

# BR500-GW

## HEADLINE

BR500GW is the best long range water detector that is especially to find and determine all type of water to 500 meters depth and 1000 meters as long distance



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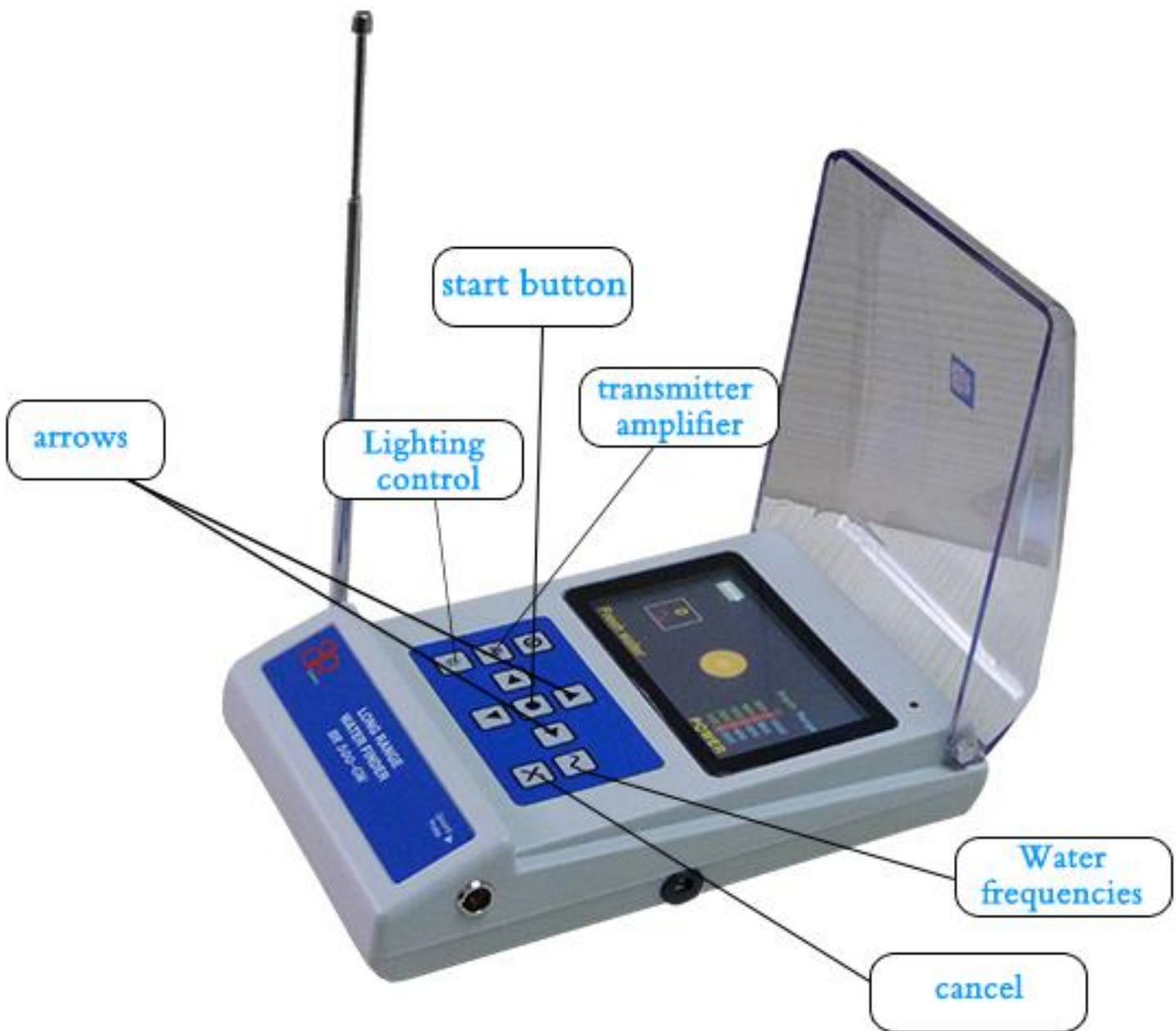
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## USER MANUAL



**BR**  
Systems.

# Quick Start



**You are now ready to start searching**



BR Systems is always interested in your opinions .If you have any questions or comments regarding your BR Series please feel free to call us or via your local authorized dealer

For further product information, refer to :

[www.brdetector.com](http://www.brdetector.com)

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# Congratulations on purchasing your BR underground water detector

## **INTRODUCTION:**

Before the invention of electronic detectors, people didn't have anything else than simple methods to find headwater. Nowadays, with the development in electronics, detectors that can find ground water and artesian wells.

