



RZR XP 900 SHD Radius Rod Kit

Polaris RZR XP 900 | 2011+

Part #: 5201519

Rev. 042517

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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.



| RTP5201519 | | |
|------------|---|-----|
| Part # | Description | QTY |
| 04090 | Radius Rod - Upper | 2 |
| 04091 | Radius Rod - RXP Lower/XP1 Upper | 2 |
| JM10TF1 | 5/8"-18 Heim - PTFE Race - Male RH - YZ - F1 Fit | 4 |
| JML10TF1 | 5/8"-18 Heim - PTFE Race - Male LH - YZ - F1 Fit | 4 |
| 36264 | 5/8"-18 Jam Nut RH | 4 |
| 36964 | 5/8"-18 Jam Nut LH | 4 |
| 04126 | Radius Rod Spacer Inner (0.766") | 4 |
| 04127 | Radius Rod Spacer Inner (0.579") | 4 |
| 04128 | Radius Rod Spacer Outer (0.480") | 8 |

FITMENT NOTES

This kit WILL work with our Radlock for paralleled rear suspension strength

SPECIAL TOOLS

Level

INSTALLATION TIME

Approximately 2 hours
Medium Difficulty

INSTALLATION INSTRUCTIONS

Note: If you only ordered half of this kit you will have exactly half of what is listed here. Likewise, only half of the following instructions will pertain to your installation. Use the details for the kit you purchased.

1. Jack up the rear of the vehicle and rest on solid jack stands. You do not need to remove the wheels but it makes the job MUCH easier.
2. One the weight is off the suspension you can disassemble the OEM Radius Rod assembly. You will disregard the rods but you MUST keep track of the hardware as this will be reused with your kit.

3. Assemble the RT Pro Radius Rods:

Note: There is a right hand and a left hand tube insert per each rod. The left hand threads are indicated by a small ring machined around the tube insert for your convenience.

LOWER RODS

4. Leave ¼" of thread exposed (with the jam nut finger tight) on both ends. This is designed into the kit to optimize the level of functional adjustability. It is important to make sure the exposed threads are as close as possible to the same on both ends of these rods but really only to the tolerances of a tape measure.

Note: Some XP's have different rear knuckle castings which cause interference issues with these large heim joints. If you have clearance issues offset the radius rod tube to the inside of the vehicle leaving up to a full half inch of threads exposed on the outside end of the tube. This will allow for the additional clearance that may be needed.

UPPER RODS

5. Leave ¼" of thread exposed (with the jam nut finger tight) on both ends. This is designed into the kit to optimize the level of functional adjustability. It is important to make sure the exposed threads are as close as possible to the same on both ends of these rods but really only to the tolerances of a tape measure.
6. You can wait to tighten the jam nuts on all rods until the very last step. It will be easier to tighten them at this point plus you will need to set the static camber setting before you're done.

INSTALLING THE RODS

7. The supplied spacers/bushings are high misalignment spacers. They are designed to allow maximum articulation while filling the gap in fitment left by the new heim joints.

The 4 **longest** spacers are for the inner pivot points on the frame. They need to be what touches off on the chassis. They are longer so there will be clearance for the larger diameter tube to clear the chassis when it is in motion.

The 4 **medium** spacers need to go on the outside of the inner heim joints. These will touch off on the radius rod plate.

The remaining 8 **short** spacers will be used on all of the outer heim joints.

Figure 1

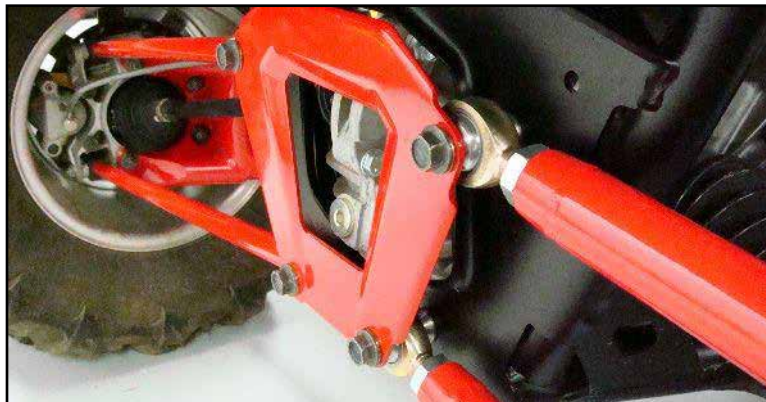
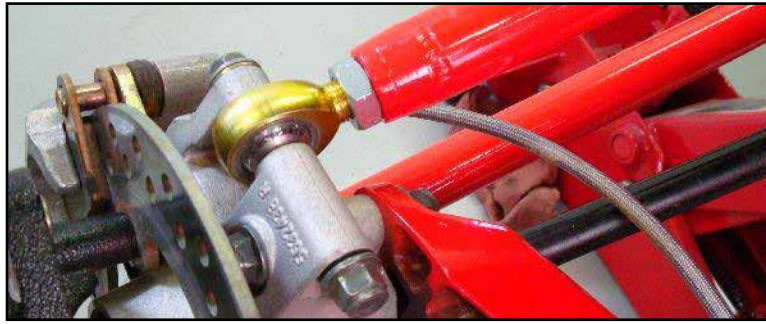


Figure 2



8. Once all the Radius Rods are installed, all the mounting hardware can be tightened except for the jam nuts on the heim joints for the upper Radius Rods. The lower rods can be tightened.
9. At this point the wheels can be put back on and the RZR can be lowered back on to the ground.

ALIGNMENT

The alignment is easiest to do with toe plates off the side of the tires. Measurement is best done with some form of an angle finder. It can be done though with almost anything that can be trusted as a flat surface to rest against the sidewall of the tire and a bubble level. With some form of a plate you must use some form of an angle reader to measure the static camber setting of the wheels. This setting is taken from the vehicles settled ride height. It's best to take it to the end of the driveway and back to settle the suspension. For some reason jumping up and down on it in place doesn't have the same effect. Once the suspension is settled the ideal static camber setting we've found is 0°. This is easy to set with a bubble level in this case. To fine tune the settings, turn the upper radius rods as you would a tie rod. One way will make it longer and the other direction will make it shorter. This will bring the top of the tires in or out. Positive camber is when the top off the tires lean out wider than the bottoms. Negative camber is of course when the tops of the tires are inwards more towards the center of the vehicle than the bottoms of the tires.

The RZR XP has some less than desirable handling characteristics in the rear end. We've found with a little positive camber it can reduce these effects. Another improvement found by running positive camber in the rear is the machine will turn more quickly by bringing around the rear end faster in a turn. Setting too much positive camber can however make the machine feel too slippery. By slippery we mean the back end slides too much and try's to swap out at speed.

We recommend trying different settings and finding out what works best for you. Each driver and each application is different and there's no right or wrong way to do this within reason. Our recommended limit of reason is plus or minus 2°.

10. Once the alignment is complete, tighten the upper jam nuts on the heim joints and double check all the other fasteners once over to verify they are tight.

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!