XFINDER©

Long Range Locator

Version 2. November 2017

Thank you for your purchase of the GOLD X-FINDER distant locator by GDI - Gold Detectors International.
As a manufacturer we have invest a long time in research and development and have taken all efforts to produce a quality locator of this type, that has not an equal to the treasure hunting market.
This is a scientific instrument and every detail in the instruction manual has to be followed.
It is strongly suggested to study the instruction manual carefully in order to understand the operation of your unit and then to field practice with sample targets to gain a level of experience.
Like an electronic device the X-FINDER must be handled with care necessary when operating such devices.
Special care has to be taken with the antenna that must be handled gently, avoid bending, avoid hits and any excessive force when assembling it. We wish to you the best in your surveys.

ASSEMBLY

Inside the carry case, secured in foam dividers come the main unit, telescopic antenna, handle and 4 x AA batteries. Pull the battery door and position the batteries in the correct order, according the indications.
Extend the antenna to the desirable length and screw it carefully to the base.
Last, attach and screw the handle below the locator.

POWER ON

The locator will power on automatically once the handle has been attached.
By pressing of a key a low beep sound aids as confirmation for the command.

DETECTION CONDITIONS

Avoid the usage of the locator in the rain, or under lighting strikes. Use it next day after the rain.
It is beneficial to have a relative moist soil but not a muddy one. Select days with a clear sky or sparse clouds. Power off mobile phones. Do not keep other individuals in a close proximity. Do not approach power lines, high voltage towers or electromagnetic transmitters (mobile phone antennas, Wi-Fi etc). The efficient hours of the day are either morning or afternoon but not in the strong sunlight.
Do not detect under windy conditions. Temperatures below 8, and higher than 33 C are not ideal.
In the heat the attraction of the target becomes faster, while it slows down in cold.

LOCATION POSITION

Hold the locator by the handle. The locator has to be kept with the main unit parallel to the ground and in right angle to the user body. The antenna slightly declined to the ground. Maintain the elbow close to your body.
Do not move or force the handle. Spend some time practicing until the correct handling has been achieved and the locator is balanced.

TARGET DETECTION PROCEDURE

Readings can be taken when standing still or by scanning using your elbow the locator left to right towards the horizon. When GOLD X-FINDER senses a target the antenna points towards this direction and locks. To double check the target, point with the antenna to another spot or a different direction and wait until it goes back to the target. If this occurs, proceed to centering the target as described.

FAMILIARIZATION AND EFFECTIVENESS

The GOLD-X FINDER locator is an extremely sensitive device to movements during the detection and requires the user to spend some time until he becomes familiar with the handling technique in the correct position. Especially if you use a long range locator for the first time, the wrong handling may result to an antenna that goes out of balance, moving by gravity force or the wind. When experience has been gained the locator antenna locks instantly to the target direction.
The procedure to learn the technique has 2 steps.

First, place over the ground surface so that they are visible, coins or jewelry samples with a high gold percentage. Water the samples to become more conductive. From a 20-30 meter distance having the samples at your field of view, position GOLD X-FINDER antenna pointing to another spot.
During the first tests, the antenna might react slowly and take a few minutes to lock the target.
Repeat the same tests daily, over and over again with patience and be persistent until the reaction becomes faster. After a week the antenna will lock the targets instantly.

Secondly, ask a friend to hide for you an amount of gold without knowing the exact spot. If you manage to recover the target instantly, then you already become a skillful user. Otherwise continue practicing and your effectiveness betters over time

Equally important to the handling is user conductivity. Individuals with high conductivity have the ability to operate GOLD X-FINDER successfully by the first attempt. The rest have to go through proper adjustment of their body and optimize their conductivity by practicing. If another individual with a high body conductivity is with you, let him amplify your adjustment procedure with the GOLD X-FINDER by touching your hand that holds the locator.

For a successful detection a calm and relaxed user is required. Tense and rigid users must avoid to operate. Another aid is a good electrical contact of the user to the ground, for example through wearing leather and not plastic shoes.

