

INSTALLATION MANUAL

FOR

ROCK KRAWLER SUSPENSION, INC.

JK BUDGET BASED LONG TRAVEL SYSTEM

FIRST EDITION

06/01/08

ROCK KRAWLER

S U S P E N S I O N

Dear customer: Thank you for purchasing the best system on the market for your Jeep Vehicle. We are sure you will be happy with this system after your installation is complete. Please take your time during the installation and be sure to do it correctly. Completely read the directions before starting your installation so you know what to expect. Remember, your personal safety depends on it. Should you have any questions during this installation feel free to give our tech line a call (518-270-9822) and we will be happy to help you.

Note: BE SURE TO CHECK ALL FASTENERS FOR PROPER TORQUE BEFORE TEST DRIVE. RECHECK AFTER 500 MILES AND BE SURE TO CHECK PERIODICALLY.

Warning

Read and understand all instructions, warnings and safety precautions in these instructions and your owner's manual before attempting to install these components.

Caution

Proper installation of Rock Krawler Suspension, Inc. Products requires knowledge of recommended procedures for disassembly/assembly of OE vehicles and components. Access to OE shop manuals and special tools are required. Attempting to install this kit without knowledge of these procedures may affect the safety of your vehicle and or the performance of these components. Rock Krawler Suspension, Inc. strongly recommends that this system be installed by a certified mechanic with off road experience.

Warning

Rock Krawler Suspension, Inc. does not recommend combined use of suspension

ROCK KRAWLER

S U S P E N S I O N

lifts, body lifts or other lift devices. Combined use of lifts may result in unsafe and unexpected handling characteristics. Also, many states now have laws restricting Vehicle lift, bumper heights and other alterations. Consult local laws to determine if your proposed alterations (including installation of this system) comply with your state laws.

Caution

Rock Krawler Suspension Inc. recommends the use of locktite on all hardware, unless noted otherwise.

Warning

Properly block and secure vehicle prior to installation.

Warning

Always wear safety glasses when using power tools

Warning

Rock Krawler Suspension Inc. does not condone or authorize the use of any other suspension components with its products. Should Rock Krawler Systems or components be installed in junction with other products or not per the provided instructions Rock Krawler Suspension Inc.'s warranty is void and is not to be held accountable for any resulting actions.

Warning

The use of limiting straps is recommended to avoid possible damage from over extending the suspension of your vehicle.

ROCK CRAWLER

S U S P E N S I O N

Items you will also need other than standard tools:

Red locktite, grease, jack, and jack stands.

Helpful hint:

Do not tighten connections until assemblies are installed in entirety.

Driving Tips:

- 1) For Rock Crawling it is best to have the front sway bar disconnected. This will allow your suspension to do its intended function. Our suspension will give your vehicle unmatched articulation which will give you traction to keep your vehicle moving. Let the system do the work. This will save on vehicle abuse.
- 2) For Mud, especially sloppy mud, it is best to have the front sway bar connected. This will limit the suspension travel which is better for mud.
- 3) For Highway driving it is best to have the front sway bar connected. This will give you the on highway ride and handling characteristics you expect. **If you choose otherwise, you do so at your own risk.**

ROCK KRAWLER

S U S P E N S I O N

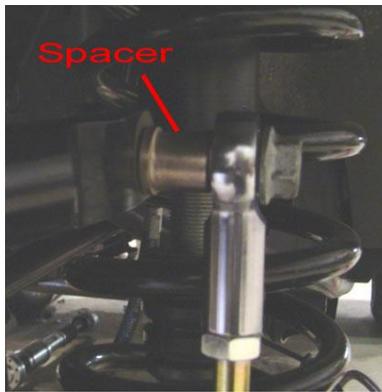
Start with the Front End

1. Make sure vehicle is still on a level hard, working surface. Block the rear wheels so the vehicle cannot move and make sure the emergency brake is applied. Raise the front of vehicle and support with safety jack stands. Locate jack stands on the frame in front of the axle.
2. Remove the front rims and tires.
3. Support the front axle housing using a hydraulic floor jack.
4. Remove the bottom front shock bolt so the front axle can droop completely. Keep the original hardware for re-installation later.
5. Remove the front sway bar links.
6. Lower the front axle assembly.
8. Remove the front springs.
9. Place the supplied 1 ¼ thick front coil spring spacer on top of the OEM spring isolator and reinstall the front OEM coil spring.
11. Install the front shocks using original hardware. If you choose to install new front shocks now is a great time to do it.

