



SHOCK THERAPY FOX EDITION RZR XP 1000

Polaris RZR Internal Bypass shocks upgrade

For \$2700 over the price of the standard RZR XP 1000 EPS, the Fox Edition adds Fox 2.5 front and 3.0 rear Podium Internal Bypass (IBP) shocks, a front torsion bar, Polaris Interactive Digital Display (IDD) gauge with GPS and Bluetooth, special graphics, custom seats and Turbo Silver bodywork. While the suspension upgrades improve the ride over the standard RZR, shock specialists can improve the ride quality further, so we sent our Fox Edition XP1K over to Justin Smith at Shock Therapy.

The Shock Therapy crew found the initial travel to be on the harsh side, the mid-stroke to be plush, and later stages of travel to allow too much bottoming on big hits. Shock Therapy's goal was as push a ride as possible with better

bottoming resistance. It took 14 tries to come up with valving that achieved the goal with stock Fox/Polaris springs and Shock Therapy's exclusive 3 3/4-inch springs. Such large springs are hard to find, and Eibach's 3.75-inch springs are \$300-\$400 each, depending on rate and length, so Shock Therapy had its own springs made with rates for dunes/desert and short-course competition. ST also machined aluminum collars to work with the plastic Polaris spring retainers and ST cross-over rings. Because the Fox Podium IBPs have steel preload rings instead of the aluminum found on the Walker Evans Racing shocks (on standard XP1Ks), there's no need for a steel shock body to prevent galling and seizing preload rings.

INSIDE THE INTERNAL BYPASS PODIUMS

IBP shocks actually have two bodies, and the inner sleeve has ports cut into its outer diameter for the IBP system. These ports are closed off by three elongated reed valves that are offset on the sleeve to progressively close off the bypass ports near the end of the compression stroke. So, the 2.5 front pistons are actually 2 inches, and the 3.0 shocks have 2.5-inch pistons. Shock Therapy opens up the compres-

sion side of the shock pistons and modifies the compression adjusters to deliver a wider damping range. Also, the IBP ports are massaged and given stiffer reeds to slow the blow-off late in the stroke. Shock Therapy's Ride Improvement System (RIS) for the Fox Edition IBP shocks is \$749 for all four shocks, and they also add Schrader valves, because the gas-pressurization tool Fox sells breaks easily.

SMOOTHING OUT THE FOX RIDE

We got a chance to test each stage of Shock Therapy's Fox Edition mods and were impressed by the ride quality and balance of the ST Fox Edition. Stage 1 is the \$749 RIS, and it made the ride on our Fox Edition super plush. We bottomed the front on nasty cross-grain terrain and went in three clicks up front to compensate. The bottoming went away, and we were stoked with the balance and control.



Here's the Fox Edition IBP sleeve with three offset reed valves and the shock-shaft assembly. Notice that the compression valve stack is backed up by a large spring that allows additional blow-off on big hits. ST stiffens the reeds, frees up the compression side of the piston, and lightens overall compression valving for plushness.



Here's the Stage 4 Fox Edition spring kit with silent cross-over collars and spring spacers. Front springs are 3.0 and rears are 3.75 inches. Individuals sell for \$199 and \$249, respectively.



Although the Shock Therapy Stage 4 spring/valving package was intended to smooth out the ride in desert chop and dune ruts, we couldn't resist taking it on the LOORRS track at Glen Helen Raceway. Nosediving under hard braking is kept to a minimum.

Stage 2 gets rid of the short, almost-coil-bound top springs on the rear Podiums and adds ST's custom top springs and aluminum spacers to get rid of almost 3/8th of an inch of slop in the OEM lower spring. Aluminum cross-overs determine when the shock switches from the new ST spring to the higher-rate stock spring. This kit is \$575.60, and the improvement over the OEM-spring ride is incredible. The Stage 2 Fox Edition cures all bucking in

whoops and really balances out the ride in cross-grain terrain. With the front and rear torsion bars, the ST Fox Edition feels totally connected to the trail yet floats over the nasty stuff.

We increased trail speeds considerably and were hitting obstacles harder, so we occasionally bottomed the front. We compensated with two more clicks in on front compression (to five).

Stage 3 is four ST top springs and 6061 silent cross-over rings and spac-

ers for \$875.40. With the longer top springs and crossovers, the ride quality is amazing at both ends. Trail garbage is unnoticeable within the cabin, and cupped holes on the hardpack trail are soaked up like magic. With the Stage 3 mods, we initially went back to fully out (zero) on the compression clickers and went in two clicks to prevent bottoming up front on the nastiest hits. We increased trail speed again, but the chassis stayed planted for course

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Shock Therapy has several options for smoothing out the ride on the new Fox Edition RZR XP 1000, which has such large rear shock springs that upgrades, up to now, have been scarce and expensive.

adjustments on loose soil. This kit is also designed to work with stock Fox Edition valving.

Stage 4 is a complete eight-spring kit with four cross-overs and eight spacers for \$1,651, or \$2,400.95 with the Stage 1 RIS valving. Stage 4 main springs are stiffer than stock, so you lose about 5 percent of Stage 3 plushness and gain a lot more bottoming resistance. Smith recommends Stage 4 for desert and dune romping and Stage 3 for woods and tight trails. With the stiffer springs, we went back to full soft on the compression adjusters and were stoked with the overall ride quality and resistance to nosediving, body roll in corners and bottoming on big hits. We even tried out the ST Stage 2 RIS Fox Edition on the Glen Helen LOORRS track. We went in eight clicks all around for the big, high-speed jumps. Our test rider, Shane Trittler, was running with race-modified RZR's and Mavericks in our stone-stock ST Fox Edition! Of course, short-course racers will want to go with stiffer ST springs on all four corners. ST is also developing its own front torsion bar for the Fox Edition with four mounting holes for more tuning options. □

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Here are the ST Stage 4 springs on our Fox Edition with a two-piece cross-over collar and silencer O-ring, plus an aluminum spacer to center the springs on the shock.