Field Test

Golden Mask 7

By Adrian Gayler

With many of the big brands launching new machines over the past couple of years, I believe it's possible that one new machine has been somewhat overlooked. This being the Golden Mask 7 (GM7) which was first announced in late December 2022 as an upgrade to the Golden Mask 6. Designed and manufactured in Bulgaria with a very interesting history on how the company gained its name. Golden Mask is the successor of the Banditto brand, known for the fact that it found the famous 2,400 years old golden mask of a Thracian king in the Valley of the Thracian kings, in central Bulgaria.

The GM7 is a four frequency VLF machine with a new 7GS coil which offers increased depth and stability compared to the original coils. After owning a few Golden Mask machines over the years, which have all performed well, I was intrigued to see how the GM7 would stack up against the newer machines running multiple frequencies.

First Impressions

When the GM7 arrived, I was initially concerned by the size of the box (Fig.1). It is perhaps the smallest package I have ever seen for a metal detector – was it missing a coil or headphones? Have I been sent just a coil? Upon opening the box, I was relieved to find that everything was there and showed just how compact Golden Mask have made the GM7 machine. Comprising of a new style mesh carbon fibre shaft with rubber encased one piece round screw locks which are very easy to loosen and tighten even with a glove on to adjust to your required length (Fig.2). The key benefit of these was the speed at which you can unlock the machine, with no additional screws or bolts to come loose or get snagged on your detecting paraphernalia as can happen with some traditional cam locks.

The GM7 comes with the Fighter 24cm (9.5 inches) coil, using the new 7GS technology, which is very light at only 409 grams and a good size for most detecting conditions (Fig.3). Initially it was rumoured that the G7 would have a wireless coil, but this has not appeared on this model. As for the control box, it is very similar to the previous Golden Mask 6 model and retains the same layout of buttons along with the very simple three-tier

Fig.1. A very compact machine in the smallest box I have ever seen.

Fig.2. The strong, sturdy, quick shaft locking mechanism which I feel is the best out there.

Fig.3. The powerful 7G search coil packs a real punch.

Price	£499.00
Available	Now
Brand	Golden Mask, Bulgaria

Specifications

Search Modes	Field, Park, Gold, Beach and All metal
Frequencies (kHz)	4, 14, 24 and 44 kHz with frequency shift (manual)
Ground Balance	FX, Manual and Auto
Search Mode	Motion, one-tone all metal, two-tone
Coil Type	7GS multi-frequency coil by Golden Mask
PinPointer	None
Display	LCD, target ID and Spectrum graph
Weight	1.4 kg with 13 x 11-inch Fighter 7G coil
Dimensions	Closed 59cm. Open 150cm
Battery	2500 rechargable mAh Li-Ion battery minimum 12 hours (with Power Box at High)
Headphones	Wireless 2.4GHz Low Latency + 6.35 mm (1/4 inch) jack
Operating Temperature	-10 to +50°C
Warranty	3 Years, control box and coil

Fig.4. The plastic housing is robust without any speaker holes to let water or dirt in.

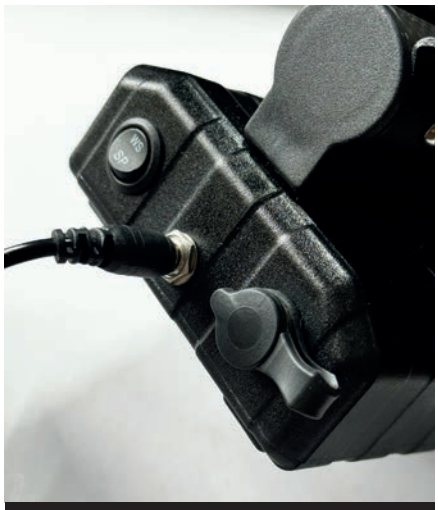

Fig.5. The rechargeable battery and switch to change between external speaker and wireless headphones.

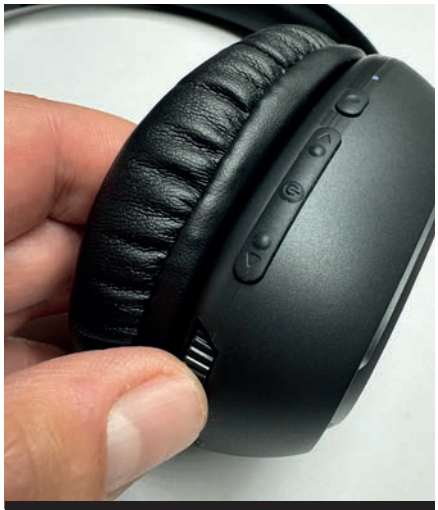

Fig.6. The exceptionally comfortable headphones with scroll wheel to adjust the volume.

navigation system (Fig.4). There is no speaker to the rear of the control box as this is retained within the battery compartment behind the tough metal arm cuff, so no worries of dirt or water getting in any grooves or slots. This is protected by the faux leather casing for the control box and battery compartment (Fig.5), as this machine is not waterproof.

