

Field Test

Minelab Equinox 700

By Adrian Gayler



It's hard to believe that it's almost eight years since the Minelab Equinox range was introduced way back in September 2017! After a very dramatic entrance via a parachutist at Detectival, followed by a slight delay in shipping, it was finally available at the beginning of 2018. Since its launch, the Equinox range has been widely praised and embraced by metal detectorists worldwide and has revolutionised mid-range detecting with its Multi-IQ technology, allowing simultaneous multi-frequency detection, something previously only found in much more expensive machines.

Detectorists quickly praised its depth, versatility, and lightweight design, making it a favourite for both beginners and seasoned detectorists alike. The Equinox 800, in particular, gained a cult-like following for its advanced features, becoming a go-to machine for many. However, many also opted for the Equinox 600 (Fig.1), which had a reduced number of features, but was cheaper and still a very capable machine with very good performance for the price.

The New 700 and 900 Models

In 2022 Minelab announced a refresh to the Equinox range with the launch of the 700 and 900 models, met with much enthusiasm from existing Equinox users looking to upgrade from their very worn and well used machines. The original Equinox had been a very reliable workhorse and lasted the test of time extremely well. Okay, like others I did have a few issues with the mounting ears on the coil breaking a few times which needed to be fixed with a 3D printed option or totally replace the coil. Some early models had water ingress into the control box and naturally the battery would need replacing after some years, but many of these were



Fig.1. Equinox 700

covered by Minelab's healthy warranty and wide availability of distributors in the UK.

With the launch of the new Equinox machines at a similar time to the Manticore and Deus II I feel the Equinox 700 was lost a little and slid under the radar. As shown in the table, the 700 has gained a lot of added features compared to the 600, albeit with a little extra in cost, but this does now include wireless headphones and a new carbon fibre shaft. Plus there are currently deals around which include a free Pro-Find 40 pinpointer which retails for £139 – not a bad offer at all!

First Impressions

The build quality of the Equinox 700 with its carbon fibre shaft is immediately noticeable. Compared to the original aluminium one on the 600 it feels lighter and sturdier (Fig.2). The cam locking system and height-adjustable arm cup has been improved



Fig.2. New Equinox Cam locks and adjustable arm cup.

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Features	Equinox 600	Equinox 700
Release Year	2018	2022
Technology	Multi-IQ	Upgraded Multi-IQ
Frequencies	5, 10, 15 kHz + Multi	4, 5, 10, 15 kHz + Multi
Target ID Range	-9 to 40	-19 to 99
Modes	Park, Field, Beach	Park 1 & 2, Field 1 & 2, Beach 1 & 2
Gold Mode	No	No
Recovery Speed	3 levels	5 levels
Iron Bias	1 setting	2 settings: FE & F2
Audio Tones	1, 2, 5 tones	1, 2, 5, or All Tones
Tone Customisation	Basic	Advanced (pitch, break, volume)
Wireless Audio	Bluetooth only (no headphones)	Low-latency Bluetooth + headphones included
Shaft	Telescopic aluminum	Carbon fiber, collapsible
Weight	1.34 kg (2.95 lbs)	1.2 kg (2.8 lbs)
Waterproof	3 meters (10 ft)	5 meters (16 ft)
Vibration	No	Yes
Display	Monochrome LCD	High-contrast backlit LCD
Backlight	Low / High	Off / Low / Med / High
Battery Life	12 hours	12 hours
Price	£599	£679

as well. However, I really do wish though they had adopted a similar cam lock setup as on the Vanquish range. Turning on the machine, the LCD screen is of higher resolution with the option of a reddish orange backlit display and keypad, ideal for those low light conditions (Fig.3). Also, something which has appeared more and more over the years is the option of vibration feedback, although personally I have only found this useful when detecting in almost storm like conditions where it gives more feedback for faint signals. However this feature is perfect when detecting underwater, which the Equinox 700 is perfectly capable of, now having a higher rating of 5 metres (16ft) as opposed to only 3 metres (10ft) for the 600.

The addition of an LED backlight is a nice touch (Fig.4), and the button layout is also improved compared to the Equinox 600. The buttons are larger and better spaced, making them a lot easier to press, especially when wearing gloves. Changing modes and the 'Pinpoint' function now have their own dedicated buttons which, combined with the updated menu navigation layout, creates a smoother user experience and is ideal for beginners to the hobby (Fig.5).

I feel that Minelab have listened to past users of the Equinox range, and with these little changes have reduced the need for messy multiple button presses which was a slight faff with muddy gloves when in the field. The



Fig.3. Backlit screen and keypad.



Fig.5. The new button layout.



Fig.4. The additional LED back light.



Fig.6. Very dry fields this spring.

expanded target ID range has also improved, with the Equinox 700 now offering a 119 segment ID scale (-19 to 99) compared to 50 segments with the Equinox 600. This is a lot better for allowing finer discrimination between targets, offering more precise identification.

