

# MET-110

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## **Safety information**

Please read the safety instructions carefully before using the product for the first time and keep the instructions for future reference.

1. This product is not a toy. Keep it out of the reach of children.
2. Keep product out of the reach of children and pets to avoid chewing and swallowing.
3. Never use old and new batteries or different types of batteries together. Remove the batteries when not using the system for long periods of time. Check the polarity (+/-) of the batteries when inserting them in the product. Incorrect positioning may cause the risk of an explosion. Batteries are not included.
4. Product operating and storage temperature is from 0 degrees Celsius to 40 degrees Celsius. Environments under and above this temperature might affect functionality.
5. Never open the product. Repair or service is only to be performed by qualified personnel.
6. Do not expose to heat, water, moisture, direct sunlight!
7. The unit is not waterproof. If water or foreign objects enter the unit stops use immediately.
8. Do not use non original accessories together with the product as this can make the product functionality abnormal.

## **FEATURES**

With your metal detector, you can hunt for coins, relics, jewelry, gold, and silver just about anywhere. This metal detector is versatile and easy to use. Features include:

**Two operating modes: All Metal and Disc.**

**ALL METAL** – Lets you search for different types of metals with automatic ground balance and high sensitivity. This is the best operating mode.

**DISC** – Discriminates among different types of metals being detected.

**Volume** – Adjusts volume levels for speakers and headphones.

**Headphones Jack** – Connects headphones (not supplied) to the metal detector.

**View Meter and Pointer** – The meter pointer swings to the right if metal is found.

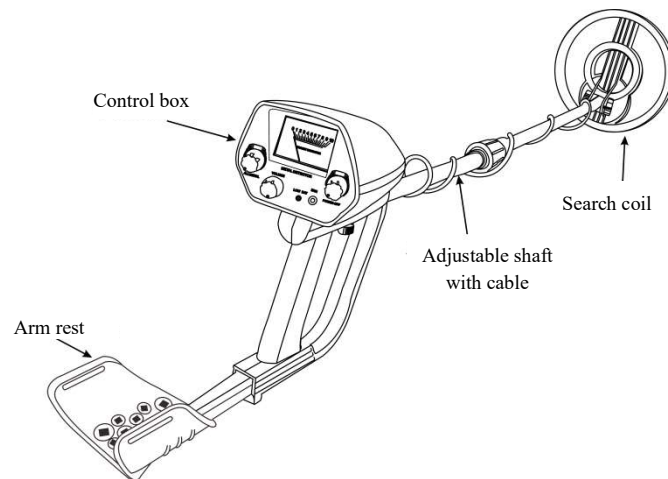
**Waterproof Search Coil** – Lets you search for metal objects under shallow water.

**Note:** The search coil is waterproof, but the control housing is not.

**Adjustable Shaft** – Adjusts the metal detector's length.

Operates on two 9V alkaline batteries (not supplied).

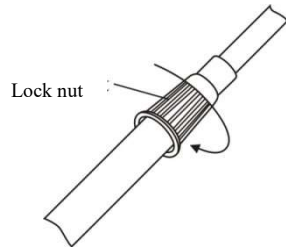
## COMPONENTS



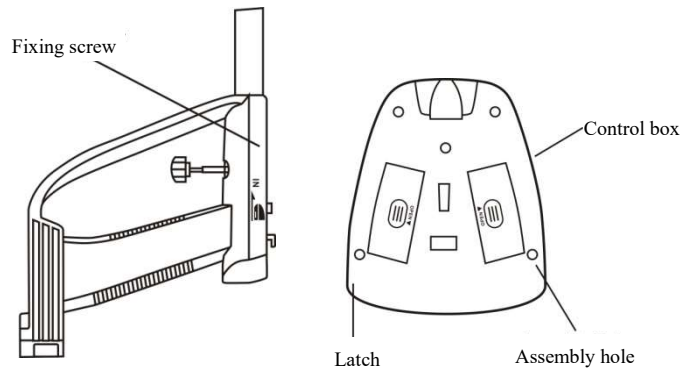
## ASSEMBLING THE METAL DETECTOR

Assembly is easy and requires no special tools. Just follow the steps below.

