

Golden Mask Deep Hunter LE

Golden mask Deep Hunter LE is a pulse induction detector, designed for easy detection of deeply buried large metal objects (larger than 8 cm or 3") with LED indication for the type of the metal. It work in full "automatic ground exclusion balance" mode for very simple operations and and has a filter to significantly reducing the interferences caused by power lines.

This detector has a remarkable stability, sensitivity and accuracy by adjusting only the Sensitivity and Volume controls.

This is a modern, maximum simplified pulse-induction detector of type "turn ON and GO", suitable for those who have little or no experience of working with similar equipment.



CAUTION!



Do not connect or use the "Golden Mask Deep Hunter" metal detector if near the search coil are people or animals with heart problems or people using electronic devices for the health treatment and/or prevention! The electromagnetic field of the detector may cause fatal malfunction in electronic devices which determine the life and health of people and animals!

1. Components of the unit

1.1. Electronic block with built-in NiMH battery provides about 12 hours of use per charge. The electronic block is placed in a specially designed leather case with a handy carrying strap. It is advised not to remove the leather case for the entire lifetime of the device.

1.2. Search coils

The detector is offered in a set with a variety of search coils specified by the customer when ordering or additional purchased.

We do not recommend the use of self-made antennas or alternatives of the original! There is a real risk of damage, not covered by the general conditions of the warranty!

The main search coil for Golden Mask Deep Hunter LE is a square frame of PVC pipes to mount the antenna cable on with the help of cable ties Velcro type.

For individual work with the detector are available round coils that are attached to a stem. These coils are used primarily in areas where the movement of the frames is impossible, as well as search in residential buildings (walls, floors, ceilings), the vertical slopes of the terrain and other specific areas to search for buried metal objects.

1.3. Automatic charger for the built-in battery - Golden Mask extra special battery charger.

1.4. Instruction Manual

2. Principle of operation

High frequency pulse-induction (advanced version) with flash automatic ground exclusion and multi-channel signal processing to identify the type of the detected metal.

3. Controls and indicators

Golden Mask Deep Hunter LE uses extremely simple intuitive controls - only 2 knobs, 2 buttons and 1 special analogue meter:

- **"VOLUME On / Off"** - knob for adjusting the volume and "switch On" - "switch Off".

- **"SENSITIVITY"** - knob to adjust the sensitivity.

- **"RETUNE"** - Button for quick readjustment of the detector and remove the interference in the process of searching.

- **"SIGNAL"** - special analogue meter to indicate the level of the received signal and the charge level of the built-in battery; there are embedded 3 LEDs for indicating the type of metal and the "Low battery":

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

- **"Battery!"** - LED indication warning for less than 10% residual charge of the built-in battery, whereby it must be recharged (see item 8);

- **"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. Eliminating the influence of the soil (ground balance)

- Golden Mask Deep Hunter LE uses "automatic ground balance", so the detector needs no setup. The developed by Golden Mask unique Flash Ground Exclusion Balance System continuously rejects the signal caused by the soil.

Preparing the detector for search

1. Search coil must be placed on the ground in an area where it is assumed that no buried metal objects are present.

2. Set the value of the desired sensitivity of the device (depth of detection) with the "SENSITIVITY" knob (greater values provide higher sensitivity). The selected value depends on the nature of the environment - on "light" soil it can be set with values 7-9; in "heavier" soil it is better to choose a value of 5 or less. Subsequently, this value can be increased to the maximum possible for the specific conditions.

3. Turn the knob "VOLUME ON / Off" in a clockwise direction to switch On the detector and sets the level of the sound volume. Values around 5-7 on the scale of the knob are usually sufficient for comfortable search.

4. Press and release the button "RETUNE".

5. Lift the search coil at a height at which it will be used during the search (about 10 cm/ 4 inches is recommended).

6. Again, press briefly and release the "RETUNE" button.

You are ready to go!

