RZR XP 1000 Turbo Full Spring Kit

Polaris RZR XP 1000 Turbo | 2016+

Part #: 5301154, 5301164, 5301174, 5301184, 5301194

Rev. 062018

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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.

RTP5301154 - Light		
Part #	**Description**	**QTY**
30120275S	Front Coil Spring	2
30040900S	Front Coil Spring	2
37100200S	Rear Coil Spring	2
37140250S	Rear Coil Spring	2
4067	Coil Adapter	6
4068	Coil Ring	2
4190	Coil-over Ring	4
4189	Coil-over Ring	4

RTP5301164 - Standard		
Part #	**Description**	**QTY**
30120300S	Front Coil Spring	2
30040900S	Front Coil Spring	2
37100250S	Rear Coil Spring	2
37140250S	Rear Coil Spring	2
4067	Coil Adapter	6
4068	Coil Ring	2
4190	Coil-over Ring	4
4189	Coil-over Ring	4

RTP5301174 - Heavy Duty		
Part #	**Description**	**QTY**
30120325S	Front Coil Spring	2
30040900S	Front Coil Spring	2
37100250S	Rear Coil Spring	2
37140300S	Rear Coil Spring	2
4067	Coil Adapter	6
4068	Coil Ring	2
4190	Coil-over Ring	4
4189	Coil-over Ring	4

RTP5301184 - XPT4 Standard		
Part #	**Description**	**QTY**
30120325S	Front Coil Spring	2
30040900S	Front Coil Spring	2
37100200S	Rear Coil Spring	2
37140300S	Rear Coil Spring	2
4067	Coil Adapter	6
4068	Coil Ring	2
4190	Coil-over Ring	4
4189	Coil-over Ring	4

RTP5301194 - XPT4 Heavy Duty		
Part #	**Description**	**QTY**
30120350S	Front Coil Spring	2
30040900S	Front Coil Spring	2
37100250S	Rear Coil Spring	2
37140300S	Rear Coil Spring	2
4067	Coil Adapter	6
4068	Coil Ring	2
4190	Coil-over Ring	4
4189	Coil-over Ring	4

FITMENT NOTES	SPECIAL TOOLS	INSTALLATION TIME
N/A	Spring Compressor - Highly Recommended	Approximately 1.5 hours Easy/Medium Difficulty

INSTALLATION INSTRUCTIONS

INSTALLING THE SPRINGS

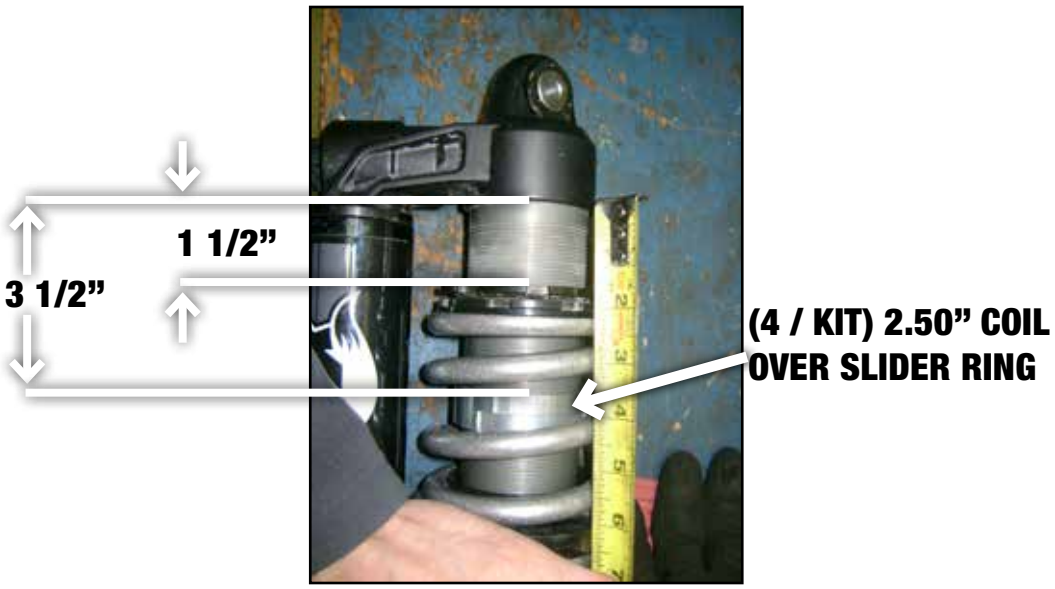
1. Remove shocks from machine and back off Preload Adjuster Nuts until there is enough room to remove the Lower Retaining Rings from the shock assemblies. However, to save time, a wall mounted coil spring compressor is highly recommended.

