

**CS-DD30-6-03-D**  
**CS-DD30-6-10-D**  
**CS-DD30-6-10-D-12MM**

**CS-DD30-6-12-D**  
**CS-DD30-6-12-D-12MM**

### **NOTE:**

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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 “What’s Included” 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.

## **LIFETIME PRODUCT WARRANTY**

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Carli Suspension provides a limited lifetime product warranty against defects in workmanship and materials from date of purchase to the original purchaser for all products produced by Carli Suspension. Parts not manufactured by, but made to Carli Suspension’s specifications by third party manufacturers will carry a warranty through their respective manufacturer. (i.e. King Shocks, Bilstein Shocks, Fox Shocks). Deaver Leaf Spring’s warranty will be processed by Carli Suspension.

Proof of purchase (from the original purchaser only) will be required to process any warranty claims. Carli Suspension products must be purchased for the listed Retail Price reflected by the price listed on the Carli Suspension Website at the time of purchase. Carli Suspension reserves the right to refuse warranty claims made by any customer refusing or unable to present proof of purchase, or presenting proof of purchase reflecting a price lower than Carli Suspension’s Retail Price at the time the item was purchased.

Carli Suspension’s Limited Lifetime Warranty excludes the following parts which are subject to wear: Track Bar Bushings, Track Bar Heim Joints, Limit Straps, Control Arm Bushings, Radius Arm Bushings, Shock Bushings, Sway Bar End Link Heim Joints, Shock Seals, Shock Bearings, and Corrosion on Shock Shafts or Bodies. These items will be warranted for a period of 60 days from the date of purchase only if determined to be installed properly signifying manufacturing defect. Carli Suspension cannot warrant a product’s cosmetic finish due to the varying extreme elements that may be encountered.

Any alterations, modifications, or improper installation, of the product will void this warranty. Products should be inspected for defect upon receipt and approved before installation. Any defect in NEW product will be warranted if returned before installation in its original packaging. Carli Suspension’s obligation under this warranty is limited to the repair or replacement of the defective product only. All costs of removal, installation or reinstallation, freight charges, incidental or consequential damage are expressly excluded from this warranty.

Carli Suspension is not responsible for damages and/or warranty of other vehicle parts related or non-related to the installed Carli Suspension product. This warranty shall not apply to any product that has been subjected to accident, negligence, alteration, abuse or misuse as determined by Carli Suspension. Carli Suspension reserves the right to refuse warranty claims if produced parts are combined and/or substituted with other aftermarket suspension products. Combination and/or substitution of other aftermarket suspension components may cause premature wear and/or product failure. Carli Suspension reserves the right to change/alter product without obligation to update any previously purchased products.



## WHAT'S INCLUDED IN THE KIT

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- Hardware Box 1
  - 6" Front Bump Drops
  - Sway Bar Drops with Hardware
  - Track Bar Drop with Hardware
  - Instructions.
- Hardware Box 2
  - Rear Bump Drops
  - (4) Radius Arm Crush Sleeves, (2) Oval Crush Sleeves
  - Brake Lines
- Crossmember – Either 1 long or 2 short (Mirrored)
- Extended Sway Bar End Links **OR** Torsion Sway Bar
- Radius Arm Crate
- Adjustable Track Bar
- 6" Coils
- Radius Arm Drops
- Carli Shock Towers with Hardware
- King 3.0 Shock Package
  - 20" Limit Straps
  - (2) Short Reservoir Mounts
  - Self-Tapping Screws
  - Hose Clamps
- Full Leaf Springs

## REQUIRED BUT NOT INCLUDED:

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- Fabtech Pitman Arm:
  - **2003-08:** PN# FTS93001
  - **2009+:** PN# FTS93012 (For Larger Sector Shaft).
- MOPAR T-style Steering:
  - **2003-08:** Serious Damage WILL OCCUR if you DO NOT HAVE THE 2008.5+ Steering!  
2008.5+ Steering upgrade MOPAR Part Numbers:  
Linkage: 52122362AH  
Nuts: 6505623AA
  - **2008.5+:** The required steering system is standard; no modification required.
- Front Driveshaft Modification: Require 2" of additional length.
- ACCESS TO COMPRESSED NITROGEN IS A HUGE HELP!!!!

