



**CS-F45-LTB-3.5(4.0)(4.5)-17 2017  
Ford Long Travel Airbags**

**Carli Suspension, Inc.  
596 Crane St.  
Lake Elsinore, CA 92530  
888-992-2754**

**Fitment**  
Fitment - 2017+ F250/350 4x4 with 4.5" Carli Lift

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**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.

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**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.

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**Parts Checklist**

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**Components**

- (Qty. 1) - Driver's Side Upper Bracket
- (Qty. 1) - Driver's Side Lower Bracket
- (Qty. 1) - Passenger's Side Upper Bracket
- (Qty. 1) - Passenger's Side Lower Bracket
- (Qty. 2) - Airbag
- (Qty. 2) - Captured Nut Brackets, 3/8"-16
- (Qty. 1) - Axle Breather Brake Line Bracket
- (Qty. 1) - Airbag Heat Shield
- (Qty. 1) - 1/4" Driver's Side Upper Airbag Bracket Spacer
- (Qty. 1) - 1/4" Passenger's Side Upper Airbag Bracket Spacer

**Hardware**

- (Qty 4) 5/8"-18 x 4/5" Bolt
- (Qty 8) 5/8" Flat Washer
- (Qty 4) 5/8"-18 Top-Lock Nut
- (Qty 4) 3/8"-16 x 1.25" Bolt
- (Qty 4) 3/8"-16 x 1.00" Bolt
- (Qty 8) 3/8" Split Lock Washer
- (Qty 8) 3/8" Flat Washer
- (Qty 2) M10 x 40mm Flange Head Bolts
- (Qty 2) 90° Push-Locks Air Fitting
- (Qty 2) Straight Push Lock Air Fitting, Schrader
- (Qty 2) 1/2" Axle U-Bolt, Washers and Nuts
- (9 Ft.) 1/4" Airline

## Installation Instructions

1. Using a 15mm socket, remove the nuts retaining the bump stop bracket to the frame on the driver's side.



2. With the bump stop bracket removed, remove the factory studs/clips from the frame. Use screwdriver to disengage the clip and slide them downward and inward to remove.
3. If the truck is equipped with a factory 5th-wheel hitch, use a 21mm socket to remove the (qty. 2) 16mm bolts/capture nuts that secure the hitch to the frame rail on each side.



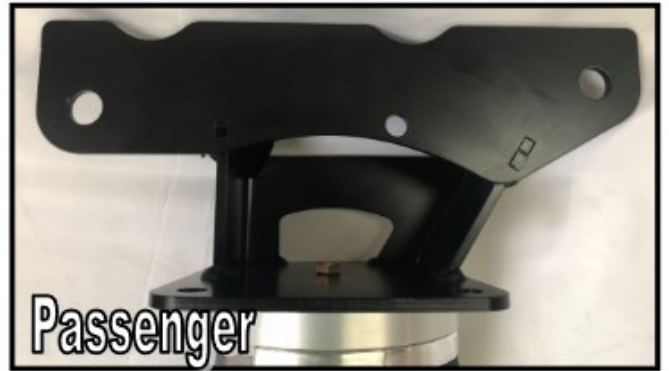
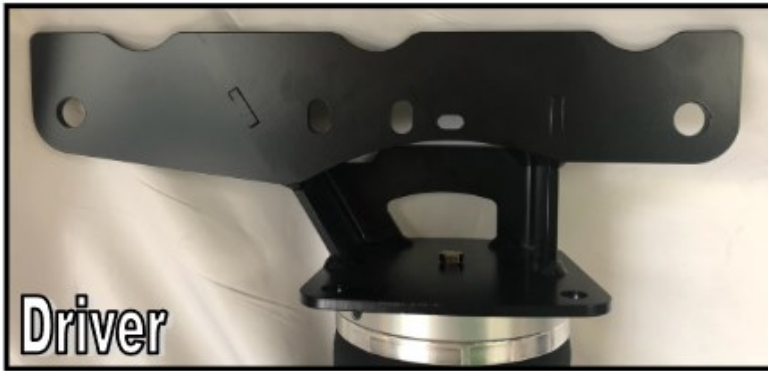
4. Using a 13mm socket, remove the 2 bolts securing the upper brake line bracket to the inside of the frame rail.
5. With a panel-popper tool, remove the plastic rivet holding the factory wiring harness in place (that routes around the rear shock).



6. Slide the provided captured-nut bracket into the frame in place of the studs that were removed (that retained the factory rear bump stops).

