

**INSTALLATION NOTES**

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.

We recommend all fasteners that do not utilize a locking nut (Crimp-Lock or Nyloc), or reuse a lock nut (as these are technically one-time use), use a medium-strength thread-locker to ensure a good, mechanical connection. We use Loctite 243 in-shop. Further, all torqued bolts should be torque-striped/paint-marked for future inspections confirming hardware has not loosened.

Recheck all torque after the first 500 miles.

**LIFETIME WARRANTY**

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.

For full Warranty details, see: <https://www.carlisuspension.com/warranty/>

**PARTS CHECKLIST**

Before beginning disassembly of the vehicle, check to ensure you've received all parts necessary to complete installation to avoid potential down-time in correcting discrepancies. Any discrepancies will be handled by Carli Suspension and the correcting products will be shipped UPS Ground.

- (Qty. 2) - AS-BRS-RE—Bronco Steering, Rod End Housing, Assembled
- (Qty. 2) - AS-BRS-TRS—Bronco Steering Tie Rod Shaft, Assembled
- (Qty. 1) - PC-BRS-DBLSHEAR-D—Bronco Steering Double Shear Bracket, Driver Side
- (Qty. 1) - PC-BRS-DBLSHEAR-P—Bronco Steering Double Shear Bracket, Pass Side
- (Qty. 2) - AP-BRS-BOOT—Bronco Steering CV Boot
- (Qty. 1) - LC-CROW-37MM—Crow's Foot Wrench, 37mm
- (Qty. 2) - MP-BRS-RE-TOPSPCR—Bronco Steering, Rod End Top Spacer
- (Qty. 2) - MP-BRS-RE-BTMSPCR—Bronco Steering, Rod End Bottom Spacer
  
- (Qty. 1) - AP-BRS-HK—Bronco Steering Hardware Kit

**Double-Shear Hub Bracket Bolts**

- (Qty. 4) - M14-1.5 x 90mm Bolt
- (Qty. 4) - M14 Washer

**Double-Shear Knuckle End Bolts**

- (Qty. 2) - 1/2"-13 x 5-1/2" Bolt
- (Qty. 2) - 1/2" Washer
- (Qty. 2) - 1/2" Flanged Nyloc

**Outer Tie-Rod End Hardware**

- (Qty. 4) - 1/4"-20 x 1" 12pt Bolt
- (Qty. 4) - 1/4" Flat Washer

**Inner Tie-Rod End Hardware**

- (Qty. 2) - 1/4"-28 Straight Zerk Fitting
- (Qty. 2) - Spring Band Clamp
- (Qty. 2) - 2.25"-3.25" Hose Clamp

**NOTES:**

- 1. Once installation is complete, an alignment will be necessary before the vehicle is safe to drive. Do not drive long distances nor drive highway speeds until the wheel alignment has been performed!**
2. Inner Tie-Rod End should be greased (via the installed Zerk) every oil change with a synthetic chassis grease.
3. If a clunk develops, inspect the inner tie-rod end. The preload cap may need to be tightened once the wear surfaces break in.
4. If the inner or outer tie-rod ends show wear on inspection, both are fully rebuildable. Contact Carli for more details.

