



C1222 Installation Instructions 2019-2020 GMC Denali 1500 2/4wd 2" Strut Spacer Lift

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@ridefox.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: 1-2 hours

Special Tools Required

N/A

Tire/Wheel Fitment

Wheel / Tire:

295/70R17 *Stock Wheel

295/65R18 *Stock Wheel

295/60R20 *Stock Wheel

285/60R20 5" Backspacing

Kit Contents

Qty	Part		864 Bolt Pack
2	Top Strut Mount Spacer	1	
2	Steering Stop		6 10mm-1.50 x 50mm Bolt
			12 3/8" USS Washer
			12 10mm-1.50 Nut

Important—measure before starting!

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

LF _____ RF _____

LR _____ RR _____

INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support the frame rails with jack stands.
3. Remove the front wheels.
4. Disconnect the front driver's and passenger's side sway bar links from the lower control arm. Save hardware. **Figure 1**

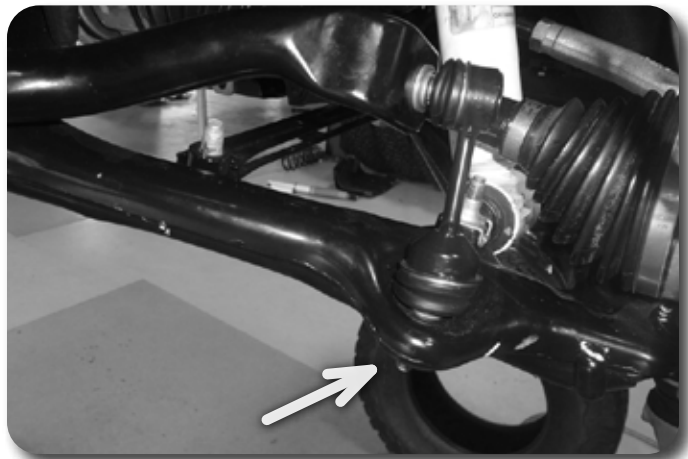


Figure 1

Perform the following installation steps on one side at a time.

5. Remove the wire retaining clips from the strut studs and loosen but do not remove the three upper strut mount nuts at the frame. **Figure 2** Do not loosen- the center strut rod nut.



Figure 2

Step 5 Note:

For the passenger side inner nut it may be easier to access the nut through the engine bay.

6. Remove the nut from the steering tie rod end. **Figure 3** Thread the nut back on a couple of turns by hand. Strike the knuckle near the tie rod end to dislodge the

rod end taper from the knuckle. Remove the nut and the tie rod end from the knuckle. Save nut.



Figure 3

7. Unclip the ABS wire from the knuckle for additional slack. Figure 4

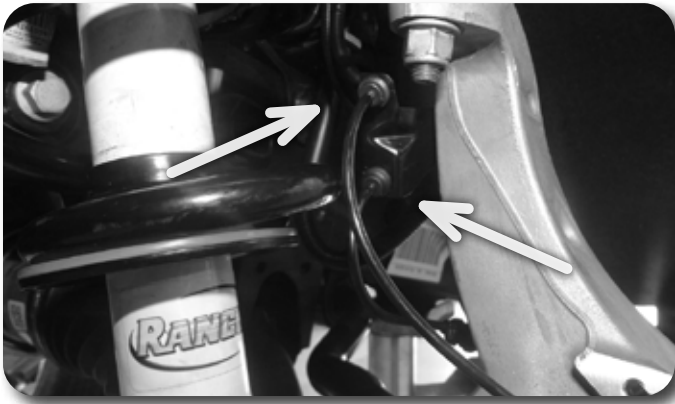


Figure 4

8. Support the lower control arm with a hydraulic jack and remove the nut from the upper ball joint. Figure 5A Thread the nut back on a couple of turns by hand. Strike the knuckle near the upper ball joint to dislodge the rod end taper from the knuckle. Remove the nut and allow the knuckle to swing rearward out of the way Figure 5B. Save the ball joint nut.

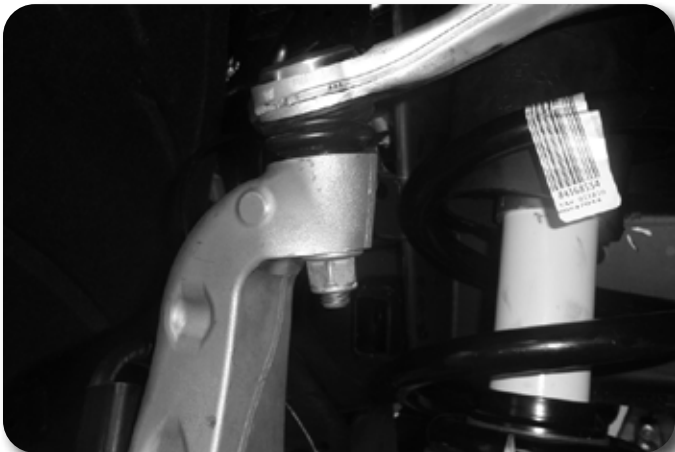


Figure 5A

Step 8 Note:

A strap can be used to hold the knuckle back in order to prevent the CV axle from pulling out of the inner joint.

