Field Test
GARRETT VORTEX VX9

By Adrian Gayler

Back in the middle of last year, Garrett launched a very informative live stream introducing their new Vortex series. The long-awaited lineup included three models: VX5, VX7, and VX9, all sharing the same hardware but differentiated by software capabilities. The idea being that you can upgrade from one model to the next through software updates, eliminating the need to buy the next model up. So, if you are a beginner you can start with the VX5 then, as your skills progress, upgrade to the VX7 or VX9 via a paid software update from your local dealer, then downloaded from the Garrett website. This gives the addition of more features and operating frequencies.

From Garrett's point of view, it makes perfect sense. You want to capture the detecting market segment and provide people with an entry model and a high-end model. But instead of having to manufacture a bunch of different machines, they have just made the high-end one and turned off features at the factory as well as different branding on the machine and box. These cost savings will naturally roll down to us detectorists. This is a very similar direction to how a lot of electrical devices are going. An example being Tesla who offer a paid upgrade to improve the acceleration on some models, even farming machinery now has paid upgrades for GPS and autonomous driving.

Having said that, at the time of writing this field test, only the VX9 high-end model is available, so I haven't yet been able to assess the ease and benefits from upgrading a base VX5 model for example.

From Yellow to Blue, is the Future New?

The first thing everyone was surprised with the launch of the Vortex was the not the new Multi-Dimensional Multi-Frequency (MD-MF) Technology, but that the machine was in a blue livery (Fig.1). Why Garrett have gone down this route I do not know, but I personally prefer it to the Garrett yellow of old. The well-packaged VX9 (Fig.2) came with the trusted MS-3 wireless headphones using Garrett's Z-Lynk technology, and a new telescopic designed shaft. Garrett seems to have moved away from the S-shaft design as used on the Apex which balances well. Possibly because it collapses to a shorter format, which is always a plus. However, I did encounter a few issues when out testing, more of that later.

Fig.1. From yellow to blue.

Fig.2. Vortex unboxing.

That said, I had no complaints about how the Vortex felt on my arm, I didn't even need the Velcro arm strap as it fitted very snugly for my non-gym-worked arms. I can see some bigger-armed users possibly complaining, but since it's flexible, it can easily spread to accommodate those Popeyes out there. The hand grip felt very comfortable and I felt it was an improvement on the Ace Apex which to me was

a little too smooth and not so grippy in wet conditions (Fig.3). The new hand-grip also looks more modern and felt very comfortable after a good day's detecting. It is height adjustable, but you must loosen the allen keys behind the handle. It would have been nice if this was a quick adjustable clamp style, like that on Minelab Vanquish, making it much more easily adjustable in the field.

Fig.3. The Vortex grip is comfortable.

Fig.4. The VX5 display.

Fig.5. The VX7 display.

Fig.6. The VX9 display.

The Vortex Model Specifications

As I said earlier if you have entry level VX5 it will look the same as high-end VX9, but all have Multi-Dimensional Multi-Frequency (MD-MF). This is new technology from Garrett that should give deeper and more accurate target IDs, alongside the new LCD target ID scale which varies dependent on what model you have chosen (Figs.4-6).

The VX5 entry-level model offers fast, fixed recovery speed, single 13kHz frequency and multi-frequency options, and a single-tier MD-MF Target ID scale. An ideal option without all the bells and whistles for someone starting out in the hobby. The VX7 includes 5 kHz and 13 kHz frequency options and multi-frequency, a two-tiered MD-MF Target ID display separating ferrous and non-ferrous targets, and adjustable recovery speed settings. The top model VX9 features a full three-tiered MD-MF Target ID display, 5 kHz, 9 kHz, 13 kHz, 18 kHz, and 25 kHz and multi-frequency options. The features of each model are summarised in Fig.7.

The specifications for the VX9 included enticing options such as recovery speed controls and specialised modes like FAST and THIN COINS (which I presume is designed for hammereds) which I was keen to test out! I was surprised not to see adjustable tones which is present in competing models within the same price range.

