Golden Mask One

User Guide

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www.goldenmaskdetectors.com

Golden Mask One User Guide ver. 1.0 (last update: 30.11.2018)

About the Golden Mask One

The Golden Mask One is an entry-level metal detector with fixed ground balance, with few and simple controls, but powerful and sensitive - the best choice to jump into the metal detector hobby with low budget, but with a modern and performing metal detector. The fixed ground balance means all you have to do is to switch-on your detector and start the search - no need to set the ground balance, your machine is always ready to go.

The Golden Mask One is a mixed analogue/digital technology machine that combines depth and recovery speed at the same time. It is offered in two versions with working frequency of 15 or 24 kHz. Everything else is exactly the same.

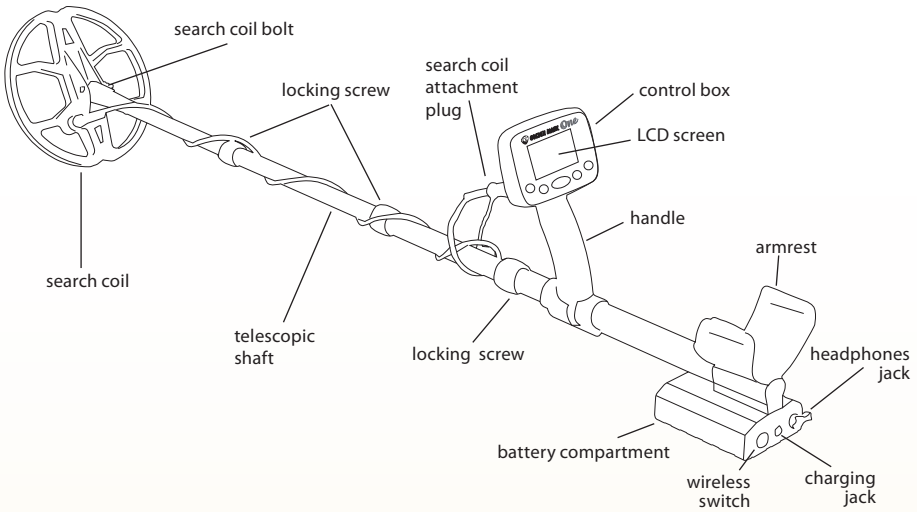
The main features of this machine:

- Fast recovery speed and target separation
- Spectrum VDI + target ID
- Superb Iron discrimination
- Collapsible telescopic carbon shaft
- Wide range of optional dual-frequency coils
- Optional wireless headphones
- 5 years warranty of the electronics board

Technical Specifications

Operating Frequency	15 or 24 kHz (single frequency)
Ground Balance	Fixed
Search Mode	motion, one-tone all metal, two-tone, one tone with discrimination
Controls	frequency, gain, iron volume, sound volume, LCD contrast, LCD back-light
Coil Type	Double D, multi-frequency, Default coil: 23x25 cm (9x10")
Weight (incl. batteries):	1.4 kg with 23x25 cm (9x10") search coil and w/o batteries
Battery pack	OPTIONAL 10xAA, 1.2V, 1500 or 2500 mAh NiMH recharg. batteries
Battery Life	minimum 10 hours
Wireless Headphones	OPTIONAL: Golden Mask WS105 or WS106
Headphones Jack	6.35 mm - 1/4"
Operating temperature	—5 to +40°C

Main Parts and Assembly



Your Golden Mask One comes in a box that contain: the detector with telescopic carbon shaft and a search coil. By default, the One is delivered without batteries, charger and wireless headphones. You could have these as options: 10 x 1500 or 2500mAh AA NiMh rechargeable batteries (this could be subject to change, while shipping batteries in some destinations is prohibited), GM Smart charger and wireless headphones WS 105 or WS106. In the box you will also find a warranty card, invoice and other purchase papers (payment statement, packing slip - may vary upon payment method and destination country).

