

CE

GOLD ID-XL

User's manual



Pulse Induction-based
Metal Detector

KTS-Electronic GmbH & Co. KG
Germany



Table of contents

1. General guidelines.....	3
1.1 Preface.....	3
1.2 Scope of delivery	3
2. Assembly.....	4
3. Usage and selection of searchcoils	4
3.1 25 cm searchcoil	4
3.2 Cylindrical coil	4
3.3 1 x 1 m PVC search frame	5
3.4 Assembly of the search frame	5
3.5 Battery and chargers	6
4. Electronic unit.....	6
4.1 Back	7
4.2 Search recommendations and hints for Reset operation.....	8
4.3 Precise location of metal objects	10
5. Search process.....	10
6. Error signals	11
7. Technical data.....	11
8. Warranty	12
8.1 Warranty expiration	12
8.2 Care.....	13
8.3 Legal note.....	13
9. Contact	13

1. General guidelines

1.1 Preface

Dear customer,

we congratulate you on your purchase of GOLD ID-XL metal detector.

To avoid possible operation errors we ask you to study this manual carefully.

We wish you a successful search with your new GOLD ID-XL and are at your disposal, should additional questions arise.

Your KTS-Electronic Team

1.2 Scope of delivery

- GOLD ID-XL electronic unit with installed li-ion battery and leather bag
- 25 cm (10") searchcoil (waterproof) incl. carbon telescope bar
- Cylindrical coil (waterproof) 5 cm Ø, 20 cm (7.9") in length with 10 m (33 ft.) cable
- 1 x 1 m (3.28 x 3.28 ft) search frame incl. bag
- Mobile quick-charger (2800 mAh), voltage converter with car charger cable, additional 110 Volt adapter
- Hard-top case
- User's manual



2. Assembly

1. Mount the carbon telescope bar by screwing the carbon tube (adjustable in length) to the armrest.
2. Insert the coil plug into the provided socket on the rear of the electronic unit. The electronic unit is kept in a device bag made of leather through which lower opening the plug has to be inserted (see also page 7, para 4.1).



Note: There is no need to swivel the searchcoil any longer. Just hold the searchcoil flat and parallel to the ground and determine your own search speed.

3. Usage and selection of searchcoils

In addition to your GOLD ID-XL we deliver several searchcoils, each suitable for certain applications.

3.1 25 cm searchcoil

The 25 cm searchcoil is particularly suitable for the search after small metal objects.

For a successful search it is recommendable to hold the searchcoil parallel to the ground.



3.2 Cylindrical coil

By its dimensions of 5 x 20 cm the cylindrical coil (is delivered with a 10 m cable) especially is applicable in narrow spaces (e.g. crevices) or in inaccessible areas (wells, shafts, other excavations).



3.3 1 x 1 m PVC search frame

The search frame primarily is used for the deep sounding after medium-sized and large metal objects. Furthermore vast territories are scanned in a quick and convenient manner.



The search frame should be held at a distance between 20 cm and 50 cm (see images) to the ground. If space is over 50 cm it can happen that small to middle-sized metal pieces are not indicated.

3.4 Assembly of the search frame

1. Connect the pipes (8 pieces) in numerical order.
2. Arrange the search frame on a flat surface and be sure, that the frame is straight.
3. Subsequently the cable has to be placed on the pipe and fixed at the corners with the provided tape. Please make sure, that cable and search frame are firmly connected to each other.



Note: Metal detectors create magnetic fields in the searchcoil. Under certain circumstances they can be affected in their functionality when operated in the vicinity of industrial plants or electronic devices.

3.5 Battery and chargers

The strong pulse power is reached by the built-in 2800 mAh-li-Ion battery, which is charged within 90 minutes. Please note, that the supply cable for the battery charger has to be always removed after each charging procedure.

The actual working time amounts to (depending upon coil size and usage of headphones) approx. 4-8 hours.

In addition, we deliver an inverter which enables charging in the car.



Note: The maximum charging time is 90 minutes. To avoid a defect on charger or built-in battery, this charging time must not be exceeded (a disregard could lead to a loss of warranty on ~~of~~ damaged charger).

4. Electronic unit

The electronic unit is installed in a solid box and carried in a leather bag.



Display: **ID:** Presentation of metal type and display of conductivity
BAT: Battery control (graphically and in percent).

Power: ON-/OFF-button.

Reset: Automatic zero balance at the touch of a button. By pressing the Reset-button device is aligned to the actual soil condition.

Freq.: Frequency adjustment.

Audio: Volume control

4.1 Back



1. **Socket for coils:** The connecting socket for coils is located on the left side. The connector plug of the searchcoil has to be plugged into the socket. Before removing the plug the locking knob must be pressed, only then an extraction is possible. The connector is compatible with all GOLD ID-XL searchcoils.
2. **Headphone socket:** Any commercial headphones with 6.3 mm jack can be plugged in. During use the loudspeaker is turned off. Matching, light weight headphones are provided.
3. **Charger** (connection to the charging device): To recharge the battery, insert the plug of the charger into the provided socket and check the charging process. The maximum charging time is 90 minutes (to avoid a defect on the charger or the built-in battery, please do not exceed this time). The charger connector should be removed after each charge.

