

Portable Metal Detector



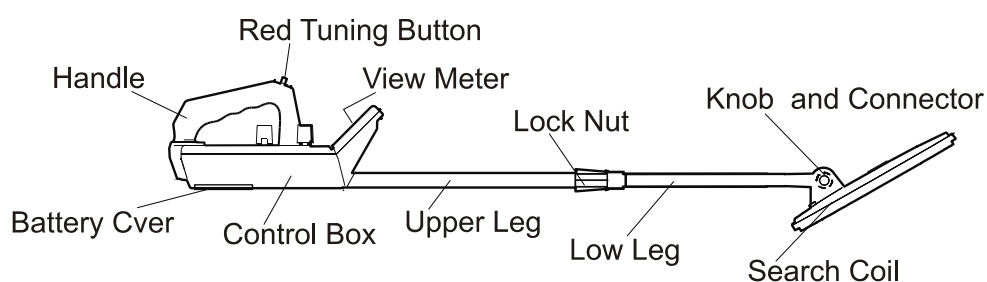
User Manual

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Specification:

- Operation Modes:Single
No-motion Mode: As long as there is a metal object around the search coil,the detector will have a response.
- Adjusting DISCRIMINATION
- Adjusting TUNE
- Adjusting VOLUME
- MODE Switch: OPERATE, BATT TEST
- BATT TEST
- 6.5" Search Coil
- 3.5mm Earphone Jack
- Requires 6 x AA batteries
- Adjustable Length of aluminum stem: 25"-40"



Assembly

Assembly is easy and requires no special tools.

1. Rotate the bushing at the aluminium stem's end to loosen it, slightly insert the

aluminium stem into the bushing. Adjust the stem to a length that lets you maintain a comfortable upright posture, with your arm relaxed at your side. Keep the search coil above the ground for about 1/2 inch, and then tighten the stem locking nut counterclockwise. (Figure.1)

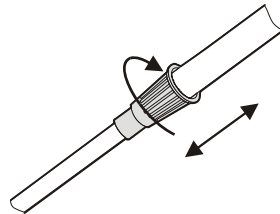


Figure.1

2. Loosen the knob at the search coil's end, adjust the search coil to the desired angle so that it is parallel with the ground. Please note not to mistake the search coil position. (Figure.2)

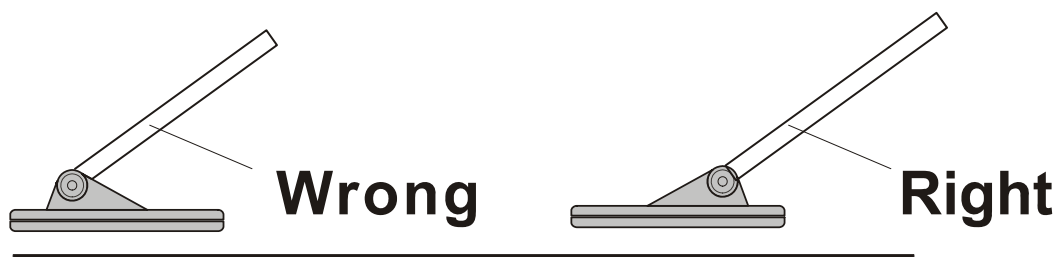


Figure.2

Batteries

Please use 6 x AA alkaline batteries (not included).

- According to the direction of the “OPEN” arrow on the battery compartment, pull out the battery compartment cover. Insert 6 x AA batteries into the compartment as indicated by the polarity symbols marked inside the compartment (Figure.3).

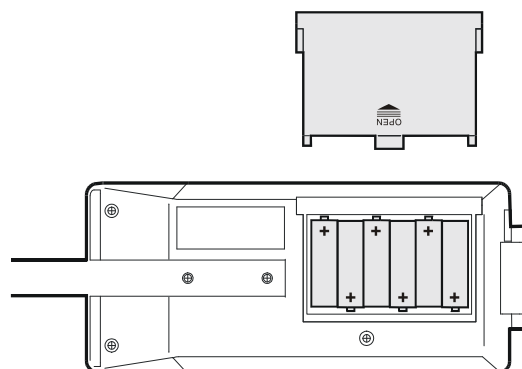


Figure.3

- Reinstall the battery cover, a tone may be heard.
- The battery life for 6 x alkaline batteries is up to 40 hours. If you don't plan to use the unit for a long time, remove the batteries.
- Don't mix new and old batteries.

