



Loaded Strut Installation Instructions

2006-2018 2" Ram 1500 4wd (ZOND4201)
2019-2025 2" Ram 1500 2/4wd (ZOND4202)

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

www.zoneoffroad.com may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to tech-zone@sporttruckusainc.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: 3-4 hours

Special Tools Required

8677 Ball Joint Separation Tool

9360 Tie Rod Separation Tool

2006-2018 Tire/Wheel Fitment

33x12.50 with 5" Backspacing

2019+ Tire/Wheel Fitment

33x12.50 with 5" Backspacing

295/65 R20 w/ 5" BS

IMPORTANT

It is required that ride height measurements be taken before and after installation. Measure from the **WHEEL AXLE CENTER** up to the **FENDER LIP** of the wheel opening. Do this for all 4 wheels. Record measurements below.**

BEFORE:

LF _____ RF _____ LR _____ RR _____

AFTER:

LF _____ RF _____ LR _____ RR _____



***These ride heights will be required if you have any ride height concerns after installation. Please be prepared to provide these to Technical Support.*

Kit Contents

Qty	Part
2	ZOND4201 - 2" 2006-2018 Ram 1500 Loaded Struts (Including 2019+ Ram Classic)
2	ZOND4202 - 2" 2019+ Ram 1500 Loaded Struts

INSTALLATION INSTRUCTIONS

» PRE-INSTALLATION NOTES

1. The factory service manual specifically states that striking the knuckle to loosen the ball joints or tie rod ends is prohibited. Striking the aluminum knuckle can damage it. A special puller tool #8677 (or equivalent ball joint tool) and #9360 (equivalent tie rod tool) are recommended to be used to separate these components from the knuckle.

» DISASSEMBLY

1. Park vehicle on clean flat and level surface. Block rear wheels for safety.
2. Raise front of vehicle and support frame rails with jack stands. Remove the front wheels
3. Remove sway bar nut from the sway bar links at the sway bar, remove bushings and cup washers. Fig 1

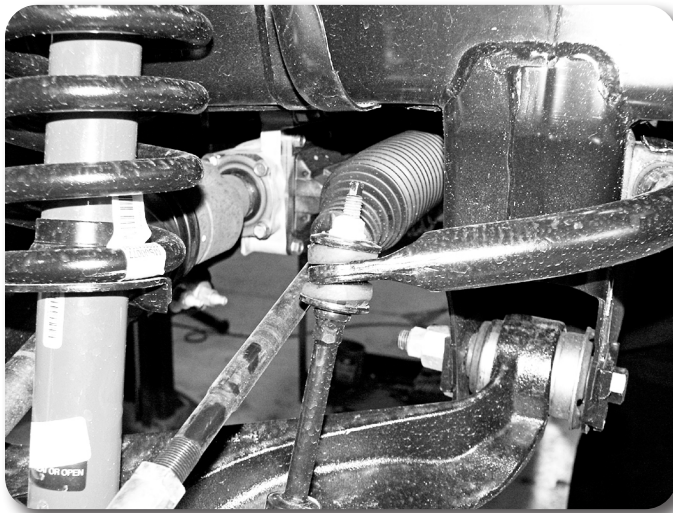


Figure 1

4. Remove the upper ball joint nut attaching it to the steering knuckle. Use an appropriate ball joint separator to dislodge the upper ball joint taper from the knuckle.
5. Remove upper control arm from vehicle.
6. Remove the tie rod end nut attaching it to the steering knuckle. Use an appropriate ball joint separator to dislodge the upper ball joint taper from the knuckle.
7. Disconnect the brake caliper bracket from steering knuckle, hang caliper out of the way, do not allow the caliper to hang from the brakeline. Remove the brake rotors for safety.
8. Disconnect the ABS wire connector at the inner fender well. Remove wire from retaining clips.

Kit Fitment Notes:

Do not install this kit without upper control arms, the factory upper ball joint will be extended past operating range. Vehicle damage may occur.

Step 4 Note:

Use special puller tool #8677 or equivalent to release the taper from the steering knuckle. Do NOT strike the aluminum knuckle with a hammer!

