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> **News**

More power, adjustability, and sizes. Specialized Levo SL II

Specialized roll out significant changes to their trail-friendly lightweight



By **Luke Marshall**

Published: April 28, 2023 at 8:22 am

The latest Turbo LEVO SL II e-bike from Specialized has undergone some modifications to remove its sidearm while also offering more geometry adjustability and in addition, the bike boasts 150mm of rear wheel travel and a 160mm travel front as standard.

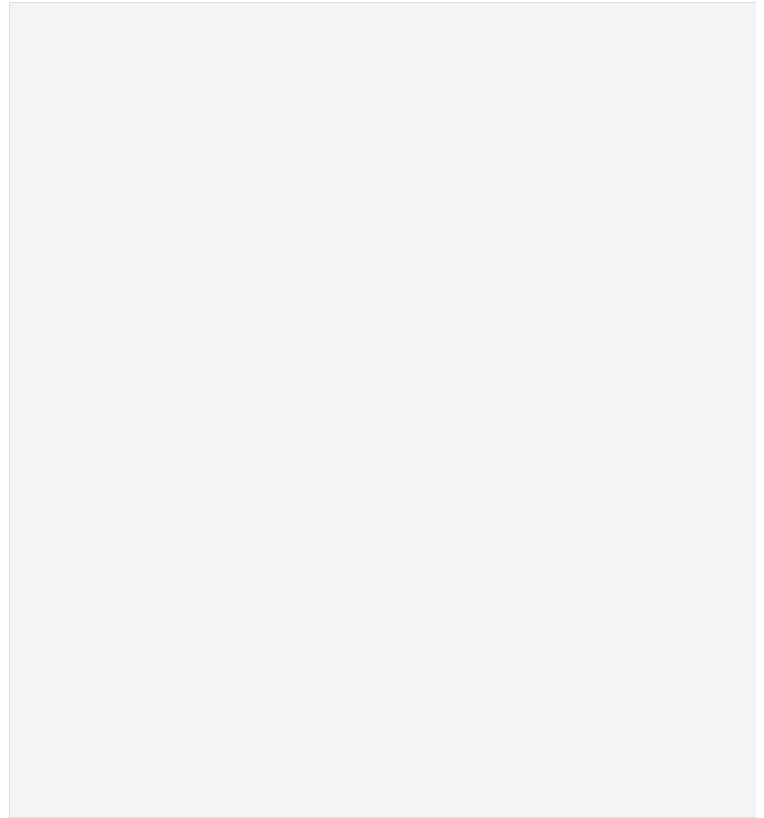
Advertisement

The Turbo Levo SL II now features a new motor – the Turbo SL 1.2 – which compares to the previous SL 1.1 motor. Additionally, the new motor claims

The kinematics have also been adjusted to improve overall trail performance. Custom RX shock tunes for the kinematics.

There are two models being released currently, the £13,000 / \$14,000 / €14,800 / €7,900 Turbo Levo SL II Comp Carbon. We expect more models to launch in the future.

The motor matters



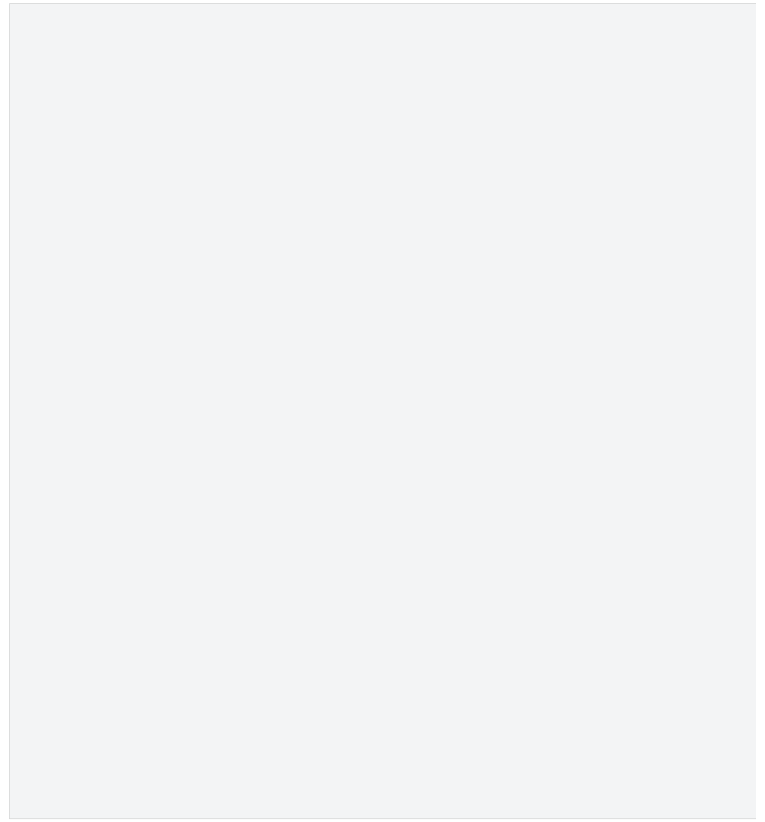
At the heart of the Specialized Turbo Levo SL II is the new, more powerful Specialized Turbo SL 1.2 motor.

Like any new e-bike with an updated motor, we all want to know what's 'under the hood'. The new motor outputs 50Nm torque with a peak power of 320W. That's increased from 35Nm and 250W on the previous model, and aligns with other current lightweight e-bike motors such as the TQ HPR.

This means the new Turbo Levo SL II will provide more assistance to make climbing easier.

The Turbo Levo SL II uses a non-removable 320Wh battery. You can also add a second battery to the bike's bottle cage for a maximum 480Wh capacity which should help reduce range anxiety.

A few motor details include a new two-piece motor housing with an integrated noise. In addition, there's a new gearbox design to reduce noise further to 65 dB(A) at 1 meter, meaning it can be submerged in up to one meter of water for 30 minutes.



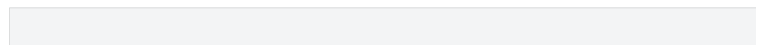
The new Specialized Turbo SL 1.2 motor features a new gearbox and honeycomb two-piece casing to reduce noise.

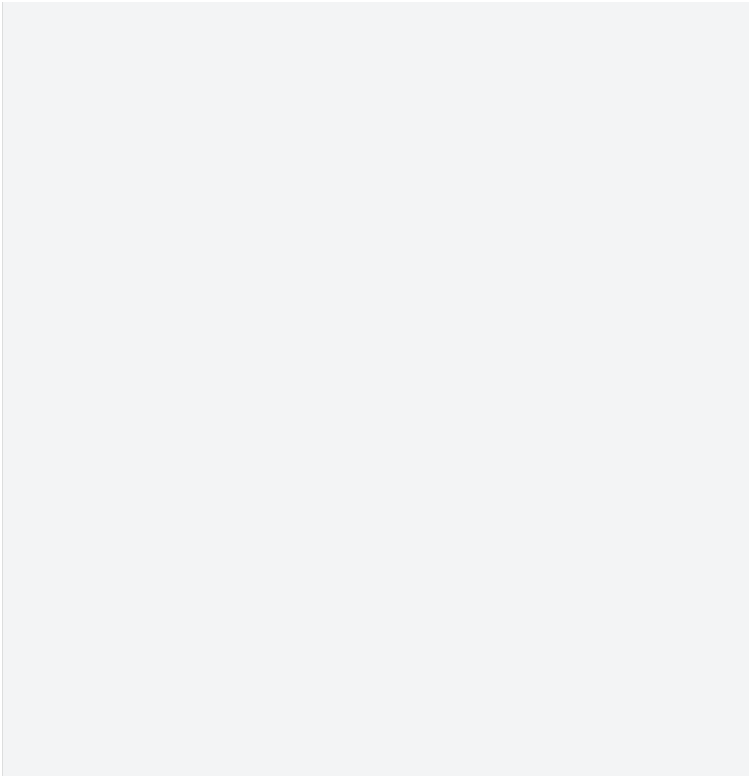
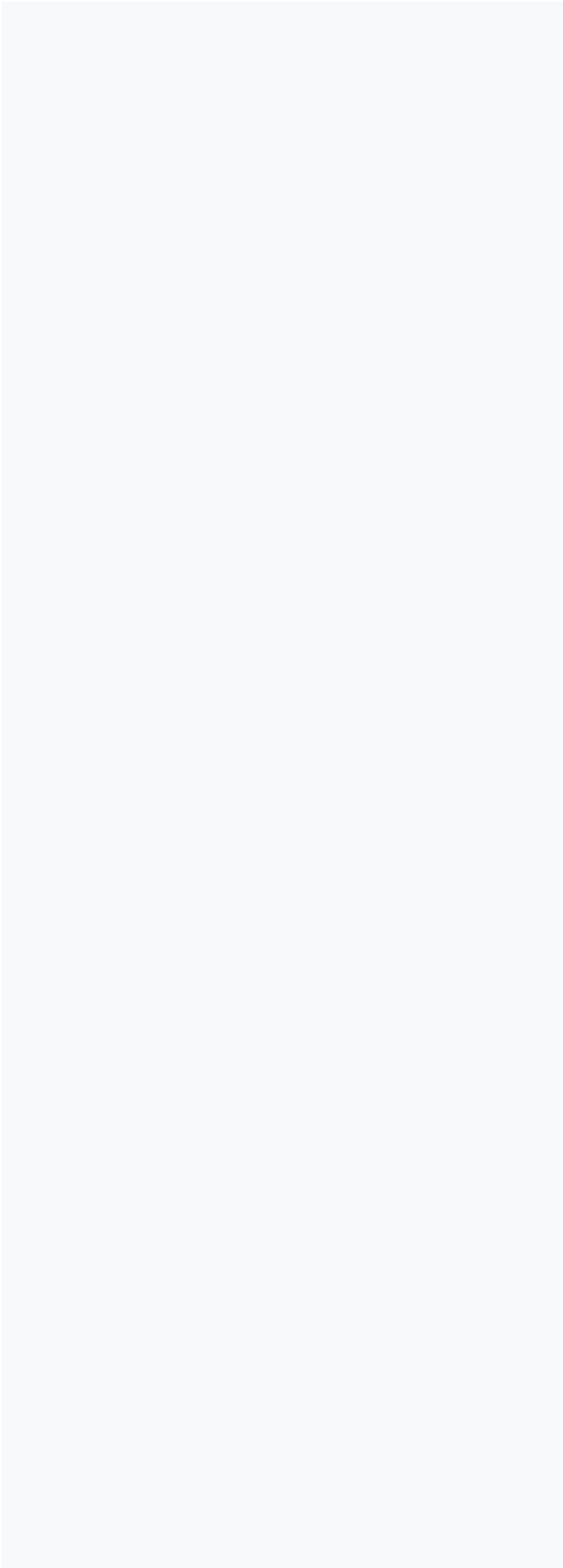
Specialized claims the motor has a wide optimized cadence range of support for all riding styles. Specialized has yet to present a motor weight, but a size S4 S-Works Turbo SL 1.2 is hefty.