How the Vortex Target ID Scale Works

The Vortex's visual target identification system, while advanced, could be compared to the Minelab Manticore, but with less detailed information, which you would expect for the price.

Top Scale (VX5, VX7 & VX9)
Represents complex ferrous iron items that may require closer inspection.

Centre Scale (VX7 & VX9)
Indicates non-ferrous, conductive targets, often more valuable metals such as gold and silver.

Lower Scale (VX9)
Identifies common ferrous targets, typically junk metals.

Feature	Vortex VX5	Vortex VX7	Vortex VX9
Target ID Scale(s)	Single 0–99 Target ID scale	Two-tier Target ID scales	Three-tier Target ID scales
Frequencies	Multi-Frequency (Multi) and 13 kHz	Multi, 5 kHz, 13 kHz, Multi-Salt	Multi, Multi-Salt, 5 kHz, 9 kHz, 13 kHz, 18 kHz, 25 kHz
Search Modes	Zero, Standard, USA Coins, Custom	Zero, Standard, USA Coins, Beach, Custom	Zero, Standard, USA Coins, Thin Coins, Custom, Beach, Fast
Recovery Speed	Fixed	Adjustable: 2 settings	Adjustable: 3 settings
Wireless Capability	No	Yes (Z-Lynk Wireless enabled)	Yes (Z-Lynk Wireless enabled)
Audio Tones	3 tones	5 tones	5 tones
Iron Volume	No	Yes	Yes
Pinpoint Mode	Yes	Yes	Yes
Iron Audio™	Yes	Yes	Yes
Ground Balance	Yes	Yes	Yes
Frequency Shift	Yes	Yes	Yes
Volume Control	Yes	Yes	Yes
LCD Backlight	Yes	Yes	Yes
Waterproof Depth	Up to 16 feet (5 meters)	Up to 16 feet (5 meters)	Up to 16 feet (5 meters)
Weight	3 lbs (1.38 kg)	3 lbs (1.38 kg)	3 lbs (1.38 kg)
Upgradeable	Yes (can be upgraded to VX7 or VX9 via software updates)	Yes (can be upgraded to VX9 via software updates)	N/A

Fig.7. The Vortex summary of models.

In theory, once learnt this could reduce unnecessary digging of junk like iron nails or bottle tops. However, I found this to be a little on the hit and miss side and relied more on the tones from the machine when out in the field. It reminded me very much of the old Whites XLT Signagraph (interesting, with Garrett acquiring Whites a few years back) which provided a similar representation of a target's conductivity – this can help, but it doesn't always tell the full story. Personally, I don't rely too much on the VDI on any machine as it can lead to rejecting targets that might be valuable. Trusting your ears, especially for deep or mixed-metal targets can lead to more finds, especially on mineralised ground.

Charging

The first charge on the Vortex was a little worrying – I plugged the machine in using the supplied charging cable only to find after 7 hours it had only gone to one bar! I checked all the cables were connected properly which they were – it was charging, but very slowly. I called Regton and explained the issue. It turned out that the USB plug I was using was very low output for the machine. I switched it over for one with 10W (2A) specification (recommended by Garrett) and this improved things drastically even though it still took 11 hours to fully charge. Naturally a first charge takes a lot longer with a new battery and it's highly advisable to ensure the machine is fully charged to improve the lifetime of the battery. Since my initial test, Garrett have already launched a few updates, with the 2.05 update drastically improving the charging time. The machine went from taking 6 hours to move up a single bar to completing the charge in under 2 hours from about 50% so I would guess somewhere around 4 hours for a full charge as Garrett specifies.

So far, the Vortex has received two firmware updates since its launch. The most recent update, Firmware Version 2.05, not only resolved my charging issue but also contained several enhancements, including increased detection depth on high conductors, improved Target ID accuracy for both high conductors and ferrous items, and better compatibility with various charging sources. It is good to see Garrett are on the ball and listening to feedback and bringing out updates to resolve issues.

