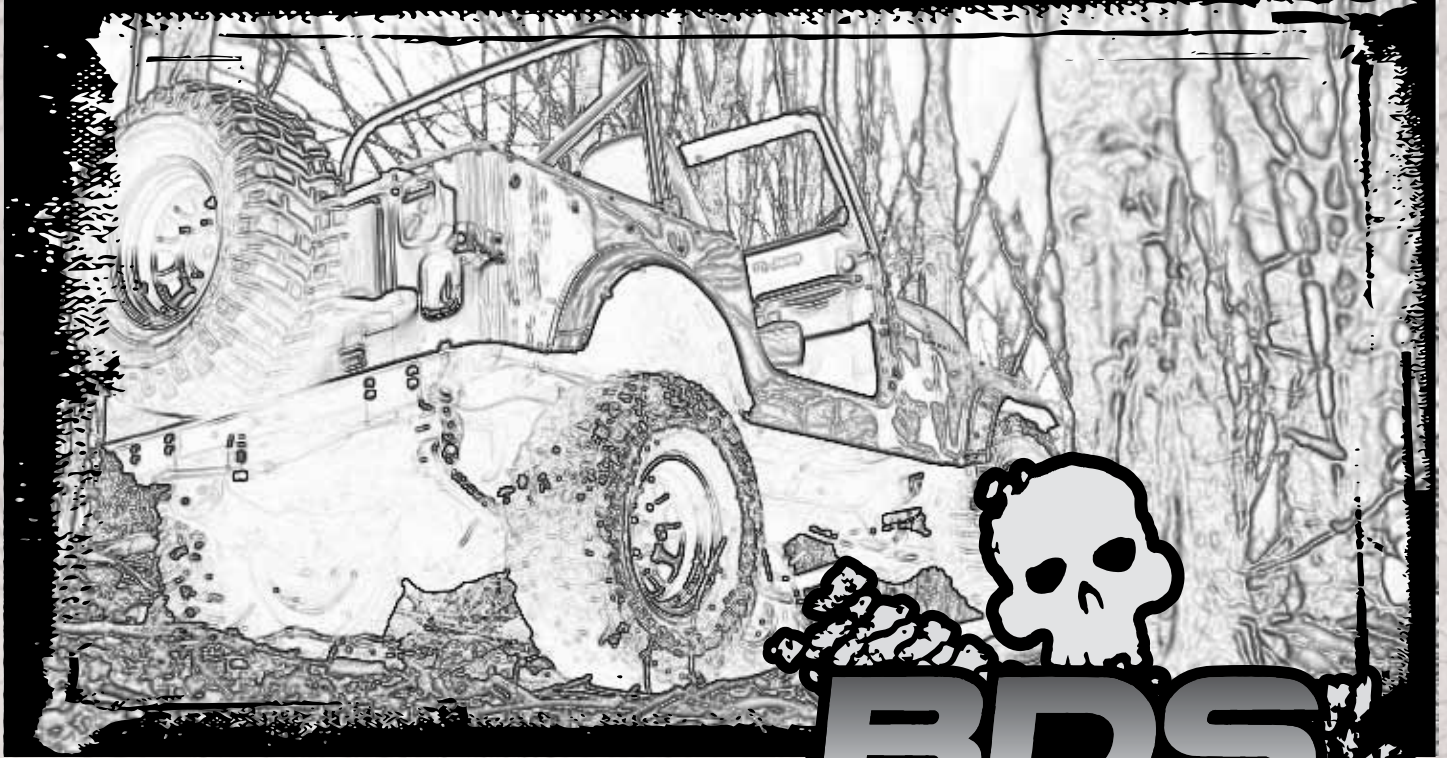


# INSTALLATION GUIDE



Part#: 014250, 014400

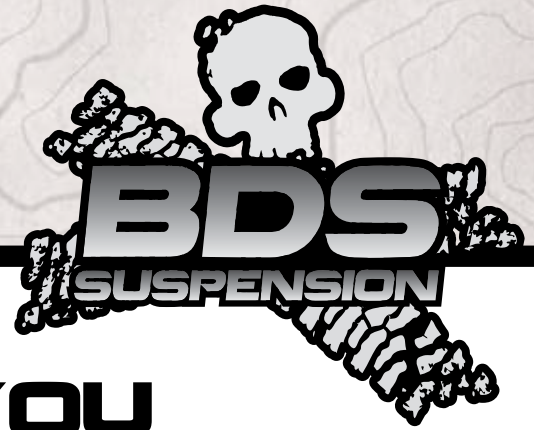


**HARDCORE LIMITED LIFETIME WARRANTY**

## 2.5" and 4" Suspension Systems

Jeep CJ5, CJ7 and Scrambler | 1976-89

# Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



## THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come. Thank you for choosing BDS Suspension!

### BEFORE YOU START

BDS Suspension Co. 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.

