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**INSTALL INSTRUCTIONS:**  
Cognito Standard Leveling  
Package for 2017-2020  
Ford F250/F350 4WD  
Super Duty Trucks  
SKU: 120-90152



**PARTS LIST FOR SKU: 120-90152**

QTY.	PART #	DESCRIPTION
2	COIL-SPRING-3002	2" Lift Coil Springs (Black Powder Coated)
2	6289	1" Bump Stop Spacer
2	HARDWARE-M8X1.25X50	M 8 – 1.25 x 50mm Hexagon Head Cap Screw
2	HARDWARE-33080	5/16 Flat Washer
2	HARDWARE-33620	5/16 Lock Washer
1	8545	2017-2020 FSD Brake Line Drop Bracket -Driver Side
1	8546	2017-2020 FSD Brake Line Drop Bracket -Passenger Side
2	HARDWARE-15053	5/16"-18 x 3/4" Lg. Hex Head Cap Screw
2	HARDWARE-37262	5/16"-18 Locknut
4	HARDWARE-33080	5/16" SAE Flat Washer
8	H-63124	6" black cable ties

**WARNING**

Please read this entire instruction sheet before beginning installation. Proper installation of these components requires a qualified mechanic. Always wear safety glasses when using power tools, and take appropriate precautions when working under a vehicle. If these instructions are not properly followed you may jeopardize your, and your passenger's safety, and severe frame, suspension or tire damage may also result from improper installation.

**INTRODUCTION**

**This kit offers 2" of front lift on 2017-2019 models, and 3" of front lift on 2020 models.**

Depending on what model and year pickup truck you have, the front may or may not make the truck sit level, but it will sit 2" (3" on 2020 models) taller ride height in the front than it was stock. The coil springs are specified by Cognito, and are a dual rate design so that at ride height the rate is plush for a nice ride and at a certain amount of compression length of the spring, the spring rate will increase. Long shocks (sold separately by Cognito) are required along with these longer springs. With 2" longer shocks, the compressed length of the shock is inherently about 1" longer. With a longer compressed length shock, it is important not to bottom out the shocks as that can damage the shock and damage the axle or frame mounts. To prevent the bottoming out of the shocks, a 1" bump stop spacer is included for each side of the frame. Also included is the new brake line frame brackets to simply extended the reach of the front brake lines to work along with the taller ride height.

## REQUIREMENTS

- Installation requires a qualified mechanic
- A lift is required to perform the installation of these products and always ensure the vehicle is properly supported before attempting installation or serious injury may occur.
- Read instructions carefully and study the pictures before attempting installation.

## TECHNICAL INFORMATION

- **Does not fit 2wd Trucks**
- Check the parts and hardware packages against the parts list to assure that your kit is complete
- Each leveling package, and options to leveling packages, are packaged separately. Therefore installation procedures are covered in separate instructions. Familiarize yourself with each specific set of instructions before beginning.
- Follow the OE specifications when replacing or re-installing OE fasteners, retainers, and hardware specified in the OEM manual

## INSTALLATION

1. Before starting, secure the rear tires to prevent vehicle from rolling or moving, but do not lift at this time. With the vehicle remaining on the ground, remove the brake line bracket mounting bolt from both driver and passenger brake line brackets (Figure 1 A/B).

*Figure 1A: OE Brake Line Bracket*



*Figure 1B: OE Brake Line Bracket, Bolt Removed*



2. Remove the ABS line from both driver and passenger side OE brake line brackets by pulling the rubber boot out of the containment slot (Figure 2 A/B).

*Figure 2A: Passenger ABS Line Removal*



*Figure 2B: Driver ABS Line Removal*



3. Install the Cognito brake line brackets (Part # 8546 & 8545) to the frame by inserting the alignment tab into alignment hole and rotating the bracket mounting hole into position. Attach to the frame using the OE bolt removed in step 1, and torque to OE torque specifications (Figures 3 & 4).

*Figure 3: Passenger Brake Line Bracket*



*Figure 4: Driver Brake Line Bracket*



- Once the brake line brackets are in place, carefully bend the OE hard lines to align the OE mounting tab with the Cognito brake line mounting holes. Do not twist the OE mounting tab when bending the lines, this will loosen the brake line fitting. Assemble using (1) 5/16"-18 x 3/4" Lg. cap screw with (1) 5/16" SAE flat washer between the bolt head and mounting bracket. Torque to 24 ft.-lbs. using (1) 5/16"-18 locknut with (1) 5/16" SAE flat washer between the locknut and mounting bracket. Repeat for opposing side brake line mounting.
- Once the brake lines are securely mounted, insert the driver side ABS line rubber boot into the Cognito bracket containment slot (Figure 5). Use the supplied 6" black cable ties to secure the driver and passenger ABS lines in an orientation to prevent chaffing or wear (Figure 6).

