

CS-FFRA-05 – 2005-16 Super Duty Fabricated Radius Arms

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 “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

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.

Carli Suspension – Installation Instructions
CS-FFRA-2.5 & CS-FFRA-4.5



Installation Instructions

1. If being installed on a Carli 2.5” system: use a Breaker Bar to break the factory radius arm bolts loose while the truck is at ride height on the ground.
2. If being installed on a Carli 4.5” system: refer to the system’s installation instructions for installation of the Radius Arm Drop Brackets. Radius arm drop brackets must be installed prior to installing the Carli Radius Arms. Use a Breaker Bar to loosen the upper and lower axle bolts.
3. Raise truck slightly to unload the radius arm bushings.
NOTE: Tires should still be on the ground
4. Chock the front and rear of the driver’s side tire to ensure it doesn’t move during radius arm removal/installation.
5. Support the truck at the frame with appropriate jack-stands and remove the jack.
6. Disconnect factory vacuum line from the Driver’s side radius arm and remove the ABS line from the bracket on the arm.
7. Remove the factory bolts and nuts of the Driver’s side radius arm - noting which side the nut is on. This is very important for re-installation!
NOTE: The upper Driver’s side nut is affixed to the factory arm and cannot be removed. We provide a nut to replace this with the radius arm kit.
8. Once the two nuts and three bolts have been removed, remove the factory radius arm.
9. Install the Carli Radius arm over the axle bushings.
10. Secure the upper and lower front bushing hand tight. Again, the Upper will use the nut provided with the kit.
11. If being installed on a Carli 2.5” system: Secure the rear joint to the frame mount and thread the nut on hand-tight.
12. If being installed on a Carli 4.5” system: Secure the rear joint to the lower mount on the installed radius arm drop bracket.
NOTE: With the front, upper and lower, mounting points secured, a slight adjustment to align the rear bolt hole may be necessary given the additional caster built into the arms. We recommend removing the appropriate wheel chock from the front tire and applying gradual pressure to the arm either up or down to align the rear mounting hole.
13. Torque the Upper, lower and rear assemblies to 222ft.lbs.
NOTE: The rear Johnny Joint of the Carli Arms allows them to be torqued anywhere throughout the travel stroke as the bushings do not “load” like the factory units.
14. Reattach the ABS line to the Driver’s side arm using the supplied, insulated P-Clamp and hardware. The Vacuum line will hang freely. Securing it to the new radius arm will cause damage to the vacuum line during droop travel.
15. Repeat the process on the Passenger’s side noting the following differences:
NOTE 1: Install with all factory hardware as no nuts are attached to the factory-passenger side arm.
NOTE 2: No vacuum line on the passenger side.
16. Follow the Instructions in the Limit Strap Box (CS-FLSK-2.5 or CS FLSK-4.5) to complete installation.

NOTE:

- The Carli arms correct 1.25° of caster at the axle, effectively rolling the axle position back to factory specification on the 2.5” lift. On a 4.5, 1.25° of Caster is added to the existing specification. This may negate the need for the corrective caster shims included in the Carli Suspension Base-Kits. We recommend installing the arms and reading the alignment to check if the shims are necessary to install or not.
- Recommended Caster: 3°-4.5°
 - 2005-10 Super Duties came with high-3° 2011-16 lightened significantly from the factory. 1-2° was not uncommon to see in stock form. The Caster has again increased in the 2017+ platform to mid-high 3°. We recommend 4.5° but this may not be possible in some vehicles.