

# OPERATING INSTRUCTIONS: MASTER HUNTERS 5-7, 7X AND 10X

## CONTROL FUNCTIONS

**Power/Depth Detection Knob:** Turn clockwise until switch clicks ON. This engages the battery test and the battery condition is indicated by the meter. If NiCad batteries are used, they will register in section marked NICAD. Rotate clockwise to increase detection depth. NOTE: Beginners operate at the initial setting ( $\Delta$ ) or less detection depth until experience is gained with the detector.

**Tone:** Adjusts tone for preferred sound.

**Audio:** Adjust audio to threshold level (in the Ground Elimination/All Metal mode); operate silent or with threshold in the automatic Ground Elimination/Trash Elimination mode.

**Ground Elimination:** Provides adjustment for eliminating detection of iron ground mineralization when operating in the VLF Ground Elimination, Coin Depth, and Electronic Pinpointing modes.

### **Trash Elimination:**

REJECT: Gives full control over the target discrimination capabilities of the detector.  
DEPTH: Allows operator to select optimum depth potential when operating in the Discriminate (Trash Elimination) Mode.

**Master Control Switch:** The toggle switch on the handle of the detector permits the operator to select between the All Metal (Ground Elimination) and Discriminate (Trash Elimination) operating modes, as well as manually retune the audio threshold.

All Metal:	Press left and release;
Discriminate:	Press right and release;
Coin Depth:	Press left and hold;
Electronic Pinpointing:	Press left and hold.

It is recommended that you operate in the Discriminate Mode (see above) until you become familiar with the capabilities of your detector.

**Auto/Manual:** This small toggle switch by the **Audio** knob selects Automatic or Manual tuning in the All Metal (manual ground balancing) mode only. Automatic operation is recommended, especially for the beginner. (This switch should be in the manual position while tuning the detector, then switch to automatic.)

**Meter:** The Target Identification (classification) meter of your detector provides visual target information. The meter reports the battery condition each time the detector is turned on (see **Batteries** below) and three bands of information provide the operator with data on detected targets to guide their recovery:

- ❖ Upper band indicates probable identity of all targets whether announced by an audio response or not.
- ❖ Color band gives a probable identity of the type target by indicating its relative conductivity. Coins will respond consistently based upon their metallic alloy. This band should be used in association with, not instead of, the Target Identification (Upper band) scale.
- ❖ Lower band reads in inches the depth of coin-sized targets. Large or very deep objects may not be accurately measured or identified.

**Coin Alert:** When operating in the Trash Elimination (Discriminate) mode, a coin alert bell-like tone will be heard when silver or clad coins are detected. This feature is not available to the Master Hunter 5 or 6. It is an automatic function of the Master Hunter 7. This function on the Master Hunters 7X and 10X may be turned off with the toggle switch located on the extreme left of the control panel. When standard audio is selected, detected targets will merely increase the ordinary sound level.

## **OPTIMUM AUDIO LEVEL**

**Automatic Tuning:** Turn detector on with **Power** control. Flip **Auto/Manual** switch to Auto position. Rotate **Audio** control until only a faint sound is heard. This is the optimum audio level of your unit. The detector will now keep itself tuned automatically to the audio level you have just selected. This tuning level will remain the same throughout all operating conditions as long as the switch remains in the Auto position.

**Manual Tuning:** Turn detector on with **Power** control. Flip **Auto/Manual** switch to Manual position. Press the **Master Control** switch in either direction and hold while rotating the **Audio** control to achieve a faint threshold of sound. This is the optimum audio level of your unit. Release the **Master Control** switch. When the **Auto/Manual** switch is in the Manual position, the **Master Control** switch keeps the detector tuned at the level you have selected. Simply press the switch on the detector's handle to the left for one second when you are operating in the All Metal mode. Press to the right for a second to retune when operating in the Discriminate (Trash Elimination) mode. This retuning enables you to reestablish the preset audio level as necessary.

Recommendation: Beginners are advised to use automatic tuning until they have become experienced in the use of this detector.