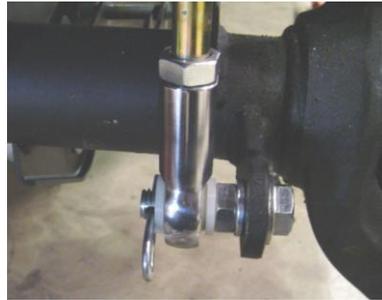
ROCK KRAWLER

S U S P E N S I O N

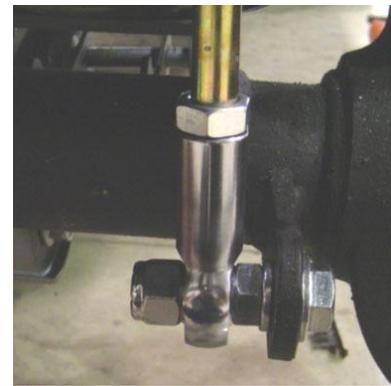
12. Install the front sway bar disconnects as shown below. For the top mount use the supplied $\frac{1}{2}$ " x 2.5" bolt, .595" long spacer, and nylok nut to make the connection. Please note the shoulder of the spacer goes against the sway bar itself. For the bottom connection attach the $\frac{1}{2}$ " x 2.0" long bolt with cross drilled hole to the factory sway bar link bracket. Secure the bolt with the supplied $\frac{1}{2}$ " jam nut. For connecting the bottom end of the sway bar link to the bottom bolt there are two options supplied with each kit. If you do not have the automatic sway bar disconnect feature you can secure the bottom end of the sway bar link with the 2 nylon washers on either side of the rod end and secure it with the pin. If you do have the automatic sway bar disconnect feature you can simply secure the bottom rod end with the supplied $\frac{1}{2}$ " nylok nut. Please note: on some sway bars you may have to reem out the hole to $\frac{1}{2}$ " with a $\frac{1}{2}$ " drill bit.



Top Sway Bar Connection



Bottom Sway Bar w/o Auto Disco



Bottom Sway Bar w/ Auto Disco

13. Install front rims and tires and lower front of the vehicle to the ground, check that the front axle is centered under the vehicle.

ROCK KRAWLER

S U S P E N S I O N

Now Lets Start the Rear Assembly

1. Park vehicle on a level, hard working surface. Raise rear of vehicle and support with safety jack stands. Locate jack stands on the frame behind the rear axle.
2. Remove the rear rims and tires.
3. Support the rear axle using a hydraulic floor jack.
4. Remove the rear lower shock bolt so the rear axle can droop enough to remove the rear coil and save the hardware for reuse.
5. Lower the rear axle and remove the rear coil springs.
7. Place the supplied $\frac{3}{4}$ " spring spacer on top of the rear coil and reinstall the OEM rear coil spring.
8. Reinstall the rear lower shock bolt. Or if you have new rear shocks now would be a good time to install them. Shocks should be non-expanded can shocks with a shock body of no more than 2" in diameter or there is a risk of the rear shock contacting the rear track bar relocation bracket.
9. Install rear rims and tires, raise vehicle off jack stands and lower vehicle to the ground.

Before Hitting the Pavement or the Trails be sure to make sure the control arms are oriented properly, all spherical joints (heim joints and Krawler Joints) are oriented correctly to allow for maximum movement without bind, and all Jam Nuts are Tight. Make sure the axles are properly centered, pinion angles are correct, there is proper slack in ABS lines, all lines are properly routed so you never run into an issue on or off the road. Go back over all your hardware and make sure each connection is tight and follow the following torque specs;

Torque all 14mm and 9/16 bolts to 90-100 ft-lbs. Torque all 12mm and $\frac{1}{2}$ bolts to 75-80 ft-lbs. Torque all 10mm and 3/8 bolts to 30-35 ft-lbs.

Please note: If your steering wheel is off at all the ESP will be activated. This will be corrected once the vehicle is aligned by a certified Jeep dealership.

A note about jam nuts and the consumer's responsibility. The installer is the person or persons initially responsible for the proper setup of the suspension system and/or components and the initial tightening of the jam nuts. The consumer or vehicle owner is the person or persons responsible for maintaining the jam nuts tight. Failure to do so will result in the rapid deterioration of the threads in the control arm and will impose a "cause for concern" for the occupants of the vehicle. Failure to comply with the warnings headed in the directions regarding the amount of threads showing past the jam nut will also cause

ROCK KRAWLER

S U S P E N S I O N

the same "cause for concern" for the occupants of the vehicle. All of the above items are the responsibility of the vehicle owner and or installer. If a threaded section of a component is bad it will show itself defective immediately. Threads that fail over time are due to improper maintenance of jam nuts and can be proven very easily. Thread sections not properly maintained or setup are not covered under warranty. This is the end user and installer's responsibility.

It is a requirement that your vehicle be taken to a Jeep Dealership for an alignment. The Jeep Dealer should align the vehicle and also verify all ESP/ABS connections are in good working order or trouble may arise. The routing of ABS/ESP and Brake Lines is your responsibility. Do so carefully.

Good Job. Your installation is complete. Now go out and enjoy your vehicle.