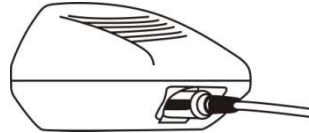
1. Unscrew the knobs on the search coil and remove the knobs and the connector. Insert the smaller shaft and align the holes on the search coil bracket and the shaft. Push the connector through the holes, then replace and tighten the knobs.
2. Loosen the shaft's lock nut (attached to the handle) in the direction of the arrow. Then insert the smaller shaft into the larger shaft connected to the handle. Turn the shaft's lock nut in the direction opposite to the direction of the arrow to lock it in place.



3. Insert the latch on top of the handle into the assembly hole at the bottom of the control box. Slightly push the control box in the direction of the "IN" marking on the handle to fix the latch in place.



4. Tighten the fixing screw.
5. Insert the search coil cable plug into the five pin jack on the back of the control box housing.



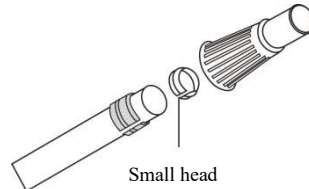
6. Lengthen or shorten the shaft, so when you stand upright with the metal detector in your hand, the search coil is level with and about 0.5 to 2 inches (1 to 5 cm) above the ground. Then tighten the lock nut.

**Caution:**

- The search coil cable plug fits into the connector only one way.

**DO NOT** insert the plug forcefully to avoid damaging it.

- **DO NOT** remove the shaft lock nut. Should you remove it, place the washer on top of the shaft connected to the handle with the small head of the washer pointing up. Then place the shaft lock nut on the washer and tighten it to lock it in place.



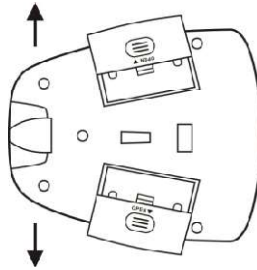
## ADJUSTING THE SEARCH COIL

Loosen the knobs at the end of the search coil and adjust the search coil to the desired angle (the search coil should be parallel with the ground). Tighten the knobs just enough to keep the search coil from rotating or wobbling.

## INSTALLING THE BATTERIES

You need two 9 V alkaline batteries to power your metal detector.

1. If the detector is switched on, turn the power switch (on the control box) to POWER OFF.
2. Press down the battery compartment cover and slide the cover off in the direction of the arrow.



3. Connect the batteries to the battery connectors observing the correct polarity. Then insert the batteries into the compartment.
4. Replace the cover.

**Caution:**

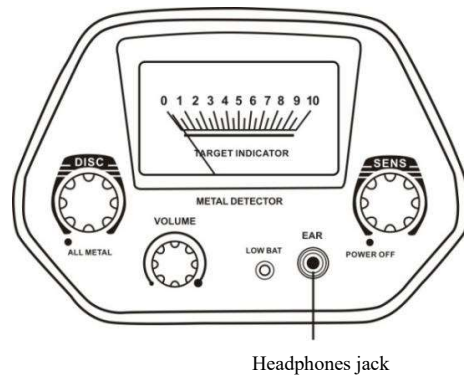
- Use only fresh batteries of the required size and recommended type.
- Always remove old or weak batteries; batteries can leak chemicals that can destroy electronic parts.
- If you do not plan to use the metal detector for a long time, remove the batteries.
- Dispose of old batteries promptly and according to regulations.

You can extend the battery life by using headphones, which require less power than the built-in speakers.

## **USING EARPHONES**

Connect a pair of headphones (not supplied) to the metal detector so you can listen to it privately. Using earphones also saves battery power and makes it easier to identify subtle changes in the sounds you hear, for better detection results.

To connect headphones to the metal detector, insert the 3.5 mm plug into the EAR jack on the control box.



Note: The internal speaker is disconnected when you connect headphones.

## LISTENING SAFELY

To protect your hearing, follow the guidelines below when using headphones.

- Set the volume to the lowest setting before you begin listening.
- After you begin listening, adjust the volume to a comfortable level.



- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

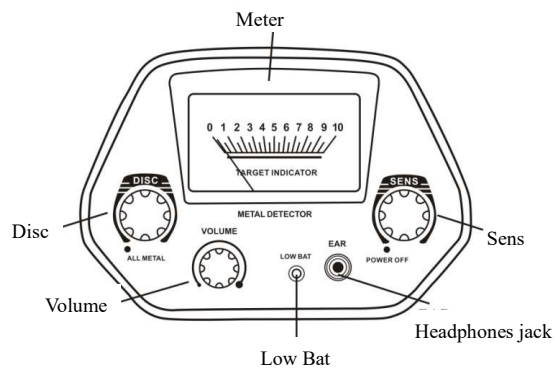
## Traffic safety

**DO NOT** wear headphones while operating your metal detector near high-traffic areas.

Even though some headphones are designed to let you hear some outside sounds when listening at normal volume levels, they still can present a traffic hazard.

