

**CANYON**



## CONTENTS

INTRODUCING THE NEW SPECTRAL:ON	— 04
LIGHTER AND MORE CAPABLE	— 06
BUILT FOR SPEED	— 07
PROVEN AND RELIABLE	— 07
DETAILS MAKE THE DIFFERENCE	— 08
SPECTRAL:ON FAQ	— 09
CHASSIS AND GEOMETRY	— 11
MOTOR & BATTERY	— 12
KEY COMPONENTS	— 13
GEOMETRY & SPECS	— 14

**INTRODUCING  
THE NEW  
SPECTRAL:ON**

When we launched the Spectral:ON two years ago, it immediately turned heads. Here was a rebel of a mountain bike that apparently missed the memo that e-MTBs were supposed to be clumsy and uninspiring. The Spectral:ON was playful. It was capable. It lived to get rowdy.

Today, we introduce the next generation of Spectral:ON and it clearly still hasn't got the message, because it's lighter, just as nimble, and even more disruptive.

SO, HERE'S A NEW TRUTH: POWER IS FUN.





## LIGHTER AND MORE CAPABLE

The Spectral:ON now features a sleek, carbon front triangle and neatly integrated internal battery. The new design is lighter, just as stiff, and, more importantly, it lowers the bike's centre of gravity – effectively turning the bike into even more of a corner-carving downhill beast. While we were at it, we fine-tuned the bike's geometry and suspension kinematics with an eye to increasing rider control, going up and down the mountain.

IN SHORT, THIS THING RIPS.





## PROVEN AND RELIABLE

The Spectral:ON is powered by you and Shimano's E8000 drive system – one of the most reliable e-assist systems available. Shimano's lightweight and compact motor gives us the flexibility to design the best-handling chassis possible. What's more, the E8000 system is capable of tripling your pedalling power with a smooth and natural feel that leaves you in complete control of your ride.

## BUILT FOR SPEED

E-mountain bikes can exact a heavy toll on their components. After all, when you introduce a motor to the mountain bike equation, you also add weight, speed, and mileage to the mix. That's why the Spectral:ON is equipped with massive 203 mm rotors and powerful four-piston disc brakes. It explains why we spec each model with burly FOX 36 or RockShox Lyrik forks. And, finally, it's the reason we obsess over every little detail: from tyre casings to freehub bodies. You're going nowhere fast if your components suddenly bite the dust in the middle of your ride.

THE SPECTRAL:ON IS BUILT FOR SPEED – FOR THE LONG HAUL.





## DETAILS MAKE THE DIFFERENCE

THE NEW SPECTRAL:ON IS LOADED WITH SMART DETAILS THAT DELIVER.

A fibre-reinforced skid plate that simultaneously shields the motor from rocks and serves as a bash guard for your chainring.

A custom Canyon SD:ON saddle gives you more leverage to scale steep climbs.

Our Canyon:ON bar and stem reduce cockpit clutter by allowing you to route wiring through the bar and stem.

And a top-tube mounted USB-C charging port ensures that you never run out of the juice to power up your light, smartphone, GPS unit, or other devices you want to bring along for the ride.



**SPECTRAL:ON**

**FAQ**

**WHEN DOES THE EMBARGO EXPIRE ON THE NEW SPECTRAL:ON MODELS? WHEN CAN JOURNALISTS PUBLISH STORIES AND PHOTOS FROM THIS PRESS LAUNCH?**

The global Start of Sale (SoS) date for the Spectral:ON is Tuesday 17 March 2020, 11:00 CET. From this time, the public will be able to see and purchase the bike at canyon.com. We'll be excited to see your stories about the Spectral:ON from this time onwards.

**WHAT WAS THE ULTIMATE GOAL WITH THE REDESIGN OF THE SPECTRAL:ON?**

We aimed to streamline the frame design, improve the bike's already-impressive descending performance, and give riders even more control on steep, technical climbs.

**HOW DID CANYON ACHIEVE THOSE GOALS?**

For starters, we made the front triangle on all new Spectral:ON models out of carbon fibre. By doing so we reduced frame weight yet maintained strength, stiffness, and improved the bike's overall ride quality.

