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**INSTALL INSTRUCTIONS:**  
Tie Rod Kit for 2018-2019  
Polaris RZR XP & XP 4 Turbo S  
SKU: 360-90667

PARTS LIST FOR SKU: 360-90667		
QTY.	PART #	DESCRIPTION
2	HP-9234	2017-2019 XPTurbo Tie Rod Clevis Hardware Kit
2	HP-9237	2018-2019 RZR XPTurbo-S Tie Rod Pin Hardware Kit
2	8375	Black Tie Rod Adjuster Tube
2		Rodend-JMX10T, RH-thread Rod End
2		Rodend-RSML8T, LH-thread Rod End
2		5/8-18 UNF-RH Thread Jam Nut
2		5/8-18 UNF-LH Thread Jam Nut

HP-9237 – 2018-2019 XP Turbo-S Tie Rod Pin Hardware Kit		
QTY.	PART #	DESCRIPTION
1	5702	Spherical Washer
1	6294	2019 RZR, Tie Rod, Spindle Pin
1	-	12-Point Flange Bolt, 3/8-24 x .75 Lg.
1	-	3/8" Lock Washer
1	-	1/2-20 Nylon Insert Flange Nut

HP-9234 – 2017-2019 XP Turbo Tie Rod Clevis Hardware Kit		
QTY.	PART #	DESCRIPTION
1	6050	Steering Rack Clevis
1	-	M16-1.5 x 25mm Lg. Socket Head Cap Screw
1	-	1/2" Flanged Shoulder Bolt
2	-	1/2" I.D. Spacer Washer
1	-	3/8-16 Nylon Insert Flange Nut
1	-	Thread Locker



**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

- There are two options to consider when you are going to install the inner boot.
  - o **Option 1:** This option is for the competitive racing user who will be removing, installing, and tinkering with the tie rods frequently. Cut the tie rod boot as shown in Figure 3; to provide quick and easy access to the inner tie rod for length adjustment.
  - o **Option 2:** This option is for the recreational user that does not need frequent access to the inner tie rod end by installing the tie rod boot the same as OEM tie rod installation. This will protect the inner tie rod from dirt/mud/rocks/etc. but will be slightly more difficult to remove, install, and adjust.

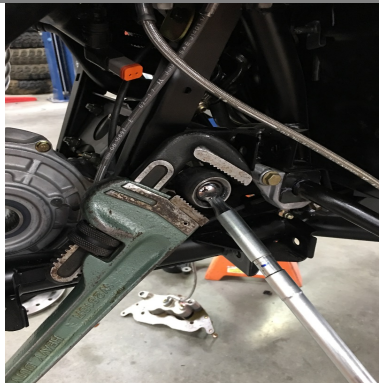
## REQUIREMENTS

- Installation requires a qualified mechanic.
- Read instructions carefully and study the pictures before attempting installation.
- Check the parts and hardware packages against the parts list to assure that your kit is complete.
- Always wear safety glasses when using power tools.

## INSTALLATION

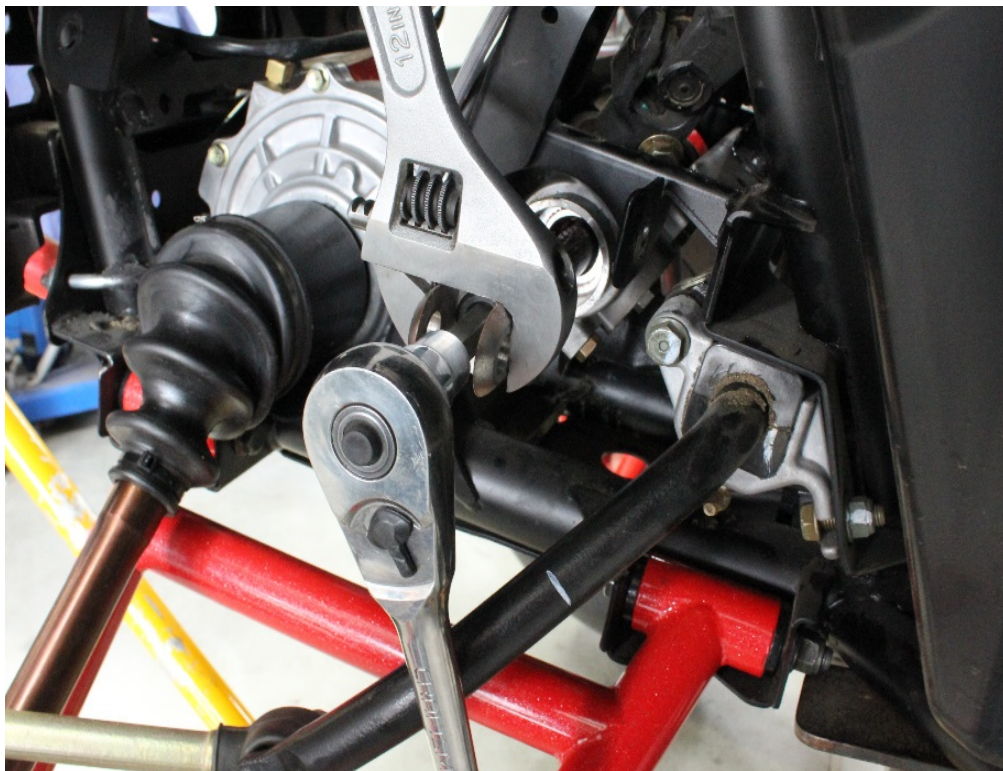
1. Raise the front of the vehicle and support by the frame so that the suspension droops out and tires are off the ground by at least one inch. Remove front tires.
2. Remove the outer tie rod from the spindle by loosening the nut holding the outer tie rod to the spindle. Don't remove the nut, just a loosen by a couple threads then use a hammer to tap on the nut upward to knock the tapered stud of the outer tie rod loose from the tapered hole of the spindle. Then remove the tie rod from the spindle.
3. Remove the inner tie rod dust boot by cutting the zip tie holding the dust boot to the steering box, and pry off the outer dust boot clip using a flat head screwdriver. Pull the dust boot back and using a pipe wrench or crescent wrench, unscrew the tie rod from the steering box as seen in (Figure 1).

