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INSTALL INSTRUCTIONS:

Cognito 2" Economy Leveling Kit for 2017-2021 Ford F250/F350 4WD Trucks

SKU: 220-91064

PARTS LIST FOR SKU: 220-91064		
QUANTITY	PART #	DESCRIPTION
2	5706	Leveling Kit Spacer
1	90599	1" Bump Stop Spacer Kit
1	120-90588	Front Brake Line Bracket Kit
2	HARDWARE- M14X2.0X100	14mm-2.0x100mm Hex Bolt
2	HARDWARE- 33628	14mm Lock Washer
1	THREADLOCK- 10743-0327	Thread Locker
2	220-90941	Bilstein Front Leveling Shock
2	220-90942	Bilstein Rear Leveling Shock



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.

TECH NOTES

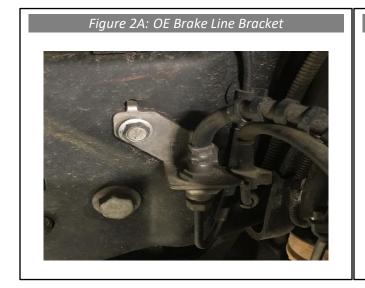
- Installation <u>must</u> be performed by a <u>qualified</u> mechanic. Installation by an un-qualified mechanic may result in an unsafe vehicle/ and or personal injury.
- It is necessary to raise the vehicle to perform installation of these products. A hoist or installation bay is recommended. Always ensure the truck is properly supported before attempting installation as serious injury could occur.

INSTALLATION

- 1. Raise vehicle with car hoist or jack and jack stands, never work on an unsupported vehicle.
- 2. Remove the front wheels.
- 3. Use a jack to support underneath the front axle housing, Figure 1



4. Unblock brake brackets from the frame. See Figures 2A/2B.



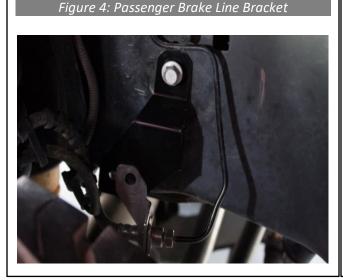


5. Remove the ABS line from both driver and passenger side OE brake line brackets by pulling the rubber boot out of the containment slot (Figure 3 A/B).





6. 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 4 & 5).

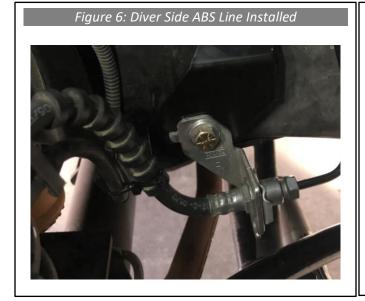




7. Once the brake line brackets are in place, carefully bend the OE hard lines to align the OE mounting tab with the Cognito brake line mounting holes. Do not twist the OE mounting tab when bending the lines, this will loosen the brake line fitting. Assemble using (1) 5/16"-18 x 3/4" Lg. cap screw with (1) 5/16" SAE flat washer between the bolt head and mounting bracket. Torque to 24 ft.-lbs. using (1) 5/16"-18

Install Sheet #7194 | Cognito 2" Economy Leveling Kit for 2017-2021 Ford F250/F350 4WD Trucks | SKU: 220-91064 locknut with (1) 5/16" SAE flat washer between the locknut and mounting bracket. Repeat for opposing side brake line mounting.

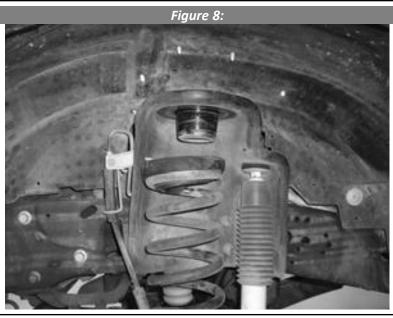
8. Once the brake lines are securely mounted, insert the driver side ABS line rubber boot into the Cognito bracket containment slot (Figure 6). Use the supplied 6" black cable ties to secure the driver and passenger ABS lines in an orientation to prevent chaffing or wear (Figure 7).





