

TwinAir System for Wren Suspension Forks

TwinAir Air Spring



The Wren TwinAir system is a unique design that allows for fine adjustment of the air spring using only a pump. No need to disassemble the fork to insert or remove tokens.

The Wren TwinAir System uses a positive air chamber divided into two parts by a floating piston. Negative pressure is provided by coil springs. Because the piston floats in the chamber, **air pressure if measured by a gauge will always be equal top and bottom** if both chambers contain air. What changes is the volume of the top or bottom chamber. If you add more air to the top than to the bottom, the top chamber becomes larger relative to the bottom chamber. The reverse is also true. In all cases, the pressure remains equal. A larger top chamber gives you a softer, plusher ride. A larger bottom chamber reduces the size of the top chamber giving you a stiffer, more progressive ride.

Initially, we recommended setting your sag using equal pump strokes top and bottom. This would place the fork in the middle of the air spring curve. For some riders, this proved confusing. So here is an alternate method to follow. This mimics the token system for changing air spring rate that is familiar to most riders. Think of our floating piston as a token. However, you do not need to disassemble the fork to add or remove tokens, plus, TwinAir is infinitely adjustable. Tokens have a fixed dimension, so you get jumps in the spring rate as you add or remove tokens. TwinAir allows you to move the piston as little or as much as you want simply by using your shock pump.

To begin setting up the TwinAir, you first need to set your sag. Start by releasing all air from the top and bottom chambers. Now add about 50 psi to the top chamber only as a starting point. Now set the sag by first locating the rubber o-rings on the stanchion tubes. Be sure no one is on the bike and the fork is uncompressed. Slide the o-rings up against the wipers. Now carefully sit on the bike in your riding position with all your gear and let your weight slowly compress the fork. Do not bounce the fork. Carefully dismount being sure not to compress the fork. Now measure the distance between the o-rings and the wipers. The distance measured should be 20 - 25% of your fork's travel (22 - 27 mm for 110 mm travel, 30 - 37 mm for 150 mm travel). If the distance is less than suggested, reduce the air pressure in the air spring. If the distance is more than suggested, increase the air pressure in the air spring. This setup is now your starting point. Record this pressure reading so you can easily return to your sag setting in the future. Remember, this pressure reading is only accurate with the bottom chamber empty. Because you have only added air to the top chamber, this gives you the softest, plushest ride for your sag setting.

Now go ride your fork and carry your shock pump with you. If you like the ride, but experience bottom out, add small amounts of air to the top until bottom out is eliminated. If from your original sag setting you experience bottom out and/or want a stiffer, more progressive ride, add small amounts of air to the bottom chamber until you are satisfied with the ride. When adding air to the bottom, count your pump strokes - 1/4 stroke, 1 stroke, 5 strokes - whatever it takes. This will allow you to return to your bottom setting for that ride characteristic easily in the future. Remember, once you start adding air to the bottom chamber, pressure is no longer an accurate gauge of where the air spring is set. Keeping track of your bottom pump strokes for various trails or conditions allows you to quickly set the fork before riding.

For tech assistance anytime, email <u>russ@wrensports.com</u> or call 201-588-5949.

Have fun! Ride safely! And thank you for riding Wren!