

# USER GUIDE

## CF77 COIN FINDER



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

# CAUTION!

## PLEASE READ CAREFULLY BEFORE OPERATING THE DEVICE!

You have to follow local legislation and regulations while using the device. This device must not be used in military zones, residential areas and ruins. Related authorities must be informed about the historical and cultural findings encountered in searches.

- 1- This device must only be repaired by authorized service, the warranties of devices unpacked by the user or third parties are void.
- 2- The device and coils should not be stored in extreme cold or hot environments for a long time. Suitable range of temperature is 0 to 45C.
- 3- The device should not be installed or operated without reading the user manual.
- 4- Device and the accessories should not be submerged into water or stored in excess moisture, except for the coil.
- 5- The device should be protected against the impact that may occur in transport.

# CONTENTS

Search coils .....	1
Parts and accessories .....	2
System (control) unit .....	3
Battery .....	4
Assembly .....	5
Usage .....	7
Settings .....	9
Ground setting .....	10
Search and metal detection .....	11
Troubleshooting and maintenance .....	13
Technical specifications .....	14

**Thank You for Choosing Makro Detektör.**



# SEARCH COILS



## **C28 Coil and Cover (Standard Package)**

**28 cm (11")**

Standard coil. Water resistant Double-D coil designed for surface and deep searches.



## **C23 Coil and Cover (Pro Package)**

**23 cm (9")**

Water resistant Double-D coil mainly designed for surface and beach searches. Does not tire the user thanks to the lightness and provides better movement capability in narrow areas.

It is used to detect small metals in the surface or close to the surface. Its performance and success in metal separation make it suitable in waste metal rich areas.



## **C45 Coil and Cover (Pro Package)**

**39 x 45 cm (16 x 18")**

Water resistant Double-D coil designed for users requiring deeper search. It provides more advantage compared to standard coil. It helps you to reach your targets in large areas with its large area scanning feature in searches.

# PARTS and ACCESSORIES

**System Unit  
and Armrest**



**S Tube**



**Extension Tube**



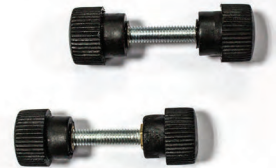
**Headphone**



**Coil Connection  
Parts**



**System Unit  
Connection Parts**



**Battery Box**



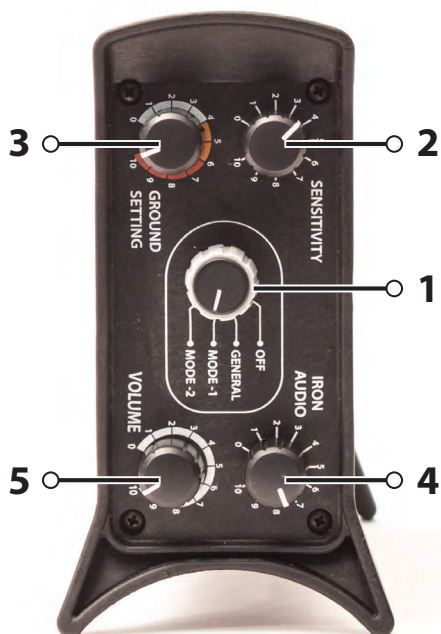
**Battery Box  
Cover**



**Carry Bag  
(Pro Package)**



# SYSTEM (CONTROL) UNIT



- 1- On/Off and Mode Selection switch
- 2- Sensitivity
- 3- Ground Setting
- 4- Iron Audio
- 5- Volume

- 6- Coil Input
- 7- Battery Input
- 8- Headphone Output

# BATTERY



Your device is delivered with AA Alkaline battery and battery box.



Place the batteries in the battery box considering + and – terminals.

AA Alkaline batteries are recommended for best performance. Besides, good quality NiMH Rechargeable batteries can be used. High mA batteries provide longer use compared to low Ma batteries.

Fully charged alkaline batteries last maximum 30 hours. Other type and brand of batteries in the market may differ in operating life.

