Cognito HD Adjustable Track Bar for 2017-2024 Ford Super Duty F250/F350 4WD Trucks

INSTALL INSTRUCTIONS:

Cognito HD Adjustable Track Bar for 2017-2024 Ford Super Duty F250/F350 4WD Trucks
SKU: 120-90406

PARTS LIST FOR SKU: 120-90406

QTY	PART #	DESCRIPTION
1	8829	Track Bar Uniball End
1	90697	FSD Track Bar Pinch Clamp Coupler
1	RODEND-JMX-16T	JMX-16T with F-1 Fit
1	UNIBALL-COM16T	Uniball COM16T
1	HARDWARE-IRR-1-3/4”	2.125” Internal Retaining Ring
1	**HP9332**	FSD Adjustable Track Bar Pin Kit

PARTS LIST FOR SKU: HP9332

QTY	PART #	DESCRIPTION
1	6965	Ford Super Duty Track Bar Uniball Pin, Male End
1	6693	1.0 COM Spherical Washer
1	6952	12 Point Castle Nut, ½”-20
2	6221	1” FSD Heim Spacer
2	6222	1” FSD Heim Bushing
1	HARDWARE-NYLOCK-3/4-16	Nylock Steel Silver 3/4-16 Grade 8
1	HARDWARE-33092	3/4" Zinc Plated SAE Flat Washer
1	HARDWARE-COTTERPIN-1	Cotter Pin For Ball Joints

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.
Modification of vehicle suspension can interfere with ride-height sensors, active suspension, lane departure features, semi-autonomous, and autonomous driving features. It is the responsibility of the mechanic to determine feature compatibility prior to installation. Recalibration of sensors may be required in the event of any modification.

INTRODUCTION

The Cognito adjustable track bar kit provides a heavy duty and adjustable solution over using the OEM track bar. A large 1” rod end is used at the chassis connection, and the powder coated bar is made from large diameter and thick wall DOM tubing. Length adjustment is made easy on the vehicle to easily center the axle under the chassis after adding a leveling or lift kit.

TECH NOTES

- Check the parts and hardware packages against the parts list to assure that your kit is complete before starting.
- Each kit, and options to kits, 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.

