

www.rustysoffroad.com

# Rusty's CJ 4" Spring Pack Kit ('76-'86) RK-400SP-CJ INSTALLATION INSTRUCTIONS

Last Revised: 01/19/2017

#### Introduction:

Rusty's recommends that this installation be performed by a certified automotive technician or a person with professional mechanical knowledge. Installing this kit without this expertise may jeopardize the handling and safety of the vehicle.

Read instructions several times before starting. Be sure you have all the needed parts and know where they install. Read each step completely as you go. Exhaust modifications may be necessary. Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged. After any drilling or cutting, remove burrs and grind smooth any surfaces. An inclinometer or similar tool may be needed to measure driveshaft angles before and after the installation.

## Warning:

- It is the owners' responsibility to inspect all Rusty's products for proper torque specs to prevent loosening of components.
- Seat belts and shoulder harnesses should be worn at all times.
- Re-check all bolts and nuts after the first 100 miles and after any off-road usage during the first 300 miles.
- Although all of our products are made from the highest quality materials possible, they are not a substitute for Safe and Careful driving. In other words, have good safe on-road / off-road sense. Know the terrain, the speed limitations, and any obstacles that may lie ahead. Please remember to preserve our right to enjoy public land through the proper use of off-road vehicles.

#### **Before Starting Installation:**

- 1. Carefully Read all warnings and instructions completely before beginning.
- 2. Verify all parts have been received in this kit by checking the parts list on page #2 of this document.
- 3. Only install this kit on the vehicle for which it is specified.
- 4. Park the vehicle on a clean, dry, flat, level surface and block the tires so the vehicle cannot roll in either direction.
- 5. Be certain the vehicle is safely secured on jack stands or a vehicle lift prior to working around or under a vehicle. Never rely on a jack alone to support a vehicle's weight; use appropriately rated stands to sup-



# www.rustysoffroad.com

# **Parts List:**

**Note:** Please be sure that you have all the provided parts listed below before continuing with the installation.

Part #	DESCRIPTION:	Quantity
RC-LS400F-CJ	Rusty's Leaf Springs - CJ - 4" - Front (each)	2
RC-LS400R-CJ	Rusty's Leaf Springs - CJ - 4" - Rear (each)	2
BU-76114-BK	Spring Bushing Kit	1
RX-13	Rusty's RX100 Performance Shock: RX-13	4
(PO1532)	EB1 Hourglass Shock Bushing w/ 1/2" Sleeves Pack (Contents Below)	4
EB1	Hourglass Shock Bushing (Qty:1 Per Pack)	
ES-25	1/2" Shock Bushing Sleeve (Qty:2 Per Pack)	
EB1-BP1 (PO1313)	Rusty's Hourglass Shock Bushing w/ Open Bar Pin Pack (Contents Below)	4
EB1	Hourglass Shock Bushing (Qty:1 Per Pack)	
BP18	Open Bar Pin (Qty:1 Per Pack)	
RC-SHIMS-6	Shim - Billet Steel 6°	2
RC-CB1-516	5/16" Tie Bolt	2
RC-CN1-516	5/16" Nut	2
RC-CB1-38	3/8" Tie Bolt	2
RC-CN1-38	3/8" Nut	2
67472167	5/16"-24 Grade 8 Nut	2
RC-UB-1	Rusty's Dana 30 Grade 8 U-Bolt	3
RC-UB-2	Rusty's Dana 44/AMC-20 Grade 8 U-Bolt	4
RC-UB-3	Rusty's Dana 30 Differential Grade 8 U-Bolt	2
HN08	1/2" Grade 8 U-Bolt High Nuts	16
n/a	Rusty's Warning Label	1
n/a	Rusty's Decal Pack	1



## www.rustysoffroad.com

#### FRONT INSTALLATION INSTRUCTIONS

Note: Save all factory components and hardware for reuse, unless noted.

- 1. Raise the front of the vehicle and place jack stands under the frame. Chock the rear tires to prevent any accidental movement.
- 2. Remove the front tires and wheels.
- 3. Remove the factory shocks. Discard the shocks but save the hardware for re-use.
- 4. Unbolt the sway bar links, if equipped, at the axle. The hardware will be reused.
- 5. Support the front axle with a floor jack and remove the factory U-bolts. If the U-bolts are seized then they will need to be cut with a cutoff wheel or similar tool. New U-bolts are supplied with the kit. Raise the jack to separate the axle from the leaf springs.
- 6. Remove the hardware securing the leaf springs to the frame and shackle and remove the springs. Discard the springs but save the hardware for re-use.
- 7. Inspect the shackle bolts and hangers for any wear. If grooved or worn you will need to replace them. Also inspect the frame shackle bushings closely. If they are cracked or worn, now is the time to replace them. Remember that these are older vehicles and worn components will lead to poor steering and handling traits.
- 8. Lubricate the supplied poly bushings and sleeves with a waterproof lithium based grease and install them in the appropriate spring eyes.
- 9. Install the leaf springs on each side and secure using the factory or obtained replacement hardware. (**Note:** Do not tighten at this time.)
- 10. Lower the axle to the front springs. Be sure that the axle centering pins are properly aligned with the holes in the axle spring pads.
- 11. Position the U-bolt plates and install the new U-bolts and nuts.
- 12. Torque the spring hanger bolts to 90 ft-lbs.
- 13. Torque the shackle bolts to 45 ft-lbs.
- 14. Torque the U-bolts to 90 ft-lbs.
- 15. Lubricate and install the bushings in the new Rusty's shocks. (**Note:** Please refer to the Shock Installation Guide on page #6.)
- 16. Install the shocks using the factory hardware. Torque the shock hardware to 45 ft-lbs. (**Note:** Reference the Shock Installation Guide on page# 6 before installing the shocks to the vehicle.)



www.rustysoffroad.com

# FRONT INSTALLATION INSTRUCTIONS (Continued)

Note: Save all factory components and hardware for reuse, unless noted.