Leading onto the battery, this for me is a big game changer compared to older Golden Mask machines. The battery is rechargeable, so no more fiddling around trying to pick open the battery case with cold hands in the field. Finally we come to the wireless low latency WS107 headphones that come with the GM7 (Fig.6). These are probably the most comfortable and lightweight headphones I have used with a detector. I know we all have different shaped heads, but these fitted mine like a glove and multiple times I left them on my head when driving home as they were so comfortable. They have a simple on/off button, a scroll wheel to adjust the volume (my favourite feature), along with four additional function buttons. One of these is a mute button you can press if you wish to keep your headphones on to chat with another detectorist or hear your pinpointer more clearly rather having to remove them. One of the buttons enables you to answer calls on your phone – they paired instantly once the switch on the top of the battery casing was flipped, and all the time I used the GM7 it never disconnected.

The Machine and Functions

The GM7 took just minutes to assemble from the compact laptop sized box it arrived in and surprised me how small it was when reduced down, as shown in Fig.7 next to the original XP Deus I. First time powering on the GM7 you see the classic golden mask of a Thracian king (Fig.8) and then the 'balancing coil in air' symbol as shown in Fig.9 – on holding the machine a couple of feet off the ground the GM7 calibrates itself to the surrounding temperature and any electromagnetic interference. Once you have done that, you then have the option of turning the backlight on by briefly pressing the on/off button with two short presses in succession. I found this a bit fiddly at first, but soon got the hang of it – not that I would be using this feature when detecting in the day as the LCD screen is very clear even in direct sunlight (Fig.10).

On the main home screen, you are shown a very simple layout indicating what settings your machine is running. To change the discrimination scale is very simple, you just hold the minus or plus buttons. The menu function is identical previous models and very clear and easy to use without any overly complicated settings. The four programmes to choose from are Field, Park, Gold, and Beach (Fig.11). The defaults for each of the individual programmes at factory settings are as follows:

Fig.7. Showing how compact the GM7 is compared to the XP Deus.

Field
Frequency - 14kHz, P.Box-Medium, Threshold signal-90, Audio-30, Disc-2tone, Disc Depth-10, Boost-4, IR. Volume 6, NF. volume 8, IR. tone 0, NF. tone 25, GB.FX mode, GM. stab. Off.

Park
Frequency - 24kHz, P.Box-Medium, Threshold signal-90, Audio-30, Disc-2 tone, Disc Depth-14, Boost-4, IR. volume 8, NF. volume 8, IR. tone 0, NF. tone 25, GB.FX mode, GM. stab. Off.

Gold
Frequency – 44kHz, P.Box-Medium, Threshold signal-80, Audio-30, Disc 2 tone, Disc Depth-12, Boost-3, IR. volume 8, NF. volume 8, IR. tone 0, NF. Tone 25, GB.FX mode, GM. stab. Off.

Beach
Frequency - 4kHz, P.Box-Medium, Threshold signal-80, Audio-30, Disc 2 tone, Disc Depth-11, Boost-11, IR. volume 6, NF. volume 8, IR. tone 0, NF. tone 25, GB.FX mode, GM. stab. On.

Those who had the GM6 model used three separate frequencies: 5, 15 & 30 kHz. The seventh version has four frequencies: 4, 14, 24 & 44 kHz (Fig.12). This larger range of frequencies allows for better adjustment in different conditions. For example, the 44kHz frequency is naturally perfect for finding the smallest of targets. The GM7 is the first machine from Golden Mask which has the new 'FX Mode' for ground balancing (Fig.13). If you are struggling to obtain a good ground balance on heavily mineralised or conductive soils this option will resolve this and is the default setting for all programmes. You naturally have 'MANUAL, 'AUTO and 'GB. STAB'– the latter is like auto tracking on other detectors where the machine performs regular checks on the soil conditions you are detecting and changes for the best performance. This naturally influences depth, which other machines suffer with as well, with but can make the machine more stable on very contaminated soil conditions.