REQUIREMENTS

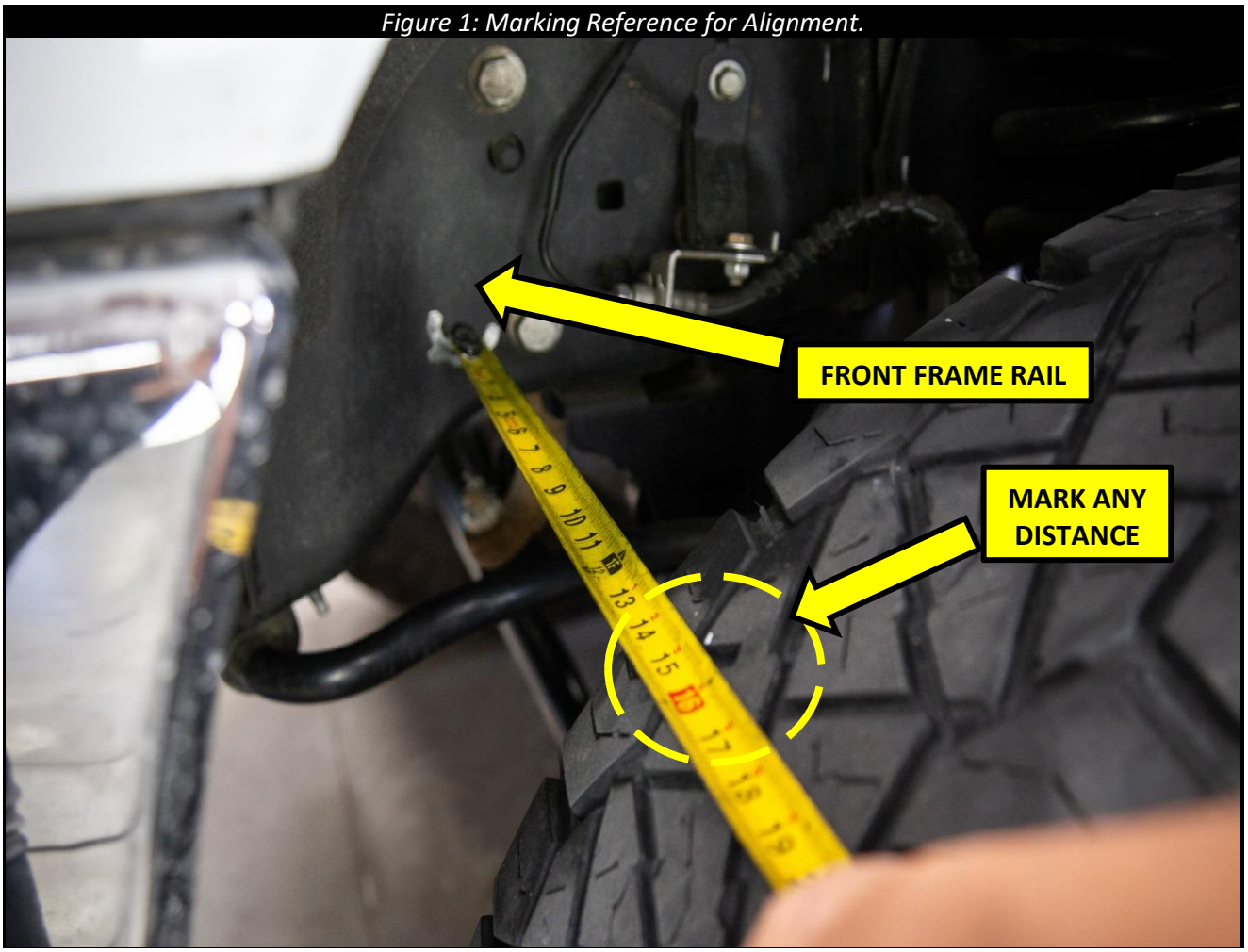
- Installation requires a qualified mechanic
- Read instructions carefully and study the pictures before attempting installation.
- Retain the removed hardware for reuse.
- Ratchets, Sockets /Wrench (30mm, 27mm, 13mm, 1/2" 12-point), 12mm Allen key, Torque Wrench, Impact Gun, Sledge Hammer, Torch

INSTALLATION

1. All hardware will be reused, so retain all removed hardware.

2. Before raising vehicle, set steering wheel straight, then measure and record the distance from the front frame rail to a reliable point on your tire. This will be needed to center the axle after installation.

Figure 1: Marking Reference for Alignment.



3. Remove the track bar to bracket nut with (1) 30mm socket and (1) 30mm wrench.

Figure 2: Track Bar.

