



2016-2020 Polaris RZR XP TURBO 2/4 Seat
2014-2020 Polaris RZR XP 1000 2/4 Seat
Front Upper and Lower Control Arm Kit
PART# 360-90004, 360-90045 & 360-90351

Introduction

- Installation requires a qualified mechanic.
- Read instructions carefully and study the pictures (if included) 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.
- Some trimming of the stock spindles is required using an air sander.
- The OEM Polaris control arms are lightweight and will suffice for light to moderate operating use. Under aggressive use and racing, there are a few areas that become problematic such as bushings getting loose, upper arms bending, and broken ball joints or ball joints pulling thru the arm. The Cognito control arm kit uses larger bushings, spherical bearings (uni-balls) and hardened stainless steel spindle pins rather than the stock ball joint. The construction is of stronger material, slightly thicker, and a stronger design to handle abuse. Cognito has stock replacement upper arm kits, and also long travel upper arm kits that are 4" wider per side. This instruction set is for the XPTurbo and the 2015 Fox Edition models that have a stock front sway bar.



Instruction Set # 8119
360-90004, 360-90045, 360-90351

(Stock Replacement)

Parts List – 360-90045

- 8396 Driver upper arm
- 8397 Passenger upper arm
- 8394 Driver lower arm
- 8395 Passenger lower arm
- HP9144 Bushing and Crush Sleeves
- HP9170 Brake Line P-Clamp Kit
- HP9187 Uni-Ball Hardware

(Long Travel)

Parts List – 360-90004

- 8406 Driver upper arm
- 8407 Passenger upper arm
- 8367 Driver lower arm
- 8368 Passenger lower arm
- HP9144 Bushings and Crush Sleeves
- HP9170 Brake Line and P Clamp
- HP9187 Uniball Hardware

(Long Travel)

Parts List – 360-90351

- 8486 Driver upper arm
- 8487 Passenger upper arm
- 8501 Driver lower arm
- 8502 Passenger lower arm
- HP9144 Bushing and Crush Sleeves
- HP9170 Brake Line P-Clamp Kit
- HP9187 Uni-Ball Hardware

Installation Instructions

1. Raise the front of the RZR up by the frame so that the suspension droops out and tires are off the ground. Remove front wheels. Remove front body so that the front upper arm pivot bolts can be removed.
2. Unbolt the brake caliper from the spindle, the axle nut from the spindle, and the control arms from the spindle. Then remove the spindle and let the lower arm, caliper, and axle hang.
3. The front sway bar and end links will be retained, so leave those in place and just unbolt them from the upper control arms.
4. Some stock spindles have a little meat that needs to be removed, we believe that the 2014 spindles have better clearance than the 2015 and up spindles. This trimming has no effect on structural integrity, this is an outside corner that has nothing to do with the strength of the spindle. See Figure 1 which shows a stock 2015 spindle and notes on the corners that will be trimmed, then see Figure 1.1 shown with the pinch bolt in place, note the extra meat that will need to be sanded off.
5. Use an air sander and remove the corner material as shown in Figure 1.2, take it down to where the edge of the flange bolt and nut would be.
6. Figure 1.3 shows what the finished edge should look like with the flange bolt there.

Instruction Set # 8119
360-90004, 360-90045, 360-90351



Figure 1: Notes show the 2 areas that will need trimming.



Figure 1.1: More detailed note of the trimming, which must be done to both areas shown in Figure 1.

Instruction Set # 8119
360-90004, 360-90045, 360-90351



Figure 1.2: Sanding the edge.



Figure 1.3: When done, it should look like this.