Locating water's places from long distances wouldn't be hard with a profession detector that's made with highly developed and technological electronic circuits, combined with a skilled and experienced operator's talent.

BR 500-GW Long range water finder was developed to search for fresh, slat, and mineral water. In its electronic circuit, a newest American microprocessor and many other integrated circuits, transistors etc are used. By this, it is possible to create the proper frequencies for water's molecular frequencies.

## **GOOD DETECTING:**



Locating headwater takes a lot of time and costs without the appropriate searching devices.

With BR 500-GW Long range water finder, you will be able to search a large area in a very short time with the best accurate results

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# List Of Parts



Antenna Amplifier



Ground Probe



A pair of copper receiver antenna



WaterProof APS Case

Main Digital CU



Car charger



Rechargeable batteries  
(3.7 Volt 4400 mAh)



Batteries box  
(AA type)



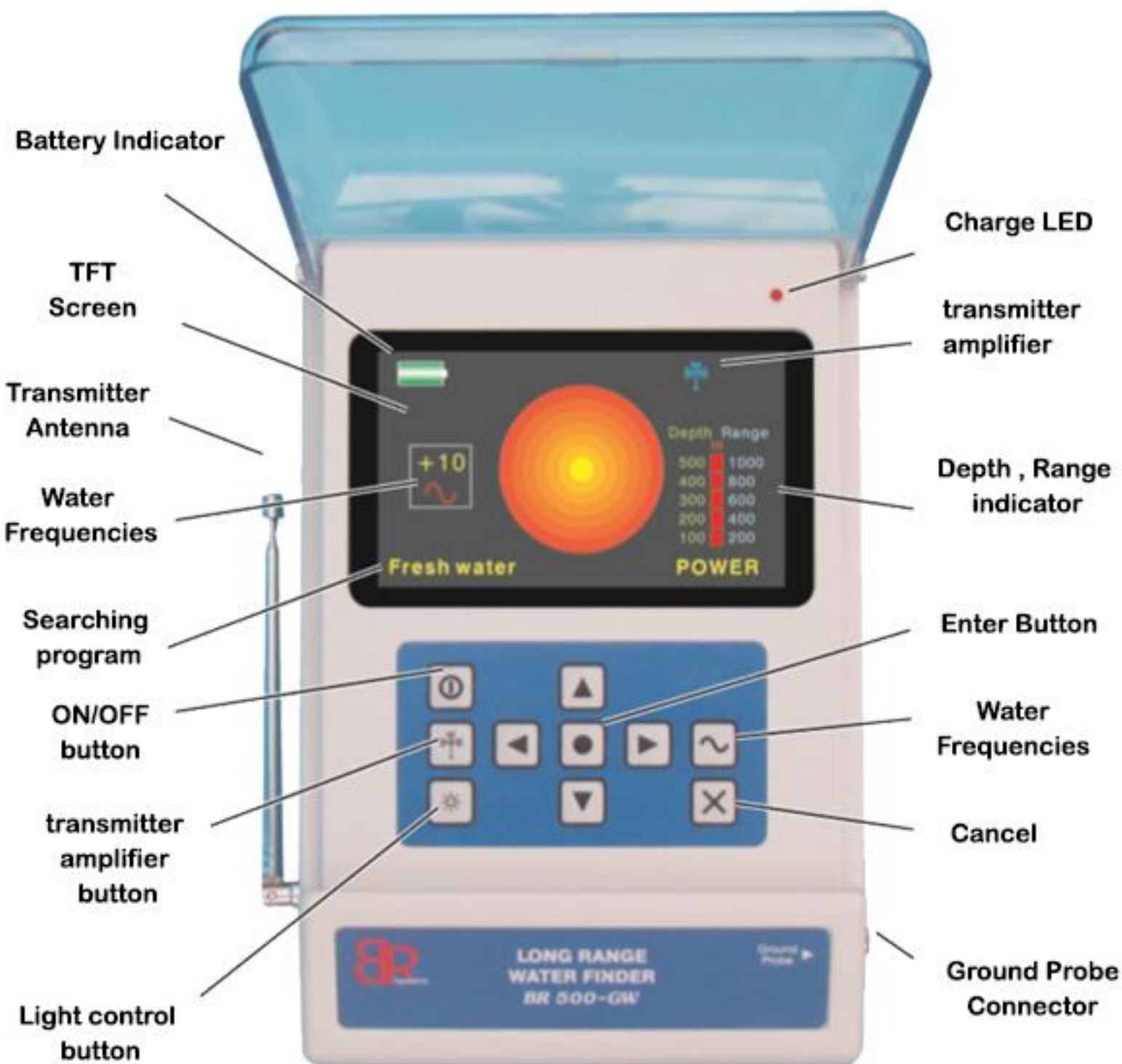
Home charger



Antenna Cable



Charger Cable



## BR500-GW Main Unit

## OPERATING INSTRUCTIONS

1 - BR500-GW as an electronic device it may affected any other electronic device For example digital watches, cell phones or any other electronic device and these devices must be far about 30 meters (100 feet) from the main unit of the device Otherwise, there can be wrong results.

2 - In every search for water reservoir, other people around mustn't be in front of the operator. Otherwise, there might be false results in searched area.



### How to use the antennas :

Before starting to search, you must learn how to hold antennas in your hands

While doing these exercises, don't turn on the device, and you must learn how to walk balanced with antennas in hand.



The antennas must be hold around 30 cm (12 inches) apart and at chest level, parallel to the floor and to each other. You can bend the antennas very little towards the floor for better balance. While walking, don't rotate the antennas left or right and don't make them bounce, because they should stay balanced at all times.

You can exercise for hours to be comfortable with this style of search , which can give you best results.You should learn well until you have good control on the antennas and get a balanced position with the antennas.You can do this exercise in a closed place like your house or outside. While exercising, you will have experience on antennas crossing over and then getting back to regular position.

Don't worry in such case, this is very normal on first trials. In the case of your body being extra sensitive, the antennas can move because of the magnetic fields of Earth. The most important thing is to continue exercising until you learn to carry the antennas balanced and stable.

