



CS-DLVL-CS-BC-1419-D —2014+ Ram 2500 Backcountry Leveling System
CS-DLVL-CS-BC-13-D —2013-18 Ram 3500 Backcountry Leveling System
CS-DLVL-CS-BC-1319-D—2019+ Ram 3500 SRW Backcountry Leveling System

Note

Please review the product instructions prior to attempting installation to ensure installer is equipped with all tools and capabilities necessary to complete the product installation. We recommend thoroughly reading the instructions at least twice prior to attempting installation.

Before beginning disassembly of the vehicle, check the “Parts Checklist” section of the instructions to ensure you’ve received all parts necessary to complete installation. Further, verify that the parts received are PROPER TO YOUR application (year range, motor, etc.) to avoid potential down-time in correcting potential discrepancies. Any discrepancies will be handled by Carli Suspension and the correcting products will be shipped UPS Ground.

Parts Checklist

2500

- (QTY. 1) CS-DLRC-14-LVL-D — Coils
- (QTY. 1) AS-DLVLSPKG-CS20RR-A — Shocks
- (QTY. 1) CS-DATB-1419 — Track bar
- (QTY. 1) CS-DRM-14-20 — Reservoir Mounts
- (QTY. 1) CS-DBLT-1419-R — Brake Line Tabs

3500

- (QTY. 1) CS-DLRC-14-LVL-D — Coils
- (QTY. 1) AS-DLVLSPKG-CS20RR-B — Shocks
- (QTY. 1) CS-DATB-1419 — Track bar
- (QTY. 1) CS-DRM-14-20 — Reservoir Mounts
- (QTY. 1) CS-DRBLK-1 — Blocks (2019+ ONLY)
- (QTY. 1) CS-DUBK-19-425 — U-Bolts (2019+ ONLY)

Installation Instructions

1. Remove the factory front shocks, disconnect the sway bar end links from the sway bar and swing it up out of the way.
NOTE: If you’re going to install the Carli Torsion Sway Bar, remove the sway bar and the sway bar end links from the truck.
2. **2019+ Trucks:** due to the redesigned driveshaft with a CV joint at the transfer case, it’s necessary to disconnect the front driveshaft to droop the axle enough to install a taller spring. We recommend cycling a torch on the factory bolts to break the loctite, then remove the bolts and disconnect the driveshaft; use a ratchet strap to secure it while finishing the installation.
3. Use a 13mm Socket to Disconnect the brackets holding the ABS lines to the top of the factory radius arm axle mounts to provide sufficient length for coil removal.
Pictured to the right.



4. Remove the frame side Track-Bar bolt and droop out the front axle to remove the factory coil springs, setting aside the upper isolator for re-installation on the Carli-Coils
5. Follow Instructions in the “CS-DLRC-14-LVL-D: Dodge Front Linear Coil, 2014+, Diesel” Box. Be sure to install the reservoir mounts when installing the coils!
6. Compress the front suspension to load the coils and install the front Shocks.

NOTE: The 2014+ Rams have a notoriously weak front, lower shock mount. It’s the reason we sell a weld-on replacement. MOST of the issues we see with the factory shock mount would be avoided by completing the weld on the factory shock mount! Looking at it, you’ll see it’s half-welded from the factory. This led to MANY shock mounts tearing for the axle under even mild use. If you have the ability, Finish weld your mount while your factory shocks are out!

7. Torque the lower shock bolt to 100lb.ft. (125lb.ft. if running Carli Lower Shock Mounts)

Backcountry Shocks: Access to Nitrogen will make the installation MUCH easier. If you do not have access to nitrogen, these shocks can be “muscle” into position.

1. If you have access to nitrogen, drain the shocks of their nitrogen pressure by depressing the schrader valve on the end of the reservoir and compress the shock shaft about half way into the shock body.
2. Install the lower rod-end into the lower shock mount. Secure with the factory shock bolt.
3. Assemble the lower-half of the upper bushing to the stem-top. The bushing seat with the larger hole will go on the bottom, followed by a bushing half. The Bushing half will should have the flat side with nipple facing up, the concave side with the cutouts will seat into the bushing retainer.
4. Guide the pin of the shock into the factory upper shock mount seating the nipple of the bushing into the hole in the coil bucket, then install the other half of the bushing, the upper bushing seat and the nut.
5. Tighten the upper bushing assembly until there’s preload on the bushing.
6. Install the reservoir to the Carli mount utilizing the provided stainless clamps. **Ensure the hose has no kinks with a smooth transition from the body to the reservoir. Lastly, the hose clamps should wrap the entirety of the bracket, do not insert them through the mount, but around it!**
7. Charge the Shocks to 180psi of NITROGEN (NO compressed air) while they’re at full extension.