Panel And Controller

The Panel Controller (Figure.4)

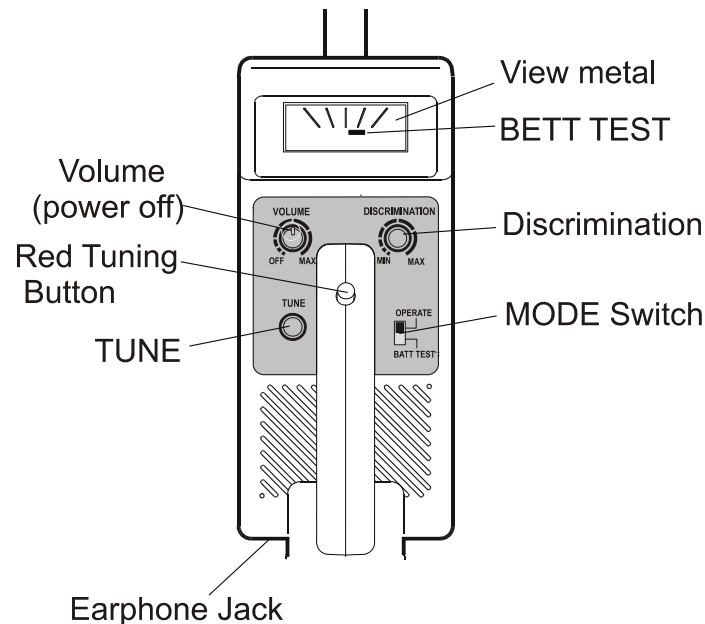


Figure.4

- Power off: Power on/off power supply. The same knob with the Volume.
- Mode Switch: Two modes
 OPERATE: Set it to this mode,when detecting
 BATT TEST: Set it to this mode,when testing battery.
- TUNE: It is cooperated with the Red Tuning Button,and adjust balance. Let the detector be in normal operation state.
- Red Tuning Button: It is cooperated with TUNE to adjust balance.
- Discrimination: Adjust Discrimination will help the operator to differentiate the ferrous metals and nonferrous metals. Note:when it's in the "MIN" position,the detector sensitivity is the most strongest.
- Volume: Is used to adjust the loudness of the volume
- BATT TEST: Set the mode switch to "BATT TEST", if the view meter falls outside the green zone,indicates you should replace the battery.
- Earphone Jack: Use 3.5mm earphones or headphones

Quick Start:

1. Prepare with different types of metals

2. Lay the metal detector properly

In order to avoid the metals influence the detector, be sure to lay the the metal detector properly.

- Lay the search coil properly, keep the angle between search coil and aluminum stem is about 140° . Please note not to mistake it(Figure.5)

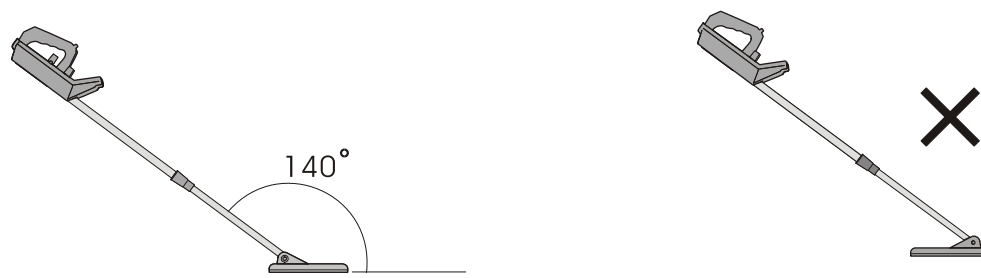


Figure.5

- Place the detector on a wooden or plastic table. Let the search coil exceeds the table edge about more than 15cm.(Fig.6)

