

#C1401/02/03/11/12/13 Installation Instructions 1973-1987 Chevy/GM 1/2, 3/4 Ton 4wd 1988-1991 Chevy/GM SUV 4", 6" Suspension Lifts

# 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 Suspension 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 rollover. 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 .

*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* 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: 3-4 hours

# **Special Tools Required**

None

# **Tire/Wheel Fitment**

Wheel: 15x8 w/3.5" backspacing 4" Lift Tire: 35x12.50 6" Lift Tire: 37x12.50

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

## **Kit Contents**

Qty	Part
2	4" Front Leaf Spring
2	4" Rear Lift Block
3	5/8" x 3" x 8" Round U-bolt (C1401, C1403)
3	5/8" x 2-3/4" x 8 Round U-bolt (C1402)
1	5/8" x 3-5/8" x 10" Round U-bolt
4	5/8" x 3" x 12" Round U-bolt - 1/2 Ton Only
4	5/8" x 3-5/8" x 12" Round U-bolt - 3/4 Ton Only
16	5/8" High Nut
16	5/8" Washer

#### Qty Part

- 4 Leaf Spring Bushing (Large)
- 4 Leaf Spring Bushing (Small)
- 2 Leaf Spring Sleeve 5/8" x 3-1/2"
- 2 Leaf Spring Sleeve 3/4" x 3-1/2"
- 2 3/8" x 1" bolt/nut/washer/lock washer
- 2 5/16" x 3/4" bolt/nut/lock washer
- 2 Front Brake Line Bracket
- 1 Rear Brake Line Bracket
- 2 Add-A-Leaf 6" Kits Only
- 2 3/8" x 4-1/2" Center Pin/Nut 6" Kits Only



## INSTALLATION INSTRUCTIONS

## >> FRONT

- 1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
- 2. Raise the front of the vehicle and support with jack stands at the frame rails, behind the leaf spring shackles.
- 3. Remove the wheels.
- 4. Remove the front shocks. Save mounting hardware.
- 5. Remove the cotter pin and nut from the steering drag link at the steering arm on the driver's side of the axle. Strike the steering arm near the drag link end with a hammer to dislodge the tapered seat. Remove the drag link end from the steering arm. Save the drag link end nut. Figure 1



Figure 1

6. Remove the three nuts mounting the steering arm to the driver's side steering knuckle. The arm is also held in place by tapered collars at each stud. Strike the arm near each stud to release the taper. Remove the tapered collars and steering arm. Save collars and nuts. It may be necessary to spray the studs/collars with penetrating oil to aid in loosening taper. Figure 2





- 7. Clean the mating surface for the steering arm on the top of the knuckle. Install the new steering arm over the 3 factory studs and slide the collars back in place. Fasten the assembly with the factory nuts. Torque the nuts to 90 ft-lbs.
- 8. Connect the drag link end to the new steering arm with the factory castellated nut. Torque nut to 90 ft-lbs and secure with the new provided cotter pin. Do not loosen the nut to align the cotter pin, only tighten.
- 9. Locate the brake line mount at the frame. Remove the hardline retaining clip from the brake line. Pull the brake line outward to release it from the bracket. Save the retaining clip. Figure 3



Figure 3

10. With the brake line fitting pulled out of the mount bracket, carefully cut a 1/4" wide slot in the top of the bracket through to the brake line hole. Figure 4 This will allow the brake line to be removed from the bracket without disconnecting the brake line. Remove the brake hard line from the bracket.



Figure 4

- 11. If equipped, disconnect the sway bar from the leaf spring plates. The sway bar can be completely removed and not reused or it can be reinstalled with the optional Zone front sway bar links. Save hardware if reinstalling.
- 12. Loosen but do not remove all 4 leaf spring bolts.
- 13. Support the front axle with a hydraulic jack. Working on the passenger's side, remove the factory u-bolts.
- 14. Lower the passenger's side of the axle from the leaf spring. Remove the leaf spring bolts and remove the spring from the vehicle. It may be helpful to slightly loosen the driver's side u-bolts to allow the axle to lower.
- 15. Locate the new leaf spring, bushings and sleeves. Lightly grease and install the bushings and sleeve into the appropriate ends of the springs.
- 16. Install the new leaf spring in the vehicle. The larger leaf spring eye goes to the front. Loosely fasten with the factory hardware.

- 17. Raise the axle up to the new leaf spring. Align the center pin in the leaf to the hole in the axle and fasten with the new provided u-bolts, nut and washers. Be sure to install the factory u-bolt plate in the correct directions. Snug u-bolts to hold the spring/axle in place.
- 18. Repeat spring installation on the driver's side.
- 19. If reusing the factory sway bar, locate the optional Zone Offroad sway bar link kit (#ZC5401). Follow the instruction included with the sway bar links.
- 20. Locate the new front shocks. Lightly grease and install the bushings and sleeves. At the ROD end of the shock, install the 2.25" long sleeve and leave the extra length out on one side. Place a provided 5/8" and the short 7/8" x 3/4" spacer sleeve over the sleeve. Figure 5 Install the shocks in the factory mounts, positioning the upper spacer toward the frame. Fasten with the factory hardware and torque to 55 ft-lbs.



