GARRETT
METAL DETECTORS

Owner's Manual

Investigator

G-500

$3

SPECIAL NOTICE

The Garrett Investigator G-500 metal detector is a precision electronic instrument that utilizes high technology to help locate hidden evidence, weapons and other metallic objects of all kinds while giving years of trouble-free service.

NOTE: All you will ever need to know to operate this detector can be found on Pages 12-16. Later pages simply provide additional details.

This amazing instrument with its computerized microprocessor-controlled circuitry is extremely easy to operate. Yet, those who demand it will find the Investigator G-500 meticulously adaptable to their own personal style of searching with a metal detector.

This new detector is built to withstand rugged treatment in the outdoors, but you should always handle the detector carefully.

Protect it at all times from mist, rain or blowing sand and keep it as clean as possible.

CONTENTS

TO THE OPERATOR

As the operator of a Garrett Investigator G-500, you join a worldwide fraternity of security and law enforcement officers who use Garrett detectors as crime-fighting weapons.

Garrett is famed throughout the world for manufacture of the SuperScanner hand-held and Magnascanner walk-through detectors.

Lawmen and women have used their Garrett instruments to find guns, knives, bullets and weapons and contraband of all types. You too can be more efficient and successful with the Investigator G-500 detector. This Operator's Manual will describe the basic functions of the detector and explain how you can use it to locate all types of metal objects.

The G-500, whose microprocessor-controlled circuitry has already been acclaimed and proven through countless hours of field use, is unparalleled in the simplicity of its ability to locate evidence, weapons and other metallic objects. It offers the professional investigator added depth and the adjustment precision available only with computerized microprocessor controls. The completely new Graphic Target Analyzer (GTA) display offers target acceptance, rejection and other data never before available.

Press the POWER touchpad and begin hunting immediately without interference from ground minerals. As the world's most intelligent detector, the Investigator G-500 is preset at the factory to begin operations in an All Metal detection mode. Of course, you can easily adjust the instrument to change discrimination in that mode or a second program offered for your convenience in searching.

When you find a cartridge-sized metal target, press the PINPOINT pad to discover its exact location and depth. Your Investigator G-500 is equipped with an 8 1/2-inch Crossfire search-coil. Other accessories are listed on Page 42.

Welcome again to the Garrett metal detecting

fraternity. In selecting an Investigator G-500 you have taken the advice of experienced law enforcement officers. Now, use one of the world's most capable automatic metal detectors to let Garrett help you fight crime!

ASSEMBLY

The Investigator G-500 is shipped complete in one carton:

- Control Housing
- Upper & Lower Stems
- Crossfire Searchcoil
- Parts Envelope (Contents listed below)

Make certain all of these parts are included and are undamaged. Immediately report shortages or damages to your dealer. Follow these assembly instructions. No tools are required. Hand pressure will be satisfactory for all tightening.

1. Open the clear plastic envelope which contains two (2) spring clips, two (2) knobs, two (2) washers and one (1) threaded bolt. Compress the button ends of one spring clip and insert, button-end first, into the lower stem of your detector so that the buttons pop out of the holes. Insert the other clip into the stem connector at the rear of the electronic control

housing. The two sets of buttons will enable you to secure the top stem to the control housing and adjust length of the overall stem.

2. Attach the lower stem to the searchcoil by inserting the two rubber washers onto this stem and slipping the searchcoil onto it. Place the threaded bolt through the holes in the connector and hand-tighten the knobs. Use no tools. Insert upper stem into the control housing.

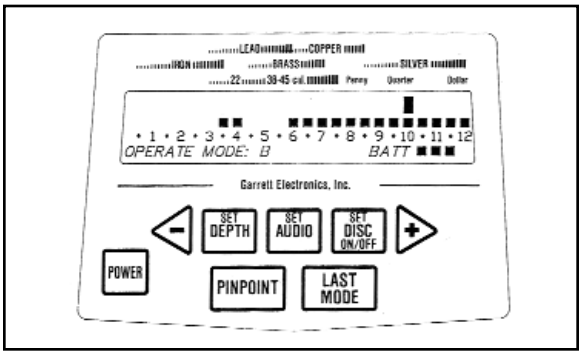
3. Depress the buttons in the lower stem and insert it into the upper stem. Let buttons pop into the holes to achieve desired stem length. The third set of holes from the end is most commonly used.