## **LOW BATTERY POWER**

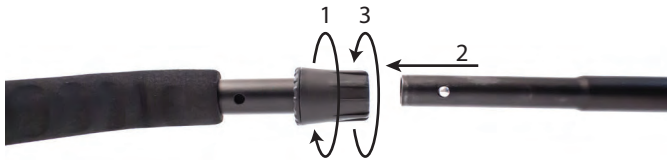
When battery is low, device sounds alarm approximately every minute. When this is heard, the device operates 3-4 more hours.

# ASSEMBLY



1

As seen in the picture, fasten the S-Tube by passing it through armrest and adjusting the length.



2

By holding the metal button on the upper tube, mount it on the S-Tube and tighten its sleeve by inserting the metal button in the socket.

1



2



3



3

- 1- Insert the seals in the sockets at the end of the extension tube.
- 2- Insert the extension tube in the connection port on the coil.
- 3- Place the screw in the hole on the coil and tighten with a nut on the other side.



# ASSEMBLY

4



By winding coil wire as seen in the picture, fasten and tighten the connector at the end of the wire in the coil input under the system box.

5



In case you want to use the battery on the device, mount the belts to the cover in bottom-up direction as seen on the picture then fasten the cover on the system box with the belts.

6



In case you want to carry the batteries on you, remove the belts from the cover and fasten it to your belt.

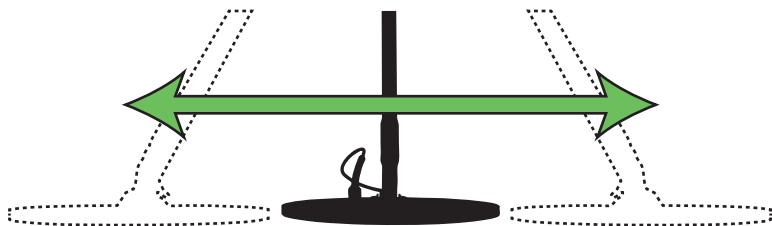
7



Plug the battery connector with the battery socket under the system box and fasten by tightening.

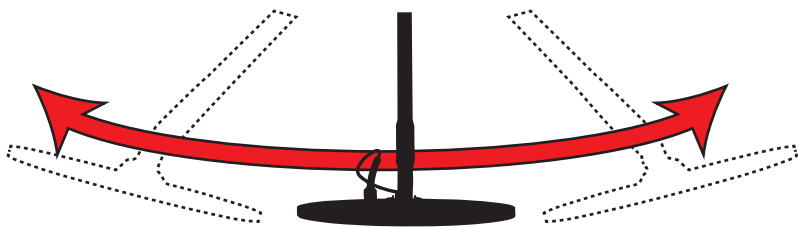
# USAGE

**RIGHT**



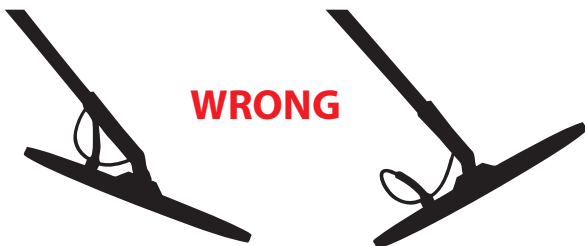
Ensure that coil always remains parallel to the ground during searches.

**WRONG**



Failing to keep the coil in a position parallel to the ground may cause faulty results.