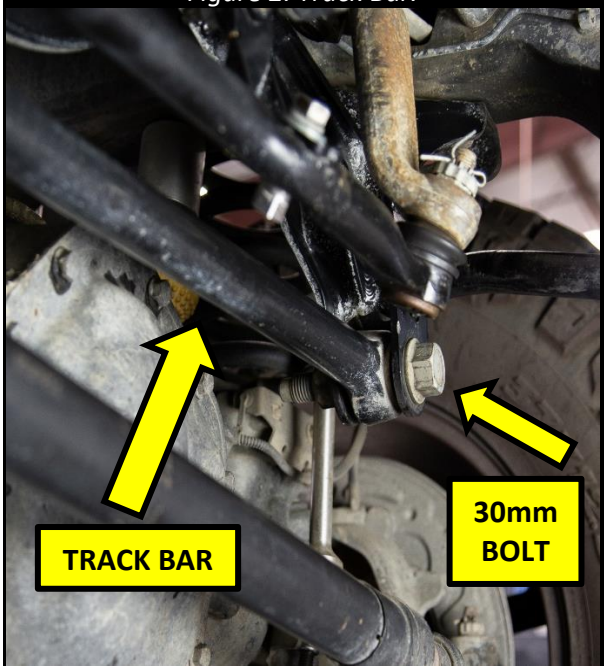
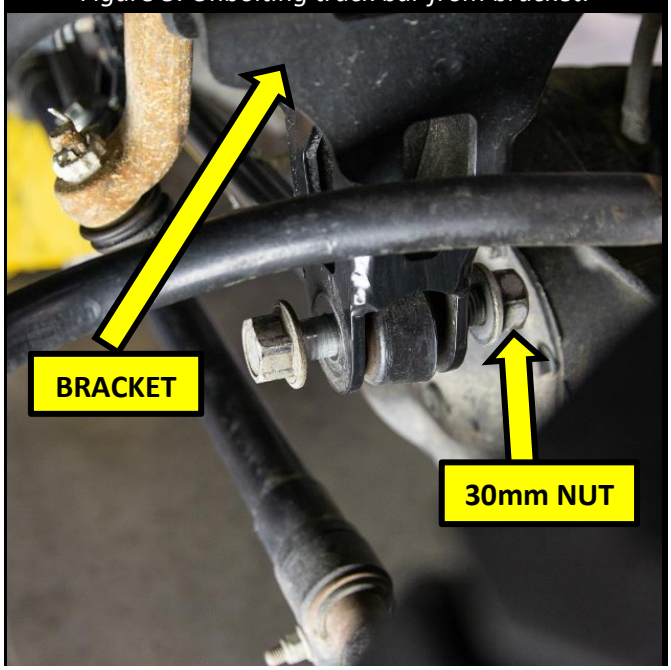


Figure 3: Unbolting track bar from bracket.



4. Unbolt the track bar from the axle ball joint nut using a 27mm wrench. Use a 13mm wrench to hold the ball joint if it starts to spin. Once the ball joint side is unbolted, a sledgehammer can be used to carefully knock the track bar upwards until it can be removed. If the bolt will not budge, a torch may be used to heat the ball joint pin.

Figure 4: Unbolting ball joint.

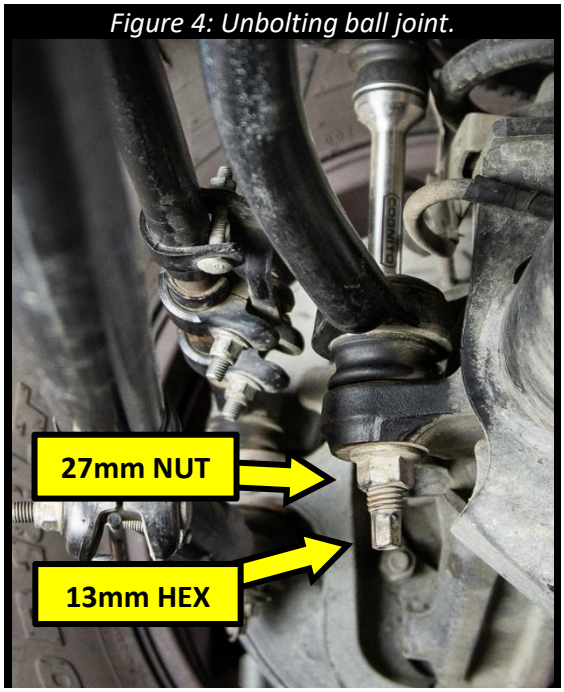
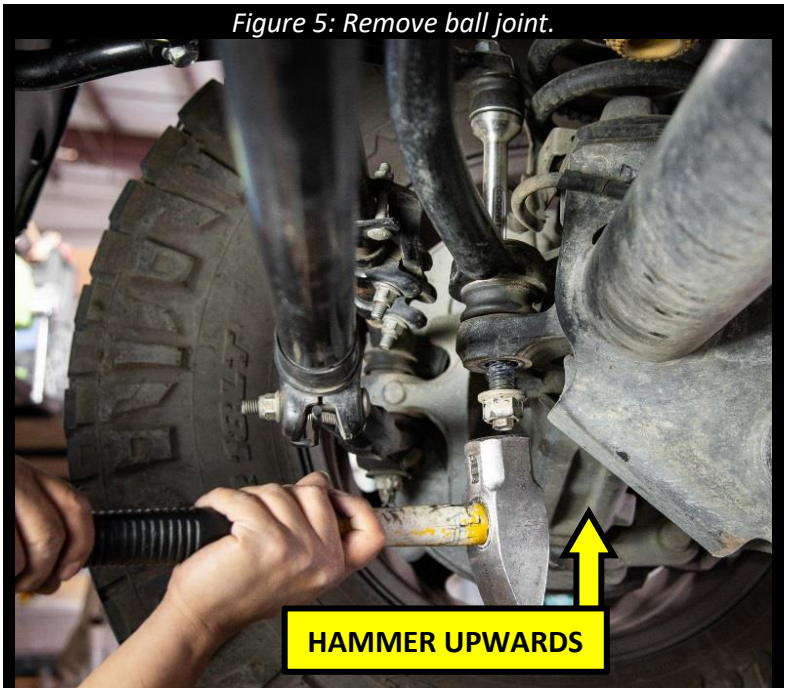


