

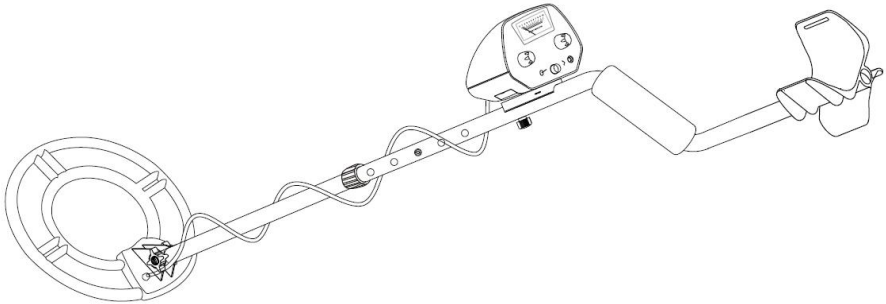


OWNER'S MANUAL

MODEL GC-1023

Please read before using this equipment

Metal Detector



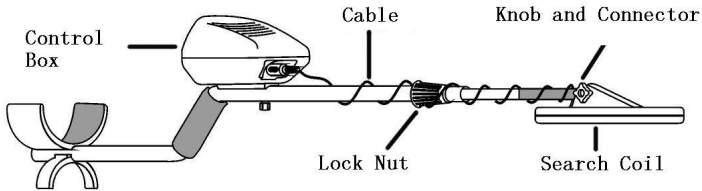
With your GC-1023 metal detector, you can hunt for coins, relics, jewelry, gold, and silver just about anywhere, including lawns, snows, mountains and etc. The detector is versatile and easy to use.

MODES	
ALL METAL	To search for all kinds of metal object. In this mode, the unit comes with auto ground balance.
DISCRIMINATION	In this mode, the unit comes with auto ground balance. This mode can facilitate you to search for and discriminate the target type based on the different tone for different metal target.
TONE	Based on DISC/TONE control, the unit can discriminate the metal type with high or low tone.
PINPOINT	To locate the target accurately.

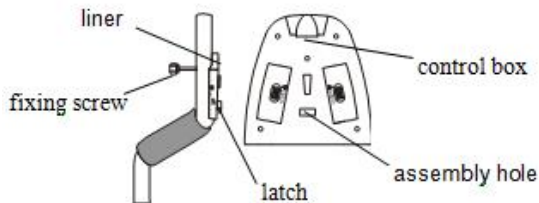
FEATURES	
View Meter	In noisy area, you can search for metal object according to the indication of view meter.
Headphone Jack	Lets you connect stereo headphones (not supplied) and operate without trouble.
Waterproof Search coil	Lets you use the detector even if you must put it under shallow water.
Adjustable Stem	Lets you adjust the detector's length for comfortable use.
Arm Support	Lets you carry and operate your detector comfortably.
Power	Your metal detector requires two 9-volt alkaline batteries (not supplied). The built-in insulating circuit can avoid wrong battery connection and prolong the battery life.

ASSEMBLING THE DETECTOR

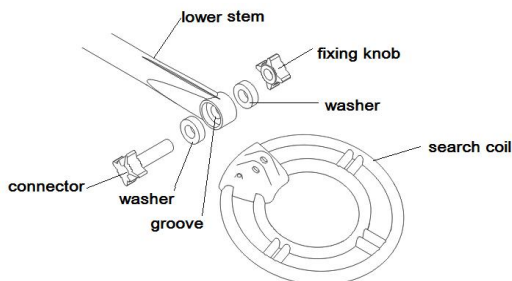
Assembling your detector is easy and requires no special tools. Just follow these steps:



1. Insert the latch on the liner into the assembly hole on the bottom of the control box. Then slightly push the control box in the direction of IN on the handle to fix the latch in place. Tighten the fixing screw properly.



2. Unscrew the fixing knob on the search coil and remove the knob connector. Place the washers into the groove of the lower stem. Then insert the stem and align the holes on the search coil bracket and the stem. Push the connector through the holes and tighten the knob.



3. Press the silver button on the upper end of the lower stem, and slide the lower stem into the upper stem. Adjust the stem to a length that you feel comfortable when you stand upright with the detector in your hand, and the search coil is level with the ground with your arm relaxed at your side. Then counter-clockwise rotates to tighten the lock nut.



4. Wind the search coil cable around the stem. Leave enough slack in the cable. Insert the search coil cable plug into the five pin jack on the front control box's housing.