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The drive unit modes include Eco, Trial, Turbo, Walk, and Micro Tune. Eco, Turbo, and Walk can be adjusted in Specialized's Mission Control app. Micro Tune is a method of adjusting power to tailor the power to suit your ride and situation from the remote control.

Connectivity



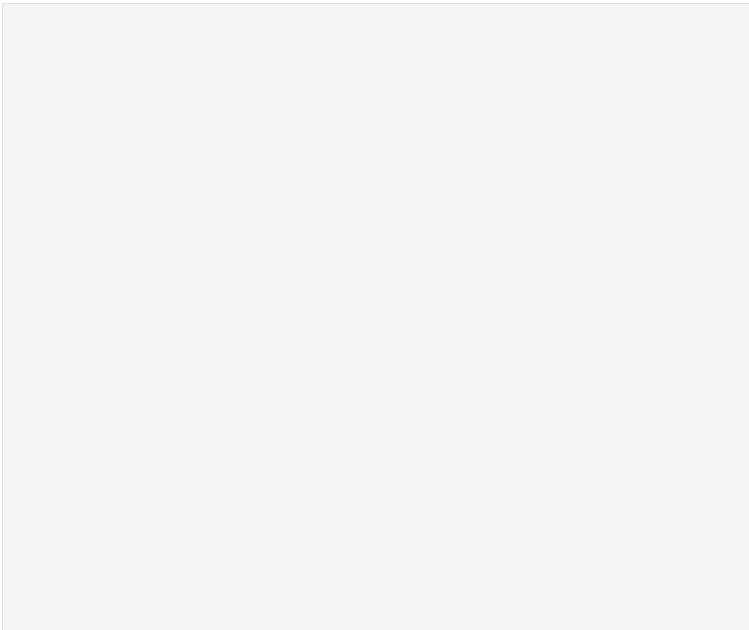


The Specialized MasterMind TCU displays various power, ride, and other metrics on its colour display

Specialized's MasterMind TCU (Turbo Control Unit) is at the heart of rider in top tube and shows the rider various metrics. This is available on all carbon

It can display modes, battery capacity, speed, time, distance, elevation metr outputs (motor and rider), and estimated range. If you connect via Bluetoot also display functions on other devices.

It can supply more data, including slope angle and average 20-minute batte security device by locking the motor.



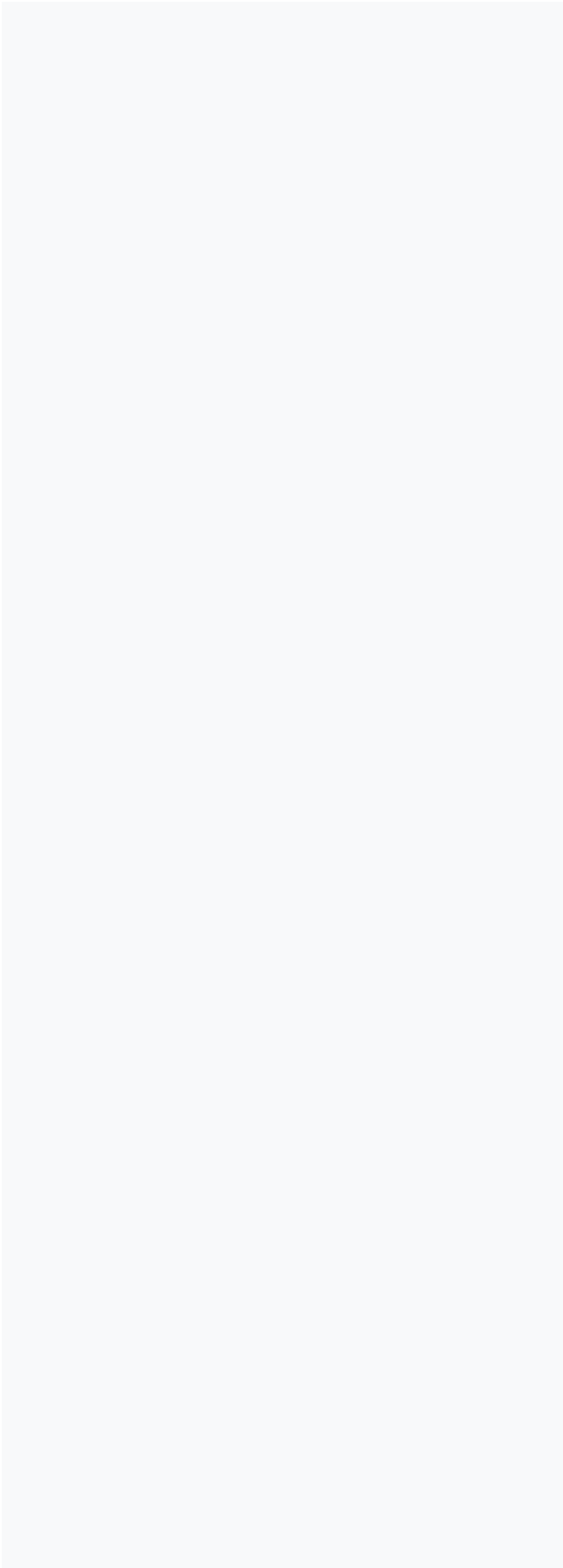
Specialized's Mission Control app lets you customise the bikes power and assistance settings. It also |
connected to all the latest features. *Specialized Bikes*

If you want to customise your power settings, you can go into the Mission C
output, and acceleration response from the motor for each of the Eco, Trail,

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Updates to the system can be downloaded and installed 'Over the Air' via BI
no need to connect cables to your bike to install the latest system updates.