2. Slide OEM springs off shock assembly and discard. Keep the Lower Retainer Rings and Coil Sliders for re-use.

FRONT:

3. Start by installing the dual rate stop collars onto the coilover body. A coil spring compressor must be used for installation of the front coils. Now is a good time to set the preload adjusters and stop collars. 4 seat Standard Kits: The distance is 1-1/2" for exposed shock body above the preload adjuster and 3-1/2" exposed shock body above the top of the coil spring slider collars. 2 seat heavy will be approximately 3/4" less, 1/2" less for standard, and 1/4" for light. 4 seat heavy will be approximately 1/4" less(Fig 1)

Figure 1



4. The front springs are 3.0" I.D. and come in two different lengths. The short tender spring will go on first, orientate the coil slider to the arrow will point 'down' when installed on the vehicle.

5. Finally, install the long springs and the Lower Retaining Rings. Once the shocks are reassembled you are ready to move on to the initial setup.

NOTE: While the shocks are off the machine be sure to lubricate the eyelets on the shocks with some grease or your preference of lubricant. Polaris is shipping the RZR's out with completely dry eyelets!

REAR:

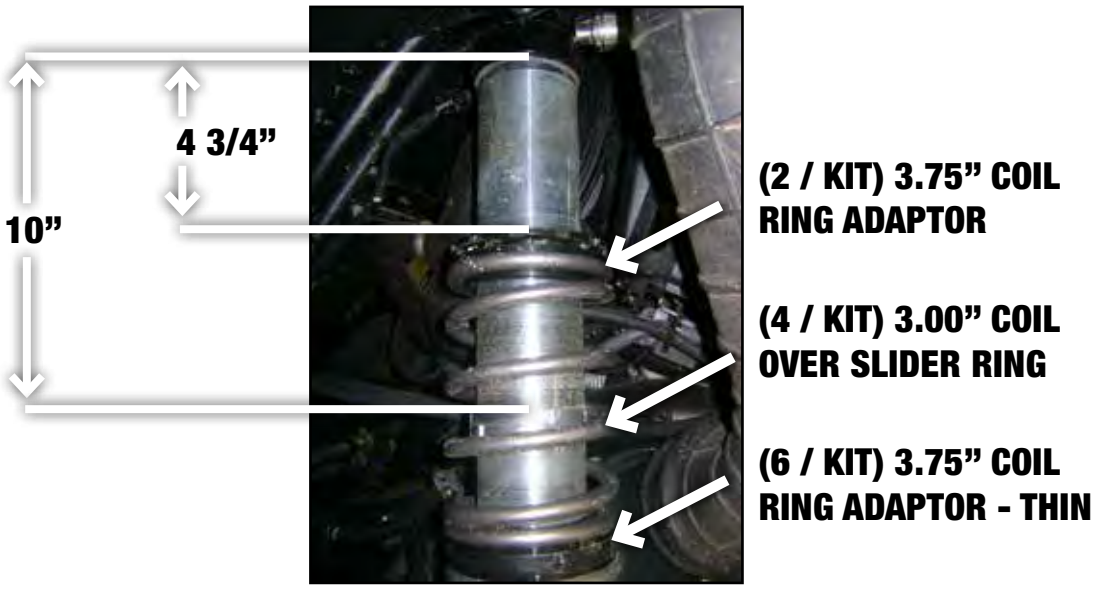
6. Start by installing the new upper coil seat onto the factory preload adjusters first. This will be a tight fit to the coilover body to reduce any possible noise.

7. Next, install dual rate stop collars onto the coilover body. These are a tight fit over the non-threaded portion of the coilover body. Remove any nicks, dents, or scratches in the outside of the body that would prevent the slider stop collars from sliding over the coilover body. Make sure they go on squarely.

8. Install the short coil spring followed by the coil slider with 3.75" coil adaptor rings with the arrow pointing down.

9. A coil spring compressor is not required for the rear, but will make installation much easier. Now is a good time to set the preload adjusters and stop collars. 4 Seat Standard Kit only: The distance is 4.75" for exposed shock body above the preload adjuster and 10" exposed shock body above the top of the coil spring slider collars. 2 seat and 4 seat heavy kits wil require less preload. 2 seat heavy will require 1" less to almost no preload on the coils, 2 seat regular will require 7/8" less, and 2 seat light will be 3/4" less. 4 seat heavy will require approximately 1/2" less than the values shown. (Fig 2)

Figure 2



10. Finally, install the long springs with 3.75" coil adaptor on the lower coil seat and shock guard. Once the shocks are reassembled you are ready to move on to the initial setup.

