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the searcher

GLOBAL EXCLUSIVE
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The talented twins bringing finds to life

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A selection of Gordon's finds made with Minelab machines over the decades

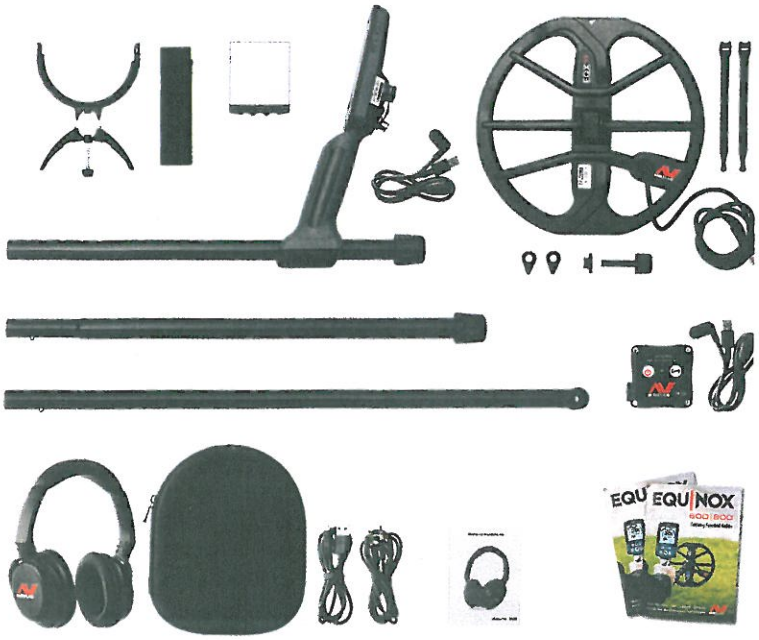
field test | Minelab EQUINOX 800 Part 1 – A preliminary test

Gordon Heritage

Minelab EQUINOX 800

Specifications:

Operating principle: Multi-IQ technology (VLF Induction Balance)
Frequency options (kHz): Multi, 5, 10, 15, 20, 40
Standard search coil: 11" round Double-D
Weight: 1.34kg
Battery: Internal lithium-ion
Warranty: 2 years
Price: £879.00



This month I'm doing a **preliminary test** of a pre-production detector from Minelab, the new EQUINOX 800. The concept was to have a light, fast, waterproof, and easy-to-use machine at a price-point that was affordable to most serious detectorists. **The final product is so much more!**

Not content with just bringing another mid-range single frequency detector to the market, Minelab decided to throw a ton of technology into the mix, living up to their new tagline 'Performance Is Everything'.

We now have been presented with a machine that has simultaneous multi-frequency (Multi-IQ), 5 single frequency options and 8 recovery speed settings to suit every possible detecting situation. Waterproof, light and with two wireless audio solutions ... and a mid-range price tag of only £879!

What's in the Box?

Opening the box you will find a disassembled EQUINOX 800, EQX 11" coil, Bluetooth® aptX™ headphones, WM 08 wireless audio module, screen protectors, a Getting Started Guide and various leads. **(Fig 1)**

LEFT Fig 1. What's in the box

Assembly is very simple; attach the armrest and stand to the upper shaft in the correct position for your forearm. Fit the coil to the lower shaft, then assemble the three-piece shaft and adjust to your height. Finally, wind the coil cable around and up the shaft, taking out as much slack as possible, then plug the connector into the back of the control unit and secure it with the knurled retaining ring.

Controls

All the controls are accessible on the control unit above the handgrip. There are four side buttons, two on the left operating the power **On/Off** and **Backlight**. The two on the right operate the **Wireless** headphone options and **User Profile** to save your favourite settings. **(Fig. 2 & 3)**

The remaining 8 buttons on the keypad beneath the LCD screen adjust the operational variables of the detector.

Let's start with **Detect Mode** on the left-hand side (detector coil symbol). The four Detect Modes are **Park, Field, Beach** and **Gold**. This button cycles through 8 Search Profiles, two for each mode. Once a profile is selected, settings can be changed using the middle **Settings Menu** button (cogwheel symbol) and the **Minus, Plus, Accept/Reject** buttons. The -/+ buttons are also used to adjust the Sensitivity in real-time, while detecting.

The three buttons along the bottom row are **All-Metal** (horseshoe symbol), **Pinpoint** (detector/target symbol) and **Frequency**. With **All-Metal** on, the tones remain the same and iron becomes audible, and all the discriminated segments turn black (all targets accepted). If you press the button again the rejected segments are restored.