*Figure 5: Diver Side ABS Line Installed*



*Figure 6: Passenger Side ABS Line Routing*



- Once the brake lines are in place, turn the steering wheel all the way to passenger side of vehicle and check to make sure the brake lines are not interfering with springs, brackets, or tires. Repeat with the wheels turned all the way to the driver side of the vehicle.



7. Remove the sway-bar end link nut from both driver and passenger sway-bar end links (Figure 7 A/B).

*Figure 7A: OE Sway-Bar End Link*



*Figure 7B: OE Sway-Bar End Link, Nut Removed*



8. Remove the front shocks from both driver and passenger side of the vehicle (Figure 8 A/B)

*Figure 8A: Front Shock, Top Mount*



*Figure 8B: Front Shock, Lower Mount*



9. Properly position and check to ensure that all brake lines, vacuum lines, hoses, and wiring are free to lift vehicle. Raise the vehicle slowly until the front spring preload is removed (Figure 9A). DO NOT raise the vehicle any higher than necessary to remove springs. This could result in driveline, wiring, brake line, and suspension component damage. Remove front springs and rubber isolator from the driver and passenger side spring perch (Figure 9B).

*Figure 9A: Vehicle Lift Height*



*Figure 9B: Spring Removal*



10. Locate the OE bump stop underneath both driver and passenger side frame rails. Remove the bump stop using a screwdriver to pry out of the bump stop mount (Figure 10A). Once the bump stop is removed, loosen the bolt and remove OE bump stop mount from the frame rail (Figure 10B).

*Figure 10A: OE Bump Stop Spacer*



*Figure 10B: FSD Bump Stop Spacer Hardware*



11. Locate the items listed below (Figure 11):

- (2) – 1" FSD Bump Stop Spacer (image shows a different size spacer)
- (2) – M8x1.25x80mm Lg. Cap Screw
- (2) – 5/16" SAE Flat Washer
- (2) – 5/16" Lock Washer

Figure 11: FSD Bump Stop Spacer Hardware



12. Insert the locking tab on the OE bump stop mount into the alignment hole on the bump stop spacer (Figure 12- image shows a different size spacer). Using (1) M8x1.25x80mm Lg. cap screw, assemble with (1) 5/16" lock washer between the bolt head and (1) 5/16" SAE flat washer. Orientate the spacer so that the flat side of the bump stop mount is facing the spring (Figure 13 – image shows a different size spacer) and torque to 25 ft.-lbs.

Figure 12: Bump Stop Spacer Alignment



Figure 13: Bump Stop Spacer Orientation

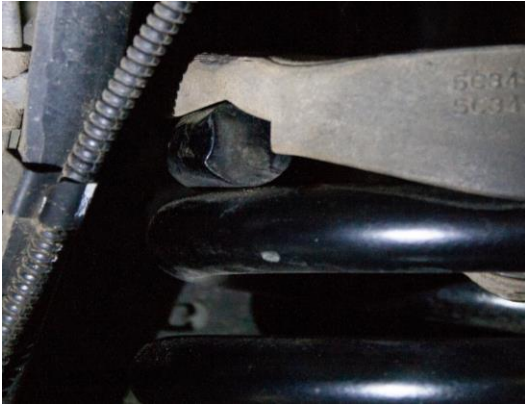


13. Repeat steps 10 – 13 for the opposing side bump stop and spacer.



14. Before starting this step, if using remote reservoir front shocks, refer to those instructions, since the reservoir mount will need to be installed before proceeding further with these instructions. Locate the Cognito coil spring (COIL-SPRING-3002), and align the OE rubber isolator, removed in step 9, with the top spring pig-tail (Figure 14A). Install the spring with isolator onto the lower spring perch and rotate until the bottom spring pig-tail makes contact with OE spring perch tab (Figure 14B). Repeat for the opposing side of vehicle front spring.

*Figure 14A: Coil Spring and Isolator Orientation*



*Figure 14B: Bottom Spring Pig-tail Orientation*



15. Once the springs are installed, locate the Cognito/FOX extended length shocks. Remove the top washer (Figure 15A) and bushing, then insert the top shock mounting stud through the frame, making sure the polyurethane pancake bushings are in place on both sides of frame. Install the top mounting washer with the concave side against bushing (Figure 15B). Repeat for the opposing side front shock, but do not tighten at this time.