One of my favourite features which Golden Mask are good at is the VDI spectrum display (Fig.14). This is very similar to that used by the current Rutus machines, being almost like a bar graph where ferrous targets are shown with negative numbers and non-ferrous targets with positive numbers. The height of the bars depends on the signal strength – fewer and

Fig.8. The Golden Mask start-up brand logo depicting the golden mask of a Thracian king.

Fig.9. Automatic calibration of the GM7 on start-up.

Fig.10. The very simple and clear home screen on the GM7 with backlight on.

Fig.11. The choice of programmes available on the GM7 with some customisation levels possible on each programme.

Fig.12. The four frequencies available with the option of up to 8 levels of frequency shift on each programme to remove any EMI.

Fig.13. The wide range of Ground Balance options including the new FX Mode on the GM7.

Fig.14. The Spectrum VDI display bar and negative target ID clearly depicting iron.

Fig.15. One of my favourite features the 'PBOX' option to increase power from the machine to the coil.

Fig.16. First target on the GM7. A nice 18th/19th century lead horse's head from a child's toy.

Fig.17. The option of frequency shift on each programme easily removes and EMI interference.

Fig.18. A deep target once running the machine on full power on the 'PBOX' option.

longer bars show a strong signal and big/shallow target. As I grew accustomed to the GM7 I was able to ID a target before digging, based on the reading on the spectrum display. This, along with the tones and target ID enabled me to identify a cartridge case 80% of the time – a valuable tool.

One option that I was very intrigued about on the GM7 was the 'PBOX' function (Fig.15). This has three options: 'LOW', 'MED' and 'HIGH' and enables you to control how much power (voltage) is sent to the coil. A higher voltage enables deeper penetration in the low-mineralised soils, while lower voltage is useful in heavily mineralised soil and. This sounded like something that could be very interesting in the field as we all love getting the most from our detector. However, as quoted by Golden Mask "Over-powering the detector always means low stability and poor results. You have a car, right? Do you always drive it at the maximum RPM of the engine? No! You drive it according to the road and traffic conditions." This made me laugh and relate the GM7 very much to a naturally aspirated car (i.e. no turbo, electrical modules, traction control etc) – more about that later.

Apart from the other standard features like discrimination, threshold and adjusting the ferrous and non-ferrous tones and volumes, 'DISC. DEPTH' interested me. This is where you can adjust the depth that the detector discriminates. Since deep targets are often older, they can be of interest even if they're made of iron. Lower discrimination depth settings are also useful when searching in mineralised ground, where machines commonly tend to misidentify deep nonferrous objects as ferrous. By setting the discrimination depth to a lower setting (0-15 available), these deep non-ferrous targets can be more accurately detected, and you'll also achieve slightly better depth. Higher discrimination depth settings speed up the machine's recovery time, so to enable maximum recovery speed, I used higher settings along with a high operating frequency. This can naturally be a little confusing and recommended by Golden Mask to leave as default but a great little feature for those experienced or wishing to tinker with the machine.

Out in the Field

The GM7 is a totally different machine in looks, and with a choice of 4, 14, 24 and 44 kHz, I was very much looking forward to seeing how it would perform. It was a windy but warm Saturday morning when I met up with my mate James on our smallest permission, as it had been harvested before our other, larger permissions. The 10-acre field had been ploughed and raked over but was still a little lumpy in places. It had an old footpath running through it which always brings up the odd coin or two. Turning on the GM7 I left the machine in the default 'Field mode' with all the standard settings, the headphones paired straight away and once I adjusted the volume to suit, we headed out.

I began listening to the tones emitted by the GM7 – it has 1 or 2 tones and no pinpointing function. My first target was two-way ping but with a slight grunt, jumping between nickel and copper on the Spectrum VDI display. Historically I have found signals like this to be lead, something which I knew this field was full of. Moving the coil over the target, I located where to dig with the coil and wondered how accurate this would be without a pinpoint function. The soil comprised of a lot of clay and from the hot weather and had dried like lumps of rock which were very hard to break down. I put my pinpointer away and waved each lump over the coil. A target was in a lump almost the size of my fist which I struggled to break open, but once I did, out popped a late 18th/19th century lead toy horse's head (Fig.16). A nice find, and interesting that I knew it was lead from the tones given off by the GM7.

As we headed across the field, the machine began to become a little erratic when directly underneath some overhead powerlines. James also had the same problem with his machine as I saw him do an almost double march from a single pace to get away from the interference. A lot of machines do have a frequency shift feature to dispel this, but the GM7 also has a nice little feature: within each frequency range you can apply a frequency shift ranging from 0 to 8 (the default being 4) within the settings (Fig.17). Okay you must make a few clicks to change this but with just one notch up to 5 the interference went, and I carried on detecting without any issues.