**WRONG**

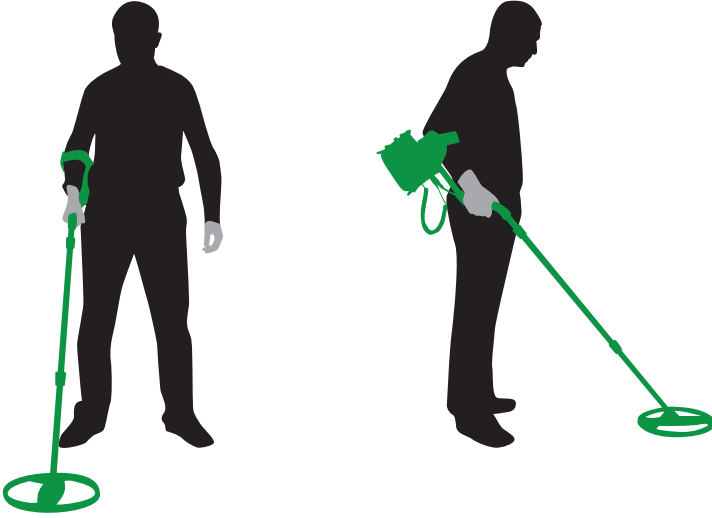


**RIGHT**

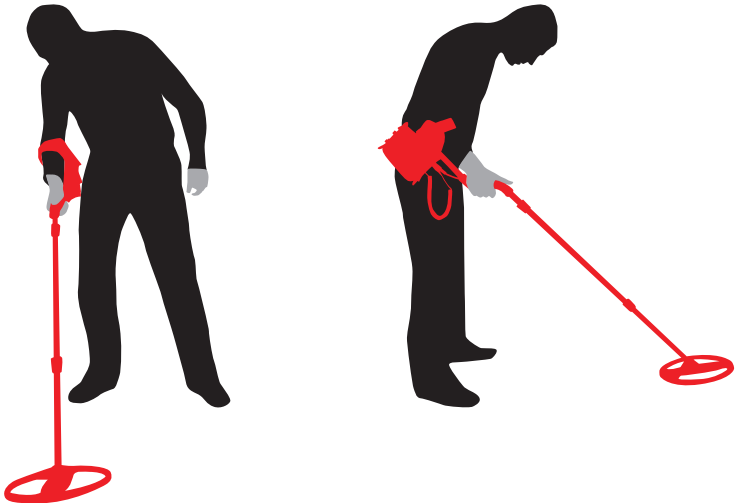


# USAGE

CORRECT HOLD



WRONG HOLD



# SETTINGS

**GENERAL:** In this mode, the device runs at maximum depth search. At the same time, the device produces single type of sound without metal discrimination. Iron Audio button is not active in this mode.

**MODE 1:** The device discriminates metals in this mode. (This is for deeper searches than MODE 2.) Produces 3 different sounds to metals. 2 similar sounds for non-ferrous metals and gold, a deeper sound for ferrous metals.

**MODE 2:** In this mode, the device provides metal discrimination as well as providing more convenient operation in beaches and areas rich in minerals. It is recommended that this device is used in areas rich in iron mineral, beach and tillage where ground setting is not possible.

## GROUND SETTING

This is a setting done to eliminate noise and interference caused by minerals in the ground. Ground setting provides the device with a higher performance and prevents it from transmitting wrong signals caused by the area rich in minerals.

## SENSITIVITY

Sensitivity setting is made to prevent noise from the ground or wrong signal sounds caused by some electromagnetic interference (electrical machines, radar, radio, TV, electric lines) in the environment. Sensitivity setting is also the depth setting. When sensitivity is set to be at maximum level, depth will increase to maximum too.

## IRON AUDIO

This is a part providing ferrous metal detection setting and allowing to turn on/off the sounds of these metals. Iron audio is only active in Mode 1 and 2.

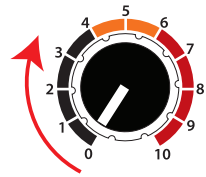
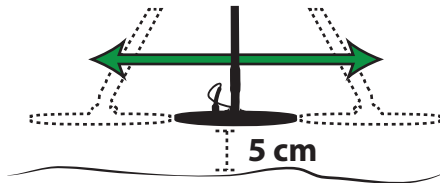
Iron audio is also used to eliminate misleading signals caused by iron minerals in the ground.

## VOLUME

This button controls device sound level. It allows the detection of weak signal sounds received by the deep or small metals by magnification. Level 10 is the level where sound is the highest, as this level turns all the sounds up, misleading signals and ground noise will also go up. Gradually turning the volume down from level 10, weakens the sound and turns it off in the end.