5. Search for metal objects with frame coil

Golden Mask Deep Hunter LE is designed for use with big search coils (antennas) of type "frame". This is the main way to search for deeply buried metal objects. The coil is moved slowly at a constant height (10 cm or more) above the ground. Antennas of type "frame" are delivered in the form of antenna cable in length corresponding to the respective size of the frame and a set of plastic pipes and fittings for assembling the supporting structure of the frame. The antenna-cable is composed of series-connected conductors in multi-conductor special cable, which forms a coil with certain parameters. It is mounted on a frame of PVC pipes, joints and elbows, and fixed using the enclosed cable connections type "Velcro". The connecting cable is plugged into the jack labeled "Coil", which is mounted on the right edge of the front panel of the electronic block. Coupling connecting cable must be tightened after placing the jack.

Search with a "frame" is done with an assistant who helps the horizontal movement of the frame, using one of the enclosed belts. With another belt operator brings the detector and determines the height and direction of movement.

There are other ways for individual work with antennas of type "frame" in which the operator stands inside it and moves holding both belts. **The use of this method and "entry" of the operator or an assistant in the coil frame is strictly prohibited!** Adverse effects of the elec-

tromagnetic field can lead to serious health problems and / or injuries!

If you want to work without an assistant, it is recommended to drag the antenna over the surface - for this purpose can be used a dolly or sledge, made of non-metallic materials. This device must provide a constant height (about 10 cm) frame above the ground.

A search should always begin with a brief pressing the "RETUNE", which is recommended to be carried out periodically during the search, in order to maintain maximum sensitivity.

The movement of the antenna must be carried out in parallel strips (bands) which overlap by up to 30% in order not to miss a portion of the field. The speed of movement should be about 1m/s.

6. Search for metal objects with round hand-held coils

When the terrain does not allow search with a frame coil, Golden Mask Deep Hunter LE can be used with smaller (round) search coils (antennas) mounted on a special stem for individual work. Search with such antennas does not differ from the search with a frame coil.

Since the detector is not designed to detect coins and small metal objects, with a round antenna you should not expect to detect these small objects. The purpose of the round coils is to replace the frame in inaccessible areas and provide an opportunity for individual work (without assistant).

Moving with hand antenna should be carried out very slowly. Unlike traditional VLF metal detectors, using the principle of inductive balance, Golden Mask Deep Hunter LE can detect metal objects without motion. The movement is only necessary to identify the type of metal, such as speed of about 1 m/s is sufficient. The search height above the surface with round antenna must be 5 cm or more.

All activities recommended for use with antennas of type "frame" apply to work with a "hand" antenna.

7. Indication of the presence of metal

The signal from a metal object, located in the area of the search antenna is indicated by increasing the frequency of the sound signal.

Most weak signals the operator can register, are captured by doubling the automatically preset frequency (pop) of the sound indication.

Each signal has a start and an end. Golden Mask Deep Hunter LE has a very well expressed "zone" indication signal from deeply buried metal objects with frame antenna. The length of this zone is an indication about the depth of the metal object. When this length is greater than the size of the search antenna and has a characteristic peak in the middle - certainly refers to a deeply buried object. If the signal is of a short duration (area), but captures only a central part of the antenna, then also discovery of deeply buried metal object is expected. Two-time audible indication corresponding to the passage of the sides of the frame over the metal object - a sure indication of a shallow buried small

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metal objects.

The use of round (hand) antenna gives a slightly different area (shorter signal) compared with a frame. This is due to the physical size of the antenna and must be considered in determining the area where the metal object is expected.

After reaching a certain level of the signal (which will be observed in the indicator SIGNAL), an indication of the type of the metal appears through the LEDs mounted in the SIGNAL panel. The red color indicates a non-ferromagnetic metals and the green - a ferromagnetic metals (iron).

It is possible that the indication of the type of metal is not always correct as it depends on many factors which pulse-induction metal detectors can not always be accounted properly for.

Once detected a metal object, outside the detection zone press briefly the button "RETUNE" and then pass from different directions.

With the acquisition of some experience anyone can learn to recognize the nature of the various signals, which will guide in making better use of the capabilities of the device.