8. If you’re installing the Carli Torsion Sway bar, now is the time. If you’re running the factory sway bar, wait until later to reconnect it.
9. Install the wheels and tires and set the truck on the ground to load the suspension.
10. Follow the instructions provided in the “CS-DATB-1419: Dodge Track Bar, 2014+” Box.
NOTE: The track bar will not likely line up with the frame hole now that the truck is lifted. The easiest way to line it up is to have an assistant key the truck on (don’t turn the engine on) and move the steering wheel to line up the bolt. With the bolt installed and the truck at ride height, torque the factory both to 255lb/ft.
11. Resecure your ABS lines (use a ratchet and BE CAREFUL as this strips very easy), factory sway bar and front driveshaft (with loctite) if disconnected.
12. With everything installed in the front and the weight of the truck on the suspension, adjust the eccentric bolts (Lower axle to Radius arm hardware used to adjust caster) to the rear-most setting in their adjustment range and torque Upper and Lower Axle Connections to 220ft.lbs.
13. To set the vulcanized bushing on the radius arm to the new ride height, loosen the factory pivot at the frame mount to allow it to reset, then re-torque to 255lb/ft. **ONLY DO THIS AT RIDE HEIGHT.** If installing the Carli Radius Arms, the spherical bearing in the rear can be torqued in the air or on the ground.
14. The rear shocks will be run upside-down (body down, shaft up) with the reservoirs facing AWAY from the axle. Remove them from the box and install the Carli Billet reservoir clamps to secure the reservoirs to the shock bodies in line with the reservoir port (you don’t want excess tension on the hose). Use blue-Loctite on the clamp bolt to ensure they don’t back off and snug them up.
15. Installation of the rear shocks is as simple as remove and replace.
2500 — Reservoirs facing forward, both sides. Torque Shocks to 100lb/ft lower, upper until bushing preloads.
3500 — Reservoir facing forward on Passenger, rear on Driver. Torque shocks to 100lb/ft. lower, 60lb/ft. upper
16. **2500 ONLY** — Install Brake line brackets supplied to endure ample clearance of the e-brake cable to the passenger side rear shock reservoir.
17. Take truck in for a complete alignment and retorqued all bolts after 1000 miles. Periodically check to ensure bolts remain torqued per the instructions.

2019 + 3500 SRW ONLY

The 2019+ 3500 SRW require a 1” Block Kit to sit level. These will be included in the CS-DLVL-19-D Systems. Torque spec on the U-bolts is 110lb/ft. in cross pattern. DRW do not require this block unless 1” taller rear stance is desired—longer U-Bolts than those provided will be required on DRW applications to maintain upper overload.

ALIGNMENT

If you're taking the truck for an alignment, give them the following specs:

Toe: 0 - 1/16" TOE IN

Caster: 3.8° to 4.5°, positive — *DO NOT CROSS CASTER*

Camber: None-adjustable on these trucks.

If you're doing your own alignment:

Don't get too hung up on "0" overall toe, many people read about this on other's recommended alignment specs. Any variance on this could lead to toe-out which you DO NOT want. 1/32" to 1/16" toe-in ensures you're erring on the right side of 0° and, if you look at this measurement on a tape measure, you'll see why we describe this as a better option—it's extremely minimal.

Caster:

2.5" Carli Systems are designed to work without the Carli Radius Arm Drops installed. This will require you to max the eccentric bolts (caster adjustment bolts on the lower radius arm to axle connection) in their adjustment range to the REAR of the truck. If you're going to cross caster for any reason, we do not recommend deviating more than 2 hash marks, side to side. In the radius arm trucks, extreme cross caster (i.e. one adjuster maxed in each direction) will pull one side down and push the other side up causing a significant lean.

If you've elected to run the Carli Radius Arm Drop Brackets with your leveling systems, the caster adjustments should be centered in their range, NOT maxed.

Final Notes:

Aligning these trucks is easy, confirm the toes is correct as this measurement will NOT change with the lift and should still be set from a previous alignment or the factory, if new enough. That said, ALWAYS confirm the toe—we use 2 straight edges and a tape measure (old school beats alignment racks in our opinion). You can find 100 videos on toe adjustment on YouTube if you're interested in doing a manual alignment.