Rider tuned

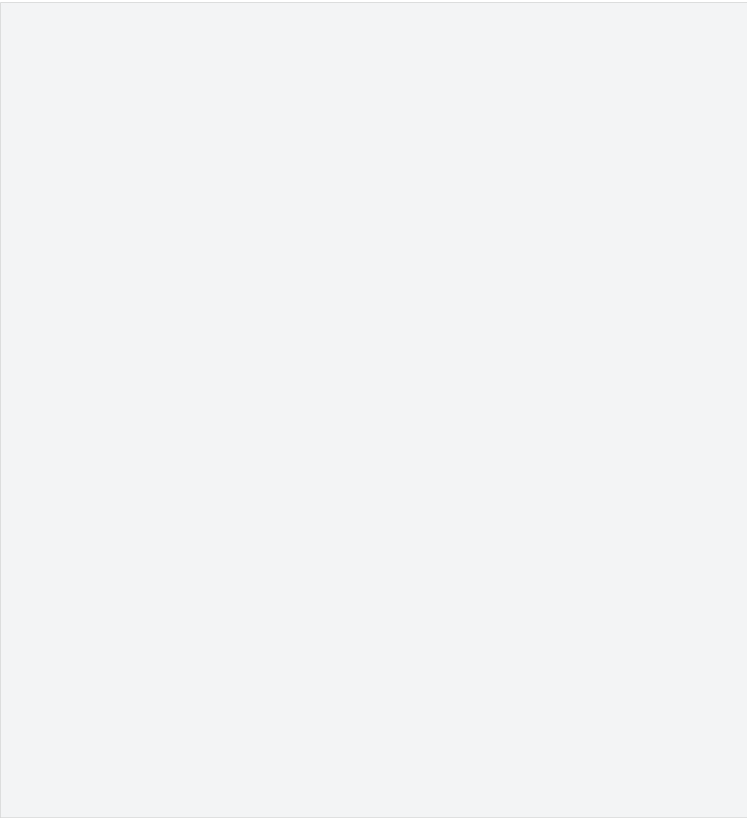


The new frame has lost its asymmetrical side strut. The different frame sizes have been tuned to try and

While the Turbo Levo SL II has a motor to aid assistance on the climbs, Spec and suspension play a key role in how the bike behaves and feels on the tra

This is where Specialized claims to have spent much of its time trying to im

The frames use Specialized FACT11 carbon fibre, which uses FEA (Finite Element Analysis) to optimise material usage, carbon layup and shape to refine lateral, torsional

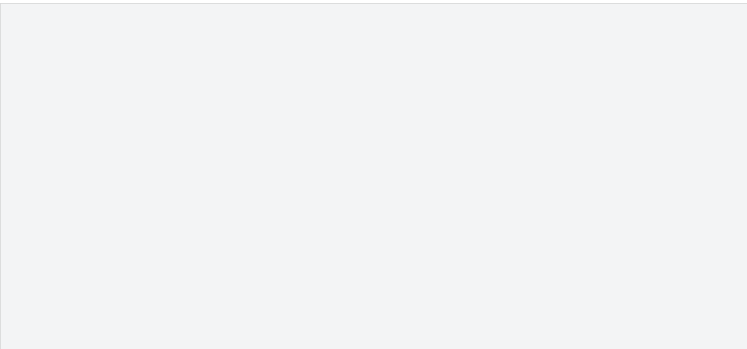


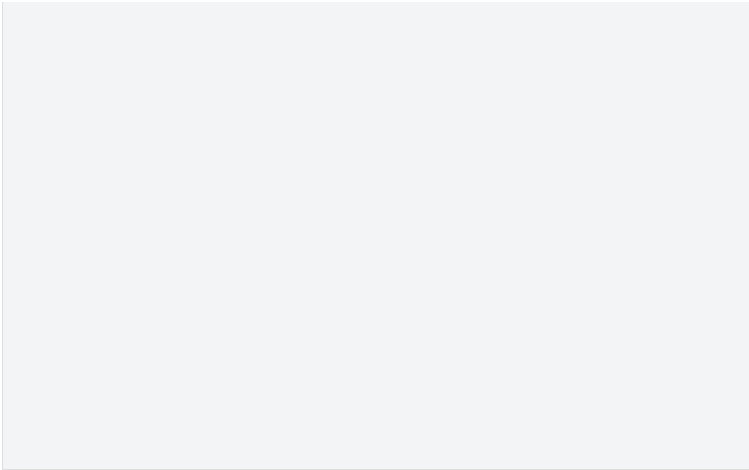
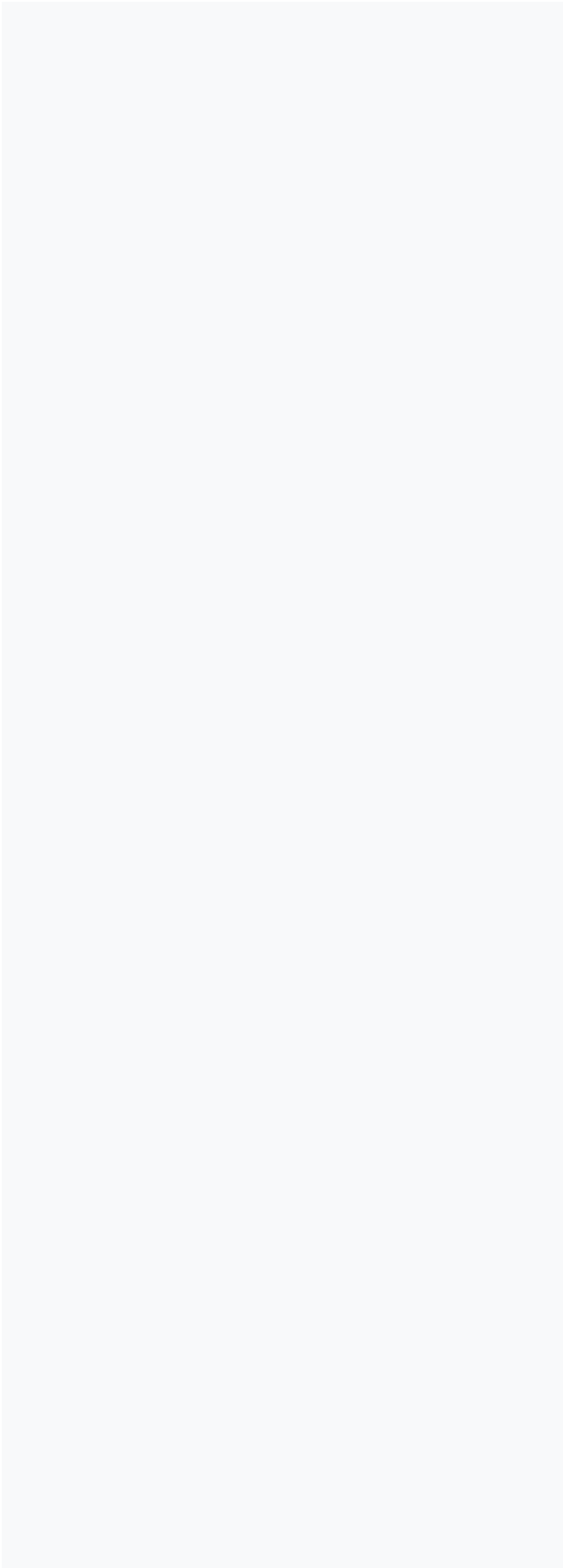
The new front and rear triangles and links were designed to improve the rider's experience on the tra

Specialized says they tuned the whole chassis (front and rear triangles and links) to ensure each of the six frame sizes delivers the same on-trail experience.

In addition, Specialized removed its sidebar to save weight and meet its stiff updated geometry over the old model.

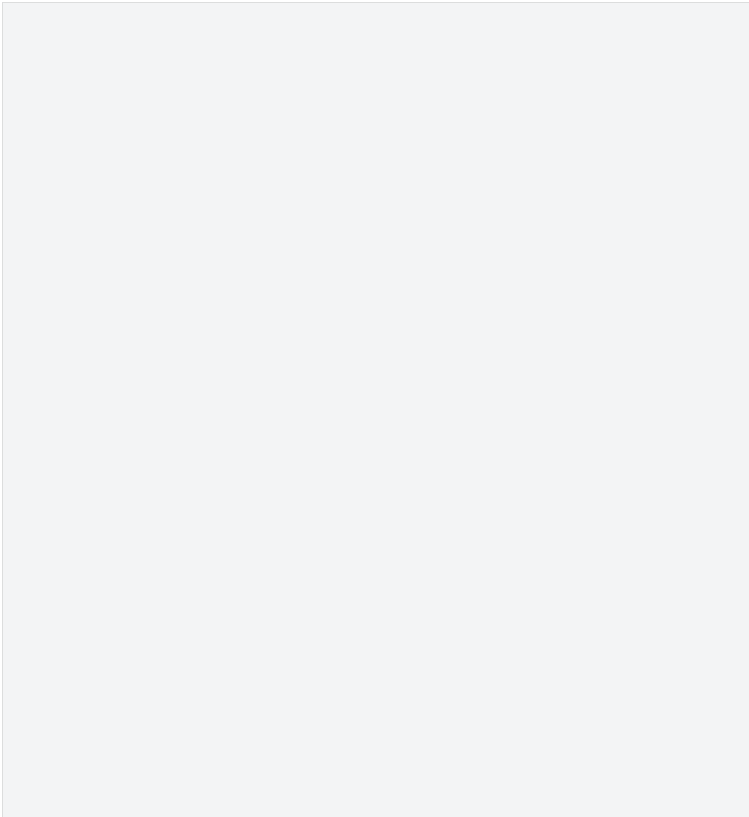
The usual suspects





The new Specialized Turbo Levo SL II is compatible with SRAM's new Eagle Transmission *Scott Windsor*

