

## USER'S MANUAL



User's manual for GF 1000, the latest device to detect metals and gem stones with 33 targets

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## SAFTY INFORMATION



The operating in high voltage areas would limit the results and performance



It's better to turn off mobile while using the device.



Don't operate two devices with same method of search at the same place



Don't store in high temperature or high humidity



Disconnect the batteries before long time storage



The operator Must remove any metals that might affect the opeartin eg: Rings, watch, belt....



Any attempt to tamper the device or unapproved maintenance would void the warranty



For best power endurance and reliability. use heavy duty and high quality batteries thats for the devices which work on removable batteries



- ❖ The user must practice before starting the detecting operations and discoveries
- ❖ Store in Cool and dry place 15-40 C 5%-75% humidity



Read & Understand  
The User's manual  
before using this device

## TECHNICAL SPECIFICATIONS

|                          |                                                                                                                                |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Search System :          | Long Range Locating System LRL                                                                                                 |
| Search Principle:        | Processing digital frequency signals to receive the energy of the targets' electrostatic fields .                              |
| Operating Processor:     | MICROCONTLLER PIC18 & ARM 7                                                                                                    |
| Operating Frequency:     | 1.From 1 KHz To 30 KHz<br>2.Special frequencies for measurement and verification<br>3.Measurement of electrical resistance Ohm |
| Power:                   | Two cells of Li-ion 3.7 volts ,2000 mA                                                                                         |
| Power Consumption:       | Maximum of consumption 200 mA                                                                                                  |
| Battery Life:            | 6 work hours                                                                                                                   |
| Charger:                 | 5,1 volt 2,1 Amp/2 hours charging                                                                                              |
| Display Type:            | TFT Color Monitor 3.2 " , 65.536 Color, 48Mhz , CDMA GPU                                                                       |
| Specialized to detects:  | 33 of precious metals the most rare and requested                                                                              |
| Targets Discrimination:  | Yes                                                                                                                            |
| Target Selection system: | Yes, can choose the target type before start search from the list of targets.                                                  |



## TECHNICAL SPECIFICATIONS

|                                  |                                                                                                               |
|----------------------------------|---------------------------------------------------------------------------------------------------------------|
| DEPTH SEARCH::                   | 200 M, With the ability to control the level of search depth through the depth control interface.             |
| DISTANCE SEARCH:                 | 2500 M, With the ability to control the levels of the search distance through the distance control interface. |
| RESULTS FEEDBACK:                | Through orientation toward target location accompanied by sound + graphical and vibration alerts..            |
| BLUETOOTH:                       | Yes                                                                                                           |
| WIRELESS:                        | Yes                                                                                                           |
| AUTOMATIC SMART GUIDANCE SYSTEM: | Yes, by graphical interface to locate the path and direction of the target, and Acoustic commands             |
| VOICE ALERTS:                    | Yes                                                                                                           |
| VIBRATING ALERT:                 | Yes                                                                                                           |
| OPERATING TEMPERATURE:           | From -15° C to 60° C                                                                                          |
| STORAGE TEMPERATURE:             | From -15° C to 40° C                                                                                          |
| HUMIDITY:                        | It can be stored and work in the degree rate of air humidity at level 90%                                     |
| WEIGHT:                          | Compound: 1 kg - disjointed in the bag: 3 kg                                                                  |
| DIMENSIONS:                      | 18.9x10.4x5.8 cm                                                                                              |
| BAG DIMENSIONS:                  | 18.9x10.4x5.8 cm                                                                                              |



### The Main Control Unit

The main control unit of the device, through which the search criteria and settings for the device are determined, and it is communicated with the attached search units via wireless connection.



### CHARGER

An electric charger to recharge the device's battery

Values: Input: 100 - 240V AC / 50 - 60Hz / 0.5A

Output: 5V Continuous / 2A / 10W.

Designed with a MICRO USB charging port to match the universal charger system, making it easy to use any charger available.