## DISASSEMBLY:

1. Set emergency brake and block rear wheels, in front and behind tires.
2. Disconnect sway bar end links from sway bar and axle, then remove.
3. Set aside nuts, bushings and washers as these will be re-used later.
4. Disconnect brake line tab bolts from axle on both sides. (They are located between upper and lower control arms.)
5. Remove track bar bolt at driver side frame mount. Remove track bar passenger bolt, then remove track bar and discard.
6. Remove upper shock bolts and washers.
7. Remove three flange nuts holding upper shock mounts to coil bucket (both sides) and set aside for reinstallation later.
8. Remove lower shock bolts and pull shocks from lower mounts.
9. Jack up front of truck until it hits full suspension droop and place jack stands under frame, behind lower control arms.
10. Remove wheels and tires.
11. Remove inner fender wells. Be sure to disconnect ABS sensor wire from fender well at this time.
12. Remove coil springs setting OEM Isolators aside for reinstallation later.
13. Remove Front Drive Shaft. (It MUST be lengthened 2" by a drive-line shop)
14. Undo Turbo Down-Pipe clamp and down pipe support bracket on transmission.
15. Remove 3 nuts inside factory transmission crossmember, and loosen the 4 factory crossmember nuts.
16. While supporting the transmission with a jack or jack stand, drop factory transmission crossmember.
17. Loosen all rubber exhaust hangers and drop exhaust far enough down to allow the removal of the Passenger Side Upper Control Arm Bolt. **Note: 6.7L Vehicles will need to disconnect all EGR tubes, sensors, harnesses, and clips to allow exhaust removal.**
18. While supporting the axle, remove the lower and upper control arms. To help facilitate removal/installation, loosen the driver side bottom control arm eccentric bolt. Loosening and rotating the bolt can help relieve pressure on the bolts on the passenger side.  
**WORK ON ONE SIDE OF THE CONTROL ARMS AND RADIUS ARMS AT ONE TIME!!!**

## INSTALLATION:

19. Follow instructions in **Radius Arm Crate Hardware Box**
  20. Follow Instructions in **Fabricated Shock Tower Box**
  21. Position reservoir mount on the frame rail in front of the coil. Ensure to position the mount as high on the frame as possible to avoid the sway bar contacting the reservoir when mounting.
  22. Install reservoir mount with supplied self-tapping screws.
  23. Secure reservoir to the mount with supplied hose clamps ensuring the mounting position leaves sufficient slack in the reservoir hose for the shock to cycle the whole articulation stroke without binding or rubbing.
  24. Repeat steps for Passenger side.
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25. Install Sway-Bar Drop-Forward Brackets to the frame with factory hardware. Gussets will face the inside, smooth side out and the brackets will drop the sway bar down and FORWARD.  
**NOTE:** if you have a High-Mount stabilizer or Steering box brace, these will install between the drop bracket and frame, not drop bracket and sway bar.
  26. Refer to Instructions included in the **Extended Sway Bar End Link OR Torsion Sway Bar Box.**
  27. Refer to Instructions included in the **Track Bar Drop Bracket Box.**
  28. Refer to Instructions included in the **Track Bar Box.**

## BRAKES & BUMP STOPS

29. Starting one side at a time, remove factory brake lines on the front caliper and at the frame.
30. Matching up the OEM Brake Line with the new one, install the new brake line. Make sure to feed the brake lines through the middle of Radius Arms so that the steel brake line bracket can be attached to the axle. **DO NOT TO TWIST THE BRAKE LINE.**
31. **2003-2011 Rams:** Remove the rear brake line and install new brake line.  
**2012 VEHICLES:** Remove and Replace both rear brake lines as 2012+ Traction control equipped dodge rams now are equipped with dual brake lines. **2012 Vehicles ONLY (traction Control equipped): Reference the following two pictures for dual rear brake line routing:**  
Undo ABS lines from clips, re-route them and zip tie to brake line.
32. Bleed brakes, starting with the rear passenger, then rear driver, then front passenger, then front driver.
33. Install both halves of the front Carli Bump Stop Drop onto the existing factory bump cup. The lip of the factory cup will rest inside the long slot. The Carli Bump Stop Drop has a relocated bump stop cup that looks similar to the factory one. This will go down.
34. Using the supplied 3/8" x 2.5" GR 5 carriage bolts, washers, and C-lock nuts, snug the bolts until the halves seat on the factory bump cup.

The two halves SHOULD NOT touch; there will be separation between the two and It's normal for the sides to slightly pull in. Ensure the bolts go in through the outside, so the nuts face the inside of the truck.