Figure 5: Remove ball joint.



5. Loosen (4) adjuster clamp screws with a ¼" Allen key to remove tension from clamp. Thread both track bar ends into adjuster until track bar is as short as possible. **Caution: Do not force parts to thread together farther than they will easily go by hand. Doing so could damage the threads**.

Figure 6: Shorten track bar length before installation.

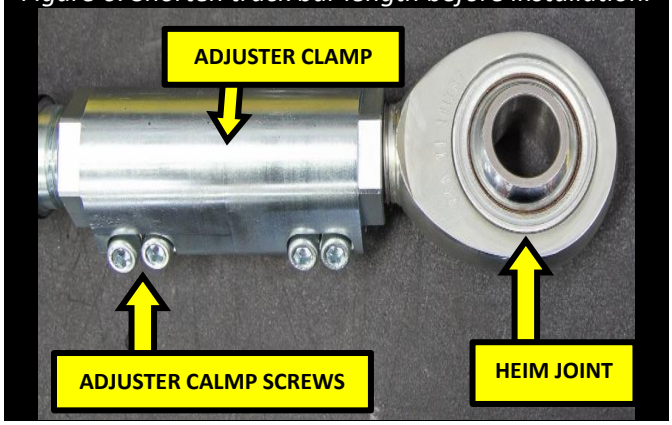
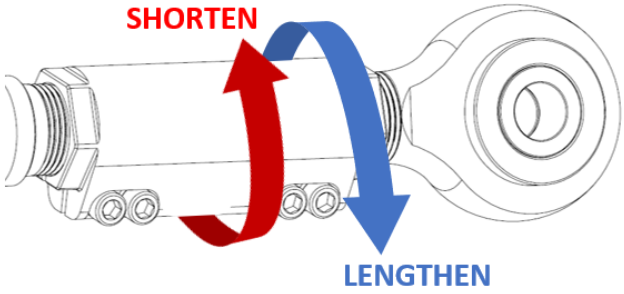


Figure 7: Adjusting track bar length.



6. Install Heim joint bushings and spacers into Heim joint.

Figure 8: Installing Heim Spacer.

Figure 9: Installing Heim Bushing.

Figure 10: Heim Joint Assembly

7. Install the taper pin hardware into the axle end of the track bar in the order shown in Figure 11. The tapered portion of the pin should be on the bottom of the track bar as shown in Figure 12. Leave the taper pin nut finger tight.

Figure 11: Taper Pin Hardware.

Figure 12: Taper Pin Installed.

8. Install the track bar Heim joint assembly side into the frame bracket. Tighten bolt using a 30mm wrench. Torque to **406 ft-lbs**.

Figure 13: Torque Heim Assembly.