8. Charging the built-in battery

To ensure maximum life of the built-in battery, you should charge it only by using the supplied charger - Golden Mask extra special battery charger.

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 stop searching when the red LED "Battery" lights (located in the lower right corner of the indicator).

To charge the built-in battery:

1. Turn "Off." the detector, remove the antenna jack and put the charger jack in the connector labeled "Charge" on the front panel of device.

2. Place the detector in an upright position and connect the automatic charger into an outlet 90 ÷ 240V.

The LED mounted in the housing of the charger lights in red color. The LED remains red until the charging process is completed, then the it turns blue.

The duration of charge of the battery from a stage of warning to full charge is about 6 ÷ 8 hours.

When the charger LED turns blue, remove the charger from the power outlet and then remove its jack from the connector "Charge".

3. Turn "On" the detector and check the charge level by pressing "Battery Check" button.

With a properly charged battery, the indicator must show a value greater than "7". If the reading is lower reconnect the charger and repeat charging.

9. Replace the built-in battery

To replace the battery you should contact the dealer you've purchased the metal detector from. He will provide information on how to replace the battery without braking the warranty conditions. **Never replace the battery with a different one than the original offered by the producer!**

NOTES:

1. If random disturbances or prolonged change of the frequency of the sound signal (false signals) are present - press the RETUNE button. This action can be repeated several times until the detector behaves as expected.
2. After the detector is switched Off. the LED "Battery!" can be lights for a few seconds. This is not a problem with the battery. When this indicator lights up during operation, then you should proceed to charge the built-in battery.
3. To maximize the potential of the device during operation it is recommended to press frequently the RETUNE button.
4. If after lifting the antenna from the ground the indicator "SIGNAL" show a negative value (arrow deviates to the left of zero), this means that under the antenna there is a metallic object during the preparation of the unit to work. In such a case, move the antenna to another location, turn on the device again and press briefly button "RETUNE" and continue the search.
5. Keeping permanent height above surface during the search will ensure optimal functioning of the systems to eliminate the influence of ground and thus the maximum depth of detecting metal objects.
6. Do not use (or leave) the detector in a humid environment, wet grass or bushes, snow and/or water – the electronic block (not sealed) and the built-in battery could be damaged. When you connect the antenna to the electronics, you should prevent the ingress of water or moisture in and around the contact pins of the connectors.
7. Work with the detector in industrial areas and places with a large amount of scrap metal in the soil, and presence of industrial electromagnetic interference can manifest 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 this is the only way to achieve stability and proper work in such conditions.
8. After extensive work with the detector, repeatedly accession and separation of the antenna may lead to connectors damage, that's why these activities should be carried out very precisely and carefully. Contact points should be kept clean and dry.
9. Please leave the detector switched "On" for about 15 minutes in the area of work before it can be used to search for metal objects. During this time the electronics are being self-adjusted to the ambient temperature and the detector reaches optimum operation.
10. Do not attempt to use the detector after indication of low charge charge of the built-in battery. This can result to damage of the electronics and/or the battery.
11. Always keep the electronics clean from dust, moisture and oils. Use only dry and soft cotton cloth for cleaning.
12. If you use the detector in areas where a presence of buried weapons and/or explosives is possible, provide all precautions because the manufacturer and dealers are not responsible for the consequences resulting from such use of the detector.
14. The use of high-quality headphones (these are not supplied with the detector) is recommended for best results!

The manufacturer and dealer are not liable for damages or injuries that could result from ground digging activities.

FRAME COILS ASSEMBLY SCHEME

The frame coil consists of plastic pipy parts that should be inserted one into another and form the frame square. (see picture bellow). The acual coil is a special cable-like circle, that should be attached to the carrying frame. The plastic frame is used to support the search coil circle cable.

After you asseble the frame, you have to attach the coil cable circle to the plastic frame using the velcro straps. Finally, attach the carying straps on two opposite sides of the frame, attach the coil cable to the main device and you're ready to go.