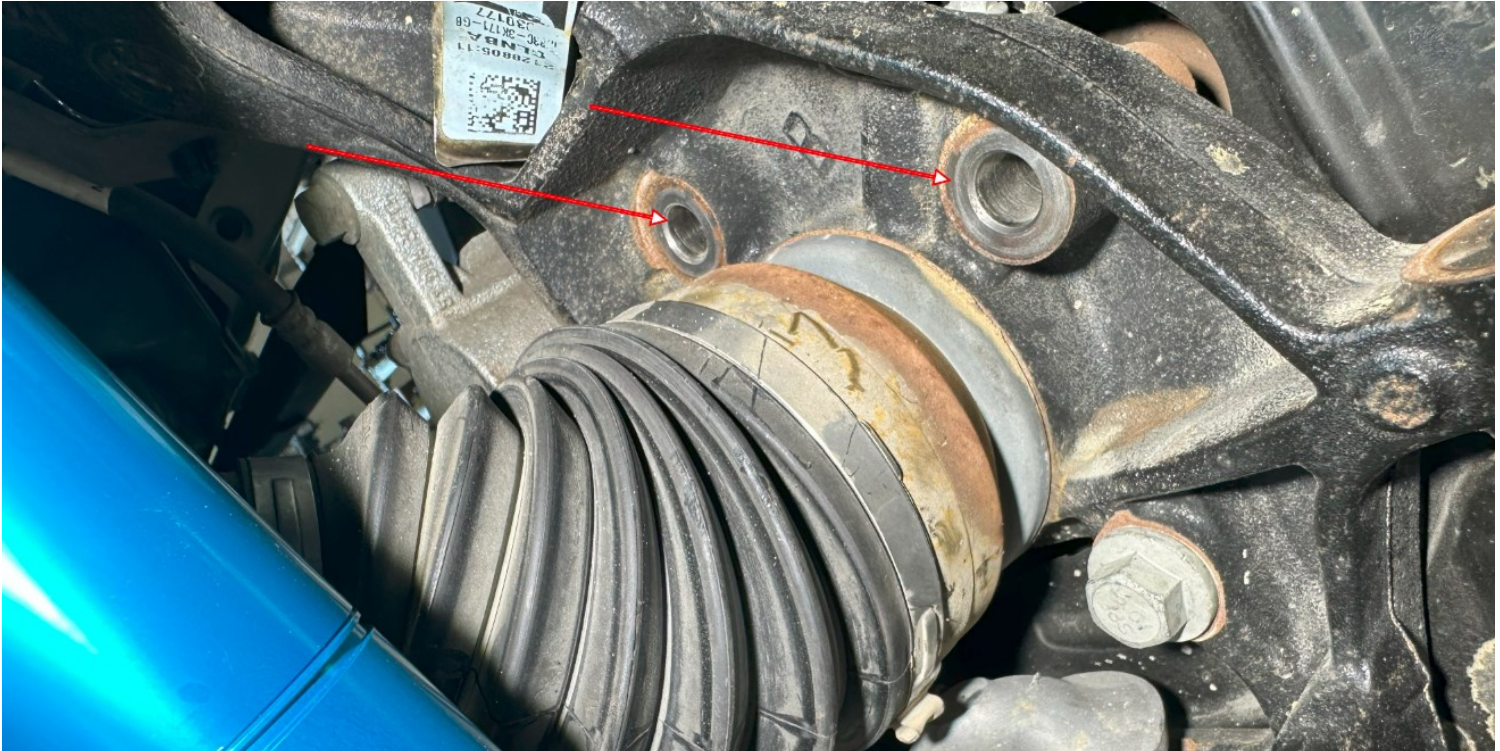
1. Jack the Bronco up in the air and support the frame rails with suitable jack stands and block the rear tires.
2. Remove the Wheels and Tires.
3. **6mm Hex Driver & 21mm Wrench** — Loosen the nut on the tie-rod end so it's only engaged a few threads. Use a tie-rod separator to unseat the taper, then remove the nut and disconnect the Tie-Rod from the Steering Knuckle. ***DO NOT Strike the tie-rod housing on the knuckle to release the taper—this can deform the housing so the Carli spacers/nuts for the steering do not sit flat.***



4. Remove the boot from the steering rack to expose the inner tie-rod.
5. Use the 27mm Crow's Foot to remove the inner tie-rod. Counter clockwise unthreads it.



6. **18MM Socket** — Turn the steering wheel all the way to the drivers side to expose the back of the hub and remove the top 2 bolts securing the hub to the knuckle.



7. Assemble the Carli Steering, starting with the inner tie-rod. Use the 27mm Crow's foot to hold the inner tie rod steady while you tighten the knurled cap as much as you can by hand, a little play/plunge is fine for now. **MAKE SURE THERE IS NO GREASE ON THE O-RING. The O-Ring provides friction to hold the cap tight, do not grease it.**



8. Slide the provided boot over the inner tie-rod until the collar seats into the groove in the tie-rod.
9. Slide the spring band clamp over the threads and secure the boot in place on the collar.
10. Install the Zerk Fitting into threaded hole in the tie-rod.



11. Thread the outer tie rod end onto the tie-rod. No anti-seize or Loctite is needed here as the graphite coating on the tie-rod is a dry-lube.



12. Lay your stock tie-rod on your workbench. Straighten and flatten it out as much as possible. Measure from the center of the outer tie-rod ball joint housing to the end of the inner tie-rod (flat surface that bolts to the steering rack).
13. Record this measurement
14. Transfer measurement to the Carli tie-rod so it measures the exact same from the center of the outer tie-rod end bearing to the inner tie-rod end mounting flange.