## FUNCTIONS AND INDICATORS

### 1. Parts of the control box



- DISC** – Rotate the control knob clockwise away from ALL METAL to get to DISC mode. The DISC mode comes with

automatic ground balance. Rotate the control knob slowly clockwise to eliminate different trash objects. Rotate the control knob counter-clockwise towards the end to get to ALL METAL mode. The ALL METAL mode also comes with automatic ground balance. This mode used to find not only ferrous metals, but also non-ferrous metals (see more details below).

- b. **SENS** – Rotate the control knob counter-clockwise towards the end to power the metal detector off. Rotate the control knob clockwise to power the metal detector on. Continue rotating it clockwise to get higher sensitivity.
- c. **VOLUME** – Rotate the control knob clockwise to increase the volume or rotate it counter clockwise to decrease the volume.
- d. **LOW BAT** – Low battery indicator. When the LOW BAT indicator lights up, replace the batteries at once.
- e. **EAR** – 3.5 mm headphones jack.
- f. **METER** – When the metal detector finds any metal target, the meter pointer swings to the right.

## **TESTING AND USING THE METAL DETECTOR**

This metal detector has two operating modes: ALL METAL AND DISC.

**ALL METAL** – Use this mode to find all types of metals.

**DISC** – Use this mode to discriminate the metal type.

Set the operating mode to ALL METAL, DISC all the way counter-clockwise, and SENS to the high position. Hold the search coil parallel above the ground, about 0.5 to 2 inches (1 to 5 cm) above

the surface. Sweep the search coil from side to side in an arc line of 2.75 inches (7 cm) motion.

When the metal detector detects a buried target, it sounds a tone. Make a visual note of exact spot on the ground where the detector beeps. Then stop the search coil directly over this point on the ground. Move the search coil straight forward away from you and straight back towards you a couple of times.

Slowly rotate the DISC control knob clockwise away from ALL METAL until the unit does not sound or sounds short tones. You can identify what kind of metal is detected according to the setting position of DISC.

Reference for DISC setting.

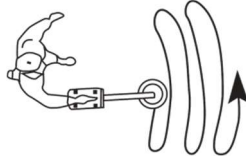
DISC setting	Metal rejected
Near 11:00	Iron
Near 12:00	Nickel coin (5 cents), pull tab
Near 13:00	Zinc coin (1 cent 87 version)
Near 15:00	Copper coin (1 cent 76 version)

When the DISC control knob is set all the way clockwise, most of metal targets are rejected, except silver (25 cents, 50 cents and 1 dollar).

**Search coil sweeping hints:**

- Never sweep the search coil as if it were a pendulum. Raising the search coil while sweeping or at the end of a sweep will cause false readings.

- Sweep slowly, as hurrying will make you miss targets.
- Sweep the search coil from side to side in an arc line of 3 inches (7.5 cm) motion and keep it parallel to the ground.



### **Factors that affect detection**

Accurate detection results are difficult to achieve. It takes practice to get the best detection results. Sometimes detecting may be restricted by certain factors.

- If there is interference from other instruments or electrical cables, TV or radio in your search area, lower the sensitivity, or change the current search area.
- When searching in a highly mineralized area, the metal detector will sound even if there is no metal. In this case, you can reduce the sensitivity and increase the height between the search coil and the ground until the false signal disappears. If necessary, reset the DISC control knob.
- When searching in a trash area, set the DISC control knob to 11 o'clock, so that the metal detector can skip most of invaluable metal targets such as nails and small trashy iron.
- Move away any metal digging tool when searching.
- The sensitivity level is generally set contrary to that of discrimination. The higher the sensitivity level is, the worse discrimination will be. But you can reduce the sensitivity level to achieve better discrimination.

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Electric and electronic equipment contains materials, components and substances that can be hazardous to your health and the environment, if the waste material (discarded electric and electronic equipment) is not handled correctly.

Electric and electronic equipment is marked with the crossed out trash can symbol, seen above. This symbol signifies that electric and electronic equipment should not be disposed of with other household waste, but should be disposed of separately.

All cities have established collection points, where electric and electronic equipment can either be submitted free of charge at recycling stations and other collection sites, or be collected from the households. Additional information is available at the technical department of your city.

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