

Volt Alpine



The Alpine is one of a new generation of bikes from London-based Volt Bikes. With its pedalling sensor and thumb throttle controls, how does it perform off-road?

For 2013 the Volt Bikes range, including city, hybrid, folding and mountain bike models, has been equipped with a new, updated version of their assist system. As before there's a Bafang motor in the rear wheel, and the battery behind the seatpost sitting over a box containing the control electronics. Similar systems are available on bikes from a myriad of suppliers and at all sorts of quality levels, but there can be a deal of difference in the details.

The quality looks really good here, and Volt also claim an exclusive on the motor controller. The new model is claimed to provide smoother waveforms to the motor, giving lower noise throughout the speed range, without any noisy resonance bands.

The handlebar display is also more

sophisticated in the latest version, and it can be programmed (by Volt or their dealers) to set all sorts of parameters for the drive, such as how much of a pedal turn you need to make before the motor cuts in automatically, or the target speeds for the different power levels.

The bike now also features fully unpluggable and colour-coded wiring for the handlebars (display, thumb throttle and two brake cut-outs) for easy replacement if necessary.

Our bike was fitted with a 16 Ah (36 V) battery pack, a £200 optional extra which replaces the standard 10 Ah model. Spares cost £240 (10 Ah) or £390 (16 Ah). There's a standard two year warranty including the batteries.

So how does it go? I took it for some relatively mild (but inevitably muddy)



off-roading. One reason for not going too crazy was that the Alpine was fitted with 'hybrid' tyres – with some tread, but basically fairly smooth for on-road use, and so not as grippy as properly knobby ones on mud.

First impressions of the bike aspects were good: the grips are super comfortable and the brakes are powerful and positive. The forks certainly took the edge off impacts, too.

Our bike was set up so that the motor would kick in after half a pedal stroke or so, unless you pre-empt it via the thumb throttle. When it does there's a strong push and a light buzz – I think it probably is somewhat quieter than most Bafang systems, and such noise as remains is fairly low pitched.

It was interesting to watch the Watts readout on the display: it would often go well above 400W as I accelerated or climbed steeply, falling back below the expected 250W 'continuous rated' limit for more steady riding. Perfectly legal to have higher peaks, and I'm sure it's the same on many other bikes, too. It's

just that not many have a Watt-meter on their display!

And that power did make for an exhilarating experience on more open stretches – across rough grassland, for instance, the assist compensated superbly for the gradient and soft ground, meaning I could make really good progress and concentrate on finding the best line, rather than on the exertion. For this type of riding (or bridleways, forest tracks etc) the rotation sensor control works really well – as long as you keep pedalling there's no need to hold the throttle.

But it does mean taking some care for slower, more awkward stretches where you need to keep the bike balanced and just dab it forward with



TOP: All of the handlebar wiring has colour coded plus for easy fault finding and replacement.

ABOVE: The battery pack has an impressive 16 Ah, 36 V capacity.

little touches of pedalling. It's best to keep one of the brake levers 'feathered' to activate the cut-out, so that the motor doesn't give you an unexpected push. From very low speeds or from a standstill the motor can only do so much, so you'll also need to use the gears to best advantage.

On-road, the Alpine was a rather lively performer; the motor assist pushing you up to speed quickly and smoothly. Using it for commuting was fun, too – the wide bars and suspension really do make you feel you can just bounce over potholes if you have to.

I'd favour a torque sensor bike for really technical MTBing, I think, but for general off-road or rough road use the Alpine would be a fine choice.

Peter Eland

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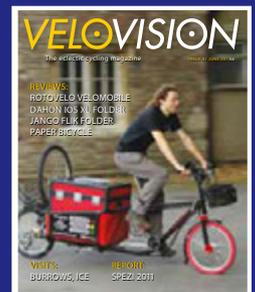
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