

# OPERATING INSTRUCTIONS

## ULTRA GTA 500, GTAx 500, AND GTAx 550

### DETECTORS

The control panels of these detectors have seven (7) touchpads which control all the operating functions of the detector. Beneath the Arm Cuff are the Battery Pack and the headphone jack.

#### **TOUCHPAD CONTROL FUNCTIONS:**

**Power:** Turns the detector on, off, or resets the detector to the factory settings.

Press once to turn the detector on.

As the detector starts the battery condition is checked audibly and displayed on the LCD Display. Also, during the detector's start-up the detector adjusts automatically for the elimination of ground minerals, and the audio threshold is set to a point that is just silent. The last used pattern of discrimination is re-established and displayed on the LCD face.

**Set Depth:** (Also referred to as sensitivity). Permits the regulation of depth/sensitivity using the + and - touchpads.

**Set Audio:** Permits the regulation of the Audio Threshold using the + and - touchpads.

**Set Disc: (Discrimination):** Permits the regulation and/or adjustment of the discrimination pattern by turning on and off target cursors on the lower LCD bar which shows the items to be rejected or accepted as targets.

**Pinpoint:** Activates the Pinpointing function and causes the depth of coin-sized items to be shown on the Lower Scale.

**Last Mode:** Switches operation between operating modes A and B.

**+ and - Arrows:** Used to move the Target ID cursor when setting the discrimination notches. These arrows are also used when adjusting the Depth/Sensitivity, and Audio Threshold levels.

#### **Special Note:**

If you are ever unsure about the settings of your detector, simply press and hold the Power touchpad for approximately 10 seconds. The detector will emit an audio signal and the factory default settings will be restored.

#### **Graphic Display Information:**

Above the LCD Display is a guide of targets for use with the Target Cursor to assist in the identification of detected items. Note: All metal items will be indicated on the display but only those that correspond with segments which are turned on will give an audio response.

The Upper Scale of the LCD indicates the target found, and the setting levels of the Depth and Audio modes. This scale indicates the maximum Pinpoint signal. It also shows the cursor location for changing discrimination notches.

The Lower Scale of the LCD indicates the discrimination segments. Those that are illuminated represent the discrimination pattern established. This scale, when pinpointing, indicates the depth of coin-sized targets.

### **Battery:**

Indicates the condition of the detector's batteries. Batteries should be replaced when there is only one segment illuminated.

### **ASSEMBLY INSTRUCTIONS:**

1. Insert the Button ends of the Spring clip into the white lower stem. This will allow the overall stem length to be adjusted for operating comfort.
2. Attach the lower stem to the searchcoil by inserting the two washers into the stem and slip the searchcoil onto the stem. Insert the threaded bolt through the holes and hand-tighten the two knobs.
3. Install the upper stem to the lower and then this assembly to the GTA housing by depressing the two buttons and coupling the stem to the housing. Adjust for the most comfortable operating length.
4. Wrap the searchcoil cable snugly about the stem with the first turn of the cable over the stem.
5. Insert the cable connector into the connector on the housing and hand-tighten securely.

### **OPERATING INSTRUCTIONS:**

Lower the searchcoil to a level about one foot above the ground.

Press and release the POWER touchpad. The detector will give two (2) audio beeps, You will then be ready to search. The Audio Threshold level is established , the Automatic Ground Balance circuitry has set the parameters for the most effective search and the Discrimination pattern is established for coin hunting (Mode B).

NOTE: The GTAx 550 has Belltone Audio which alerts the operator with a special ringing sound whenever a target of high conductivity such as a coin is located.

### **SCANNING:**

Scan the searchcoil in front of you in a straight line or a flat arc about your body. Keep the coil level to the surface at a height of about one to two inches above the ground. This is approximately grass-top height. The scanning speed should be about one to two feet per second.

The presence of metal will be indicated by an audio sound and a LCD cursor on the Graphic Display. Make two or three repeated scans over the target to determine precisely the targets

location. Listen for the loudest, most pronounced audio signal. The Target ID Cursor will indicate the target's probable identity on the Display. The Target Guide above the cursor is an aid in determining the identity of the target.