Next, we moved from an external-battery design to a sleeker in-tube design. While external batteries have the benefit of being quick and easy to remove, placing the Shimano battery inside the downtube lowers the Spectral:ON's centre of gravity and makes it an even more confident descender.

We also improved the interface between rider and bike. For instance, we placed a new integrated on/off switch and weatherproofed USB-C charging socket on the top tube. This feature ensures you always have power to run key devices you might bring along on the ride, such as lights, smartphones, or GPS units.

Finally, we adjusted the bike's geometry and suspension to increase rider control. Adding a bit of length to the chainstays improves the Spectral:ON's performance on steep climbs. Fine-tuning the Spectral:ON's suspension kinematics gives riders more useable travel and greater tuning options.

**HOW MANY SPECTRAL:ON MODELS WILL THERE BE IN THE LINE-UP NOW AND WHAT WILL THEY COST?**

There will be four Spectral:ON models:  
Spectral:ON CF 9.0/ €6,999  
Spectral:ON CF 8.0/ €5,599  
Spectral:ON CF 7.0/ €4,599  
Spectral:ON CF WMN 7.0/ €4,599

**PLEASE NOTE:** All of the prices above are listed in Euros. Please confirm pricing within other markets with your local press contact. Pricing may also change between the time you see this advance press material and when the press embargo expires. Please verify suggested retail pricing prior to posting your article.

**WHEN WILL THE NEW BIKES BE AVAILABLE TO THE PUBLIC?**

All Spectral:ON models will be available on canyon.com beginning Tuesday 17 March 2020, 11:00 CET.



# CHASSIS AND GEOMETRY

## EVERY NEW SPECTRAL:ON FEATURES A CARBON FRONT TRIANGLE - WHAT'S THE BENEFIT?

Carbon can be used to make a lighter frame and we've accomplished that here. The new top-tier Spectral:ON is a full kilogram (2.2 pounds) lighter than its predecessor (21.6 versus 22.7 kilograms) and much of the weight loss is a result of the new chassis design.

### WEIGHT REDUCTION, HOWEVER, ISN'T THE ONLY BENEFIT.

Going with carbon fibre also helps us reinforce the structure and maintain front-end stiffness while reducing weight in other parts of the front triangle. In short, carbon fibre always has that 'looks cool and is super light' factor, but we truly leveraged the benefits of the material here to improve the Spectral:ON's ride quality.

## DID THE SPECTRAL:ON'S GEOMETRY CHANGE? IF SO, HOW AND WHY?

The short answer is that the bike's geometry stays largely the same, with a few key exceptions.

The most notable change are the longer chainstays. We added 5 millimetres of length to the chainstays on every size of Spectral:ON in order to improve its performance on climbs. The original Spectral:ON's very short (430 mm) chainstays made the bike playful, but the short rear centre also made it a challenge for some riders to evenly distribute their weight on steep ascents. As a result, there were occasions when the front wheel might wander or lift.

By adding a bit of length to the bike's rear centre we've increased rider control on climbs – the front wheel stays planted and tracks predictably. And when it's time to descend, the longer chainstays also increase high-speed stability on descents. Having said all of the above, the new Spectral:ON's chainstays are still quite short (435 mm), which helps the bike maintain its nimble ride quality.

Finally, we relaxed the head angle slightly to 66.5 degrees, which is slightly more flattened out than the 'slack' setting on the original Spectral:ON. We found most riders were opting to ride the original Spectral:ON in its slack mode all the time, so we made it the default head angle on this new Spectral:ON.

## HOW EXACTLY DID CANYON MAKE THE SUSPENSION MORE LINEAR?

We made the suspension slightly more linear by changing the rocker design so that it exerts more leverage on the shock itself.

