



PHOTO: JUSTIN STEINER

## Fox RP23 Shock with Boost Valve

This RP23 may look much like the RP23 of old, but Fox's Boost Valve technology breathes another level of refinement into an already robust design. Fox hooked me up with the new RP23 Boost Valve shock to test on my personal full-sus bike, Pivot's Mach 429, which came stock with a non-boost valve RP23 in 2009. The Niner WFO 9 tested in this issue was also equipped (at times) with a Boost Valve RP23 shock.

First, we'll need some background information to understand just what the Boost Valve (BV) does. The non-BV RP23 offers velocity-sensitive compression and rebound damping, along with the three-position ProPedal platform. Velocity-sensitive damping means the damping rate is determined by the speed at which the shock is compressing or rebounding, regardless of its position. At any given velocity the damping will be the same at the beginning and end of the shock's stroke.

The BV, however, is position-sensitive; the BV's damping response varies throughout the shock's stroke. At the beginning of the stroke, the BV is closed to assist with platform performance. Then during the mid-stroke, the BV opens up to provide supple performance on small to mid-sized hits. On larger

hits, the BV begins to close as the shock passes through 75% of its travel in order to increase compression damping during the last 25% of the stroke to help prevent harsh bottom-out. The BV adds another level of tuneability to the RP23, as manufacturers can spec a BV pressure that best matches the spring rate characteristics and desired ride qualities of any given suspension bike, in addition to the velocity-sensitive compression and rebound tuning.

Prior to the WFO 9 review, I somehow blundered through life unaware that Fox offers, not two, but three different air volume options for the RP23: the standard volume, extra volume 1 (XV1) and extra volume 2 (XV2) air sleeves. Air shocks by nature have a non-linear spring rate, meaning the spring rate ramps up exponentially toward the end of the stroke. Both versions of the XV shock provide more air volume, XV2 being larger than XV1, and are correspondingly more linear. Choosing one of these three air volume options will depend on the leverage ratio of your bike's suspension, and the manufacturer's desired ride characteristics.

How does all of this technology translate to the trail? Pretty damn amazingly. My Pivot is a well-controlled suspension design, but I did notice an improvement in performance with the BV-equipped shock. As advertised, there was a subtle improvement in mid-stroke performance and a seamless ramp-up toward the end of the stroke. The most notable improvement was the smoothing of the ProPedal transition.

Traditionally, I haven't been a fan of running the ProPedal in the "on" setting extensively due to the noticeable ProPedal blow-off. Now that this transition is virtually imperceptible on the trail, I simply left the ProPedal turned on for whole rides aboard the WFO 9.

Is it worth the upgrade? Again, yes and no, depending on your situation. If you're riding a bike with well-designed and well-controlled suspension, you may notice less improvement. If you find yourself riding with platform damping turned on frequently, you'll appreciate the smoother transition out of the platform. If you're simply not happy with the performance of your bike's suspension, or suspect the ride could be better, then a BV-equipped RP23 should be up for consideration.

You can purchase a BV-equipped RP23 for \$395 directly through Fox, or through your local bike shop. Fox products are warranted for one year and are made in the U.S.A. [www.foxracingshox.com](http://www.foxracingshox.com) –Justin Steiner

## Fox Factory Protune

Fox recently announced a new custom fork and shock tuning option called Factory Protune. If you're not completely satisfied with the ride of your Fox fork or shock, you can send it to Fox for custom tuning of rebound and compression damping, Boost Valve performance, etc. Custom fork tuning will set you back \$175-\$200, while shock tuning runs about \$150. You can visit [www.foxracingshox.com/protune](http://www.foxracingshox.com/protune) for setup guides and more information.