### **PINPOINTING:**

Precise pinpointing is an important feature of your detector. Press and hold the PINPOINT Touchpad and the searchcoil can remain steady and hover over the target. Slight movements of the searchcoil will be reflected on the Upper Scale of the GTA Display. The greatest deflection or illumination of segments-right to left- on the Upper Scale indicates the target is directly beneath the center of the searchcoil. At the same time on the Lower Scale the illuminated segments, left to right, indicate the depth of coin-sized items.

Another method of Pinpointing and Depth Reading used by many treasure hunters is as follows. After acquiring a target, set the coil on the ground near but not directly over the target, then press and hold the Pinpoint Touchpad. Do not lift the coil from the surface but slide it around watching the LCD Display. When the two rows of segments touch each other, the target is beneath the center of the coil at the depth indicated by the lower scale.

### **JUNK TARGETS:**

The detector in its initial factory default settings, will not respond audibly to most junk items. On occasion, the detector will respond with a signal that is not clear and sharp as that of a coin. Before digging some of these "blips" see where the target registers on the Graphic Display. For many trash targets the detector will show two cursors at once or will give varying target identities as multiple scans are made over the item.

It is not unusual for a large object such as an aluminum soft drink can to give an audio signal indicating that a good target has been discovered. This is nothing to be worried about. The target has been located due primarily to its size, conductivity, and nearness to the searchcoil.

When you determine that it is time to turn the detector off, it takes only a simple press of the POWER Touchpad.

### **OPERATING ADJUSTMENTS:**

When you press the POWER Touchpad the first time, your detector is ready to operate with the factory settings in place and the discrimination set to find coins while eliminating most trash from detection (Mode B). Many hunters never change from this "Notch" pattern. If you wish to change operating modes however, press the Last Mode Touchpad and the detector changes to Mode A that is established originally, to find all metals.

The discrimination pattern is easily adjusted to meet the operating needs of any detector operator. From locating only one specific item, to locating all metals, it is simply a matter of pressing a couple of touchpads. Press the directional arrow to move the cursor either left or right. When it comes to the position you wish to turn on or off, press the "Set Disc" touchpad. The segment then is either illuminated or not. It is so easy to customize the discrimination pattern to fit your own desires.

Another way to change the discrimination pattern is to search as normal and when an unwanted target is encountered, press the "Set Disc" Touchpad and that segment will no longer be illuminated.

A special note about detector operational settings. Any changes that have been made will be retained when the detector is turned off. These changes will remain until changed by the operator or until the detector is returned to the factory default settings by pressing and holding the POWER Touchpad.

When the Depth Touchpad is depressed, the display will show a row of segments on the upper LCD bar. This is indicating the Depth/Sensitivity setting of the detector. Approximately 75% is the factory default setting. Hunting in some locations there may be an abnormal amount of static or interference, in these instances it may be necessary to reduce the depth setting until the audio sounds become stable once again. This is also the action to take when searching with a companion and when near each other the detectors exhibit erratic and unstable operation. When searching for very small or very deep items it might be beneficial to increase the depth setting as much as possible, up to the point that the detector becomes unstable.

Depressing the Audio Touchpad will graphically indicate the audio level established. Changes to this level can easily be made by pressing the + or - touchpads until the desired threshold level is attained.

## **BATTERIES:**

GTA Series detectors require eight (8) AA batteries. They are contained in two battery holders of four each. These holders slide into the Battery Pack beneath the Arm Cuff assembly. When replacing batteries observe that the polarity of the batteries is correct in the holders and that the holders are inserted in to the case with the rivet at the bottom of the holder towards the center of the case. Failure to install the batteries correctly will result in electronic damage to the detector which will require time lost from hunting and an avoidable expense.

The detector is supplied with Alkaline batteries for long life, but rechargeable batteries may be used if desired. There is no provision for on-board recharging, however.

When storing the detector for extended periods the batteries should be removed from the detector and from the holders.

**Note:** When re-installing batteries or after replacing batteries, the detector should be reset to the factory default settings.

## **Battery Test:**

Each time the detector is turned on the batteries are automatically and audibly checked. Three or four bars on the battery scale indicate the batteries are very good, two bars and the batteries are adequate. One single bar and it is time to replace the batteries.

## **MAINTENANCE**

- ❖ Always remember that your detector 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 you 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 detector 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 this 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 detector 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.
- ❖ Ship to Garrett Metal Detectors, 1881 W. State St., Garland, TX 75042.
- ❖ You can call Garrett's Customer Service Department (800-527-4011) 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 detector, observe 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 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