

CS-DPT25-LVL-1419-D—2014+ Ram 2500 Pintop Leveling System CS-DPT25-LVL-13-D—2013-18 Ram 3500 Pintop Leveling System CS-DPT25-LVL-19-D-3500—2019+ Ram 3500 SRW Pintop 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**

# CS-DPT25-LVL-1419-D-2014+ Ram 2500 Pintop Leveling System

- □ (QTY. 1) CS-DLRC-14-LVL-D: Dodge Front Linear Coil, 2014+, Diesel
- □ (QTY. 1) CS-DATB-1419: RAM Track Bar, 2014/2019
- □ (QTY. 1) AS-DPT25SPKG-LVL-14-D: RAM Pintop Shocks, 2.5", F&R, SS, 14+ 2500 Diesel
- □ (QTY. 1) CS-DRM-14-2.5: RAM Reservoir Mount, 2014+, 2.5
- □ (QTY. 1) CS-DBLT-1419-R: RAM 2500 Rear Brake line Relocating Brackets

## CS-DPT25-LVL-13-D—2013-18 Ram 3500 Pintop Leveling System

- □ (QTY. 1) CS-DLRC-14-LVL-D: Dodge Front Linear Coil, 2014+, Diesel
- □ (QTY. 1) CS-DATB-1419: RAM Track Bar, 2014/2019
- □ (QTY. 1) AS-DPT25SPKG-LVL-13-D: RAM Pintop Shocks, 2.5", F&R, SS, 13+ 3500 Diesel
- □ (QTY. 1) CS-DRM-14-2.5: RAM Reservoir Mount, 2014+, 2.5

## CS-DPT25-LVL-19-D-3500-2013-18 Ram 3500 SRW Pintop Leveling System

- □ (QTY. 1) CS-DLRC-14-LVL-D: Dodge Front Linear Coil, 2014+, Diesel
- □ (QTY. 1) CS-DATB-1419: RAM Track Bar, 2014/2019
- □ (QTY. 1) AS-DPT25SPKG-LVL-13-D: RAM Pintop Shocks, 2.5", F&R, SS, 13+ 3500 Diesel
- □ (QTY. 1) CS-DRM-14-2.5: RAM Reservoir Mount, 2014+, 2.5
- □ (QTY. 1) CS-DRBLK-1: Dodge RAM Rear Lift Block, 1"
- □ (QTY. 1) CS-DUBK-19-4.25: 2019 Ram 3500 U-Bolt Kit, 4.25"

# **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.
- 4. Remove factory Tack-Bar from the truck.
- 5. Follow Instructions in the "CS-DLRC-14-LVL-D: Dodge Front Linear Coil, 2014+, Diesel" Box. Be sure to install the Reservoir mount on the Coil Spring!
- 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)

- Pintop 2.5: These shocks are Bushing upper, bearing lower. Access to Nitrogen will make the installation MUCH easier. These shocks can be "muscled" into position but the nitrogen pressure will need to be confirmed to ensure proper operation, once installed. THEY ARE NOT ALWAYS SHIPPED FROM KING WITH THE CORRECT NI-TROGEN PRESSURES!!
  - 1. Remove the nut, washer and upper bearing retainer.
  - 2. Remove the upper bushing assembly from the shock. The Bushing assembly consists of an internal metal sleeve with a plastic outer liner around this is a 2-piece bushing. Separate the bushing so the internal sleeve is connected to the lower half and assemble it to the factory mount securing it by assembling the upper bushing half back to the lower half & crush sleeve sandwiching the factory Shock Mount.
  - 3. Drain the king 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.
  - 4. Install the shaft end into the lower shock mount. THE LONG-ER OF THE TWO SPACERS GOES TO THE FRONT - this offsets the shock position slightly rearward. Secure with the factory shock bolt (or, if installed, with the hardware provided with your Carli Shock Mounts).



- 5. With the lower rod end installed, Guide the pin of the shock into the assembled bushing in the factory upper shock mount until enough thread is exposed that you can install the bushing cap, washer and nut.
- 6. Tighten the upper bushing assembly until you feel the crush sleeve engage and there's slight bushing preload.
- 7. Mock the reservoir to the mount to see the outward facing portion and install the reservoir stickers.
- 8. Secure the Reservoir to the mount with the provided hose clamps.
- 9. Charge the Shocks to 225psi 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. Install Carli Track Bar following 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 it 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. Install your rear shocks. Install the Kings body down, shaft up with the reservoirs facing away from the axle

**2500** — Reservoirs both face FORWARD — Torque Shocks to 100lb/ft Lower, Upper until bushing preloads. **3500** — Driver Reservoir both faces Rear, Passenger forward. Torque Shocks to 100lb/ft. Lower, 60lb/ft. Upper

- 15. Nitrogen charged shocks require proper pressures to operate as designed and tuned. The King Pintop Shocks require the nitrogen to be filled to the same 225psi at full extension and should be confirmed regardless of whether they were drained or not. King does NOT always fill them to 225psi!
- 16. Take truck in for a complete alignment and retorque all bolts after 1000 miles. Periodically check to ensure bolts remain torqued per the instructions.

**NOTE:** 2019 + 3500 SRW require a 1" Block Kit to sit level. These will be included in the **CS-DPT25-LVL-19-D-3500** 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.