4. As shown, wrap searchcoil cable securely around stem and connect to detector. The first cable turn goes over the top of the stem. The cable should be snug but still slightly loose so that the angle of the searchcoil can be changed easily, when required. To connect cable to the detector insert the cable connector, as shown below, into the housing connector and rotate collar clockwise until secure (approximately four turns). Hand tighten only.

Never use any kind of lubricant.

The Investigator G-500 is equipped with eight (8) AA batteries.

CONTROL TOUCHPADS



POWER
1. Turns detector on;
2. Turns detector off;
3. Resets detector to factory calibration.

Set DEPTH (Sensitivity)
Permits using the + and - touchpads to regulate depth (sensitivity) of the detector. See

Set AUDIO
Permits using the + and - touchpads to regulate the audio threshold.

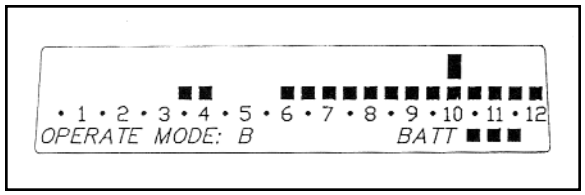
Set DISC
This control pad in conjunction with the cursor of the Upper Scale governs the Discrimination Segments on the Lower Scale of the LCD which determine discrimination notches. If a segment is shown, pressing this pad will eliminate it. If it is not shown, pressing this pad will display it.

PINPOINT
Activates the pinpointing function and causes depth of cartridge-sized targets to be shown on the Lower Scale.

LAST MODE
Alternately switches operations between Modes A and B.

- & +
1. Adjusts levels of threshold and depth
2. Moves cursor in Upper Scale when setting discrimination

GRAPHIC DISPLAY



Metal ID Guide
At top of the control panel various metals and metallic items are specified for use with the Upper Scale to help identify targets.

Upper Scale
1. Indicates target discovered
2, Indicates sensitivity/threshold
3. Indicates maximum pinpoint signal
4. Indicates cursor location
   (For changing discrimination patterns)

Lower Scale
1. Indicates discrimination (notch patterns)
2. Indicates coin depth when pinpointing

BASIC INSTRUCTIONS

The next four pages of this Operator's Manual contain basic operating information about the Investigator G-500 . Although this detector is among the most advanced instruments manufactured today, it is the simplest to operate of all the detectors that have ever been designed and produced by Garrett. You can begin searching with it immediately. No special instructions are needed beyond what's included in the next four pages. Start finding evidence and hidden weapons right now!

To Begin
1. There are no dials to turn no controls to adjust. Just grasp the handle of your G-500, and lower the searchcoil to a level about one foot above the ground.

2. Press and release the POWER touchpad. After you hear two beeps, the Investigator G-500 is ready for detecting in Mode A. Whenever the detector is turned on, it will always begin operating in this mode which is

set at the factory to detect all metallic targets.

NOTE: Only a light touch is all that is ever necessary to activate any touchpad.

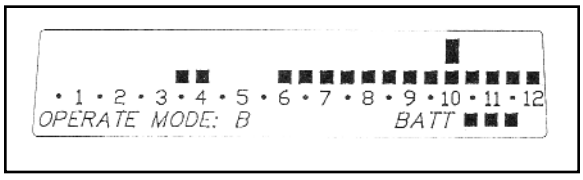
3. As noted, Mode A of the Investigator G-500 offers no discrimination. It will detect all metal targets.

Mode B discriminates against some targets made of junk metal, which means that the detector will sound no signal when such targets are detected. (Every target detected is ALWAYS shown by the cursor on the Upper Scale.) Mode settings can be changed easily, but you may never want to do so!

It is recommended that you not attempt to use any discrimination for the first few hours of searching.

Scanning
Swing the searchcoil back and forth in front of you in a straight line. Keep the searchcoil moving at a rate of about one to two feet per second. Maintain your coil at a height of one to two inches above the ground. Detection of a metal target will be indicated by an increase in sound and visual indications on your Graphic Target Analyzer (GTA).

Discovery
Locate your target precisely by scanning back and forth to locate the loudest signals. The Upper Scale of the Graphic Display will indicate a detected target as shown below. This indication cursor remains for five seconds or until a new target is detected (whichever comes first). The Metal ID Guide (below Graphic Display) helps to identify targets.



