

## #D5201 Installation Instructions 2002-2005 Dodge Ram 1500 Lower Shock Relocation

# 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: hours

## Special Tools Required

Grinder

#### **Kit Contents**

- Qty Part
- 1 Drv. Side Relocation
- Bracket
- 1 Pass Side Relocation
- Bracket
- 1 Bolt Pack

## **Step 5 Caution**

There is a lot of stored energy in the torsion bars, use the appropriate tool and caution while working with them.

## Installation Instructions

- 1. Park vehicle on clean, flat, and level surface.
- 2. Block the rear wheels to keep the vehicle from moving.
- 3. These extensions will increase the full droop of the vehicle, as a result, additional clearance around the CV on the control arm is required. If the vehicle is never going to be jumped or heavily offroaded steps 4-23 can be skipped.
- 4. Raise the front of the vehicle and support with jackstands.
- 5. Measure and record the amount of thread exposed on the torsion bar adjusters. Unload the torsion bars using the proper tool.
- 6. Remove the front wheels.
- 7. Disconnect the ABS wire(s) if equipped from the fenderwell
- 8. Disconnect the brake caliper bracket from the steering knuckle. Hang the caliper out of the way, do not let it hang by the brake hose. Figure 1



Figure 1

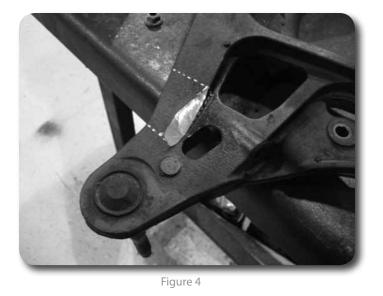
- 9. Disconnect the upper balljoint from the steering knuckle. Do not hit the knuckle to dislodge the balljoint, this can fatigue the steering knuckle. Use appropriate type of ball joint separation tool.
- 10. Disconnect the CV shaft nut with 36mm socket.
- 11. Dislodge the CV from the differential by striking the CV with a hammer or use a pry bar. Figure 2



- 12. Remove the CV from the vehicle.
- 13. Disconnect the lower ball joint and tie rod end and remove the steering knuckle from the vehicle.
- 14. Mark the lower control arm as shown. Remove the wedge shaped material from the control arm. Figures 3 & 4



Figure 3



- 15. Reattach the knuckle to the lower control arm, do not tighten nut at this time.
- 16. Attach the CV shaft to the differential, make sure the CV is seated all of the way. Reinstall the CV shaft into the hub. Tighten nut to 185ft-lbs.
- 17. Tighten lower ball joint to 60 ft-lbs.
- 18. Reattach the upper ball joint and tie rod ends. Tighten to 45 ft-lbs.
- 19. Reinstall the brake caliper. Tighten hardware to 130 ft-lbs.
- 20. Reattach the ABS wire(s) if equipped in the fenderwell.
- 21. Load the torsion bars with appropriate tool. Adjust exposed thread length to amount measured in step 5. Caution: Use extreme care and appropriate tools to load the torsion bars.
- 22. Reinstall wheels and tighten lug nuts to factory specifications.
- 23. Lower vehicle to the ground.

Important—measure before starting!

Measure from the center of the wheel up to the bottom edge of the wheel opening

LF	RF
LR	RR

Important—measure before starting!

Measure amount of thread exposed on the torsion bar adjusters.

Left\_\_\_\_\_ Right\_\_\_\_\_

- 24. Disconnect the lower shock hardware from the control arm.
- 25. Disconnect the sway bar from the lower control arm. Repeat on opposite side. Swing the sway bar up out of the way.
- 26. Attach relocation bracket to the control arm with new 14mm flat head allen bolts and with the lower sway bar link. Tighten the 14mm bolt to 65 ft-lbs and the sway bar link hardware to 45 ft-lbs. Figure 5



Figure 5

27. Attach the lower shock mount to the relocation bracket with new 9/16" hardware. Run the bolt from the rear to front of the vehicle. Do NOT put a washer on the head of the bolt. Tighten to 95 ft-lbs. Figure 6 - shown off the vehicle for clarification



Figure 6

### 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.