### SOUND UNIT

This unit works to receive the sound alert system from the main unit wirelessly and connects it to the headphone to enjoy the feature of the voice alert through the headphone. So we can use it in both long range and hybrid search systems. We can control the volume or even mute the volume through the volume control switch located at the top of the unit.



### HEAD PHONES

Connect via the headphone jack located on the top of the audio unit to hear audio alerts wirelessly..



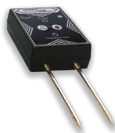
### GRIP

It is installed on the back of the main unit and is carried through it as it allows a 360-degree circular movement, freely and smoothly



### TRANSCIVER ANTENNAS

The main control unit of the device, through which the search criteria and settings for the device are determined, and it is communicated with the attached search units via wireless connection.



### REINFORCEMENT UNIT

Equipped with a built-in transmitter that works on two systems, a signal filtering system to confirm the location of the target, and a system equipped with ground waves with a system for accurate transmission and enhancement of the signal, this transmitter works with a bluetooth system to communicate with the main unit through a special control interface to operate and close these systems through the system interface

## FRONT INTERFACE



**1** Sockets for connecting the transmitter and receiver antennas

**2** Display screen

**3** Volume control key

**4** Back key

**5** Enter key

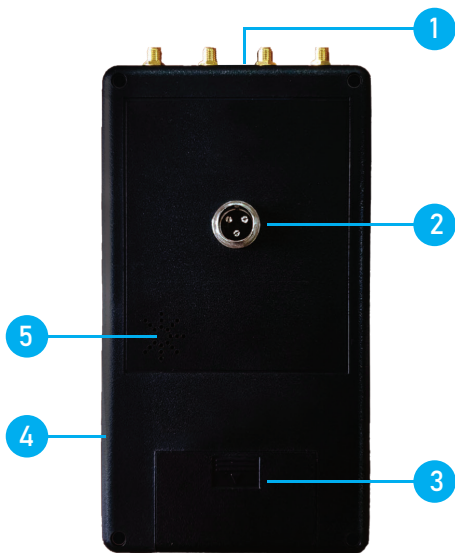
**6** Power and lock switch

**7** The key to tracking and focusing on goals

**8** The keys move up, down, right, and left

**9** Screen brightness control switch

## BACKGROUND



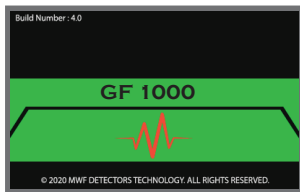
- 1 Laser indicator light
- 2 Installation of hand grip socket
- 3 The battery compartment

- 4 Charging socket
- 5 Audio output

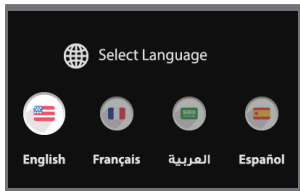
- ❖ Turn on the device by pressing and holding (🔌) on the front of the device for three seconds.



- ❖ The device will show the loading screen and then go to the main menu of search systems.

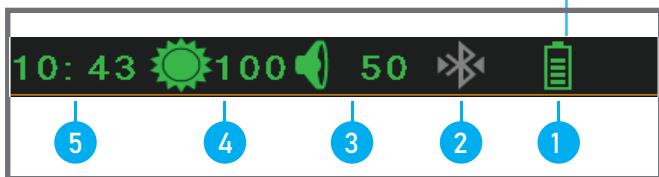
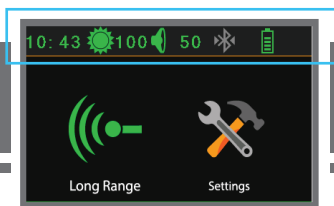


- ❖ **Note :** When the device is turned on for the first time, the device will display a screen that enables you to choose the system language



### ❖ Explanation of the information bar at the top of the screen of the main unit of the device

The information bar facilitates and helps to quickly read the device settings and know its status from the battery level and brightness of the screen and know the time during the search process.