# GROUND SETTING

In order to switch on the device, on/off switch should be brought to the desired operation position (General, Mode 1 or 2). A short sound will be heard showing that the device is ready to use. You can switch the device off by turning the switch to OFF position.



GROUND SETTING is set to "0" and SENSITIVITY is set to "10". Search is done by lifting the coil by 5 cm from the ground and moving it right to left in a parallel fashion. Meanwhile, in order to eliminate ground effects, GROUND SETTING button is turned from left to right slowly and released when the sound stops. Your ground setting is completed.

In case the ground being searched has a variable nature, you should do the ground setting in areas where the most ground effect is received (such as rock or hole) in order to minimize the ground effect while searching.

It should be noted that ground setting level does not exceed level "7". In these levels, the device provides most stable search. Over level "7", device detects iron and gold but may cause depth loss for some other non-ferrous metals. In these cases, ground setting should be repeated by gradually decreasing sensitivity.

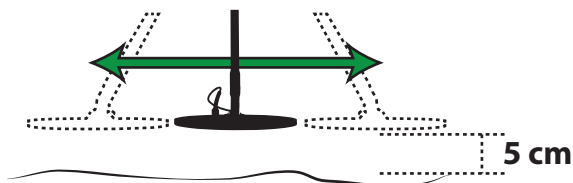
## Ground setting in areas with minerals

In case ground setting cannot be achieved and the device produces deep sounds when iron sound is over level 5, this means the ground being searched includes iron minerals. Another case when ground setting cannot be achieved is when the ground is abundant in minerals.

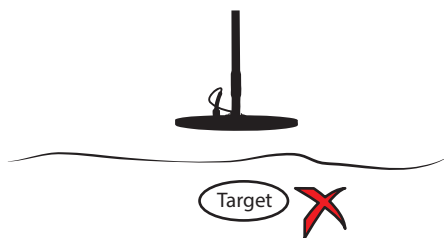
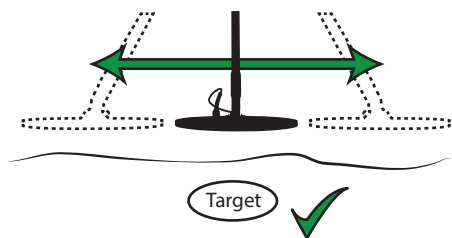
In these areas, if the ground setting cannot be still achieved even if the sensitivity is decreased, you should change to Mode 1 or 2 and IRON AUDIO must be in minimum.

**NOTE:** When there are changes in effects received from the ground or the environment, sensitivity and ground settings should be repeated.

# SEARCH AND METAL DETECTION

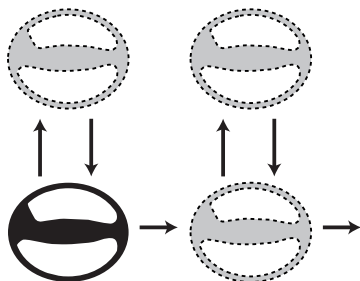


Upon completion of the settings, you can start exploring by lifting the head by 5 cm from the ground and moving it right to left in a parallel fashion.



CF77 is a device that operates depending on the motion. That's why it should be moving to detect metals. As the device operates on the principle of automatic reset, it does not detect the metal if you hold it steady on the metal.

Device provides metals with single sound in GENERAL MODE and 3 different sounds in MODE 1 and 2. 2 similar sounds for non-ferrous metals and gold, a deeper sound for ferrous metals. It is recommended that you test the device with different metals to be able to recognize the sounds. This will make the search more convenient for the user.



Moving the device both right to left and left to right on the ground will make it easier to detect the metals difficult to detect.

# SEARCH AND METAL DETECTION

## **Interference Elimination**

In case there is still interference even after other settings are done (ground setting, iron audio), it is necessary to turn sensitivity down. As sensitivity setting will affect depth, it should be done gradually.

## **Eliminating ferrous metals**

In case you do not want ferrous metals to be detected, IRON AUDIO button should be set to the minimum. In this way, device does not produce sounds for ferrous metals in search. When iron audio is turned right, it will provide a deeper sound to ferrous metals.