15. With the tie-rod length set, use a MANUAL grease gun to load the inner tie rod.
16. Use the 27mm crow's foot to back the joint off so there's a slight bit of play in the end



17. Grease it until we see it coming out of the joint.



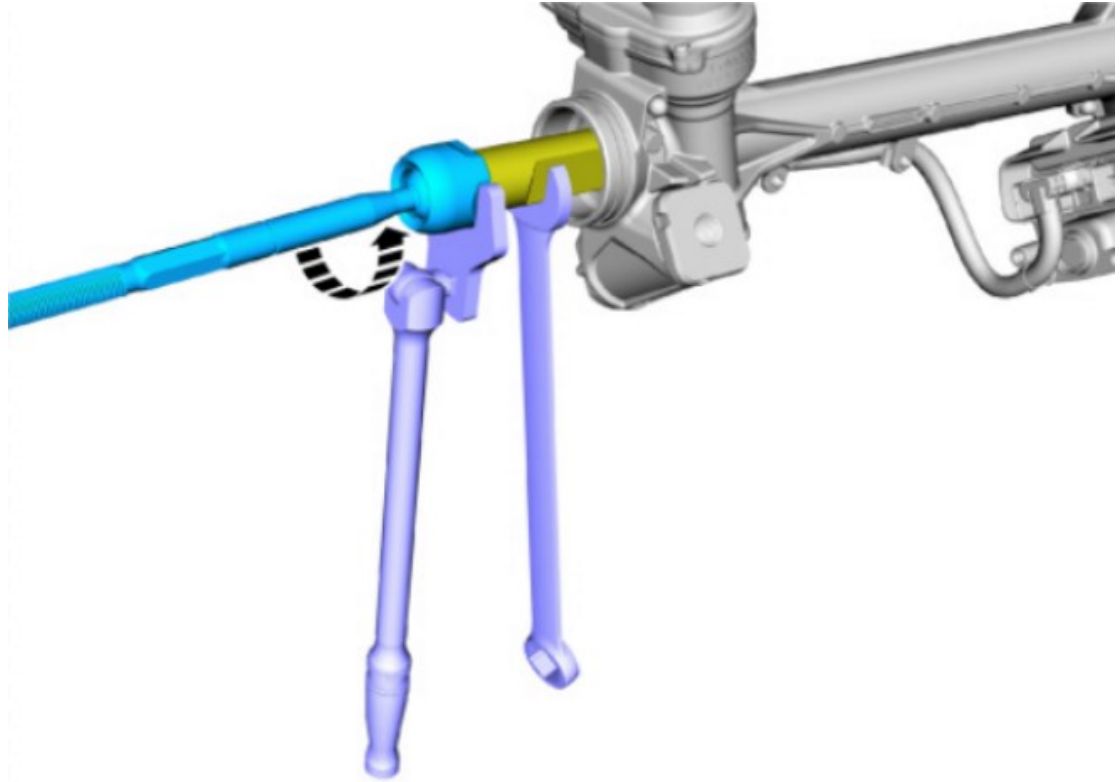
18. Clean the knurled housing to ensure you can get a good grip and tighten the joint until there's no play. Move it around to work the grease in, clean it up, double check the tightness and ensure no play. We use a Rubber glove on the tightening hand to ensure as good a grip as possible. **DO NOT USE TOOLS (strap wrench, etc.).** This should be hand-tight. When you've tightened the cap, there will be no O-ring visible and it should be difficult to operate the joint by hand (again the joint should have no play/flop).

**AGAIN: MAKE SURE THERE IS NO GREASE ON THE O-RING. The O-Ring provides friction to hold the cap tight, do not grease it.**

19. Turn wheel all the way to the Driver side to expose the rack end. Use isopropyl alcohol to clean off the mating surfaces on the end of the steering rack and the carli inner tie rod end. Clean the threads as well.