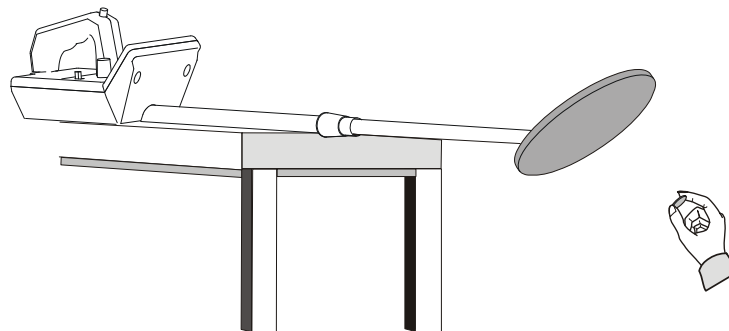


Figure.6

- Please take off any watches, rings or other metal objects on your hand or arm. Keep the detector away from the wall, floor and other metal objects.
- Be sure to keep the detector away from the light, TV's ,computer's and mobile phones, which can cause electro-magnetic interference.

3. Turn on:

Turn on the power supply, and set the mode switch to “BATT TEST”.Check whether the meter pointer falls in the green region.

4. Adjust balance.

- Set the MODE switch to “OPERATE”(Figure.7), Press and hold the “red Button”,and adjust the “TUNE”knob,let the meter pointer points “0”position, release the Red Button. The meter pointer should maintain near the “0”,now the balance has been adjusted. The detector is in the sensitive detection state.(Fig.8).

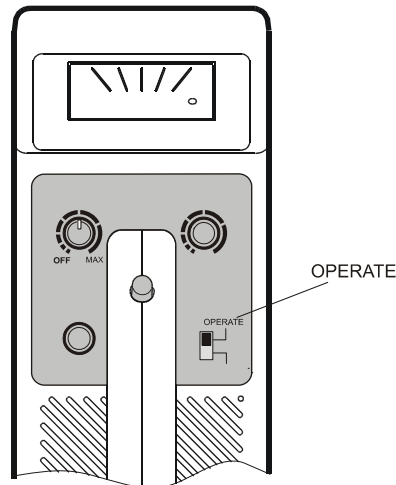


Figure.7

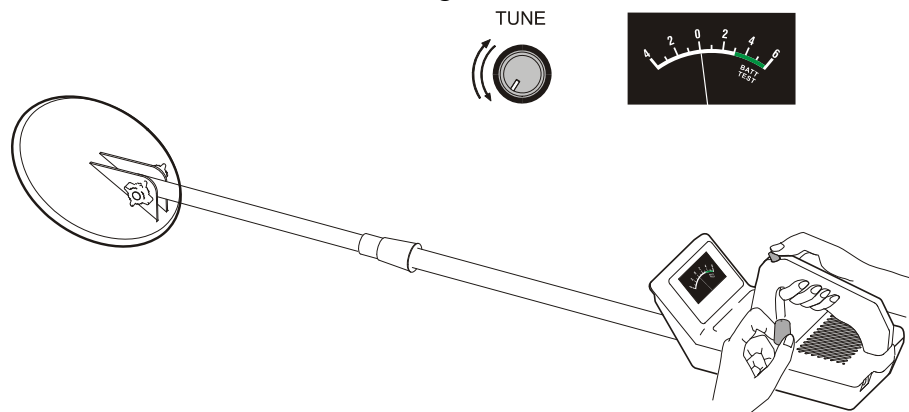


Figure.8

- Adjust the volume potentiometer, adjust it so you can hear a light hum tone, don't adjust it too loud.
 - Once you adjust the "DISCRIMINATION" button, you should adjust the balance over again. In general, you should only press the Red Button to let the detector return to the balance state.
 - During operation, if there is no metals around detector, while the meter pointer deviates from the "0" position, you should also adjust the balance over again.
5. Test samples, discriminate ferrous metal and nonferrous metal.
- Set the "DISCRIMINATION" knob to "MIN". Adjust the balance to let the meter pointer points "0". Adjust "VOLUME" to let the detector sound a light hum tone.
 - Let the metal samples approach the search coil in turn, pay attention to the meter pointer swing and the voice change.
 - When an iron nail for example approaches the search coil slowly, the meter pointer will deflect to the left, and the sound will turn on softly. When the iron nail is more closer to the search coil, the meter pointer will deflect to the left

more and the sound is softer,until it disappears.(Figure.9)

