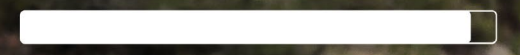


**CANYON**

# SPECTRAL:ON

FUN

MAX



POWER: ON

FUN: ON ▶



LOCATION

SW 40.741895, -73.989308

VERT. METERS

943 M

FUN METER



DISTANCE 09743 M

TIME 14:03

6HR

ALTITUDE

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# INTRO

There's a saying in German, "Man kann nicht auf zwei Hochzeiten gleichzeitig tanzen." Direct translation? You can't dance at two weddings at the same time or, as the English saying goes, "You can't have your cake and eat it too."

Conventional wisdom is clear – you can't always get what you want. Consider E-MTBs ... For years, riders have been told that they can either choose a clumsy, boat anchor of a bike with a big battery and massive range ... or they can buy a lighter, playful bike with a small battery and abysmal range. What they can't have, however, is a single bike that boasts both great ride quality and range.

At the risk of flinging dirt in the eye of conventional wisdom, we think that's utter crap.

The all-new Spectral:ON is proof that you can have your cake and eat it too – playful, nimble ride quality combined with the power to reel off the biggest rides. To make all that a reality, we went back to the drawing board and designed an even lighter and stronger, full-carbon chassis. While we were at it, we also co-developed our own state-of-the-art power supply. The end result is an e-mountain bike that gives riders the two things they want most – outstanding ride quality and the power to ride all day long.





## LIGHTER. STIFFER. STRONGER.

We faced a dilemma when we began developing the new Spectral:ON. We wanted to maintain the bike's trademark playful on-trail personality, but we also wanted to give riders the power and range to ride further than ever before. And there's the rub – adding range generally means adding more battery cells (and therefore weight) to the

mix. So how do you achieve the best of both worlds? You redesign the entire bike.

Starting from scratch, we cleaved massive weight from the Spectral:ON chassis. The new bikes are now fully carbon – gaining a carbon rear triangle for the first time. All-new carbon layup schedules and even more efficient frame architecture enabled us to gain strength while shearing grams. As befits a bike that's designed to be rallied hard on the roughest trails, both the CF and CFR frames now meet

even higher and more rigorous "Category 4E" strength and impact resistance testing standards.

That same drive to make a truly bombproof beast led us to bolster rear end stiffness with the addition of a new seatstay bridge and the adoption of burly ball bearings that now revolve around massive 15 mm thru-axles at both the main and seatstay pivots. The obvious upside is suspension that remains smooth in crappy conditions and outstanding durability. A less obvious (but no less important) benefit is a noticeable boost in handling precision as the stouter connections between frame members boost rear end stiffness – something you appreciate when pushing the limits of speed and common sense.

## STILL PLAYFUL. NOW MORE CAPABLE

Let's cut to the chase – yes, we made the new Spectral:ON longer, lower, and slacker. But, no, this isn't the slackest, longest, most progressive E-MTB on the market. And with good reason – we weren't aiming to build an E-Gravity or E-Enduro bike. We were looking to create the ultimate all-rounder – a bike that's equally at home on steep and technical trails as it is on flowy forms of singletrack.

So, here's what we did: We gave the Spectral:ON a more balanced and centered feel on steep descents by growing reach 25 millimeters per frame size, slackening the head angle by a degree and adding five millimeters of length to the chainstays. We also lopped about 20 millimeters of length from the seat tube, giving riders more opportunity to run longer dropper posts that make it easier to maneuver the bike on descents. Those modest (but significant) changes helped us retain the Spectral:ON's trademark lively ride quality while boosting its high-speed stability and confidence on steep, sketchy tracks.





## MORE MILES. MORE STROKE.

Range anxiety – the fear that you’ll suddenly run out of power – sucks. So, we eliminated it. We’ve equipped the new Spectral:ON with one of the biggest (and smartest) power plants in the world. The Spectral:ON is now available with both 720 and 900 Wh batteries that boost your mileage and stoke factor by 15 to 42%\* respectively. Or to put it in more practical terms – ride long, ride hard – the Spectral:ON gives you the power to absolutely crush the biggest rides with total confidence.

\*When compared with a standard Shimano EP8/630Wh battery combo.



<b>900 WH</b>	<b>720 WH</b>
97,2 km	77,7 km
2.132 m elev.	1.681 m elev.

