

## QUICK USER GUIDE

Once the device is switched on make the desired language selection by using “+” or “-“ keys. Press “ACCEPT” button to finalize the language selection.

When the device is switched on in “LCD” mode, **Ground Adjustment** is displayed automatically.

### GROUND BALANCE

- Lift the Search Head 40 cm above the ground and then press the “**RESET**” button, after resetting, lower the search head “**5 cm**” parallel to the ground.
- In case there is ground effect on the device an interaction is observed in the “**GROUND ADJUST**” bars that are indicated in the figure. To eliminate this effect press “-“ button for “-“ effect and press “+” button for “+” effect. Press “-“ or “+” buttons until this effect is eliminated and “**Ground Adjustment 100% Completed**” expression is displayed.

(When in ground mode the effect of ground on the device is displayed on the monitor as “**Ground Effect**”. This effect will change when ground adjustment is made.

This effect can vary between “**-201** and “**+201**”).

**Example:** If you get “- 46” ground effect on the device after lowering the Search Head then you have to eliminate this ground effect by pressing “-“ button 23 times. With another word; dividing whatever ground effect result you get in 2, pressing “+” for “+” ground effect and “-“ for “-“ ground effect. If you still get any ground effect after this stage then you have to do a fine adjustment by increasing or decreasing by using “-“ or “+” button until eliminating the ground effect.

If there is no ground effect on the device there is no interaction on the bar that is indicated in the figure and “Ground Adjustment 100% Completed” expression is displayed. In this case the device is ready for exploring and you may switch to explore mode by pressing the “ACCEPT” button.

**Note 1 :** Ground balance should be performed on the ground where there is no metal or cavity. Otherwise, the equipment will detect that you perform ground balance on a metal or cavity and warn you accordingly. In such case, change your location and perform ground balance.

**Note 2 :** When ground balance cannot be performed completely in case of grounds having high mineral level, return to “SENSITIVITY” menu and reduce sensitivity level. Continue this operation until you perform ground balance completely.

**Note 3 :** It’s recommended using the device 70% or 80% sensitivity for new beginners.

### SEARCH MODE WITH LCD SYSTEM

- Hold the search head **10-15 cm** above and parallel to the ground. You can explore by moving the search head slowly with a right or left sweeping motion or by walking straight. Try to detect a target by exploring this way.
- When the device detects a metal or a cavity it gives a sound alarm and interaction occur on **CAVITY, METAL, IRON and VALUABLE** bars according to the power of the signal. At the same time the effect of the target can be monitored on the graph above the bars. Metal targets are indicated with upper projecting lines and void targets are indicated with lower projecting lines on this graph.

- Ground effect that may be formed together with the target is also displayed on the display. This ground effect is indicated to the operator as “**CAVITY**” or “**METAL**”
- If the target is a **CAVITY**, there is a raise on the “**CAVITY**” bar and decrease in the graph. The intensity of the “**CAVITY**” bar is indicated as % on top depending on the magnitude of the effect of target.

### GETTING ANALYSIS REPORT OF THE TARGET

To get an analysis report by analyzing the detected target during exploration:

- Press the “**RESET**” button by removing the search head off the target after the target is detected.
- Press and hold the “**SCAN**” button when passing over the target again slowly. At that moment the device analyzes the target.
- Release the “**SCAN**” button after you pass over the target.
- After this operation the device presents the “**ANALYSIS REPORT**” to the operator. Type of the metal, magnitude of the target and the ratios of other environmental effects are received.

### DETECTION OF TARGET DEPTH

For detecting target depth during exploring:

- Press the “**DEPTH**” key when in Search Mode after the target is detected.
- First the dimensions of the target should be determined in depth mode. This operation is explained in detail with operator **Help Menu**.
- To enter the **Help Menu** form a yellow frame around the “**HELP**” window by using “+” and “-” keys.
- Press the “**ACCEPT**” button after forming this frame. In this menu it is explained in detail how to determine the dimensions of the target.
- To enter the determined width dimension place the yellow frame on “**Width**” by using “+” and “-” keys. Press the “**ACCEPT**” button to convert the yellow frame to green.
- Enter the “**Width**” value by using “+” and “-” keys. Press the “**ACCEPT**” button after entering the width value and convert the frame into yellow.
- To enter the determined length dimension place the yellow frame on “**Length**” by using “+” and “-” keys. Press the “**ACCEPT**” button to convert the **Yellow** frame to **Green**.
- Enter the “**Length**” value by using “+” and “-” keys. Press the “**ACCEPT**” button after entering the length value.
- Press and hold the “**SCAN**” button after this operation and pass over the target again and release the “**SCAN**” button when the beep sound is out.
- After this operation the device presents an “**Analysis Report**” that indicates whether the target is **METAL** or **CAVITY**, entered dimension values and environmental effects.
- Press the “**ACCEPT**” button to leave.
- Switch back to Depth mode and switch to search mode by pressing the “**DEPTH**” button.

It's extremely important to get accurate dimension of the target. Getting the right measurement of the target will also help you in determination of the targets depth.

#### MAKRO GRUP ELEKTRONIK MUHENDISLIK SANAYI A.S.

Camlik Mah. Alemdag Cad. No: 659, 34782  
Cekmekoy, Umraniye - ISTANBUL / TURKEY

Tel : +90 216 642 1 444

Fax : +90 216 641 61 65

E-Mail: [info@makrodetector.com](mailto:info@makrodetector.com)

Web : [www.makrodetector.com](http://www.makrodetector.com)