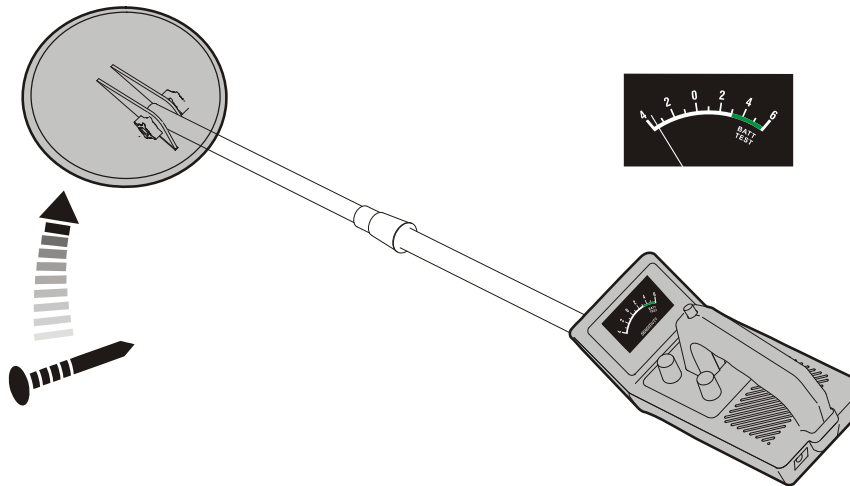


Figure.9

- Let other nonferrous metals approach the search coil,the meter pointer will deflect to the right,and the sound will turn louder. (Figure.10)

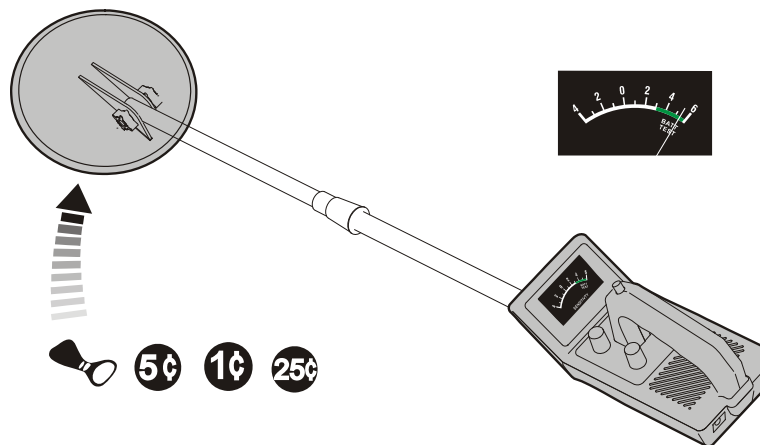


Figure.10

6. Discriminate silver

- Set the “DISCRIMINATION” knob to “MAX”.Adjust the balance to let the meter pointer points “0”and the detector will sound a light hum tone.
- Let a coin approach the search coil slowly,the meter pointer will deflect to the right,and the sound will turn loud. (Figure.11)

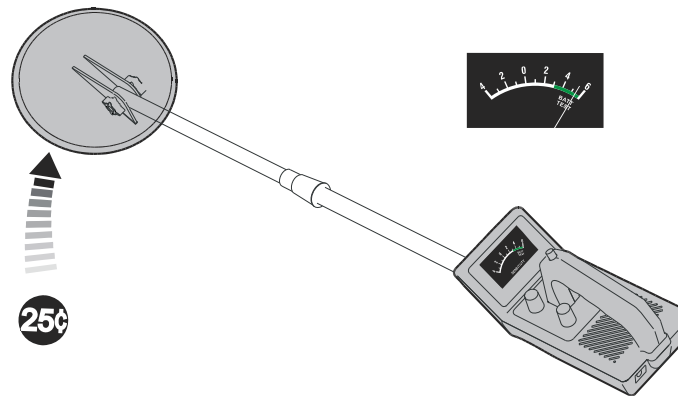


Figure.11

- Let other metal samples approach the search coil slowly, the meter pointer will deflect to the left, and the sound will turn light. (Figure.12)