The GOLD ID-XL is ready for use within a very short time:



1. Activate the metal detector with the ON-/OFF-button. The respective searchcoil should be cable-connected to the electronic unit beforehand.
2. Hold the searchcoil towards the ground and press the Reset-button for a brief moment. You herewith attain a zero balance, which is necessary for a trouble-free search. Please make sure, that there are no metal objects near the searchcoil during zero balance. This could cause a wrong adjustment of the metal detector and produce unwanted indicator effects (as the case may be repeat the Reset-procedure on another, metal-free spot).
3. Please set the frequency initially to the lowest level (turn the Freq.-modulator counterclockwise). By means of Audio control the volume is set. To become acquainted with the handling of the device we generally recommend to start with the lowest frequency adjustment. With progressing experience it is expedient, to increase the frequency gradually what will have a positive effect on the search performance.

4.2 Search recommendations and hints for Reset operation

During the search process be sure that you do not carry items of metal with you. This could cause a wrong adjustment when pressing the **Reset** key and can produce false indicator effects. Furthermore this can lead to a wrong metal discrimination. While searching be ensured, that the sound remains constant, otherwise an inappropriate adjustment caused by magnetic fields may occur. Should this be the case press Reset-button again and adjust frequency once more. Hold searchcoil over the ground and control display.

The Reset-button should be pressed after each of the following modifications:

1. After every switch-on of the metal detector.
2. After every exchange of searchcoils.
3. During the search, if sound becomes instable due to bad soil conditions or geomagnetism.

During search and in particular before excavation of the object the following factors should be taken into account in order to make the search more targeted and thus more successful.

1. Change of sound (frequency)
2. Intensity of sound
3. Continuity of sound
4. Extent of value (digital display)

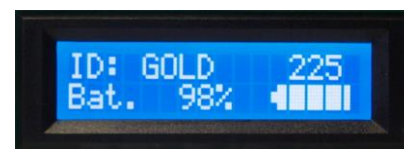
The change of sound is the first sign for the finding of a metal object. At the same time there should other circumstances be considered and the own search experience be used as support:

The more intense the sound, the larger the metal object and the nearer it is located to the surface. While a high search tone is audible, it is required to move the searchcoil in the close surrounding to determine the shape of the metal object.

ID (metal discrimination):

Unlike to other metal detectors GOLD ID-XL performs a constant metal discrimination. Conductivity value and metal type (e.g. "Gold") are displayed.

GOLD ID-XL enables the discrimination after a special measuring method. Here 5 measurements are carried out, which will calculate the average value. The average value calculation leads to a more precise metal type discrimination. The identification of the metal type makes it possible to distinguish varying metal objects with the appropriate values. The average value is shown in sector gold with up to 400, in the range of copper with 1200 and in the field of light metals, e.g. aluminum, with 2800.



Note: The GOLD ID-XL shows a very sensitive reaction towards small gold objects (e.g. nuggets). Through the increase of frequency the depth performance also rises. However, in case of difficult soil conditions an increase in disturbances can occur, which can be reduced by a renewed reset and a reduction in the frequency.

As long as the searchcoil is positioned exactly over the metal object the displayed conductivity value is crucial.

A weak signal will not be sufficient for metal determination. To compute the conductivity of a metal object a signal with high intensity is necessary.



Please bear in mind that – depending on soil conditions as well as size and shape of located objects – the measured values may vary. Indicated values are guide values, which can be complemented by your own search routine in your search area.

See also the explanation of false signals on page 11.

Note: To avoid incorrect conductivity values it is absolutely necessary to repeat the adjustment of soil balance. When pressing the Reset-button make sure, that there are no metal parts in the soil.

4.3 Precise location of metal objects

GOLD ID-XL works with the pulse induction searching system and detects without having to move the searchcoil. While approaching an object with the searchcoil you will notice an increase of sound frequency. As soon as the searchcoil is positioned exactly over the object, the highest tone is reached and the indicated conductivity value corresponds with the assumed kind of metal.

With this method not only the exact spot is located, through the sound continuity also the shape of the discovered object can be identified. For example, a long-lasting high tone stands in longitudinal direction for a slim object, e.g. a pipe. A round object can be assumed, if a high tone in any direction is heard.

5. Search process

Please note the following:

- Avoid conducting overhead lines
- Do not use cell phone during operation
- Do not process measurements during thunderstorms
- Keep dry
- Accurate operation is only guaranteed with a fully charged battery

For operation or charging only use the components enclosed or released by KTS GmbH & Co. KG.

