

# Cannondale Synapse Hi-Mod 3

With its latest Synapse, Cannondale has tried to establish a new benchmark as *the* do-it-all road bike. Has it succeeded?



Words **STU BOWERS**



## THE SPEC

**Model**  
Cannondale Synapse  
Hi-Mod 3

**Groupset**  
Shimano Ultegra 6800

**Deviations**  
Cannondale Hollowgram  
Si Chainset

**Wheels**  
Mavic Ksyrium Equipe S

**Extras**  
Integrated front LED light

**Price**  
£3,300

**Contact**  
cyclingsportsgroup.co.uk

**C**annondale has never been shy of innovation. Historically it has been more of a leader than a follower when it comes to the development of road bike frame construction. The BB30 bottom bracket, for example, is Cannondale's handiwork, and when the company does something fairly radical, as it has done with its latest Synapse, the bike industry tends to sit up and take notice.

The standout feature of this new model is, for sure, the split seat tube. So the story goes, this innovation came about as a natural progression from bringing a new bottom bracket standard to the design. BB30A is Cannondale's latest version of the standard it created originally (ably assisted by Magic Motorcycles), stretching the shell width out to 73mm, an additional 5mm from the previous 68mm. Apparently early prototypes simply had a flared seat tube that covered the full width of the bottom bracket shell, aiming to increase its lateral rigidity, but engineers were curious as to whether the

middle part was actually necessary to achieve this. Tests proved that with the central portion removed lateral stiffness was unaffected and the sculpted design helped to achieve more vertical compliance.

Of course the frame was lighter too and so this unique, fork-like tube form was passed. The results speak for themselves out on the road. The Synapse feels superb with regards to the stiffness of the pedalling platform. I'm in no doubt that this is reinforced by Cannondale's own Hollowgram Si crank. I'm usually wary of brands spec'ing cranks that are not part of the groupset, but here it's an excellent add-on and I'd go so far as to say it's a tough combination to beat anywhere in the market for performance versus weight.

The stiff aluminium cranks however do seem to contribute to the added vibration you can feel through your feet, especially in combination with a very stiff road shoe, but this is a minor issue as it's really only noticeable on long, rough descents. Higher up the seatpost is ▶

## SPLIT SEAT TUBE

Cannondale's unique split seat tube is bound to turn heads, using the full expanse of the new 73mm BB30A bottom bracket shell for maximum lateral support.



‘The Synapse feels superb in terms of the stiffness of the pedalling platform’



**SEATPOST CLAMP**

With its small rubber cover removed you can see how neat this seatpost clamp really is. Cannondale's engineers have cleverly managed to integrate a super skinny 25.4mm diameter seatpost without it jarring aesthetically.



◀ another new feature. Having previously been diehard advocates of the 27.2mm seatpost diameter (across its entire range), Cannondale has given the new Synapse a super-skinny 25.4mm post, for which it has teamed up with FSA to produce a specific version of its SL-K carbon post. It certainly adds to the comfort, even visibly flexing at times to take the abrupt shock out of big bumps.

**It's in the post**

Cannondale has added a number of other features into the frame design, such as what it calls 'Save Plus', a micro-suspension system in the lay-up of the rear triangle, plus the seatstays themselves are significantly more helixed than this bike's predecessor to try to smooth out the road. I'm sure they all play a role in vibration reduction, but I'm certain the biggest factor in this bike being one of the most comfortable I've tested in a long while is the pencil-thin seatpost. Cannondale has managed to marry the 25.4mm diameter post to an otherwise chunky tube junction without it being too jarring aesthetically, thanks to a neat, hidden seat clamp design it appears to have borrowed from its Slice TT bike.

The geometry differences compared to its racier brethren – the Super Six EVO – are mainly a longer wheelbase and taller front end. I've ridden the two bikes back-to-back during this test, and the tweaks have not made the handling lazy or the ride feel in any way sluggish. Rather, the differences in acceleration and handling are almost impossibly hard to discern, yet the benefits in terms of comfort are much more outstanding.

The head tube length is still generous, despite being shorter than the old Synapse. My 56cm test bike had a head tube measuring 18.6cm, which made this one of few bikes I could ride comfortably with just a single ▶



'I'm certain the biggest factor in this bike being one of the most comfortable I've tested in a long while is the pencil-thin seatpost'



**SEATSTAYS**

The 'Save Plus' seatstays have a 'helixed' shape and noticeable swoop to provide plushness without sacrificing performance.

The Synapse Hi-Mod 3 is the first bike I've test-ridden with the latest Ultegra 6800 11-speed components, and once again Shimano's workhorse groupset delivers a polished performance. It's so close to the look and feel of the Dura-Ace kit that it's hard to find anything to complain about, and when combined with Mavic's mainstay Ksyrium Equipe S wheelset it really adds to the overall appeal of the bike.

**As good as it gets?**

The question remains, has the new Synapse raised the bar against stiff competition from the likes of Trek's Domane, BMC's Gran Fondo or Specialized's Roubaix as a do-it-all road machine? This is a frame well-capable of being raced at the highest level – Peter Sagan and the Cannondale Pro Cycling team have already proven that. The frame is light enough (claimed 950g) to create a bike that can easily defy the UCI limit, so there's no complaint on that front. It has stiffness in abundance to make it responsive, yet it feels stable and comfortable too. It does everything Cannondale's engineers have asked of it but, like the quest for the Holy Grail, the search for the perfect bike must be eternal, with the ultimate prize always just out of reach. So I'll stop short of saying that Cannondale has created the ideal do-it-all bike, but I will say the new Synapse has come closer than anything I've ridden before.

It's hard to say if it's a comfortable race steed or a racy comfort bike. I'd hesitate to refer to anything as a 'sportive bike' – I don't believe the term has any relevance, as everyone's ideals differ – but if I wanted to recommend a bike to ride aggressively for a fast-paced, long and challenging day out, then the Synapse Hi-Mod 3 would be very high up my list. 🌸

# 'The Synapse comes closer to being the ideal do-it-all bike than anything I've ridden before'

▶ 10mm spacer above the headset. This is ideal for lateral support for the fork steerer, and subsequently the front end feels pleasantly solid. That makes the bike lively in your hands as you sprint or climb hard out of the saddle, but maybe a little more firm than expected in terms of how much vibration you feel through the bars. The Save Plus fork, with offset dropout, does what it can to dampen the road buzz but, similar to Trek's Domane, when the rear end compliance is as good as this, it has the tendency to exaggerate the front-end shocks.

**The detail**



At the time, few really appreciated how forward thinking Cannondale was when it developed its own hollow alloy crank (and at the same time also created BB30) in conjunction with Magic Motorcycles over a decade ago. The latest Hollowgram Si crank is still one of the lightest and stiffest available, so in this case the 'own brand' kit is a bit of a boon for the Synapse Hi-Mod 3. It combines superbly with the new seat tube profile, married to a new wider 73mm BB30A bottom bracket shell, to provide an appreciably solid pedalling platform, so you'll be in little doubt as to where your watts are heading.