JUNK TARGETS

Because your Investigator G-500 in its factory-set Mode A detection mode responds audibly to all metal items, you will probably detect numerous "junk" items. You'll soon learn, however how these targets respond with a quick, sharp sound not like the clear, strong signal of a weapon or shell casing. Before you dig up some of the targets that make irregular audio "blips," see how they register on the Upper Scale of the Graphic Display in relation to the Metal ID Guide. Speed up your searching by learning to recognize as many of these junk targets as you can.

You may have encountered an occasional instance when the Graphic Display seemed to be presenting conflicting information. This probably occurred when your detector was attempting to analyze two or more different targets beneath its searchcoil. Don't be alarmed. This condition happens with all detectors, but the GTA discovers vastly more targets than old-style instruments with their limited circuitry could ever find. The array of data presented on the Graphic Display makes you more aware of all these targets. Additional operating experience with this detector will give you a better understanding of how its Graphic Display combines with the audio to present target signals.

You will quickly master your new detector because of its simplicity. Yet, the Investigator G-500 with controls based on patented microprocessor technology has more discrimination, mode sensitivity and effectiveness than any other detector ever manufactured.

To turn off your detector simply press and release the POWER touchpad. Operating battery power is disconnected.

Special Note on Settings

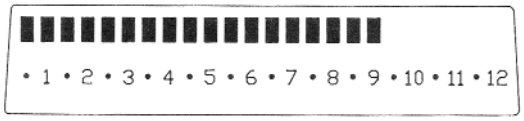
If you are ever unsure about the settings of your detector, just press and hold the POWER touchpad for 10 seconds (or, until you hear a single "beep"). This will restore manufacturer's settings and return your Investigator G-500 to its factory-set All Metal mode.

ADJUSTMENTS

Mode
Whenever your detector is turned on, it will begin operating in Mode A (shown on the Graphic Display). This is an all metal mode with no discrimination. You can change to an alternate discrimination program simply by pressing the LAST MODE touchpad. Mode selection will always be illuminated on the Graphic Display.

When you first press the POWER touchpad, threshold, depth and discrimination will be at levels preset at the factory. Any or all of these operating levels can be easily changed.

The Investigator G-500 permits a user to "design" personal discrimination patterns through use of the touchpads. Many Investigator G-500 owners will never want to change patterns and will hunt only in either of the factory preset modes.



Depth (Sensitivity)
When the DEPTH touchpad is pressed, the display screen will appear as shown in the diagram above (with factory setting at approximately 75% as indicated on Upper Scale). You can use the + and - touchpads to adjust the depth to which your detector will operate effectively. These changes will be shown on the Upper Scale.

Although the instrument's maximum depth may be desired, this is usually not feasible because of the type of soil over which you are scanning, electromagnetic or power line interference and other conditions. Ground mineralization and other considerations can inhibit the detector's ability to interpret target information. This control option permits you to achieve maximum detection depth possible in relation

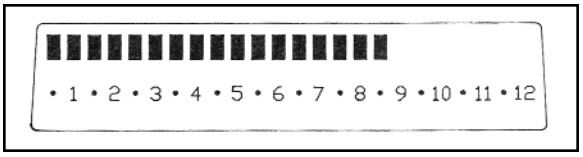
to existing environmental conditions.

Press (+) to increase detection depth. Press (-) to decrease.

A single touch and release adjusts the level in a small increment. A continuous pressing results in a continuous adjustment. The Upper Scale on the Graphic Display indicates 18 levels that are available. Minimum depth is 25%. When you have made your adjustment, press DEPTH again to reenter an operating mode.

Audio Threshold

When the AUDIO touchpad is pressed, the display screen will appear (diagram below) with factory setting indicated on the Upper Scale. Use the + and - touchpads to adjust the threshold, which is the level of sound that is constantly being produced by the Investigator G-500 as it is being scanned.



You can search silently or at any level of constant sound. It is recommended that you always operate the instrument at a minimum level of sound. You can hear the audio increase sharply whenever a target is encountered. Also, you will be able to hear even the faint signals that sometimes occur on tiny targets or deeply buried objects. When headphones are used, it will usually be necessary to decrease the threshold level since sound is more audible through headphones.

After you have made audio adjustments, press AUDIO to reenter your previous operating mode.

Battery

The Investigator G-500 will indicate accurately the condition of standard (carbon or alkaline) or NiCad rechargeable batteries with the four squares after BATT.