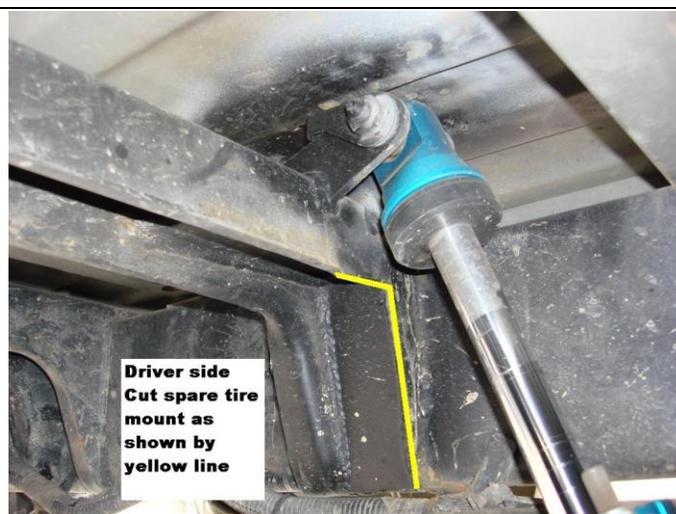
35. Torque bolts to 20 lbs/ft, making sure the drops BARELY start to crush.
36. Re-install factory rubber bump stop. A spray lubricant will assist the process. A mallet or a wood 2x4 as a lever can assist with installation



37. Unbolt the rear bump stops.
38. Install the rear Bump Stop Blocks between the factory Bump Stops.
39. Use the supplied M10x80mm bolts to tighten.
40. Follow Instructions in **Limit Strap Box**
41. Follow Instructions in U-Bolt Box to install the **Rear Leaf Springs**.

### **REAR SHOCKS**

42. Remove Spare Tire
43. Mount the rear shocks using the factory hardware.
44. The rear spare tire crossmember must be cleared on the Driver side to accommodate the bigger body of the King 3.0 Shock
45. Cut the front of the shock-mount crossmember at the driver side (flush with the frame, and square it up to the straight portion of the crossmember).
46. Place the first gusset vertically against the frame rail where the portion was just removed and tack it in. Place the 2<sup>nd</sup> gusset 90 degrees to the first gusset in-between the crossmember, essentially boxing in the crossmember.
47. Once tacked, weld the full perimeter of the gussets.
48. Paint the exposed metal
49. Install the rear King 3.0" Body down, shaft up, reservoirs facing away from the axle (If Bypass equipped, Bypass tubes facing inward).
50. Torque the shock bolts to 100 lbs/ft. Upper and lower



### **FINAL ASSEMBLY:**

51. If you have not installed the Axle Control shock at this time, do it now. You can release the pressure to facilitate install. The body of the shock goes up into the upper control arm pocket.
52. Charge the shock to 250 PSI with dry Nitrogen ONLY.
53. Install fender liners and reattach ABS clips.
54. Install wheels/tires and set truck on ground.
55. Torque lug nuts to 115 lbs/ft.
56. Install lengthened front driveshaft.

57. DOUBLE CHECK THE TORQUE ON TRACK BAR HARDWARE per the instructions.
58. TRIPLE CHECK THE TORQUE ON TRACK BAR HARDWARE per the instructions.
59. Ensure Caster Adjustments (Eccentric Bolts) are centered in their adjustment and torqued, then have the truck aligned.
60. Retorque all hardware after 500 miles.

## **OPERATIONAL INSPECTION AND SETTINGS**

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Please note, the shocks included with this system are nitrogen charged, they require specific nitrogen pressure to operate correctly. Ensure the vehicle is supported properly and that the axle is at full droop when verifying nitrogen pressure. Many gauges will release nitrogen in the process of checking the pressure; ensure your gauge will maintain shock pressure during verification (Lock out Gauge/Charging Manifold: KING Part # T1001-100) to avoid loss of nitrogen. If you're unsure, many suspension shops, welding supplies, tire shops, or motorcycle repair shops will be able to check or refill your nitrogen charged shocks.

Without the proper nitrogen pressure, Carli Suspension's shocks will not operate properly and will be more susceptible to damage to the seals and internals of the shock. Again, No shocks will be replaced under warranty if the shocks were not properly charged before installation.

### **Nitrogen Pressures:**

King 3.0 Front:	250psi
King 3.0 Rear:	250psi
Radius Arm Shock:	250psi

If equipped:

King 3.0 Bypass Rear:	200psi
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