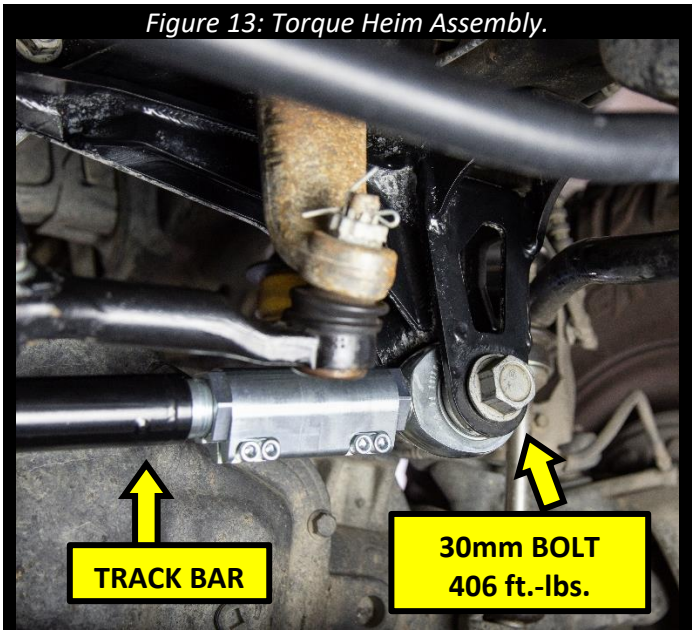
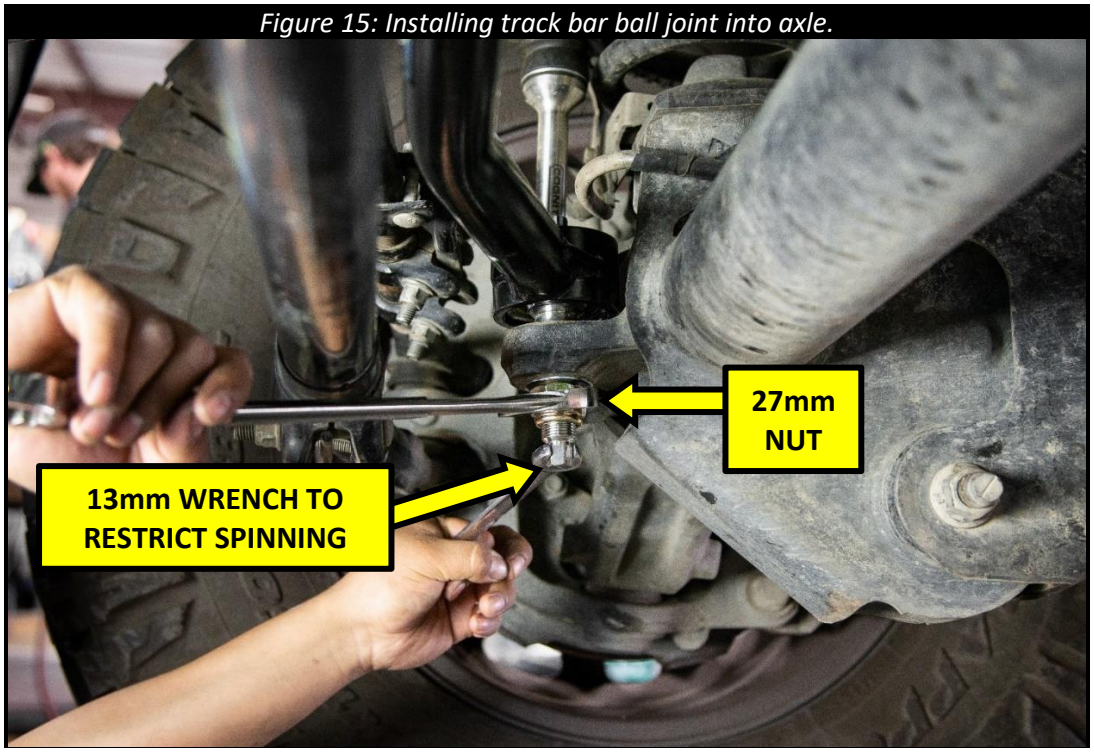


Figure 14: Installed Track Bar.