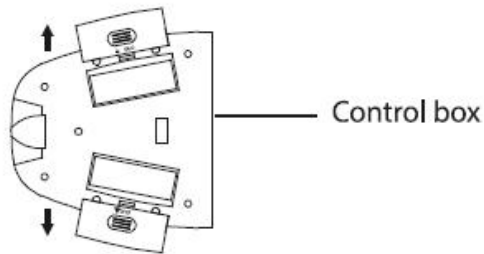
5. Turn the stem's lock nut clockwise until it loosens. Lengthen or shorten so when you stand upright with the detector in your hand, the search coil is level with and about 1/2 to 2 inches above the ground with your arm relaxed at your side. Turn the stem's lock nut counter-clockwise to lock it in place.

Caution:

- The search coil's plug fits into the connector only one way. Do not force the plug or you may damage it.
- Do not over tighten the search coil or use tools such as pliers to tighten it.

INSTALLING THE BATTERIES

1. Check the power switch on the front panel to make sure it is in the “OFF” position.
2. Slide the left and right battery covers off in the direction of the arrow.
3. Place two 9V batteries into the battery compartment matching the polarity symbols (+ and -) marked inside.



Caution:

- Use only fresh alkaline batteries of required size.
- Do not mix the old and the new batteries or different types of batteries.
- Remove the batteries, if you don't plan to use the unit for a week or longer. The batteries may leak chemicals that can damage electronic parts.
- Dispose old batteries promptly and properly. Do not bury or burn them.

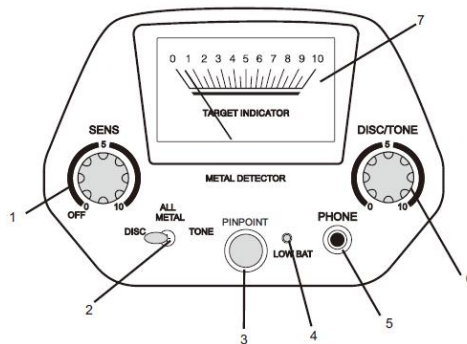
USING HEADPHONES

1. Insert the stereo headphones' 3.5mm plug into the PHONE jack. The internal speaker disconnects at this time.
2. Set the volume to desired level. (This unit does not have volume control, so we suggest to use the stereo headphone with volume control.)

Caution:

- To protect your hearing, set the volume to the lowest setting before you begin listening, and adjust the volume to a comfortable level.
- Do not wear headphones while operating your detector near high-traffic areas. Pay attention to traffic safety.

OVERVIEW THE CONTROL BOX



1. **SENS**--- sensitivity control and also used as power switch.

Fully counter-clockwise rotate the switch to OFF to turn off the power. Rotate it clockwise away from OFF to turn on the power. When you rotate the SENS from 0 to 10, the sensitivity is gradually increased. 0 is the lowest position for SENS; while 10 is the highest position. In general case, user can set the SENS to a high position. But in mineralized area, or area with electrical interference, it's better to lower the SENS properly.

2. **MODE SWITCH**

DISC--- in this mode, the unit comes with auto ground balance. The mode DISC/TONE can facilitate you to search for and discriminate the target type based on the long or short tone for different metal target.

ALL METAL----to search for all kinds of metal object. In this mode, the unit comes with auto ground balance, but without discrimination ability.

TONE---works with DISC/TONE. Discriminates different metal types with two different tones (high or low).

3. **PINPOINT**--to pinpoint the target. Press this button to lower the sensitivity automatically and to locate the target.

4. **LOW BAT**---after long time of operation, the battery voltage will become low. When LOW BAT indicator lights, user has to replace the battery.

5. **PHONE**-- Insert the stereo headphones' 3.5mm plug into the PHONE jack. At this time the internal speaker is disconnected.

6. **DISC/TONE**-- DISC—discrimination control. You can rotate the control clockwise from 0 to 10 to discriminate the different metal type. DISC will discriminate the metal type with different tones, such as long tone, short tone or without tone. But in TONE mode, unit will discriminate the metal type with high or low tones.

7. **VIEW METER**—when the metal target is found, the meter pointer will swing to the right.

OPERATION

Your GC-1023 has four operation modes: DISC,TONE ,ALL METAL and PINPOINT. DISC, TONE and ALL METAL are motion modes. You have to move the coil to search for target. While PINPOINT is a non-motion mode.

When searching, generally set operation mode to ALL METAL and SENS to less 10. Sweep your search coil right and left in an arc line. For not missing any target, it is better to keep the distance from search coil to the ground about 0.5–2 inches (closer to the earth for smaller target) and the distance between two neighboring arcs is about 4-6 inches.