### FOR YOUR SAFETY

Certain BDS 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. BDS Suspension Co. 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.

### BEFORE INSTALLATION

- Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
- Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
- 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.
- 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.
- Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
- If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.
- 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.

### TIRES AND WHEELS

#### 4" Lift:

33 x 12.50 on 15x8 w/ 3.5" BS

#### 2.5" Lift:

32 x 11.50 on 15x8 w/ 3.5" BS



### BEFORE YOU DRIVE

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.

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. Longer replacement hoses, if needed can be purchased from a local parts supplier.

Perform head light check and adjustment.

Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

### CONTENTS OF YOUR KIT

014250/014400 Box Kit		
Part #	Qty	Description
3532BK	4	Front Small Eye Spring Bushing
3524BK	4	Front Large Eye Spring Bushing
3526BK	4	Rear Small Eye Spring Bushing
3624BK	4	Rear Large Eye Spring Bushing
15	4	3/4" x 2.950" Sleeve
122120634R	7	1/2" x 2-1/2" x 6-3/4" U-bolt
123250700R	1	1/2" x 3-1/4" x 7" U-bolt
N12FH-B	16	1/2"-20 Fine High Nut
W12SB	16	1/2" SAE Flatwasher
2124	2	Shim - 2.5" (014400 only)
380412FCP	2	3/8" X 4.5" Pin & Nut (014400 only)



## TECH TIPS

### TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. Vehicles equipped with optional Dana 44 axle will require U-bolts part # UBT4005 (qty. 4).
2. Shackle bushing kit part # BDS074002 is highly recommended.
3. 4" Lift: Extended brake lines recommended.
4. 4" Lift: Heavy models with accessories like hard top, tire carrier, etc. should order BDS114208 add-a-leaf kit before installation of the 004409 rear springs. Leaf kit is recommended for all CJ8 scramblers.

## INSTALLATION INSTRUCTIONS

### CJ FRONT INSTALLATION

1. Raise vehicle and place jack stands under frame a few inches behind front spring, rear shackles. Remove wheels and shocks.
2. Disconnect the front anti-sway bar and remove the OE sway bar links connecting the sway bar to the axle. This will allow the front axle to travel farther down from the vehicle. (Fig 1)

FIG 1

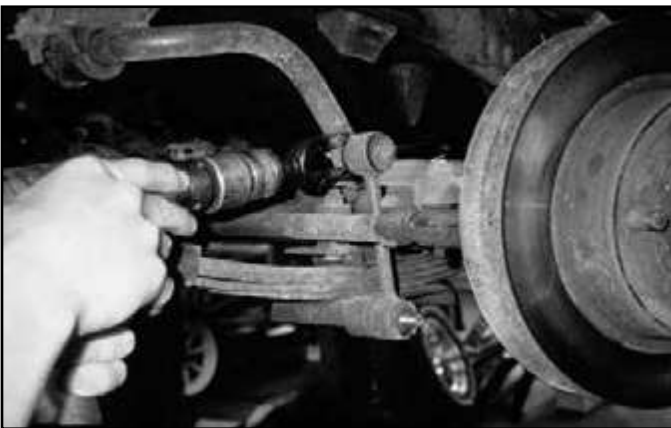


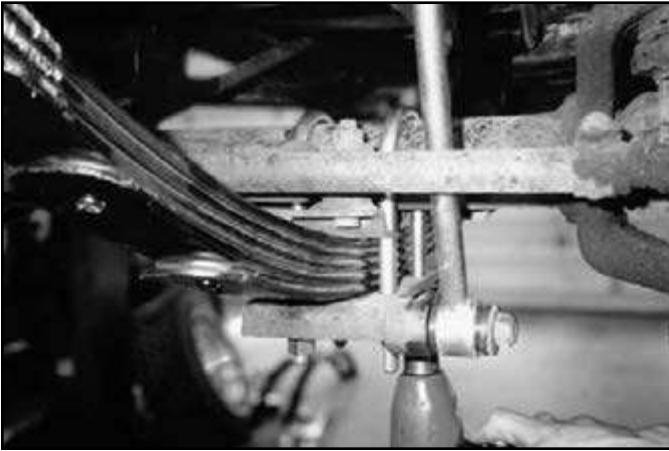
FIG 2



3. Place a hydraulic jack under the front axle. Remove U-bolts holding the OE leaf pack to the axle. New U-bolts are supplied. Raise the jack/axle to allow spring removal. Remove the springs shackle and stationary eyebolts and remove springs. (Fig 2)
4. Lubricate the new spring bushings and install in spring eyes. The large bushings with the wide shoulder (3524) is used in the large eye of the front spring along with the steel sleeve (15). Use short small diameter bushing (3532) in shackle end of spring. No sleeve is required for the small bushing. It was made for 1/2" bolts or factory shouldered bolts. If frame shackle bushings (074002) are being installed, do so at this time. Install springs using OE mounting hardware, but do not torque at this time.
5. Clean the spring-to-axle mating points. Lower jack/axle onto the springs.