Note: Some treasure hunters achieve satisfactory performance by operating with their detector audio silent. For optimum performance, Charles Garrett recommends that a faint sound be audible when the detector is searching.

## **OPERATING INSTRUCTIONS**

**Initial Settings:** Your Master Hunter has initial setting points ( $\Delta$ ) located on the control panel. By first rotating the controls to these points, you turn on the detector (with the **Power** knob) and adjust your audio level as described in the description of these controls. As you become more proficient with your detector, you may wish to make additional slight adjustments in the Depth controls in relation to your detector and the ground over which you are hunting.

**Discriminate Mode:** Press the **Master Control** switch to the right and hold for one second to activate the Discriminate (Trash Elimination) mode. When operating in this mode, the Master Hunter detects only selected metallic objects. The following settings are marked on the REJECT control to assist you in selecting the targets you desire:

- ❖ Nails setting will eliminate rusty iron and iron nails.
- ❖ Foil setting will eliminate iron, nails, foil and bottlecaps. Salt water will be eliminated near this setting.
- ❖ Pulltabs setting will eliminate iron, nails, foil, bottlecaps and pulltabs. Nickels will also be eliminated at this setting, along with some rings and many foreign coins and tokens. Test typical trash items before taking your Master Hunter into the field.

Because setting the REJECT control at the higher settings will cause some rings and coins to escape detection, it is recommended that you never rotate this knob any farther clockwise than is absolutely necessary. Full rotation counterclockwise (to the left) will cause most metallic objects to be accepted. As the knob is turned farther clockwise (to the right), more targets will be rejected. As you become familiar with your targets through bench testing (see below), you can remember the rejection settings of your Master Hunter by the numbers surrounding its REJECT control.

Bench Testing enables the operator to learn more about the discriminating capabilities of your Master Hunter before taking it into the field. The following tests should be performed with the searchcoil perpendicular to a bench, floor or other non-metallic surface:

1. Rotate the REJECT control fully counterclockwise. Flip the **Auto/Manual** switch to Manual and press the **Master Control** switch to the right for one second to tune the detector correctly.
2. Bring various metallic targets across the bottom of the searchcoil at a distance of about two inches. Each target will cause the sound to increase. This is true non-discriminating operation.
3. Rotate the control to the 3 or 4 position, and the sound will decrease or cease when small nails are scanned across the bottom of the searchcoil.
4. Rotate the control farther and the sound will diminish as steel bottlecaps are tested. You will note that nails, foil and other small junk items will also be rejected (cause no sound).
5. Rotate the control farther clockwise and pulltabs will be rejected. At this setting you will note that nickels and some rings will also be rejected. The conductivity of this type of target is not great enough to cause to detector to respond when the REJECT control is set at a high number.

Again, never rotate the REJECT knob any farther clockwise than absolutely necessary to eliminate targets you do not wish to detect.

**All Metal Mode:** Press the **Master Control** switch to the left and hold for one second to activate the All Metal (VLF ground balancing) mode. In this mode, the Master Hunter will respond with an increase in sound to the presence of any metal or conductive mineral target beneath its searchcoil. For maximum depth and best operation over highly mineralized ground, always operate in the All Metal mode.

Mineralization can be balanced (canceled out) in the All Metal mode by use of the **Ground Elimination** control. To determine if adjustment is necessary, lower the searchcoil toward the ground, stopping at a height of about two inches from the surface. Make sure no metallic targets are under the coil. When you lower the searchcoil, audio level will either increase, decrease or remain constant. If the sound remains constant, the **Ground Elimination** control is adjusted properly. If the audio level decreases, raise the searchcoil and rotate the **Ground Elimination** control one turn toward the increasing arrow (counterclockwise). Press the **Master Control** switch to the left and release. Lower the searchcoil again. If the audio level now increases, the control has been adjusted too far. Raise the searchcoil. Rotate the control one-half turn clockwise toward the decreasing arrow (clockwise). Press the **Master Control** switch again to the left and release. Continue this tuning process until there is no change or only slight change when the searchcoil is lowered to operating height.