*Figure 15A: Concave Shock Mounting Washer*



*Figure 15B: Top Shock Mount Installed*





16. Before starting this step, it is recommended to get another person to assist you. Align both front shock bottom eyelets into lower shock mount shackle. Slowly lower the vehicle until the lower shock eyelets are aligned with the shackle mounting hole (Figure 16A). Re-install the OE bolt and locking nut plate, then torque to OE torque specifications (Figure 16B).

*Figure 16A: Front Lower Shock Mount*



*Figure 16B: Front Lower Shock Mount Installed*



17. Make sure the vehicle is in park with the emergency brake activated, but leave the engine running. Rotate the steering link adjuster in the appropriate direction to center the steering wheel (Figure 17A). Once the steering wheel is in the proper location, tighten the (2) adjuster clamp bolts to the OE torque specification. Then slide the adjuster lock into position and tighten the (1) locking nut to the OE torque specification (Figure 17B).

*Figure 17A: Steering Link Adjustment*



*Figure 17B: Steering Link Adjuster Secure*



18. Although the steering wheel is now straight, the vehicle may still need a proper professional alignment.

## WARRANTY / RETURN POLICY / SAFETY

### **Cognito Limited Lifetime Warranty**

Cognito Motorsports, Inc. hereinafter “Cognito,” warrants to the original retail purchaser, that its suspension products are free from workmanship and material defects for as long as the purchaser owns the vehicle on which the product(s) were originally installed. This warranty will be void if any modifications are made to the components, including alterations to the surface finish, i.e.; painting, powder coating, plating, and/or welding, or if they are improperly installed. Cognito truck suspension products are not designed nor intended to be installed on “competition” vehicles used in race applications, stunt or for exhibition purposes that are outside of the intended operating conditions specified by the manufacturer. Racing and competition are defined as any contests between two or more vehicles; or vehicles competing individually on off road circuits in timed events (whether or not such contests are for an award or prize).

This warranty does not include coverage for police, taxi, government or commercial vehicles, and the warranty does not cover Cognito products sold outside of the USA. Cognito’s obligations under this warranty are specified and applied at its sole discretion, and warranty coverage is limited to repair or replacement of the defective product(s). Any and all costs of removal, installation or reinstallation; freight charges, incidental or consequential damages associated with the covered products are expressly excluded from this warranty.

The following items are exempt from Cognito limited warranty coverage: bushings, bump stops, tie-rod ends (Heim joints) and limiting straps. These parts are “consumables” and designed to wear as a normal part of their duty cycle, therefore they are not considered defective when worn. The aforementioned products are warranted separately against defects in workmanship, for 60 days from the date of purchase. As a condition of warranty validation, respective Cognito suspension components must be installed as a complete system (not combined with non-Cognito hardware or ancillary parts). Any substitutions or omission of required components will void the warranty. Some minor cosmetic wear and imperfections may occur to parts during shipping, which is not covered under this warranty. This limited warranty does not apply to any components that have been subjected to collision damage, negligence, alteration, abuse, or misuse, and coverage does not extend to products manufactured by third-party companies. Cognito reserves the right to supersede, discontinue, or change the design, finish, part number and/or application of its parts when deemed necessary, without notice.

### **Return Policy**

Product returns will not be accepted without prior written approval from an authorized Cognito representative. All products being returned must be shipped via trackable, prepaid freight. Returned products are subject to a 25% percent restocking fee. The eligible return period for products purchased directly from Cognito is 30 days from the verified date when the product(s) were originally received by the purchaser.

### **Product Safety Advisory**

The installation of Cognito steering and suspension components will modify your vehicle’s original factory equipment and geometry, which may cause it to handle differently than a stock (unaltered) vehicle. Installation of these components is not intended to strengthen nor reinforce the vehicle’s frame, nor are they designed to increase rollover protection. It is necessary to periodically inspect all suspension and drive train components for proper attachment, torque specifications, operation, and for any potential unusual wear or damage. Installation of these parts will modify the height of the vehicle and may raise the center of gravity. Modifying vehicle height combined with off road operation may increase your vehicle’s susceptibility to rollover conditions, which may cause serious injury or death. Many states regulate allowable vehicle height modifications, and it is your responsibility to know and comply with the legal requirements specified by the laws where you reside. Modifications to your vehicle’s ride height may also affect the ride quality, driver input response, trackability and handling, and wear to your vehicle’s suspension components and tires.