Updating

So, how easy is it to update the Vortex (Fig.8)? After registering your machine on the Garrett website you can download the Garrett Updater software, available for both Microsoft and Apple machines. This took seconds and came with an easy three-step guide on how to update your Vortex. It worked well both times I've tried it, updating my machine without an issue, and with a nice clear interface any technophobe could use.

When you first turn on the Vortex it is still like a Garrett, a simple display, not complicated, no need to concern yourself with having the correct configuration setup, just fire it up and get detecting. I like that in a detector, as sometimes being too over complicated can take the fun out of it, especially for those starting out in the hobby. Connecting with the wireless MS-3 headphones is a breeze with no issues at all and these produce a good clear tone. The only time I encountered a few brief disconnections when out in the field was when I'd put them back on the wrong way round, and so had the wireless side of the receiver on the other side of my head from the machine.

The first day out with the Vortex prior to any of the software updates, I ran the machine in 'Standard' mode in multi-frequency and was able to get a stable sensitivity using 6 out of the 8 bars. The ground was very wet and heavily saturated but not seeded and flat, so ideal detecting land for me. I removed the screen protector which comes with the machine and then kicked myself as I am never sure if this is a temporary or permanent one. I did this on the Apex when I first received it and sadly managed to put a huge scratch on the screen from a piece of broken flint in the field. Luckily, I had some clear protective wrap in the car which I placed over the screen for more permanent protection. I have no doubt screen protectors and cases will be available soon.

Fig.8. Vortex update.

Huge LCD Display

Now swinging the Vortex across the field, the first thing that becomes apparent is the huge, clear LCD display. The 3-tier target ID was popping away in tandem with the tones from the machine and within minutes I had a clear two-way tone with a VDI of 40-43. Using the pinpointer function on the machine for the first time, I picked the area and dug. Just four inches down was a nice little medieval spindle-whorl (Fig.9). I was pleased, as this area of the field had bought up some nice medieval pieces over the years, but I had not detected on it for at least 12 months. I continued detecting in multi-frequency and kept an eye on the 3-tier display and dug every half-decent signal and the odd bit of iron to see how it paired. I knew I should have really been in a single frequency, based on the amount of iron and bits in the ground like you

Fig.9. Medieval spindle-whorl.

Figs.10a & b. Obverse and reverse of an Elizabeth I sixpence.

Fig.11. The muddy Vortex.

would on any medieval or Roman site, but I left the Vortex in multi-frequency to see how it performed.

After a while, I was finding a big variation in the 3-tier display versus the tones, but if I came across a repeating mid-tone or high-tone signal, I was digging it. Perhaps the digital world, with its promise of precise 'on-off' accuracy, has its limitations when dealing with the countless variables in the ground. Factors like fluctuating mineral levels, dented or damaged targets, worn coins, target angle relative to the search coil, surface oxidation, and nearby metals in this ground naturally influenced the machine's consistency. Even in the analogue days, achieving perfectly stable numbers was a challenge.

Good Targets

More importantly the Vortex was giving a very clear two-way tone on good targets which almost blew my ears off when I had a strong 65-67 on the VDI and strong middle tier on the display. A lovely Elizabeth I silver sixpence came out of the saturated clod – very worn, but a nice find which was around four inches deep (Figs.10a & b). This was found using the standard setting on the machine straight out of the box, before I'd had the chance to try out the 'Thin Coins' option. I carried on around the same area, with the switch to one of the single frequencies on the Vortex in the back of my mind. I would have liked an 'all tones' option, as the three and five tones were just a little restrictive, however I had to remind myself that this is a machine with a cost of £630. Maybe Garrett will introduce this option in future software updates? As the day moved on, and I had been detecting for a good five hours, only one bar had dropped from four on the battery display.

Fig.12. Issues collapsing the machine.

I now felt it was time to try out the 'Thin coins' mode. This allows for a faster recovery speed and enhanced sensitivity, as well as a 'half notch' feature for more precise discrimination.

