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Introduction

We all know that Garrett Ace detectors are in the top league when it comes to the best-selling beginner models in their line-up. Well-built, easy to operate, dependable and affordable, with a simple interface - ideal for beginners both young and old. In May this year Garrett launched their new and much-anticipated Apex range via a live broadcast, a great event for many hardcore Garrett fans and detectorists who had been waiting to see what this new machine had to offer. We have become used to big showcase events for new machines, but sadly not this year. However, Garrett decided they wanted to launch this machine online and Covid would certainly not be stopping them. I sat and watched the event live and came away pretty impressed by how much development had gone into the Apex and very much liked what I saw (Fig.1).

Garrett ACE Apex Features

Total Weight: 2.5 lbs (1.13kg).

Length: (Adjustable) 40" to 53" (1.016m - 1.35m).

Frequencies: 5, 10, 15, 20 KHz, multifrequency (Multi-Flex), Multi-Salt.

Search Coil: 6"x11" DD Viper search coil with coil cover.

Construction: Rainproof control box. Waterproof search coil.

Battery Type: Rechargeable Lithiumion battery.

Charger: Mini-USB and charging cable. Targeting: 5-tone audio target ID system.

Display: Large, edge-to-edge LCD display with backlight.

Updates: Mini USB port updates in time via your PC.

Wireless: Built-in Z-Lynk wireless system.

Audio Output: Available with or without Z-Lynk headphones, internal speaker, 3.5 mm / 1/8" headphone jack. **Warranty:** Two years parts and labour. **Other:** Pin-point mode, 5 tones, 0-99

target ID, iron volume.

First Impressions

Within weeks of seeing the online launch, I received a test model and opened the box (Fig.2), pleased to see it



Fig.1. The Ace Apex ready for action.

was the version that came with the MS3 wireless headphones, (more about these later). Assembly took just minutes and, as usual with Garrett, the build quality was good and solid and I was impressed at how amazingly light this machine was. Weighing in at just 2.5 lbs (1.13kg) this machine can be considered very lightweight - I thought the Simplex+ was light at 2.9 lbs (1.3kg)! This lightweight design and balance create almost "Zero rotational torque" according to Garrett, which helps reduce fatigue whilst out in the field detecting for long periods. It also feels very comfortable in the hand and, being lightweight, will no doubt be of interest to those who are looking at a lighter alternative machine for any reason.

Controls

Moving onto the vibrant yellow control box that clearly defines the machine as a Garrett, you are presented with a huge clear and uncluttered, easy to read LCD display with a built-in backlight. As always, I tend to try and fathom out the settings without reading the instructions – like I did when I was a child at Christmas, before having to ask my Dad to figure out why my Buckaroo would not buck. The interface was simple,



Fig.2. Unboxing of the Apex.



Fig.3. An international coin mode and not just US, hooray!

Fig.4. Apex menu options and controls.



something I feel Garrett has always been good at and this continues with the Apex. Any beginner or user of another brand of machine could quite easily take the machine straight out the box and start detecting within minutes, although naturally you would need to read the instructions to fully understand and benefit from all the features.

This leads me on to the volume! We have all been there, either creating that famous ding-ding tone, or detecting near to someone with an Ace model without headphones. Well, now the Apex has a volume control as well as iron volume which is something which many Ace users will have been wanting for a long time. This volume control on the Apex also controls the volume on the MS3 headphones. One thing that I was over the moon to see was a new 'Coins' programme among the standard pre-set search options. Yes, a setting designed for countries that do not wish to search for nickels or quarters (Fig.3) and created just for us overseas users. As well as the Coins program was Zero (no discrimination), US Coins, Jewelry, Relics and Custom (saved programs). All of which are easily changed by just pressing the mode option from the comfortable silicone rubber buttons that are easily accessible and within reach of your thumb on the machine (Fig.4).

Changing the sensitivity, ground balance, volume and backlight options are also clearly found within the menu and easily visible, especially in bright sunlight I found.

Charging

The Apex comes with a micro USB lead to charge the built-in Lithium-ion

battery and also the ability to transfer data to the detector from your PC when any updates are available. The machine I had charged from a flat battery in six hours, which I felt was a bit slow. However, this was charging via my PC which I have since found out does not output at 500ma which is ideally required for the machine. For the next charge I used a USB plug socket with the lead and this went from flat to full charge in four hours, which was far better.