Instruction Set # 8119
360-90004, 360-90045, 360-90351

7. Unbolt the lower arm from the car and remove. Unbolt the shock from the upper arm, and the upper arm from the car and remove.
8. If you are installing the stock replacement arms, then the shock can stay bolted in at the top, and use a bungee cord or strap to prop it up out of the way. If you are installing the long travel arm kit, the shocks will need to be replaced or recalibrated anyway, so go ahead and remove them from the RZR.
9. Locate the Cognito lower control arms. They may already have the spherical bearing and retaining clip installed, please verify at this time. Do not use any grease in this step as the poly bushing is supposed to stay fixed with the arm. Press a poly bushing into each end, of each frame pivot tube. Each lower arm gets 4 poly bushings.
10. Now lubricate the inside of the poly bushings with grease, and then use the stock steel crush sleeves from the stock lower control arms, and push them into the greased holes of the poly bushings in the Cognito lower control arms.
11. Mount the lower control arms in place with the factory pivot bolts, the arm bends up at the spindle, and the arm also kicks forward at the wheel. See the parts list above and the part # stamped on each arm to determine proper placement. Torque the pivot bolts to 40 ft/lbs.
12. Locate the Cognito upper control arms. They may already have the spherical bearing and retaining clip installed, please verify at this time. Do not use any grease in this step as the poly bushing and Delrin bushing is supposed to stay fixed with the arm. Press a poly bushing into each end of the long (front) frame pivot tube. Each upper arm gets 2 poly bushings. Press a Delrin bushing into each end of the short (rear) frame pivot tube. Each upper arm gets 2 Delrin bushings.
13. Now lubricate the inside of the poly bushings and the Delrin bushings with grease, and then use the stock steel crush sleeves from the stock upper control arms, and push them into the greased holes of the bushings in the Cognito upper control arms.
14. Mount the upper control arms in place with the factory pivot bolts. See the parts list above and the part # stamped on each arm to determine proper placement. Torque the pivot bolts to 40 ft/lbs.
15. Locate the included spindle studs, spherical washers, lock washers, and 12 point bolts. Install the studs in the spherical bearings of the arms now, the lower arms have the stud pointing up and the upper arms have the stud pointing down. Fasten the stud to the spherical bearings with a stainless spherical washer, then a lock washer, then the 12 point bolt and torque 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. Do this on all 4 arms.
16. With the axle in place (longer one needed if installing long travel kit), install the control arms to the spindles just like stock, torque pinch bolts to 40 ft.lbs as shown in Figure 2. Route the brake line like shown in Figure 3 and 4, then mount the caliper to the spindle and torque to 40 ft. lbs. Tighten axle nut and install cotter pin.

Instruction Set # 8119
360-90004, 360-90045, 360-90351

17. Use the cushion clamp kit provided and fasten the brake lines to the upper arms as shown in Figure 3 and 4.



Figure 2: Tighten stud with pinch bolt.



Figure 3: Brake line routing.

Instruction Set # 8119
360-90004, 360-90045, 360-90351



Figure 4: Fasten brake line with cushion clamps.

18. Bolt the shock in place with stock hardware, tighten to 40 ft/lbs.
19. Using the stock hardware, bolt the sway bar end link to the Cognito upper control arms, tighten to 40 ft.lbs.



Figure 5: Stock sway bar bolts to the upper control arm just like stock.

Instruction Set # 8119
360-90004, 360-90045, 360-90351

20. To help brake line clearance with the wheel, see the figures below. In Figure 6, you can see the brake line fitting bolted to the caliper and how far it is from the bleeder. Barely break loose the brake line bolt just enough to rotate the fitting toward the bleeder like shown in Figure 7, then retighten the bolt.
21. Install wheels, make sure everything is tightened appropriately, cycle the steering at ride height and full droop to be sure there are no issues with brake lines.
22. Set ride height, with no passengers and stock height (29") tires, it should be 13.5" for stock travel kit, and 15.5"-16" for long travel kit. Measure from the ground to the frame gusset underneath the lower control arm rear frame pivot. For larger diameter tires, ride height goes up by the radius change. Must roll the car forward and back ward to get it to settle before measuring.
23. At proper ride height, check front wheel toe measurement, should be 0-1/8" toe in.



Figure 6: This is stock. The brake line fitting is far from the bleeder screw, this kicks the brake line up close to the wheel.



Figure 7: loosen the bolt a tad, just enough to turn the fitting closer to the bleeder as shown, retighten bolt.

Instruction Set # 8119
360-90004, 360-90045, 360-90351

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.