Figure 5

21. Locate the provided front brake line relocation brackets. Attach the brackets to the original hardline bracket on the frame. The new bracket will mount to the back face of the factory mount and bend inward torward the frame. Fasten with a 3/8" x 1" bolt, nut flat washer and lock washer. The flat washer will go over the large hole in the factory bracket. Figure 6 Torque hardware to 30 ft-lbs.



Figure 6

- 22. Carefully reform the factory hard line so it runs through the new bracket. Fasten the hard line to the new bracket with the factory retaining clip. Make sure the hard line is not rubbing on the edge of the hole through the frame.
- 23. Install the wheels and lower the vehicle to the ground. Bounce the front of the vehicle to settle the suspension. Torque the u-bolts to 125-140 ft-lbs.
- 24. Torque the front spring bolts to 100 ft-lbs and the rear shackle bolts to 55 ft-lbs.
- 25. Check all hardware for proper torque.
- 26. Adjust the drag link steering drag link as necessary to straight the steering wheel.

#### >>> TRANSFER CASE DROP - 6 " KITS

Vehicle models 1980 and older will require Transfer Case Drop Kit #ZC5001. For these early models, follow the instructions supplied with #ZC5001 for dropping the transfer case. Newer models can use factory hardware to lower the transfer case. Follow the instructions below.

1. Locate the 2 bolts at each frame rail mounting the transmission crossmember. The bolts will have large spacers located either on the bottom or top of the frame. These spacers will be relocated between the crossmember and the frame rails to lower it. Figure 7





- 2. Support the transfer case with a hydraulic jack and remove the 4 transmission crossmember bolts. Save all hardware.
- 3. Carefully lower the transfer case until the factory spacer can be places between the frame and the crossmember. Fasten the crossmember with the factory hardware and torque to 35 ft-lbs. Be sure the watch the clearance between the distributor cap and firewall while lower the transfer case.
- 4. With the transfer case lowered, check the engine compartment for proper clearances at the firewall and fan shroud.

#### Driveshaft

- 1. Check the front driveshaft for proper spline engagement. The factory driveshaft may need to be lengthened with 6" kits.
- 2. Check the front driveshaft upper u-joint CV yoke clearance. Most factory driveshafts are made with a stop that keeps the front driveshaft from touching the ground in the event of a u-joint failure at the axle yoke. If the drive will not

articulate far enough to attach to the front axle properly, remove the driveshaft from the vehicle.

- 3. To modify the front driveshaft, located the contact stops on the CV joint at the front driveshaft u-joint. Grind approximately 1/8" off the stops to allow the driveshaft proper clearance to compensate for the lift. Reinstall the front drives-ahft. This mod should only be necessary for 6" lift heights.
- 4. Check the front driveshaft to exhaust clearance. Depending on the motor option and model year, the front passenger's side exhaust pipe may need to be modified to properly clear the front driveshaft at full suspension droop.

## »Rear

- 1. Block the front wheels for safety. Raise the rear of the vehicle and support the frame rails with jack stands.
- 2. Remove the wheels.
- 3. Disconnect the brake line bracket from the top of the differential. Figure 8 Save differential cover bolt.



Figure 8

- 4. Remove the factory shocks. Save hardware.
- 5. Support the rear axle with a hydraulic jack. Working on the passenger's side, remove the u-bolts and lower the axle from the spring.

### **Add-A-Leaf Installation - 6" Only**

- 6. Using two large C-Clamps, clamp the leaf spring together on both sides of the center pin. Remove the factory center pin.
- 7. Release the C-Clamps and place the new supplied add-a-leaf in the leaf pack. Most time the add-a-leaf will mount to the bottom of the main arched pack of leafs. The add-a-leaf should be installed so that the leaf above is longer and the leaf below is short (when shorter leafs exist). Use the C-clamps to compress the leaf pack and install the new provided center pin from the bottom up. Torque the center pin nut to 30 ft-lbs. Do not use the center pin to draw the pack together.
- 8. Repeat the add-a-leaf procedure on the other side once the rear block and u-bolts are in place.

#### **BLOCK INSTALLATION - 4" AND 6"**

- 9. Locate and installed the provided 4" tapered lift block between the axle and spring. Make sure the short end of the block is toward the front and align the pins/holes. Raise the axle to seat the block.
- 10. Fasten the spring/block/axle assembly with the new provided u-bolts, nuts and washers. Snug the u-bolts to keep the assembly in place.
- 11. Repeat block installation on the driver's side.
- 12. Locate the new rear shocks. Install the smaller bushing in the ROD end. At the BODY end install the larger bushing along with the 3/4" x 1.60" sleeve. Install the shock in the vehicle with the factory low hardware and new provided upper stud mount. Torque the lower shock bolt to 75 ft-lbs, the upper stud-to-frame bolt to 65 ft-lbs and the outer shock nut to 45 ft-lbs.
- 13. Install the provided 3" brake line relocation bracket to the original brake line mounting hole in the differential. Torque to 20 ft-lbs. Attach the brake line to the relocation bracket with the provided hardware. Torque to 15 ft-lbs.
- 14. Install the wheels and lower the vehicle to the ground.
- 15. Torque the u-bolts to 125-140 ft-lbs.
- 16. Check all hardware for proper torque.
- 17. Check hardware after 500 miles.

# 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.