GROUND BALANCE FOR MINERAL REJECTION

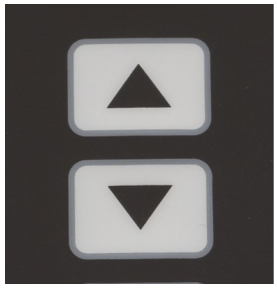
Low conductivity users may receive interference signals from ground minerals. To avoid such false readings use the GROUND BALANCE function. Power on the locator and while the message GROUND BALANCE is shown on the screen, sweep it over the horizon, left-right towards the minerals that have to be rejected. Continue until the antenna attraction is lost. Alternatively place various samples of the minerals that need to be avoided, as a “bait” over the ground surface and initialize the learning procedure again. For interferences in general is beneficial to shorten the antenna so that the locator sensitivity is reduced. Before proceeding to the recovery, the existence and exact target spot has to be verified also by using a metal detector.

MODE SELECTION

Press MENU repeatedly for mode selection.
M1: GOLD [Au] 5000 Hz (Low frequencies on the gold spectrum attract natural gold minerals between 4900 –5100 Hz, at 5200 – 5300 Hz respond man-made gold objects of karats 18 - 22, frequencies of 5400 – 5500 Hz tend to attract low karat jewelry. Therefore multiple checks in different frequencies are advised. When double check, set 5000 Hz, and scan again, if the antenna reacts stronger, it is a mineral.)
M2: SILVER [Ag] 8700 Hz
M3: IRON [Fe] 16800 Hz
M4: LEAD [Pb] 4000 Hz
M5: ALUMINIUM [Al] 6800 Hz
M6: BRONZE 11800 Hz
M7: COPPER [Cu] 11200 Hz
M8: DIAMOND [C] 12200 Hz
M9: WATER [H2O] 9500 Hz
M10: VOID 200 Hz
M11*: FREE 0 – 20000 Hz

(*free mode where the user stores manually -using the arrows- the desirable frequency to experiment)