Remember to rotate toward the *increasing* arrow when speaker sound decreases and toward the *decreasing* arrow when the sound increases. Also, remember that this is a 10-turn control and that it might occasionally be necessary for you to turn it several complete revolutions to achieve proper ground balance.

As you search in the All Metal mode, you should occasionally raise the searchcoil, then lower it. If your audio level changes, readjust the ground balance with the **Ground Elimination** control, according to the above instructions. Such readjustment will sometimes be necessary because of the changing concentrations of ground minerals, especially when you are prospecting in gold country.

**Searching:** Scan the searchcoil at a rate of about one to two feet per second. Maintain a one to two-inch searchcoil height above the ground. When you are searching in the Discriminate (Trash Elimination) mode, detection of a metal target within the range you have selected with your **Trash Elimination** controls will be indicated by an increase in sound. (Note for Master Hunter 7 users: Coin Alert belltone will sound when you detect silver or clad coins. Master Hunter 7X and 10X users will have the same results unless the switch has been flipped to deactivate Coin Alert.)

It is neither necessary nor desirable to operate your Master Hunter with the searchcoil held to the ground. The recommended operating height is two inches from the surface. In areas of heavy concentrations of mineral and rocks, it may be necessary (especially with the 12" coil) to operate with the searchcoil held even farther above the surface.

**Recovery:** Whenever your detector locates a target, you must recover it to find what you have discovered. This is accomplished first by *pinpointing*. You can then utilize another function of your Master Hunter for *measuring coin depth*.

Pinpoint targets by first drawing an imaginary "X" on the ground with the searchcoil at the place where maximum sound occurs. You will notice when you are operating in the Discriminate (Trash Elimination) mode that you cannot maintain the detection sound with the searchcoil held completely still above your target. The searchcoil must be moving slightly for you to detect the exact location of your target.

**Electronic Pinpointing:** Precise pinpointing in either mode is available with this feature of your Master Hunter (see **Master Control Switch**). When you press the switch to the left and

hold it there, you can place the searchcoil directly over your target. Move it around slightly, and maximum sound will be heard when the target is directly beneath your searchcoil. When pinpointing, the Master Hunter is operating in an All Metal mode, and you can hold the searchcoil perfectly still with the detector producing a constant sound.

For most effective electronic pinpointing, place the searchcoil on the ground directly above your target. Press the Master Control switch left momentarily and release; press left again and hold. Scan back and forth across the target, maintaining searchcoil contact with the ground. You will notice an even more distinct “blip” sound when the target is directly beneath searchcoil center.

**Coin Depth Measuring:** Measurement over mineralized ground will be most accurate when the **Ground Elimination** control is adjusted properly. Pinpoint targets as directed above, and move the searchcoil off to one side to clear the target. Place the searchcoil directly upon the ground and press the Master Control switch to the left and hold it there as you make a scan across the target. The Meter pointer will indicate coin depth by inches on the lower scale. This reading will hold until you release the **Master Control** switch.

Since the final step in recovery usually entails digging, it is recommended that you use a probe to help locate exactly where to dig. Always make as small a hole as possible. It is quicker, requires less work and makes refilling easier. And, you should always *fill your holes*.

**Meter Discrimination:** Because many professional treasure hunters firmly believe you should dig all targets, they always search in the All Metal mode. Others search in this mode and reject unwanted targets by using their **Meter**. When searching in the All Metal mode, always check your **Meter** on every target. You will learn through experience whether to dig or not.

**Target Audio:** When a metallic object is accepted, the detector’s speaker or headphone sound will increase from your preselected audio threshold level. If your Master Hunter has the Coin Alert feature, a belltone will announce silver coins, most gold coins, larger gold rings and all other targets of high conductivity.

Some rejected targets, however, may cause the audio to “break up” or sound erratic. This is generally a response to shallow trash targets and can be remedied by raising the height of your searchcoil when scanning. Another indication of a reject target is an audio signal in one direction as you scan, and no response when scanning from the other direction.