Apex Audio Tones

The Apex also now comes with a 5-tone target ID as opposed to the traditional 3 tone ID: Low tone – Iron,



Fig.5. The new Garrett 6" x 11" DD Viper waterproof coil.

Low/medium tone - Foil, Medium tone - small jewellery, Medium/ High tone - musket ball, High tone - Sixpence. Also, the audio has been improved by Garrett, where they have combined the traditional binary audio as seen on the original Ace range, with proportional audio often seen on more expensive machines. They have called this 'hybrid audio' where both technologies have been combined together to give a more detailed tone to the user to help identify faint signal targets with the traditional binary sound for stronger targets. This all sounds very confusing but not too dissimilar to a hybrid car in my head and something I was keen to try out.

The Coil

The coil is newly designed especially for the Apex and not interchangeable with any of the existing Ace coils, the standard waterproof 6" x 11" DD Viper coil (Fig.5) comes with a protective cover and has been developed to work with the new Multi-Flex frequencies. At first, it feels a little small and I was unsure how I was going to get on with it in the field, as it also seemed rather an odd shape and too small for the machine. However, once in the field it really is a perfect size and covers quite a large area with good sensitivity around the circumference of the coil.

Garrett has also just announced they will soon be launching two new coils, the 8.5" x 11" Raider Multi-Flex DD and 5" x 8" Ripper Multi-Flex DD, which will be a great addition to this machine. The Apex coil fared extremely well for me in open ploughed fields and stubble and I found it lightweight

and well-balanced - you can see it has been well thought through in the development of the machine.

Multi-Flex

One of the biggest features of the Apex is the ability to have multiple frequencies with Garrett's new Multi-Flex technology. Multi-frequency technology is proving very popular these days and the main route that many manufacturers are going down with their machines. The Apex comes with not only the ability to detect in multiple frequencies, but also change to 5kHz, 10kHz, 15kHz and 20kHz, something not available on other machines in this price bracket. The ability to change to a single frequency may be very beneficial if detecting with others or near overhead or underground power lines where interference is an issue.

The standard Multi-Frequency Mode (MF) offers a mixture of frequencies that provide maximum target detection on all types and sizes of targets, while also minimizing ground noise. The Multi-Frequency Salt Mode (MS) utilises a blend of frequencies to help overcome the most common negative effects of saltwater, which I have found in the past to be a big issue with the Ace range, so I was very keen to see how this fared.

First Day Out With the Apex

Over the last two years, we have seen several low- to mid-range detectors

being launched, although I am not going to compare the Apex directly to any specific machines. However, I did load my car the night before with a selection of detectors, just to see initially how they fared together. Once parked up in the field, I felt this was going to be a great day (Fig.6): the sun was shining, the car was parked under a tree in the cool shade, I had a packed lunch in the cool bag and a new machine to play with. Heading off into the field I turned the Apex on. "Oh dear, something is not quite right" I thought. Constant and erratic tones came from the machine, so I turned the sensitivity down, ground balanced, unplugged the coil, reset



Fig.6. Loving the light weight of the Apex in the field.

the machine. "What else might it be?" I thought, and called my mate James over just to check I was not being stupid or had steel toe capped boots on, or a piece of foil stuck on the coil.

Unfortunately, the Apex had an issue. Okay, it was a pre-production model but had been fine at home and in the garden. I spent the next half an hour checking all the standard things we sometimes forget but to no avail. Upon speaking with Nigel at Regton, he advised me further and we carried out a few simple tests but it became clear that the coil appeared to be faulty. I was gutted, as the machine had seemed fine

Fig.7. The replacement coil, speedily delivered by Regton.

at home and had been tested by Regton prior to me using it, so what had happened? It seems that some of the very early models had an issue with the coil - the machine was sent back to Regton the next day and I hoped the issue would be resolved quickly, as I was very keen to see how well the Apex would perform.

The Apex Returns

Just 24 hours later I received a call to confirm that there was indeed an issue with the coil and a new one would be with me the next day (Fig.7). Excellent, I thought, noting that the weather

> was good for the next few days. On receiving the new coil, I connected it up to the control box and switched the machine on, carried out a ground balance, adjusted the sensitivity to suit and all was well. The sun was out and the potato fields I chose were ready to detect on, with some areas ploughed and flattened and some with deep crevices (Fig.8). The Apex was back in the game. I turned it on and chose Coin mode (Not US), as I was heading for an old footpath that ran through the field, where in the past I have found a range of coins dating from the 1700s to 1980s. Leaving the machine on auto ground balance and dropping the sensitivity



Fig.9. Crotal bell found 8 inches down with the Apex.