FINE FREQUENCY TUNING

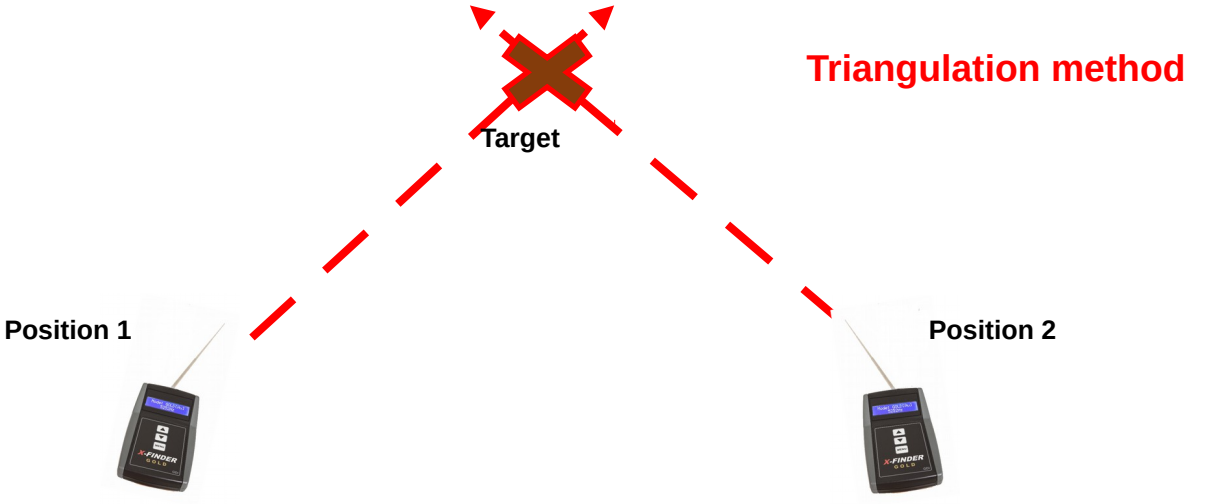


By a single press of arrow key the element frequency can be fine adjusted in steps of 1 Hz. Depress an arrow key to adjust in steps of 100 Hz. It is worth to fine tune the frequency slight higher or lower, to calibrate with the operator conductivity, soil conditions and metal alloy (for example gold karats). It is possible that various users notice small changes to the frequencies they respond better. For that purpose move the frequency setting to a point more satisfactory to you. Correct frequency tuning results at intense antenna movement even prior to target line. Experiment with your own samples and soil types. Put your own target sample over the ground, take care it makes a good contact alternatively wet with salt water. Alter the frequency and scan again. Repeat as many times needed until the best response is received. Note that some fresh targets have a weak or no response at all. Correct frequency tuning presents an intense antenna movement, starting before the target line and the antenna will lock to the target for a relatively large width.
To **reset all frequencies to the starting values**, hold the UP and MENU keys. The X-FINDER beeps 3 times and then makes a longer beep to confirm the reset.

CENTERING THE TARGET

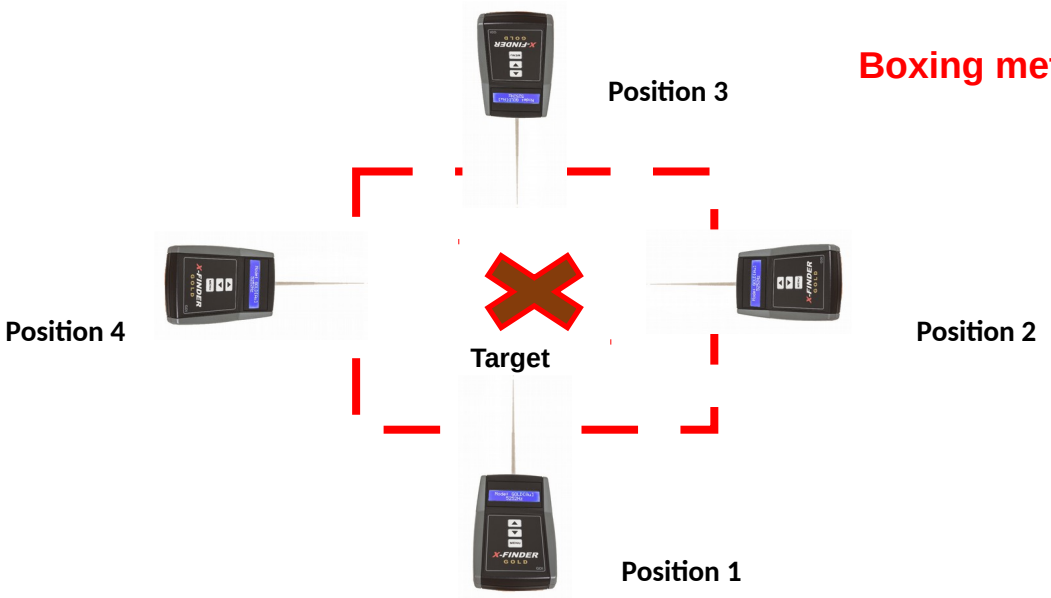
A. Triangulation method

Move 15 m. away sideways to the spot where the first reading is received and scan again. If an imaginary line is projected from the antenna at both spots, then those 2 lines intersect at the target center.
In case the angle of the lines is closed the target is in a close proximity, if it is open, the target lies far away. Start moving towards the point of intersection. If you stand above and pass it, the antenna locks either to the left or right side.



B. Boxing method

The square or boxing method is useful at a close proximity to the target for a precise location. Approach the target from all 4 sides. To every side repeat the scanning procedure. When the readings from all 4 sides have been taken, move even closer to the target from every side and repeat until the box becomes very small.



SENSITIVITY ADJUSTMENT

For a precise centering, reduce GOLD X-FINDER sensitivity when near the target area, by shortening the antenna. Doing so, lowers the detection range and the ability to locate small objects is eliminated. Also the locator operates stable against small scale interference caused for example by electromagnetic fields or minerals. The maximum range 2500 m. for large objects / 300 m. for a handful of coins / 50 m. for a single coin is achieved with the antenna extended.
When retracted large targets are sensed at 1200 m. / 150 m. for a handful of coins / single coins are rejected.

MAGNETIC FIELD INTERFERENCE

To confirm that the target is not magnetic field, stick an iron rod near the signal center about 45 cm long. After an hour or so take a reading from far away and start moving towards the signal center. If the signal is lost it is due to magnetic field interference on that area, otherwise if readings continue the target is real. Maybe the signal center is displaced however by the interference.