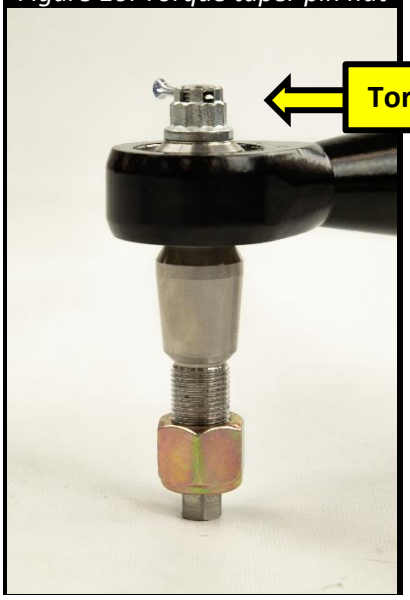
9. Adjust the track bar length until you can install the track bar ball joint side into the hole and tighten the nut as shown in Figure 15. Torque to **250 ft-lbs**.

Figure 15: Installing track bar ball joint into axle.



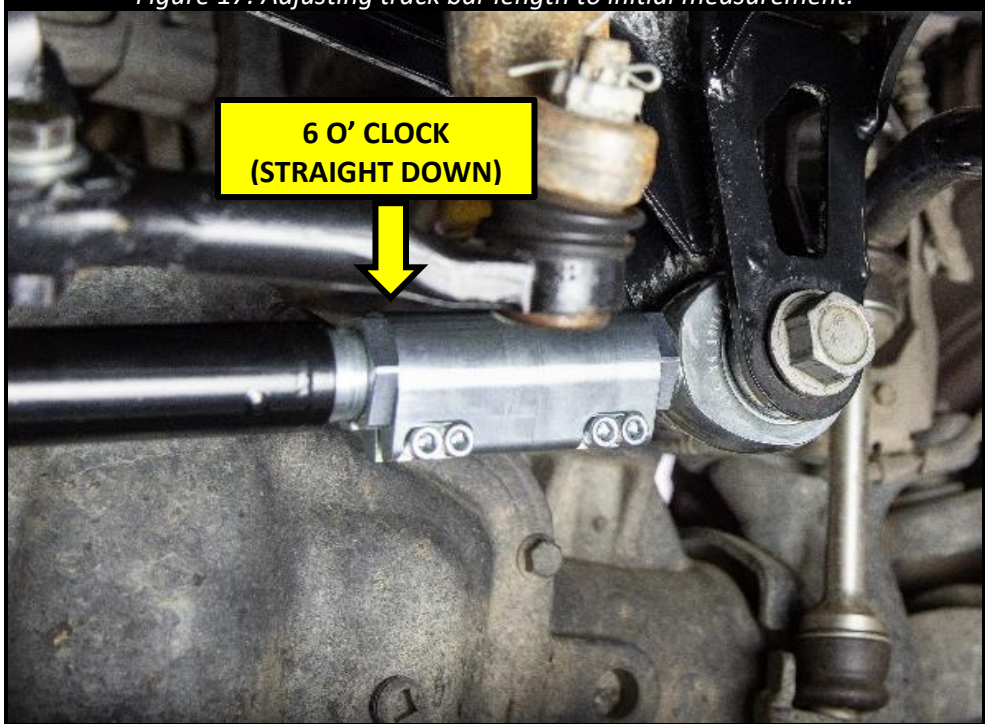
10. Torque the 1/2” 12-point taper pin nut to **90 ft-lbs**. Insert cotter pin through castellations in castle nut. Tighten nut further if necessary to align cotter pin hole. ***Never loosen castle nut to align cotter pin hole!***

Figure 16: Torque taper pin nut



11. With the vehicle at ride height, adjust the length of the track bar until the measurement made in Step 2 is returned to its original value. The adjuster clamp must be rotated so that split is between 4 and 8 O’clock (Figure 17). ***Caution: Failure to adhere to this step may cause adjuster to contact frame!***

Figure 17: Adjusting track bar length to initial measurement.