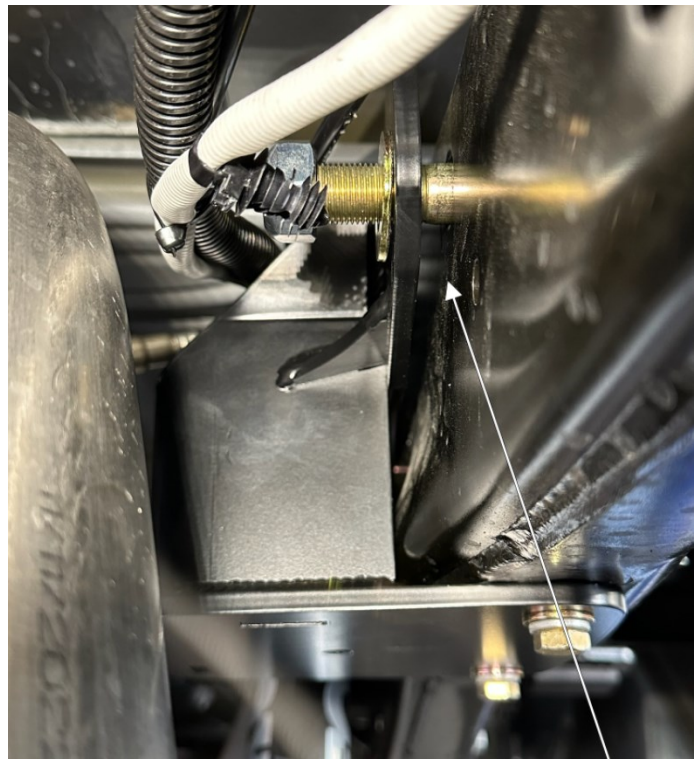


7. Place the Upper bracket into place on the **INSIDE** of the frame rail and use the provided (qty. 2) 3/8"-16 x 1.25" bolts, split lock washers and flat washers to loosely secure the upper bracket to the capture nut bracket inserted into the frame in the factory bump-stop location.



**NOTE:**

This is where these trucks have a bit of variance — some years have the 5th wheel bracket welded to the outside of the frame, some to the inside. SOME trucks have no bracket on either side of the frame. These brackets are designed to fit with the 5th wheel hitch plates welded to the inside of the frame rail. These brackets are 1/4" thick from the factory. If you install the bag brackets and you see that there's a gap as pictured to the right, you'll need to install the provided 1/4" spacers between the Carli Bracket and the Factory frame rail to take up this gap.