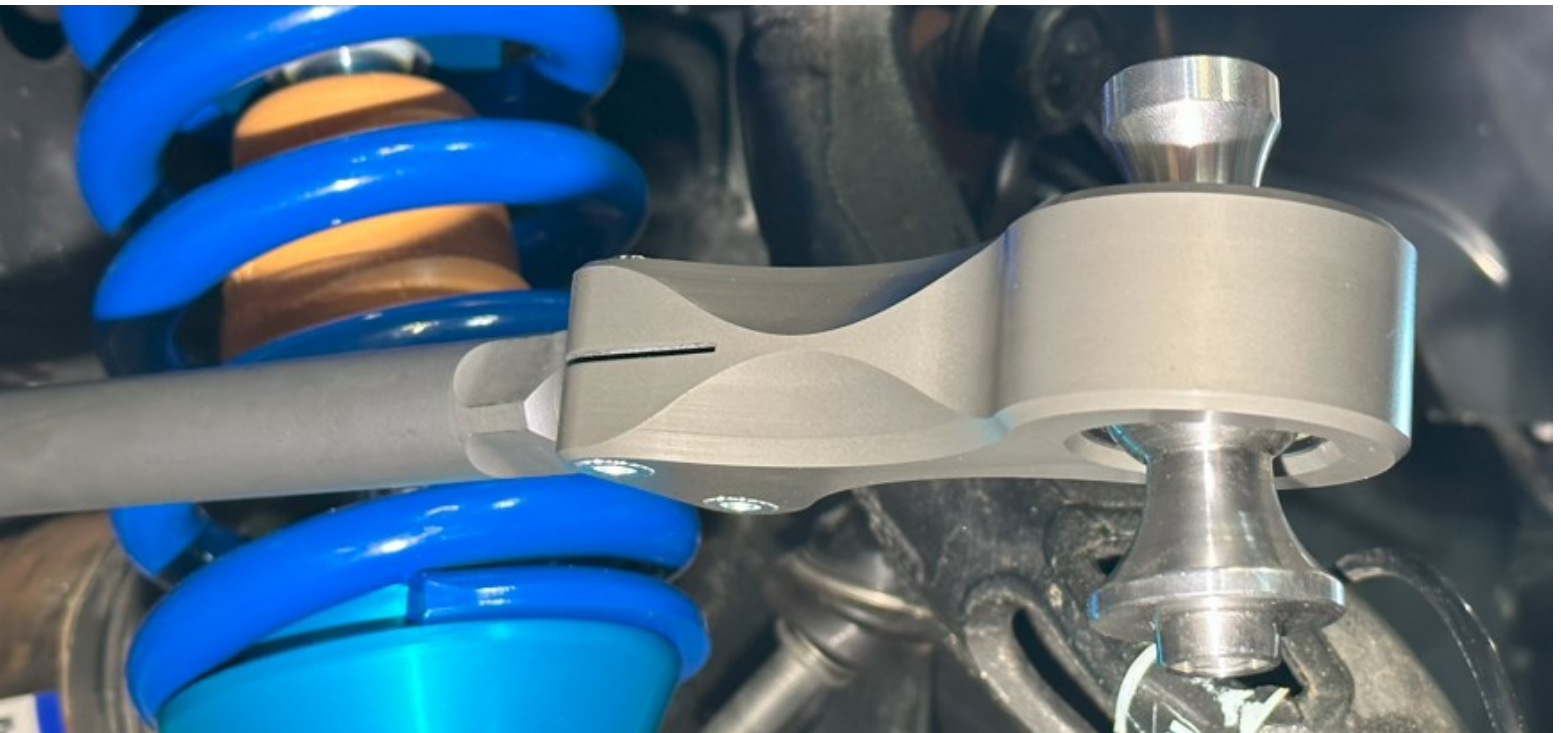
20. Slide the provided stainless hose clamp onto the boot to prepare it for install.
21. Apply blue Loctite to the male threads of the Carli Inner Tie-Rod End and use the 27MM Crow's Foot to torque the end to 85Lb.Ft. Use a wrench to hold the inner rack while torquing.



22. Pull the boot over the steering rack and secure with the provided hose clamp.



23. Install the upper and lower misalignment spacers into the bearing on the tie-rod. The heads of the 12pt bolts and snap ring side of the tie-rod end will face up. The narrow spacer that's flat on top will be the top spacer; the wider-flared spacer with the machined taper into the bottom (matched the tie-rod tapered receiver in the knuckle) will be on the bottom.





24. Insert the lower misalignment spacer into the factory steering knuckle taper.
25. Put Red Loctite on the provided M14-1.5 x 90mm Bolts and Install them and the M14 Washers to secure the double-shear bracket to the knuckle/hub (on top of the Carli tie-rod end) in place of the bolts you removed earlier.  
**Snug them for now.**
26. Insert the 1/2"-13 x 5-1/2" Bolt with a washer on top and the flange nut on the bottom.
27. **3/4" Wrench and Socket** — Torque the 1/2" bolt securing the Tie-Rod end in the double shear bracket and factory knuckle taper to 90lb/ft.



**28. 22MM Socket** — Use a prybar to ensure no contact exists between the double-shear bracket and the CV Axle.  
Torque Bolts to 129lb/ft.



29. 1/4" 12-Pt Socket — **EVENLY** tighten the bolts securing the tie-rod end to the tie-rod. Torque to 14lb/ft.

