GOLDEN MASK

DEEP HUNTER Mobile ST

Instruction manual

Golden Mask Deep Hunter Mobile ST is a professional treasure and relic hunting handheld metal detector designed primarily to detect deeply buried metal objects.

Golden Mask Deep Hunter Mobile ST is an advanced pulse induction metal detector, with full range **“flash automatic ground exclusion balance”, “Smart TUNE”, “reject control”** and **“discriminate”** between ferrous and non-ferrous metals. Its powerful performance is based on the very high quality state-of-the-art sophisticated new electronics.

Golden Mask Deep Hunter Mobile ST can significantly reduce the negative effects of power line and other electrical interference.
Like well known **Golden Mask Deep Hunter** pulse detectors, this detector offers remarkable stability, sensitivity and accuracy that is achieved with the use of very simple and intuitive settings and especially new **"Smart TUNE"** feature, which make this detector the best machine in its class.

Pulse induction is based on the processing of short and intensive magnetic pulses which are emitted by means of a search coil. Those magnetic pulses produce electrical eddy currents in conducting metallic objects. Eddy currents will be stored in a metallic object around of the search coil but will quickly die away after the magnetic pulse emitted by the search coil has ended. The eddy currents and their time delay are read by the receiving phase by the search coil which now acts as a receiving coil. The received signal is amplified to drive an audio response via built-in loudspeaker or headphones when a metallic object is within the field of the search coil.

1.Golden Mask Deep Hunter Mobile ST Set

1.1 Electronics Unit

The electronic unit is fixed on the handle of the search antenna carrying shaft.
The detector is powered by **12.0V/2700 mAh NiMH** battery pack of 10 pcs size “AA” cells placed in a holder into the battery block, also fixed on the shaft.
The continuous use of the detector is about **8 hours** per one battery charge.

If you find a defect of the detector, please immediately contact the dealer from whom you was purchased it and inform him of the problem.
Never attempt to disassemble and/or repair the electronic unit.
Your disassembly attempts will void the warranty!