## WHICH REAR SHOCKS CAN I RUN ON THE SPECTRAL:ON?

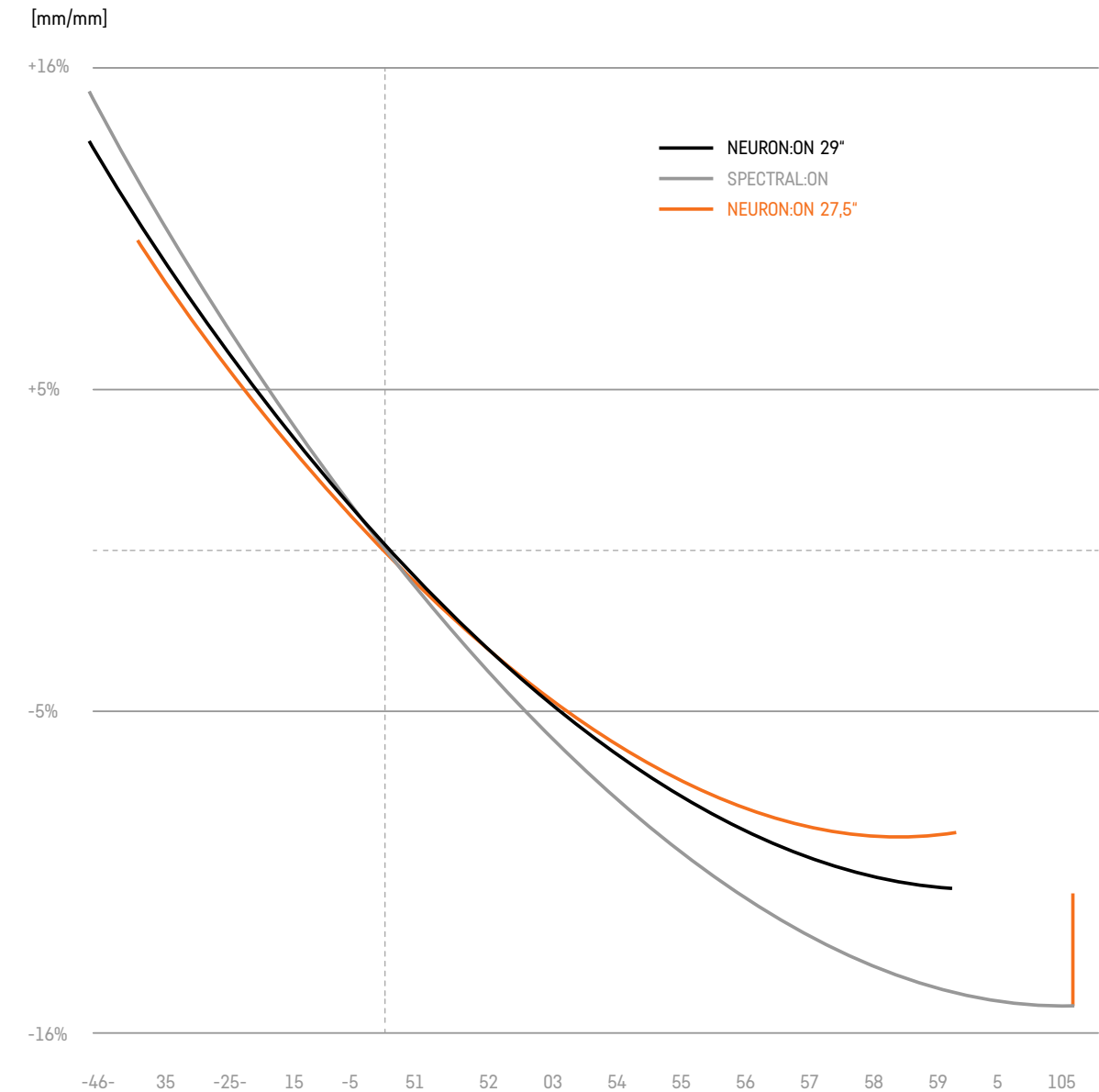
Spectral:ON models come equipped with either FOX DPX2 or RockShox Deluxe Select shocks, but they also accept most standard, air-sprung shocks with a 230 mm eye-to-eye measurement and 60 mm stroke. Since the shock is mounted beneath the top tube, there may not be enough clearance for some extra-large volume, air-sprung shocks (such as the FOX Float X2).