**Standard Range Test: "R200"**

**Standard Elevation Gain Test: "R300"**

- 70 W Rider Power
- 200% support of the motor: 140 W
- Total Weight: 100 kg (Spectral:ON CFR: 22.2 kg and Rider: 77.8 kg)

## RANGE DONE RIGHT

Range matters. But strapping the biggest possible battery onto a bike doesn't always equal instant awesome. In fact, adding more cells to a battery generally adds more weight to the frame. The end result can be a top-heavy, unbalanced bike that handles with all the grace and precision of a high-speed train wreck. We went a different – and entirely awesome – route with a novel battery cell architecture that boosts both your range and ride quality. By arranging the battery cells horizontally, we've created a more compact and efficient battery layout.

We also optimized battery placement within the frame itself. Tilting the Shimano EP8 motor upwards at a 30-degree angle allowed us to tuck the battery lower within the frame – in front of the motor instead of above it. The end result is a lower center of gravity and an evenly-balanced weight distribution that makes the Spectral:ON an absolute ground-hugging, corner-schralping ripper of a bike.





## HASSLE-FREE FUELING

We've also made refueling the Spectral:ON a hassle-free affair whether you choose to charge the battery on or off the bike. The new Spectral:ON features a Rosenberger self-locating, magnetic charger plug. Charging the battery on the bike simply requires flipping open the waterproof charge port cover and letting the magnetic charger plug snap into place. No potential for broken connecting pins or imprecise connections – the magnetic attachment is simple, proven, and holds up to years of repeated charging.

For riders who prefer to remove the battery and charge it outside of the frame, we've engineered a new battery removal tray that's easy to use and absolutely secure – pull the lever, unscrew the two Allen bolts that secure the battery, and slide it right out of the downtube. A built-in charge indicator on the battery housing itself helps you gauge how much charge remains stored within the battery even when the battery is disconnected from your bike.



## PROVEN AND RELIABLE

The Spectral:ON is powered by Shimano's EP8 motor. At 2.6 kg, the magnesium-clad Shimano motor is one of the lightest full-power motors on the market. It's also one of the most powerful, with 85 Nm of peak torque that effectively quadruples your pedaling power and makes punching up steep climbs that much easier.





## DETAILS MAKE THE DIFFERENCE

The Spectral:ON is loaded with smart details that deliver out on the trail. Our fiber-reinforced skid plate, for instance, simultaneously shields the motor from rocks and serves as a bash guard for your chainring. Our Canyon:ON bar and stem reduce cockpit clutter by allowing you to route wiring through the bar and stem. What's more, our novel headset design (born from a partnership between Canyon and Acros) enables us to route the cables through the headset. This,

in turn, allows for tighter cable routing with no loss in shifting performance or binding sensation in the steering. Finally, our Quixle thru-axle design boosts rear end stiffness while tucking neatly into the axle – providing easy, tool-free wheel removal in a similarly streamlined package.

# FAQ

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

The embargo on all CF and CFR models expires at **11 am CET** (that's 2am Pacific Standard for the Americans) **on April 5, 2022**. Both the Canyon Spectral:ON CFR and Spectral:ON CFR LTD will be available for purchase on [canyon.com](https://www.canyon.com) from that point on, the CF models will follow in May.

To start things off, both CFR models will only be available with the large 900Wh battery. The three CF models will become available in May. Riders will also be able to choose between the 720Wh and 900Wh battery option on all CF and CFR models starting in May.



## HOW MANY SPECTRAL:ON MODELS WILL THERE BE IN THE LINE-UP FOR 2022?

There are five Spectral:ON models in the line-up – two CFR and three CF models. The models are spec'd as follows:

\*All markets outside of the United States will have Spectral:ON CFR models available with the large 900Wh battery on April 5 and following May. Riders can choose between the 720Wh and 900Wh battery option on all CF and CFR models.