There is nothing special assembling the detector. You have to attach the coil to the lower stem of the shaft, using the supplied plastic bolt and screw (they are already on their place), then attach the coil cable to the main unit. If your detector is purchased without batteries, you must open the battery compartment, extract the battery cassette, put-in 10 AA batteries (Alkaline or NiMH), but the battery cassette back in and close the battery compartment. Now you are ready to go.

To extend the telescopic shaft, start from the first section by the side of the coil. Turn the fixing screw counter-clockwise, pull the search coil gently to the full extent of the carbon pipe and then fix the section by turning the fixing screw clockwise. Do the same with the second section. Check if the length is enough, if not, extend the third section to match the desired length.

WARNING: The third section can be pulled out completely from the handle part to make your detector even shorter and easier to transport. Please, be sure to have a minimum of 15 cm (6 inch) of the third section inside the fixing screw of the handle section, otherwise the stem will not be stable enough and could be broken, especially if a large coil is used.

Operating the Golden Mask One

The Golden Mask One is designed to be as simple to operate as possible.

The controls of the detector are 5 buttons on the front panel of the control box and a switch on the back side of the battery box to control the wireless transmitter for the wireless headphones (if you purchased this option).

On the LCD screen are shown all the working parameters of the detector, the TargetID number and the Spectrum VDI scale, where a graphic of the target signal response is shown to help identifying the target detected.

On the graphic below you can see the LCD screen indicators. Buttons will be explained later.

Turning on and off the detector

To turn on the detector, hold the ON/OFF button for 2 seconds - a world map graphic and the Golden Mask logo will appear on the screen. From this stage to operation stage around 10 seconds are required for the detector software to load.

WARNING!

THIS PART IS VERY IMPORTANT,
READ IT CAREFULLY!

When you turn on the detector, the coil must be at least 50 cm (20") high from the ground, and far from any metal objects. After the software loads, the detector performs a RESET of the electronics to pair the detector with the coil, according to the surrounding temperature and electromagnetic fields (if any). **You can manually do a reset at any time by pressing the ENTER button.**

If the surrounding temperature is changing quickly, the detector may become nervous. In this case you should perform a reset prior of making any other changes, the reset resolves the problem in 99% of the occasions.

To turn off the detector, press and hold the ON/OFF button. A screen with HOLD TO TURN OFF will appear.

Hold the ON/OFF button until a POWER OFF screen appears and then release the button - the detector will turn off after a second.

Selecting the menu options

The menu of the Golden Mask One consists of only four positions: FREQUENCY, GAIN, IRON VOLUME and SOUND VOLUME. To select one of these positions, you shall use the MENU button (What a surprise!). When you push the MENU button, the first position of the menu is selected and the label of the position is inverted - the letters become white on a black background. To go to the second position, push the MENU button again, do the same for the next two positions.

To set a desired value of a menu position, use the + and - buttons. When you are ready, push the ENTER button to exit the menu and enter the working mode.

Let's explain the menu settings:

Frequency

At this position of the menu, you control the so-called Frequency shift - this is a slight change of the working frequency of the detector. The change is tiny, but could have great effect to avoid interference with EMI sources of different kind, for example from other detectors, running at a similar frequency. There are three positions available - 1, 2 and 3. Use the + and - buttons to select the desired value.

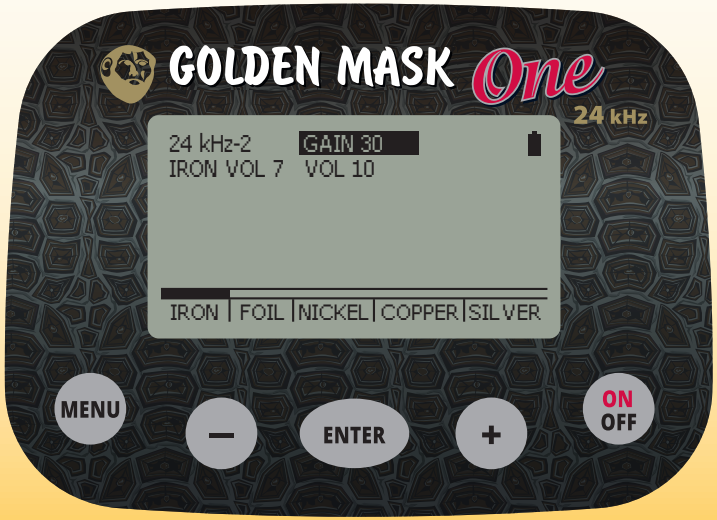
Note that this position consist of two numbers divided by a dash. The first number is the working frequency of the detector (15 or 24 kHz) and it never changes. The second number is the frequency shift number - 1, 2 or 3. That simple.