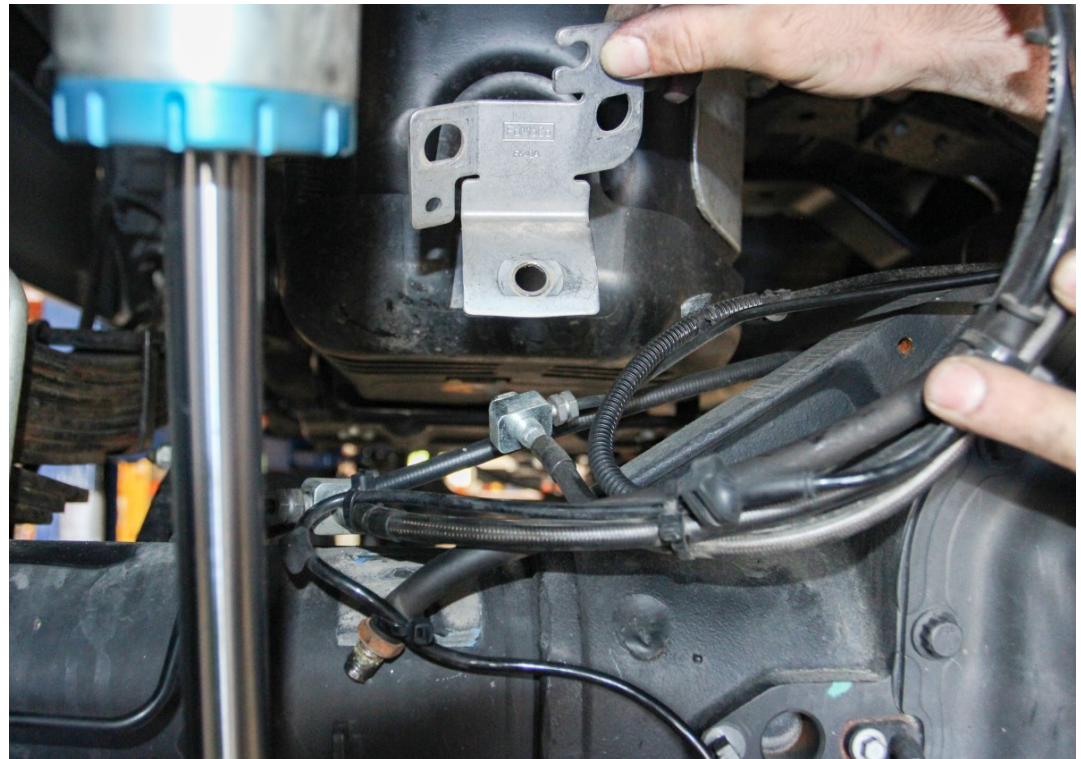


8. If your truck is equipped with the factory 5th wheel hitch, insert the factory 16mm hardware back through the frame rail (and upper airbag bracket—and spacer if utilized) and loosely install the capture nuts on the bolts securing the upper brackets to the frame.

If the truck is not equipped with a factory 5th wheel hitch, slide the provided (qty. 2) 5/8"-18 x 4.5" bolts through the frame with a washer on the head and secure with a washer and the provided nut. Again, loosely at this time.



9. Loosely secure the upper brake line bracket to the factory location from which it was removed (in the frame) over the upper airbag bracket using the extended (qty. 2) M10-40mm bolts provided.
10. Repeat the process on the passenger side. This side will be easier as there are no brake lines or wiring harness.
11. With both upper brackets loosely in place, use a 9/16" socket to tighten the vertical 3/8" hardware in the factory bump-stop location first, this will ensure the brackets sit tight to the bottom of the frame. Torque these bolts to 35lb./ft.
12. Once the lower bolts in the upper brackets are tightened, torque the main support hardware (provided 5/8" or 16mm factory) to 230 lb./ft.
13. Torque the (qty, 2) 10mm brake line bracket bolts on to 25lb./ft. (Driver's side only)
14. Moving onto the lower brackets, Remove the ABS wires from the axle bracket and pull the factory clips holding the brake lines to the axle bracket. With these out of the way, use a 16mm to remove the breather from the axle tube and remove the factory ABS/Brake line axle bracket. Loosely reinstall breather into hole to prevent any debris from entering the axle during the remainder of the installation.



15. Attach the 90° press-lock air fitting into both Airbags and index the inlet upward. Ensure to use Teflon tape/thread sealant when installing these fittings.

16. Using the provided 3/18"-16 x 1.0" Bolt, Split-Lock Washer and Flat Washer, loosely attach the bag to the upper brackets with the air fittings in front (air inlet facing up). Install the provided heat shield between the airbag and upper bracket on the passenger's side.