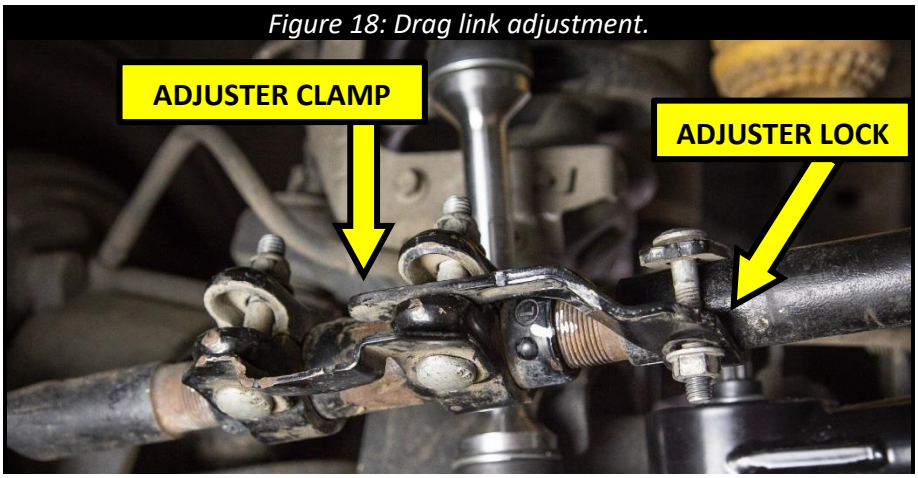


12. Before the clamp bolts are tightened the Heim joint can rotate about the track bar axis. The track bar ball joint should be straight as shipped from the factory. The Heim joint should be centered so that it can rotate slightly forward and backward once clamp bolts are tightened

13. If steering wheel is straight, tighten 4 clamp bolts to 25 ft.-lbs., check that track bar can rotate back and forth, ensuring Heim joint is not bound up.

14. Make sure the vehicle is in park with the emergency brake activated, then start the engine. Loosen drag link adjuster sleeve. Rotate the drag link adjuster in the appropriate direction to center the steering wheel (Figure 18).

Figure 18: Drag link adjustment.



15. Make sure the adjuster clamp is facing the front of the vehicle. Once the steering wheel is in the proper location, tighten the (2) adjuster clamp bolts to **41 ft-lbs.** Then slide the adjuster lock into position and tighten the (1) locking nut to **41 ft-lbs**. (Figure 19). Although the steering wheel is now straight, the vehicle may still need a professional alignment.

Figure 19: Drag link adjustment.