## CAN I PUT A COIL SHOCK ON THIS THING?

No. We designed the Spectral:ON's kinematics with the spring curve of an air shock in mind. Moreover, coil shocks are not ideal in designs that use clevis-mount shock extensions and rockers. The forces transferred (in such a design) to the smaller-diameter damper shafts used in coil shocks is quite high and can lead to shock failures. Air-sprung shocks are better suited to this design because they utilise larger-diameter damper shafts that better withstand those forces and thereby increase shock life.

## WHAT'S THE ACTUAL SUSPENSION TRAVEL?

The Spectral:ON features 150 mm of rear suspension which we've paired with 150 mm travel suspension forks.



# MOTOR & BATTERY

## THE NEW SPECTRAL:ON USES THE SHIMANO STEPS E8000 MOTOR AND THEIR 504-WH BATTERY. WHY DID CANYON CHOOSE TO GO WITH THE SHIMANO SYSTEM?

Shimano's system has a number of advantages. For starters, it's proven very reliable. That's vital. And in the rare event that riders actually need spare parts or assistance for either their motor or battery, Shimano has an extensive support network around the globe. In short, it's a good choice from the rider's point of view.

There are also benefits to the Shimano system from an engineering standpoint. The motor is quite light (2.8 kilograms) and it's relatively small, which gives our engineers more flexibility to design the best-handling bike possible. But perhaps the trait that we find most compelling in the Shimano motor is its actual ride feel. Shimano's motor has a very smooth and natural feel at the pedals. And when it comes to integration – the switch and display – Shimano makes one of the cleanest and easiest-to-operate systems available.

We recognize, of course, that there are larger-capacity batteries on the market and that range matters to riders. Ultimately, product development is often a question of trade-offs – you gain one thing at the expense of another. At this point in time, the many on-trail benefits of the Shimano STEPS E8000 system far outweigh the few drawbacks.

## HOW MANY KILOMETRES/MILES OF RIDING CAN RIDERS GET OUT OF THE FULLY CHARGED BATTERY?

It's impossible to give a definitive answer to this question since the range (on any e-bike) depends on several factors including the temperature outside, your weight, your cadence, how you use the power modes, how much you are climbing, etc.

In our own testing, we've found the maximum possible range for our Shimano STEPS E8000-equipped bikes to be 100 kilometres in 'Eco' mode.

## CAN YOU CHARGE THE BATTERY WITH IT EITHER ON OR OFF THE BIKE?

You can charge the battery whether it's installed or removed from the bike. There is a standard Shimano charging port built into the frame for on-the-bike charging. If you prefer to charge the battery by itself (in cases when you can't bring your bike within reach of an outlet), you can quickly and easily remove the battery with a standard 4 mm Allen key. The bolt securing the battery within the frame is located under the downtube.

## HOW LONG DOES IT TAKE TO CHARGE A FULLY DRAINED BATTERY?

We will sell all our Spectral, Neuron and Grand Canyon:ON bikes with a 2M charger, which charges a fully drained battery to 80% percent capacity in 4 hours. The same charger requires a total of 7.5 hours to charge a drained battery to 100%. However, we also offer riders the ability to upgrade to a faster (4M) charger, which fully charges a completely drained battery in just half that time.

While we could have made the faster 4M charger the standard option with each bike kit, doing so would have raised the price tag significantly. As a direct-to-consumer company we give riders the option when they are shopping on our site: Either choose the 2M charger and save money without sacrificing any on-trail performance or 'go big' with the fast charger. Everyone gets to pick the charger that best meets their needs.



# KEY COMPONENTS

## THE SPECTRAL:ON USES A 29-INCH FRONT WHEEL AND 27.5 REAR WHEEL. WHY?

The mixed wheel size configuration allows you to have a shorter rear centre for playful handling, while the 29er front wheel gives you stable handling and the ability to roll over anything that gets in its way. For an aggressive trail bike, it's an excellent combination of traits.

## THE TIRE WIDTH HAS CHANGED ON THE SPECTRAL:ON. WHY?

The original Spectral:ON featured a 27.5x2.8 rear tire because we were looking to boost uphill climbing traction with the "plus-sized" tire. While the larger-volume tire did provide additional grip, the 2.8 tires also tended to wallow and feel vague when pushed hard while cornering.