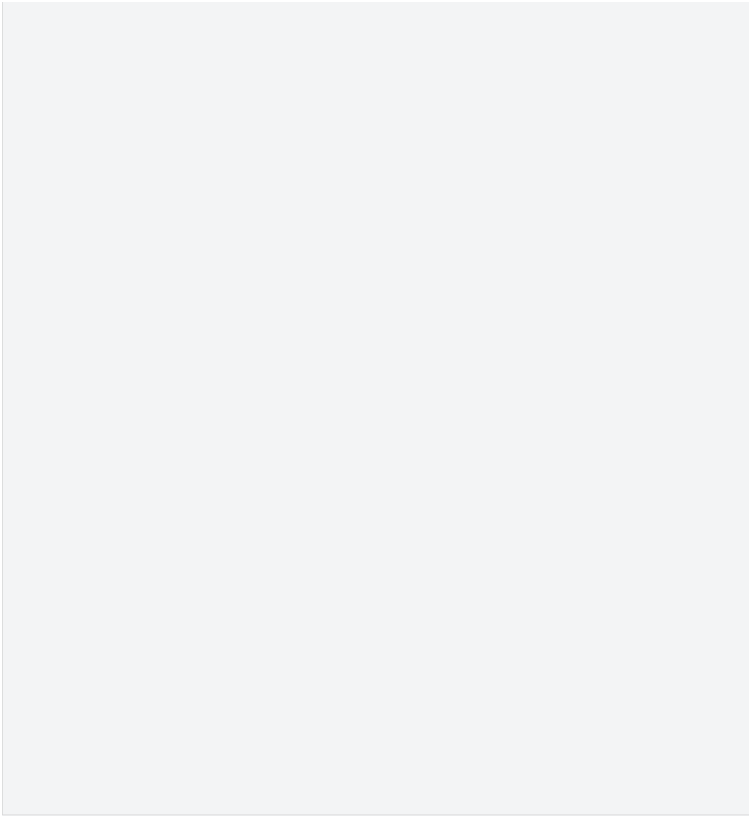
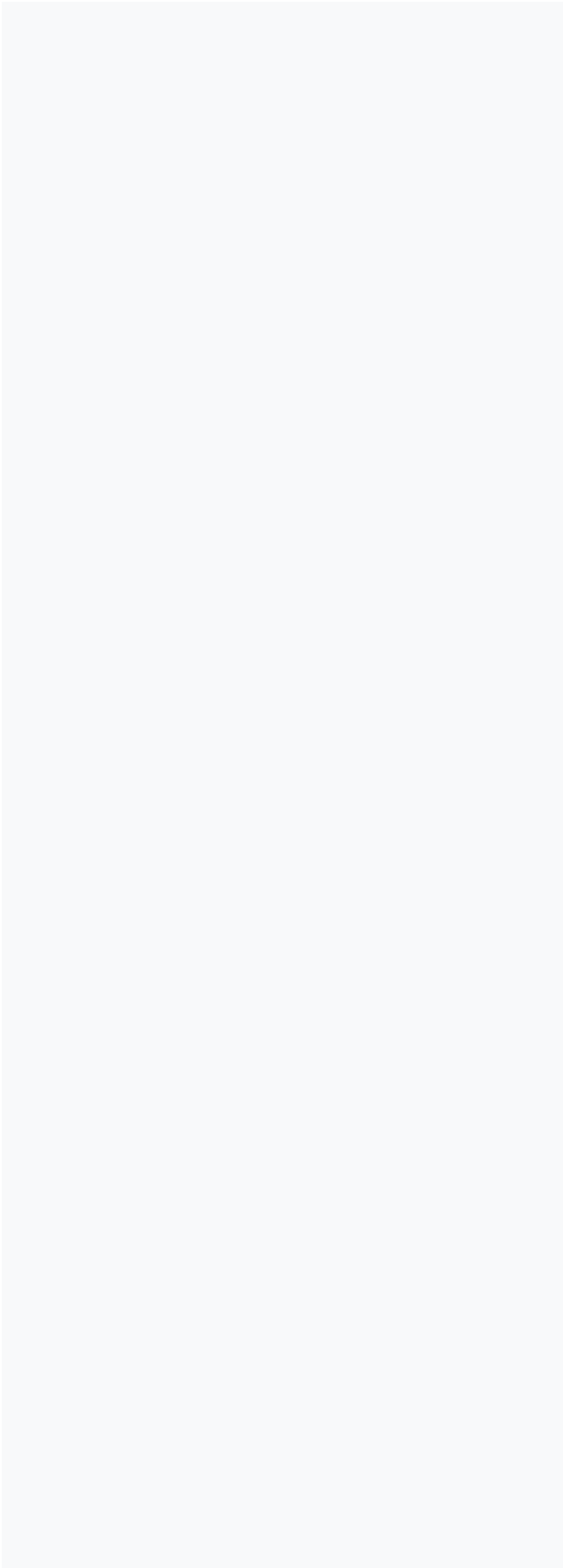
The other frame details are what you would expect to see on a modern trail spacing. In addition, there's space for a bottle cage in the front triangle that extender. There's plenty of frame protection around the chainstays. It uses Eagle AXS Transmission.



There's no headset capble routing on the Turbo Levo SL II. You do get Specialized's SWAT tool stashe

What's missing from this latest Turbo LEVO SL II is internal cable routing thr blessing, but I expect the next Turbo Levo SL model will feature this. There i storage. However, you do get a Specialized SWAT multitool in the steerer tu

Refined bounce

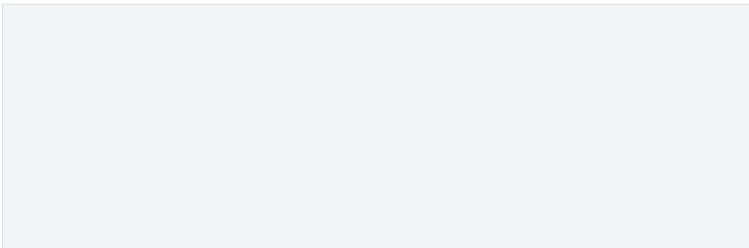


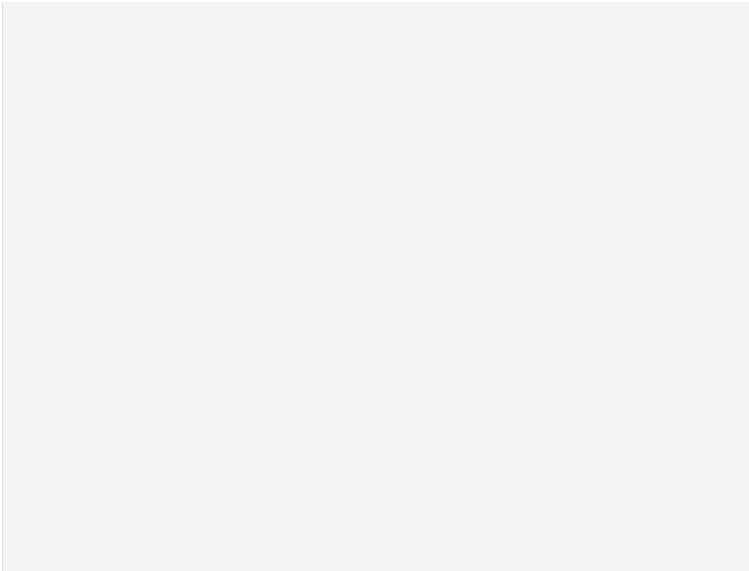
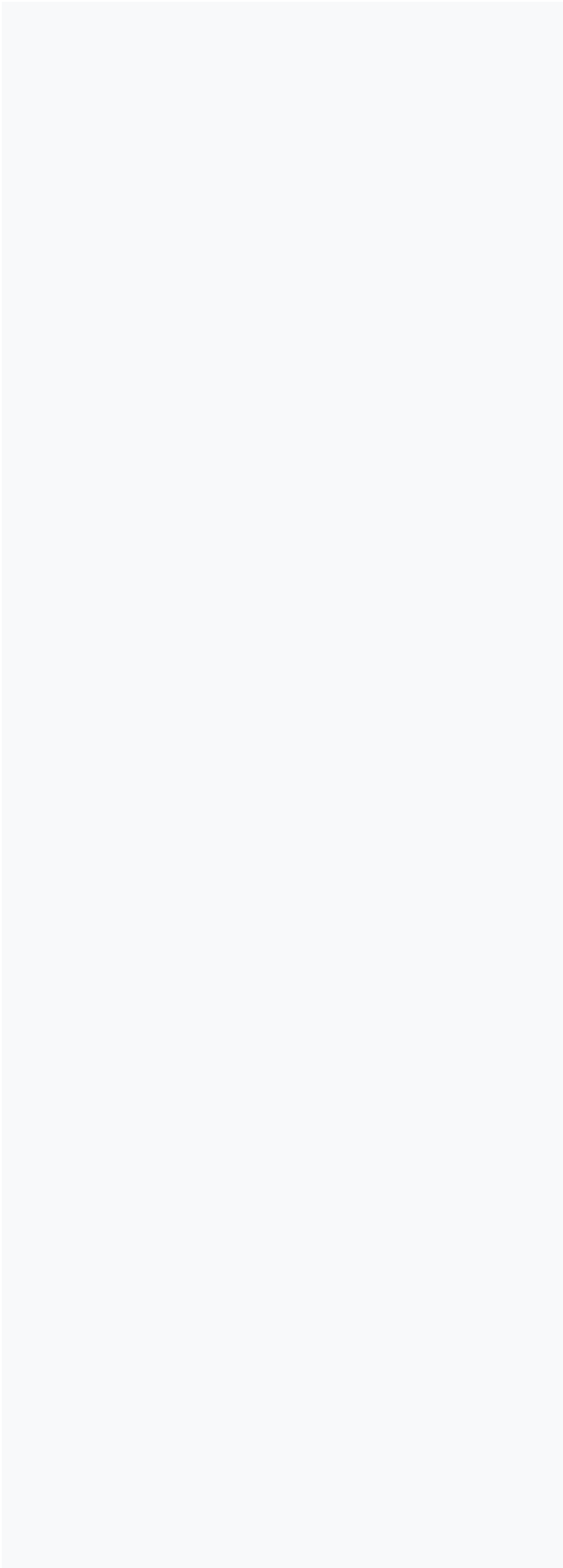
This graph shows a comparison between the Specialized Turbo Levo SL and Turbo Levo SL II's lever 30mm is more progressive, while its overall more linear for the Turbo Levo SL II. *Specialized Bikes*