You will see that even when it starts to be a little windy, you will start losing control, but after a couple hours of exercising you will see that you will be able to use the antennas properly and easily. When you are sure of using the antennas then, it is time for you to start working with the detector. For this, take everything out to the field and start exercising on buried targets

**For a trial, bury around 3-5 liters of fresh water (in a metal cup-box) 40-50 meters (120-150 feet) away from the place you will put your detector. You can make the trial with Salt water or Mineral water.**

### **How to make connection :**

1 - Insert the battery inside the detector. After inserting the battery carefully, close the lid. Firstly the rechargeable battery isn't fully charged, because of this, charge the battery for approximately 10 hours after first use.

**P.S:** You can check the battery from the battery indicator in the screen.

The indicator decreases gradually while voltage decreases. At the lowest level, the battery indicator starts to flash. The battery must be recharge in this situation.

2 - Carefully connect the ground electrode's cable to its hub on the device (Because it's a locked type, after you are done disconnect the cable by pressing the black button on it, don't pull from the cable).

3 - Put the stick the electrode in the ground about 10 cm (4 inches). If the ground is dry, pour some water on it. Be careful don't bend the tips while sticking the electrode.

4 - After inserting a 9 Volt battery to the antenna amplifier, connect it to the antennas using its cable.





# Lets turn on the device

1 - Press on/off button then the device will appear the brand and version on the display screen, then select the language in 3 seconds.

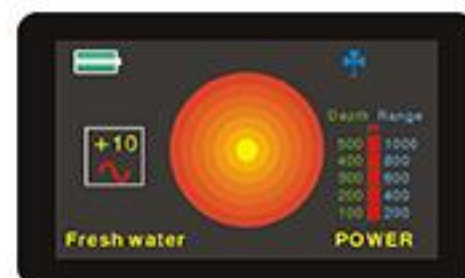
2 - By the navigation arrows, choose the desired water type.

We will continue explaining here for fresh water ,to accept the selection, press OK. After that, "Please Wait" will appear on the display then When detector is ready to search, scattering waves will be on the display.

Bring the telescopic antenna on the detector to perpendicular position and open it till the end. Press the transmitter switch  and turn on the transmitter. The transmitter sign  will show on screen. Now the operator can start detecting as seen on the next page.



## Some of screenshots in the device



## TARGET DETERMINATION DETERMINATION OF THE GROUND SIGNAL THAT GOES FROM THE DETECTOR TO THE WATER RESERVES AND HOW TO FOLLOW IT

Exercise by walking slowly until you learn to use the receiver antennas.

8 - When the operator is on the target, the antennas cross on each other.

6 - The operator must walk towards the target in the signal area.