If there is a sound during sweeping, it indicates that there is a metal target in the sound area. In this case, you can use PINPOINT to locate the target. Then use DISC or TONE modes to determine whether the target is worth digging out. The followings are the four operation modes in detail.

1. **ALL METAL**-- a general searching mode. In this mode, the unit will respond with a “di-di” tone to all metal. But in this mode, unit can’t discriminate metal type.

2. **PINPOINT**—in ALL METAL mode, when you find metal object, you can press PINPOINT to find the target. Hold the search coil 50cm or more away from the ground. Press and hold down the PINPOINT button. Sweep the search coil over the sound area and release the button when you hear a sound of “di”. After about 1~2 seconds, hold down the red button again, the “di” sound disappears. Closer the search coil to the ground and you’ll hear the sound again. Repeat the above steps until you find the target. After you find the target, set mode to DISC or TONE to determine which kind of metal the target is.

3. **DISC**—in this mode, unit discriminates the metal type with different tones, say high or silence. Set the DISC mode switch to “0”. Slowly rotate the control clockwise to high position to reject objects you don’t want. At different DISC position, unit can reject different undesired objects.

When DISC/TONE is set to 0, unit will respond to any metal object with a high tone; As the control is rotated clockwise, the unit will be silent to ferrous metal objects. This means the ferrous metal is rejected. Further rotate the control clockwise. Nickel, zinc, and copper will be rejected. When the control is set to 10 position, most metal objects are rejected, except silver. At 10 position, unit will still sound high tone for silver.

4. **TONE**—in this mode, unit discriminates different metal objects with high or low tone. For object to be rejected, it sounds a low tone which is different from in DISC mode. When DISC/TONE is set to 0, it sounds a high tone to any metal. But as it is rotated to high position, it sounds a low tone to ferrous metal, nickel, zinc, or copper. But it still sounds a high tone to silver.

Caution:

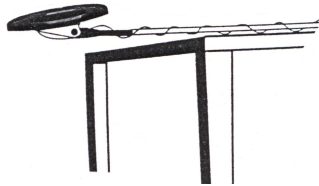
To have a better identification, users should practice more.

TESTING AND USING THE DETECTOR

To learn how the detector reacts to different metals, you should test it before you use it the first time. You can test the detector indoors and outdoors. We suggest that you practice finding sample on your own property before you search other location.

Indoor Testing and Use

1. Rotate SENS control clockwise away from OFF to turn on the detector.
2. Rotate SENS control further clockwise to adjust the level of sensitivity. Normally you can set the control to about 3:00pm. Reduce sensitivity in case of interference.
3. Set DISC/TONE to "0" to detect all kinds of metal.
4. Set mode toggle to ALL METAL.
5. Place the detector on a wooden or plastic table, then remove any watches, rings, or metal jewelry you are wearing.



6. Adjust the search coil so the flat part points towards the ceiling.
7. Slowly sweep a sample of the material you want the detector to find (such as a gold ring or a coin) 2-3 inches or more above the face of the search coil. When the detector detects any metal, it sounds a tone and meter point moves to right.

Note:

- Never test the detector on a floor inside a building. Most buildings have metal of some kind in the floor, which might interfere with the objects you're testing or mask the signal completely.
- If you are using a coin, the detector will detect it more easily if you hold it so a flat side is parallel with the flat side of the search coil. A sweep with the side of coin over search coil might cause false indication and unstable display of arrow.

Outdoor Testing and Use

1. Follow the steps 1-4 described in **Indoor Testing and Use**.
2. Find an area outside where there is no metal.
3. Place a sample of the material you want the detector to find (such as a gold ring or a coin) on the ground.
4. Hold the search coil level to the ground about 1~2 inches above the surface, slowly move the search coil over the area where you placed the sample, sweeping the search coil in a side-to-side motion. When the detector detects any metal, it sounds a tone and meter point moves to right.

Note:

- If you are using valuable metal such as gold to test the detector, mark the area where you place the item, to help you find it later. Do not place it in tall grass or weeds).

Using of DISC/TONE

After you find a metal object, you can use DISC/TONE to discriminate or eliminate the metal you don't want. As you set the control to different position, you can eliminate different types of metal.

Follow the steps below:

Step 1:

- a. Set the mode toggle to DISC.
- b. Set DISC/TONE to “0” . In this case, the detector can detect all kinds of metal. When the detector finds metal target, the meter pointer moves to right and sounds high tone to all metal objects.
- c. As you rotate the DISC/TONE control slowly clockwise to different position, you can eliminate different types of metal. For example, if you don't want iron, you can set the control to 11 o'clock. Then the detector will not have response to iron.