### SPECTRAL:ON CFR LTD

- 21,94 kg. Carbon E-MTB (720WH Bat.)
- 22,85 kg. Carbon E-MTB (900WH Bat.)
- Shimano EP8 Motor
- Battery Options:
  - Canyon BT0002-01 (900Wh)
  - Canyon BT0001-01 (720Wh)\*
- RockShox Lyric Ultimate Flight Attendant, 150 mm Fork
- RockShox Super Deluxe Ultra Flight Attendant Shock, 155 mm rear suspension
- SRAM XX1 Eagle AXS, 12s Drivetrain
- DT Swiss HXC 1501 Mullet (30f/35r) Wheels
- RockShox Reverb AXS Dropper Post; S: 125 mm; M: 150 mm, L-XL: 170 mm
- Canyon CP0012 Cockpit, S: 760 mm; M-XL: 780 mm
- Color: Depp Space
- Sizes: S-XL

### SPECTRAL:ON CFR

- 21,84 kg. Carbon E-MTB (720WH Bat.)
- 22,75 kg. Carbon E-MTB (900WH Bat.)
- Shimano EP8 Motor
- Battery Options:
  - Canyon BT0002-01 (900Wh)
  - Canyon BT0001-01 (720Wh)\*
- FOX 36 Factory Grip2, 150 mm Fork
- FOX Float X Factory Shock, 155 mm rear suspension
- Shimano XTR, 12s Drivetrain
- Reynolds TRE309/367 Mullet (30f/36r) Wheels
- FOX Transfer Dropper Post; S: 125 mm; M: 150 mm, L-XL: 170 mm
- Canyon HB0057 Bars, S: 760 mm; M-XL: 780 mm
- Color: Endless Black
- Sizes: S-XL

### SPECTRAL:ON CF 9

- 22,84 kg. Carbon E-MTB (720WH Bat.)
- 23,85 kg. Carbon E-MTB (900WH Bat.)
- Shimano EP8 Motor
- Battery Options:
  - Canyon BT0002-01 (900Wh)
  - Canyon BT0001-01 (720Wh)\*
- FOX 36 Performance Elite, 150 mm Fork
- FOX Float X Performance Shock, 155 mm rear suspension
- SRAM XX1 GX Eagle AXS, 12s Drivetrain
- DT Swiss H1900 Mullet (30f/35r) Wheels
- Iridium Dropper SP0050 Dropper post; S: 125 mm; M: 150 mm, L-XL: 170 mm
- Canyon HB0057 Bars, S: 760 mm; M-XL: 780 mm
- Colors: Stealth, Eternal Blue
- Sizes: S-XL

### SPECTRAL:ON CF 8

- 23,04 kg. Carbon E-MTB (720WH Bat.)
- 23,95 kg. Carbon E-MTB (900WH Bat.)
- Shimano EP8 Motor
- Battery Options:
  - Canyon BT0002-01 (900Wh)
  - Canyon BT0001-01 (720Wh)\*
- FOX 36 Rhythm Grip, 150 mm Fork
- FOX DPS Performance Shock, 155 mm rear suspension
- Shimano XT, 12s Drivetrain
- Sunringle Duroc Mullet (37f/42r) Wheels
- Iridium Dropper SP0050 Dropper post; S: 125 mm; M: 150 mm, L-XL: 170 mm
- Canyon HB0057 Bars, S: 760 mm; M-XL: 780 mm
- Colors: Stealth, Green Vastness
- Sizes: S-XL

### SPECTRAL:ON CF 7

- 23,04 kg. Carbon E-MTB (720WH Bat.)
- 23,95 kg. Carbon E-MTB (900WH Bat.)
- Shimano EP8 Motor
- Battery Options:
  - Canyon BT0002-01 (900Wh)
  - Canyon BT0001-01 (720Wh)\*
- RockShox Lyric Select, 150 mm Fork
- RockShox Deluxe Select, 155 mm rear suspension
- Shimano XT, 12s Drivetrain
- RaceFace AR30/AR35 w/ Shimano MT400/MT510 Hub Mullet (30f/35r) Wheels
- Iridium Dropper SP0050 Dropper post; S: 125 mm; M: 150 mm, L-XL: 170 mm
- Canyon HB0057 Bars, S: 760 mm; M-XL: 780 mm
- Colors: Stealth, Infinite Red, Boundless Grey
- Sizes: S-XL

A full overview of each model's spec can be found [here](#).



### **WHEN WILL THE NEW SPECTRAL:ON MODELS BE AVAILABLE FOR PURCHASE?**

It depends on the model. All markets outside of the United States will have Spectral:ON CFR models available on April 5 and can expect to also have Spectral:ON CF models available in May.