Specialized had reworked the kinematics and shock tunes for this new frame to help you calm while tackling the chunkiest lines while still having enough playfulness.

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Specialized flattened and lowered the Turbo Levo SL's II leverage curve. As a result, it should help find traction. However, it's more progressive in the last 30mm of travel in out situations.





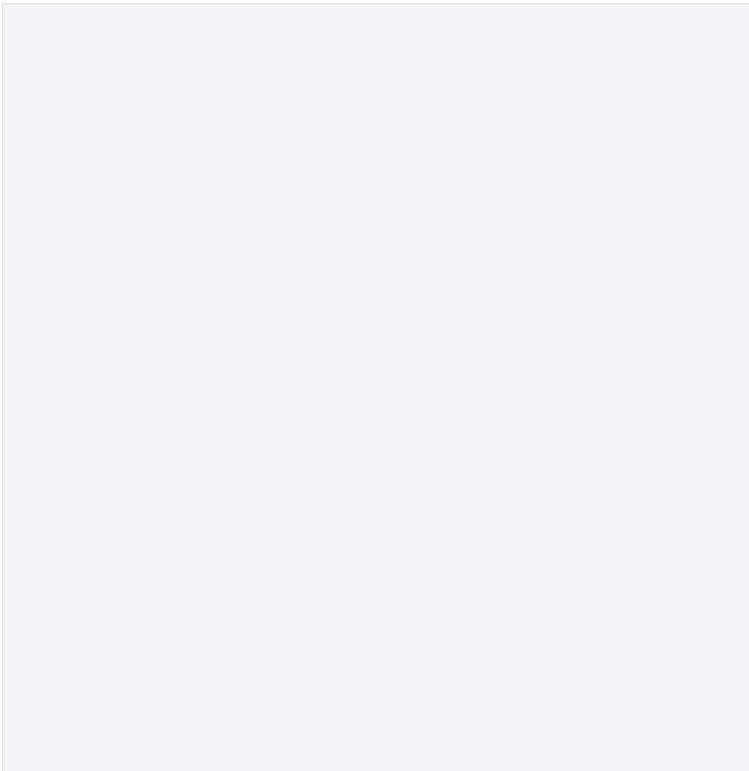
The shocks on the Turbo Levo SL II get Specialized custom RX tune that tailored to the bikes suspensi

Compared to the previous Levo SL, the bike's kinematics rely more on damp spring rate in bottom-out situations. Specialized has also reduced the rebound faster and keep the bike higher in its travel so there's more suspension rese

A slightly more rearward axle path is used to help improve bump absorptio travel direction. This also links to a higher anti-squat to give the bike a more

The new frame (except size S1) is also select coil shock compatible. Example RockShox Super Deluxe Coil.

Size and shape



The Turbo Levo SL II comes available in six sizes from S1 to S6. *Scott Windsor*

Let's first talk about the sizes, as there are plenty of geometry details to exp

The Turbo Levo SL II was Specialized's last performance mountain bike to be result, the new bike is available in 6 sizes, from the smallest S1 to the largest

For those that aren't aware, S-Sizing attempts to allow riders to choose their terrain people ride most often. Consequently, frames are built with similar s

If you prefer a shorter, more playful bike, choose a smaller size. On the other bike, size up. Most riders should have at least two, and maybe three, frame

The S1 is unique in the Turbo Levo SL II lineup. While S2 to S6 have 160mm 150mm fork and 144mm rear travel to maximise standover height. It also d sizes.

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Geometry details

The Turbo Levo SL II has received a geometry update, resulting in a longer, myriad of adjustability, just like the Specialized Stumpjumper EVO. First, how settings, which include the low shock yoke setting, 27.5in Horst ink position:

Reach numbers range from 405mm to 425mm, 445mm, 470mm, 495mm, a represent the old size large, the reach is 15mm longer at 470mm compared

The head tube angle is now 64.5-degrees. That's 1.5-degrees slacker than the not-so-steep 75.8-degrees across all sizes. However, this is 1.2-degrees steeper the size L.

The bottom bracket sits 2mm lower with an offset of 29mm below the front to S6 sizes only increase by 15mm from 763mm to 778mm. However, the seat from 385mm on the S1 to 465mm on the S6.

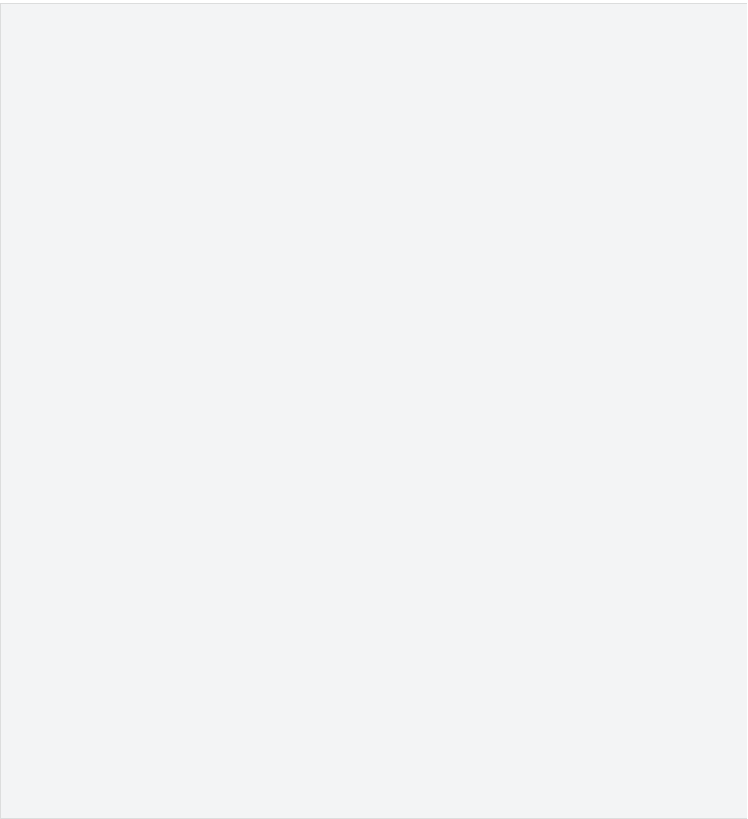
The S1 frame has a lower standover height of 727mm but shares the same

The chainstay lengths are a nimble 432mm across all sizes.

Specialized Turbo Levo SL II			
Size	S1	S2	S3

Reach (mm)	405	425	4
Head angle (degrees)	64.5	64.5	0
Seat tube angle (degrees)	75.8	75.8	0
Seat tube (mm)	385	385	4
Chainstay (mm)	433	432	4
Wheelbase (mm)	1158	1184	4
Bottom bracket offset (mm)	343	348	0
Stack (mm)	609	617	0
Top tube (mm)	560	582	0
Standover (mm)	727	763	0

Geo adjustability



While the bike is sold with a 27.5in rear wheel, the flip-chip in the Horst Link pivot lets you run a full 2

If you're unsatisfied with those dimensions, the Turbo Levo SL II has a few ti riding style and needs.

