Level 4 Spring Kit
XP 1000 2-4 seat 2014-2017 and Dynamix

Thank you for purchasing the Shock Therapy Level 4 spring kit. Included in the kit: four “silent” cross over rings with hardware and four O-rings, 8 new springs. Other than basic hand tools you will need a jack, spring compressor (optional) and preferably a bench vice.

Step one: Remove the front shocks from your RZR. This is best done by jacking the up the front of your RZR until the tires are barley off the ground. Do one shock at a time as they are different from side to side and you can’t mix them up. Remove the front shocks first. Using 15 mm tools, remove the bottom and top bolts holding the shock to the chassis. If you lift up a bit on the tire while you remove the bolts it will be very easy. Once the shock is off the RZR, remove the mounting spacers and O-rings on each end of the shock so they are not lost.

Spring part numbers and locations

XP1000, 2014-16  XP 4 1000, 2014-16  2017 XP1000 2/4 seat  Dynamix 2 seat

Front upper 00238  Front upper 00238  F.U. 00238, 05238  F.U. 00238, 05238
Or 05238        Or 05238
Front lower 003321 Front lower 004321 FL 003301, 004301 FL 003301,004301
Rear upper 051321 Rear upper 002321 RU 051321, 002321 RU 051321 or
Or 002321       Or 052321
Rear lower 052361 Rear lower 053381 RL 052361, 053361 RL 052361,053361
Front Pre load 2 1/4” Front Pre load 2 1/4” FPL 2 ¼”  FPL, 2 ¼”
Front X over 5 1/4” Front X over 5 1/4” FXO 5 ¼” FXO 5 ¼”
Rear Pre load 4” Rear Pre load 2” RPL 2”  RPL 3”
Rear X over 10” Rear X over 8” RXO 8” RXO 10”

Step two: Remove the factory springs. Place the shock upside-down in a vice so it is tight in the vertical position. Next, spin aluminum pre load collar above the top spring (remember the shock is upside down in the vice) toward the top of the shock loosening the tension on the springs. You can do this by grabbing the springs and spinning them and the pre load collar by hand. (Dynamix has two pre load rings that are jammed together) After a few inches the springs will become loose. Next, push the black bump stop inside the lower spring retainer down the shock shaft and out of the way of the spring retainer. With the springs loose, remove the lower spring retainer from the bottom shock mount. You can now remove the springs and the plastic spring divider from the shock.

Step three: Install the “silent” cross over nut. (Dynamix uses two, single piece cross over rings per shock) Grab a tape measure to locate the pre load and “silent” cross over
ring locations. All measurements are taken from the point where the round, threaded shock body ends and the top, billet cap starts. Refer to the picture to the right. From this point measure down 5 1/4” for a two seat RZR. Measure 5 1/4” for a 4 seat RZR and make a mark for the location of the “silent” cross over nut. Now, remove the Allen bolts from the two piece ring and bolt it to the shock body with the bottom of the ring at your mark. Use a 7/64 Allen tool. The bottom of the cross over ring has a recessed groove in it for the O-ring to sit. The top of the ring is flat. If you have the ring on upside down the O-ring will fail prematurely. Now slide the O-ring on the shock and roll it all the way to the “silent” cross over nut. Try to have the hardware for the cross over nut facing outward (as the shock mounts on the car) so that you will have easy access to it if you would like to adjust the position in the future. Now install the spring according to the part numbers and locations listed above. Make sure the plastic divider has the long portion facing the bottom of the shock. Also, there are 2 arrows on the plastic divider. This is where the end of each spring should sit. The top spring ends on one arrow and the bottom spring on the other arrow. Refer to the picture below. If you do not have the orientation correct, the plastic divider will be very noisy as it slides up and down the shock body. This is where you need to use your spring compressor to compress the spring package. Install the lower spring retainer and spin the pre load collar tighter to re-establish your pre load on the springs. Pre load should be about 2 1/4” from the billet top cap to the top of the upper spring (or bottom of the pre load nut) on a 2 seat RZR. It should be 2 1/4” on a 4 seat RZR as well. Install the
mounting spacers and O-rings again. You may want to use a little grease on the O-rings because if they get dry they will squeak when you are driving.

Step four: Install the shock on the RZR lifting the tire slightly to get the bolts started. Go back to step one and repeat the steps on the second shock. Once both shocks are back on the RZR let the jack down and jack up the rear.