Fig.8.
Ready to attack the deep potato fields with the Viper coil.

down two bars from the top, I headed off, with a much quieter machine.

Headphones are something that I often struggle with. For me they are either too tight, too loose or the foam cover does not quite cover my ear and causes 'nipping', which after a few hours makes the tips of my ears feel numb. Not so with the Apex headphones though, they fitted me like a glove and synced with the machine instantly. I love the volume control knob on the side of the headphones – much better than fiddly little buttons that are too close together on the earpiece which I personally find a nightmare, especially with gloves on.

First Finds

My first signal resulted in unearthing a lovely crotal bell (Fig.9). Then I had a banging toned signal, which came up reading 52-54 – when you get a signal on the Apex it really does let you know. Now I could test out the pinpoint function which is relayed via an LCD bar at the top of the screen showing a varying length of solid bars (full bars and high highest pitch tone showing the location). I dug down to around six inches

Fig.10. Not that old, but a silver ring found with the Apex.



and pulled out the dry crumbling clod. I broke it up into pieces and waved it over the coil until the Apex signalled I had the find ready to inspect.

There it was, a glimpse of silver straight away, and a rather neat little ring. Upon first inspection it looked old, but later research at home revealed it was in fact from the 1980s and rather more Elizabeth Duke than Elizabeth I. However, it was still a lovely find and confirmation that the Apex was back on track (Fig.10). I carried on the rest of the day, mixing between ploughed fields and stubble, as well as a brief detect in some woodland by the side of the field using Coil, Relic and All Metal modes.

Operational Notes

By the end of the day I had been detecting for well over eight hours and only two bars had dropped on the Apex battery and more importantly I had no aching arm or back. This could be 'Zero rotational torque' as Garrett calls it, or just that the machine is light and wellbalanced. Over the next few weeks out with the Apex I did get a few very occasional issues where the machine would create a little chatter on different soil conditions on MF, 20kHz, and 5kHz with the sensitivity set to max or one bar under. The way I improved this in all modes except Salt Water was by carrying out a manual ground balance. If it was in the low 80s I would use 15kHz but if high 80s/90s I found 10kHz to be very stable with a couple of notches down on the sensitivity and discrimination on 35. On Zero mode (All metal) I found that discriminating out the first 8



bars, iron volume muted and iron audio muted worked really well.

All of the above may sound a little technical for a first-time user, but being able to make these changes either as a beginner or experienced user I felt was a great option. Especially for those who are still a little dubious of multifrequency machines, at least the Apex gives you the option of being able to opt out and choose another preferred frequency which may help when detecting with many other machines around you, or when there's any other electrical interference in the area. As for the recovery speed on the Apex, it's very good, and much faster when compared to the traditional Ace range.



Fig.11. Finally, a detector that my daughter likes!



Fig.12. Multi salt setting on the Apex ran like a dream.

The Beach

I have never got on with the original Garrett Ace series on the beach – it wasn't too bad in dry sand, but in wet sand and saltwater they are not the best machines to use. However, the Apex was fantastic and absolutely silent on both dry sand and wet sand using the MS setting. I have only managed a couple of visits to the beach with the Apex, with one being a family walk on our local beach where I finally managed to get my daughter, who has never really taken any interest in metal detecting, to try it (Fig.11).

She normally refers to my detecting as "Dad mincing about," but within minutes she commented how light and easy to use the Apex was, how the Multi-Setting (Fig.12) was performing well and how she liked the design as "It's not clunky like the others." An hour later, she was happily detecting away with an increasingly frustrated dad following behind. Just maybe she might want to come out detecting with me again?

Conclusion

The Apex is a very good detector, with a nice feature set and well thought out design; nothing earth-shattering but good value for its price bracket and the ability to make some great finds (Fig.13)! The Apex falls right at the top end of the Ace series, and with the facility to receive future updates via your PC (which I'm sure will be forthcoming in the future months), leaving you with a machine that can only improve over time which makes complete sense as part of the Garrett ecosystem. It may currently have a fair bit of competition (Fig.14), however like all quality products, I am certain it will establish its place in our hobby.



Fig.13. A selection of finds from one day with the Apex.



Fig.14. The Apex has a lot of competition.