SOLAR ACTIVITY INTERFERENCE

When scanning under intense sunlight, in the heat and in noon during the summertime, the strong sun radiation may cover and mask fully the target signal. Another case is that false targets are show up in varying depths. It is necessary to revisit the place in other day times or at night and double check to confirm the target is true.

ORE INTERFERENCE

The ore with the closest frequency match to the gold is quartz crystal, also known as mika. Also the tin rust and some limestones create harmonic frequencies that interfere also with the scanning gold frequency.
In a few cases, parallel signal are received that give the false impression of many targets lying on the same spot. After the ore is removed from the ground these readings fade out. For validation change in random the GOLD X-FINDER modes and double check using different frequencies. A real gold target should produce signal only to the gold frequency and not at all frequencies.

SIZE CALCULATION

Once the target signal has been centered over a spot, position sideways at 10 m. distance a good amount of gold, for example coins inside a net. Let the samples over the ground surface or let them half buried. Water the samples and stand in between the samples and the suspected target. If the locator is attracted to the samples the target is less in quantity and therefore has to be ignored.

DEPTH CALCULATION

The target energy projects to the ground surface as a circle. The deeper the target the larger the energy circle becomes. Target depth equals the circle radius. For example, a circle with a diameter 2 m., indicates a target at 1 m. depth. The center of the energy sphere may not coincide with the actual target center, since the radiation in some cases (on large gold deposits, old buried targets and targets at depth) does not project vertically on the surface. When using a metal detector to verify the target position, an area at least 15 m. x 15 m. or larger has to be searched therefore do not limit the detection only to the energy circle. Targets at depths less than 1 meter do not produce energy sphere.

BATTERY STATUS

Use only alkaline batteries. Rechargeable batteries can also be used.
When battery voltage falls to 4,7 Volts the message **Low Battery** comes at the bottom of the screen for 2 seconds and repeats every 10 secs. With batteries falling lower at 4,4 Volts a sound is heard and the LCD backlight dims when the message comes on.

At 3 Volts backlight goes off to save the battery. To this point the user should stop the detection. Lastly at 2,7 volts the detector shuts down. The intervals between those events depend to the temperature and the detection or not of targets.

Always remove the batteries when the X-FINDER Is not in use.

WARANTEE

The X-FINDER detector is covered under a 2 years guarantee for parts and labor, with the exception of failing batteries, user error for example due to falls, hits, moisture, tampering. The given guarantee is that that the detector is new and does not suffer by manufacturing or other operational faults. The detector inspection if offered free of charge. The delivery charges to / and from the repair center are the customers responsibility. Only the GDI repair center has the right to define the nature and existence of the fault. When the guarantee times out the repairs might have a chargeable cost that the user will be notified of.

GOLD X-FINDER SPECIFICATIONS

- 10 automatic preset frequency modes
- Scan gold, silver, iron, lead, aluminum, copper, bronze, diamonds, water, cave/voids.
- User defined, adjustable frequency mode
- VLF frequency range 0 – 20000 Hz
- Manual frequency tuning at 1 Hz fine precision steps
- Memory for the user frequency settings
- Backlight character LCD 64 mm x 18 mm
- Auto power on by attaching the handle
- Auto Ground Balance to reject minerals
- Audio target signal
- Temperature -10 to 50 C
- Humidity 95%
- Weight (main unit, batteries, antenna, handle) 550 grams
- Weight (inside carry case) 950 grams
- Main unit (without antenna) 150 mm x 100 mm 60 mm
- Telescopic antenna 130 mm to 615 mm
- 4 x AA Alkaline batteries
- Battery life 12 hours
- Battery consumption 20 mA (standby) / 50 mA (location)
- Audio / visual battery status test
- Detection ranges 300 – 2500 m. adjustable *
- Locates up to 6 m. depth * (*dependent upon target size, and user skill)
- Designed in USA by GDI, assembled in EU

193 Athinon avenue, 12461 Athens Greece. Tel.: +30 210 4905398

Web. www.gdi-detectors.com