Additional Information
Any personal preference adjustments you have set in the Investigator G-500 with the various operating functions will be retained when the detector is turned off. Because ground and/or atmospheric conditions can vary from place to place, it may be necessary for you to readjust DEPTH (Sensitivity) occasionally.

Remember!
You can restore instantly the precise factory-set levels of all its controls. Just hold down the POWER touchpad for approximately ten (10) seconds until you hear a "beep."

HEADPHONE JACK
The headphone jack on the Investigator G-500 is located at the rear of the removable battery pack under the armrest. Headphones are a valuable accessory for any metal detector to mask interference from outside noise. They permit you to hear small and deep targets that might be missed when using only audio from the detector speaker. Headphones are particularly essential when you are hunting where noise of people and/or traffic is excessive.

SETTING DISCRIMINATION
(Selecting Notches)

Many investigators will never require any type of discrimination. They will be searching for all metallic targets that might prove to be evidence or looking for any metallic object that might turn out to be a buried weapon. Still, this detector offers precise controls that enable an operator to tailor a detection mode to his or her specific requirements by setting accept/reject "notches."

The Lower Scale of the Graphic Display contains 24 segments. Those that are illuminated (or, displayed) represent conductivities of the targets that will be detected (with an audible signal sounded) in the individual operating modes.

In Mode A, for instance, all 24 segments are shown, which indicates that every metal target will be accepted and recognized by the

Investigator G-500. Specific "notch" patterns can be created in Mode B by adding or removing illuminated segments.

There are two methods of setting discrimination in Mode B:

First Method: Pass the searchcoil over an object to be accepted or rejected as a target or, pass the particular target across the face of the coil about two inches from its surface. If the segment is displayed on the Lower Scale of the GTA, that particular target will be detected. If you wish to reject that type target, press the DISC touchpad. The segment will disappear, creating a "reject notch."

If the Lower Scale segment is not displayed, press the DISC touchpad to illuminate it, creating an "accept notch," and your GTA detector will begin detecting targets represented by that segment.

Second Method: Press the + and - touchpads to position the Upper Scale cursor above the Lower Scale segment corresponding to the particular target to be detected or ignored. Check to make certain there is an appropriate cursor on the Upper Scale of the Graphic Display. Then press DISC depending upon your discrimination choice for this specific target.

Note: Discrimination notches you have created in Mode B will not affect discrimination in the other mode. Each time the detector is turned off your Mode B DISC accept/reject discrimination patterns will be retained. All selections will be lost when you return your detector to factory-set detection calibrations by pressing and holding the POWER touchpad.

There are numerous reasons why you would want to accept or reject specific targets:

• You may be looking for only one item D a certain cartridge, for example. You can program the Investigator G-500 to reject all other types of metal targets.

• You may be hunting in an area where you are plagued with a specific type of trash. You can reject just this type of trash metal and continue to hunt with no other discrimination, detecting all other metal.

• Just make certain that a potential target does not fall within any trash segment you have chosen for elimination.

BENCH TESTING

This technique will enable you to test typical metallic items and to learn about the discriminating capabilities of the Investigator G-500 before taking it into the field or trying to pattern your own discrimination notches.

Place your detector on a non-metallic, preferably wooden, surface with the searchcoil at least three feet away from all metal. Make certain you are wearing no rings or jewelry on your hands or arms that could be detected. Turn the detector on and adjust the audio control for threshold sound. The following tests should be performed with the searchcoil perpendicular to the bench:

• Select Program A and note that all 24 Lower Scale segments are displayed, denoting no discrimination. Bring various metallic targets across the bottom of the coil at a distance of about two inches. Each target will cause the sound to increase, which represents non-discriminating operation. Use good targets (gun, knife, cartridge, etc.) as well as trash items like a pulltab, bottlecap, etc.

• Use the LAST MODE touchpad to switch to Program B and begin to experiment with the +, and DISC touchpads. Note which of the 24 segments are illuminated by the Upper Scale cursor as you identify various targets. Try to imagine how these targets will affect your search for other types of evidence or weapons. Possibilities are truly countless.

• Experiment with the LAST MODE touchpad to switch between detection modes and look for MODE A or B to be illuminated on your Graphic Display. Practice setting discrimination notches to eliminate specific targets.

• Be methodical. Keep written records of results and use them when searching for evidence or hidden weapons.