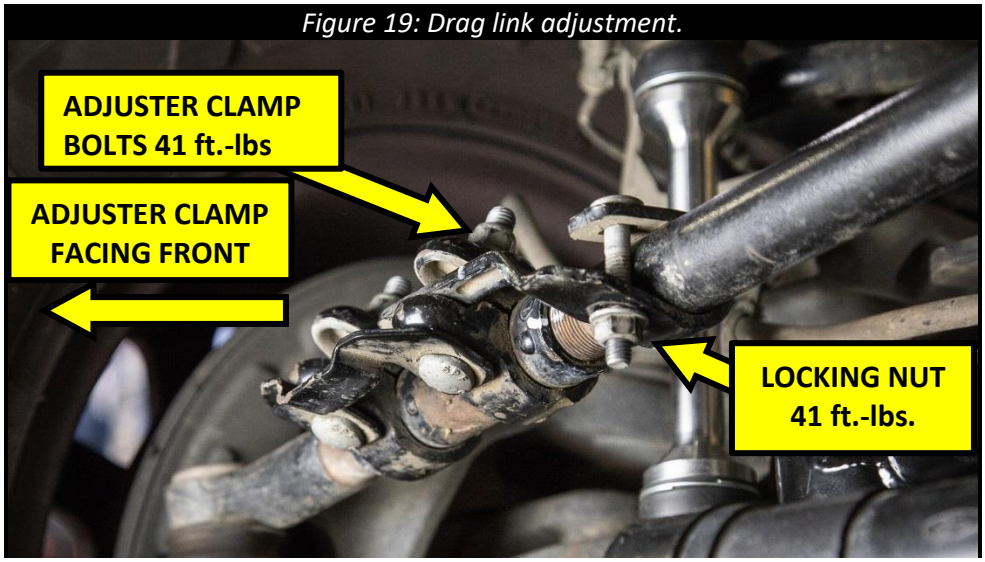
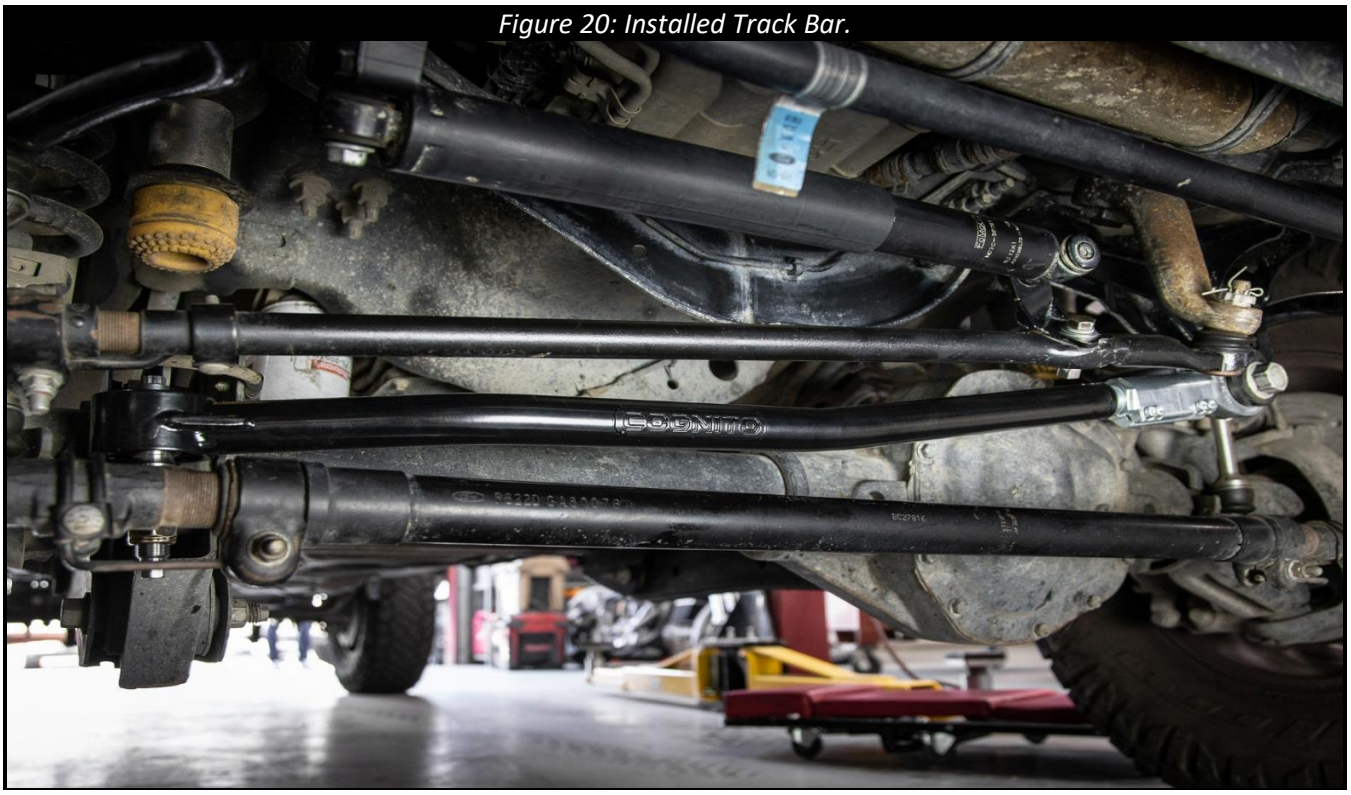


Figure 20: Installed Track Bar.



This completes the installation steps, enjoy your new Cognito HD Adjustable Track Bar!

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.

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