- |                                                            |                                  |
|------------------------------------------------------------|----------------------------------|
| <b>1</b> Battery charge level                              | <b>4</b> Screen brightness level |
| <b>2</b> Bluetooth system status icon (activated / locked) | <b>5</b> Hour indicator          |
| <b>3</b> Volume level                                      |                                  |

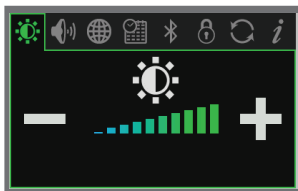
- ❖ Use the buttons ( ◀ ▶ ▼ ▲ ) to move between the menu options on the screen, then press the button ( Ⓚ ) to confirm the selection and to return to any position, press the button ( Ⓛ )

### ❖ Settings menu

To enter the settings menu, press the button ( ▲ ) from the main menu to move between the settings menu windows, and then press ( Ⓚ ) to enter the selected settings window, and you will find there are several options for tuning.

To exit the selected settings window, press the button ( ▲ ) to move again between the configuration windows.

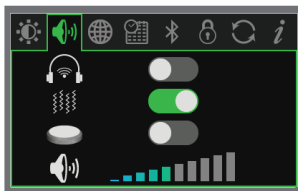
- To control the brightness of the screen, go to the brightness adjustment window, then press the ( Ⓚ ) button, then change the brightness level from 10% to 100%.



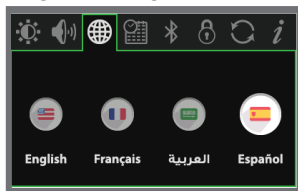


## ❖ Settings menu

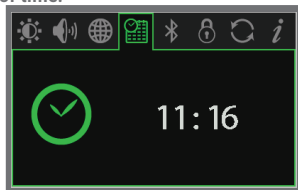
- To set the values of the sound alerts, scroll down and press the (OK) button, then control the volume by going to the subwoofer icon, or you can hide the sound completely You can activate or cancel the vibration option and play the sound of clicking the keys of the main unit, in addition to activating and deactivating the headphones option.



- To change the system language, go to the language setting window, then press the (OK) button, then select the desired language and confirm. MF 1100 PRO is multi-lingual, including Arabic.



- To set the hour value, go to the clock setting window, then press the (OK) button then set the time and confirm. The timekeeping watch facilitates clear viewing and viewing of time.

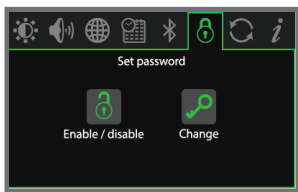


## ❖ Settings menu


- To set the bluetooth system, go to the bluetooth settings window, then press the button (OK), then we turn on or off bluetooth through (◀ ▶).

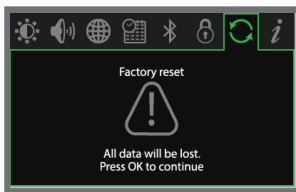


- To set the password, go to the password setting window and then press the button (OK). You can activate or deactivate the password by going to the (disable / Enable) icons and pressing the (OK) button, and then enter the preset password. You can also change the password by choosing the (Change) Then enter the old password and then enter the new password, bearing in mind that the password must consist of four digits of numbers.



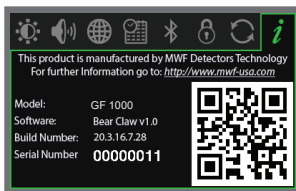
**Note:** In the absence of a preset password from the user, the default password from the factory is four zeros (0000)

To reset the factory, go to the factory reset window, then press the button (OK) . The confirmation window appears. Select to confirm.



### ❖ Settings menu

- Verify device-product information (downloaded software version-device model-manufacturer information-build number-serial number of device -QRCODE image that enables you to go directly to the MWF website using the camera of any mobile "smart phone" device).

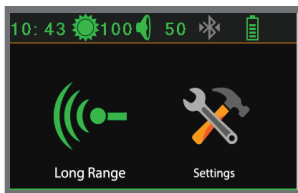


❖ Press the button (Back)  to exit the settings menu and return to the main menu

### ❖ Start Search

- To start the search process, select the search system icon from the main menu to enter the search system.

