1" lower than the original hole). Move the bracket out of the way and drill a 1/4" hole at the mark. Attach the brake line bracket (and ABS bracket, when equipped) to the frame using the new hole and the provided 5/16" x 3/4" self-tapping bolt. Tighten bolt to 10-15 ft-lbs.
27. If equipped, reattach the ABS wire retaining bracket to the coil axle mount with the original hardware. Tighten hardware to 15 ft-lbs.
28. Install the wheels and torque the lug nuts to the manufacturer's specs. See vehicle owner's manual.
29. Remove the jack stands and lower the vehicle to the ground.
30. Bounce the front of the vehicle to settle the suspension.
31. Attach the sway bar links to the sway bar with the original hardware/bushings. Tighten nuts until the bushings begin to swell.
32. Connect the front track bar to the newly drilled hole in the axle mount with the original hardware. Torque bolt to 50 ft-lbs.
33. Torque the lower control arm bolts to 85 ft-lbs.
34. Check all hardware for proper torque.

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## » REAR INSTALLATION

1. Block the front wheels for safety.
2. Disconnect the rear track bar from the passenger's side frame mount **Figure 8**. Save hardware.



Figure 8

3. Raise the rear of vehicle with a hydraulic jack and place jack stands under the frame rails, just ahead of the lower control arm pockets.
4. Remove the wheels.
5. Support the rear axle with a hydraulic jack. Remove the shocks. Save all shock hardware.
6. Disconnect the sway bar links from the sway bar and axle. Discard links.
7. Remove the coil spring retainers from the axle mounts. Save the retainers and bolts.
8. Lower the axle with the hydraulic jack and remove the coil springs.
9. Remove the passenger's side upper control arm bolt at the axle. Place one of the provided offset cam washers between the two tabs located on the axle mount on each side of the original control arm hole. Position the washer so that the hole is closer to the front of the vehicle and even (up and down) with the existing hole **Figure 9**. Mark the perimeter of the hole using the washer as a guide. Remove the washer. Notice that the hole marking is located in a factory perforated section of the mount. Using a rotary grinding tool, remove the perforated section of the mount where the mark was made. Repeat this on the other side of the mount.



Figure 9

## Step 10 Note

Hardware for the rear upper control arms is located in hardware pack #738.

## Step 15 Note

Hardware for the rear bump stops is located in hardware pack #437.

10. Loosely attach the passenger's side upper control arm to the modified mount with the provided 10mm x 80mm bolts nuts and washers along with a two cam washers. The cams will be set in the appropriate position after the driver's side mount has been modified.
11. Remove the driver's side upper control arm bolt at the axle and repeat the modification that was done to the passenger's side.
12. With both upper mounts modified, snug the upper control arm hardware so that the cams are offset toward the front of the vehicle and positioned flat against the mount, between the tabs. The upper control arm bolts will be set to the correct torque with the weight of the vehicle on the suspension.
13. With the axle well supported, remove the factory lower control arms from the axle and frame mounts. Install the new control arms with the factory hardware. Install the arms so that the short end (past the bend) is mounted to the axle. Leave hardware loose.
14. Remove the factory bump stop from the upper mount. Large pliers can be used to pull it out. Remove the factory bump stop retainer cup by removing the two bolts.
15. Install the provided 2" bump stop spacers between the factory retainer cup and the frame with two 8mm x 70mm bolts and 5/16" USS washers **Figure 10**. Torque the bolts to 20 ft-lbs. Reinstall the factory rubber bump stop in the retainer. Apply grease to the bump stops to ease installation.



Figure 10

16. Remove the plastic cover from the track bar mount on the driver's side of the axle **Figure 11**. Discard the cover.





Figure 11

17. Disconnect the track bar from the axle by removing the Torx head bolt (T55). Note how the track bar is positioned in the vehicle. It can rest in the vehicle or be removed for reinstallation later.
18. Position the supplied track bar relocation bracket on the original track bar axle mount **Figure 12**. Install the provided 0.750" OD x 1.575" long crush sleeve in the original track bar mount point. Install the factory bolt through the supplied bracket, factory mount, sleeve and out through the other side of the mount. Loosely fasten with the factory nut tab.

### Step 17 Note

Hardware for the rear track bar bracket is located in hardware pack #722.