FIELD OPERATING RECOMMENDATIONS

As you walk, scan the searchcoil from side to side in a straight line in front of you. (See photo on Page 14.) Move your searchcoil at a rate of about one to two feet per second, holding it an inch or two above the ground. When you are searching in an All Metal mode with no discrimination, detection of any metal target will be indicated by an increase in sound as well as on the Graphic Display.

Searchcoil Height
Because of the sensitivity of the Investigator G-500 and its Crossfire searchcoil, it is not necessary to operate with the searchcoil touching the ground. The recommended operating method is to hold the coil about one or two inches above the ground.

When scanning, do not hurry. Scan the searchcoil at a speed of about one to two feet per second. Move it back and forth slowly and steadily in a straight line while you walk at a pace that is comfortable. Be methodical. Do not skip any areas. Overlap each scan sweep at least 25% of the searchcoil's width. Wear headphones for greater sound perception and concentrate on your scanning.

Target Identification
Target ID and/or conductivity classification of the last target over which the searchcoil passed will be indicated on Upper Scale of the Graphic Display. In many cases the type of metal can be determined by using the ID Guide. Encrustation or patina and sometimes ground minerals, may affect conductivity of the item, resulting in improper classification.

Some targets, particularly flat pieces of iron may produce different readings depending on the angle at which the searchcoil passes over the object. This is normal and can even be helpful in identifying iron objects.

Recovery
Locating your target precisely will enable you to recover it quickly by digging the smallest hole possible. This is accomplished first by pinpointing. You can then utilize another function of the Investigator G-500 for measuring depth.

Pinpoint targets by first drawing an imaginary "X" on the ground with the searchcoil at the place where maximum sound occurs. You'll notice that the searchcoil must be moving slightly and that you cannot maintain detection sound with the searchcoil held completely still above your target. This is called Manual Pinpointing, and it is satisfactory for many operators.

There is another more exact method of pinpointing, however...

Electronic Pinpointing
Precise pinpointing is an important capability of your Investigator G-500. When you press and hold the PINPOINT touchpad, the searchcoil can remain steady, directly over your target.

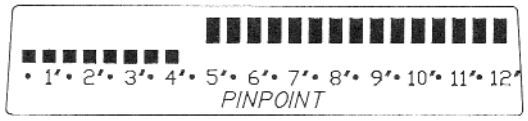
Move it around slightly, and maximum sound will be heard when the target is directly beneath the center of your searchcoil. This increase will be further reflected in the Upper Scale of your Graphic Display. Illumination of the scale's segments, from right to left, will indicate how close you are to your target.

For most effective electronic pinpointing place the searchcoil on the ground directly above your target. Press and hold the PINPOINT touchpad. Scan back and forth across the target, maintaining searchcoil contact with the ground. You will notice an even more distinct audio sound when the target is directly beneath searchcoil center.

You can also watch the Upper Scale illuminate from right to left to indicate signal strength. Maximum reading attained toward the left will indicate exact target location.

Depth Measuring
Pinpoint targets as directed above. After completing the pinpoint operation (maximum read-

ing on the Upper Scale) and while still pressing the PINPOINT touchpad, check the Lower



Scale (see illustration above) to determine depth of the target in inches.

Measurement is based on targets about the size of a .38-caliber shell casing. Depth measurement may vary on smaller or larger targets.

Last Mode

Use of this touchpad can be particularly helpful while scanning because it effectively converts your Investigator G-500 into a dual-mode detector. Pressing and releasing the touchpad makes it easy to alternate between the A and B programs. You can search with no discrimination in one program to detect all targets, and then check your target by switching to Mode B in which a discrimination pattern is notched.

This is a technique that you will come to like as you use it more often.

Erratic Sounds

When a metallic object is accepted, the detector's speaker or headphone sound will, of course, increase from your audio threshold level. 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.

Setting Depth

Garrett engineers designed your Investigator G-500 for maximum detection depth power, but you may not always be able to operate at 100% depth just as you rarely can (or, even want to) operate your automobile at 100% of its speed capacity. Outside electromagnetic interference, irregular ground mineralization and other environmental conditions may sometimes require that you operate at reduced detection depth even as low as 25%.

Don't worry about losing "deep targets!" You won't lose anything since you can always operate as deeply as conditions permit. Attempting to operate above a level that permits a quiet and stable audio threshold may actually cause you to miss deep targets that you would have found had you not "pushed" the detector.