On the screen, the long-range search system icon and the settings icon will appear: We will explain in detail the entry of the (Getting Started) section about the interfaces of the long-range search system.



# LONG RANGE LOCATOR (LRL)

## System features

\* This system is characterized by many new technologies added to our remote sensing system, unprecedented and exclusive technology, this system works on detection and remote search technology to locate targets and monitor them from long distances, directing the user and leading him to the target site directly.

\* Built-in sensor and detection system, where the device can detect targets by heading towards the targets accompanied by an acoustic alert indicator to determine the target's location and path with great accuracy.

\* System and interface for smart identification of the target's path and direction through the special graphics interface, as this system gives the user an automatic and visual identification of the target's direction and location.

\* Intelligent control interface to adjust the levels and capabilities of the search and the type of target to be searched as well.

\* Interface of precise multi-level search settings to pre-control levels of depth and forward search distance:

\* Depths of up to 200 meters with a feature to control the level of the signal and the depth of search through the list of optional search depths.

\* Front search distance up to 2500 meters with the feature of controlling the level of wave transmission for the front range through the menu of the front search distance optional. The laser guided feature can be switched on and off from the system interface.

\* Equipped with a built-in broadcasting device that works on two systems, a signal filtering system to confirm the target's location, and a system equipped with ground waves with a system for precise transmission and signal enhancement, this transmitter works with a Bluetooth system to communicate with the main unit through a special control interface to turn on and off these systems through an interface the system.

## The parts for Long Range System (LRL)






- 1 Connect the antennas to the designated place on the front of the unit .
- 2 Place the handle at the bottom of the unit .

**Note:**

Do not forget to remove the batteries from the unit before storage to ensure they are working properly .

## Start Searching

- Select Long Range Locator system by choosing LRL icon then press  button



After entering the long-range detection system, the options for determining distance - target - and depth will appear on the screen. We start by specifying the target to be searched by moving between the 33 existing target icons displayed as follows:

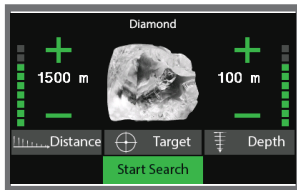





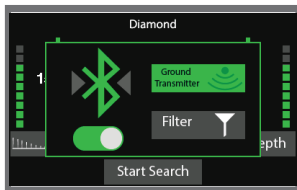
## Start Searching

### Long Range Locator interface

- To move between Target, Distance and Depth use these buttons 
- To select the target and the search parameters use these buttons 




- After selecting the search options, go to the search option to start searching then press the button  Where we have an interface to choose between ground transmitter and filter.



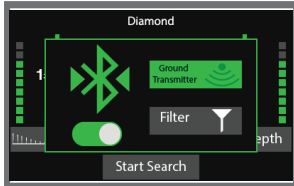
## Note

Make sure that the bluetooth system is activated from the bluetooth configuration option or you can activate it directly when you enter the start search window


### ❖ Start Searching

- Before selecting the ground transmitter or filter.
- Turn on the soil support unit.  
provide ground support unit with the appropriate battery 1\*9V.
- Then press the (ON / OFF) button to turn on the unit and then wait for some time to connect to main unit via bluetooth system, where we notice that the blue light for the bluetooth symbol  in the main unit stops flashing and thus the link between the main unit and the soil support unit has been established

Then we screw the ground support unit well into the ground after making sure that it is turned on and connected to the main unit via bluetooth



Then we move to the main unit and choose the ground transmitter

Note: We can also select the TRANSMITTER option by pressing  button from the soil support unit.

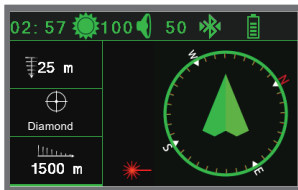
## ◆ Start Searching

- The ground transmitter system offers a ground wave search system supported by the fine-tuned transmission and enhancement system, and by the automatic tuning system ATS.
- The automatic tuning system (ATS) is a special and new invention registered for the MWF group, this system provides accurate and sure results in all types of soils and terrain, as this system automatically identifies the soil and gives the search automatic tuning commensurate with the type of soil and its properties, while eliminating any radioactive interference Resulting from the effects of rocky and mountainous lands, which may affect many devices, but this system and its intelligence can sort, analyze and provide the necessary levels of the frequency signal, the voltage and the wavelength of the signal, which gives results free from any errors .