Gain

The Gain controls the sensitivity of the detector or the depth of detection. This setting has numbers from 0 to 30. In general, you will set the maximum value the detector is stable at. This means you set that value at which you could run the detector comfortably - without lot of ghost signals and without EMI disturbance. Running your detector comfortably is more important than the depth itself. Yes, some detectorists work over the threshold - this means with Gain (Power, Threshold) over the comfortable border, and this way they could have a little bit more depth. But this technique is not recommended - you will suffer from the nonstop beeping, you have to strain your hearing and this is painful.

WARNING:
Zero (0) Gain does not mean zero depth. At Gain 0, the detector still has some good depth, around half the depth at Gain 30.

Why should you set a much lower Gain than the maximum possible? Because a lower Gain setting will allow you for example to go deeper in highly mineralized soils. Yes, this is true - if you experience difficulties working on a particular soil, you shall lower the Gain and this helps almost always. Also, a lower Gain will allow for better target separation abilities of your machine - this is useful on iron-infested sites like former settlements, wine yards, farms and so on.



Iron Volume

By default, the One is a Dual-Tone machine and it emits two sound tones - a lower tone for the ferrous targets and a higher tone for the nonferrous targets.

The Iron Volume setting is used for two purposes: it controls how loud is the sound from ferrous targets (Iron) and it is used also to run your detector in Mono-Tone mode.

This settings has 7 values. At the default and the highest value of 7, the sound response from ferrous and nonferrous targets has the same volume. When you set lower values, you keep the volume from the nonferrous targets at the level set with the Volume (next position in the MENU) and lower the volume of the sound, returned from ferrous targets. This is useful on iron-infested sites, where the detector is emitting sounds constantly - lowering the Iron Volume you will experience a much comfortable search, but you will not miss any "good" target as the sound from nonferrous targets is louder.

As said above, the One is a Dual-Tone machine, but it could work also as a Mono-Tone machine. When you set the Iron Volume at Zero (0), the detectors runs in Mono-Tone mode. This means you will not hear sounds from ferrous targets or they will be marked with kind of low crackling sound. In this mode the detector achieves a little bit better depth. If you could get used with this mode, we recommend that you use it always when possible. With the help of the VDI numbers and the Spectrum graphics, you will easily identify your target.

Sound Volume

This a setting that controls the overall sound volume. Nothing special here - values could be set from 0 to 10. At zero (0) the detector is silent - no sound is emitted.

Target ID, Spectrum VDI

Target ID and Spectrum VDI are two ways for target identification.

Target ID is a number, shown at the top-right corner of the LCD display. Ferrous targets are shown with negative numbers (e.g. -5), while nonferrous targets are indicated with positive numbers. The border between ferrous and nonferrous targets is 0. The more a target is placed to the right end of the VDI scale, the greater the Target ID value. And vice-versa.

The Spectrum VDI is in fact a graphical presentation of the real signal, returned by the detected target. It contains a great volume of information about the target, so experienced prospectors could easily guess what's under the coil only by looking at the Spectrum VDI graphic. The graphic itself consist of thin bars with different height, placed above the VDI scale. The position of the bars left/right on the VDI scale depends on the metal type. The height of the bars depends on the signal strength - the stronger the returned signal, the longer the bars. Fewer and longer bars mean strong signal and big/shallow target. Stretched left-right graphic means stretched and/or multi-metal or rusty target.