Another point to remember is that when you are operating with Depth set below the maximum because "less-than-perfect" environmental conditions, you will have additional detection power whenever it is possible for you to use it.

Test Plot Construction

As you operate and use your Investigator G-500, you will quickly grow more proficient in its use. It is suggested that you develop a "test plot" to hear how various targets will "sound" to the detector or how they will appear on its LCD display. This Test Plot will also prove invaluable in training others to use metal detection equipment. After you select the area for your test plot, scan it thoroughly and remove all metal from the ground.

Next, select targets such as .22-caliber bullets, .38-caliber shell casings, a dummy pistol, a knife, a bottlecap, a nail and a pulltab. Select also a pint jar filled with scrap copper and/or aluminum metal, a long object such as a foot-long pipe and a large object such as a gallon can. Bury all these objects in rows about three feet apart and make a map showing where and how deeply each item is buried.

Bury shell casings and bullets at varying depths, beginning at one inch. Continue, with the deepest buried about six inches. Bury one at about two inches but stand it on edge. Bury a shell casing at about two inches with a bottlecap about four inches off to one side. Bury the bottlecap, nail and pulltab separately about two inches deep.

Bury the jar at twelve inches to the top of its lid. Bury the pipe horizontally three or four inches deep. Bury the gallon can with the lid two feet below the surface. Remember to make a map

of all this!

The purpose of the buried cartridges and casings is to familiarize you with their sound. If you can't detect the deeper objects, don't worry. After a while, you'll be able to detect them quickly. When you are able to detect everything in your test plot, rebury some items deeper. The shell casing buried next to the bottle cap can give you experience in Super Sniping with a smaller searchcoil and will help you learn to distinguish individual objects. The jar and gallon can will help you learn to recognize "dull" sounds of large, deeply buried objects. The pipe will help you learn to contour. Check the targets with and without headphones. You'll be amazed at the difference headphones make.

The test plot is important. Don't neglect it. From time to time expand it, rebury the targets deeper and add new ones. The test plot is important because your success and that of fellow investigators in scanning over it will be a measure of how well each of you is progressing and how well you have learned your equipment. Remember that an accurate map of the original test plot must be made and it must be kept up to date when changes and/or additions are made.

With Experience...

After you have used the Investigator G-500 for only a short time, you will be surprised at how accomplished you have become with it.

Do not expect to achieve the greatest accuracy and success, however, until you have hunted with this detector for some time. Above all, whenever you hunt with a metal detector, remember to use your common sense. Stop and try to think your way through perplexing situations. Success comes from detector expertise gained not only through study but from patience, enthusiasm and the use of common sense. Remember, perfect practice makes perfect.

BATTERIES

The Investigator G-500 is equipped with two battery packs, each holding four (4) standard AA batteries. The detector is also designed to utilize nickel cadmium (NiCad) rechargeable batteries. It is advisable to remove the battery packs when the detector is not in use, particularly for a period of several weeks. Always remember that all adjustments or settings you have entered into the detector will be lost (and factory settings reinstated) when batteries are removed for approximately four minutes or more.

Although standard battery packs and optional NiCad packs can be used interchangeably in the detector, it is recommended that both packs being used at the same time always be the same type. You should also always load your packs with the same type of battery. For example, don't mix carbon zinc and alkaline cells.

The Investigator G-500 should operate 25 to 35 hours with carbon or alkaline batteries, NiCads should power the detector from 8 to 12 hours on a full charge. These estimates are for speaker operation. Operating with headphones will extend battery life.

Checking Condition

Battery condition is reported continuously by the horizontal row of squares on the lower right side of the GTA display of the G-500. Four squares are visible when fully charged batteries are being used. When only one square appears, remaining battery life is some two hours or less. Although it is not necessary to change batteries until this warning flashes, you should always carry spares so that you will be ready. When using NiCad rechargeable batteries, only three squares are sometimes illuminated with fully charged batteries. Again, however, when only one square is visible, battery life has diminished to two hours or less.

Replacement

1. Turn off the Investigator G-500 , if necessary, by pressing the POWER touchpad.

2. Slide battery case back slightly from its normal position beneath the armrest, as shown below. Place both thumbs on the back of the cuff with your fingers on the case. Firm pressure will disengage the case from below the armrest.

3. Slip up the two covers on the battery panel and remove them completely.

Photo below shows covers removed.