Also, the 700 also has a 'Depth Pitch' audio option, something I very much like on machines as this is highly beneficial to help identify deeper targets by providing variable tones based on the target depth. Basically, a coin two inches deep will give you a sharp tone, whereas a coin at eight inches deep will give you a softer, lower pitched tone. With junk or iron, you will hear a fluctuating or broken mid-pitch tone. The 'Depth Pitch' can help you decide whether to dig or not to dig. It takes a while to get skilled at this, but is a nice feature on the machine and over time you can use your ears to guide you rather than the display on the machine.

First Day Out

We have had a very dry spring this year in my part of southeast England, almost like drought conditions with as little as 3% of average rainfall (Fig.6). The prolonged dryness is great for those of us wanting to get out without returning to the car draped in mud, however it has led to some very dry soil on my permissions – I was interested to see how the Equinox 700 would cope in these conditions. With the car packed up and machine

fully charged, I headed out in glorious sunshine for a full day's detecting. Just off the edge of an ancient Roman road lies a field on one of my permissions which I know is rich in history but annoyingly is also rich in iron.

This old Roman site, likely the scene of centuries of activity from trade to settlement, has been a haven for me over the years but has always had a very short gap between the farmer harvesting his crop and re-seeding again. The ground is heavily mineralised with high levels of iron, littered with both natural deposits and remnants of past human activity containing nails, slag and countless fragments of corroded iron artefacts. These iron-rich conditions can confuse many modern-day advanced detectors, masking or falsifying good signals and making it a challenge to distinguish the good from the bad. I love it though, as it really pulls on your patience and with a good, fine-tuned detector, I know this field offers the potential to uncover some really good finds.

I turned on the machine and detected for the first hour with the standard Minelab 'Field Mode 1' (for mid to moderate mineralisation) – not the ideal setting for this permission, but I wanted to see how the machine performed on this setting and using the auto ground balance, as many people new to the hobby or starting out with this machine would naturally choose this option instead of 'Field Mode 2' which is more suitable

(ideal for highly mineralised and iron sites). With the Minelab ML85 wireless headphones (Fig.7) which paired faultlessly, I headed out knowing I did not have the best programme for the field, but I was very interested to see how the Equinox 700 would perform as standard with just 5 tones and 'all metal mode' turned off.

Roman 'Grots', Lead, Pottery and a Cat's Eye

After digging up a few Roman 'grots', bits of misshapen lead and some broken Roman pottery (Fig.8), I had a nice signal with a good two-way tone about six inches deep. I saw what I at first thought was a part of a precious stone embraced by a brass clasp and my heart skipped a beat (Fig.9). For those who have not found a similar item don't get too excited, as after a breaking the dry packed mud off the find I knew straight away it was something that has fooled many detectorists over the years – a blinking 'cat's eye' as used in the middle of our UK roads! These can be very deceiving as they can have a slight patina which makes them look as though they have some serious age.

Continuing On

I continued detecting in 'Field Mode 1' for another few hours, making note of the ground I had gone over by dragging my spade behind me in the dry soil to make a line. I could feel the machine struggling at times to produce a clear VDI and tones, which



Fig. 7. ML85 wireless headphones.

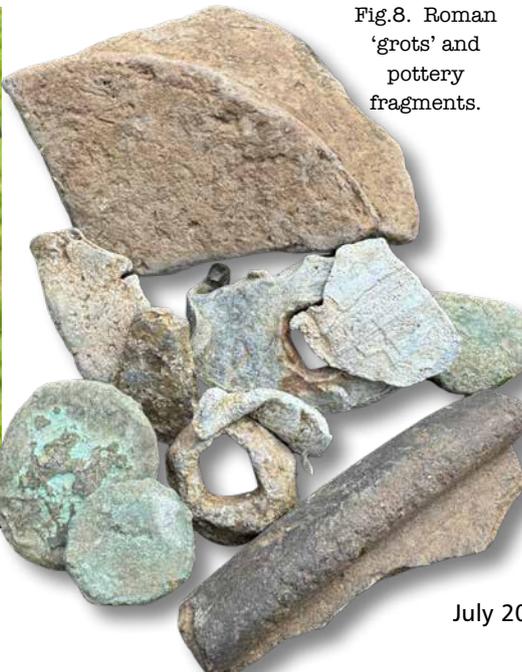


Fig.8. Roman 'grots' and pottery fragments.



Fig.9. A pesky 'cat's eye'.

was totally understandable based on the land, but it was a little frustrating for me personally as I knew the machine was desperate for me to open it up. I sat down by the side of the field for a bite to eat for lunch and had a play with the controls, prior to switching to the more suitable 'Field Mode 2'. It is such a simple to use interface and with more added features and customisation on the tone breaks, tone pitch, tone volume, target tone and 'enhanced audio'. I was especially interested on how the 'enhanced audio' might help, with its sharper, crisper and faster response, ideal for the soil conditions on the field.

