START HERE

Cognito 2” Performance Leveling Kit with Fox 2.0 Factory Performance Monotube Shocks for 2017+, Ford 4WD F-450 Trucks

INSTALL SUMMARY SHEET:

Cognito 2” Performance Leveling Kit with Fox 2.0 Factory Performance Monotube Shocks for 2017+, Ford 4WD F-450 Trucks
SKU: 220-P1217



PARTS LIST FOR SKU: 220-P1217

QTY.	PART #	DESCRIPTION
1	120-70089	2" Coil Springs
1	120-90588	Front Brake Line Bracket Kit
1	120-90606	Heavy Duty Adjustable Track
1	90599	Bump Stop Spacer Kit
2	220-90870	Fox 2.0 (PSMT) Single Front Shock
2	220-90871	Fox 2.0 (PSMT) Single Rear Shock

PARTS LIST FOR SKU: 90599

QTY.	PART #	DESCRIPTION
2	6289	FSD 1" BUMPSTOP SPACER
2	HARDWARE-M8X1.25X50	M 8 - 1.25 x 50mm Hexagon Head Cap Screw
2	HARDWARE-M8-F/W	M8 125 Flat Washer
2	HARDWARE-M8-S/W	M8 127 Split Washer

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.

ON-BOARD SCALES AND SMART HITCH NOTICE

The On-Board Scales and Smart Hitch option available on certain trucks is not compatible with any kits which raise the vehicle or change the spring rates of the suspension. On-Board Scales and Smart Hitch uses suspension mounted sensors to read the ride height and estimate the load carried by the vehicle. Never use the On-Board Scales and Smart Hitch feature to estimate the load of a modified vehicle.

INTRODUCTION

Thank you for purchasing the Cognito 2” Elite Leveling Kit. This kit is designed to level your vehicle and provide added droop travel. This kit also includes Fox Performance Series 2.0 Shocks front and rear for improved ride quality and satisfaction.

TECHNICAL INFORMATION

- Proper vehicle lifting equipment is required. Always make sure the vehicle is properly supported and **never work under an unsupported vehicle.**
- Check the parts and hardware packages against the parts list in each instruction set to assure that your kit is complete.
- Be sure to read though all install instructions included with this kit prior to attempting instillation and heed all warnings, failure to comply with all warnings and requirements can lead to an accident and serious injury.

This Kit Install Summary will guide you through the **necessary order of steps** to install each of the individual components that comprise this kit.

The proper installation of this combination of products is dictated by the necessary sequence in which each component must be installed to avoid access, interference or clearance issues that will result in unnecessary disassembly and reassembly and potential safety hazards.

This document will guide you through the sequence of operations, which includes preparatory work and the prescribed order for installing components – by referring you to the individual instructions packaged with each Cognito component for detail on how each kit component is properly installed.
YOU MUST FOLLOW THESE STEPS IN SEQUENTIAL ORDER FOR PROPER INSTALLATION OF THIS KIT.

REVIEW TECHNICAL NOTES AND REQUIREMENTS OF THE INDIVDUAL INSTALLATION INSTRUCTION SHEETS INCLUDED WITH THIS KIT BEFORE BEGINNING.

INSTALLATION

1. Begin by locating the following instruction sheets **7158**, and **8134** included with this kit. You will need them **both** to do this install. If instructions are missing or damaged, contact Cognito Motorsports for where to find replacements.

2. Secure the rear tires to prevent the vehicle from rolling or moving, but do not lift at this time.

3. Start with instruction set **7158**. Check to make sure you have all parts on the parts list. Work through this installation sheet to completion.

4. Remove the sway-bar end link nut from both driver and passenger sway-bar end links.

5. Locate instruction sheet **8134** and check to make sure you have all parts on the part list. Work through this installation sheet to completion.

6. Remove the front shocks from both driver and passenger side of the vehicle by unfastening the upper nuts and lower bolts, see Figure 1 and Figure 2.