To start things off, both CFR models will only be available with the large 900 Wh battery. Following May, Riders can choose between the 720 Wh and 900 Wh battery option on all CF and CFR models.

Canyon USA, on the other hand, expects to have Spectral:ON CF models in late spring and should have CFR models in the Fall of 2022.

### **WHAT KIND OF E-MTB IS THE SPECTRAL:ON?**

Like its namesake, the Spectral, the Spectral:ON is a "one bike, any trail" kind of machine. The Spectral:ON can tackle seriously chunky terrain thanks to its 155 mm of rear suspension, dialed chassis stiffness, low center of gravity, and steeze-enhancing mullet wheel setup.

Now, having said all of the above, the Spectral:ON is not the longest, slackest bike in the world. Frankly, we weren't trying to create a dedicated E-Gravity or Enduro bike. Those bikes are well and good (in fact, they are a lot of fun), but we wanted to build a bike that you could take anywhere – from relatively mellow singletrack to a legitimately hairball bike park run – and have a good time. While this new Spectral:ON is, indeed, longer and slacker than its predecessor, it still rocks a very balanced geo that works well beneath a lot of different riders and on a lot of different types of terrain.

### **CANYON RELEASED A NEW SPECTRAL:ON LAST SEASON. WHAT MAKES THIS 2022 VERSION DIFFERENT?**

Everything. We've essentially made the Spectral:ON more capable and boosted its range. More impressive still, if you compare our new 720 Wh Spectral:ON models with the equivalent 630 Wh versions from the previous generation, you'll find that we achieved all of this without also gaining overall bike weight.

We've created an entirely new, full-carbon chassis with two frame platforms: CFR and CF – all of which:

1. Feature slacker head angles, steeper seat angles, and slightly longer chainstays;
2. Have lighter frames than their predecessors,
3. Withstand even greater levels of stress on the trail, and
4. Boast new, larger 720 or 900 Wh batteries.

**WHAT WAS CANYON AIMING TO ACHIEVE WITH THE NEW SPECTRAL:ON?**

Our primary goal was to give riders the ability to ride further and faster, without imposing any weight penalties on them. That meant increasing the Spectral:ON's range without simultaneously increasing the overall system weight. It was an ambitious target considering that adding more range inherently requires adding more batteries ... and adding more batteries inherently means adding more weight.

Thanks to clever engineering, we were able to increase range by 15% with 720Wh batteries while actually reducing overall bike weight.

For instance, our flagship 2021 model, the XTR-equipped Spectral:ON CF 9, tipped the scales at 22.5 kg (size M). By contrast, our new XTR-equipped Spectral:ON CFR is 610 grams lighter than its predecessor despite being equipped with our larger 720Wh battery.

When equipped with our massive 900Wh battery, the new Spectral:ON CFR weighs just 350 grams more than its predecessor, yet boasts a 42% boost in battery capacity.

**WHAT SETS THE CANYON SPECTRAL:ON MODELS APART FROM OTHER E-MTBS IN ITS CLASS?**

The thing that truly sets the Spectral:ON apart is its ride quality. It's not easy to make a full-power E-MTB feel playful. Let's face it – bikes with this much power and range simply weigh more than their analog counterparts. And yet, the Spectral:ON captures a lot of the nimble ride quality of a pure-pedal bike. The Spectral:ON's relatively short chainstays, mullet wheelsize combo, and balanced geometry make it a blast to ride on a wide variety of terrain ranging from steep, technical descents to flowy singletrack.

The Spectral:ON also delivers an uncommonly high degree of "bang for your buck". For starters, all Spectral:ON models feature full (front and rear) carbon frames. You even get full carbon frames at prices normally reserved for aluminum E-MTBs. And then there's the question of range – the Spectral:ON is class leading on that score. Our base-level 720Wh battery offers riders more ride time and range than plenty top-tier offerings from other brands. What's more, Spectral:ON riders looking to log maximum miles can upgrade from 720 to 900Wh batteries, which simply isn't an option on most E-MTBs.

