

do you believe?

Kona's new magic Cadabra

KONA RAISED EYEBROWS WHEN IT announced its Magic Link-equipped CoilAir in 2008. After all, the company hadn't produced a new suspension system for the better part of a decade, choosing instead to rely on the classic four-bar design. What the four-bar lacked in sexy marketing mojo, it made up for with trademark Kona durability.

But when the company decided it wanted a better mousetrap, it did so with a newfangled design, the likes of which the industry had never seen—which is really saying something, considering the staggering number of suspension concepts that have come and gone.

The 2009 CoilAir transitioned from 6 to 7.4 inches of travel, thanks to a secondary "magic" link. For 2010, Kona has refined the system and spread the technology to more of the lineup. The revamped CoilAir has shed more than a pound, and travel now floats between 5 and 7.7 inches. The all-new Cadabra platform, meanwhile, has a travel range of 4 to 6.4 inches, and easily builds up to a sub-30-pound trail bike.



DEREK BERTHOLD

Brian Berthold has worked as a suspension engineer in a variety of sports—from motocross to Formula One. As the owner of Therapy Components, he's made floating brake-arm kits for mountain bikes for over a decade, and he has been developing frames with Kona for the past three years.

Is it hard to get people to believe in Magic?

At first, yes. We were not only introducing a totally new concept—a bizarre concept—but also, it's not an extension of a known theme, like a VPP or something. Some feared it was too complicated, and wouldn't hold up, but [test rider] Joe Schwartz, he travels around the world for Kona. I can't remember how many vertical feet he put on his bike, but his CoilAir is the most horsewhipped frame around, and those extra pivots didn't seem to be a problem for him.

The Magic Link bikes this year get a radical change—why?

I learned a lot more about working

with Kona's manufacturing capabilities. The rocker pivot is now forward of the seat tube, so in order to feed the stresses properly, we made this one-piece forging that has to be solid where the rocker link goes through, but then morph into this sheet-metal-thin shell. It's like a molded or cast piece, but it's forged, so it's incredibly light. And it makes for a much better-looking frame. Then we took the new downtube from the Cadabra and beefed it up to CoilAir standards. Even though every piece on the CoilAir is thicker, it's based on the same thing.

Why bring the Magic Link to shorter-travel bikes?

Many people, myself included, wanted a bike that did everything the first bike did, but didn't want to lug that frame around because they weren't jumping off houses. This thing feels like an XC bike. When you're riding it on level ground, it feels snappy, sprinty. It feels like it would be harsh, but then you just start clobbering stuff with it.

How does the Magic Link system work on the Cadabra?

When the Magic Link is fully active, the bike has 6.4 inches of travel. But it's based off of a 4-inch-travel frame. Because I'm only getting 4 inches of original travel, I need a shorter shock and a shorter rocker to drive it. Now I'm saving weight. That's a 1.5-inch-stroke air shock for a 2.7- to 2.8-to-1 motion ratio. But we're getting nearly 6.5 inches of travel. No one else on the planet will get that much out of a 1.5-inch-stroke shock. [E]