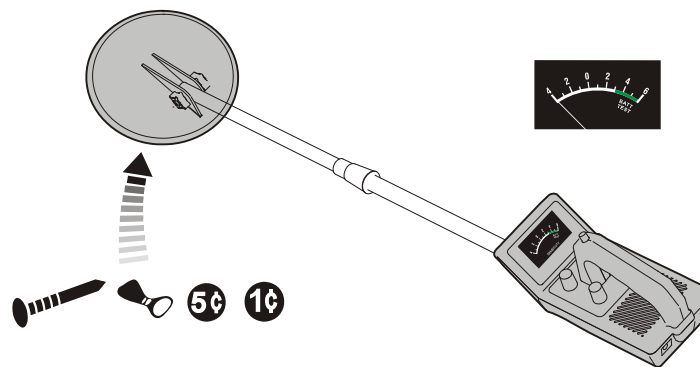


Figure.12

7. Discriminate different metals approximately

- Set the DISCRIMINATION to about “12:00” position (Figure.13). Adjust the balance to let the detector sound a hum tone, and the show is “0”

DISCRIMINATION

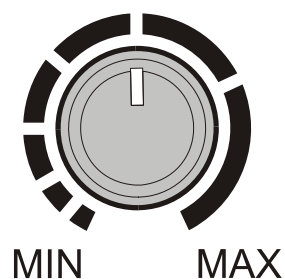


Figure.13

- Let the iron nail or coin for example approach the search coil slowly, the sound

- tones are light, and the meter pointer deflects to the left.
- Let the higher conductivity objects such as zinc or silver approach the search coil slowly, the sound tones will be louder, and the meter pointer deflects to the right.
 - The “12:00” position is the nickel discrimination position.
 - Rotate the “DISCRIMINATION” knob from “MIN” to “MAX”, you can find the different metals discrimination position. The metals with low conductivity, discrimination position is near the left side, and the iron discrimination position is in the most left (MIN). The metals with high conductivity, discrimination position is near the right side, and the silver discrimination position is in the most right (MAX).
8. Explanation
- Discriminating metals is based on the change of sound and meter pointer direction. The discrimination is preliminary, and it's only a reference for treasure hunters.
 - When the DISCRIMINATION is in the “MIN” position, the detector sensitivity is the maximum.

Field Operation

Field detection is more complicated, the composition of the detected regional soil, the component, size, shape and the oxidation degree of the underground metals will all affect the detection results. The operator should practice time after time and accumulate experience to achieve good results.

1. Turn on

Rotate the VOLUME knob to the right side, switch on the power supply. Set the VOLUME to the mid, the detector may sound a tone or may be silent.

2. Choose MODE: set the mode switch to “OPERATE”.

3. Adjust balance

Press and hold the “red Button”, and adjust the “TUNE” knob, let the meter pointer points to “0” position. Release the Red Button, the meter pointer should maintain points to “0” position or near the “0” position. Adjust the “VOLUME”, the detector sound a light hum tone, now the balance has been adjusted.

We remind the operator specially, once you adjust the “DISCRIMINATION” button, you should adjust the balance over again. When the detection environment has a change, you should also adjust the balance over again.

In general, after the balance being adjusted, and some balance deviation being occurred, you should only press the Red Button to let the detector return to the balance state.

4. Adjusting volume

The detector is based on the direction of meter pointer deflection and change of sound to detect metals, and it's more sensitive to judge by the sound. After the balance is being adjusted, adjusting the volume will get a light hum tone, don't adjust it too loud.

5. Adjust DISCRIMINATION

In general, set the “DISCRIMINATION” to “MIN”, the sensitivity is the most at this time. If you find a ferrous metal, the detector tone will sound softly, and the meter pointer swing to the left. If you find a nonferrous metal, the detector tone will turn louder, and the meter pointer swings to the right. You should further determine the general type of nonferrous metals by DISCRIMINATION.

Since the soil will deviate the discrimination position, we suggest you take some samples with you. Bury these samples in the detection soil respectively, try detecting and observe the different metals discrimination position. It will help you judge the type of the target, in case you omit the treasures that you want to find.