**! Caution** Do NOT over extend the OE brake lines. Be sure center bolt heads align and seat properly into the spring perch holes.

6. Position U-bolt plates and install U-bolts using supplied fl t washers and nuts. One wide U-Bolt is supplied for the passenger side inner U-Bolt (Fig 3). Torque U-Bolts to 70-85 ft-lbs.

**FIG 3****FIG 4**

7. If installing a pitman arm, remove fasteners retaining pitman arm and use a pitman arm puller to remove the arm. Install new arm BDS #084401 and retain with OE fasteners. Torque pitman arm nut to 185 ft.lbs. (Fig 4)
8. On a 2 1/2" lift, install the OE anti-sway bar links that were disconnected earlier using the OE fasteners at this time. If installing BDS #124002 extended sway bar links, do so at this time. Torque to 55 ft.lbs..
9. Install recommended BDS shocks. Install tires and wheels.
10. With suspension unloaded and hanging, cycle steering lock to lock, while manually spinning wheels and inspect steering, suspension, and drive line for proper operation, clearances, and lengths. Pay close attention to brake and axle vent hoses.
11. If transfer case drop BDS #124000 is installed, do so at this time. Remove the three bolts on one side of the transfer case that retain the transfer case crossmember to the frame. This will allow the crossmember to drop about one inch. Insert the supplied spacers and install new hardware (Fig 5). Torque to 40-50 ft-lbs. Repeat for other side of crossmember.

**FIG 5**

12. Remove jack stands and lower vehicle to ground. Torque shackle bolts to 24 ft.lbs. and hanger bolts to 100 ft.lbs. Block front tires.



**Tip** At this point, to prolong the life of your springs, BDS Suspension recommends replacing OEM bump stop with longer aftermarket bump stops.

## CJ REAR INSTALLATION

13. Raise rear of vehicle and support with jack stands under frame a few inches in front of the rear springs stationary eyes. Remove wheels and shocks. Lower vehicle onto jack stands.
14. Place a hydraulic jack under the axle. Remove U-bolts. New U-bolts are supplied. Raise the jack/axle to allow spring removal. Remove the springs shackle and stationary eye bolts and remove springs.
15. Lubricate the new spring bushings and install in spring eyes. The large bushings (3624) is used in the large eye of the rear spring along with the steel sleeve (15). Use longer small diameter bushing (3526) in shackle end of spring. No sleeve is required for the small bushing. It was made for 1/2" bolts or factory shouldered bolts. If frame shackle bushings (074002) are being installed, do so at this time. Install springs using OE mounting hardware, but do not torque at this time.
16. Clean the spring-to-axle mating points. Lower jack/axle onto the springs. **Caution: Be sure not to over extend the OE brake lines.** Be sure center bolt heads align and seat properly into the spring perch holes. **Note: On 4" lift, insert the 4-degree shim between axle and spring with the thick end pointed toward front of vehicle.** The shim has a small hole so it can be attached directly to the leaf pack via the center pin. Longer center pins may be required.
17. Position U-bolt plates and install U-bolts. Torque to 70-85 ft-lbs.
18. Install recommended BDS shocks. Install tires and wheels.
19. With suspension unloaded and hanging, while manually spinning wheels, inspect suspension, and drive line for proper operation, clearances, and lengths. Pay close attention to brake and axle vent hoses.
20. Remove jack stands and lower vehicle to the ground. Torque shackle bolts to 24 ft.lbs. and hanger bolts to 100 ft.lbs.



**Tip** *At this point, to prolong the life of your springs, BDS Suspension recommends replacing OEM bump stop with longer aftermarket bump stops.*

Alignment angles will be affected by installation of a suspension lift. We suggest an alignment be performed to ensure proper handling and tire wear.

Rear driveline vibration may occur with a 4" lift. Shaft angle at the rear axle is corrected via shims. Angle at the transfer case end is decreased by lowering the case crossmember. This is performed by installing 1" spacers in between the crossmember and its frame mounting points. If driveline vibration occurs and these two items were not installed, they should be used to correct the problem.