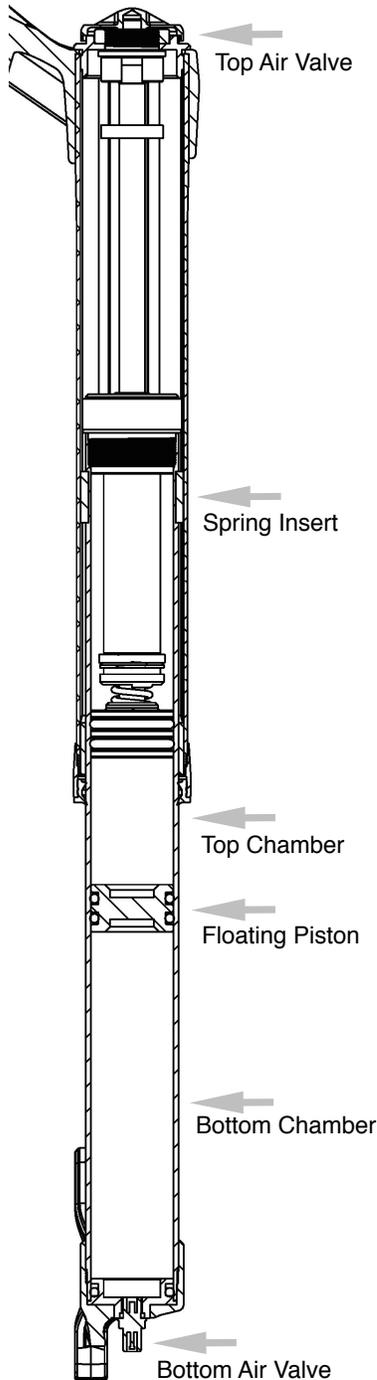




TwinAir System for Wren Suspension Forks

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 parts.

The Wren TwinAir System uses a positive air chamber divided into two parts by a floating piston. Negative pressure is provided by a coil spring. Because the piston floats in the chamber, **air pressure if measured by a gauge will always be equal top and bottom**. 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. A larger top chamber gives you a softer, plusher ride. A larger bottom chamber gives you a stiffer ride. To keep track of where you are it is best to count pump strokes. Equal pump strokes top and bottom will keep the chambers equal.

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 30 psi (equal pump strokes) to both top and bottom chambers as a starting point. This will keep both chambers equal in size. 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. If the distance for the 110 mm travel fork is around 22 mm (20% sag), your starting sag setup is good. If the distance is less than 22 mm, reduce the air pressure in the air spring equally top and bottom. If the distance is more than 22 mm, increase the air pressure in the air spring equally top and bottom. Remember, for a TwinAir fork add or decrease pressure equally top and bottom when setting your sag. This setup is now your starting point. Adjustments to sag from here are done as you ride and become familiar with the fork.

By dividing one large volume (air chamber) into two smaller volumes, the forces necessary to move the air are reduced allowing the fork to begin moving easier and faster. Because the piston floats, air pressure will equalize on either side of the piston as you add or release air, but the volumes of each chamber will change. More air in the top chamber will increase its volume relative to the bottom chamber and the fork will exhibit a more plush ride. If the bottom chamber volume is larger relative to the top, the fork will exhibit a stiffer, more progressive ride. So now try different volumes top and/or bottom to fine tune the fork for the conditions and your riding style. Once the ride characteristics are set, if you find you are bottoming out, add air **equally** to top and bottom to bring the fork up.

Remember that an important component to balancing the action of the air spring are the compression and rebound adjustments on the damper side. Dialing in your rebound and compression adjustments will give the fork the exact ride you are looking for. Have fun! Ride safely!