6. Move the search coil

When moving the search coil, you should move it at a constant speed, not unsteadily. Let the search coil be parallel with and about 1/2 inch from the surface, not to swing it like a pendulum high and low above the ground. (Figure.14,15)



Figure.14

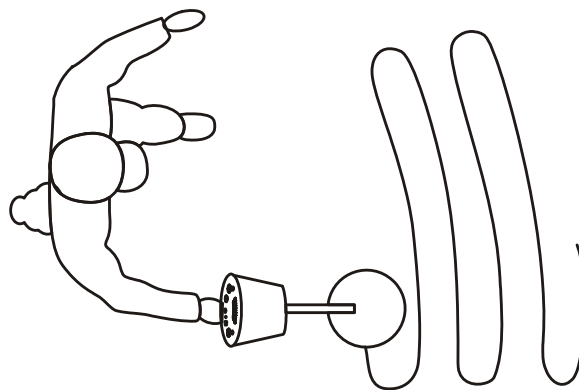


Figure.15

When finding metal objects, you should move the search coil on the ground according to figure 16, In order to determine the metal position exactly. The nearer the search coil from the object, the more strong the response is.

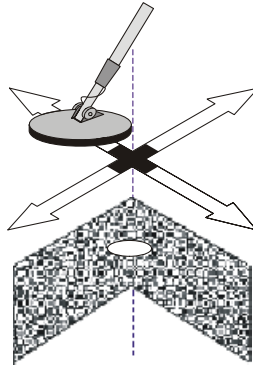


Figure.16

Caution

- 1) Before detection every time, you should press Red Button to adjust balance, let the detector be in most sensitive state. But when detecting, you should not press the Red Button.
- 2) The volume should be adjusted so you can just hear the sound, don't adjust it too loud.
- 3) Always obtain permission before searching any site.
- 4) Keep away from the region that may bury electrical lines, cable lines or pipelines, in particular the pipes that are full of flammable gases and liquids.
- 5) Do not detect in the military area that may bury bombs or gas explosives.
- 6) When digging out the target, use the reasonable method, do not destroy the vegetation. Leave the land and vegetation as it was after excavation.
- 7) When using earphone, don't set it too loud, in case it'll destroy your hearing.

TROUBLE SHOOTING GUIDE

SYMPTOM	SOLUTION
No power (The mode switch is set to BATT TEST, and the meter pointer isn't in the green region.)	1. Be sure that the polarity of batteries are installed correctly. 2. Replace the batteries.
The unit is silent when turned on, and the meter pointer doesn't move, it seems there is no electricity. But the mode switch is set to BATT TEST, and the meter pointer is in the green region.	The balance has a deviation. Press the Red Button, and adjust the TUNE knob to let the detector be in balance state.
Adjust the balance, but it has no response.	The mode switch isn't set to "OPERATE".
Sound an irregular tone.	1. Make sure there is no other metal detector operating around. 2. Don't use it indoors, because there are many metals there. 3. Make sure whether there are electromagnetic interference sources, such as power lines, cables, electronic

	fences and so on. Keep away from these areas. 4.The ground can be magnetized.
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PARTS LIST

Part	Description	Q'ty
1	Potentiometer	1
2	Potentiometer	1
3	Switch	1
4	Paper flannel	1
5	View Metal	1
6	Metal Cover	1
7	Adhesive Sticker	1
8	Control Dials	3
9	Console Cover	1
10	Switch	1
11	Red Button	1
12	Hendle Section(Right)	1
13	Nut	2
14	Hendle Section(Left)	1
15	Lock Nut	1
16	Tapered Bushing	1
17	Upper Leg	1
18	Bolt	1
19	Bolt	1

PARTS LIST

Part	Description	Q'ty
20	Bushing	1
21	Search Coil	3
22	Coil Pivot	1
23	Knob	1
24	Lower Leg	1
25	Bushing	1
26	Threaded Insert	1
27		1
28	Bolt	
29	Battery Cover	1
30	Sticker(headphonea)	1
31	Bolt	4
32	Nut	1
33	Housing	1
34	Headphone Socker	1
35	PCB	1
36	Bolt	2
37	Potentiometer	1

