

FORMULA TheONE review www.sicklines.com, January 6, 2009

Introduction:

Formula knows a thing or two about making good brakes. The Formula ONE's are their most powerful brakes currently and they pack a lot of features to go in hand with their power.



MSRP: \$333.00 each side (*price excludes adapters and rotors)

Ever since the Oro lineup came out, Formula has been gaining steam and with some new brakes called the ONE and Mega. Added to the lineup last year, these new brakes have been taking chunks out of the braking market and for good reason. They pack a lot of power in a lightweight package that still lets you modulate the power. Read the details of the full review inside.

In The Field:

Jumping right into it, the Formula ONE's deliver ample power while still allowing the rider to easily control the braking power. The ONE is a very lightweight brake aimed at the DH/FR/Gravity market but due to its overall weight, can be used in XC/AM category just as easily for those wanting the benefits behind the ONE.



These brakes have a ton of power that put them up there as one of the most powerful brakes out on the market currently, but they are quite easy to control. The Formula ONE levers have a gold FCS (pad contact adjustment

knob) that lets you tweak the point at which the pads hit the rotor. The levers do require some pull before the pads contact the rotor and even dialing out the FCS adjuster fully doesn't seem to drastically change the bite point. If you're looking for instant engagement the ONE's are a bit harder to set up like this but the FCS does offer some adjustment that is nice.



FCS adjustment detail

Setting the reach is also a tool-free affair via the gold knob on the top of the lever blade. The lever itself isn't attached to the pushrod and can hyper extend in the event of a crash to help save the internals of the lever from damage.



reach adjustment detail

The lever profile is similar to a Bianco lever and really shines as a one finger braking affair. There is an engineered breaking point as well on the lever blade that gives you a small nub should you crash enabling you to get down the hill without a completely broken lever.



engineered breaking point detail

Formula sells a multitude of adapters to fit the ONE to every fork / frame out there. They even have a 7" Boxxer adapter available. We ran ours on various downhill bikes in an 8" front and 7" rear configuration mostly.



brake adapters

Throughout testing these brakes we found the brakes to be quite reliable and problem free. There wasn't any annoying rubbing or zinging noises as there was ample clearance between the pads and the rotor. Changing pads was easy as the pads are top loading. However, they do tend to wear out a little quick in our experience but lasted longer than the Bianco's in comparison. The brakes were also almost completely fade free except for the worst of conditions where they did need some slight extra lever pull.



top loading pad detail

Additionally, the Formula ONE's were pretty much silent in operation throughout a full year. We've ran them in just about every condition you could think of from wet rides, mud, and dry conditions.

In the preceding pages we'll take a look at the individual pieces of the brake and what we'd consider changing to make them even better.

The Lever:

The Formula ONE lever itself is light and is tool free in reach adjust and pad contact adjustment (FCS).



The lever itself is designed to be a one finger lever but you can get two on there if need be. It is modeled after the Bianco lever but is a little bit wider and has a nice feel to it. The pivot point is a bit further compared to Avid brakes so the lever pull might take a little getting used to if you're used to a lower pivot brake.



For comparison to the MEGA, the ONE lever is the same as the Mega except it has a tool free reach adjuster on the top of the lever.

The Formula ONE is a split clamp design and is easy to mount up to the bar. There is ample clearance for all the shifters we tried and is improved greatly in this area compared to the Oro lineup.



The Formula ONE lever also can hyper extend in the event of a crash as the lever pushes on a cam instead of being directly attached to the master cylinder rod. They have also put a clip / spring to give the lever some return power and to keep the lever from flopping forward.



The ONE has an engineered breaking point in the lever so should you go down, you will still have a sizeable nub left to get you down the hill safely.



lever detail of engineered breaking point

The ONE also uses a zero degree attachment and is easier to shorten compared to the Oro lineup that uses a 90 degree banjo.



The levers are flip flop as well so it's easy to run the brakes on the left or right with ease.

The Caliper:



The ONE caliper body itself is a mono block (The Mega and Oro series are a two piece for comparison). This gives a little bit stronger design overall and helps ensure the power goes to stopping you and not flexing the caliper body.



The ONE caliper also features two 24mm pistons, come stock with sintered metallic pads, and use bigger pads compared to the Oro lineup. The pads are also top loading so swapping out pads is easy and airflow is quite good to keep the brakes cool.



pad comparison - ONE on the sides and Oro in the middle

Weights:

The Formula One's are some light brakes and even beat out some XC brakes in the weight category. Check out our [weight section](#) to compare the ONE's to other brakes.

Part	Year	Real(g)	Pic.
Formula ONE Front Hose / Caliper / Lever (850mm)	2008	239	
Formula ONE Rear Hose / Caliper / Lever (1500mm)	2008	252	
Formula 180mm Rear Adapter (200mm IS front adapter)	2008	23	
Formula 200mm Boxxer Adapter	2008	20	
Formula 180mm Boxxer Adapter	2008	22	
Formula 200mm Rotor	2008	181	
Formula 180mm Rotor	2008	136	
Formula Caliper/Mounting Bolts (x2)	2008	12	
Formula Rotor Bolts (x6)	2008	13	

Possible Areas For Improvement:

- Bushings in the brake lever - Typically most every manufacturer (Formula included) include bushings that your lever sits on to keep things snug and easy to tighten up when things start to wear. There aren't any bushings on the ONE levers and we've found that over time ours have got a little bit of play in them.
- Lever spring - after some extensive use the spring holding the lever (and aiding in returning the lever back to normal position) can get a bit worn and can cause the levers to become a little floppy.
- Pad life - the ONE's have decent pad life considering the great stopping power they have but it would be nice if they lasted a little longer.
- Bite point - The ONE's activate a bit deep in the lever travel and it would be nice to have the option to have it contact sooner as well as having a bigger range of adjustment with the FCS dial.
- Caliper Banjo Reposition - The ONE's caliper banjo/bolt is located on the side of the caliper and although we didn't ever have any problems with it, it is somewhat exposed to direct contact.

Conclusion:

MSRP: \$333.00 each side (*price excludes adapters and rotors)

Overall we've been quite pleased with the Formula ONE in just about every aspect. They pack tons of power that rival just about every brake out there in terms of power except for the new Saint M815 brakes. The feel is quite great on them and the control of the ONE's is something every brake manufacturer should strive to hit.



As mentioned there are a few things we'd change about them but even with that small list it still doesn't take away drastically from the great experience we've had with these brakes. The only other issue we've had with these brakes is the rear master cylinder had a bad o-ring after about 9 months of use that was quickly remedied by Formula USA.



The brakes have held up strong and we'll continue to use them in the future as they've been very impressive to say the least. Pricewise they're not cheap but they pack tons of benefits and features that help lessen the blow to your wallet for these fine Italian brakes. Riders like Nicholas Vouilloz, Greg Minnaar, and Matti Lehtikainen have all use Formula disc brakes for good reason.

If you haven't been lucky enough to try Formula brakes out, give them a try if you can, as the performance speaks for itself. Chad at [Red Barn Bicycles](#) can get you a great deal on these fine brakes if you're looking for a good place to get them from.

[\[Formula Brake USA Website\]](#) [\[Formula ONE Gallery\]](#)