



GOLDEN MASK

DEEP HUNTER Pro 7



INSTRUCTION MANUAL

Golden Mask **Deep Hunter Pro 7** is a professional treasure and relic hunting metal detector designed primarily to detect deeply buried metal objects.

Golden Mask **Deep Hunter Pro7** is a pulse induction metal detector, with “**flash automatic ground exclusion balance**”, “**reject control**” and full range “**discriminate**” between ferrous and non-ferrous metals. It has developed as an upgraded and advanced variant of well known machine **Deep Hunter Pro3se**, feature the new “**Smart Tune**” system, which allow to get more depth only by pressing one button.

Golden Mask **Deep Hunter Pro 7** can significantly reduce the negative effects of power line and other electrical interference. Like the all 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.

The Pulse Induction principle of metal detecting 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 .Detector set

1.1.**Electronic unit** with built-in 12.0V/2600mAh NiMH battery, providing about 8 hours of continuous operation with per charge. The electronic block is placed in a leather bag with a comfortable strap for carrying during operation.

1.2. **Search coils (antennas)**. The detector comes with a set of different search coils selected by the customer at the order or additionally purchased by an authorized dealer.

WARNING!

It is not recommended to use self-made coils or other models of coils similar to the original ones! There is a real risk of damage that will be not covered by the general conditions of the warranty provided!

Golden mask **Deep Hunter Pro7** can achieve its full potential only with the antennas that the manufacturer has included as well as the all kind of original antennas produced for each one metal detector of the Golden Mask Deep Hunter series.

The main search antenna for the Golden Mask **Deep Hunter Pro7** is a square detachable frame that comes in two sizes - 125x125cm and 180x180cm.

For individual handling of the appliance, round or oval (hand-held) antennas are used. They are attached to a wearing stick. These antennas are suitable for areas where frame movement is impossible, as well as for residential buildings (walls, floors, ceilings), the vertical slopes of the terrain and other specific search areas for buried metal objects.

1.3. **Smart charger** for the built-in NiMH battery.

1.4. This **Instruction manual**

2.Operating Principle - high-frequency pulse induction (advanced version) with full range “**Smart tune**” flash automatic ground balance and multi-channel signal processing to identify between ferrous and non-ferrous metals.

3.Settings

The Golden Mask **Deep Hunter Pro7** has extremely simple and intuitive settings, that include 4 knobs (of these: 2 with switching function - one for switching-on/off the unit and 1 for the special “**Silent**” mode), 2 buttons, 2 switches and 1 signal indicator.



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

“**SENSITIVITY**” - knob to adjust the sensitivity of the detector;

“**AUDIO TONE On/Silent**”- knob for adjusting the “ticking” frequency in absence of metal within the area of the search antenna;

In position “On” the detector is in its core search mode. This is a strictly individual adjustment and relates exclusively to the individual auditory characteristics of the operator. It is the best to set a low “ticking” rate in the absence of metals near the coil.

This control does not affect the performance of the detector and is designed solely to provide a better detection of weak signals.

When “**AUDIO TONE On/Silent**” is in position “**Silent**” the detector is switched to “silent mode”. In this mode the detector does not emit a “ticking” sound during the searches. The presence of a metal object in the area of the search oil is indicated by a **low pitch** tone (for **ferrous** metals) or **high pitch** tone (**non-ferrous** metals).

"**AGEB/MAN.GB**" - mode switch:

- "**AGEB**" - mode of automatic soil elimination;
- "**MAN.GB**" - manual setting of the soil impact elimination system (in this mode, the detector has about 15% higher sensitivity).

"**REJECT/GB**" - "10-turn" potentiometer for precise adjustment of:

1. the rejection of undesirable small metal objects in “AGEB” mode;
2. the tune non-automatic ground-balance system of the detector in “MAN.GB” mode;
3. the eliminating the impact of extremely heavy soils in “AGEB” mode.

“**SMART TUNE**” – this button is used for fast tune of the machine. It pressing for a 1 second make the detector more stable and "deep". This feature is performed by special “smart” retuning the all systems of the detector. It is used for removing of interferences and noises encountered during the search process too.

“**GAIN**” is a switch for choosing the gain control. It can be used in two positions – “**LOW**” and “**HIGH**”. In position “**HIGH**” it gives about **20% extra depth** of detection **without use of additional battery power**.

Each time, after changing position of the switch "**GAIN**", the "**SMART TUNE**" button must be pressed for a second.

"**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. It is indicating a necessary of recharge the built-in battery.

"**Battery Check**" - button to check the level of battery charge. This button can be used at any time when the detector is switched "ON". When the arrow is in the red sector, the battery should be recharged!

4. Elimination of soil impact (ground balance).

As with all other detectors, demand for metal objects in the soil is accompanied by some difficulties. Overcoming these difficulties is achieved by using different systems and devices integrated into the electronics of the detector.

