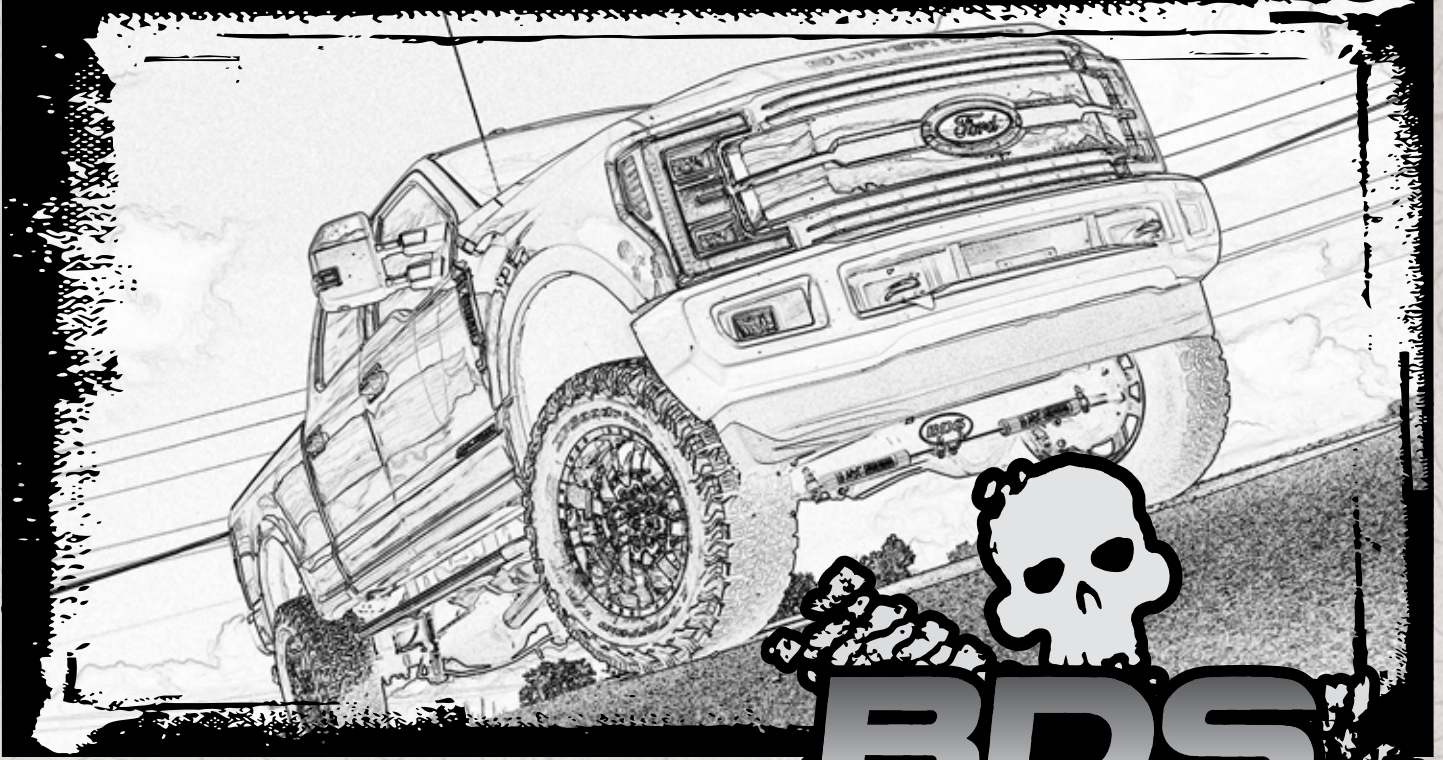


# INSTALLATION GUIDE



Part#: 013317



**HARDCORE LIMITED LIFETIME WARRANTY**

## **3" Rear Suspension System**

**Ford Super Duty F350 Dually 4WD | 2020**

Rev. 060920

491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135  
E-mail: [tech-bds@ridefox.com](mailto:tech-bds@ridefox.com)

# Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



## THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come.

Thank you for choosing BDS Suspension!