4. Take out the two battery holders (which are not connected by wire) by tilting the pack. Photo below shows white holders removed.

5. Press out the old batteries.

6. Install new batteries. Carefully observe polarity of the batteries and make certain the new batteries are aligned properly.

7. Replace holders in detector. Unless extreme force is used it is impossible to replace the two battery cases incorrectly. They will not fully slide back in nor will the battery covers close unless the packs are placed in their proper orientation.

8. Press down firmly and slide each battery cover back in place

Please note that your Investigator G-500 will lose any adjustments you have made in its Depth, Audio and Disc settings when the battery pack is removed for more than approximately four minutes. All settings will then return

to those originally built into the detector at the factory.

Caution: Use only high quality NiCad, carbon, alkaline or heavy duty batteries.

HIP MOUNT

Hip mount adaptability is designed into the Investigator G-500. The purchase of an optional conversion kit is NOT NECESSARY! Since no extension cable cord is required, you never have to worry about winding it around the detector's stem or carrying it with you.

When you slip off the hip-mount pack and attach it to your belt with the built-in clip, you reduce the weight of your detector by almost a pound. The cable cord is conveniently coiled to prevent tangling.

This hip mount feature with the Investigator G-500 weighing less than 2 3/4 pounds facilitates its use over extended periods of time. Yet, controls remain easily accessible, and the GTA display is visible on the control stem of the detector.

The removable hip-mount pack and built-in coiled cable permit easy reassembly for carrying and storage.

When reassembling, make certain the coil cord slides into its tube and is not pinched in any way between the armrest and battery compartment.

SEARCHCOILS

The 8 1/2-inch Crossfire searchcoil that accompanies your Investigator G-500 is suitable for almost any target in any terrain.

Round Crossfire searchcoils are also available in a 12 1/2-inch size for seeking large and deep targets and a 4 1/2-inch Super Sniper coil for use in locations where large amounts of "trash" metal targets are present or in tight places where a larger coil will not reach.

Also available for your Investigator G-500 are elliptical Crossfire searchcoils, 5x10 and 3x7 inches in size. Elliptical coils give a wider scan path, but will also reach into narrow spaces. Since scanning power of this size coil is concentrated in a narrow strip down its middle, only a few trash targets can ever be beneath it at one time for the Investigator G-500 to analyze. Depending upon the type of metal, bottlecaps are sometimes found to be more difficult to reject than with round searchcoils.

When changing searchcoils, hand-tighten the knobs only. Never use tools of any kind.

RECOMMENDED ACCESSORIES

• Headphones

• 2 1/2-inch Crossfire Searchcoil for large, deep targets

• 4 1/2-inch Super Sniper Crossfire Searchcoil for searching areas where numerous trash metal targets are expected, or for use in tight places where a larger searchcoil will not fit Elliptical Crossfire Searchcoils (5 x 10 and 3 x 7-inch inches) for general searching and as well as use in rugged terrain especially good for depth and target location in high trash areas because scanning power is concentrated in a single strip down the vertical length of the coil.

• Carry Bag

• NiCad Battery Pack and Recharger

MAINTENANCE

• Always remember that your Investigator G-500 is a sensitive electronic instrument. It is built to withstand rugged treatment in the outdoors. Use any 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 Crossfire 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 Operator's Manual again thoroughly to make certain the Investigator G-500 is not inoperable because of wrong adjustments or improper operating methods. Your dealer may also be able to offer advice. Remember that computerized circuitry of this detector permits you to restore instantly its precise factory settings. Simply hold down the POWER touchpad for ten (10) seconds. When this detector must be returned to the factory for service, always include a letter with the instrument that describes its problem as fully as possible. Include your name, address and a phone number where you can be contacted between 8:30 a.m. and 4 p.m., Central time.

Before you return any detector to the Garrett factory, make certain:

• You have checked batteries and connectors. (Check batteries especially closely. They are the most common cause of detector.

• You have checked with your dealer.

• You have tried to restore factory settings. (See first paragraph on facing page).

• 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 ship stems or headphones unless they are part of the problem. Be certain to return all coils, unless the problem is mechanical.

9 Ship to Garrett Security Division, 1881 W. State Street, 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 service your detector after receiving it, plus another week for return shipping. All equipment will be returned UPS or parcel post unless you give

written authorization to ship collect by air parcel post, UPS Blue (air) or air freight.