After a couple of hours of digging every target to learn the tones and the Spectrum VDI, I sat down and adjusted the PBOX setting to 'HIGH'. Why? Well as Golden Mask said, "You don't drive your car at maximum RPM" – well sometimes I do, and I enjoy it. I knew this could cause the machine to become erratic, but still in Field mode I picked myself up from the squashed cheese and ham sandwich I had accidentally been sitting on for the last 20 minutes (which I thought my dog had eaten), and set off. I walked back over where I had previously detected and did notice more signals coming from the machine. Some were very minute but there was a noticeable difference.

One was reading 45-47 on the VDI, with the bar moving between copper and silver and a clear two-way tone, so I again pinpointed with the coil and dug down. So far, pinpointing with just the coil had been brilliant and only a couple of times I dug an inch or two away from the centre of where targets were. Around six inches down, the dry hard clay became less compacted and the soil was easier to remove. I placed my pinpointer around the hole and heard a faint beeping from the very bottom of the sidewall. Pulling out my trowel I took another couple of inches away and saw a conker size lump appear. Taking it out and running it over the coil I knew I had found the target. At this point I was less worried about what it was, but more interested that upping the PBOX setting was getting me more depth – a good 12 inches as you can see in the photo with the small decorative button, which was in the clod (Fig.18).
"How long could I drive the GM7 at full rpm?" I thought. This naturally reduces the battery time in the field and, as I said, could make the machine potentially unstable at times, but I had my seat belt on. As the day went on the GM7 was pulling up some deep targets, including old coins, a pipe tamper and some buttons – the battery level did not seem to drop, nor the machine suffer in any way.

Recovery and Separation

One thing I noticed with the GM7 after the first day out was how good the recovery speed was with the Fighter 24cm coil. It was now time to take it onto a heavily iron contaminated site where I knew there were a lot of Roman coins where a good recovery speed and separation is key. By now, all my permissions had been harvested and the 'Roman' field as we call it has always produced an array of 'grots' and *minims*, since it was deep ploughed a year ago. Everything on the GM7 was still in the standard factory setting of Field mode except I kept the PBOX on high and upped the threshold slightly in the background to hear those hard-to-find targets (Fig.19). At this point I was hearing everything from the ground through the headphones without any lag whatsoever. The only small criticism I would say on the headphones is that they produce a little too much bass on iron targets. I did try changing this in the settings, but it still sounded a little too heavy for my liking. Not a huge issue but something I feel was not the best, however I am comparing this to other machines which do cost quite a bit more than the GM7.

Working through the iron which I could clearly hear, the GM7 was quick at recovering between each swing and I was impressed. I called James over to let him have a go and to see what he made of it. Within seconds of him swinging the coil he looked at me and said, "Nice target, can I dig it?" Digging down in the heavily flint-ridden soil, from among the iron James popped out a nice silver love token around four inches down. "I have already been over that area too," he said looking confused and at his machine. I laughed and took the GM7 back and continued detecting.

As the day went on, we were both impressed at the speed of the GM7 and how it continued to pull up a wide range of finds including a rare prototype Martini rifle bullet (Figs.20 & 21). As James and I headed back to the car

Fig.19. The GM7 was very stable running at full RPM once opened up.

Fig.20. Early prototype lead bullet from a Martini Henry rifle.

Fig.21. Another view of the Martini Henry lead bullet.

Figs.22a & b. Commemorative issue cocoa token from the British Empire Exhibition in 1924-25.

Fig.23. The GM7 did get confused a few times on the odd piece of coke.

Figs.25a & b. The GM7 is continuing to bring up some nice finds. Obverse and reverse of a Mary groat.

at the end of the day, discussing our finds and how well the GM7 had done, I had a nice signal on what appeared to be a large target from the bars on the machine. It was showing as not too deep and laying sideways around five inches down – once extracted my first thought was some sort of medal. Not quite, but it turned out to be a nice commemorative issue Cocoa token from the British Empire exhibition in 1924-25, which was held at Wembley. (Figs.22a & b). The Gold Coast Cocoa Campaign was aimed at boosting the sales of chocolate and cocoa. Inside the walls of the West Africa exhibit was a village of thatched huts, where people from Nigeria, the Gold Coast (now Ghana) and Sierra Leone showed how they produced woven, carved and leather crafts and grew cocoa, rubber and nuts. It was so popular that it re-opened in 1925 with many new attractions, so that the organisers used the slogan "The Same Empire but a New Exhibition" in their advertising. This aluminium issue may have been struck for the Exhibition in 1924, where the tickets would have been freely distributed to visitors. A very rare first issue, manufactured in bronze, was struck in 1921.