	2021 SPECTRAL:ON CF 9 630 WH	2022 SPECTRAL:ON CFR 720 WH	2022 SPECTRAL:ON CFR 900 WH
<b>GROUP</b>	XTR Mechanical FOX Factory Susp. Reynolds TRE309 Wheelset	XTR Mechanical FOX Factory Susp. Reynolds TRE309 Wheelset	XTR Mechanical FOX Factory Susp. Reynolds TRE309 Wheelset
<b>FRAME LEVEL</b>	CF	CFR	CFR
<b>BATTERY CAPACITY</b>	630Wh	720 Wh	900 Wh
<b>WEIGHT (SIZE M)</b>	22.5 kg	21.84 kg	22.75 kg

# CHASSIS

## **CANYON IS OFFERING BOTH CFR AND CF LEVEL SPECTRAL:ON MODELS? WHAT'S THE DIFFERENCE, ASIDE FROM THE LETTER "R" IN THE NAME?**

What ultimately sets the CFR and CF frames apart is weight. A size Medium CFR frame weighs 2,880 grams (6.34 pounds) – that's 300 grams less than a Medium Spectral:ON CF frame. Stiffness, durability, and core frame features are the same across both the CFR and CF frame platforms. We achieved the weight savings on the CFR models purely through material and layup differences.

## **HOW MUCH DOES THE SPECTRAL:ON CF FRAME WEIGH?**

The new size Medium Spectral:ON CF frame weighs 3,180 grams.

## **HOW MUCH DOES THE SPECTRAL:ON CFR FRAME WEIGH?**

2,880 grams in size Medium (7.01 pounds).

## **DID YOU HAVE SPECIFIC FRAME STIFFNESS AND STRENGTH GOALS FOR THE SPECTRAL:ON?**

The new Spectral:ON benefits from increased stiffness and reliability. While we encountered no reliability issues with the previous generation of the Spectral:ON, we always aim to push performance further. Riders are constantly raising the bar on their riding and bikes need to keep pace with this evolution towards more and more aggressive riding. In this case, we realized greater rear-end stiffness and durability by evolving the pivot bearing design. The new Spectral:ON features significantly larger, 15 mm pivot axles and larger ball bearings. The end result is even better durability and handling in the roughest of conditions.

## **WHAT ARE THE LIMITS OF THE SPECTRAL:ON CHASSIS?**

We designed the Spectral:ON to be incredibly versatile – a bike you can take on long singletrack expeditions as well as the occasional bike park foray. Bottom line, it needed to be

tough. While the previous Spectral:ON was tested to our Category 3 standard, we raised the bar with this new model.

The new Spectral:ON meets the same demanding strength and impact resistance standards as our Enduro race models, but with a slight twist – we subject the Spectral:ON to more testing cycles than normally called for in our Category 4 testing standard. We call this "Category 4E". We've developed this more stringent testing standard for E-MTBs in recognition of the greater stresses that E-MTBs experience. Both CF and CFR models meet this new, higher strength and durability standard.

## **EASY MAINTENANCE HAS BEEN A DRIVING FACTOR IN THE DESIGN OF RECENT CANYON MODELS, SUCH AS THE SPECTRAL. WAS MAKING THE NEW SPECTRAL:ON SIMPLE TO MAINTAIN ALSO A FACTOR IN ITS DESIGN?**

Absolutely. Ease of maintenance was a driving influence on this redesign. If we can simplify a product

and have it function as well as (or better than) a more complex version of that same product, then it's inherently a better product. Fewer components ultimately mean fewer things the rider has to maintain over the years.

You can see this logic manifested in how we designed and arranged the wiring harness on the new Spectral:ON. There are just three electrical wires routed within the entire bike now. One wire runs from the HMI (the display unit) through the downtube and connects directly to the motor. The second wire runs from the motor to the battery. The third wire connects the motor to the speed sensor. That's it – just three wires. Most e-bikes (including the previous Spectral:ON) feature a much more complex wiring configuration. Simple is good.



# GEOMETRY

## DID THE GEOMETRY EVOLVE WITH THIS NEW VERSION OF THE SPECTRAL:ON?

Yes. Frame geometry continues to evolve and each generation of the Spectral:ON has evolved alongside that trend. Our goal was to continue to make a well-balanced bike that performed well in a wide range of conditions – in essence, the ultimate all-mountain/trail E-MTB.

