

## Cognito Heavy Duty Long Travel Tie Rod Kit For 16-21 Yamaha YXZ1000R

**INSTALL INSTRUCTIONS:**

**Cognito Heavy Duty Long Travel Tie Rod Kit For 16-21  
 Yamaha YXZ1000R  
 SKU: 365-90080**

**PARTS LIST FOR SKU: 365-90080**

QTY	PART #	DESCRIPTION
2	5958	Tie Rod Tube
2	5976	Steering Rack Boot
2	RODEND-JMX10T	Jmx10T With F-1 Fit
2	RODEND-RSML8T	Rod End F1 Fit
2	HARDWARE-36264	Jam Nut 5/8-18
2	JAM-NUT-SJNL10	Steel Jam Nut 5/8"
2	HARDWARE-63437	Black Cable Tie
2	HP9239	TIE ROD PIN KIT
2	HP9240	STEERING CLEVIS KIT


**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.

**PARTS LIST FOR SKU: HP9239**

QTY	PART #	DESCRIPTION
1	5702	Spherical Washer
1	5955	Tie Rod Stud
1	HARDWARE-0161339	Flange Screw
1	HARDWARE-3/8-LW-SHCS	Socket Head Screws
1	HARDWARE-M12X1.25-FN	Nylon Insert Flange Nut

**PARTS LIST FOR SKU: HP9240**

QTY	PART #	DESCRIPTION
1	5949	Steering Rack
1	HARDWARE-M12X1.25X25SHCS	Socket Head Cap Screw
1	HARDWARE-SHOULDERBOLT-1	Alloy Steel Shoulder Screw
2	HARDWARE-1/2-THICKWASHER	Thick Washer
1	HARDWARE-3/8-16-FN	Nylon Insert Flange Nut
1	THREADLOCK-10743-03270	Thread Locker



## INTRODUCTION

The OEM Yamaha tie rods are weak and known to bend easily or snap at the stock clevis. Cognito Motorsports' new HD Yamaha YXZ Tie Rod kit replaces the stock tie rod assembly integrating a newly designed stainless-steel clevis and steel tie rod. The 4.5" longer kit is intended for the Cognito Motorsports 4.5" long travel kit.

## TECH NOTES

- Read instructions carefully and study the pictures (if included) before attempting installation.
- If this product was purchased as part of a bundle/package. Familiarize yourself with each set of instructions included with the bundle/package before beginning.
- Check the parts and hardware packages against the parts list to assure that your kit is complete before starting.

## REQUIREMENTS

- Installation requires a qualified mechanic.
- Follow the OE specifications when replacing or re-installing OE fasteners, retainers, and hardware specified in the OEM manual.
- Always wear safety glasses when using power tools.
- When 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.

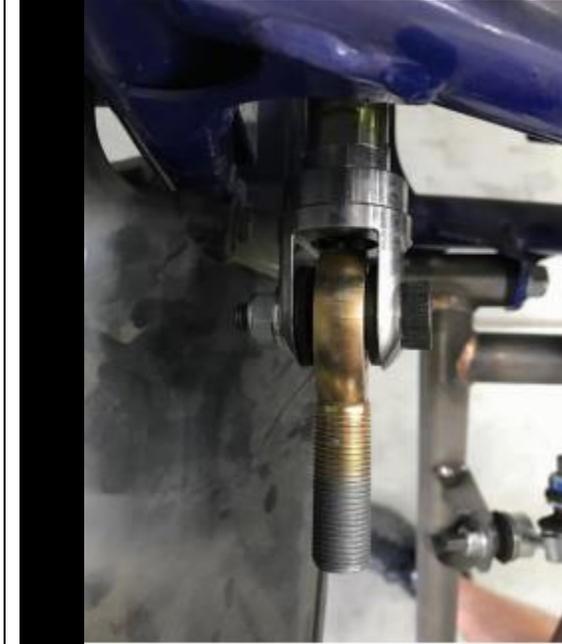
## INSTALLATION

1. Raise the front of the YXZ by the frame until the tires are off the ground and secure.
2. Remove wheels.
3. Remove the tie rod ends from the spindles.
4. Take off the stock steering rack boot clamps and pull the boots out so you can access the OEM clevis.
5. Unscrew the clevis CCW from the steering rack. The stock clevis uses a lock washer with tabs on it. These tabs will shear off.
6. Remove complete OEM tie rod and discard.
7. Put Loc-Tite on the **M12x1.25x25** socket head cap screw and install the new clevis onto the steering box rack. The tabs on the clevis will align with the slots in the steering box rack. Torque bolt to **40 ft.lbs** while holding an adjustable wrench on the rack to prevent damage to steering box. See **Figure 1**.



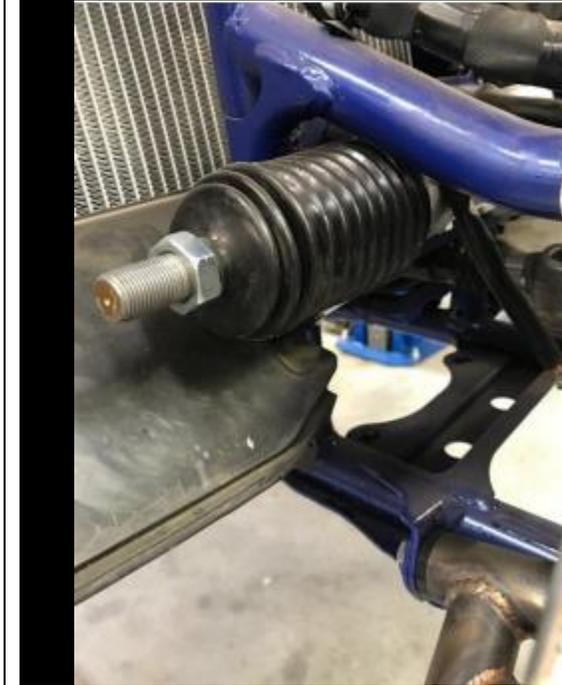
8. Install the left-hand threaded heim joint (gold colored) onto the clevis with the shoulder bolt, **2** black washers on both sides, and lock washer. Put anti-seize on the heim threads. See **Figure 2**.

*Figure 2: Install heim onto clevis.*



9. Install the Cognito supplied steering rack boot over the heim and onto the steering box. The clevis will be inside the boot and the heim joint will snugly fit through the small end of the boot. Fasten the boots with zip ties. See **Figure 3**.

*Figure 3: Steering boot installed over heim*



10. Screw left-hand jam nut onto heim.
11. On the spindle side, put together the right-hand (silver colored) heim joint. Place the Cognito stud into the heim. On the other side, put the spherical washer onto the stud and secure with lock washer and **12-point bolt**.
12. Install tie rod end assembly into the spindle with a washer and locknut on the other side. Torque to **35 ft.lbs**. Use a drop of red thread locker on the threads at the end of the bolt (farthest from the bolt head) to ensure the thread locker covers the threads which engage with the spindle pin. Put anti-seize on threads and thread jam nut on tie rod end heim. See **Figure 4** for assembly.



13. Locate the left-hand threaded end of the tie rod shaft. Screw tie rod shaft onto each end of the heim joints evenly and until the wheels are relatively straight.
14. Install tires and place YXZ back on the ground.
15. At proper ride height, check front wheel toe measurement and adjust as necessary. It should be at **0-1/8"** toe in for optimal handling. Tighten jam nuts once desired toe is achieved.
16. Double check that everything is tight before riding.



## 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.