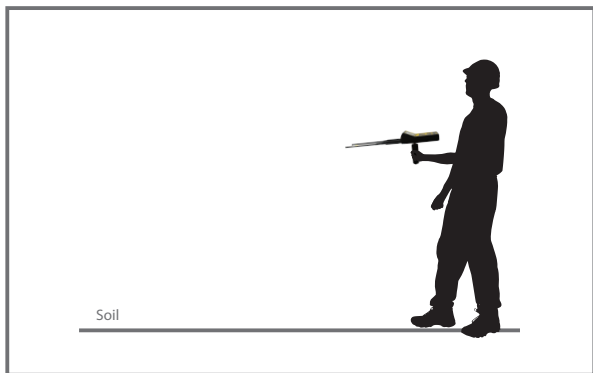


### ❖ Start Searching

In the next step, the system search window appears, which shows the target direction compass and the search criteria from a distance and depth, as well as the laser light icon, which helps to easily identify the target point and the drilling point accurately in various circumstances day and night

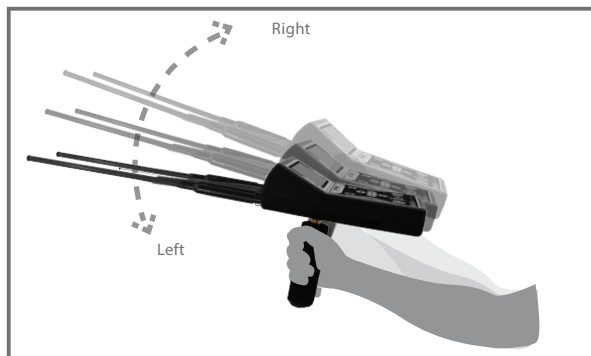


- ❖ The user must carry the device through the carrying handle horizontal with the ground and slightly tilted towards the soil, as shown in the drawing



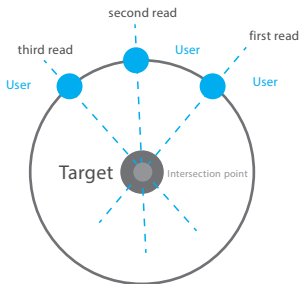
## ❖ Start Searching

- ❖ First, we infuse the waves and fields coming out of the device, where we move the device by hand to the right, then left slowly, and then the hand that holds the device is steady .




## ❖ Start Searching

If the target is found, the device will receive a read and signal by automatically changing the device from the normal path to which the target was located. This direction is the direction of the target's location, and then the device is installed in the same direction. Scan the target location and install it by pressing again on the (Move) key to note that the device starts to sound an alarm towards the target location, then we completely circumvent the direction to which the device is directed to, to the opposite parking point to notice the change of the device again and direction To the target location and trigger the alarm Constantly, then we move away from the first reading point to stand in another location away from the first point (10 meters) sideways, and we do the process of stimulation of the waves of the device again and install the device and wait for reading, in case the target is sure will go again to the same site and be We have confirmed the existence of the target, and it is possible to do this method more than once in order to make sure the direction of the target is correct, by taking more than one reading from the device from different points, and if we notice theoretically that all the readings that we made.



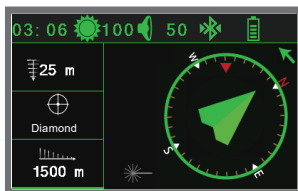
❖ It is preferable to walk in a winding path while searching for the target and changing direction of travel every five meters .