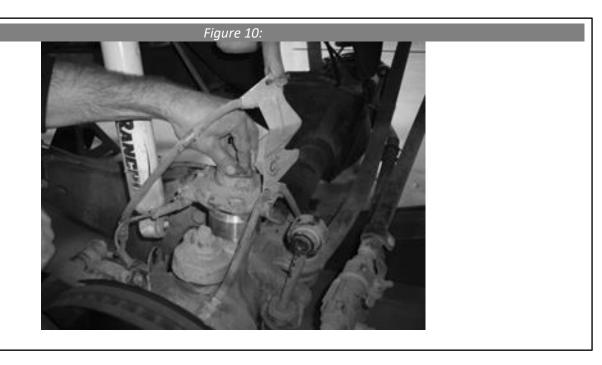
- **9.** Once the brake lines are in place, turn the steering wheel all the way to passenger side of vehicle and check to make sure the brake lines are not interfering with springs, brackets, or tires. Repeat with the wheels turned all the way to the driver side of the vehicle.
- 10. Remove the lower shock bolts from the housing and the lower sway bar end links.
- **11.** Now lower the axle housing so that the coil springs are removable from the truck as shown in Figure 8. Remove the springs from the truck along with the upper coil spring isolator, retain for re-installation.
- **12.** Unbolt the factory lower coil spring perch from the axle housing shown in figure 9, discard the hardware but retain the perch.

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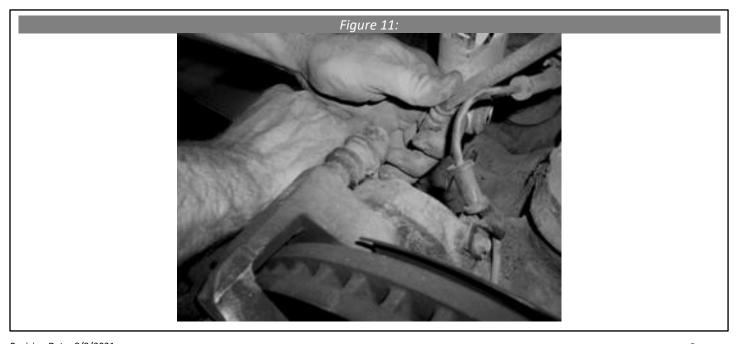




13. As shown in Figure 10, re-install the factory spring perch with the supplied coil spacer to space the perch above the housing from the stock location. Fasten the spacer and perch with the supplied bolt and lock washer and place a small amount of thread locker on the bolt, then torque to 100 ft. lbs. repeat on other side of vehicle.



- **14.** Remove the upper end of the front shock from the frame, and now install the upper end of the new included front shocks.
- **15.** Now install the coil spring and isolator back into place, raise the floor jack until the spring is in the proper position, and compressed slightly so that the shock, brake line bracket, and sway bar end link can be re fastened. The metal brake line must be bent slightly toward the front of the truck as shown in Figure 11.



16. 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 12A). Once the bump stop is removed, loosen the bolt, and remove OE bump stop mount from the frame rail (Figure 12B).

Figure 12A: OE Bump Stop Spacer



- 17. Locate the items listed below (Figure 13):
 - (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



18. Insert the locking tab on the OE bump stop mount into the alignment hole on the bump stop spacer (Figure 14- 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 15 – image shows a different size spacer) and torque to 25 ft.-lbs.

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Figure 14: Bump Stop Spacer Alignment



- 19. Re-install wheel and torque lug nuts to factory specs.
- **20.** Remove stock rear shocks, install new included rear shocks.
- **21.** Re-adjust the headlights per owner's manual, and have the front end professionally aligned to factory specifications.
- **22.** The vehicle will handle differently due to increase ride height, please take time to familiarize yourself with the handling characteristics of your modified vehicle.

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 warrantied 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.