The bike comes with ±1-degree headset cups that you can swap to steepen

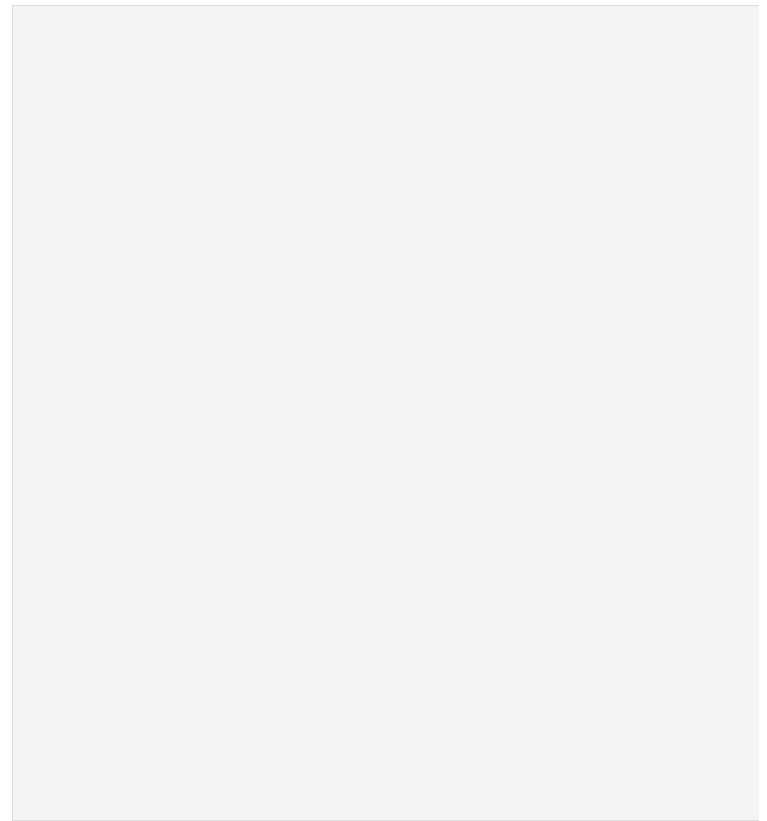
There is a flip-chip in the shock yoke. The bike comes standard in the low se

bottom bracket 5mm and steepen the head tube and effective seat tube by

The Horst (chainstay/seatstay) pivot has a second flip chip. This allows you to adjust the geometry standard. However, it adds 10mm to the chainstay length to 443mm.

All these combinations give 12 geometry charts but check out below for an example of how they work.

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The charts show how the changes to the Turbo Levo SL II's settings change the bike's geometry. *Specialized*

Specialized Turbo Levo SL II specs and geometry

So far Specialized are releasing two models of the Turbo Levo SL II and have the Turbo Levo SL II Comp Carbon. We expect more models to be released in the future.

Specialized Turbo Levo SL II Comp Carbon

Specialized Turbo Levo SL II Comp Carbon *Specialized Bikes*

- **Frame:** FACT11 Carbon fiber, 144mm-travel (size S1), 150mm-travel (s
- **Shock:** Fox Float DPS Performance (size S1), Fox Float X Performance (
- **Fork:** Fox 36 Rhythm, GRIP, 150mm (size S1), 160mm (size S2 – S6)
- **Motor/battery/display:** Specialized 1.2 SL Custom Rx Trail Tuned 50N 320Wh/Specialized MasterMind TCU
- **Drivetrain:** SRAM GX Eagle mech/shifter/cassette, SRAM NX Eagle cha
- **Brakes:** SRAM Code RS, 200mm rotors
- **Wheels/tyres:** Specialized 29/27.5 rims and alloy hubs, Specialized Bu 29×2.3in front and Eliminator GRID TRAIL GRIPTON T7 2Bliss Ready 27
- **Bar/stem/grips:** Specialized, 6061 alloy, 780mm/Alloy Trail Stem, 50m
- **Seatpost/saddle:** X-Fusion Manic/Specialized Bridge Comp
- **Price:** £7,000 / \$8,000 / €7,900

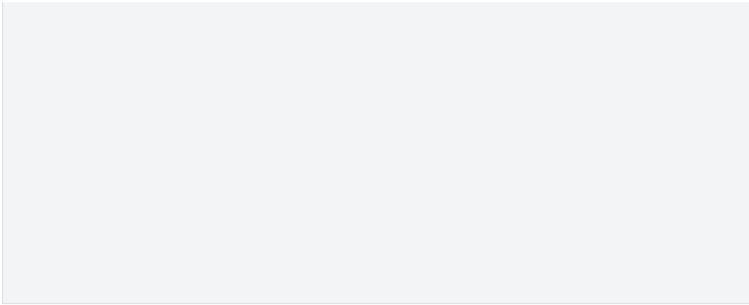
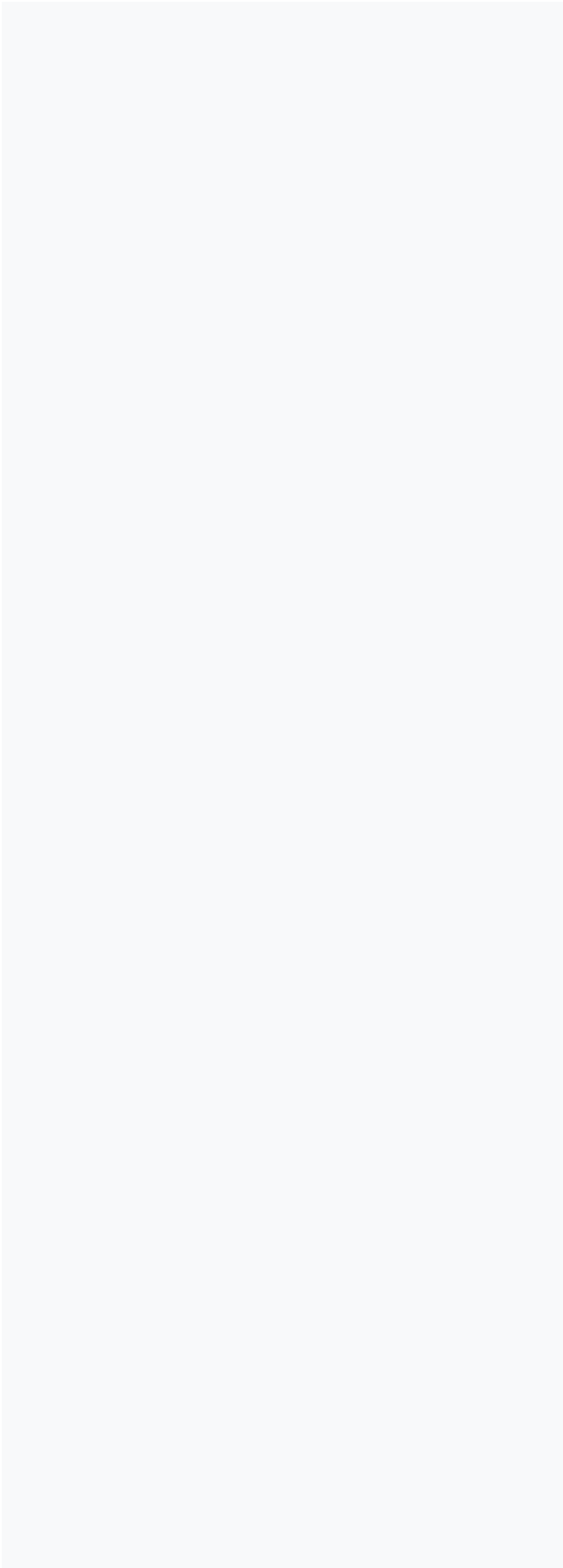
Specialized Turbo Levo SL II S-Works

Specialized Bikes

- **Frame:** FACT11 carbon fiber, 144mm-travel (size S1), 150mm-travel (size S2)
- **Shock:** Fox Float DPS Factory (size S1), Fox Float X Factory (size S2 – S6)
- **Fork:** Fox 36 Factory, 150mm-travel (size S1), 160mm-travel (size S2 – S6)
- **Motor/battery/display:** Specialized 1.2 SL custom Rx tune 50Nm, 320Wh/Specialized MasterMind TCU
- **Drivetrain:** SRAM XX Eagle Transmission, SRAM carbon cranks
- **Brakes:** SRAM Code Silver Stealth, 200mm rotors
- **Wheels/tyres:** Roval Traverse SL Carbon/Specialized Butcher GRIDTRAIL Eliminator GRIDTRAIL griptons T7 2Bliss ready 27.5×2.3in rear tyres
- **Bar/stem/grips:** Roval Traverse SL Carbon, 780mm/Deity, 50mm/Deity
- **Seatpost/saddle:** RockShox Reverb AXS/Specialized Bridge Ti
- **Price** £13,000 / \$14,000 / €14,000

The good news is prices haven't increased, and the S-Works model is £700 cheaper

Specialized Turbo Levo SL II initial ride



I had a couple of very damp days riding a Specialized Turbo Levo SL II S-Works around north Wales S

I was invited by Specialized to the UK's media camp for the new Turbo Levo very wet, with plenty of rain but some sunny spells.

We clocked up two rides which I recorded, as did the bike. The first ride tota descending. The stats for the second ride were 17.5km, 740m ascending an

Using a mix of eco, trail, and turbo modes, I finished the first day with 25 pe with 37 per cent. I only used the main battery without the range extender.

