2014-2017 Polaris RZR XP1000 & 2016-2017 XPTurbo Stock Replacement Front Lower Control Arm Kit

PART# 360-90133

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.
- Pictures depicts front lower Cognito arms.
- 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.

Parts List – 360-90133

- 8394 Driver lower arm
- 8395 Passenger lower
- HP9187 Uni-ball Hardware
- HP9189 Arm Bushing

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, 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, re-assemble 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 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. 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 see Figure 1.1 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 1.2 shows what the finished edge should look like with the flange bolt there.

Figure 1: Notes show the area that will need trimming.

Figure 1.1: Sanding the edge.

Figure 1.3: 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 gets 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 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 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 2. Tighten axle nut and install cotter pin.

Figure 2

10. To help brake line clearance with the wheel, see the figures below. In Figure 3, 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 4, 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 3: This is stock. The brake line fitting is far from the bleeder screw, this kicks the brake line up close to the wheel.

Figure 4: loosen the bolt a tad, just enough to turn the fitting closer to the bleeder as shown, retighten bolt.

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