    NOTE: While the shocks are off the machine be sure to lubricate the eyelets on the shocks with some grease or your preference of lubricant. Polaris is shipping the RZR's out with completely dry eyelets!

SETTING UP THE SPRINGS

Settings vary so much from vehicle to vehicle. It is impossible for us to give a universal answer to where you will end up. Like with any coil-over shock, spring rates and preload take some fine tuning to achieve the best results. The good news is we have the rates figured out for 95% of users. As for the preload, we recommend using this formula:

11. Set the machine on the ground after setting both front and rear Initial Preload. Before measuring your ride height, take the vehicle for a quick ride around the driveway.

    NOTE: The suspension needs to "settle" and will only do so by driving it. Jumping up and down on the bumpers will not suffice

12. Once the suspension is settled, measure the front and rear ride height. At RT Pro we measure the rear at the bottom of chassis. On the front we measure at the front of the chassis base structure directly behind the lower arm rear-most mounting tab.

13. As a base recommendation, we set most of our racing vehicles at 13” front and 12” rear. The RZR seems to jump and handle better with the front end about 0.5-1” higher than the rear. For terrain with less ground clearance required we always prefer 13”F / 11”R. This is our preference so your mileage may vary. There is no real “wrong” way to set your vehicle up. It should always be whatever works best for you. Of course you can always add more preload to get a little extra ride height but will sacrifice ride quality.

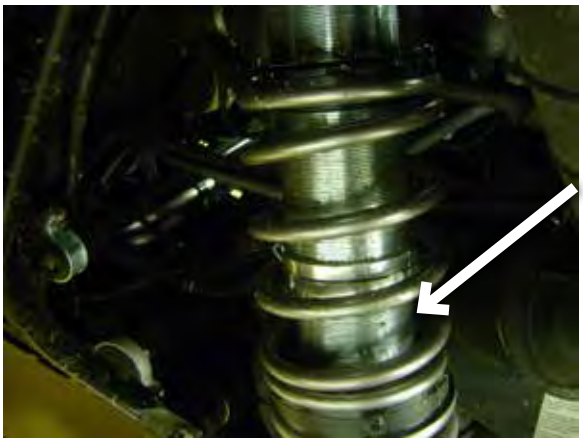
14. In the initial stages of adjustment we recommend starting with 1/2” adjustment increments. Once you feel you’re close, start making 1/4” adjustments and then 1/8” until you are personally satisfied with the height and ride of your machine for your applications. The rear is designed to run more preload than the front with this kit, so don’t be surprised if this is what you end up with.

DUAL RATE SLIDER COLLARS

15. The dual rate slider collars will change the point at which the spring rate changes from a lighter rate into a stiffer rate. The recommended travel in the front for the dual rate slider is 5/8” to 3/4” (Fig 3). The rear is 2” (Fig 4). Adjusting the dual rate slider position will change the point at which the spring rate increases. These positions are measured with the vehicle on the ground with the suspension settled. See final chart for how changing the position of dual rate slider travel will affect the spring rate. (Load / Travel = Spring Rate)