*Figure 1: pull dust boot back, remove inner tie rod from rack bar*



4. Clean the internal threads with contact cleaner to remove any grease to prepare the threads for Loctite. Also clean the supplied M16-1.5x25mm long socket head cap screw threads with the cleaner. Add a drop of the provided thread locker to the allen head bolt threads, insert the bolt into the Cognito clevis and screw the Cognito inner tie rod clevis (Part # 6050) into the steering box. Orientation of the clevis is very critical, the bolt holes will need to be in line with the upper control arm bolts. The driver side clevis, should be orientated with the through hole at 4 O'clock and 10 O'clock (Figure 2). The passenger side clevis should be orientated with the through holes at 2 O'clock and 8 O'clock. Once orientation is correct, tighten using a crescent wrench and 14mm Allen, torquing the Allen to 90 ft.-lbs.

*Figure 2: installing clevis to the steering rack bar (Driver Side)*



5. **(If using option 1 please proceed with this step.) (If using option 2 instructions please skip to step A on page 6.)** Using a razor, cut off the small end of the inner tie rod dust boot at the first raised edge (Figure 3). Slide dust boot over the tie rod clevis and steering box. Use zip ties to secure the dust boot to the steering box groove in the clevis (Figure 4), and the other end to the steering box just like OEM boot was.

*Figure 3: trim the small end of the dust boots off, so it can be attached to the clevis groove.*

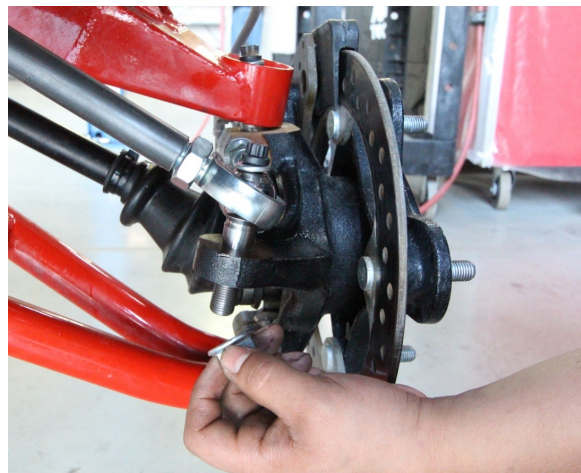


*Figure 4: inner rod end attached to clevis, and dust boot tied to clevis groove.*



6. Thread the appropriate jam nuts all the way onto the appropriate rod ends, then thread the rod ends all the way into the adjuster tubes, remembering that one end is right hand thread and the other is left hand thread.
7. Install the rod end with 1/2" I.D. hole to the clevis with (2) 1/2" I.D. spacers, one on each side of the rod end, using (1) 1/2" Flanged Shoulder Bolt and (1) 3/8-16 UNC Nylock Flange Nut. Tighten hardware using a 1/4" allen wrench and 9/16 wrench, torquing to 30 ft.-lbs. (Figure 4).
8. Install (1) Tie Rod Spindle Pin (Part #6294) to the spindle steering arm using (1) 1/2-20 UNF Nylock Flange Nut with some anti-seize lubricant on the threads, and torquing to 60 ft.-lbs.

*Figure 6: Shows the stud in the spindle, rod end on the stud, then spherical washer on the rod end held in place by lock washer and 12 point bolt*



9. Install the outer rod end onto the spindle pin with (1) Spherical Washer (Part # 5702), (1) 3/8" lock washer, (1) 12-point flange bolt 3/8"-24 UNF x .75 with anti-seize lubricant on the threads (Figure 6). Tighten the 12-point bolt to 35 ft.-lbs. Use a drop of red threadlocker on the threads at the end of the bolt (farthest from the bolt head) to ensure the threadlocker covers the threads which engage with the spindle pin.
10. Repeat steps (2-9) for passenger side tie rod.
11. Replace tires and remove lifting devices to allow the vehicle to rest at **normal operating position**. Adjust the toe by turning the adjuster tube to lengthen/shorten the tie rod length. Set the front toe 1/8" IN.
12. Once the toe is set, tighten the jam nuts against the adjuster tube to lock it in place, making sure the inner and outer rod ends are clocked appropriately for articulation. To prevent the rod end from turning, use a small crescent wrench to hold the rod end while tightening the jam nut against the adjuster tube. Get some help if needed. This is important so that there is no binding.

## Inner Tie Rod Boot: Option 2

### Installation Steps

- A. Now that that the stock tie rod has been removed, grab the Cognito tie rod and remove the tie rod end (Figure 1A).

*Figure 1A: Remove this tie rod end and install dust boot from here*



*Figure 2B: Install boot*



- B. Once rod end is removed, apply a light lubricant, WD-40 on Cognito Adjuster Tube and slide dust boot on as shown (Figure 2B & 3C).

*Figure 3C: Pull boot down*



- C. Now that the dust boot is on, it should look similar to how it did when you first removed it. Please continue to step #6 on page #4.

## 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.