A reference of DISC/TONE setting in DISC mode

Setting of DISC/TONE	Metal Eliminated
Near 11:00	Iron
Near 12:00	Nickel coin(5¢), pull tab
Near 14:00	Zinc coin(1¢ 87 version)
Near 16:00	Copper coin (10¢,1¢ 76 version)

Step 2:

- Set the mode toggle to TONE.
- Set DISC/TONE to “0”. In this case, the detector can detect all kinds of metal and sounds a high tone for all metal objects.
- As you rotate the DISC/TONE control slowly clockwise to different position. The detector sounds different tones to different metal targets. For example, with DISC/TONE set to “0”, the detector sounds high tone for iron. As you set the control to over 10 o’clock, the detector sounds low tone for iron.

A reference of DISC/TONE setting in TONE mode

Setting of DISC/TONE	TONE Indication	Metal detected
Near 11:00	Low	Iron
Near 12:00	Dual tone(broken)	Nickel coin (5¢), pull tab
Near 14:00	Dual tone(broken)	Zinc coin (1¢ 87 version)
Near 16:00	Dual tone(broken)	Copper coin (10¢ ,1¢ 76 version)

Note:

Silver/25¢/50¢/1\$ can’t be eliminated. The detector sounds high tone for silver with DISC/TONE set to any position.

Using of PINPOINT

To find the exact location of target, you can use PINPOINT mode.

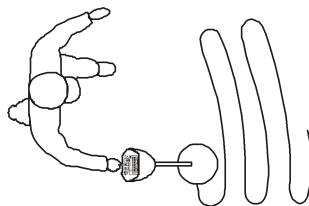
1. Set mode toggle to ALL METAL.
2. Hold down the PINPOINT button. Sweep the search coil over the sound area and release the button when you hear a sound . After about 1~2 seconds, hold down the red(pinpoint) button again, sweep the search coil again, keeping the same distance of search coil, sound disappears. Hold down PINPOINT once more, closer the search coil to the suspected sound area, the detector sounds again. Repeat the above steps until the detector gets stronger signal where the location of the target is.

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 hurrying will cause you to miss targets.
- It's better you sweep the search coil from side to side in an arc line of 3 inches motion and keep the search coil parallel with the ground.



Factors That Affect The Detecting

It's difficult to have an accurate detecting result. Sometimes the detecting may be restricted by the following factors:

- The angle of the target buried in the soil.
- The depth of the target.
- The level of oxidization of the target.
- The size of the target.
- Electro-magnetic and electrical interference surrounding the target.

In area of highly mineralized ground, or fertile ground, or wet sand, the detector will sound even if there is no metal. In this case, you can lower the sensitivity. Meantime enhance the distance between the search coil and the ground.

Metallic digging tools will also affect the detection if they are near the search coil. So it's better place them a little far away.

CARE AND MAINTENANCE

Your metal detector is an example of superior design and craftsmanship. The following suggestions will help you care for your metal detector so you can enjoy it for years.



Handle the detector gently and carefully. Dropping it can damage circuit boards and cases and can cause the detector to work improperly.



Use the detector only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage the cases of the detector.



Keep the detector away from dust and dirt, which can cause premature wear of parts.



Wipe the detector with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the detector.

Troubleshooting Guide

Problem	Reason	Suggestion
The detector displays or sounds without detecting any target	<ol style="list-style-type: none"> 1.The detector may receive interference and false signal from broadcast antenna and other electronic lines 2.The humidity of environment may be extremely high 	<ol style="list-style-type: none"> 1.Change searching place 2.Wait for some time to check again
The detector sounds false signals.	<ol style="list-style-type: none"> 1.Sensitivity set too high/ environmental electromagnetic interference 2.Sweeping the detector's search coil too fast or at wrong angle 3.Using 2 detectors in close proximity 4.Maybe the target is oxidized 	<ol style="list-style-type: none"> 1.Reduce sensitivity 2.Sweep the search coil more slowly and hold the detector correctly 3.Keep two detectors at least 6 meters(20') apart
The detector does not detect anything	<ol style="list-style-type: none"> 1.Sensitivity set too low 2.Target range is eliminated 3.Search coil is not parallel to the ground 	<ol style="list-style-type: none"> 1.Increase sensitivity 2.Recover all target range 3.Adjust the search coil angel to be parallel to the ground
The detector does not function.	<ol style="list-style-type: none"> 1.Five-pin cable not connected well 2.Dead battery 	<ol style="list-style-type: none"> 1.Re-plug it properly 2.Replace batteries

If you have any question about this product, please contact customer service via email: support@tymextools.com