Step 6 Note:

Use special puller tool #9360 or equivalent to release the taper from the steering knuckle. Do NOT strike the aluminum knuckle with a hammer!

9. Remove the lower strut bolt and nut. Fig 2

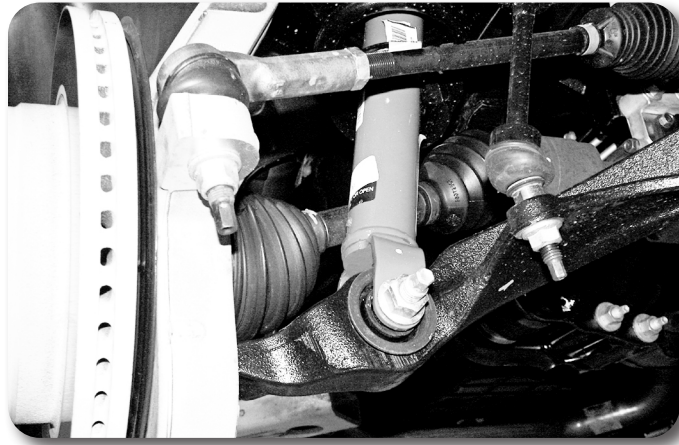


Figure 2

10. Remove upper strut nuts and remove strut assembly from vehicle.

» **LOADED STRUT INSTALLATION**

11. Install the new loaded strut assembly into the upper frame mount by aligning the studs in the strut with the original mounting holes. Loosely fasten the strut with the hardware.
12. Swing the lower control arm up. Attach the lower control arm to the strut with factory hardware, do not tighten at this time.
13. Tighten upper strut hardware to 40 ft-lbs.

» **UPPER CONTROL ARM INSTALLATION**

14. Install new upper control arms with factory hardware. The arms will offset the ball joint to the rear of the vehicle. Leave hardware loose at this time.
15. Attach steering knuckle to new upper control arm with new crown nut and cotter pin or nylock nut. Tighten to 65 ft-lbs, do not loosen to get cotter pin to align.
16. Grease the upper control arm assembly once installed. Fig. 4

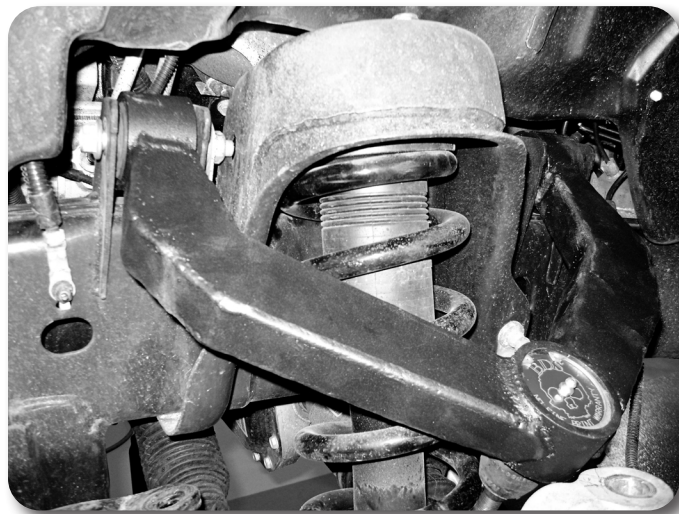


Figure 4

» **INSTALLATION CONTINUED**

17. Reinstall brake rotors and calipers with factory hardware. Tighten to 130 ft-lbs
18. Attach tie rod to steering knuckle, tighten to 45 ft-lbs then an additional 90 degrees
19. Reconnect the ABS wire, secure with included zip ties.
20. Reinstall wheels, tighten to factory specifications
21. Lower vehicle to the ground, bounce vehicle to settle suspension.
22. Torque lower strut hardware to 155 ft-lbs
23. Torque upper control arm hardware to 130 ft-lbs
24. Check all hardware for proper torque.
25. Check hardware after 500 miles.
26. Adjust headlights.
27. The vehicle will need a complete front end alignment.

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.