### BEFORE YOU START

BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

### FOR YOUR SAFETY

Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices. You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

### BEFORE INSTALLATION

- Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
- Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
- Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
- Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
- Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
- If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.
- Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.



Visit [560plus.com](http://560plus.com) for more information.

### BEFORE YOU DRIVE

## TIRES AND WHEELS

37 x 12.50 w/17 x 9 and 4.5" - 5" back spacing  
37 x 12.50 w/18 x 9 and 4.5" - 5" back spacing  
37 x 12.50 w/20 x 9 and 4.5" - 5" back spacing

\*Trimming may be required\*



Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.

Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.

Perform head light check and adjustment.

Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

# CONTENTS OF YOUR KIT

<b>BDS013317 Rear Box Kit (2020)</b>		
Part #	Qty	Description
3FB18B	2	3" Rear Super Duty Block
583181900SB	4	5/8 x 3-1/8 x 19 Semi-Round U-bolt
03975	2	3" Bump Stop Spacer
422	1	Bolt Pack
	4	3/8"-16 x 1-1/4" Bolt, Grade 8, Yellow Zinc
	4	3/8"-16 Prevailing Torque Nut, Yellow Zinc
	8	3/8" USS Washer, Yellow Zinc
<i>B1203</i>	<i>1</i>	<i>Bag Kit</i>
W58SB	8	5/8 washer
N58FHB	8	5/8 high nut
03428	1	E-Brake Relocation Bracket
03429	1	E-Brake Relocation Clamp Bracket
989	1	Bolt Pack
	2	Wire Clamp)
	1	1/2"-13 x 1-1/4" Bolt, Clear Zinc
	1	1/2"-13 Prevailing Torque Nut, Clear Zinc
	2	1/2" SAE Washer, Clear Zinc
	2	5/16"-18 x 1-1/4" Bolt, Clear Zinc
	2	5/16"-18 Prevailing Torque Nut, Clear Zinc
	4	1/4" USS Washer, Clear Zinc
B1311	2	Bag Kit
02802	1	Logo Plate
97525A430	2	Rivets

# INSTALLATION INSTRUCTIONS

## REAR INSTALLATION

1. Raise the rear of the vehicle and support with jack stands under the frame rails just ahead of the spring hangers.
2. Remove the wheels.
3. Support the axle with a hydraulic jack.
4. Remove the OE shocks. Retain all mounting hardware.

## SPECIAL TOOLS

Rivet Gun  
24mm or 15/16" Socket

## BLOCK KITS ONLY

5. Support the rear axle with a hydraulic jack. Disconnect the passenger's side spring u-bolts. Loosen the driver's side to allow the axle to droop out.
6. Lower the axle and remove the factory lift block. It will not be reused.
7. Lower the axle enough to place the provided 3" lift block between the axle and the leaf spring. (Figure 1)

*Note: The block will not have a bump stop wing as pictured.*


**FIGURE 1**



8. Raise the axle to engage the block spring alignment pins. Fasten the entire assembly with the provided u-bolts, washers, and nuts. Snug but do not torque the u-bolts at this time. (Fig 2)

