RZR XP 900 Front Control Arm Kit

Polaris RZR XP 900 | 20xx-20xx

Part #: 5201311

Rev. 082416

491 W. Garfield Ave., Coldwater, MI 49036 · Phone: 517-278-7768
E-mail: sales-rtpro@sporttruckusainc.com

SAFETY WARNING

RT Pro UTV recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

WHY BUY RT PRO UTV

Great off-road driving and racing comes with having the most rugged and durable machine in the pack.

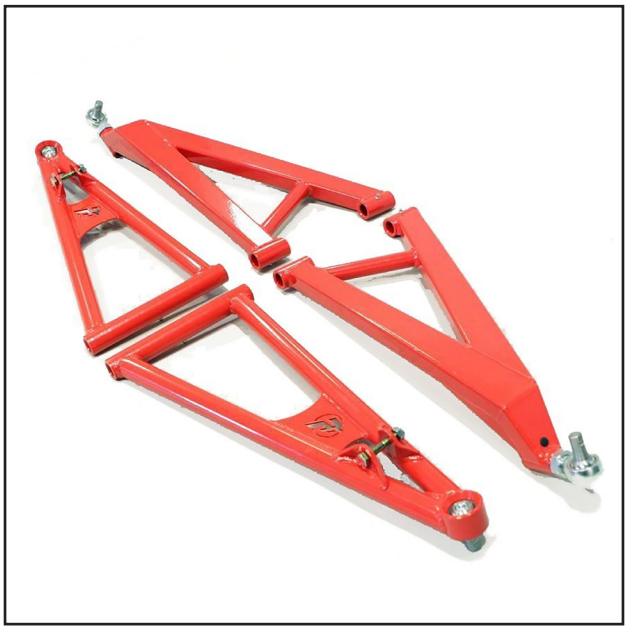
RT Pro UTV performance enhancing products will make your off-road machine stronger, tougher and safer so you can have more fun and less breakdowns.

For over a decade, RT Pro UTV staff have been taking brand new UTVs and driving them to their breaking point. When they bend, break or falter, we take them back to shop and create a fix that stops the problem from happening again.

There is no other company in the industry that puts more thought, engineering and design innovation into their products than we do. Our team is made up of off-road racers, mechanical engineers and talented fabricators who live and breathe all things motorsport. Above all, we share a passion for innovation, quality construction and getting things right.

All of our products are designed for assembly by weekend warriors with normal garage tools and the occasional spot-weld. Assembly directions are complete and thorough.

Remember, when you buy a RT Pro UTV product for your UTV, all of the parts have been designed and manufactured in the United States with U.S. steel and other high quality American components.



RTP5201311		
Part #	**Description**	**QTY**
04208	XP900 OEM Replacement Frt Upper Arm-DRV	1
04209	XP900 OEM Replacement Frt Upper Arm-PASS	1
04210	XP900 OEM Replacement Frt Lower Arm-DRV	1
04211	XP900 OEM Replacement Frt Lower Arm-PASS	1
04212	Spindle Adapter	2
04213	Spindle Adapter	2

RTP5201311 - Hardware		
Part #	**Description**	**QTY**
	Heim Joint - Upper	2
	Heim Joint - Lower	2
	Monoball C-Clip	2
	3/8-24 x .75” SHCS	4
	M10-1.5 x 55mm hex bolt	2
	M10-1.5 nyloc nut	2
	3/16” Grease Zerk	6
	3/4” RH jam nuts	2

FITMENT NOTES

This kit fits all RZR XP Models and years

SPECIAL TOOLS

Snap ring pliers

INSTALLATION TIME

Approximately 6 hours
Medium/hard Difficulty

INSTALLATION INSTRUCTIONS

- Your kit will utilize the OEM pivot hardware, bushing sleeves and bushings.

- If you’ve purchased your kit with our Delrin Bushing upgrade you will need to reuse everything less the OEM bushings. WE DO NOT RECOMMEND GREASING THE DELRIN BUSHINGS. Unless you ride in areas with extremely high carbon content in the soil.

- Upon final assembly, you MUST use RED Loc-Tite on all of the hardware assemblies involved in installing this kit.

- PLEASE read all directions before removing stock parts.

Start with disassembly of the OEM suspension. You can leave the axles in the spindle if you'd prefer. We find it a little easier to separate them however.

1. Start by pounding in the grease zerks. (The easiest method is a 7mm socket and a hammer.)

2. We supply Christmas tree push-pins to fill the holes we cut in these arms to allow breathing during the powdercoat process. If you have the latest generation kit you will find the hole on the bottom side is actually a 3/8-16 weld nut. These are in place so you can install our CV Guard / Skid Plate kit at a later date if you chose. For now the holes are plugged with push pins. If you think you may upgrade to the guards to may want to leave the pins out as they are hard to remove once installed.

3. Next install the heim joints to the lower arm and make sure the jam nut is fully threaded until it stops at the head. Leave the jam nut loose for now. You may install the spindle adapter hardware at this point or wait. The picture below shows the assembly.

Figure 1

4. Next you will install the mono-balls in to the upper arms. These are meant to be a tight fit so take care in making sure the mono-ball is aligned perfectly straight with the cup on the arm. We recommend using hydraulic shop press whenever available but a large socket and a hammer to pound the mono-ball in to the arm. It's ideal to apply pressure on the exterior body of the mono-ball but if a socket isn't available you can use a brass (or softer metal) drift to impact directly on the outer surface of the inner ball.