Pinpoint is straightforward; press on/press off and it will switch between the Detect and Pinpoint screens. **Frequency** cycles through all the frequency options available in the selected Mode. Park and Field have all available options. Beach has Multi only, being the best for salty conditions. Gold Mode has 20 kHz, 40 kHz, and Multi, which are most suited for gold nugget searching. **(Fig 4)**

Settings Menu

The EQUINOX 800 has a very simple menu system, but many settings can still be configured for personal preference. Press the Settings button to access Noise Cancel, Ground Balance, Volume Adjust, Threshold Level, Target Tone, Accept/Reject Discrimination, and Recovery Speed.

Automatic **Noise Cancel** is performed by selecting it and then pressing the Accept/Reject (tick/cross) button. The machine will cycle through all the possible channels before selecting the best one for the environmental conditions. You can also use the +/- buttons to manually change the Noise Cancel channel.

Ground Balance can be performed to minimise ground noise, and also set to track the ground if it is fluctuating. This can be done in the GB menu, and then pressing the Accept/Reject button. A long hold of this button will switch on and off the tracking, as indicated on the LCD by a 'squiggly line' tracking symbol.

NOTE: Generally, the '0' setting is the optimum target response setting. So only use Ground Balance if ground noise becomes a problem e.g. rough plough on a mineralised Roman site.

Volume Adjust is straightforward. It sets the volume limit of the machine (how loud targets will sound). If you press and hold the Settings button with the Volume setting selected, you will enter the **Tone Volume** setting. This is indicated by a line appearing under the volume speaker symbol. You can now change the volume of selected tones, using the Accept/Reject button to cycle through the possible choices.

NOTE: All break options are specific to the machine's selected number of tones. So, first select from 2, 5, or 50 tones before adjusting the settings. You can then reduce the volume for the undesirable targets and still search in All-Metal. **(Fig 5)**

The **Threshold Level** setting allows you to control the intensity of the Threshold or silence it altogether. If you press and hold the Settings button with

BELOW LEFT TO RIGHT Fig 2. Side buttons on control panel. Fig 3. LCD screen and keypad. Fig 5. Tone Volume screen view.
ABOVE Fig 4. Setting Menu screen view.

the Threshold Level setting selected, here you can change the **Threshold Pitch**.

NOTE: With all these advanced second level options, a line will appear under the symbol to indicate the advanced state. Press and hold the Settings button to return to the original position.

The **Target Tone** setting is where you control the number of tones emitted by the Detect Mode selected. You can choose from 1, 2, 5, or 50 tones.

If you press and hold the Settings button with the Target Tone setting selected, you will enter the **Tone Pitch** setting. Using the Accept/Reject button to select available tones, in turn, you can adjust the sound pitch. This gives you the ability to customise the tones to your own personal hearing. **(Fig 6)**

The **Discrimination** setting is where you can accept the audio response from a target, or blank it altogether. You simply cycle through the notch Discrimination scale using the +/- buttons, and then reverse the state of the selected segment with the Accept/Reject button. Black segments are accepted targets and clear segments are the rejected ones.

If you press and hold the Settings button with the Accept/Reject setting selected, you will enter a setting where you can change the Discrimination **Tone Break** position. This changes where each adjustable segment of Discrimination is covered by a particular tone. For example you can extend the low tone of the iron range of Discrimination to include foil etc. as a ferrous tone.

NOTE: If you've selected 2 or 50 Target Tones, you will have one break point (t1) to adjust. In 5 tones you will have t1, t2, t3 and t4. Each of which can be adjusted to different groups in the Discrimination range.

The **Recovery Speed** setting is where you can adjust the detecting speed of the EQUINOX. A low setting will make it very slow to recover from a detected target, but give it plenty of time to reach a greater depth. A high setting of 7 or 8 will make it work really fast in iron-infested soils, where it is necessary to recover quickly from iron trash and give a clear response to non-ferrous targets lying nearby. **Therefore, the EQUINOX 800 is both the fastest and slowest detector that I've ever used!**

Detect Modes

At the heart of EQUINOX are the four modes of operation. The major difference between modes is in how the Multi-IQ performs. Park 1 and Field 1 use a Multi-IQ that gives better results for deep high-conductive milled silver targets. These profiles are less sensitive to low conductors, like coke, foil or hammered coins, so tend to be quieter to ground mineralisation and iron chatter.

Park 2 and Field 2 are extremely sensitive to small gold jewellery and hammered coins, but therefore also more sensitive to some junk and extreme ground conditions. If things get difficult in Field 2, it is best to first reduce the Sensitivity or then switch to Field 1, or even Park 1.

Beach Mode is multi-frequency only. Single frequencies are NOT selectable. Minelab machines have always excelled on wet saltwater sand using multi-frequency, and the EQUINOX's Beach Mode is built on that expertise.

The final mode is Gold, which works on 20 kHz, 40 kHz and Multi. These are the most sensitive frequencies for small gold nuggets.