4 - If the operator moves towards the left side of the signal route, the left antenna turns right and it's understood that the operator must go right

1 - The operator makes a full circle around the main device.

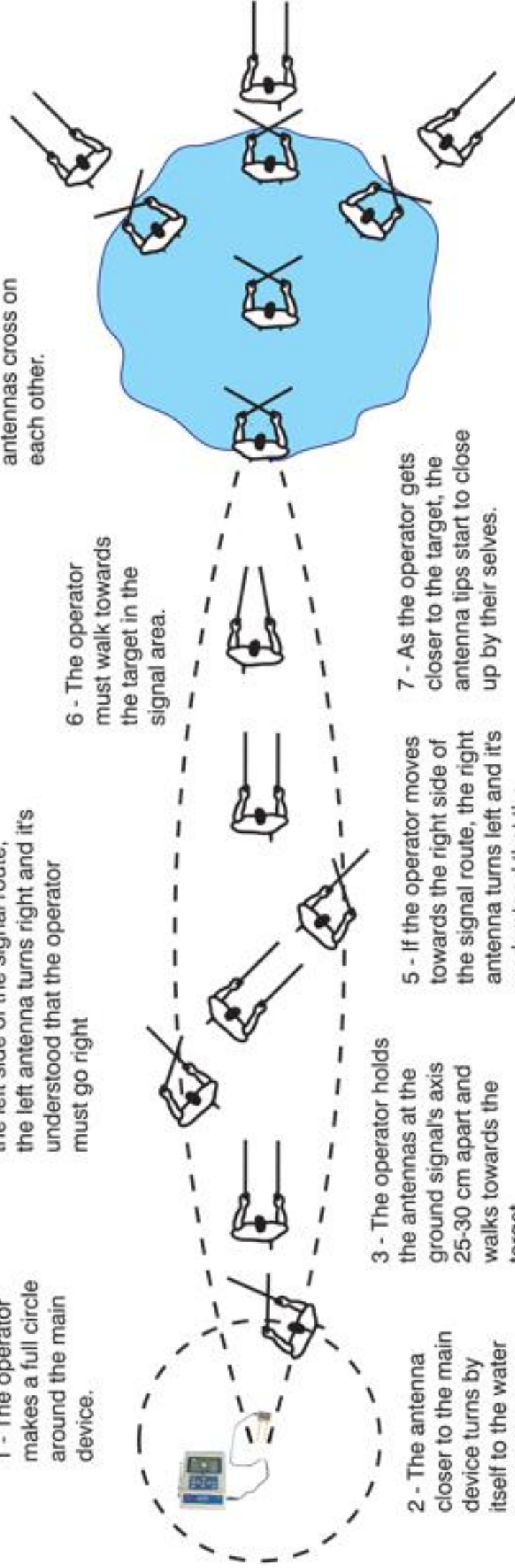
7 - As the operator gets closer to the target, the antenna tips start to close up by their selves.

5 - If the operator moves towards the right side of the signal route, the right antenna turns left and it's understood that the operator must go left.

3 - The operator holds the antennas at the ground signal's axis 25-30 cm apart and walks towards the target.