   Note: these should not require extremely high force to press in. If you feel the force you're using is too much to start; first check to make sure the outer diameter is perfectly parallel with the inner diameter of the cup. This is the number one reason for issues with these. Second, make sure there is not too much powdercoat build up inside the cup. We try to be careful for this but sometimes you'll need to sand some of the coating out before installing the mono-ball. Just try not to remove any of the metal from the inside when sanding. ***Take time with this part of the installation. The better this fit is the longer the assembly will last.***

5. One the mono-ball is pressed in completely. Check to make sure the snap ring groove is fully exposed. This is also a very high precision fit so some adjustments may be necessary. Once the snap ring groove is cleared use a snap ring pliers to install the snap ring. (We recommend positioning the opening of the snap ring to either face directly forward or directly rearward on the RZR.) Use a hammer and a punch to tap around the snap ring to assure it is FULLY seated.

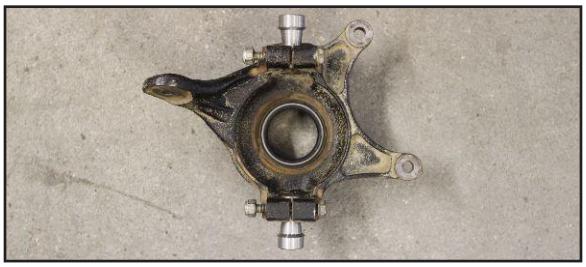
6. The final assembly will look as shown in the next picture.

Figure 2

7. The next step is to install the inner pivot bushings and sleeves in to the arms. Whether you are using the OEM hardware for this or Racer Tech upgrades the installation is the same. The bushings should be tight inside the arms but NOT so tight you need to beat them in! If needed you should sand down the O.D. of the bushings where they contact the I.D. of the arms. *The desired final assembly will be a very snug fit but with enough clearance in the bushing I.D. that the inner sleeves can move with limited friction.* Another note to take is to inspect the final assembly to be sure the inner sleeves protrude just slightly on both sides beyond the outer bushing surface. The arm tabs should tighten agains the inner sleeves and not the bushings.

8. Modify your hardware as needed. The better this assembly is the longer the bushings and chassis will last without issues.

Figure 3



9. We recommend installing the inner spindle adapter pins in to the spindles at this time. The machines grooves will locate the pins when installing the OEM bolts. These pins should be VERY tight after final assembly. NO FREE PLAY.

10. Next you will mount the arms to the chassis. We recommend starting with the lower arms and loosely fitting the spindle adapter hardware. Then install the upper arms, attach to the spindle and last connect the lower shock mount. (Put the brake lines under the shock when installing the shock.)

11. Tighten all the inner pivot hardware as tight as possible at this point.

12. Then tighten the shock hardware and snug up the spindle adapter bolts on upper and lower arms.

13. At this point you will check the camber settings on the arms. A simple and easy starting point is to make sure the brake calipers are level at 0° when the suspension is fully extended.

14. This kit was designed that with the heims fully threaded in the camber setting will be optimal. This was for easy installation and maximum strength. We've since found there to be some variations in these chassis which do still require some adjustment. Most of the time it's perfect but sometimes the heim needs to be threaded out slightly or worse case, the nut needs to be ground down a little shorter.

15. Mainly, the camber setting at ride height should be negative .5° to 1° depending on driver preference. This means the top of the tire will be leaned in towards the middle of the vehicle. The higher the degree of negative camber the more the front tires will bite in a turn. Although 1° negative is the most you should use.

16. Once the camber is set, remove the spindle adapter bolts one at a time and liberally apply RED Loctite to the threads. THIS IS CRITICAL. By design, there is no retention on this bolt so it is CRITICAL you use a high-strength thread locker on all four of these and tighten them as much as possible during final assembly. (If you ever need to remove these a butane torch or other focused heat source can be applied to the head of the bolt for about 30 seconds and the thread locker will melt.)

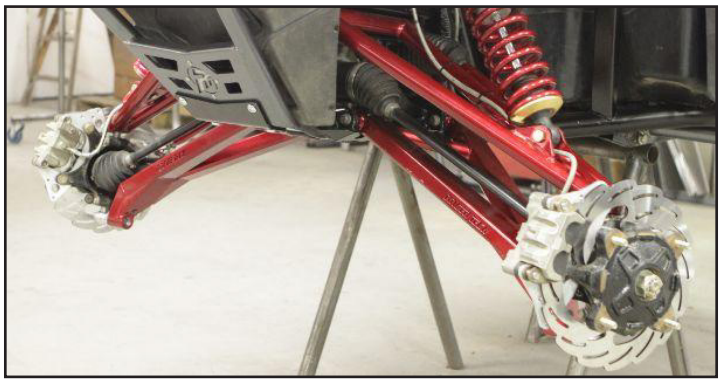
17. If you disassembled the axles initially, the axle nuts should be torqued to 65 ft. lbs.

18. DO NOT forget to crimp the nut down into the groove in the axle. Use a small punch and a hammer to do this.

19. Before driving, the alignment of the steering MUST be centered and the toe-in should be set at 1/8" inwards overall.

20. Lastly, use the supplied zip-ties to secure the brake lines to the rear tubes of the upper arms.

Figure 4



21. This concludes the installation of this kit. You can adjust the camber setting you suit your driving style from here but the rest should be all set and MUCH more durable than the OEM suspension.

THANK YOU FOR YOUR BUSINESS!

For questions or additional information feel free to call and ask for tech support or email us through our website at: rtproutv.com/contact

Show Us Your Ride!

Get a photo of your RT Pro UTV equipped vehicle and send them in for a chance to be featured in our customer gallery!