I stayed in multi-frequency and the machine was a little more chirpy, which I liked. I began digging a few pieces of lead with the usual crushed drinks can as I was near the edge of the field now, where a fair amount of modern-day junk was coming up. The 'Thin coins' mode was giving more information back to the machine, but I did feel I was losing a little depth compared to the 'Standard' mode. I re-buried the sixpence I found earlier in a recently dug hole at a depth of around six inches, piled the earth over it and gave it a good stomp with my muddy boot. I turned the Vortex off and changed the setting back to the 'Standard' mode and swung the coil over it, then turned the it off again and switched back to 'Thin coins mode' and went over the sixpence. There was definitely a better VDI reading and two-way tone on the 'Standard' setting. Possibly this would improve with future updates and is something I would like to test further, but as it was just beginning to rain, and both the Vortex and I were covered in mud, I decided it was time to call it a day (Fig.11).

Muddy Issues

The next morning, I began the chore and enjoyment of cleaning my clothes, finds and the machine, starting with the Vortex and a nice blast of the garden hose. At this point I remembered a slight issue I had when getting back to the car after my day's detecting. I had struggled to reduce the machine down to fit in my boot due to mud all in the spline on the plastic lower shaft. Not a huge issue, but a little frustrating when you are standing in the rain wanting to head home (Fig.12). This spline is a really nice touch as it prevents the shaft moving and putting your coil at an offset which can be annoying. But with all models being waterproof down to 5 metres (16ft), at least there were no worries about any issues when cleaning up the machine.

Further Days Out

After my initial few days out with the Vortex I was enjoying the simplicity of just switching on the machine and detecting. Okay it had a few things I felt

were missing, like an all-tones option mentioned earlier, to give a little more feedback in the ground. The 3-tier display and VDI were a little fragmented at times, until I did the update 2.04 from Garrett. After this, the machine seemed more positive on its readings, but I still found that the clear two-way tones were the ones to dig, even if that did lead to a few bits of misshapen lead along the way.

I particularly enjoyed using the Vortex on recently ploughed soil, which most machines struggle with on their multi-frequency setting. I detected on a recently ploughed field where I spent the whole day using the single frequency options on the Vortex. Starting with the 13Khz (which is available on all models), I also switched from five tones to three tones. With a faint reading on the VDI of 45-46 but another banging two-way tone, I dug down a good six inches and rammed my pinpointer in the hole. The target was even deeper! Digging down another few inches and after a wiggle of my pinpointer, there it was (Fig.13). A lovely silver ball button from around the early 1800s at an impressive depth of 10 inches (Figs.14 & 15).

EMI Experience and Using No Discrimination

After digging this intricate little find, I made my way under some large electric pylons to see how the Vortex faired with EMI. To be fair, many machines nowadays manage EMI very well, but I was intrigued to see how the Vortex would behave. As I expected, there were no issues at all detecting directly underneath them and around a small patch of the field cordoned off for the landowner's daughter's horses with an electric fence. I did get a little interference from the fence but after a quick switch to one of the 8 channels for EMI reduction, the machine settled, enabling me to detect just three feet away. At this point I had a play with the recovery speeds on the VX9 which has three options to choose from, with '2' being the standard setting on the machine. The 'Thin coins' mode drops down to '1', while the 'Fast' mode uses recovery speed '3'. The ground was bringing up a lot of iron, bottle tops and cans which, being near the main road, had probably appeared from when ditches were cleared the year before. I started with the recovery speed '1' option, in 'Zero' mode, fully open without any discrimination. I upped the iron volume, switched back to five tones and enjoyed listening to the feedback from the Vortex.

I felt this was the best way to find out how the machine dealt with this trashy area, albeit a bit of a head-muddle listening to all the tones coming up. Also, when on a recovery speed of '1' the screen changes to just one tier (0-99) and loses the top and bottom tiers (Fig.16). I spent a good few hours digging a vast array of iron, lead, tin cans, shot gun cartridges and a few worn Roman coins.

Of course, I could have discriminated a few of these junk items out, but I wanted to see what readings the machine was giving me for each target. Amongst these items was a lovely but damaged large piece of lead and possibly a token (Figs.17a & b). The 'token' was found only three inches down, but the Vortex gave a banging signal. At first I thought it was a papal bulla, but I am still a little usure.