In order to achieve a more precise reject of soil impact on any terrain, the Golden Mask **Deep Hunter Pro7** uses specially developed systems that, depending on the chosen mode of operation, provide 2 different ways to search for metallic objects by eliminating the influence of the soil. These methods are:

4.1 Auto Ground Balance

The well known unique Deep Hunter Golden Mask Pro3 "flash auto ground balance system" is used. It is selected with the mode switch and continuously rejects the signals caused by the soil without the need for additional adjustments.

To use this method:

1. Place the antenna on the ground surface.
2. Switch the mode to "**AGEB**"
3. Select sensitivity of the detector with "**SENSITIVITY**" and/or "**HIGH**" or "**LOW**" gain of the received signal ("**GAIN**" switch).
4. Choose the level of rejections (**REJECT/GB.**)
4. Switch "**On**" the detector.
5. Raise the antenna from the ground at the working height (not less than 10 cm) and press the "**SMART TUNE**" button for a second.
6. The device is ready for use.

After some time, if the soil condition is needed, you should change the rejection positions (**REJECT/GB.**) to eliminate the noises of the ground and press and release the "**SMART TUNE**" button.

4.2 Manual Ground Balance

The application of this method allows the use of the detector's extreme sensitivity, but requires some skills that can be achieved in the practice.

To use this method:

1. Place the antenna on the ground surface.
2. Switch the mode to "**MAN.GB**"
3. Select sensitivity of the detector with "**SENSITIVITY**" and/or "**HIGH**" or "**LOW**" gain of the received signal ("**GAIN**" switch).
4. Switch "**On**" the detector.
5. With the "**REJECT/GB**" potentiometer rotated clockwise or counterclockwise, the detector will be adjusted to a sound threshold, providing a quiet with a *few hertz frequencies*.
6. Raise the antenna from the ground at the working height (not less than 10 cm) and rotate "**REJECT/GB**" potentiometer counterclockwise very carefully to find the best working sound of the detector. It may be needed only a few positions on the scale.
7. The device is ready for use.

5. Search for metal objects with frame search coil.

The Golden Mask Deep Hunter Pro7 is designed to be used mainly with large “frame” type search coils. This is the most effective way to search for deeply buried metal objects.

The search coil must be moved slowly at a constant height (15 cm or more) above the ground. Coils of type “frame” are delivered in the form of “coil-cable loop” in length corresponding to the respective size of the supporting the frame set of PVC pipes and fittings for assembling structure of the frame. The “coil-cable loop” is composed of series-connected conductors in a multi-conductor special cable which form a transmit-receive coil. The “coil-cable loop” is mounted onto the frame of PVC pipes, unions and elbows attached to the PVC frame using the included “Velcro” cable straps. The connecting cable is plugged into the connector labeled “Coil”, which is mounted on the right edge of the front panel of the electronics unit. The connector ring must be tightened.

The search with a “frame” requires an assistant who controls the level horizontal movement of the frame, using the included belts. With another belt, the operator determines the height and direction of movement and controls the detector.

Another way for individual work with a “frame” type search coils is when the operator stands/walks inside the frame holding both belts while controlling the detector.

WARNING!

The use of this method, and/or any “entry” of the operator or another assistant inside the “frame” of the Golden Mask Deep Hunter Pro7 detector while in working mode can suffer adverse effects caused by the very strong electromagnetic field that can lead to serious health problems and/or injuries!

If you do not have an assistant, “dragging” of the search “coil-cable loop”, mounted on a non-metallic type “sled” frame (PVC, for example) is recommended. The “sled” must provide a constant height (about 15 cm or more) of the frame from the ground surface. The search should always begin with a brief pressing of the “**SMART TUNE**” button (the same is recommended to be carried out periodically during the search) in order to maintain maximum stability and sensitivity.

The movement of the antenna should be carried out in parallel bands that overlap by up to 30% in order to not miss any portion of the search field. The speed of movement should be about 1 yard per second.

6. Search for metal objects with handle-mounted coils.

When the terrain does not allow searching with a “frame” coil, Golden Mask **Deep Hunter Pro7** can be used with handle-mounted round search coils. Search with such antennas does not differ from the search with a “frame”. The round coils are much more sensitive to identifying small objects and should be used for such searches. In addition, the purpose of the handheld coil is to replace the “frame” in inaccessible areas and provide an opportunity for individual work, without an assistant. The movement with handheld coils should be done **very slowly**.

Unlike traditional VLF metal detectors, using the principle of inductive balance, the Golden Mask **Deep Hunter Pro7** can detect metallic objects without motion. The movement is only necessary to identify the type of metal, and a speed of about **1 m/s** is sufficient for the discrimination system to function properly.

The search height above the ground surface with the round coils antenna must be constant (about 10 cm or more).

If you hold the coil too low or touch the ground, you will experience faulty signals. All activities and settings

recommended for the use with “frame” coils apply as well to searches with “hand” the round coils.

7.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 TONE On/Silent**” knob before searching starts. 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 Pro7** has a very well expressed “zone” indication from deeply buried metal objects with the use of a frame coil. 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 antenna 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 “frame” over the metal object are a sure indication of relatively small metallic object not deeply buried. The use of a round coil gives a slightly different and shorter signal compared to frame coils. 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 Pro7.