1.2 Search Coils

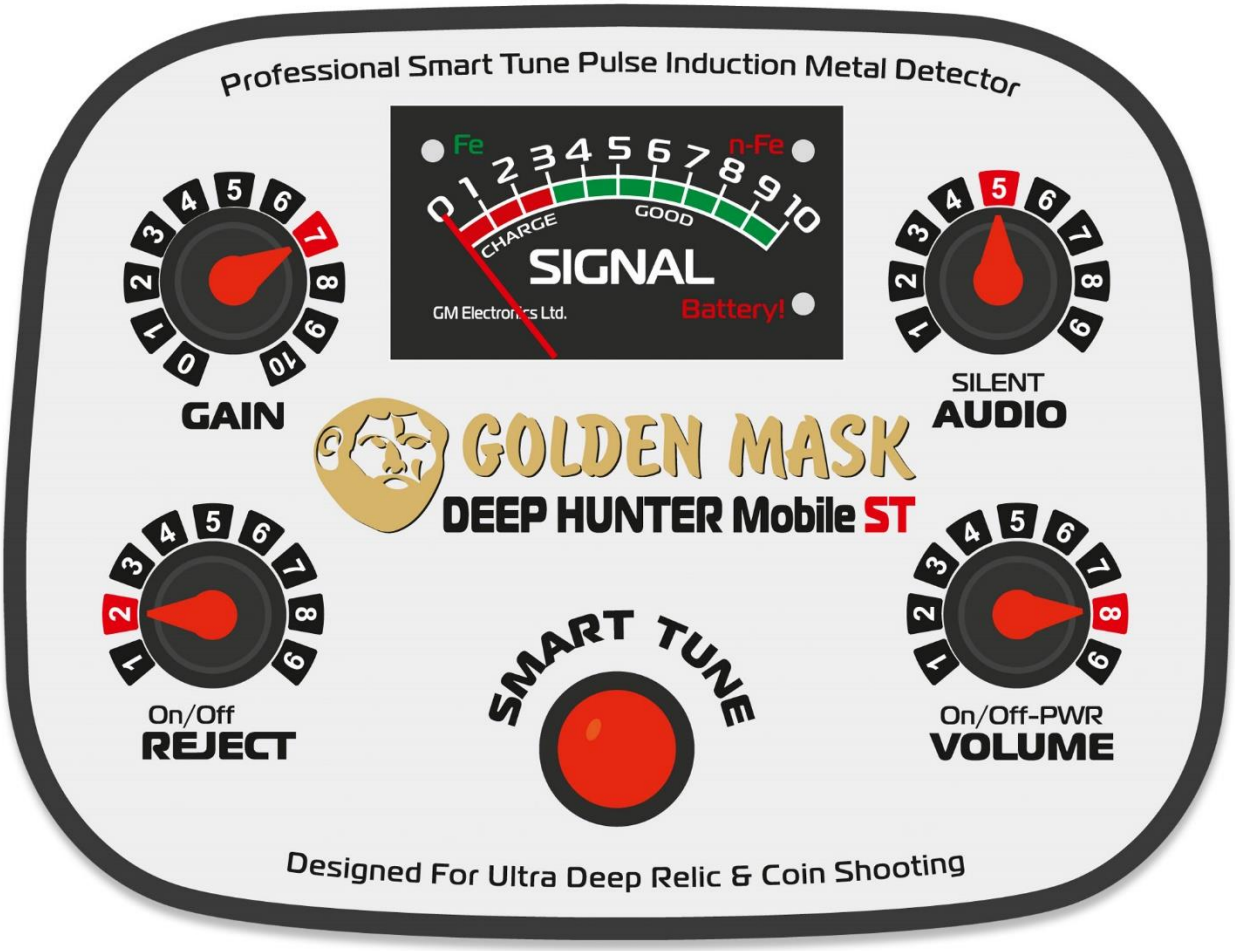
The detector is delivered with a variety of coils as desired by the customer. All search coils and frames, manufactured to work with **Golden Mask** pulse detectors, are fully compatible with **Golden Mask Deep Hunter Mobile ST.**
The use of self-made or other brands of coils can damage the Electronics Unit and will void the warranty.
The main search coil of the **Golden Mask Deep Hunter Mobile ST** is an elliptical coil **38x58 cm**. It allows to be searching for both small objects (for example - coins) and larger objects (relics) at a very great depth using only this coil.
Another small size coils are available too. They are suitable for areas where the movement of the big coil is difficult or impossible, as well as in residential areas (walls, floors and ceilings), and on steeply sloped terrain.

1.3 Golden Mask smart battery charger

1.4 This Instruction Manual

2.Operating Principle - high-frequency pulse induction (advanced version) with full range flash automatic ground balance, and multichannel signal processing to identify between ferrous and non-ferrous metals.

3.Settings - Golden Mask Deep Hunter Mobile ST has extremely simple and intuitive settings, that include **4 knobs** (of these: 3 with switching function - one for switching-on/off the unit, 1 for the special **"Silent"** mode and 1 for the switching-on/of of **"REJECT"** control) 1 button for **"SMART TUNE"** and 1 special meter indicator.



“VOLUME ON/Off” - knob to switch “ON/Off” the detector and adjusting the level of sound.

“GAIN” - knob to adjust the sensitivity of the detector;

“AUDIO - Silent”- knob for adjusting the “ticking” frequency in absence of metal within the area of the search antenna; In positions **“AUDIO”** the detector is in its core search mode. This is strictly individual adjustment and relates exclusively to the individual auditory characteristics of the operator. It is best to set a low “ticking” rate in the absence of metals near the coil. It does not affect the performance of the detector and is designed solely to provide a better detection of weak signals.

When **“AUDIO - Silent”** is in position **“Silent”** the detector is switched to **silent mode.** With this mode the detector does not emit a “ticking” sound during searches. The presence of a metal object in the area of the coil is indicated by a **low pitch tone** (for ferrous metals) or **high pitch tone** (non-ferrous metals). In this mode, the detector's sensitivity is lower, but it is suitable for work in conditions of heterogeneous and/or highly mineralized soil, including the presence of ceramic residues and/or small metal objects that are not desired for detection.

The **“REJECT”** knob is used for rejecting undesirable small pieces of metal and noise reduction in extremely mineralized soils. A higher value rejects more objects. It can be switched **“Off”** if this function is not required for the specific use of the detector.