Step five: Remove the rear shocks. First remove the plastic cover below the remote reservoirs in the bed with a Torx bit. Next, loosen the hose clamps holding the remote reservoirs to the cage and drop the reservoir down through the bed. Now remove the shock using the same technique as the front shocks. They require 18 mm tools. Remove the mounting spacers and O-rings. Put the shock, upside down in the vice. At this point you must make a choice. (not on the Dynamix)

The factory pre load collar and the shock body for the rear shocks are both aluminum. They have a tendency to get galled up and seize together if there is any debris or tension on the nut and threads when you spin it. You can either, clean the heck out of the threads and use some WD-40 to help spin the pre load collar in order to remove the springs or you can use a spring compressor to remove the springs and spin the collar when it had no load on it. Spring compressors are usually free to borrow at your local auto parts store. If you seize the collar on the shock body you don’t have much choice. You will have to send it to us or Walker Evans for a new shock body and collar installation. The whole shock must come apart to replace these parts. If you already have our steel shock bodies installed then you do not have to worry about this issue at all.
Step 6: Now that you have the springs removed, spin the preload collar up the shock to 2 1/4” position for a 2 seat RZR. This is 2 1/4” for a 4 seat RZR. Measure down from the bottom of the reservoir hose fitting 8” and make a mark for the “silent” cross over ring. For a 4 seat RZR make a mark at 8”. If you have a 2017 then measure from where the threaded body of the shock ends. Install the “silent” cross over ring and O-ring making sure you have the grooved side facing the bottom of the shock. Now install the new coil springs using the part numbers and locations listed above. Make sure the spring ends line up with the arrows on the spring divider opposite of the lower spring end. Install the lower spring perch and mud guards and set the preload to 2” for a 2 seat RZR and 2 2” for a 4 seat RZR.

Step 7: Install the rear shocks. Install the shocks by lifting the rear tire slightly to help get the bolts started. Attach the reservoirs with the factory clamps and install the plastic bed cover. Set the RZR on the ground. Now you need to set your ride height. This is very important because if your car is too high it will ride rougher. If it is too low it will feel soft and may bottom out too easy. You must drive it 100 yds or so to get the springs and suspension to settle properly for an accurate measurement EACH time you make a ride height change. Stop the RZR slowly without using much brake on a level spot. The FRONT ride height should be between 13.5” and 14” WITH THE DRIVER IN THE RZR. This measurement is taken from the bottom of the frame where the lower control arm bolts to the chassis to the ground. See the pictures at the top of the page. If you are low or high jack up the RZR and adjust the preload collar up to lower the RZR or down to raise it. Pre load collar adjustments are about half of what you need in ride height. Example, if you need ½” more ride height you should lower the collar about ¼”. The rear should be about 1/2” lower than the front or between 13” and 13.5” of ground clearance. This is measured in the rear, center of the RZR, from
the bottom of the chassis to the ground just below the rear tow hook. Always drive the RZR between adjustments. You are done!

The “silent” cross over ring is designed to bring the higher spring rate of the lower spring into play as you compress the suspension. The combined spring rate of both the upper and lower springs together is considerably lighter than the lower spring rate. This means that the higher up the shock you place the “silent” cross over ring (later engagement) the longer, through compression, the system will be soft and plush. The lower on the shock you run the “silent” cross over ring the sooner the stiffer lower spring will come into play, firming up the ride. Since the RZR’s are under sprung in the front from the factory they react well with the “silent” cross over ring lower and fairly close to the spring divider in front. With one person in the car you are good with ½” to 1” of space between the divider and the bottom of the cross over ring. Another thing to consider is that the lower you run the cross over the sooner the bottom spring comes in which will limit front end dive under braking and front end roll in turns. Feel free to adjust the “silent” cross over rings and find out what you prefer. Our starting point is an all-around good place to be for most drivers. In the rear, you need a little more space between the cross over nut and the spring divider so that the rear stays plush and softer for longer. This keeps the rear settled down in the whoops as well as less kicking and lower when jumping. Start with the compression adjusters all the way loose which is turned counter clock wise. This will be the plushest ride possible. Only adjust the compression adjusters on the shocks stiffer (clockwise) if you bottom the RZR out in big hits routinely. If you only bottom it out once or twice on an hour long ride that is just about perfect. If you bottom it out 10 times on the same ride you need to stiffen it up. Only adjust what is bottoming out. If it is just the front that hits then turn just the front shocks up 2-3 clicks (clockwise). If the bottoming is cured then leave it alone. If it continues then turn another 2-3 clicks into it until it stops. Once you find a happy place for the adjusters and your driving style, then and only then should you play with the height of the “silent” cross over rings to further tune your suspension. The order in which you NEED to proceed with tuning is:

1. Ride Height
2. Compression adjusters
3. “Silent” cross over rings (maybe)

The cross over rings are designed to be rubbed by the coil springs in the rear. As the spring compresses it vibrates side to side and can rub the cross over ring. This is normal. Sometimes the factory lower spring isn’t very flat on top and can cause the upper spring to bow. You will notice this by looking at the plastic spring divider when the car is on the ground. If it is fairly straight with the shock body your good to go. But if it is sitting sideways a bit then your lower spring is causing this. Jack the car up and clock the upper and lower springs 90 degrees apart from each other by twisting them by hand instead of 180 degrees apart like the arrows on the divider want them to be. This may get the divider to sit straighter and allow the upper spring to rub the cross over ring less.

Now don’t think about it anymore. Go drive it!