Climbing impressions



We took the Turbo Levo SL II S-Works up some demanding climbs to test its capabilities. *Scott Winds*

The first day covered a more trail-oriented ride around the lesser know trail a more direct winch and plummet ride around the natural trails of Dyfi Fore

From the first pedal strokes, it's noticeable how quiet the motor is in eco an it's quieter than a standard full-power e-bike motor. The new gearbox and c

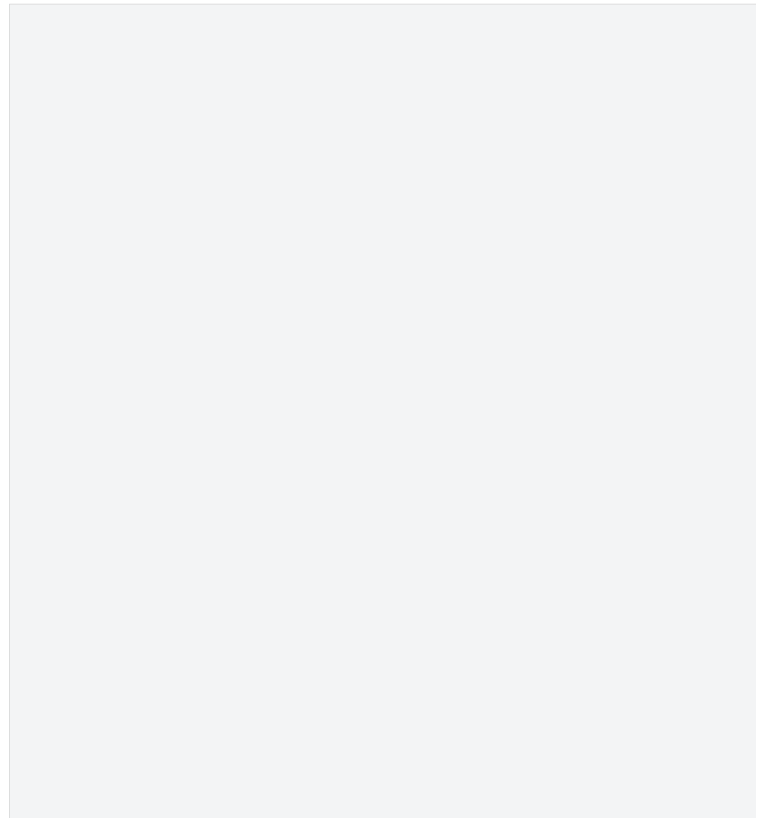
A second point that caught my attention was how sociable most climbs are in boost mode than more powerful e-bikes, the climbs weren't quiet and case when climbing on a traditional mountain bike.

The motor has enough power in all modes to take the sting out of climbing, away.

Setting the Turbo mode to 100 per cent assistance and power, the full 50Nm the motor to grind up some savage climbs. We negotiated some steep, tech with the performance of the motor. You can rely on it heavily to winch you u

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Your pace will be slower than a more powerful e-bike, but it'll happily do the



Whether singletrack, doubletrack, mellow or steep. The Trubo Levo SL II managed it all quite comfort
Scott Windsor

While the effective seat tube angle isn't as steep as most bikes released in tl

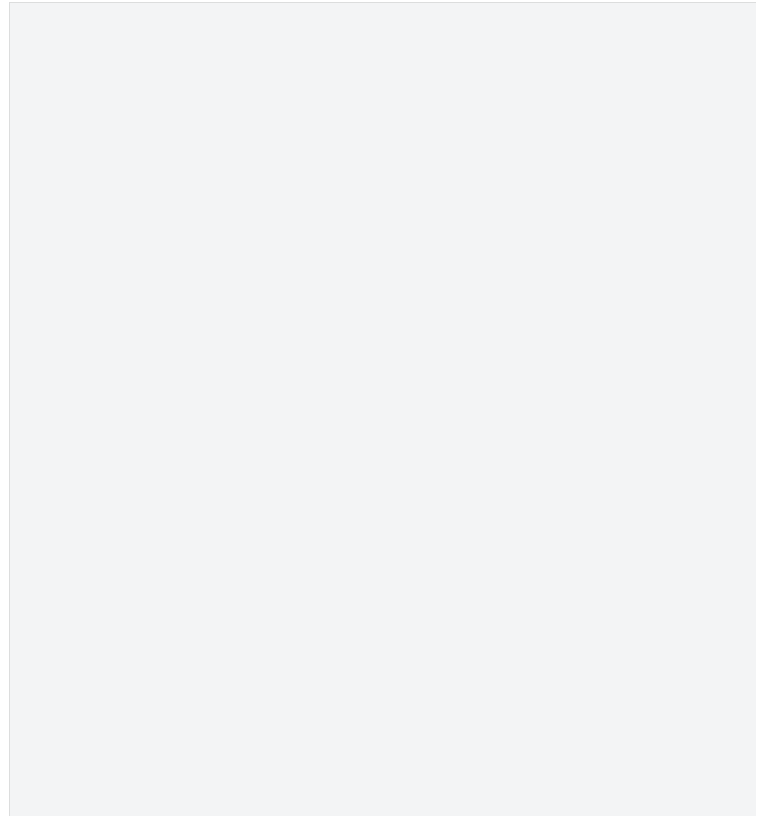
wheel bike are short, it's still easy to keep the front wheel tracking on steep wanted to loop out.

That might be due to the middling reach values contributing to a moderate weight on the front wheel. I still need to lean forwards a little, but not more

The suspension was supple enough to provide plenty of traction when climbing from the motor or rider. On smoother trails, it's easy to reach the shock's cli

Still, I could easily ride with the shock open for climbing and descending and

Descending impressions

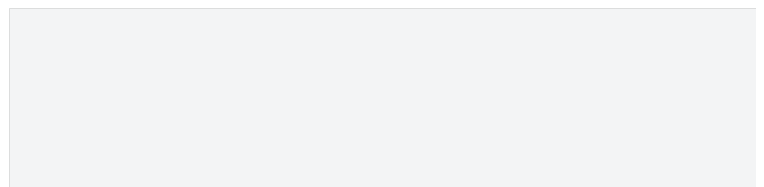


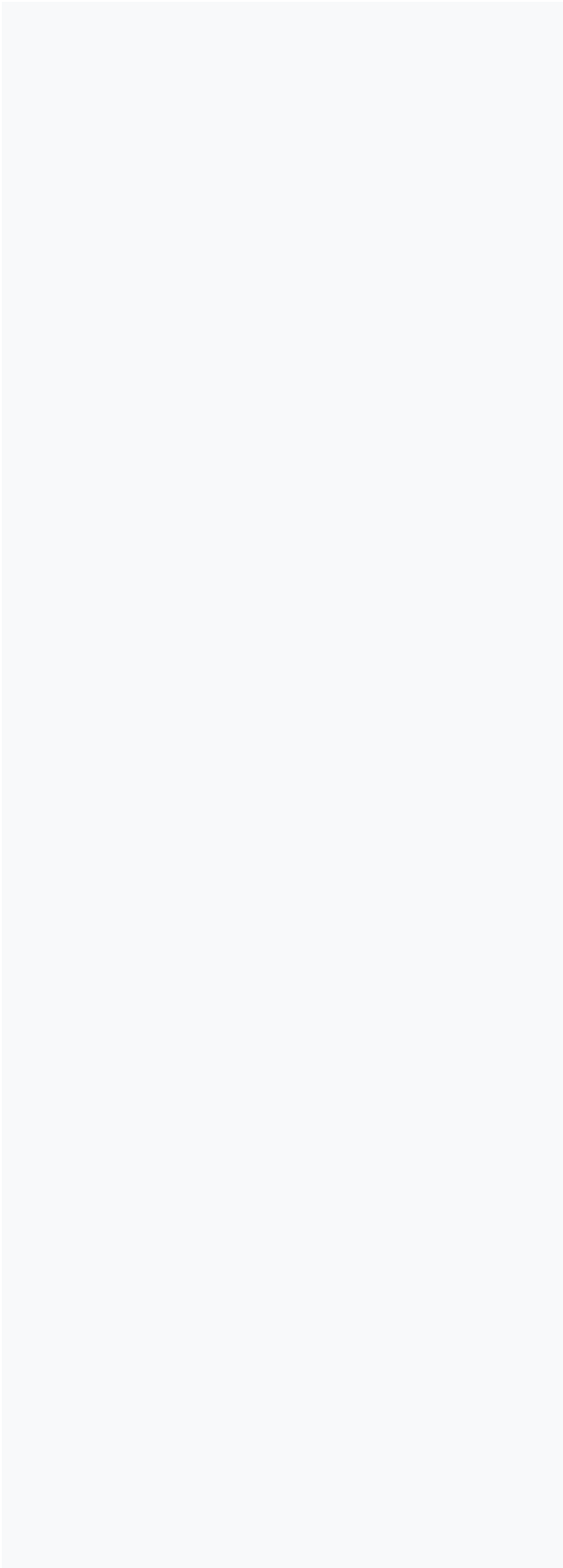
When the trails get rough, the Turbo Levo SL II does a good job of isolating the rider from bumps of s

I weighed a size S4 Turbo Levo SL II S-Works at 17.67kg (no pedals). While I t the trails with gravity helping you out, that weight is mostly unnoticeable, ar

Moving the bike around on the trail didn't take a noticeable amount of more different, which I sometimes notice on e-bikes over 20/22kg.