“SMART TUNE” – this button is used for fast tune of the machine. It pressing for a 1 second make the detector more stabile and "deep". This feature is performed by “smart” retuning both special systems - AGEB and tracking control. It can be used for removing of interferences and noises encountered during the search process too.

"SIGNAL" is a precision high quality analog meter indicating the strength of the received signal and the level of charge of the built-in

battery; there are 3 embedded LEDs for indicating the type of the metal and the condition of the battery:

"Fe", "n-Fe" - LED indication of the type of metal - green for ferrous metals and red for non-ferrous metals;

"Battery!" is a LED for indicating less than 10% residual charge of the built-in battery, indicating a necessary recharge (see **#9**);

The **battery check** function is set to run automatically each time the detector is turned on. For a few seconds, the arrow on the meter shows the battery status. If this reading is in the green sector of the scale - the battery has enough charge and the detector can be used. When the arrow shows values close to the red sector and/or the LED **"Battery"** lights up red - the battery must be charged. (see #9)

4.Ground Balance.

The **Golden Mask Deep Hunter Mobile ST** provides full range automatic ground balance based on a special **"Flash Auto Ground Balance"** system which is a standard to all pulse detectors **Golden Mask**. It does not need any settings and continuously rejects the signals generated by changing soil conditions encountered while searching.
In high mineralized soils the noises have to be reduced additionally by the **"REJECT"** control knob or by reducing the **"GAIN"** control of the detector.

5.Search for metal objects.

The search for metal objects with the **Deep Hunter Mobile ST** consists of slowly moving the search antenna above the ground. It is important to know that this detector achieves the best results when the antenna is kept at a constant height of **10 ÷12 cm** from the ground. If you hold the coil too low or touch the ground, you will experience faulty signals.
Unlike traditional **VLF metal detectors**, using the principle of inductive balance and some pulse detectors designed for gold prospecting mainly, the **Golden Mask Deep Hunter Mobile ST** can detect metallic objects without motion. It is **"no motion"** machine. The movement is only necessary to identify the type of metal, a speed of about one m/s is sufficient for the discrimination system to function properly.

6.Indication of the presence of a metal object within the coil area: The signal from a metal object, located in the area of the search coil is indicated by increasing the frequency of the sound signal (“ticking” sound).

Most weak signals an operator is able to notice are improved by doubling the preset frequency of the sound, which is set with the **“AUDIO - Silent”** knob. This is perceived accurately by the human ear and therefore it needs to be set very precisely, so that the sound frequency without the presence of a signal to be only a few Hz (slow “ticking” sound).

Each “signal” has “start” and “end”. The **Golden Mask Deep Hunter Mobile ST** has a very well expressed “zone” indication from deeply buried metal objects. The length and width of this “zone” is a guide to the depth/size of the metal objects. When this length is greater than the size of the search coil and has an expressed peak in the middle this certainly indicates a deeply buried metallic object. If the signal is of a short duration (small area), but is captured only in the central part of the coil, then you can also expect a deeply buried metal object. Double audible responses corresponding to the passage of the front and rear ends of the coil over the metal object are a sure indication of relatively small metallic object not deeply buried. After reaching a certain signal strength (which will be indicated on the indicator **“SIGNAL”**), the identification of the type of metal through the LEDs mounted in the indicating **“SIGNAL”** will start to work. The red color indicates non-ferrous metals and green indicates ferrous metals (iron). To present a high probability of proper metal type identification, when you detect a target, move the coil outside the target area, press the **“SMART TUNE”** button and then pass the antenna over the target from a different direction. Repeat as many times as you want to identify the type of the metal more securely. With a little experience, anyone can learn to recognize the nature of the various signals, which will lead to better use of the great capabilities of the **Golden Mask Deep Hunter Mobile ST.**

7. Silent mode

In **silent mode** the detector can be switched with the **“AUDIO -Silent”** knob, when it is set to **"Silent"**.
This mode can be chosen at any time. In **silent mode** the “ticking” sound is not heard and the presence of metal target will be indicated with a high pitch tone for non-ferrous metals, and low pitch tone for ferrous metals. In the **silent mode** the sensitivity is lower, but this mode is very suitable for highly “trashy" sites (where some small, mainly iron metal objects are present, and these objects are not an objective of the search). In this mode, the detector achieves a stronger “rejection” of junk metals and provides a much more efficient search of large objects.

8.Rejection of small metal objects.

