



#J5101, J5103, J5108, J5109
Jeep CJ/YJ
Boomerang Shackles

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.

Difficulty Level

easy (1) 2 3 4 5 difficult

Estimated installation: 1 hour

Special Tools Required

None

» 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.

Kit Contents

Qty	Part
4	Shackle Plate
2	Center Spacer
1	Bolt Pack

KIT LISTINGS

This instruction sheet covers the following kit numbers/applications:

Kit #	Application	Lift Amount
J5101	CJ/Front	1/2"
J5103	CJ/Front	1-1/2"
J5108	CJ/Rear	1-1/2"
	YJ/Front or Rear	1"
J5109	CJ/Rear	1/2"
	YJ/Front or Rear	0"

Note Step 1

If you are working on the rear of the vehicle, block the front wheels. If working on the front, block the rear.

INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, level surface and block the wheels for safety.
2. Raise the front or rear of the vehicle (depending on what kit is being installed) and support with jack stands under the frame rails.
3. Support the center of the axle with a hydraulic jack to remove pressure from the shackle assemblies. Remove the driver's and passenger's side shackle assemblies.
4. Loosely install the new shackle plates to the frame with a provided 1/2" bolt, nut and washers. See Figure 1 for the proper orientation of the plate when installed on the vehicle. The "elbow" of the shackle will always point in toward the spring.

Special Instructions for #J5101 and J5109: The shackle plates in these kits have an offset center hole to provide more clearance between the shackle center sleeve and the spring or the center sleeve and the hanger, depending on how they are installed. This will be up to the installer to choose the best way for that particular application. When the center sleeve is installed closer to the hanger it will provide more "anti-kick" back protection as well as more clearance for military wrap springs. Installed the other way the shackle will have a longer travel which works well with higher arched, flexible springs. Either way, follow Figure 1 for orienting the boomerang shape correctly.

When installed on the rear of a YJ the center sleeve will not be used. When installed on the front of a YJ, the center sleeve can be used with most non-military wrap springs when the center sleeve is positioned closest to the spring. Omitting the center sleeve in this application will not affect the strength and/or operation of the shackle.

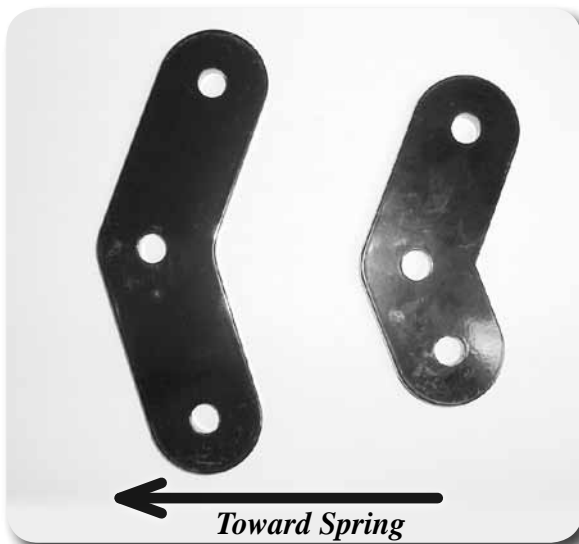


Figure 1

Note Step 6

Refer back to "Special Instructions for #J5101 and J5109"

5. Lower the axle so that the lower holes in the shackle plates line up with the spring eye. Install a 1/2" bolt, nut and washers through the shackle plates and spring eye. Leave hardware loose.
6. Install the center sleeve between the two shackle plates at the center holes. Fasten with a 1/2" bolt, nut and washers. Leave hardware loose.
7. With both the driver's and passenger's shackles installed and hardware still loose, remove the jack stands and lower the vehicle to the ground.
8. Bounce the vehicle to settle the suspension. Torque all the shackle bolts to 55 ft-lbs. On CJ models with OE springs (no crush sleeve) torque to 30-35 ft-lbs max.
9. Check all hardware after 500 miles and after any heavy offroad use.

Installation Note: Additional shackle length will change caster angles (front) and driveline angles (front and rear). In some cases axle shims may be required to correct these angles.