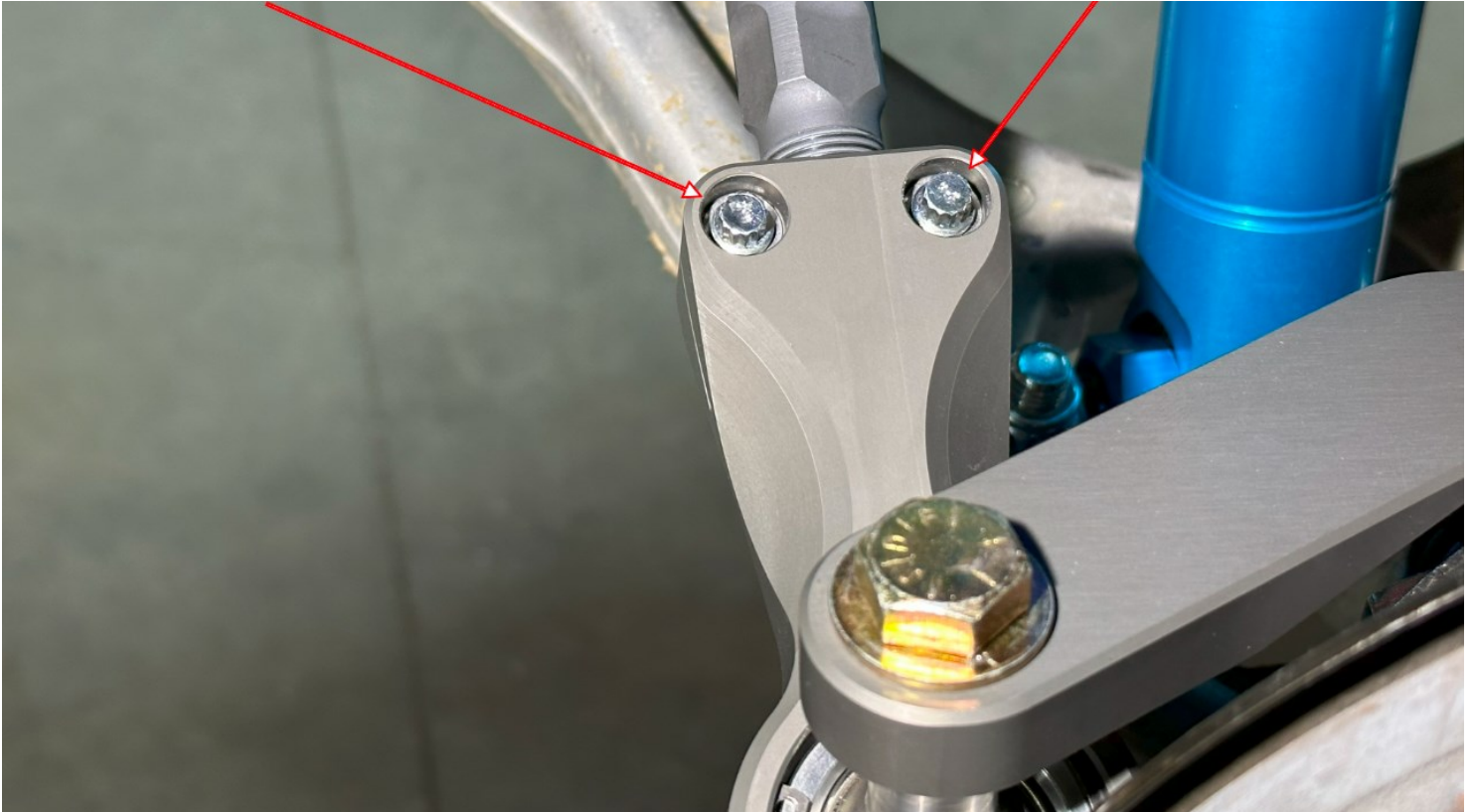


30. Repeat installation on Passenger's side.

31. **Take Vehicle for an alignment. The Bronco will NOT be safe for long drives or highway speeds until it receives a full wheel alignment.**

## Wheel Alignment Instructions

1. To Align the Carli Tie Rod System, you'll need a 1/4" 12PT socket, a pair of vice grips and a 3/4" open end Wrench.
2. Begin by using the 1/4" 12 PT to back off the pinch bolts to hand-tight.



3. Use the Vice grips to pinch the spring band clamp securing the inner tie-rod boot collar — this will allow the tie rod to spin/adjust unimpeded.



**Wheel Alignment Instructions — Continued**

4. Use the 3/4" Wrench on the flats of the tie rod to adjust the toe until proper.
5. Remove vice grips to secure the boot.



6. **1/4" 12-Pt Socket** — **EVENLY** tighten the bolts securing the tie-rod end to the tie-rod. Torque to **14lb/ft.**