Often, in an area where large metal objects are searched for and the metal detector is set to high level of **“GAIN”** control, many (unwanted) small metal targets could be indicated. Decreasing the **“GAIN”** control (sensitivity) and/or use of **“Silent”** mode sometimes could return acceptable results, but the **Golden Mask Deep Hunter Mobile ST** provides the ability to eliminate small metal objects without reducing the sensitivity. This is accomplished with the **“REJECT”** knob. The lower the value selected with this knob, smaller metal objects are detected. After doing some tests with multiple "samples" of different metallic objects, you will learn which values of the **“REJECT”** settings are best for your needs.

9.Charging the battery: To ensure longer life of the battery it must be charged with only the supplied charger. You will regularly check the charge level of the battery after every one switch “ON” of the detector and you must turn off the detector once the red LED **"Battery"** (located in the lower right corner of the indicator) is lit.

To charge the battery:

1. Turn **“Off”** the detector, remove the coil jack and plug the charger jack into the connector on the rear side of the battery block.

2. Place the detector in near a power outlet with voltage 120-240V and connect the automatic charger into the outlet.

The charging is indicated with a **RED-color** LED light on the charger housing. When the charging process is completed, the same LED turns **BLUE-color** light.

The duration of charge of an discharged battery is about 6 - 8 hours.

When the charge is completed, remove the charger from the power socket and then remove the charger jack from the detector.

3. Turn **"On"** the detector and see the battery level. With a properly charged battery, the arm of the indicator must show a value greater than **"8"**. If the reading is lower than **"8"**, reconnect the charger and repeat the charging process!

To replace the batteries from the battery holder you must open the front cover of the battery block.

WARNING!

Only use NiMH battery cells with capacity at least 2200 mAh and size "AA".

OPERATING NOTES:

1.If, while searching, random disturbances or prolonged changes of the frequency of the sound signal (false signals) appear, the **“SMART TUNE”** button must be pressed. This action can be repeated several times to ensure complete elimination of the interference and re-establish stabile operation. Reducing the signal amplification **(“GAIN”)** will also reduce interferences.

2. When switching “Off” the detector, the red LED **“Battery!”** will be lit for a second or two. This does not indicate a battery problem. Only when this LED lights-up when the detector is turned “On” (running), you should charge the battery.

3. Do not use (or leave) the detector in a humid environment or in wet bushes, snow and/or water – the electronics unit and battery block could be damaged as it is not sealed. When you connect the coil to the electronic block, you should prevent the entry of dirt or moisture in and around the contact pins of the connectors.

4. Working with the detector in industrial areas and places with a large amount of metal junk in the soil, and/or with presence of industrial electromagnetic interferences, can lead to instability and/or inability to work. This requires reducing the sensitivity of the device with the **“GAIN”** knob, which will reduce the depth of detection, but this will be the only way to achieve stability in such conditions.

5. After extensive work with the detector, with repeated attachment and removal of search coil connectors, the connector could be damaged - please carry out these activities very precisely and carefully to avoid costly and severe damage. Contact points of the connector should be kept clean and dry.

6. If the indicator **“SIGNAL”** shows a negative value (arrow deviates to the left of zero) after lifting the coil from the ground, this means that a metallic object was located under the coil. In such cases, move the coil

to another location, turn on the device again, press briefly the **“SMART TUNE”** button and start the search.

7. Switch-on the detector for about 15 minutes in the area of search before starting to search for metal objects. During this time the **Golden Mask Deep Hunter Mobile ST** electronics are self-adjusting to the ambient temperature/humidity and the detector reaches its optimum operating capabilities.

8. If you use the detector in areas where there is possibility of the presence of buried weapons and/or explosives, you must proceed with great caution. The manufacturer and the dealers are not responsible for the any damage or injuries resulting from such use of the detector.

9. If you are looking for metal objects in areas where there could be underground pipe or electrical lines, you must call the relevant authorities responsible for the maintenance of these lines for permission. Do not perform excavation without proper permission. This is especially important in regions in and around cities and industrial sites.

10. The manufacturer and dealers are not liable for trespass, damages or injuries that could result from any use of the **Golden Mask Deep Hunter Mobile ST**.

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Rev. 01.2022


58cm


20cm


20x30cm


38x58cm


28x42cm