Now in 'Field Mode 2' and having conducted a manual ground balance and implemented the 'Noise Cancel', I adjusted the recovery speed to 5 and Iron bias to 'F2=1'. This is a more advanced version than on the Equinox 600, offering better separation and is more refined in detecting non-ferrous targets next to iron, which I knew would improve the machine. The machine was a lot snappier and gave a lot more feedback from the ground, and whilst following back the trail left from my spade, I immediately started hearing targets from the 50 tones I was now using and soon got a good, clear signal amongst the ground noise. Reading 53-55 on the VDI, I quickly switched to the pinpoint mode on the machine and began to dig.

The pinpointing function on the Equinox 700 is slightly more precise than the previous machine and, like all Minelabs, is very accurate. The ground with its dried-out cracks was almost like digging a piece of hard fudge and once the target was out, I had to carefully break it up with my hand tool like portions and wave my pinpointer over each clod. Finally finding the target, I was over the moon to find a slightly broken silver *denarius*. It was in very good condition and had been only four inches down. Remember that this was covering the exact same area I had detected the past few hours!

Richard III, and Some Roman Weights

I continued following my tracks and was impressed at how well the Equinox 700 was performing on this tricky piece of land. An exceedingly small Richard III silver hammered popped up from only a couple of inches down (Fig.10a & b), followed by a nice little collection of Roman weights (Fig.11). How on earth I had missed these Roman weights before? I really don't know! It did show though that this site had a lot more to give, even after many years of detecting it. Over the next couple of hours I did dig a lot of modern waste, but could clearly identify the good targets with the machine. One of these was another silver *denarius* albeit in a very poor state, but it was a good eight inches down and the iron bias change meant it was clearly identified as a good target (Figs.12a & b).

The Equinox 700 is only slightly lighter than the older machine, however Minelab must have made a few tweaks, as after a good six hours detecting it still felt very comfortable with the 11inch Double-D coil (EQX11). This coil has a nice amount of ground coverage, but I was looking forward to swapping it out for the smaller 6-inch coil, which would offer better target separation. Being part of the 'Equinox' range, the Equinox 700 is fully interchangeable with the 6-inch (EQ6) coil, the 15-inch (EQ15) coil, and of course after-market coils from Coiltek.

A Fast and Responsive Machine

By the end of this first day out with the Equinox 700, I noticed clear improvements in processing the signal and reactivity over the old 600. It seems noticeably snappier between targets, and I felt I could swing the coil faster without losing any performance. The VDI on the machine was a lot more stable and I felt that picking out coins next to iron was a lot more successful. This was where the tones were clearer, along with the audio response through the ML85 wireless headphones. I did, on some occasions throughout the day, switch from the Multi-IQ to 20-40kHz, from one of the five frequencies available on the Equinox 700. The Multi-IQ for me is like an initial site



Figs.10a & b. Obverse and reverse of a small Richard III hammered coin.



Fig.11. A selection of Roman weights.



Figs.12a & b. Obverse and reverse of the sadly chipped silver Roman denarius of Hadrian.



scan on heavily infested areas like my Roman site. Using a single frequency at times really can pinpoint those awkward targets and is worth a try as it can unearth some good hidden finds and helped me with a few awkward targets.

The battery life on the Equinox 700 is impressive, with the new generation battery offering up to 20 hours detecting time, well up from the 12 hours on the Equinox 600. It also supports an external power bank, ideal for long weekends away at rallies. It still uses the lovely, easy to connect Minelab magnetic charging point on the rear of the control box (Fig.13). It was nice having a good day detecting and not have to worry about charging the machine for the following day (even though I did charge it in the end). The ML85 headphones last 20 hours as well, so are in sync with the machine which makes sense but isn't always the case. Due to the aptX Low Latency technology you cannot use any Bluetooth wireless headphones, but if you have your favourite wired headphones you can still use the Minelab WM08 wireless module adapter.

Further Days Out

As the weather began to turn with some rain appearing towards the end of the spring, I ventured out on a range of different types of land with the Equinox 700. One area was on another of my permissions with an old forest with a pond (Fig.14). I usually avoid detecting in forests on my permission, which is silly really as they can house some interesting finds, hidden amongst the wealth of shotgun cartridges and squashed aluminium cans of beer that have been drunk by beaters over the years. However, I felt this was a good test for the Equinox 700. The ground was still heavily covered in leaves hiding the tree roots, so finding a target with the machine was a little frustrating as I had to dig around them.