## WHAT DOES THAT ACTUALLY MEAN?

The Spectral:ON has always been a super playful bike, which is not easy to achieve on any 20+ kilo, full-power E-MTB. We wanted to maintain that playful ride quality, and that meant keeping the rear end short, but not too short. By adding 5 mm of length to the chainstays, we improved the bike's traction and balance on steep climbs yet kept the rear end short enough to make the bike a blast when ripping from one corner to the next on tight trails.

That same desire to improve climbing performance led us to also steepen the seat tube angle by two degrees (from 74.5 to 76.5 degrees) – an immediately noticeable difference.

To improve your control on descents, we grew the Spectral:ON's reach by 25 mm per frame size and slackened the head angle by a degree. Finally, we also shortened the seat tube length by 20 mm, which allows for longer dropper post lengths.

## HOW MANY SIZES ARE ON OFFER?

We offer the Spectral:ON in four sizes: S, M, L, and XL. Size S is only available with the 720Wh battery while sizes M–XL are available with a choice between the 720Wh (From May on) and 900Wh batteries.

## IS THERE A GEOMETRY CHART?

Sure. Here it is:

FRAME SIZE	S	M	L	XL
BODY HEIGHT (CM)	166–175	175–183	183–192	192–200
TOP TUBE LENGTH (MM)	589	613	637	663
HEAD TUBE LENGTH (MM)	115	125	135	145
HEAD TUBE ANGLE (°)	65.50	65.50	65.50	65.50
SEAT TUBE LENGTH (MM)	420	440	460	480
SEAT TUBE ANGLE (°)	76.50	76.50	76.50	76.50
CHAINSTAY LENGTH (MM)	440	440	440	440
WHEELBASE (MM)	1194	1223	1252	1281
STACK (MM)	634	643	652	661
REACH (MM)	435	460	485	510
STAND-OVER HEIGHT (MM)	809	814	820	825
BB DROP (MM) FRONT/REAR	35.5/19	35.5/19	35.5/19	35.5/19
FRONT TRAVEL (MM)	150	150	150	150
REAR TRAVEL (MM)	155	155	155	155



## SUSPENSION

### **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 utilize larger-diameter damper shafts that better withstand those forces and thereby increase shock life.

### **WHAT'S THE ACTUAL SUSPENSION TRAVEL?**

The Spectral:ON features 155 mm of rear suspension which we've paired with 150 mm travel suspension forks.

### **CAN I PUT A LONGER-TRAVEL FORK ON THIS THING? IF SO, HOW LONG CAN I GO?**

The Spectral:ON is rated and approved for forks with up to 160 mm of suspension travel.

## THE NERDY BITS

### WHAT IS THE MAXIMUM DROPPER POST LENGTH THAT YOU CAN RUN ON THE SPECTRAL:ON?

This new generation of the Spectral:ON sports a shorter seat tube than its predecessor. As a result, size Large and X-Large frames are equipped with 170 mm (RockShox) and 175 mm (FOX) dropper posts. Mediums run 150 mm droppers. Size Small bikes feature 125 mm (FOX) and 130 mm (RockShox) droppers.

### THE SPECTRAL:ON USES A 29-INCH FRONT WHEEL AND 27.5 REAR WHEEL. WHY? WHAT'S THE BENEFIT OF A MULLET SET UP?

The mixed wheel size configuration allows you to have a shorter rear center 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.

### CAN YOU CONVERT THE SPECTRAL:ON TO FULL 29ER?

No. The Spectral:ON is designed around a 27.5-inch rear wheel. Attempting to fit a larger (29-inch) wheel on the back end of the Spectral:ON would adversely affect the geometry and reduce handling control. Moreover, since we designed the tire clearance around the smaller 27.5-inch wheel, attempting to use a larger (29er) rear wheel could also damage the frame.

### WHAT TIRE SIZE DO YOU SPEC ON THE SPECTRAL:ON?

All Spectral:ONs are equipped with 29x2.5 front tires and 27.5x2.6 rear tires.

### WHAT'S THE MAXIMUM REAR TIRE SIZE (WIDTH) FOR THE SPECTRAL:ON?

27.5x2.6



# MOTOR AND BATTERY

## THE SPECTRAL:ON USES A SHIMANO EP8 MOTOR. 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 (2.6 kilograms) and 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.

Last but not least, choosing Shimano opened up the opportunity to equip the Spectral:ON with the largest possible batteries – giving riders the greatest range per charge possible.