Summary

As like everything today, we have become very reliant on technology and gadgets which, in many ways, a good thing. Having said that, my days out detecting with the GM7 took me back to a more simple way of life, but in a good way. Not having a pinpointing function, using only 2 tones (motion, single, two tone are available) may seem restrictive to some in the hobby, but it was just nice and simple and worked well. Being able to use the PBOX in high mode was a nice touch – in 70% of my soil conditions this posed no problems, but sometimes it did make the machine a little erratic, forcing me to drop the power to the coil down a little. It did struggle with coke at times which the FX ground mode is meant to eliminate, but this wasn't a major drawback (Fig.23).

The ergonomics of the machine are excellent and well balanced, and it seems lighter than it looks. I initially had my doubts about the solid plastic handle without a rubber type of grip, but for my average-sized hands it was comfortable without any rubbing on the control box after long periods of

Fig.24. Worthy finds from just two days out with the GM7.

detecting. The only slight downside for some I would say is that it is not waterproof and only protected by the faux leather covers supplied. I have been in multiple showers with the GM7 and didn't experience any misting up of the screen. It has yet to go to the beach with me, but based on the features and settings available, I am confident it will perform well on dry sand and, with a few tweaks, should be OK on wet sand.

I mainly kept the machine in 'Field Mode' on both pasture and plough as this performed best – I felt that the 'Park Mode' was not giving me as much feedback as I liked and naturally toned the machine down a little. I have had some nice finds with the machine and found I learned the IDs and spectrum bar display quickly. The battery claims 12hrs of detecting, but even running the machine on full power this has easily been exceeded and it only takes a few hours to recharge. The same applies for the headphones which seem to last longer than the GM7 main battery. I have become really attached to this machine – I really enjoyed testing it and had some interesting finds (Figs.24-25b), although no gold yet! But I have a feeling that will come in time after playing with the settings more to get the most out of the machine. On that note, 'if' you do get in a pickle and feel you have changed the settings to a point of no return, I liked the way you don't have to reset the whole machine to get back to the original settings. You can simply reset just the programme you have messed up within the settings, a simple but nice touch (Fig.26). It does find the smallest of targets (Fig.27), and plenty of things at a good depth.

Retail Price and Availability

Currently the machine is retailing for £499.99 from www.uk-metal-detectors.co.uk and is definitely worth a look if you are looking for a simple to use, compact and lightweight machine without a turbo, hybrid battery or a multitude of control modules. It gives good depth, rapid recovery speed, excellent iron discrimination and modulated sound that provides second-to-none target identification. I really rate this as a VLF detector that is wringing out the max of the technology available (Figs.28 & 29).

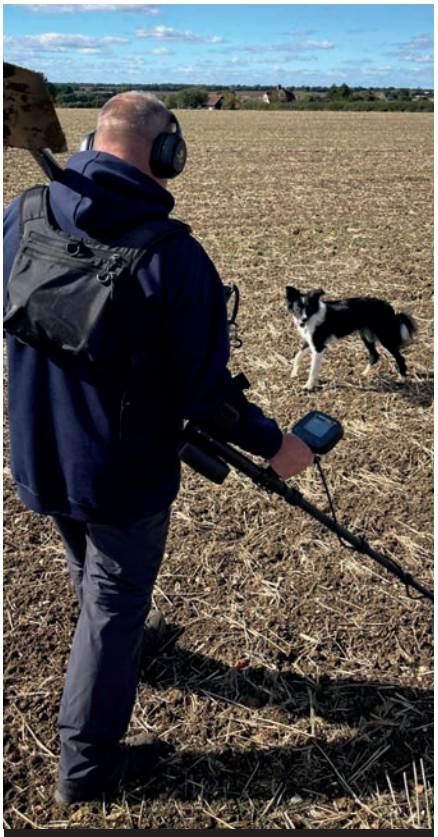

Fig.28. Me and my detecting partner 'Nellie' on our first day out with the GM7 machine.

Fig.26. The ability to just reset one of the programs rather than the machine is a nice touch if you get in a pickle.

Fig.27. The ability to find small targets at depth was impressive if junk some of the time.

Fig.29. Me in the field at this year's Rodney Cook 'No Frills' weekender with the GM7.