Audio Options

The EQUINOX 800 comes (as standard) with three headphone options, delivered by the supplied Bluetooth headphones, WM 08 wireless module and straight headphone lead. **(Fig 7)**

The straight lead can be used to connect the headphones directly to the detector, or to the WM 08 Wi-Stream audio module. Or you can pair the headphones directly to the EQUINOX via Bluetooth aptX™ Low Latency.

My favourite system is via the WM 08 wired to the headphones and then slipped into my topcoat pocket. The audio responses are super fast with no lag in transmissions.

The Bluetooth aptX™ Low-Latency system is also very good, with the added bonus that you can connect any Bluetooth headphones or ear-buds from other electronic devices e.g. smartphones, tablets etc.

NOTE: There are also wired waterproof headphones available for if you intend to take your machine underwater, where the wireless options can't work.

Accessories

The EQUINOX is supplied with a standard EQX 11" round double-D coil and the wireless headphones. There are also two accessory coils and a set of waterproof headphones available separately.

The optional coils are sized 6" round and 15"×12" elliptical. The 6" coil

LEFT TO RIGHT Fig 6. Tone Pitch setting view.
Fig 7. Wireless WM08 headphone module
Fig 8. Gold cufflink

will suit extreme conditions where iron contamination is a problem. The 15"×12" is for where targets are deeper and iron contamination is less of a problem. This will be a great coil for those deep pasture fields, where depth is essential.

The waterproof headphones directly connect to the back of the control unit, allowing the submersion of the whole setup to 3 metres.

And finally there's also a patch-lead you can purchase to connect your favourite headphones (fitted with ¼" jackplug), to the EQUINOX waterproof headphone socket.

In the field

I've had the pleasure of many hours of use with this detector in the field. Most of the sites searched have become very difficult in the recent years. It was on one of these fields that I had my first 'eureka' moment, and I knew this machine was something special. **(Fig 8)**

The find itself was nothing really special, a broken cufflink in gold set with a white agate type stone. But when I put it under my CTX 3030, I received a TID of 12/01. This is the lowest target response you will see on the CTX 3030, it's a small foil reading. On the EQUINOX however, it was a strong repeatable signal.

The next day I found myself on a site that had produced several small silver Anglo Saxon coins to others before we had gained permission. On fields in the same area we have found two Celtic quarter staters, but on the field I was searching that day we had only found a hand full of Roman coins missed by the previous detectorists.

I set up my EQUINOX in Field, two-tone, Multi, Recovery Speed 6 and All-Metal. I adjusted my coil swing speed to the amount of iron, and walked into the field where there was a ridge, where the land falls toward the course of a Roman road and hedge. As I reached the ridge, an area where Roman coins had previously been found, I received a sweet two tone with a solid ID. Digging down about 5", the signal was out of

BELOW & FAR RIGHT Fig 9. Anglo Saxon gold thrymsa

the hole in the spoil. As I kneeled down to grab handfuls of soil to pass over the coil, I caught a glimpse of a hammered gold coin. For some reason I thought it was a small quarter noble before I picked it up, ridiculous for the size of coin. But on closer inspection I knew I had found an Anglo Saxon gold thrymsa. Once home and studying my books I realised its rarity as the bust was facing the wrong direction. **(Fig 9)**

This coin wasn't very deep and could probably have been found by 'another' detector. However, over the many years that this field had been searched, 'another' detector hadn't found it!

I've tested this machine on some very hard-detected fields, and on most the targets recovered have been small and usually trash. But as I racked up the hours on these now 'impossible' sites, I've slowly amassed a good selection of Roman and hammered coins missed on previous searches. **(Fig 10)**

ABOVE Fig 10. More EQUINOX 800 finds

Conclusion

This is a great machine with many great features. But what really amazes me is you get all this for such a small price tag.

There are a few niggles, or should I say compromises to make. They all tend to be present to cut down the overall weight of the product. I think the lead winding up the shaft is a step backward after being so used to having it hidden on the Explorers, E-TRAC and CTX 3030. The battery hidden in the handle, although clever, means its size brings down the battery life to around 12 hours. The saving grace though is the ability to charge on the go, and Minelab has even slotted the detector stand under the armrest for users to make their own solutions. I already have various battery banks for the mobile phones I've owned, and because the EQUINOX charges on a USB system they are all compatible. But I can forgive these few gripes because I have everything I want in a detector; lightweight, waterproof, multi-frequency, fast, deep, versatile and super sensitive ... and affordable!

Mid-range? It doesn't feel it... I'm surprised it's not costing twice as much as it is!

Part two will detail indepth settings, techniques and information on getting the very best out of the EQUINOX 800.

EQUINOX 800 test results

(Scores out of ten based on price category)

Ergonomics (weight/balance): 10
Simplicity/user friendliness: 10
Build quality: 10
Weather resistance 10
Discrimination Performance 10
Overall detection Performance 10
Value for money (£879): 10

The Searcher Rating