Consequently, we've moved to a Maxxis 27.5x2.6-inch rear tire and a Maxxis 29x2.5 WT front tire. This tire width combination gives you more precise handling and is better suited to aggressive riding. And as for the climbing traction, we've gained it back by lengthening the Spectral:ON's chainstays.

## DO SPECTRAL:ON BIKES FEATURE ANY E-MTB SPECIFIC COMPONENTS?

We aim to hit that ideal balance between keeping the bike light, while also equipping it with parts that hold up to hard riding at high speeds. The result? A good number of carefully selected components that might be easy to overlook at first glance.

All of the Spectral:ON models feature 203 mm rotors and four-piston brakes (front and rear) for maximum stopping power. In fact, we equipped the frame with a 203 mm post mount, so there's no need to use an adaptor in order to run big rotors. It's a cleaner design that also simply makes sense.

Wheels on e-MTBs take a lot of abuse. If you look at the spec sheet, you'll see that the models are spec'd with either e-MTB-specific wheels or RaceFace rims paired with reliable Shimano hubs and DT Swiss spokes. The Shimano freehub bodies are made of steel, to better withstand with increased torque transferred to the freehub by the motor. Another subtle but important bit of kit is the Maxxis Minion DHR2 2.6 EXO+ rear tire, which we've spec'd across the line. That tyre's reinforced casing provides good pinch-flat protection without adding much rotating weight to the bike.

Finally, we want to give riders the best performance from their suspension. Burly crowns, lowers, and stanchions are necessary here, which is why you'll find either Fox 36 or RockShox Lyrik forks on all the Spectral:ON models.

## WHAT ULTIMATELY SETS THE CANYON SPECTRAL:ON MODELS APART FROM OTHER E-MTBs?

### TWO THINGS: RIDE QUALITY AND ATTENTION TO DETAIL.

We designed this bike, from the start, to be an absolute ripper. We wanted a bike that was both nimble and capable. The combination of progressive geometry, a proven four-bar suspension system, mixed wheel size, and outstanding component spec sets the Spectral:ON apart from other e-MTBs out on the dirt.

The overall attention to detail also distinguishes the Spectral:ON. This is an incredibly streamlined bike with intuitive controls and a host of smart features that you don't find on most models:

- A fibre-reinforced motor cover that not only shields the motor from rocks, but also serves as a bash guard protecting our unique direct-mount chainring
- The cleanly integrated upper chainguide
- Integrated seatpost clamp
- USB-C charging port
- Custom grips
- Handlebars with internal wiring (for a very tidy cockpit)
- A saddle designed specifically to improve your control on the kinds of steep climbs that an e-MTB makes possible.