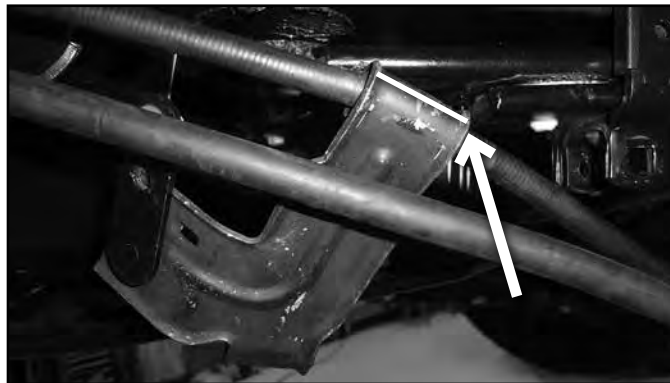
**FIGURE 2**



 **Tip** *Ensure all u-bolts have equal thread exposed below the nut.*

9. Repeat block installation of the driver's side. Take care not to over extend the brake lines.
10. If more parking brake cable slack is needed, remove the cable from the rear-most retaining bracket on the frame.
11. Gain slack from the E-Brake cable on the driver's side. It is easiest to pull on the cable and use a pair of vise grips to hold the cable, be careful not to damage the cable.
12. Cut the bracket for the E-brake cable that is going to the passenger side of the vehicle in order to release the cable from the bracket. See Figure 3 for which bracket and where to cut. It is easiest to cut most of the way through the steel and then bend the flange up to release the cable from the bracket. Be careful not to cut the E-brake cable!

**FIGURE 3**



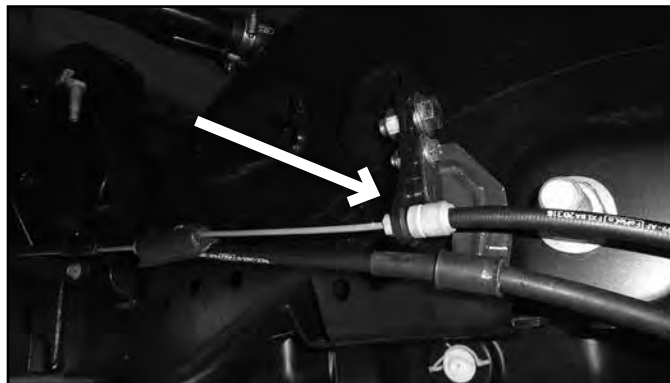
13. Depress the tabs and remove the passenger side E-brake cable from the mount on the frame.
14. Once the passenger side E-brake cable is free, remove the bolt and J-nut attaching the bracket to the frame.
15. Remove the driver side E-brake cable from the bracket and discard the bracket and hardware.
16. Remove the bolt and J-nut for smaller E-brake cable bracket. The E-brake cable relocation bracket will be reinstalled after the new leaf
17. Install the new E-brake cable bracket with the provided 1/2" hardware and 5/16" hardware from bolt pack 989 as shown in Figure 39. The smaller driver side E-brake cable bracket will be installed in the same position as it was from the factory, but attached with the 5/16" hardware (Figure 4).

**FIGURE 4**



18. Install the passenger side E-brake cable into the bracket, make sure the tabs on the cable lock the cable into place (Figure 5).

**FIGURE 5**



19. Remove the 3/8" bolt on the front leaf springs clamp. Install the E-brake clamp bracket with the new provided 3/8" bolt and nut from bolt pack 989 through the leaf spring clamp. Make sure the E-brake clamp bracket is towards the outside of the leaf spring. Tighten the 3/8" hardware with the spacer tube in between to 25 ft-lbs.

**FIGURE 6**



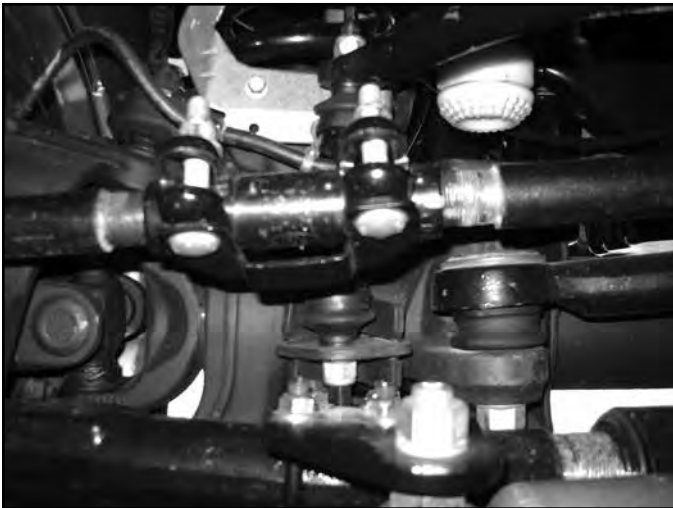
20. Use the two provided wire clips from bolt pack 989 to secure both E-brake cables to the E-brake clamp bracket with the provided 5/16" hardware from bolt pack 989 (Figure 6).
21. Install the new shocks with the original mounting hardware.
22. Remove the two nuts attaching the rear bump stops to the frame.
23. Install the rear bump stop spacer to the frame with the factory hardware. Install the spacer such that the two small holes are to the outside of the frame.