Figure 1: *Front Shock Upper Nut Removal*

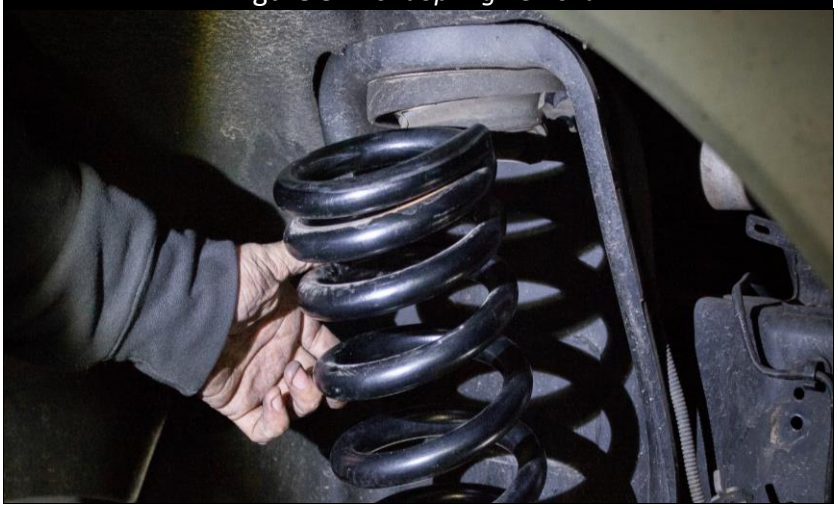


Figure 2: *Front Shock Lower Bolt Removal*



7. Support the vehicle on a lift or on jack-stands and remove the front wheels and tires. Slowly raise the vehicle until the front springs can be removed. **DO NOT** raise the vehicle any higher than necessary to remove the front springs, see Figure 3.
    - **NOTE:**
      Ensure that all brake lines, vacuum lines, hoses, and wiring are free of stress or interference prior to lifting the vehicle. Failure to complete this step can result in major damages.

Figure 3: *Front Spring Removal*



8. Locate the OEM bump stop underneath both the driver and passenger side frame rails. Remove the bump stop spacer using a screwdriver to pry the bump stop out of the mount, see Figure 4.
9. With the bump stop removed, loosen the bolt, and remove the OEM bump stop mount from the frame rails, see Figure 5.

Figure 4: *Bump Stop Spacer Removal*



Figure 5: *Bump Stop Mount Removal*



10. Locate **<u>90599</u>** Cognito 1” Bump Stop Spacer Kit included in this kit, the OEM bump stop spacer, and the OEM bump stop mount.

11. Insert the locking tab on the OEM bump stop mount into the alignment hole on the Cognito 1” bump stop spacer, see Figure 6.

12. Using one (1) M8-1.25 x 80mm bolt, one (1) M8 flat washer, and one (1) M8 split washer, assemble the OEM bump stop mount and Cognito 1” bump stop spacer together. Orientate the spacer so that the flat side of the OEM bump stop mount is facing the spring, see Figure 7.
    Torque bolt to **25 ft-lbs**.
    - **NOTE:**
      The split washer should go between the bolt head and the flat washer.

Figure 6: *Bump Stop Spacer and OEM Mount*



Figure 7: *Assembled Bump Stop Installation*



13. Locate **120-70089** the Cognito Coil Springs and align the OEM rubber isolator with the top spring pigtail.

14. Install the coil spring with the OEM rubber isolator onto the lower spring perch and rotate until the bottom spring pigtail contacts the OEM spring perch tab, see Figures 8 and 9 .

15. Repeat on the opposite side of the vehicle.

Figure 8: *Top Spring Pigtail Installation*



Figure 9: *Bottom Spring Pigtail Installation*



16. Once the springs are installed, locate the FOX extended length shocks. Remove the top washer (Figure 10) 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 11). Repeat for the opposing side front shock, but do not tighten at this time.

Figure 10: *Concave Shock Mounting Washer*



Figure 11: *Shock Top Mount Installed*



17. Before starting this step, it is recommended to get another person to assist with this step. 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 12). Re-install the OE bolt and locking nut plate. Torque to **90 ft-lbs.** (Figure 13).

18. Torque the shock top mount nuts to **46 ft-lbs.**

Figure 12: *Front Lower Shock Mount*



Figure 13: *Front Lower Shock Mount Installed*



19. Locate and install the supplied rear shocks, reuse OEM mounting hardware and torque to OEM specifications.

20. Ensure that all bolts are properly torqued. Ensure there are no rubbing or loose cables anywhere after the Cognito Leveling Kit installation. Use cable ties to restrain any cables from interfering with any other part. Check that all lines are free of stress or interference while the vehicle is in full droop, full bump, and throughout the complete steering cycle.

21. Install front wheels and tires and torque lug nuts to the factory manufacturer's specifications.

22. Adjust headlights per owner's manual.

23. Have the vehicle professionally aligned.
    - **NOTE:**
      If the steering wheel is not straight and needs to be adjusted, a **qualified mechanic** can adjust the drag link to get the steering wheel straight. To do this, turn your vehicle on and engage the emergency brake. With the vehicle running, adjust the drag link length until the front tires are pointing straight while the steering wheel is also straight.

      This kit will not change the vehicle's toe settings.

This completes the installation steps, enjoy your new Cognito 2" Performance Leveling Kit!

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.