# GEOMETRY & SPECS

	Spectral:ON CF 9.0	Spectral:ON CF 8.0	Spectral:ON CF 7.0	Spectral:ON CF WMN 7.0
<b>FRAME</b>	M098, Carbon front triangle with 6061 alloy rear triangle	M098, Carbon front triangle with 6061 alloy rear triangle	M098, Carbon front triangle with 6061 alloy rear triangle	M098, Carbon front triangle with 6061 alloy rear triangle
<b>FORK</b>	Fox 36 Factory,	Fox 36 Performance Elite	Rock Shox Lyrik Select	Rock Shox Lyrik Select
<b>SHOCK</b>	Fox DPX2 Factory	Fox DPX2 Performance	Rock Shox Deluxe Select	Rock Shox Deluxe Select
<b>DRIVE UNIT</b>	Shimano DU-E8000	Shimano DU-E8000	Shimano DU-E8000	Shimano DU-E8000
<b>BATTERY</b>	Shimano BT-8035, 504Wh	Shimano BT-8035, 504Wh	Shimano BT-8035, 504Wh	Shimano BT-8035, 504Wh
<b>DISPLAY</b>	Shimano SC-E8000	Shimano SC-E8000	Shimano SC-E7000	Shimano SC-E7000
<b>SWITCH</b>	Shimano SW-E7000-L	Shimano SW-E7000-L	Shimano SW-E7000-L	Shimano SW-E7000-L
<b>GROUPSET</b>	Shimano XTR	Shimano XT	Shimano XT/ SLX	Shimano XT/ SLX
<b>BRAKE</b>	Shimano XTR 4-Piston, 203mm Rotor	Shimano XT 4-Piston, 203mm Rotor	Shimano MT520 4-Piston, 203mm Rotor	Shimano MT520 4-Piston, 203mm Rotor
<b>WHEELS</b>	Reynolds TRe Carbon	Race Face with Shimano XT hubs	Race Face with Shimano MT510/ MT400 hubs	Race Face with Shimano MT510/ MT400 hubs
<b>TYRES</b>	Maxxis Minion DHF 2.5 EXO   DHR2 2.6 EXO+	Maxxis Minion DHF 2.5 EXO   DHR2 2.6 EXO+	Maxxis Minion DHF 2.5 EXO   DHR2 2.6 EXO+	Maxxis Minion DHF 2.5 EXO   DHR2 2.6 EXO+
<b>CHAINRING</b>	Canyon CN:ON, 34t	Canyon CN:ON, 34t	Canyon CN:ON, 34t	Canyon CN:ON, 34t
<b>CRANK</b>	Shimano FC-E8000	Shimano FC-E8000	Shimano FC-E8000	Shimano FC-E8000
<b>GEAR RATIO</b>	34 - 10-51	34 - 10-51	34 - 10-51	34 - 10-51
<b>COCKPIT</b>	Canyon CF:ON CP0012 Copckpit	Canyon ON: Bar & Stem	ON: Bar & Stem	ON: Bar & Stem
<b>SADDLE</b>	Canyon SD:ON	Canyon SD:ON	Canyon SD:ON	Canyon SD:ON WMN
<b>SEATPOST</b>	Fox Transfer Factory	Iridium Dropper	Iridium Dropper	Iridium Dropper
<b>COLOURS</b>	Shades of shades	Shades of stealth   shades of purple	Shades of stealth   shades of blue shades of purple	Shades of stealth   shades of berry
<b>SIZES</b>	S, M, L, XL	S, M, L, XL	S, M, L, XL	S, M
<b>PRICE</b>	6999 €	5599 €	4599 €	4599 €

	S	M	L	XL
<b>WHEEL DIMENSION (REAR/FRONT)</b>	27.5/29"	27.5/29"	27.5/29"	27.5/29"
<b>TIRE SIZE (REAR/FRONT)</b>	2.6"/2.5"	2.6"/2.5"	2.6"/2.5"	2.6"/2.5"
<b>SEAT TUBE LENGTH</b>	430	440	480	520
<b>TOP TUBE LENGTH (HORIZONTAL)</b>	589,4	611,6	632,2	652,8
<b>HEAD TUBE LENGTH</b>	100	115	125	135
<b>HEAD TUBE ANGLE</b>	66,5	66,5	66,5	66,5
<b>SEAT TUBE ANGLE (ACTUAL TUBE ANGLE)</b>	69,2	69,6	70,0	70,3
<b>SEAT TUBE ANGLE (EFFECTIVE)</b>	74,5	74,5	74,5	74,5
<b>REFERENCE SEAT HEIGHT FOR DIMENSION E</b>	719	758	802	842
<b>CHAIN STAY LENGTH (HORIZONTAL)</b>	435	435	435	435
<b>WHEELBASE</b>	1171	1197	1221	1245
<b>STACK</b>	620,04	633,8	642,97	652,14
<b>REACH</b>	425	445	465	485
<b>BOTTOM BRACKET OFFSET (FRONT/REAR)</b>	33/24	33/25	33/26	33/27
<b>FORK LENGTH (PARALLEL TO STEER TUBE)</b>	559	559	559	559
<b>FORK OFFSET</b>	51	51	51	51
<b>FORK TRAVEL</b>	150	150	150	150
<b>REAR WHEEL TRAVEL</b>	150	150	150	150
<b>SHOCK LENGTH</b>	230	230	230	230
<b>SHOCK TRAVEL</b>	60	60	60	60
<b>STEM LENGTH</b>	50	50	50	50
<b>CRANK LENGTH</b>	165	165	165	165
<b>HANDLEBAR WIDTH</b>	760	780	780	780







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