

2014-2021 Polaris RZR XP1000 & 2016-2021 XPTurbo Stock Replacement Front Lower Control Arm Kit

INSTALL INSTRUCTIONS:

2014-2021 Polaris RZR XP1000 & 2016-2021 XPTurbo Stock
Replacement Front Lower Control Arm Kit
SKU: 360-90133

PARTS LIST FOR SKU: 360-90133

QTY	PART #	DESCRIPTION
1	8394	Driver Lower Arm
1	8395	Passenger Lower Arm
2	UNI-BALL-WSSX12T-F1	Uni Ball
2	HARDWARE-IRR-1.3/8"	Internal Retaining Ring
2	HP9187	Uni Ball Pin and Hardware
1	HP9189	Front Arm Bushing Kit

PARTS LIST FOR SKU: HP9187

QTY	PART #	DESCRIPTION
1	5395	Spherical Washer 3/4" Uni-Ball
1	5580	Uni Ball Pin
1	HARDWARE-0161339	3/8-24 X 3/4" Flange Screw
1	HARDWARE-33622	3/8 Split Washer

PARTS LIST FOR SKU: HP9189

QTY	PART #	DESCRIPTION
4	5548	Crush Sleeve
8	POLY-BUSH-1.25X.120X.625	Black Bushing
1	GREASE-PACK-1	Grease Pack Synthetic



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 OE Replacement Front Control Arm Kit is designed as a direct replacement for the OE RZR lower control arms. These arms are significantly stronger than stock, are high clearance, maintain stock trackwidth, and replace the weak ball joint with heavy duty uniballs.

Some trimming of the stock spindles is required using an air sander.

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 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, but do not remove them yet.
2. Remove the pinch bolt from the spindle that holds the lower ball joint to the spindle. Now remove the ball joint from the spindle and unbolt the lower control arm from the chassis and remove.
3. Some stock spindles have a little material 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. You can do this trimming now on the car, or if you wish to do this trimming on the bench or in a vise, then unbolt the brake caliper from the spindle, the axle nut from the spindle, and the upper control arm from the spindle. Then remove the spindle and let the upper arm, caliper, and axle hang. Then once trimming is done, reassemble the axle, upper control arm, and brake caliper to the spindle. See the next step for details of the trimming needed. Some stock spindles have little material 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 the next step for details of the trimming needed.
4. See **Figure 1** which shows a stock **2015** spindle and notes on the corners that will be trimmed, then **Figure 2** shows the extra material that will need to be sanded off. Use an air sander and remove the edge material as shown. Take it down to where the edge of the flange bolt and nut would be. **Figure 3** shows what the finished edge should look like with the flange bolt there.

Figure 1: Notes show the area that will need trimming



Figure 2: Notes show the area that will need trimming



Figure 3: When done, it should look like this



5. 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 has **4** poly bushings.
6. Now lubricate the inside of the poly bushings with grease, and then use the provided crush sleeves from the lower control arm kit and push them into the greased holes of the poly bushings in the Cognito lower control arms.
7. Mount the lower 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**.
8. 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. 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 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. Do this on both arms.
9. With the axle in place, install the control arms to the spindles just like stock, torque pinch bolts to **40 ft.lbs** as shown in **Figure 4**. Tighten axle nut and install cotter pin.



10. To help brake line clearance with the wheel, see the figures below. In **Figure 5**, 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 6**, then retighten the bolt.
11. 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.
12. Set ride height, with no passengers and stock height (29") tires, it should be **13.5"**. 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.
13. At proper ride height, check front wheel toe measurement, should be **0-1/8"** toe in.

Figure 5: This is stock. The brake line fitting is far from the bleeder screw, this kicks the brake line up close to the wheel.



Figure 6: loosen the bolt a tad, just enough to turn the fitting closer to the bleeder as shown, retighten bolt.





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.