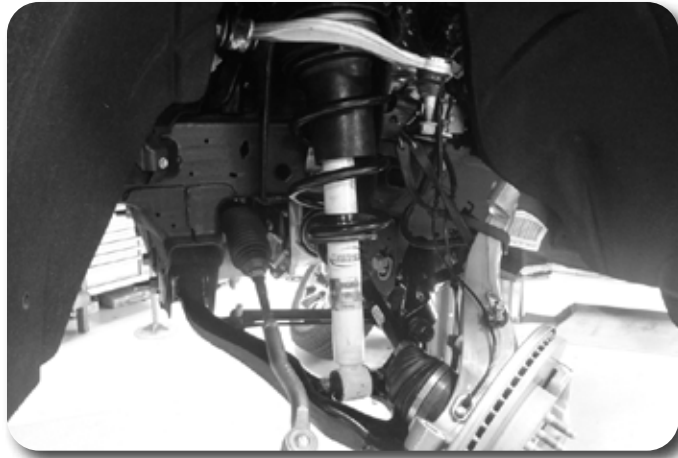


Figure 5B

9. Remove the two lower strut bar pin bolts. **Figure 6** The bolts will not be reused. Lower the control arm with the jack so there is enough room to remove the factory strut.



Figure 6

10. Remove the three nuts attaching the strut to the frame **Figure 7**. Remove the strut from the vehicle. **DO NOT** remove the center strut rod nut. Save a nut for later use.



Figure 7

11. Due to lower bar pin angle in the strut, the top hat of the strut assembly must be rotated 180 degrees. Place alignment marks on the upper strut mount, isolator, spring, strut body and lower coil seat for reference when the strut is assembled. Compress the coil spring slightly and rotate the upper plate 180 degrees **Figure 8A & B.**



Figure 8A



Figure 8B

! Caution *Coil Spring is under extreme pressure. Improper removal/installation of coil spring could result in serious injury or death. Use only a high-quality spring compressor and carefully read and follow the manufacturer's instructions*

12. The studs in the top hat of the strut assembly must be trimmed for the new strut spacer. Mark the struts to a length of 1-1/8" and cut the studs on the mark **Figure 9.** Clean up the threads as needed in order to thread the new nuts on.

Step 12 Note:

Run a 10mm-1.50 die down the threads of the studs after they have been cut to clean up the threads. If you do not have a die, thread the factory 10mm strut nuts on the studs before cutting them. After the studs are cut, when removing the nuts they will help to clean up the threads as they are unthreaded.



Figure 9

13. Install the 10mm bolts into the holes on the bottom of the strut spacer into the recessed hex openings Figure 10.



Figure 10

14. Install the strut spacer onto the strut with the provided washers and nuts. Figure 11 Torque the nuts to 40 ft-lbs. The spacer will only install one way.



Figure 11

Step 15 Note:

Do not tighten the upper strut nuts at this time, it will make it easier to install the lower strut spacer.

15. Reinstall the strut into the vehicle using the provided 10mm nuts and washers at the upper mount. Leave the hardware loose.

16. Reinstall the lower mount with the factory hardware and factory clips. The rear bolt (one underneath the CV shaft) will need the end tip trimmed off of it for clearance to the CV shaft **Figure 12B**. The threaded portion of the bolt should be about 2-3/8" long **Figure 12A**. Tighten the lower hardware to 40 ft-lbs.



Figure 12A



Figure 12B

Step 16 Note:

Run a 10mm-1.50 die down the threads of the studs after they have been cut to clean up the threads. If you do not have a die, thread the factory 10mm strut nuts on the studs before cutting them. After the studs are cut, when removing the nuts they will help to clean up the threads as they are unthreaded.

17. With the lower hardware tight, torque the factory upper strut mount nuts to 40 ft-lbs.
18. Reattach the upper ball joint to the knuckle. Use the jack to support the lower control arm and torque the upper ball joint nut to 40 ft-lbs.
19. Reattach the tie rod to the knuckle and torque the factory nut to 44 ft-lbs.
20. Repeat installation on the opposite side of the vehicle. When both sides are complete, reattach the sway bar links and tighten hardware to 60 ft-lbs.
21. Reattach any brake or ABS lines to factory position that were disconnected for slack.
22. Due to stock control arm clearance and certain size wheel and tire combinations, a steering stop may be required. These are only needed when the tire hits the upper control arm at full lock. Prep the lower control arm for welding, remove paint. Disconnect the battery in the truck to protect electronics.
23. Weld steering stop on to lower control arm as shown. **Figure 13**

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.



Figure 13

24. Reinstall the wheels and lower the vehicle to the ground. Torque lug nuts to 140 ft-lbs in a crossing pattern.
25. Check all hardware for proper torque.
26. Check hardware after 500 miles.
27. Adjust headlights.
28. The vehicle will need a complete front end alignment.