Test typical trash items before operating your Master Hunter to determine what signal your detector will give on encountering them.

## **SEARCHCOILS**

Your Garrett Master Hunter was issued with a searchcoil size suitable for searching for almost any kind of target in any terrain. The optional 12.5” searchcoil is used for seeking large and deep targets; the 4.5” searchcoil is used for especially trashy locations or in tight places where a larger searchcoil will not reach.

When changing searchcoils, *hand-tighten* the knobs only. Never use tools of any kind. You may consider using a searchcoil cover to protect your searchcoil.

## **BATTERIES**

The Master Hunter requires six (6) 9-volt batteries for power. When replacements are necessary, use high quality carbon, alkaline, NiCad or NiMH batteries.

**Battery Test:** Each time the Master Hunter is turned on, the batteries that power its *two* circuits are checked automatically and their status is indicated on the detector's **Meter**. Immediately after the detector is turned on, the pointer on the **Meter** will report on Circuit #1 for approximately one second, then report on Circuit #2. If the pointer rises into the **Battery** section on the lower band of the **Meter**, the batteries are satisfactory. Rechargeable batteries are satisfactory when they test in the NiCad zone on the **Meter**.

### **Battery Replacement:**

1. Open the door on the back of the control housing and pull the battery tray to remove it from the unit.
2. On the side of the tray you will note that four batteries power Circuit #1 (which is always checked first on the meter) and that the other two batteries power Circuit #2.
3. Gently rock the batteries to be replaced and pull them from the tray.
4. Make certain the battery terminals are correctly aligned. Insert and press firmly to snap each battery into place, but *do not force*.
5. Slide the tray back into the detector on its "rails". Press securely to snap it into place, but *do not force*.

Never leave discharged batteries in the tray. Remove battery tray from the detector if it is to be stored longer than one month. Some owners remove the tray whenever the detector is not in use.

## **OPERATING RECOMMENDATIONS**

As you operate and use your Master Hunter, you will quickly grow more proficient in its use. It is recommended that you build your own test plot. Bury several items, including a nail, a piece of foil, a pulltab, a bottlecap and several coins at depths of about two to eight inches and a foot apart. Clearly mark the location where each article is buried. Practice scanning the targets while listening to and studying the detection signals.

Remember that newly buried objects, especially coins, will be somewhat more difficult to detect than items that have been buried for some time. This is primarily a metallurgical phenomenon. Experiment with various settings of the **Trash Elimination** control to see how your Master Hunter responds. Practice trying to pinpoint and locate targets precisely. Use both the manual and the electronic methods of pinpointing.

Before you dig each target, study the meter indication produced by this target. Try to guess what the target is and how deeply it is buried. Then, compare what you actually find with your estimates.

When scanning, *do not hurry*. Scan the searchcoil at a speed of about one to two feet per second. Keep the searchcoil flat and level to the ground. Move it back and forth slowly and steadily while you walk at a pace that is comfortable. Be methodical. Do not skip any areas. Wear headphones for greater sound perception and concentrate on your scanning.

After you have operated your Garrett Master Hunter for only a short time, you will be surprised at how proficient you have become at its use. Do not expect to achieve the greatest accuracy and success, however, until you have operated the detector for at least 100 hours or more.

## **MAINTENANCE**

- ❖ Always remember that your Master Hunter is a sensitive electronic instrument. It is built to withstand rugged treatment in the outdoors. Use your Garrett detector to the fullest extent possible, and never feel that you have to *baby* it. Yet, always protect the detector and handle it with reasonable care.
- ❖ Try to avoid temperature extremes as much as possible, such as storing the detector in an automobile trunk during hot summer months or outdoors in sub-freezing weather.
- ❖ Keep your detector clean. Always wipe the housing after use, and wash the coil when necessary. Protect your instrument from dust and sand as much as possible.
- ❖ Your searchcoil is submersible. The control housing is not! *Never* submerge the control housing and *always protect it* from heavy mist, rain or blowing surf.
- ❖ Disassemble the stem and wipe it clean after use in sandy areas.
- ❖ When storing longer than about one month, remove batteries from the detector.