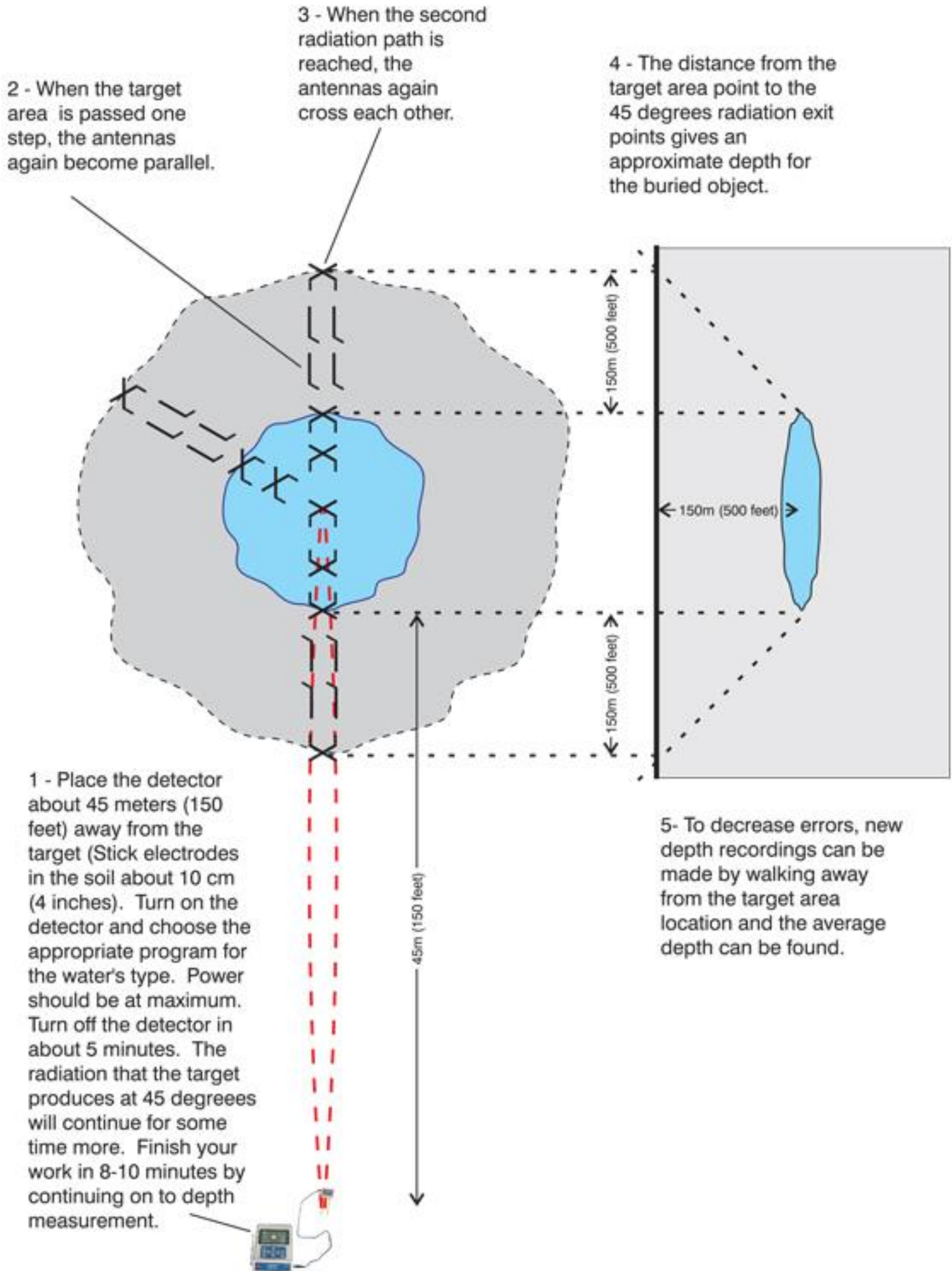
2 - The antenna closer to the main device turns by itself to the water reservoir.

P.S. The antennas stay crossed over the whole target area. The antennas become parallel when the target area is exited. This can be used to find borders of the water reserve.



## DETERMINATION OF THE WATER RESERVE'S DEPTH

Here there is shown the results and application of a depth indication application of a water reserve, that is around 150 meters (500 feet) deep.



# 10 Other explanations about usage

## 1 - SENSITIVE FREQUENCY TUNING

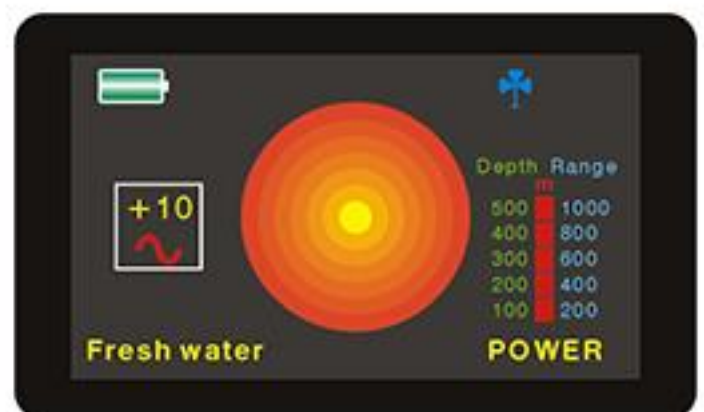
Your detector is pre-programmed to the fresh, salt, and mineral water the searching area and operator's sensitivity frequency tuning can be done. For example let's explain how this tuning is done for fresh water. At your searching area, bury 2-3 liters of Fresh water in a metal case. There is no need to bury them very deep for tuning. .