## ❖ Start Searching

After confirming the target path, we press the button (  ) to ensure accurate tracking of the target path and avoid the trouble of drilling at the wrong point



Indication of left deviation in the direction of the specified target path with the change of the alert



Indication of right deviation in the direction of the specified target path with the change of the alert

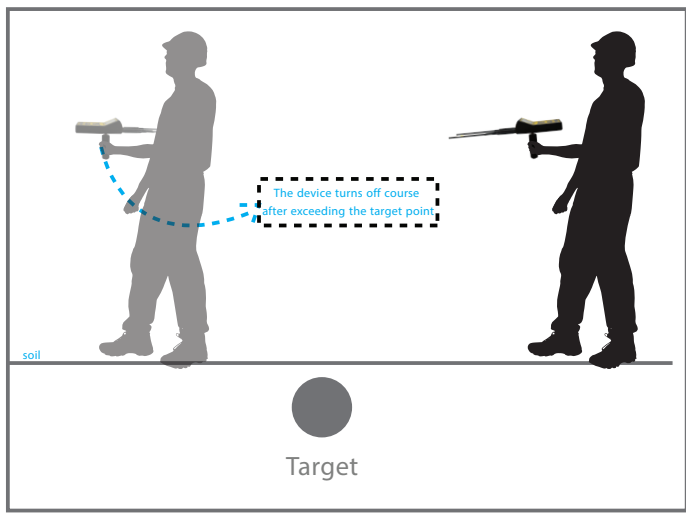


Indication that you are on the right track for the specified target with an alert

## ❖ Start Searching

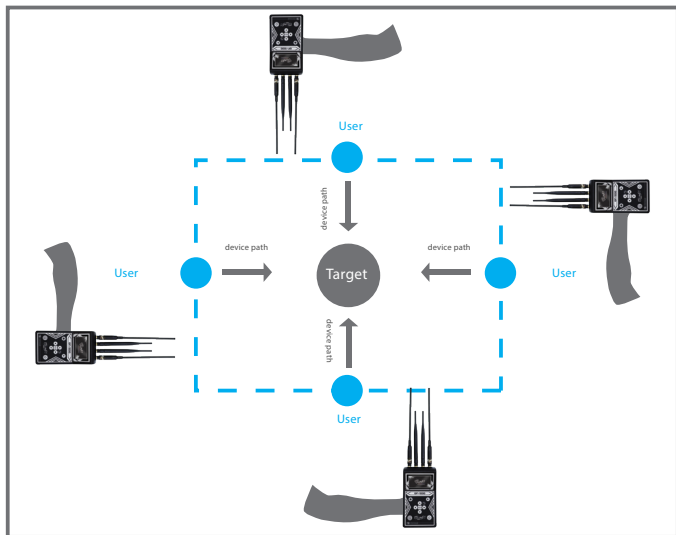
## How to locate the target

- ❖ After confirming more than one reading of the direction of the presence of target we press the move button to install the target path and we walk in the same direction and normal to carry the device. Note during which the device issued alerts to indicate that walking is in the right track towards the indicator. It is an arrow indicating the direction of the convolution to return to the right path, until we reach the point where we bypass the water site and we will notice that the device has automatically changed direction from its natural path to turn back to the location and the point of the target, here we also rotate with the device to the location of the target. Hey and we walk slowly and when we are directly above the target site we will notice the device will start to turn left and right and this indicates that we have identified the point of target.