8.Signal control amplification (“GAIN”).

There are two positions – **“LOW”** and **“HIGH”**. **“LOW”** is the main one. The more amplification of the received signal is provided in **“HIGH”** position and it will be increased the depth of detection (about 20%). But Its’ use is recommended only after acquiring some experience in working with the unit, since increased sensitivity could lead to increased number of ghost or false signals.

Setting different values of the **“SENSITIVITY”** and using the **“GAIN”** switch can lead to different behavior of the device. You will understand this function with practice and experience.

9.“Silent” Mode

In **“Silent”** mode the detector can be switched with the **“AUDIO TONE On/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 **“Silent”** mode, the detector achieves a better **“rejection”** of junk metals and provides a much more efficient search of large objects.

10.Rejection of small metal objects and “noises” of ground.

Often, in an area where large metal objects are searched for and the metal detector is set to high sensitivity, many (unwanted) small metal targets and/or ground “noises” could be indicated. Decreasing the sensitivity and/or use of “Silent” mode sometimes could return acceptable results, but the Golden Mask **Deep Hunter Pro7** provides the ability to eliminate small metal objects without reducing the sensitivity. This is accomplished with the “**REJECT/GB**” knob. The lower the value selected with this it, smaller metal objects are detected and ground “noises” could be heard. After doing some tests with multiple "samples" of different metallic objects with different sizes, you will find which values of the “**REJECT/GB**” settings are the best for your needs.

*The “**REJECT/GB**” is a 10-turn potentiometer and should be used its full 10 turns to find desired value for the small metal pieces and ground “noises” which have to be rejected.*

11.Charging the built-in battery.

To ensure longer life of the built-in battery it must be charged with only the supplied charger. You should regularly check the charge level of the built-in battery with the button “Battery Check” (inspection is possible only when the detector is switched “**On**”) 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 built-in battery:

1. Turn “Off” the detector, remove the coil jack and plug in the charger jack into the connector labeled “Charge” on the front panel of the device.

2. Place the detector in an upright position near a power outlet with voltage 110-240V and connect the automatic charger into the outlet.

The charging process is indicated with a RED-color LED light on the charger housing.

When the charging is completed, the LED light turns blue.

The duration of charge of a discharged battery is about **4 - 8 hours**.

When the charge is completed, remove the charger from the power socket and then remove the charger jack from the connector "Charge".

3. Turn "**On**" the detector and check the charge level by pressing "Battery Check" button. If the reading is lower than "**8**", reconnect the charger and repeat the charging process!

To replace the battery, you should contact your Golden Mask **Deep Hunter Pro7** dealer.

12.Relative depth of detecting of metal objects.

Golden Mask **Deep Hunter Pro7** enables the operator to combine device settings and use it in 4 different modes of working using **2 different ways** to reject the impact of the soil. When working on "heavy" terrains, lower-order modes are preferred.

1.AUTO GROUND BALANCE

MODE	AUDIO TONE	GAIN	Depth [%]
A1	Silent	LOW	65%
A2	Silent	HIGH	75%
A3	On.	LOW	100%
A4	On.	HIGH	120%

2.MANUAL GROUND BALANCE

MODE	AUDIO TONE	GAIN	Depth [%]
M1	Silent	LOW	70%
M2	Silent	HIGH	80%
M3	On.	LOW	115%
M4	On.	HIGH	135%

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 should be pressed and released. This action can be repeated several times to ensure complete elimination of the interference and re-establish stable operation. Reducing the “**SENSITIVITY**” and/or switch “**GAIN**” to “**LOW**” will also reduce the interferences.
2. After the detector is turned “**Off**”, 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. Keep a consistent height of the coil above the surface during the search to ensure optimal functioning of the systems to eliminate the influence of the ground and the maximize detection depth.
4. Do not use (or leave) the detector in a humid environment or in wet bushes, snow and/or water – the electronics unit could be damaged as it is not sealed. When you connect the coil to the electronics, you should prevent the entry of dirt or moisture in and around the contact pins of the connectors.
5. 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 “**SENSITIVITY**” knob, which will reduce the depth of detection, but it is the only way to achieve stability in such conditions.
6. 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.

- 7.** If the indicator “**SIGNAL**” meter 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.
- 8.** 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 Pro7** electronics are self-adjusting to the ambient temperature/humidity and the detector reaches its optimum operating capabilities.
- 9.** Do not attempt to use the detector after the built-in battery is discharged as this can result in damage to the battery and/or the electronics.
- 10.** Always keep the electronics clean from dust, grease and moisture. Use only dry and soft cotton cloth for cleaning.
- 11.** 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.
- 12.** 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.
- 13.** The use of high-quality headphones (not included) connected to the “**PHONES**” socket will help achieve better results.
- 14.** The manufacturer and the dealers are not liable for trespass, damages or injuries that could result from any use of the Golden Mask **Deep Hunter Pro7**.