Turn on the detector and choose fresh water program then press enter for a couple seconds after that tuning screen will be on as on the figure. You can decrease or increase the searching frequency by at most 10 Hz with the left right arrow buttons. In other words every tuning grade changes the frequency about 1 Hz.

Fresh water's main frequency is 10000 Hz. If you tune it to +5, frequency will increase about 5 Hz to 10005 Hz. Or for example if you tune it to -10, the frequency will decrease 10 Hz to 9990 Hz.

To save the new tuning press enter then new tuning will be visible at the left side of the display; even if you turn off the device, all new tuning will be stored in the memory.

The operator must change the tuning and save the tuning when he/she gets the strongest response from the buried water sample.




## 2 - ANTENNA AMPLIFIER



At some operators, sensitivity can be weak and we can prevent this, by turning on the amplifier. However, frequency is at its sensitive tuning, the operator must do the sensitive tuning by burying samples in the ground.

The detector is turned on and its used at the tuning when the antennas give the strongest response to the buried sample when the sample is revolved around about 3 meters. If the response is weak, antennas are exchanged between hands without plugging off the cable.



The transmitter should be turned on with the  button when the antenna Amplifier is used.

## 3 - POWER TUNING

If you don't want your detector to search far distances and at tight areas, you must decrease its power. For this, you can use the   buttons to decrease the range. But at this situation, you must know that the depth will also decrease a little.



## 4 - SOUND NOTIFICATION

Your device has sound notification system. When the buttons are pressed there is sound notification.

## 5 - BATTERY INDICATOR

Your device is working with a rechargeable battery or with a battery box for usage for regular batteries and you can continue searching if the rechargeable battery is dead by replacing it with AA batteries .

You can check the battery state at all times from the detectors display screen. As the battery voltage decreased the battery indicator will decrease gradually and when a battery replacement is needed, the last battery grade will start to disappear.

## 6 - THE EFFECTS OF WEATHER CONDITIONS AND FIELD CONDITIONS

Explosions on the sun can have bad effects on this detector as it has on every other electronic devices all around the world. This situation in weather conditions can last a couple of minutes, hours or more.

Also you can wear gloves in cold weather. In these situations, the best will be to wait until the conditions get well.

The change in the crossing of the antennas in 30 seconds while on a buried target shows that the target is non real. This incident occurs mostly in areas with radioactive rocks.

For efficient use, not only the detector's quality is important, but also usage is very important.

For professional use, practice must be at least a couple of days, until you feel that you can use the device well



**Attention:** detection depths and ranges shown on the screen may changes according to the target size

Display screen : TFT 4,3 inch

Display screen illumination: LED

Microprocessor: ARM

Maximum frequency: 433 MHz

Control buttons: Touch operated

Receiver antennas: Special alloy, gold plated

1 pair (can be separated to 4 parts and carried in pocket)

Ground probe: Connection with special hub, special alloy, gold plated electrodes.

Operating voltage: 3,7V - 4,5V

Battery: 3x1.5V AA type

Rechargeable battery: 3,7V, 4400 mAh Li Ion

Nominal current: 350 mA

Charging adapter: 5 Volts, 2000 mA, charge indicator with LED

(When charging is done LED fully dims).

Vehicle charger: Input: 12V, Output: 5V, 1000mA USB

Antenna amplifier and filter batteries: 3x9V 6F22 type batteries

Device bag : Waterproof ABS, sponge coated

## Aftercare:

- 1 - The device was produced for hard environmental conditions. However you shouldn't forget that your detector is a sensitive electronic device. Don't be aware of using all features of your detector, but use it with care and protection.
- 2 - You must protect your detector from extreme cold and hot temperatures. For example don't leave it outside at hot summer days or in your car's trunk for a long time. Also don't leave it outside at cold winter days.
- 3 - Don't leave it under rain and at places with high moisture.
- 4 - Your detector must remain clean at all times. Clean the detector after every use. Don't use a too wet cloth etc. for this.
- 5 - If you are not going to use your detector for a month or longer, take out its battery from the battery box, don't leave the device with battery.

## Transportation of the detector:

Your detector is an electronic device and you should move it carefully

- 1- Place the separable parts in the device bag, and don't carry the parts randomly in a bag or box etc. where they can harm each other or break.
- 2- Don't leave the device out at rain, snow even if the device inside its waterproof bag.
- 3- While shipping by cargo etc. it is best for the parts to be in their original packages, or if not possible, packaged properly.

## Travelling with your detector

If you plan on travelling by air, please be aware that certain airlines have restrictions on the transport of LI-ion batteries







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