Iron Audio and Target Reject

The Iron Audio function works in relation with the TargetID function. It is used to reject certain metals from left to right on the target scale. A black bar shows which metals will sound as Iron or will be completely discarded when the detector is in Mono-Tone mode.

To set the Iron Audio, press the + and - buttons while the detector is in working mode. You will see the right border of the black bar moving left or right.

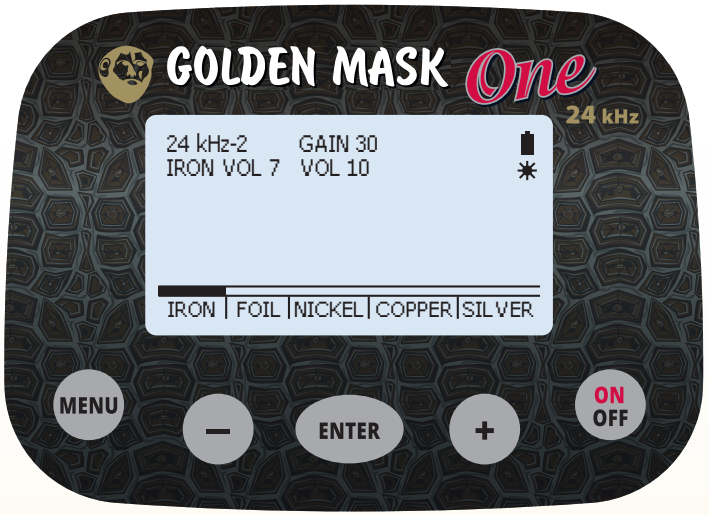
The default value of the Iron audio is zero (0). At value 0 the iron bar is set between the Iron and the Foil on the VDI scale. This means targets with ID more than 0 will sound as nonferrous, and those with ID below 0 will sound as ferrous.

Let's clarify with an example: if you want to not dig foil, you shall set the black bar to cover the foil section on the VDI scale. This way the foil will sound as Iron. But please be very careful on how you use this function to not miss good targets. For example, tiny thin gold coins are very often identified as foil. If you set the Iron Audio to reject foil, you will lose also such thin gold coins. Tiny gold jewellery pieces also return an ID in the Foil section. So, be careful - it's better to dig some foil than to miss some gold.

If you set the Iron Audio bar at the full-left position (-22), the detector works in All-Metal mode. This means the sound from all targets will be the same. You can still identify the target by the VDI number and the SpectrumVDI bars. In All Metal mode, the detector gains a little bit more depth, but this mode is good only on clean places with very few targets. Otherwise you will have to constantly look at the screen and this is not quite comfortable.

Turning-on the backlight

To turn-on the LCD screen backlight, just short-press the ON/OFF button and wait until the LCD is lit and backlight icon appears.



To turn the backlight off, again short-press the ON/OFF button. As simple as that.

When the backlight is activated, a small icon appears below the battery icon on the main screen to show you switched the backlight on. The backlight does not consume much power, but is better to not switch it on during the day.

Controlling the LCD screen contrast

You can change the LCD screen contrast. To do this, short-press the ON/OFF button, then press the - and + buttons within 3 seconds after you've pressed the ON/OFF button. If you don't press any button within 3 seconds, the backlight will be activated or deactivated.

Using the optional wireless headphones

Your Golden Mask One could be purchased with optional wireless headphones.

At the backside of the battery compartment you will find a small switch that routes the sound signal to the speaker or to the wireless transmitter. To use the wireless headphones, you just switch to WS position and the sound goes to the wireless transmitter. Now you have to switch-on the headphones by pressing and holding for 2 seconds the on/off button. When the headphones are ready to work, a LED will start to blink.

NOTE: The default version of the detector is delivered without wireless headphones and wireless transmitter. It does not have the WS/SP switch.

Charging the detector batteries

The Golden Mask One is delivered without batteries by default, but you can order it with 10 x 1500 or 2500mAh 1.2V AA-size NiMh rechargeable batteries (this is subject to change, while shipping batteries in some destinations is prohibited).