*Note: A 3/8" swivel socket will help to install the bump stop spacer to the frame.*

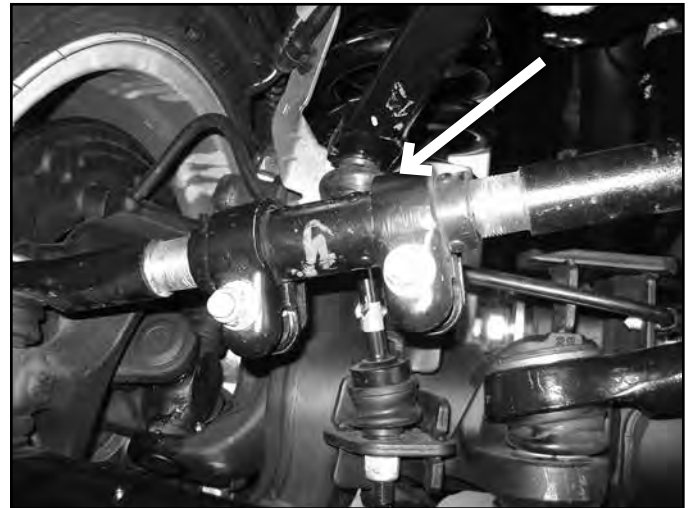
24. Install the bump stop to the bump stop spacer using the 3/8" hardware provided in Bolt Pack 422.

25. Rivet the BDS badge to the bump stop spacer. Repeat bump stop spacer installation on both sides of the truck.
26. Install wheels, cycle steering to check for brake line, ABS wire, ETC to tire clearance. With clearance verified lower the vehicle to the ground.
27. With the weight of the vehicle on the axle, torque the u-bolts to 130-150 ft-lbs.
28. Check all hardware for proper torque.
29. Cycle steering to check for brake line, ABS wire, ETC to tire clearance, rotate the driver's side brake line on the hard line if necessary.
30. Adjust steering wheel with adjustment on the drag link, do NOT drive the vehicle with the steering wheel off-center or adverse traction control affects may arise. Rotate the clamps once the steering wheel is straight as shown. (Fig A - incorrect, clamps will interfere with sway bar, Fig B - correct clearance)
31. An alignment is recommended, but not necessary. BDS recommends running caster at or above the maximum specification for improved handling / driving purposes.
32. Adjust headlights
33. Check hardware after 500 miles.

**FIGURE A \*INCORRECT\***



**FIGURE 22B \*CORRECT\***



## **WE WANT TO SEE YOUR RIDE!**

Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at [bds-suspension.com/bar](http://bds-suspension.com/bar) and post them on the BDS Fan Page on Facebook at [facebook.com/BDSSuspensions](https://facebook.com/BDSSuspensions). Don't forget about your BDS swag! BDS offers t-shirts, hoodies, decals and more available on the BDS website or through your local BDS distributor.

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## **TIME TO HAVE SOME FUN**

**Thank you for choosing BDS Suspension.**

For questions, technical support and warranty issues relating to this BDS Suspension product, please contact your distributor/installer before contacting BDS Suspension directly.