- 17. Reinstall the tires and wheels and lower the vehicle to the ground.
- 18. Reinstall the front sway bar if equipped. Note that it may be necessary to lengthen the sway bar links or obtain longer ones.
- 19. Torque the wheel lug nuts to factory specifications.

#### REAR INSTALLATION INSTRUCTIONS

- 20. Raise the rear of the vehicle and place jack stands under frame. Chock the front tires to prevent any accidental movement.
- 21. Remove the tires and wheels.
- 22. Unbolt the factory shocks at the top and at the bottom. Discard the shocks but save the hardware for reuse.
- 23. Support the rear axle with a floor jack remove the factory u-bolts. Raise the jack to separate the axle from the leaf springs.
- 24. Remove the hardware securing the leaf springs to the frame and shackle and remove the springs. Discard the springs but save the hardware for re-use.
- 25. Inspect the shackle bolts and hangers for any wear. If grooved or worn you will need to replace them. Also inspect the frame shackle bushings closely. If they are cracked or worn, now is the time to replace them. Remember that these are older vehicles and worn components will lead to poor steering and handling traits.
- 26. Lubricate the supplied poly bushings and sleeves with a waterproof lithium based grease and install them in the appropriate spring eyes.
- 27. Install the leaf springs on each side and secure using the factory or obtained replacement hardware. Do not tighten at this time.
- 28. Install the supplied drive line shims on the rear springs. To do this, clamp the spring pack together using a C-clamp positioned near the spring centering pin. Remove the center pin and position the supplied shim with the thick end towards the transfer case. Secure the shim to the spring pack with the new supplied centering pin. Torque the pin to 10 ft-lbs and release the clamp. Repeat on the other side.
- 29. Lower the rear axle to the springs and be sure that the spring centering pins are aligned with the holes in the axle spring pads.
- 30. Position the U-bolt plates and install the new U-bolts and nuts.



www.rustysoffroad.com

# **REAR INSTALLATION INSTRUCTIONS (Continued)**

Note: Save all factory components and hardware for reuse, unless noted.

- 31. Torque the spring hanger bolts to 90 ft-lbs.
- 32. Torque the shackle bolts to 45 ft-lbs.
- 33. Torque the U-bolts to 90 ft-lbs.
- 34. Lubricate and install the bushings in the new Rusty's shocks.
- 35. Install the shocks and torque the shock hardware to 45 ft-lbs. (**Note:** Reference the Shock Installation Guide on page# 6 before installing the shocks to the vehicle.)
- 36. Reinstall tires and wheels and lower the vehicle to the ground.

# **FINAL NOTES**

- 38. Cycle the steering lock-to-lock and check all components for proper operation and clearances.
- 39. Double-check all fasteners for proper torque. Check all hardware once again after 100 miles.
- 40. Test-drive the vehicle.
- 41. Due to the different tire and wheels combinations, it may be necessary to adjust the steering stops in order to prevent the tires from making contact with the leaf springs when turning. The steering stops are located on the front axle knuckles, but not all vehicles have them. If the tires make contact with the springs, adjusting the steering stops is highly recommended. To do so, loosen the stop jam nut and screw the bolt all the way in. Turn the steering wheel full lock to the left. Now turn the stop bolt out until it limits the steering to at least ½ inch before tire-to-spring contact. Repeat on the other side.
- 42. Due to the short wheel base of the CJ Jeep, sometimes you may experience driveline vibrations. The axle shims correct most vibrations but if the vehicle still has a vibration you will need a transfer case drop kit, Rusty's part # RC-TCD1-CJ. This will lower the transfer case belly pan, which improves the angle at the transfer case.
- 43. At this point there should be no parts left but installing the stickers.
- 44. The vehicle will need to have a professional alignment done as soon as possible. Without an alignment the vehicle could have poor tire wear or poor handling characteristics.
- 45. Installation Completed!



www.rustysoffroad.com

# **Shock Installation Guide**

#### **CORRECT:**

Mount RX-100 series shocks with the body down and shaft pointing up.

#### **INCORRECT:**

Correct!!

DO NOT MOUNT RX-100 Series Shocks with the Shaft pointing towards the ground. This will cause poor handling and ride quality.



# WARNING

It is the owners' responsibility to inspect all Rusty's products for proper torque specs to prevent loosening of components. Seat belts and shoulder harnesses should be worn at all times. Re-check all bolts and nuts after the first 300 miles and after any off-road usage during the first 300 miles. Although all of our products are made from the highest quality materials possible, they are not a substitute for Safe and Careful driving. In other words, have good safe on-road / off-road sense. Know the terrain, the speed limitations, and any obstacles that may lie ahead. Please remember to preserve our right to enjoy public land through the proper use of