Charging could be done with a Golden Mask Smart Charger (optional or purchased separately) without the need to pull-out the battery pack. Just connect the Golden Mask Smart charger jack to the charging port of the detector on the backside of the battery box. A red light will be lit on the charger. After the charging is complete, the light will turn to blue color. You can now disconnect the charger and start using the detector.

ATTENTION! Do not turn on the detector until the charging process is finished and the charger is disconnected! Otherwise the detector electronics may be damaged!

You could also pull-out the batteries and charge them with any standard charger for NiMH batteries. A microprocessor charger is strongly recommended to ensure the correct charging and the long life of the rechargeable batteries. You can replace the supplied batteries with any standard-size NiMH 1.2V rechargeable batteries of type AA. You can also use standard AA 1.5V Alkaline batteries.

WARNING!

Never try to charge non-rechargeable batteries!

Do not connect the charger to the detector when inside the battery box are installed non-rechargeable batteries! Such action will cause fire!

Some advices

The Golden Mask One comes in a standard set with a 23x25 cm (9x10 inch) multi-frequency search coil. A coil with this size is considered universal - it could be used with success in every aspect of metal detecting - from gold prospecting to treasure hunting. Of course, there are better option for these, but the default coil works quite well.

You can buy additional coils with different size and shape from 13 cm to 30 cm. The One is compatible with all multi-frequency coils produced by Golden Mask. These have an orange or yellow point on the cable protector at the coil top. Non-compatible coils do not have the same point or have a white one.

Smaller coils are better for small targets as gold nuggets, jewellery and small coins, while the larger coils are best for large targets - large coins, relics and treasures.

Larger coils are not always deeper. Depth depends on the target size and the working frequency. For tiny gold jewellery a small 18 cm coil and a 24kHz One will work better than a larger coil. Even more, you could easily miss small jewellery and tiny coins if you search with the a large coil. Larger coils are deeper on large targets only.

For beach hunting, where a combination of both mineralization and conductivity is present, a smaller coil will work better.

Speaking about tests, do not try to test the detector at home - in every house or even far from a house there are always too many electromagnetic interference (EMI) fields that will disturb the detector and you may think something's wrong.

On sites with not too many targets, try to use the All metal mode - this will give you 2-3 cm more depth. If you cannot get used with All metal mode, try to use the Mono tone mode.

On mineralization, decrease the Gain until the detector becomes calm. On strongly mineralized ground, a low value of the Gain very often gives you more depth and more correct target identification.

Try to swipe the coil near the ground, but without touching it. Do not move it too slow or too fast. With practice, you will find the appropriate speed.

Pay attention on the sound. With practice you will learn to successfully distinguish different sounds. Some experienced detectorists can distinguish different type of targets without even looking on the screen. For example, you can easily distinguish the sound from a coin and a lead bullet, just have to listen carefully. But to do this, you will have to practice a lot. This is the same as with car driving - remember your first days driving?

Respect the private property. Do not search in private property without permission - this could lead to serious legal, financial or other type of punishment.

Respect the law in your country about the protection of historical heritage and archeological sites. In all countries in Europe it is strictly prohibited to do metal detecting on or nearby archeological sites.

Cautions

Keep the detector electronics and battery compartment from water and moisture. Be very careful when placing your detector on wet ground - moisture can penetrate batteries and brake the electronics inside the battery compartment.

Keep the search coils from mechanical impact - stepping on your coil almost always brakes it, and the warranty does not cover this. The search coils are water-proof. You can wash them or submerge them in water - no problem.

Keep the coil connector from dirt and moisture. The good contact between the coil and the detector is essential for the performance of the machine.

Do not use other charger than the supplied with your machine to charge the batteries inside the detector. Third party chargers may be very dangerous for the batteries and may cause fire.

Do not forget to turn off your detector after you end searching - if you do it, this could ruin the batteries and the electronics inside the battery box.

Good Luck!