Figure 12

17. With the new bracket in place, drill out the remaining two holes to 7/16" using the bracket as a template. Fasten the bracket with the supplied 7/16" x 1-1/4" bolts, nuts and SAE washers in the newly drilled holes. Torque the 7/16" bolts to 50 ft-lbs. Go back and torque the 12mm factory bolt to 60 ft-lbs.
18. Install the factory track bar in the new bracket with the provided 12mm x 70mm bolt, nut and 7/16" USS washers. The bolt must be installed from back to front. Leave the bolt loose.
19. Install the new coil springs in the upper and lower spring seats. Reattach the lower coil retainer clips with the factory bolts. Torque bolt to 20 ft-lbs.

20. Lightly grease and install the provided hourglass bushing and steel sleeve in the rear shock eyes. The steel sleeve goes in the body (axle) end.
21. Attach the new shocks to the frame with the original hardware. Torque nut to 50 ft-lbs.
22. Raise the rear axle until the shocks can be fastened to the axle mounts with the original hardware. Torque bolts to 55 ft-lbs.
23. Locate the new rear sway bar link components: (2) 0.625 OD x 3" Long sleeves, (8) stem bushings and (8) stem washers. The rear sway bar links will also use the remaining 3/8" hardware in hardware pack #437.
24. Install the rear sway bar links to the original frame mounts and the sway bar as shown in the figure. Be sure to run the 3/8" x 7" bolt from the top down **Figure 13**. Tighten the bolt until the bushings begin to swell.

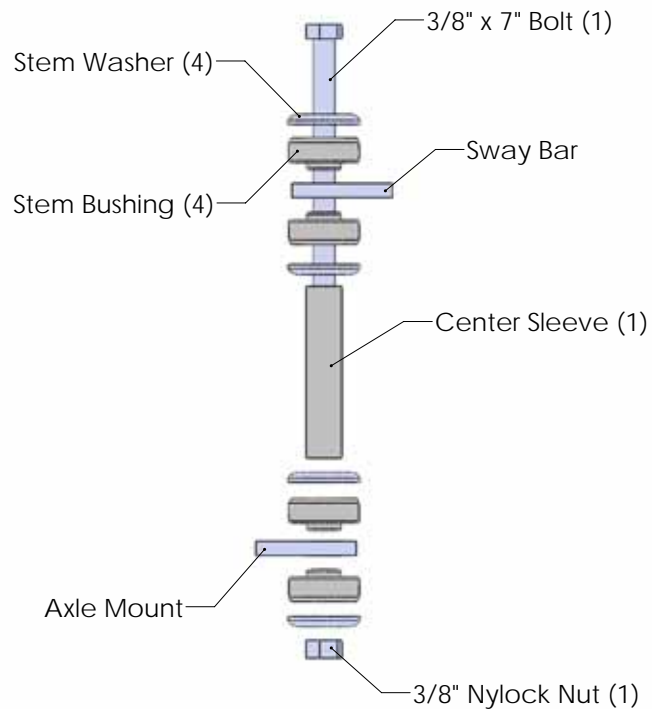


Figure 13

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. Note: Make sure the track bar doesn't get pinched when lowering the vehicle.
27. Bounce the rear of the vehicle to settle the suspension. Torque the lower control arm bolts to 85 ft-lbs. Torque the upper control arm bolts at the axle to 45 ft-lbs.
28. Reattach the rear track bar to the passenger's side frame mount with the original hardware. Have an assistant push on the side of the body to help align the track bar in the bracket. Torque frame and axle bolts to 70 ft-lbs.
29. Check all hardware for proper torque.

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## »» **TRANSFER CASE DROP**

1. Support the transfer case with a hydraulic jack.
2. Remove the four bolts (two per side) holding the transfer case crossmember to the frame rails.
3. Lower the transfer case about 1". Position the provided transfer case drop spacers between the frame rails and the crossmember with the hollow side towards the frame. Ensure the spacers will seat flat and align the holes in the crossmember with the holes in the spacers. Fasten the crossmember and spacers to the frame with the provided 10mm x 50mm bolts, 10mm flat washers and lock washers. Torque hardware to 35 ft-lbs.
4. Check the transfer case shift level operation. The linkage may need to be adjusted in some cases.

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## »» **POST-INSTALLATION**

1. A complete front end alignment is required.
2. Adjust headlights.
3. Grease the new lower control arms (8 places total). Grease these points at each scheduled service interval.

### **Step 3 Note**

Hardware for the transfer case drop is located in hardware pack #703.

### **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.