



Ford Adjustable Radius Arms—FARA

Fitment
2023+ F250/350 4x4

Carli Suspension, Inc.
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Lake Elsinore, CA 92530
888-992-2754

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.

Parts Checklist

- | | |
|--|---|
| <input type="checkbox"/> 1 - (Qty. 1) - AS-FARA-23-DRVR - Carli Radius Arm, Driver | <input type="checkbox"/> 2 - (Qty. 1) - AS-FARA-23-PASS - Carli Radius Arm, Passenger |
| <input type="checkbox"/> (Qty. 1) AP-FFRA-05-NUT - Ford Radius Arm Factory Nut | |
| <input type="checkbox"/> (Qty. 1) AS-FARA-05-CASTERKIT - Caster Kit | <input type="checkbox"/> 3 - (Qty. 1) - Limit Strap Kit |
| <input type="checkbox"/> (Qty. 4) 1 Notch Caster Key | <input type="checkbox"/> CS-FLSK2512 - 12” Limit Strap Kit, Leveling & 3.5” |
| <input type="checkbox"/> (Qty. 4) 2 Notch Caster Key | OR |
| <input type="checkbox"/> (Qty. 4) 3 Notch Caster Key | <input type="checkbox"/> CS-FLSK4515 - 15” Limit Strap Kit, 4.5”-5.5” |
| <input type="checkbox"/> (Qty. 4) 4 Notch Caster Key | <input type="checkbox"/> (Qty. 2) Carli Decal, 9", Rectangular with White Border |
| <input type="checkbox"/> (Qty. 2) 18mm x 140MM Bolts | <input type="checkbox"/> (Qty. 2) Carli Decal, 9", Rectangular with Orange Border (Installed) |
| <input type="checkbox"/> (Qty. 4) 18mm Washers | |
| <input type="checkbox"/> (Qty. 2) 18mm Nylocs | |



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.
4. **NOTE:** Tires should still be on the ground
5. Chock the front and rear of the driver's side tire to ensure it doesn't move during radius arm removal/installation.
6. Support the truck at the frame with appropriate jack-stands and remove the jack.
7. Disconnect factory vacuum line from the Driver's side radius arm.
8. 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!
9. **NOTE:** The upper Driver's side nut is permanently secured to the factory arm. We provide a nut to replace this with the radius arm kit.
10. Once the two nuts and three bolts have been removed, remove the factory radius arm.
11. Install the Carli Radius arm over the axle bushings. The arms offset to the inside (sticker will be facing outward).
12. Secure the upper front position hand tight. Again, the Upper will use the nut provided with the kit.
13. The Carli Arms are provided with caster keys for the axle mount. We recommend customers with 2.5 and 3.5 Carli Systems start with the 3 notch shim. Those with a 4.5 or 5.5 Carli System should start with the 2 notch.

The following measurements were taken on a Hunter alignment rack with a Carli 4.5" lift installed. This arm is flat (parallel to the ground). Trucks with 2.5" & 3.5" lifts will see slightly less correction as the arm is slightly angled.

- **1 Notch** + 0.5° Caster Recommended for 4.5"/5.5" Carli Kits
- **2 Notch** + 1.3° Caster Recommended for 4.5"/5.5" Carli Kits
- **3 Notch** + 2° Caster Recommended for 2.5"/3.5" Carli Kits
- **4 Notch** + 2.5° Caster Recommended for 2.5"/3.5" Carli Kits

14. Insert the recommended shims into the keyed position on the Carli Arms securing them in place with the provided M18 Bolts, Washers and Nuts.
15. 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 in 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.
16. Torque the Upper, lower and rear assemblies to 222ft.lbs. *The rear spherical bearing on the Carli Arms allows them to be torqued anywhere throughout the travel stroke as the bushings do not "load" like the factory units.*
17. Reattach the Vacuum Line to the hole in the top of the Driver's side arm (with the extension provided in the bump drops, where applicable) to the Driver's side arm.



18. Repeat the process on the Passenger's side noting the following differences:

- Install with all factory hardware as the factory nuts are NOT attached to the factory passenger side arm.
- No vacuum line on the passenger side.

19. Follow the Instructions in the Limit Strap Box (CS-FLSK-2.5 or CS FLSK-4.5) to complete installation.

20. Factory Recommended Caster: 3° - 4.5° depending on year range. **We recommend mid-high 4°**

IMPORTANT INSTALLTION NOTES:

- Caster keys can be mixed and matched (i.e. 2 notch on driver and 3 notch on passenger) if cross caster is desired to counter-act road crown or a radial tire pull but we DO NOT recommend cross caster exceed one notch in the shim (i.e. 1 notch on driver, 3 notch on passenger) as this will bind the axle bushings and cause extreme directional pull.
- The notches on the 1 and 2 are at the front of the shim, the 3 and 4 are at the rear. This is to ensure the distinctive markings denoting which shim is installed remains visible while on the truck for trouble-shooting.
- The Carli Adjustable Radius Arms add 0.5° to 2.5° to the existing caster of the vehicle by adjusting the position of the axle mount. **This will likely negate the need for the corrective caster shims included in the Carli Suspension Base-Kits.**
- The recommended caster keys included with the arms should be installed as noted above. Once complete, take the truck and remaining shims to the alignment shop for final adjustments to manufacturer specifications.