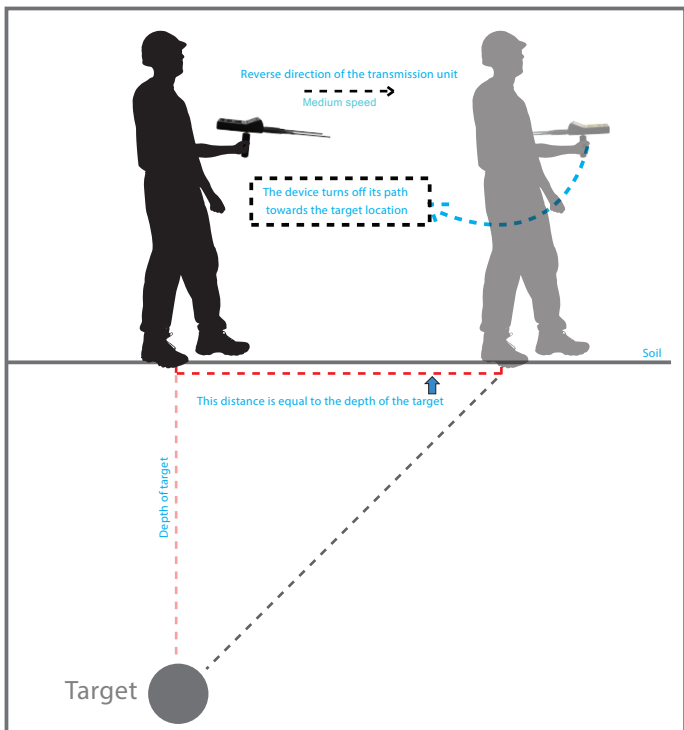


- ❖ There is another way for us to more accurately determine where the target is located  
We are the process of squaring the target site by taking four readings of the target , point from four angles  
Square three meters from the target site, we will notice the intersection point of the four readings  
Theoretically it will be the midpoint of the target



The user can know the approximate depth of the target by returning to the main menu and setting the search settings again and change the depth level through the depth list, ie for 5 meters we reduce the level of depth to 3 example if the depth that was first selected meters and 20 meters and we enter the information, and away About the target location hold the device and wait for reading the target location, if there is a reading of the target meters, and we do this process to reduce 3 site here know that the depth may be between the level of depth until we know the approximate depth of the target

How to detect the target depth

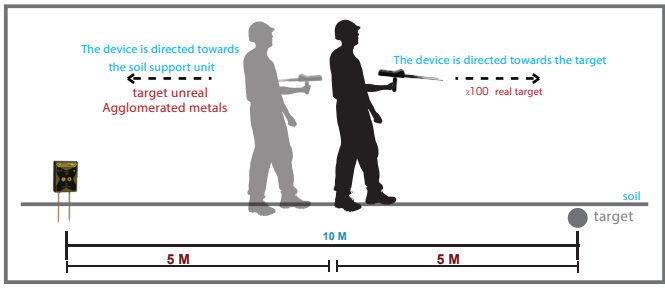


## Start Searching

- Now to make sure the target type in whether it is metallic metal or buried metal target using filter system  
We return to the main long-term search window and repeatedly click on the option to start searching  
Then we choose the option Filter



Then we implant the soil support unit in the ground well, about **10 meters** from the target and stand in the middle between the soil support unit and the target holding the device, waiting for the reading. If the device is directed towards the target, this indicates that the target is real and hidden **100%**, but if the device is directed towards the soil support unit with this, the target is metal and metallic conglomerates for the same metal that you choose to search for and this is normal for the device to go to such metals because some of them are in the form of metallic clusters of large sizes in rocks and veins in the soil.



- Signal filtering system to confirm the location of the target, and the system equipped with ground waves with the system for accurate transmission and enhancement of the signal, this transmitter works with a bluetooth system to communicate with the main unit through a special control interface to operate and close these systems through the system interface -
- It provides a signal filtering system, to avoid any interference caused by any radio or frequency waves present in the air.

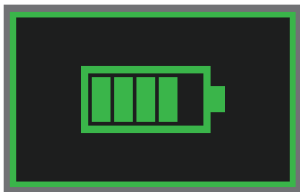


## ❖ Charging Information

You can continue charging the battery when the device is closed or switched on, knowing the added charge level All in real time with smart charging systems.

When the device is connected to the charger in the off state, the battery charge progress indicator will appear on the screen in percentage

As shown:



The device also offers the battery and smart charging feature, which gives the user an accurate tracking of the energy level, Accurate visual and audible notifications of battery level and alerts before the power runs out.



During work and when the battery level reaches **15%**

We notice a change in the shape of the battery indicator to this state



While charging the device, we notice the change of the battery level indicator

To this shape when the battery is **100%** full

A series of horizontal dotted lines for writing notes.



## SHOP DETECTORS

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