## WHICH BATTERY DOES THE NEW SPECTRAL:ON USE?

The Spectral:ON is available with both 720Wh and 900Wh Canyon batteries. Canyon's batteries are part of the Shimano Steps Service Program. This means consumers can order replacement batteries or get warranty support through bike shops that are Shimano dealers.

## WHY DID CANYON CHOOSE TO DEVELOP ITS OWN BATTERY?

Ride quality and range. Developing our own battery allowed us to give riders more miles from every charge while also improving the Spectral:ON's center of gravity and weight distribution. In short, going with our own battery opened the doors to providing riders with what they want most – outstanding ride quality and the ability to get out and ride all day long.

## HOW MUCH DOES THE 720 WH BATTERY WEIGH?

3.84 kg

## HOW MUCH DOES THE 900 WH BATTERY WEIGH?

4.75 kg

## HOW DO THOSE BATTERY WEIGHTS COMPARE WITH A STANDARD 630 WH SHIMANO BATTERY?

Shimano's 630Wh BT-E8036 battery tips the scales at 3.7 kg.

## HOW MANY MORE MILES (COMPARED TO THE STANDARD 630 WH BATTERY) CAN RIDERS EXPECT TO GET FROM FULL CHARGES ON THE 720 WH AND 900 WH BATTERIES?

It's impossible to give a single prediction of how many miles any one rider will get out of a full battery charge, from any bike brand. Your mileage on any E-Bike is impacted by your weight, your cadence, your usage of different power settings, the steepness of your climbs, the ambient temperature during the ride, and much more.

But the question how far you can pedal any E-MTB is entirely valid.

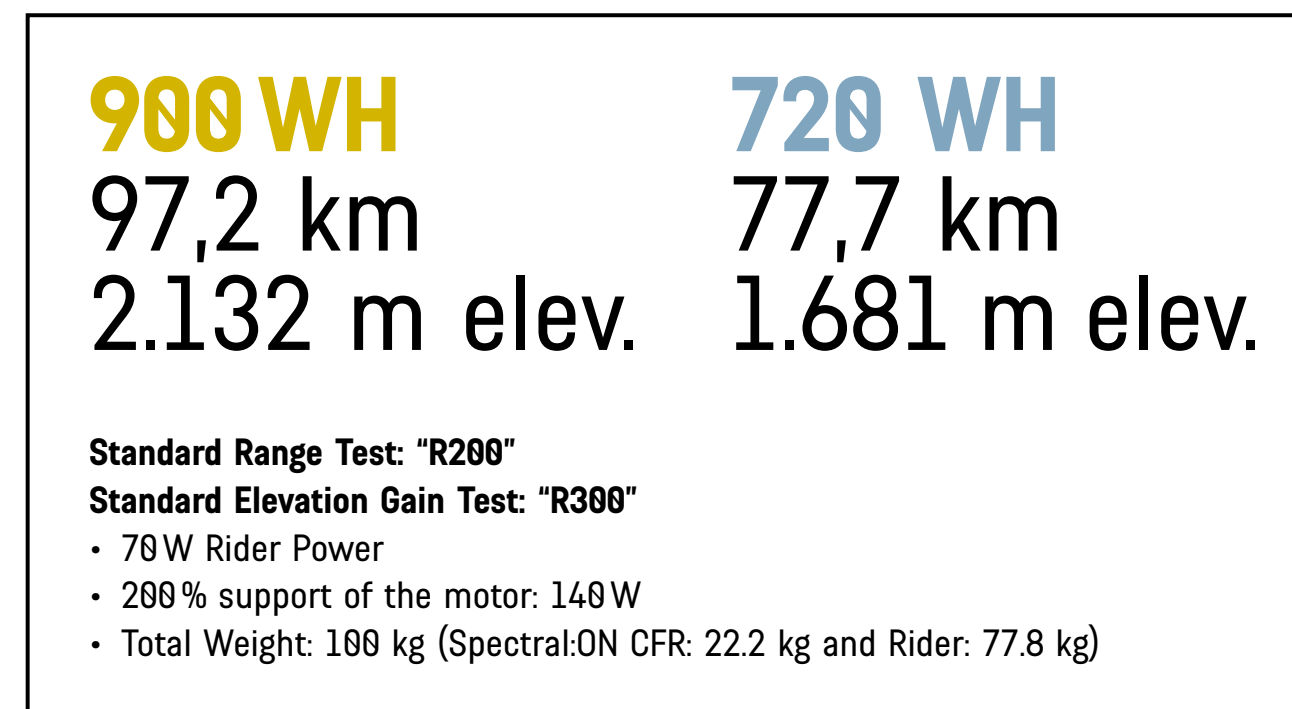
So where does that leave us? Well, given the sheer watt-hour increase (from a standard Shimano 630Wh battery), we can say that the 720Wh battery provides a 15% boost in capacity while the 900Wh battery offers a 42% increase.