Fig.13. A good 10 inches down for the ball button.

Fig.14. Ball button in clod.

Fig.15. Silver ball button out the ground.

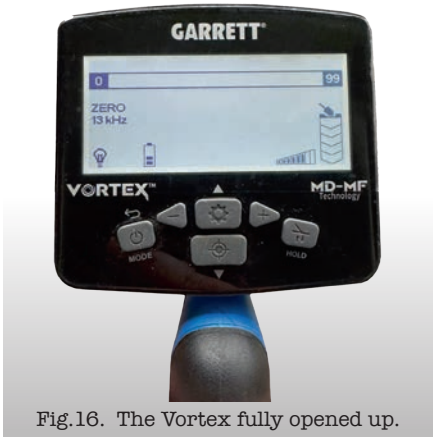

Fig.16. The Vortex fully opened up.

Figs.17a & b. Obverse and reverse of a possible lead token.

Fig.18. A 'buckle mode' seems to have been activated.

Figs.19a & b. Obverse of an unidentified hammered groat.

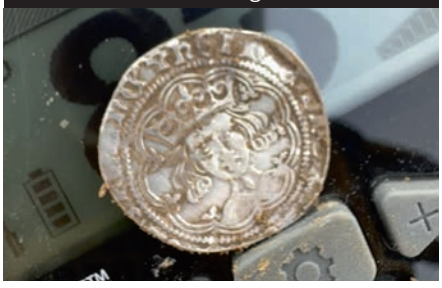

Fig.20. MS3 headphones with the Vortex.

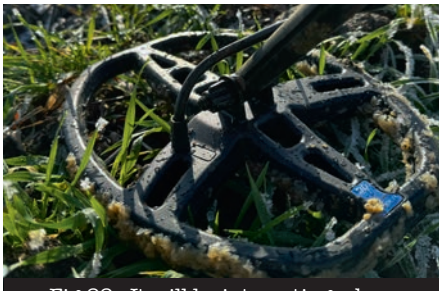

Fig.22. It will be interesting when aftermarket coils may appear to replace the DD Viper coil in the field.

I moved away from the trashy area, to a small pond with some old trees surrounding it in the centre of the field. I upped the recovery speed to '2' and was able to get another notch of sensitivity out of the Vortex with it being nice and stable. For the next hour I did not stop digging. First a large pot leg, then a nice spectacle buckle, and then another buckle – they just kept on coming up. I am not sure if I had somehow created a 'buckle mode', but I dug four up in total (Fig.18). I have yet to try the 'USA Coins' mode – I suppose being an American designed and manufactured machine, this is natural, however, with there being over 180 currencies around the world the last time I checked, I'll leave this option for now.

Vortex - An Innovative Move in the Detecting World

Having updated the machine twice and now running version 2.05, I have found a slight improvement in the depth in each programme, especially in the 'Thin coins' mode, using which I managed to pull out another hammered coin (Figs.19a & b). I've also noticed an improvement in the IDs on the VDI being more fixed when in the multi-frequency mode, as well as an improvement on the iron bias settings.

I would say that the Vortex was very similar to the AT Pro in performance, but with added features of the display, ergonomics, rechargeable battery and the benefit of being upgradeable in both performance and possible features. The option of starting out with the base VX5 and being able to upgrade by purchasing a software update for your machine is an innovative move in the detecting world. Either when you can afford it, or when your confidence rises as a beginner, you can make that step, or you could just dive in and go for the VX9. For those not wanting too much tech and a machine to just turn on and detect, I think the Vortex range is a good mid-range option, especially if you are upgrading from an existing Garrett machine and have the MS3 wireless headphones (Fig.20).

Without a doubt I have made some nice finds with the machine and am continuing to do so (Fig.21). I am yet to take it on the beach where I have heard it performs exceptionally well and plan an update on that later in the year! It will be interesting to see what aftermarket coils become available, which historically have made some big improvements on existing Garrett models (Fig.22).

Fig.21. Some more of the Garrett Vortex finds.