If you are searching in areas rich in minerals and would like to detect ferrous metals, IRON AUDIO is first set to maximum. Then, turned left till iron sound coming from the ground is not heard anymore. This process will eliminate iron mineral sounds and allow the device to detect ferrous metals.

## **WARNING!**

As in all metal detectors, the device may not provide 100% accuracy because metals send different signals depending on their positions, depth, mineral intensity, conductivity and shapes. For example; rusty sheet or can in the ground may send gold like signals. In these cases, it is best to dig to find out.

## **Digging the target out**

When the target is detected, dig the surface by 3–5 cm and check the signal again. If no signal is received, the target is in the dig part.

If the target is still in the ground, cut the section which you think includes the target using a sharp tool. This prevents the material to be scattered around and makes it easier to fill in the hole. Check if the target is in the hole dig. If the target is not in the hole, place the detector on the ground by maintaining parallel position of the head and grasp some soil and move it around the bobbin. Make sure you do not have ring, watch, bracelet, etc. on you. Repeat this action till you find the target. Fill the hole back when you make sure no more targets are left in the ground.

# TROUBLESHOOTING and MAINTENANCE

## **Device is not operating at all?**

1. Check the battery power and connections.
2. Make sure that the battery terminals are placed correctly.

## **Device receives interference?**

1. Make sure that the coil is tightened and wrap the bobbin wire around the shaft.
2. Walls or ground might have metals if you are using the device indoor.
3. There might be another detector operating and you might be close to power grid.
4. Set the sensitivity.
5. Ground is rich in minerals.

## **Device receives signals with uncertain intervals.**

Intervals might mean different angle or very deep targets. Do the search from different angles or dig by 5-10 cm.

CF77 that you have purchased does not require extensive maintenance as it is manufactured with high quality material. Following are the recommendations in order to get the best performance and be able to operate the device for a long time:

- 1- If you will not use the device for some time, remove the batteries. If batteries leak, serious damages may occur in battery box. Your device warranty will be void because of user error.
- 2- Keep the device clean, if there is dust and sand accumulation around the device, wipe with a wet cloth and dry with a dry cloth. Sand and dust may damage function buttons.
- 3- Do not rub the head on the ground. Replace the protective cover if it is worn in order not to damage coil.
- 4- Control box is designed resistant to humidity but it is not water resistant. Therefore, control box should not contact water.
- 5- Never let the device contact petroleum-based products.



# TECHNICAL SPECIFICATIONS

<b>Operating system</b>	VLF
<b>Frequency</b>	17.5 KHz
<b>Metal detection</b>	Sound
<b>Sound Discrimination</b>	3 different sounds
<b>Ground balance</b>	Manual
<b>Headphone output</b>	1/4" Mono

	<b>C23 Coil (Pro Package)</b>	<b>C28 Coil (Standard Package)</b>	<b>C45 Coil (Pro Package)</b>	<b>System Unit and Handset</b>
<b>Dimensions</b>	23 cm	28 cm	39 x 45 cm	127-152 cm
	9"	11"	16 x 18"	50-60"
<b>Weight</b>	460 gr	550 gr	850 gr	1.090 gr
	(1 lb - 16 oz)	(1.2 lb - 19.4 oz)	(1.9 lb - 30 oz)	(2.4 lb - 38.5 oz)

Total weight including standard C23 coil (battery excluded): 1,640 gr (3.6 lb - 57.8 oz)

<b>Battery</b>	AA Alkaline or AA NiMh Rechargeable Battery
<b>Operating voltage</b>	10V - 16V
<b>Battery weight</b>	190 gr (0.4 lb - 6.7 oz) (8 pieces f AA batteries)
<b>Battery box weight</b>	180 gr (0.39 lb - 6.3 oz)+ 80 gr (0.17 lb - 2.8 oz) battery box cover

## 2 years of warranty

**NOTE:** Battery, bags and headphone are not in the scope of warranty.



## MAKRO DETECTOR

[info@makrodetector.com](mailto:info@makrodetector.com)

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

## DEALER