The fact that the weight is low in the frame helps keep the bike stable and n ground. And while it's only marginal, the extra unsprung mass helps reduce suspension. Maybe Specialized RX shock tune does a respectable job here t





On natural terrain the Turbo Levo SL II delivers plenty of confidence to attack even slippery trails. Sci

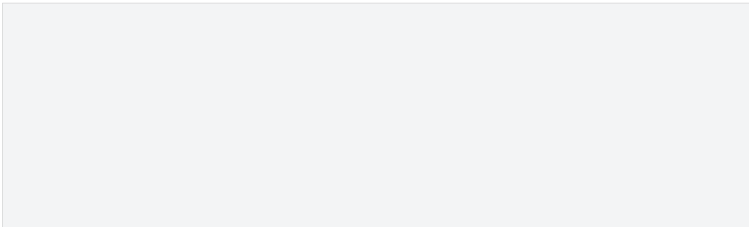
The times I still noticed I was on an e-bike were on moderately flat trails whi still need to pedal to keep momentum. These sections of the trail seem hard generating speed on my regular bikes, even if the weights are within a kilo c

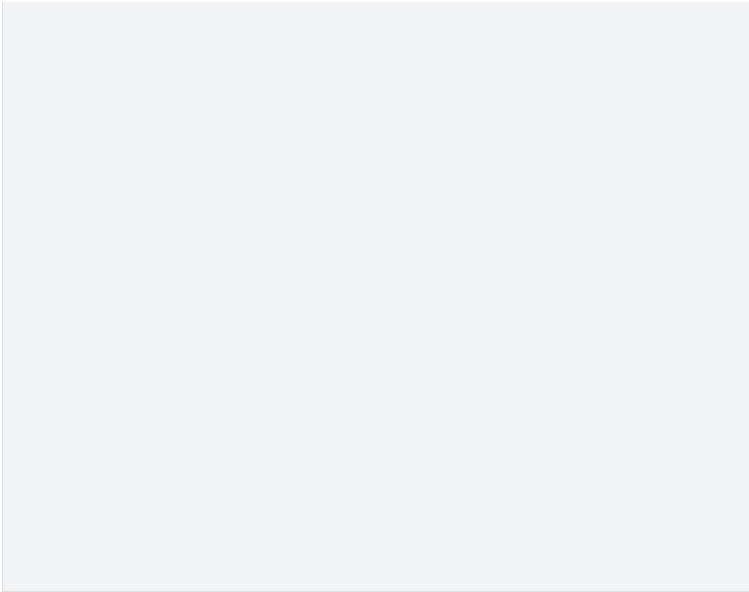
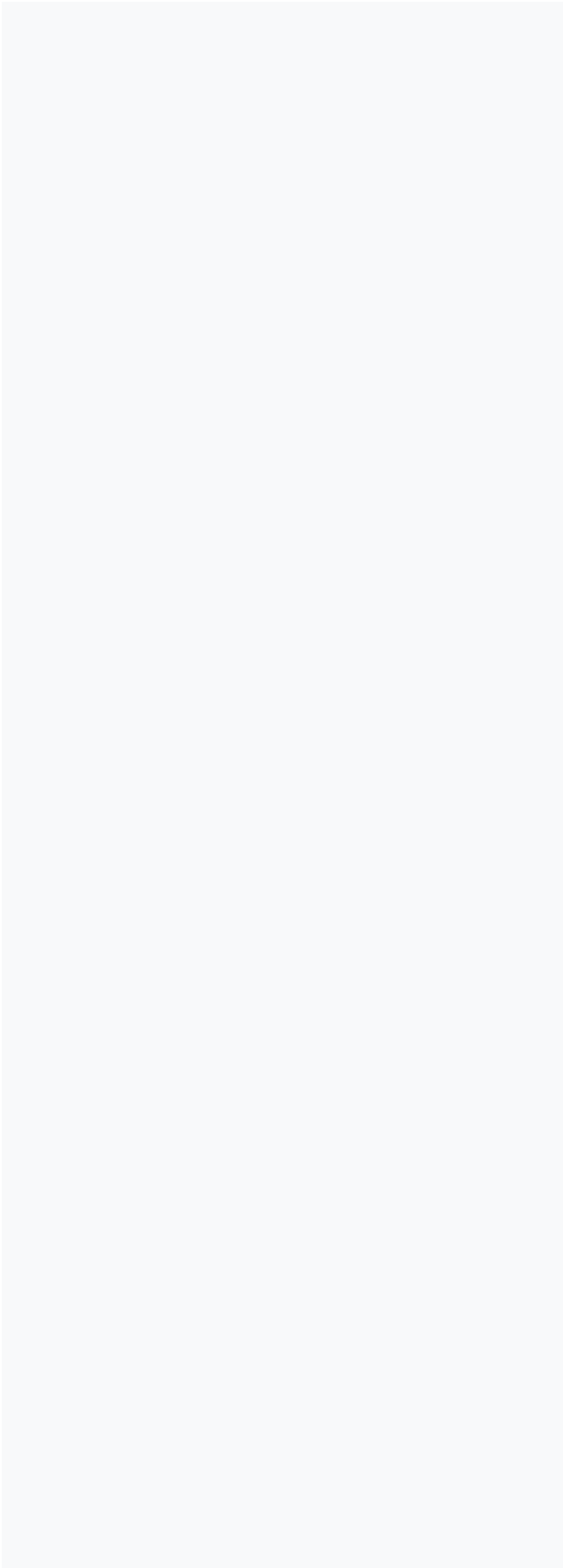
I would like a size S3.5, but I would always size down rather than size up a b rode one day with the stock headset cups at 64.5-degrees, and one day with angle to 64-degrees.

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There wasn't a massive change in handling feel, and in both settings, the bike weave through awkward sections of trail without hesitation, and positioning

The suspension was impressive too, and Specialized has managed to balance deeper in the travel without having a harsh ramp-up.

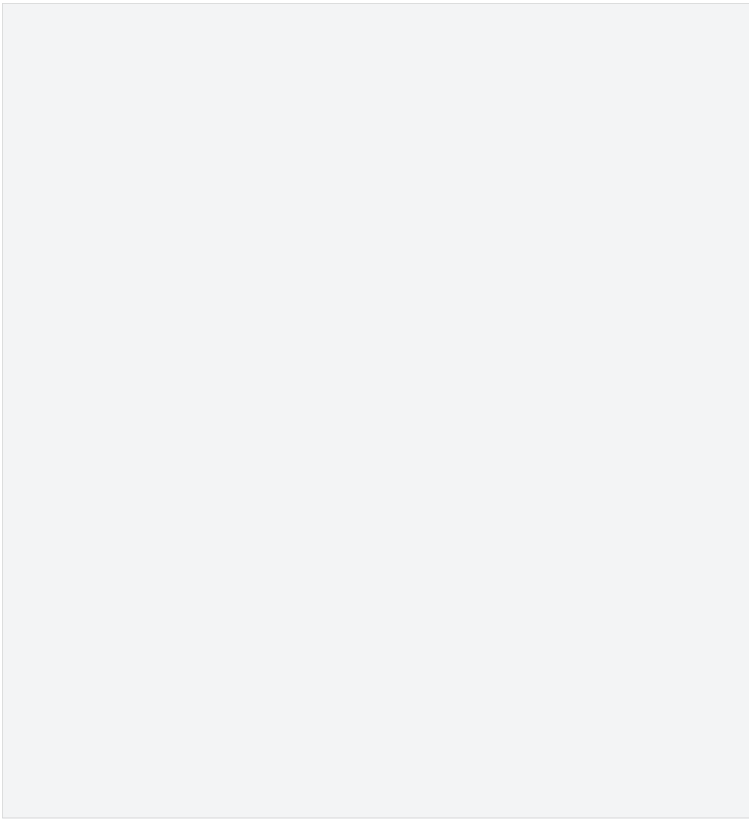




The ride feel of the Turbo Levo SL II is engaging even on mellower trails *Scott Windsor*

As mentioned before, whether through chassis design, suspension tuning, or probably a combination of all three, the bike is very composed on the trail and

That made me feel comfortable and confident on the bike and push hard for the ride character.



The Turbo Levo SL II is easy to place on narrow lines, and its weight is pretty much unnoticeable compared

The Turbo Levo SL II S-Works was impressive over various trails, from mellow trail bike goes, this is a great allrounder.



Luke Marshall

Technical writer

Luke Marshall is a technical writer for BikeRadar and MBUK magazine. He's been working in mountain biking for over 10 years. Luke is a gravity-focused rider with a history of racing downhill and enduro. He has a degree in engineering and a penchant for full-throttle speed. He writes product reviews, news, and opinion pieces. You'll most often find him on the off-piste tracks around south Wales and the south west of England. He often makes the channel.

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