I ran the machine in 'Park Mode 1', which I felt was best suited for this area as I was after a bit of coin hunting. With a slight tweak of the recovery speed and iron bias I was hoping the

Equinox 700's improved audio and fast reactivity would pull out some good finds. I had a very frustrating couple of hours digging shotgun cartridges which were giving a wide range of VDIs and tones – the modern cases seemed to show as 13-17 on the VDI, while some of the older ones came up at over 30. This was all very confusing and meant I had to dig everything.

Switching to 50 tones did help, with a little smearing or warble letting me identify which signals weren't good. The 'Depth Pitch' option also let me know when one was hiding in the ground with a shallow and wide tone. I soldiered on until a faint two-way tone with a VDI reading of 48-52 popped up on the machine. It sounded quite deep, so I stomped the saw-tooth edge of my shovel through the roots of the forest floor – once the plug was out it all broke away like compost to



Figs.15a & b.
Obverse and reverse of a copper colonial issue VOC duit from the Dutch Indies.

reveal what at first I thought was a small coin weight or similar (Figs.15a & b). With a quick use of Google Lens on my phone it identified my so-called weight as a copper 1744 Holland VOC Duit from the Dutch Indies (Now Indonesia). Originally minted in the Netherlands for use in its colonies. I had never found or seen one of these before but recall my father talking about them many years ago. This lovely find made me forget all about the bag full of shotgun shells and my aching back from all the digging I had done over the last few hours.

With the Equinox 700 being waterproof to 15 metres I felt safe in detecting around the pond area which was a little mushy, with the sidewalls of the pond like treading on foam.



Fig.13. The rear control box with magnetic charging point.



Fig.14. The shotgun shell forest.



Fig.16. The design on the Roman ring bezel.



Fig.17. Sadly, the Roman ring was broken.



Fig.18. A selection of forest finds.

I detected around the edge with caution, trying hard not to fall in (a common occurrence for me sadly) hoping perhaps a coin or two had fallen from the pocket of someone over the years when washing or resting their horse. Right by the water's edge I had a banging signal of 78-80 on the VDI, only a few inches down. I cupped my hand and scooped out the dark coffee looking water and broken-down wood and leaves from over the years and pulled out what at first I thought was a broken ring from a piece of farming machinery, but to my excitement and surprise was actually a ring! At first it looked like it was very rusty, but as the ring dried it looked Roman with an interesting design on the top of the bezel. Sadly it's broken, but it's too big for my thumb and must have been made for a very well-built person (Figs.16 & 17). After an afternoon of detecting in the forest I found a nice little selection of finds at varying depths and found that the Equinox 700 did well in separating the vast amounts of modern rubbish that had been dumped over the years (Fig.18).

Simple, Yet Effective

The thing I like about the Equinox 700 is that it has what I think is just the right number of features for both a beginner and intermediate detectorist. You can make simple changes quickly through the improved interface without getting too confused by a multitude of options. It is definitely an improve-

ment on the Equinox 600 which of course you would expect, but with the addition of the ML85 wireless headphones, I feel that Minelab have put together a fantastic machine ideal for those looking for either an upgrade or new to the hobby. You can of course jump straight in and go for the Equinox 900 with even more features and added performance, but inevitably that comes with a price tag.

I have continued to have some nice finds recently with the Equinox 700, including a very good condition copper 5 pfennig German coin dating from 1719-1739 and used in the German states and bishoprics of the holy Roman Empire (Figs.19a & b). It has continued to perform well on my Roman site especially (Figs.20 & 21). Being totally honest, I haven't been a 'Equinox' user in more recent years since other manufacturers' new machines have come along, but I have found the 700 a really enjoyable and impressive machine for the money. I am soon to venture out on the beach with the machine but have heard from many, like the original Equinox range, that the 700 will more than cope with both wet and dry sand perfectly well. This entry level Equinox has been out for a while now, but the slight tweaks in performance and features make it a very reliable and capable metal detector which I am looking forward to using a lot more in the future.



Fig.19a 5 Pfennig German coin.

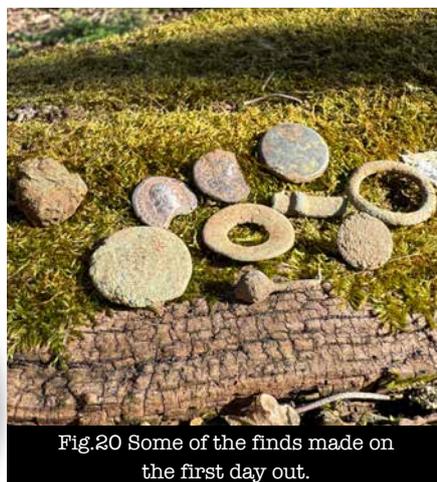


Fig.20 Some of the finds made on the first day out.



Fig.21 The 700 is picking out the Roman coins, as shown by this tiny clipped siliqua of Honorius.