RECOMMENDED READING

Several books are especially recommended for users of Garrett's Investigator G-500 metal detector. Effective Ground Searching by Charles Garrett is a comprehensive guide to crime scene investigation and other types of law enforcement and security searching with a modern metal detector. This illustrated book, a pacesetter in the fields of law enforcement and security, supplements much of the material in this Operator's Manual.

You may also be interested in a pocket-sized guide An Introduction to Metal Detection. This inexpensive and easy-to-read handbook will provide basic information on just how and why your Investigator G-500 performs as it does. It too is an effective supplement to this Operator's Manual.

Concerned primarily with security scanning with the Magnascanner (walk-through) and Super Scanner detectors, Effective Security Screening and School Security Screening are

basic handbooks to the use of metal detectors in a security environment.

There are two additional books that will be of interest to any law enforcement or security officer who is concerned about the effective use of metal detectors. Charles Garrett's popular and newly revised <MI>Modern Metal Detectors is a comprehensive, yet basic, text for all types of metal detectors and their use. <MI>Treasure Recovery from Sand and Sea is the accepted manual on searching for metal
objects on beaches, in surf and anywhere under the water.

These books can be excellent training aids to help instruct other investigators in the proper use of metal detection equipment. Books can be purchased with the order blank at the back of this book or from your Garrett Security dealer. Write to Ram Publishing Co. for information about bulk order purchases for use in training.

SPECIFICATIONS

Detector Type: Low frequency, transmitter - receiver, Graphic Target Analyzer for target identification, multiple notch discrimination
Controls: Easy access touchpanel
Display: High visibility LCD adjacent to touchpanel; data accessible at any angle
Detection Frequency: 7.0 kHz
Circuitry: Linear transmitter/receiver/filter front end 10-bit data acquisition
Microcomputer with 8 Kbyte memory
Crystal-controlled 4 mHz operation
High reliability surface-mount printed circuit board construction
Audio Frequency: 370 Hz
Batteries: Eight (8) AA
Battery Life:
(Approximate)
Alkaline - 30 hrs.
Carbon Zinc - 20 hrs.
NiCad - 12 hrs.
Humidity: 0 to 95% Non-condensing

Temperatures:
Operating: 0 to 140°F.
Storage - 20 to 150°F.
Construction:
Aluminum and high strength glass-filled nylon "S" stem with handle-mounted control/display panel. Convertible hipmount with self-storing coil cord for minimum weight and optimum balance.
Hip-Mount Cable Length: 62 ins.
Weight: (With 8 1/2-inch searchcoil) 3 lbs, 8 oz.
Shipping Weight: 5 lbs
Optional Searchcoils:
• 4 1/2-inch coaxial; 12 1/2-inch concentric
• 5x10 and 3x7-inch elliptical

Patent Protection: Garrett's high tech instruments are protected by one or more of the following United States Patents and other Patents Pending: 4,398,104, 4,423,377, 4,303,879, 4,334,191, 3,662,225, 4,162,969, 4,334,192, 4,488,115, 4,700,139, 4,709,213, Design 274,704 and 297,221; G.B. Design 2011852. Additional patents pending.

WARNING!

• Any metal detector may discover underground power lines, explosives or other items which when struck could cause personal injury. When searching for evidence or weapons with the Investigator G-500, 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.

All Garrett detectors are manufactured in the United States of America.

BOOK ORDER FORM

Please send the following books:

Effective Ground Searching	$ 5.95
Effective Security Screening	$ 5.95
School Security Screening	$ 5.95
Modern Metal Detectors	$14.95
Treasure Recovery from Sand & Sea	$ 7.95
An Introduction to Metal Detectors*	$ 1.00

*Shipping free when ordered with another book.

Quantity prices available on request

Ram Publishing Company
1881 W. State Street
Garland, Texas 75042

(Maximum of $3) for handling charges.

Total for items	$_____
8.25% Tax (Texas residents)	$_____
Handling Charge	$_____
TOTAL	$_____

__Enclosed check or money order
__I prefer to order through:
___MasterCard ___Visa

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Credit Card Number

_____
Expiration Date Phone Number (8 a.m. to 4 p.m.)

_____
Signature (Credit Card orders must be signed.)

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NAME

_____
ADDRESS

_____
CITY, STATE, ZIP

GARRETT
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Garrett G-500 / PN 1529570 Rev B