## **REPAIR SERVICE**

- ❖ In case of difficulty, read this Owner's Manual again thoroughly to make certain your detector is not inoperable needlessly. Your dealer may also be able to offer advice.
- ❖ When your Master Hunter must be returned to the factory for service, always include a letter that describes its problem as fully as possible. Before you return your detector to the Garrett factory, make certain:
  - ❖ You have checked batteries, switches and connectors. (Check *batteries* especially closely. They are the most common cause of detector "failure".)
  - ❖ You have checked with your dealer, particularly if you are not familiar with the Master Hunter or ADS type detector.
  - ❖ You have included a note with the detector describing the problems you are encountering with this detector and conditions under which they occur. Make certain to include your

name, address and a phone number where you can be contacted between 8:30 a.m. and 4 p.m., Central Time.

- ❖ You have carefully packed the Master Hunter in its original shipping carton or other suitable box. Make certain that proper insulation or packing material is used to keep all parts secure. Do *not* ship stems or headphones unless they are part of the problem. Be certain to return all coils, unless the problem is mechanical.
- ❖ Ship to Garrett Metal Detectors, 1881 W. State St., Garland, TX 75042.
- ❖ You can call Garrett's Customer Service Department (972-494-6151) if you have further questions.
- ❖ Please allow approximately one week for Garrett technicians to examine and repair your detector after they receive it, plus another week for return shipping to you. All equipment will be returned UPS or parcel post unless written authorization is given by you to ship collect by air parcel post, UPS Blue (air) or air freight.

## **MIND YOUR MANNERS**

Filling holes and obeying *no trespassing* signs are but two requirements of a dedicated metal detector hobbyist. A sincere request that Charles Garrett makes to every user of one of his detectors is that each place searched be left in a better condition than it was found. Thousands of individuals and organizations have adopted this formal Metal Detector Operators Code of Ethics:

- ❖ I will respect private and public property, all historical and archaeological sites and will do no metal detecting on these lands without proper permission.
- ❖ I will keep informed on and obey all laws, regulations and rules governing federal, state and local public lands.
- ❖ I will aid law enforcement officials whenever possible.
- ❖ I will cause no willful damage to property of any kind, including fence, signs and buildings and will always fill holes I dig.
- ❖ I will not destroy property, buildings or the remains of ghost towns and other deserted structures.
- ❖ I will not leave litter or uncovered items lying around. I will carry all trash and dug targets with me when I leave each search area.
- ❖ I will observe the Golden Rule, using good outdoor manners and conducting myself at all times in a manner which will add to the stature and public image of all people engaged in the field of metal detection.

## **WARNING!**

Any metal detector may discover underground power lines, explosives or other items which when struck could cause personal injury. When searching for treasure with your Master Hunter, observing these precautions:

- ❖ Do not hunt in an area where you believe there may be shallowly buried underground electric lines or pipes.
- ❖ Do not hunt in a military zone where bombs or other explosives may be buried.
- ❖ Avoid striking any line known to be or suspected to be carrying electrical power.
- ❖ Do not disturb any pipeline, particularly if it could be carrying flammable gas or liquid.
- ❖ Use reasonable caution in digging toward *any* target, particularly in areas where you are uncertain of underground conditions.

**PATENT PROTECTION:** Proof of Garrett's excellence is the recognition given them by the following United States patents: 4,709,213; 4,488,115; 4,700,139; 4,398,104; 4,423,377; 4,303,879; 4,334,191; 3,662,255; 4,162,969; 4,334,192; 5,148,151; 5,138,262; 5,721,489; 5,786,696; 5,969,528; Design 274,704 and 297,221; Design 333,990; G.B. Design 2,011,852; Australia Design 111,674 and other patents pending.