Moreover, we've also submitted the new Spectral:ON to independent range testing in which the Spectral:ON CFR was subjected to the "Standardized Range Test R200".

Created in 2018, R200 is an E-Bike range test developed by Bosch and ZIV (Germany's bicycle industry association) with cooperation from Shimano, the Accell Group, and several other bike brands. The goal

of the R200 standard is to create a more objective and transparent way of communicating how far you can ride on a single battery charge on any given bike. In other words, R200 can give riders a more "apples to apples" comparison between different E-MTB models.

The R200 standard sets forth clear and repeatable test protocols that aim to replicate real-world riding conditions. We could seriously write a technical white paper on the R200 standard alone, but since we don't want to bore you, we'll get straight to the point. Here's how the Spectral:ON CFR fared, when equipped with both the 720Wh and 900Wh batteries.





**WHICH MODELS IN THE NEW SPECTRAL:ON LINE GET 720 WH BATTERIES AND WHICH MODELS GET 900 WH BATTERIES?**

All size Small Spectral:ON models are limited to 720Wh batteries, due to the size of their down tubes.

All Medium through X-Large Spectral:ON models sold outside of the United States will be offered in both 720 and 900Wh battery versions.

In the United States, the Spectral:ON CFR and Spectral:ON CF 8 are offered only with 900Wh in size Medium through X-Large, while the Spectral:ON CF 7 will be equipped with 720Wh batteries on all sizes. Consumers in America will, however, also have the option to upgrade M-XL Spectral:ON CF 7 models to the 900Wh batteries while supplies of the bigger batteries last.

**IS THIS NEW SPECTRAL:ON ALSO COMPATIBLE WITH THE EXISTING SHIMANO 630 WH BATTERY?**

No.

**IS THIS NEW SPECTRAL:ON COMPATIBLE WITH ANY OF THE OTHER EXTENDED-CAPACITY BATTERIES THAT ARE PAIRED WITH SHIMANO EP8 MOTORS ON OTHER BRANDS' BIKES?**

No.

**WHERE CAN RIDERS GET WARRANTY SUPPORT OR PURCHASE REPLACEMENT 720 WH AND 900 WH BATTERIES IN THE FUTURE?**

Canyon's batteries are part of the Shimano Steps Service Program. This means consumers can order replacement batteries or get warranty support through bike shops that are Shimano dealers.

**WHAT IS THE WARRANTY ON THE BATTERY?**

Shimano supports Canyon batteries with a 1-year warranty.

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

Absolutely. The new Rosenberger-style magnetic connector makes charging the battery "on board" the bike even easier than before.

Removing the battery and charging it separately is also incredibly simple, merely requiring that riders unscrew two fixing bolts and then slide the battery out of the down-tube. In that latter case, a helpful charge indicator on the battery housing lets riders now how much charge remains in their battery.

**HOW LONG DOES IT TAKE TO CHARGE THE FULLY DRAINED 720 WH AND 900 WH BATTERIES?**

720Wh w/4A Charger: 5.8 – 6.3h  
900Wh w/4A Charger: 7.2 – 7.8h  
720Wh w/6A Charger: 4.0 – 4.7h  
900Wh w/6A Charger: 5.0 – 5.6h

**CAN YOU USE A SHIMANO BATTERY CHARGER OR DO THESE BATTERIES REQUIRE A UNIQUE CHARGER?**

Standard Shimano battery chargers are not compatible with the new Spectral:ON batteries. Consumers will need to use the battery charger delivered with their Spectral:ON. Canyon battery chargers will also be available on [canyon.com](http://canyon.com).



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