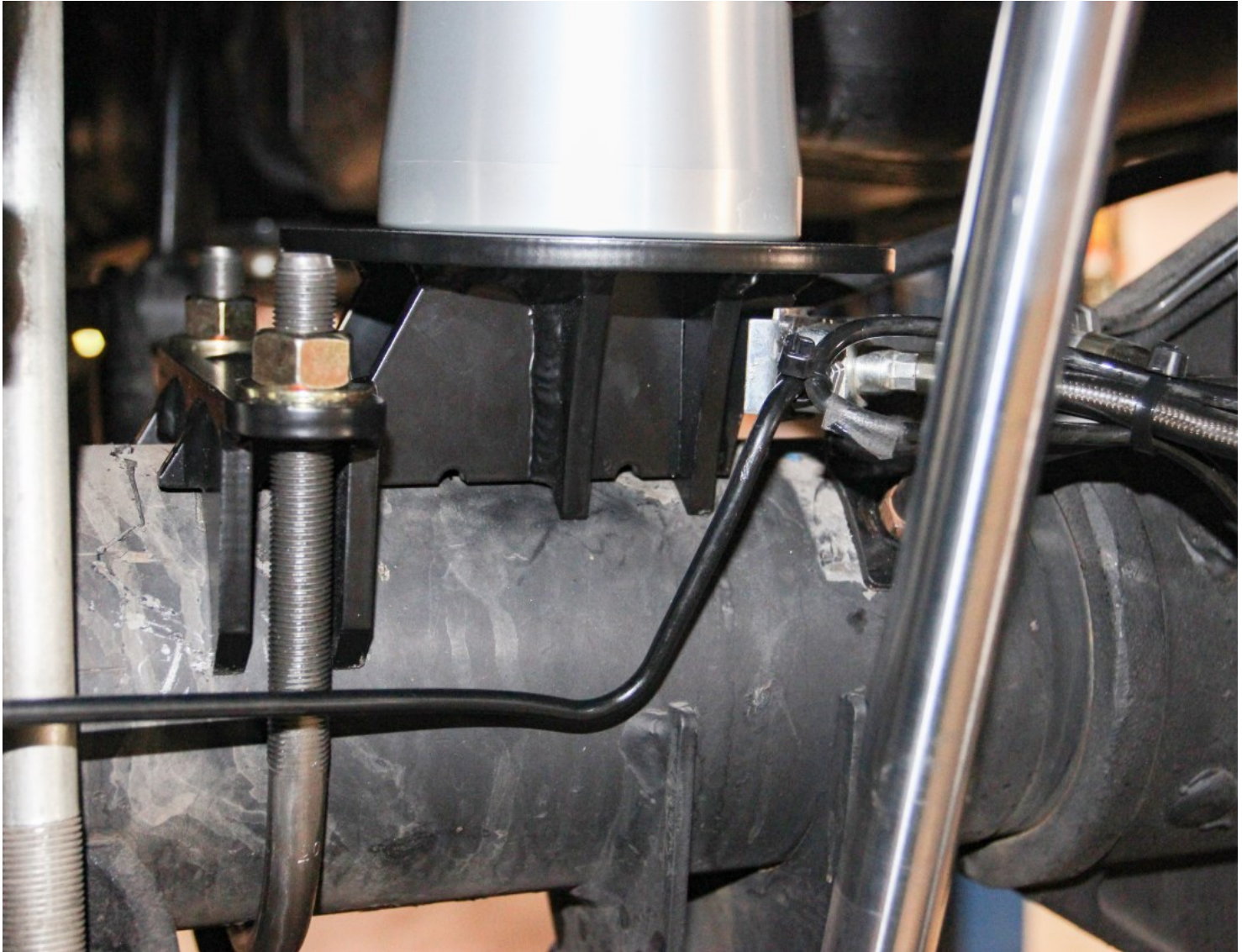


17. Remove the axle breather and use it to install the supplied Carli lower brake line axle bracket. Use the provided clips to secure the Carli Stainless brake lines to the Carli Bracket. If not running Carli rear lines, use the factory clips to secure the brake lines to the bracket.



18. Install the lower brackets to the installed airbags using the provided 3/18"-16 x 1.0" Bolts, Lock Washer and Flat washer. The U-bolt receiver will go toward the leaf spring on both sides. Looking from the top, down, the u-bolt receiver on the lower bracket should be at 9 o'clock (toward the outside) and air-fitting on the bag at 12 o'clock (front of the truck) on the driver's side. The passenger's side will be mirrored with the air fitting at 12 o'clock and u-bolt receiver at 3 o'clock.
19. It may take a few tries to get the lower bracket perfectly indexed and tightened to the bag. Once confirmed, Torque the 3/8" hardware securing lower bag piston to the lower bracket to 40lb./ft.

20. Pull the lower brackets down to meet the axle and loosely secure the u-bolts with the provided flat washers and nuts.
21. Set the truck on the ground in the rear so it's sitting at ride height. Ensure the bags are as linear as possible at ride height and the lower brackets are level.
22. Torque the lower bracket u-bolts to 80lb./ft. (evenly). A touch of space under the bracket after torquing is completely normal, the lower brackets will sit flush when loaded.



23. Torque the upper airbag mounting bolt/bracket to 40lb./ft.
24. If these bags will be plumbed into an existing compressor - use the 1/4" airline provided to route the airlines to the compressor outputs. DO NOT "T" the bags together to a single input!!! This allows pressure transfer and can cause the weighted bag to purge it's pressure. Again, the airbags should ONLY be Used with a compressor with 2 solenoids/outputs (controls the pressure of the bags individually).
25. If setting the bags up for manual fill - Find an accessible location to mount the provided push-lock schrader valves and install them. We welded on a tab at the hitch but it's equally acceptable to drill a hole somewhere in the hitch/rear bracketry. Install the airline to the airbag push-lock fittings and route the airline along the frame (in an area that avoids chaffing, zip ties are recommended) to the installed schraders. We routed it along the trailer wiring harness on the driver's side. Install the airline in the push lock schraders.
26. Zip tie the ABS Lines to the brake lines and ensure all lines are clear of rubbing the mounting brackets and airbags.
27. Fill the bags to 50psi and spray airline and air fittings down with a soap and water mixture to check for leaks.
28. RETORQUE ALL HARDWARE (U-BOLTS MOST IMPORTANTLY) AFTER FIRST 500 MILES