Application:

1. After switch-on and regulation of volume and frequency press the Reset-button for soil calibration.
2. For the ground balance regulation hold coil on a metal-free spot and press the Reset-button. With the ground balance regulation the influence of minerals in the soil is neutralized and error signals are decreased.
3. Repeat the ground balance regulation at various spots, so that the calibration is always carried out correctly. This shall particularly apply, if the soil layers have changed due to possible excavations.

6. Error signals

During development of GOLD ID-XL special emphasis was laid on stability and the avoidance of malfunctions. Despite the high number of filters and modulators it cannot be ruled out that certain soil conditions cause disturbances, which could influence the measured values.

Apart from a wrong soil balance adjustment incorrect signals can emerge by the following effects:

1. Abnormal effects (e.g. magnetic ferric oxide soils) may cause, that large iron metal parts are indicated as precious metal. Therefore the conductance value of the located metal can be falsified.
2. Adverse conditions can lead to wrong indications so that large iron objects may be shown as precious metal.
3. Small parts of bronze partially could be specified as iron. The accuracy of measured values therefore is only ensured starting from an object of 5 x 5 cm in dimension.
4. The measured values can be falsified, because other metal parts are detected near the located metal object.
5. Strongly magnetic interference fields within residential areas and in the vicinity of ground cables can influence the measured values, especially when working with the large searchcoil.
6. Disturbances often occur in the peripherals of radio stations.
7. Strongly magnetic fields, particularly in the neighbourhood of high voltage masts, can cause disfunctions.

7. Technical data

Electronic unit

Dimensions ca.: 18 x 22 x 7 cm

Weight: 1450 g (incl. bag with shoulder strap)

Power supply: integrated li-Ion battery 12 Volt (fully charged 14-16 V) / 2800 mAh

Operating time: approx. 4-8h

Charging time: max. 90 minutes

car-recharger: external car-recharger (connectable to cigarette lighter)

25 cm search coil

Dimension: 25 cm Ø

Weight: approx. 514 g

Cylindrical coil

Dimension: 5 cm Ø, Length: 20 cm

Weight: approx. 654 g

1 x 1 m Search frame

Dimensions: 8-fold demountable, incl. bag, approx. Length 60 cm

Total weight incl. bag: approx. 1,2 kg

8. Warranty

We grant repair work free of charge resulting from production failures originated by errors and defects 24 months effective from date of purchase.

According to the following conditions we remedy deficiencies free of charge, if they are evidently based on manufacturing errors or material defects and are reported to us immediately after assessment of damage within **24 months** after delivery to the ultimate buyer.

Divergencies from the required quality of the goods, which are insignificant for the suitability of value and use (failures caused by chemical or electrochemical influences, damages resulting from wetness as well as from non-standard handling in general) are irrelevant and excluded from the warranty.

Defective parts will be repaired gratuitous or replaced by unobjectionable parts of our choice. KTS reserves the right to exchange the device for a product of equivalent value in case the returned product cannot be repaired in an appropriate budget time frame. On-site repairs cannot be demanded. Replaced, resp. exchanged parts will merge into our property.

The guarantee claim expires in cases of improper handling, gross carelessness or if repairs, modifications, additionally installed parts or extensions are carried out from persons which are not authorized on our part to do so.

Guarantee claims will neither effect an extension of the term nor they will implement a new guarantee period.

Further claims are excluded, in particular such through extraneous causes resulting product damages, provided there is no obligatory legal liability. We therefore are not liable for any accidental, indirect or other subsequent damages of any kind, which lead to limited use, data loss, profit setbacks or operating failures.

We therefore are not liable for any accidental, indirect or other subsequent damages of any kind, which lead to limited use, data loss, profit setbacks or operating failures.

8.1 Warranty expiration

KTS-Electronic GmbH & Co. KG can agree upon a service after the term of guarantee is expired. In this case repairing and shipment will be charged.

8.2 Care

Your GOLD ID-XL requires little maintenance, yet there are some items, which you should consider, in order to receive its optimal functionality. Avoid extreme temperatures, since it can be possible that electronic construction units are damaged thereby. Protect the electronic housing with a plastic bag in case you should get caught by rain, fog or dust. Always keep your equipment clean and dry and wipe off sand and dirt.

8.3 Legal note

Before you start searching please note that the monument protection as well as other legal standards are relevant. KTS-Electronic GmbH & Co. KG. assumes no responsibility for possible legal violations.

In case of doubts we recommend a comprehensive consultation with an attorney or national monument offices.

9. Contact

KTS-Electronic GmbH & Co. KG

Kurhessen Strasse 1
64546 Moerfelden-Walldorf
Germany

Tel: +49-(0)6105 9111-50

Fax: +49-(0)6105 9111-55

www.kts-electronic.com

eMail: mail@kts-electronic.com

Office hours:

Mondays – Thursdays: 9:00 am to 4:30 pm

Fridays: 9:00 am to 4:00 pm

Copyright: KTS-Electronic GmbH & Co. KG, Moerfelden-Walldorf/Germany, 2017

The right to reproduction or the disposal of graphics and/or texts of this publication is without autor's explicit consent not allowed.