Figure 3 - Front

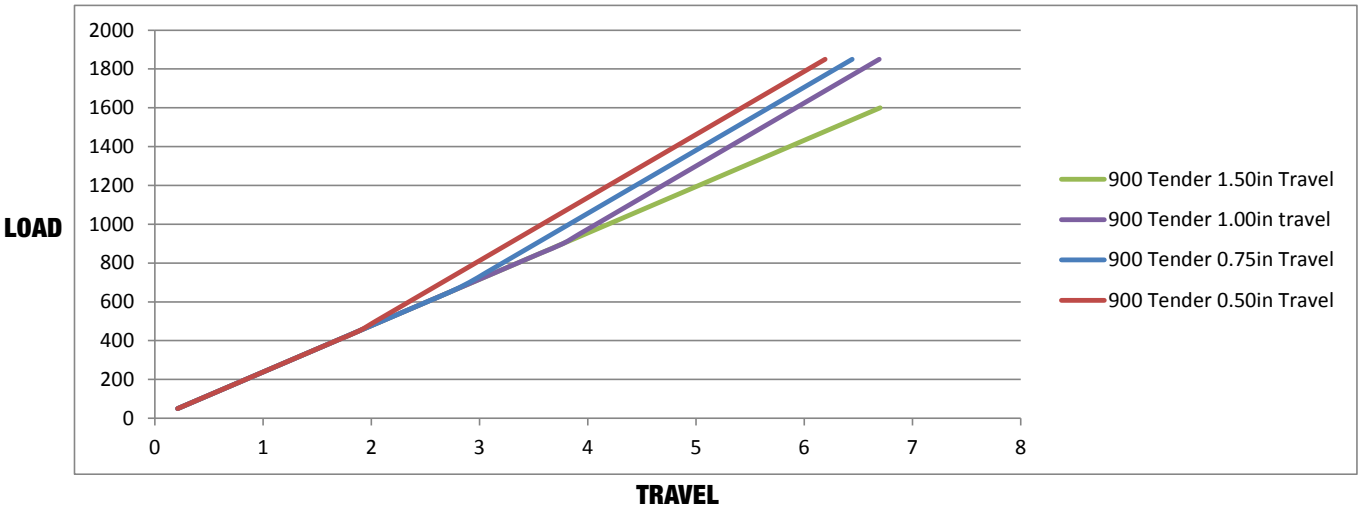
Figure 4 - Rear



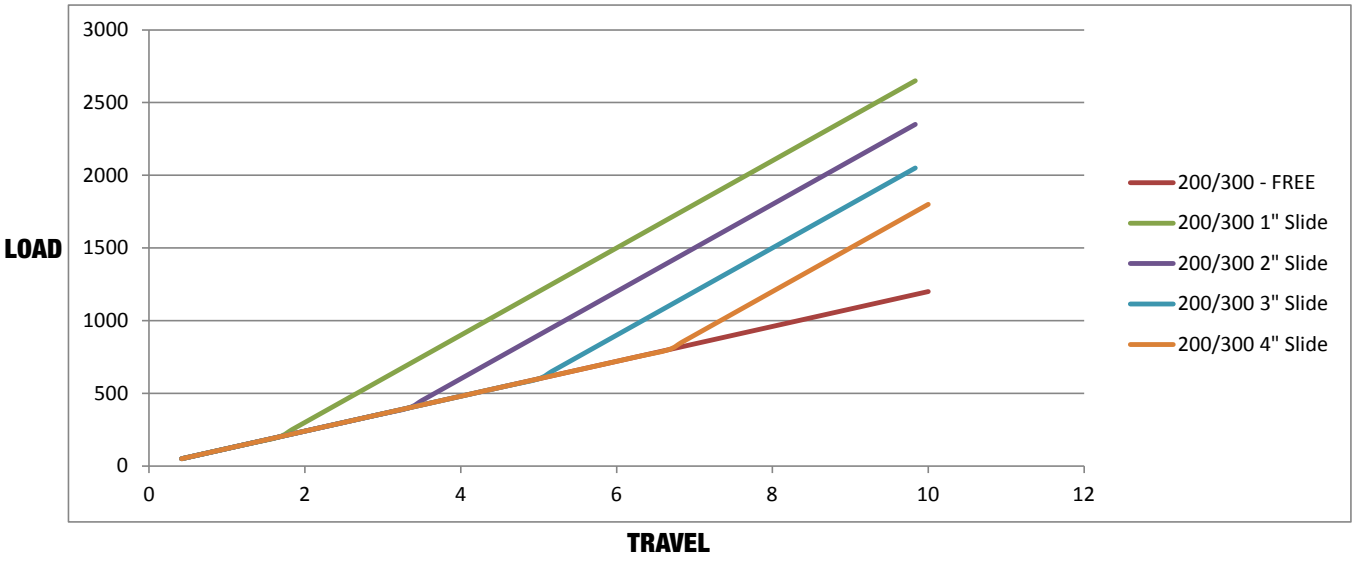
VALVING ADJUSTMENTS

We recommend initially setting the compression adjusters half way on this model. The softer these are set the less fluid friction is created and longer the shock fluid will resist overheating. However the machine can be extremely soft at the softest setting causing a lot of body roll. Once ride height is set you can start slowly turning these external compression adjusters in a little bit at a time until you achieve the desired firmness. If you can't get the firmness you desire with compression adjusters, change the dual rate collar stoppers lower on the coilover body towards dual rate sliders 1/8" front and 1/4" to 1/2" rear to . Keep doing this until it meets your needs. This will change the point at which the spring rate increases.

Front



Rear



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!