

# *White's Electronics, Inc.*

1011 PLEASANT VALLEY ROAD

SWEET HOME, OREGON 97386

## **OPERATORS INSTRUCTIONS**

### **COINMASTER 6000/D**

**PUSH-BUTTON GEB  
DISCRIMINATOR**



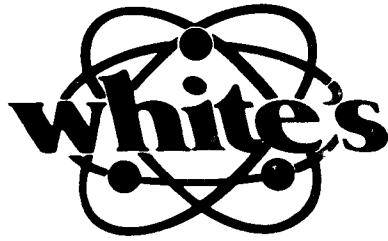
*Manufacturers of The World's Largest Line of Mineral and Metal Detectors*

MINERAL AND METAL  
DETECTORS

ELECTRONIC  
MAGNETOMETERS

SUPER GEIGER AND  
SCINTILLATION COUNTERS

ULTRA VIOLET  
LIGHTS



**COINMASTER**

**6000/D**

**Simplified Instructions**

# COINMASTER 6000/D SIMPLIFIED

## INSTRUCTIONS

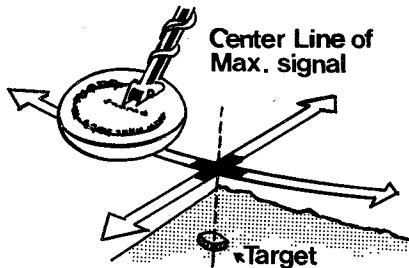
1. Set all six knobs as shown in **ILLUSTRATION A**.
2. Raise search loop waist high or higher and tune #1 until you have a slight sound.
3. Set #6 at the GEB NORMAL.
4. Place search coil on ground and turn #3 to edge of sound -- move loop on ground, making sure you aren't over metal.
5. Raise loop -- press button in handle and release.
6. Repeat #4 and #5 until no change is necessary (two or three times is usually sufficient).

**You are now tuned to search in the GEB NORMAL and to discriminate nails and small pieces of iron.**

## SEARCH PROCEDURE

Set search coil on ground and start search. Use easy sweeping motion (slowly) until you get a signal. Mark spot (with your eye) raise search coil, and press and hold button (you are now in GEB DISC). Sweep slightly above ground and rapidly across signal. If no sound, signal was nail or small pieces of iron. If you get signal, release button and pinpoint signal. Dig target, being careful not to damage turf.

**For more detailed instructions check your instruction manual.**



### NOTE:

On all strong signals be sure to check it out in all three types of modes...GEB, GEB/DISC, and TR DISC. All three must say "GOOD" as some targets may read good in GEB/DISC but bad in GEB.

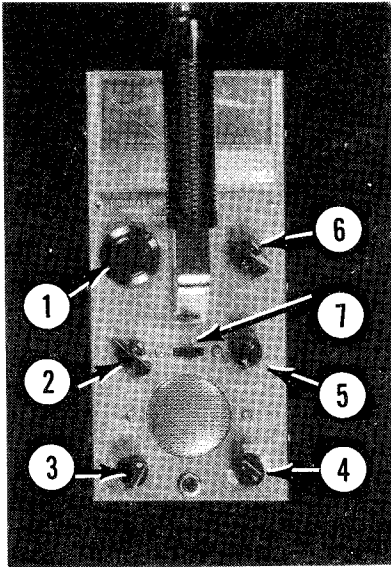


ILLUSTRATION A

- |                          |                |
|--------------------------|----------------|
| 1. TUNER                 | ..... FULL CCW |
| 2. DISC. LEVEL           | ..... VARI     |
| 3. GROUND BALANCE        | ..... "0"      |
| 4. VARIABLE DISCRIMINATE | ..... NAILS    |
| 5. POWER/VOLUME          | ..... FULL CW  |
| 6. MODE                  | G E B DISC     |
| 7. BATTERY CHECK         | ..... OFF      |

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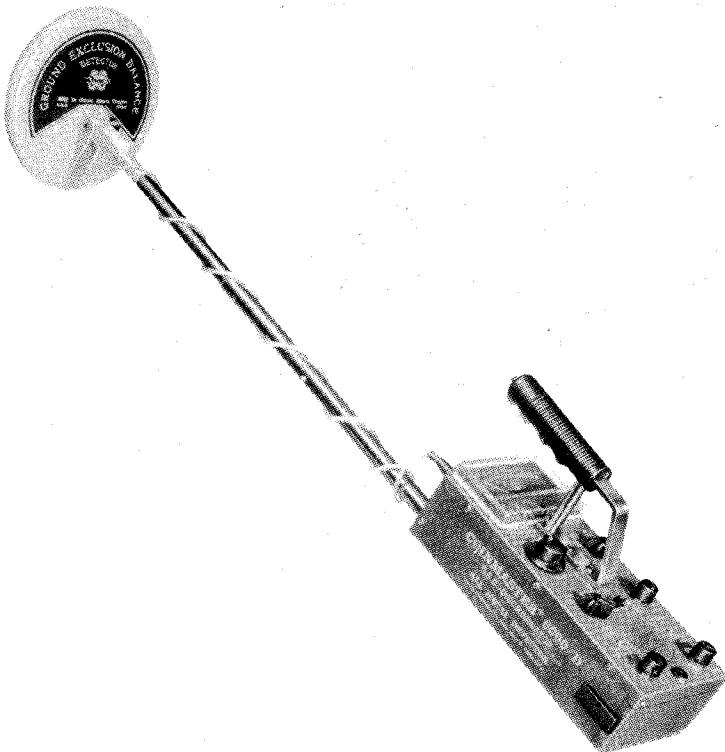
Code No. 621-0172

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**A Message from  
Mr. Kenneth White, Sr.  
President, White's Electronics**

**COINMASTER 6000/D**

**PUSH-BUTTON GEB  
DISCRIMINATOR**



Congratulations! You are now the proud owner of one of the world's finest detectors. You'll enjoy the many relaxing hours you'll spend with your new detector.

Ahead of you lie exciting experiences you'll never forget. For years to come you'll have yarns to spin about the places you'll visit, the people you'll meet, the history you'll learn, and the treasures and relics you'll uncover. We envy your journey and wish you every success.

Before we tell you how to assemble and operate your instrument, however, there are two important points to leave you with:

1. Your new detector is precision-made and has been carefully tested at our factory. Properly cared for, it will last for years and years. Treat it like a good friend and it should never let you down.

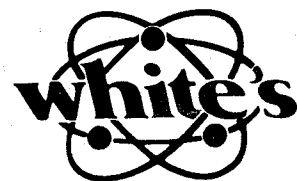
2. Any piece of fine equipment is only as good as the person operating it. Right now your detector is "smarter" than you, so you've got some catching up to do. Become very familiar with your instrument. Practice as much as you can. Soon it will become a part of you.

You and your metal detector will make an outstanding team. We've known many "shooters" who could follow in the tracks of others and find buried coins and rings the others had missed. You've got the equipment to out-shoot most anyone. Now all you need is the practice.

Good hunting,

*Kenneth White*

Kenneth White, Sr.



# UNPACKING YOUR 6000/D

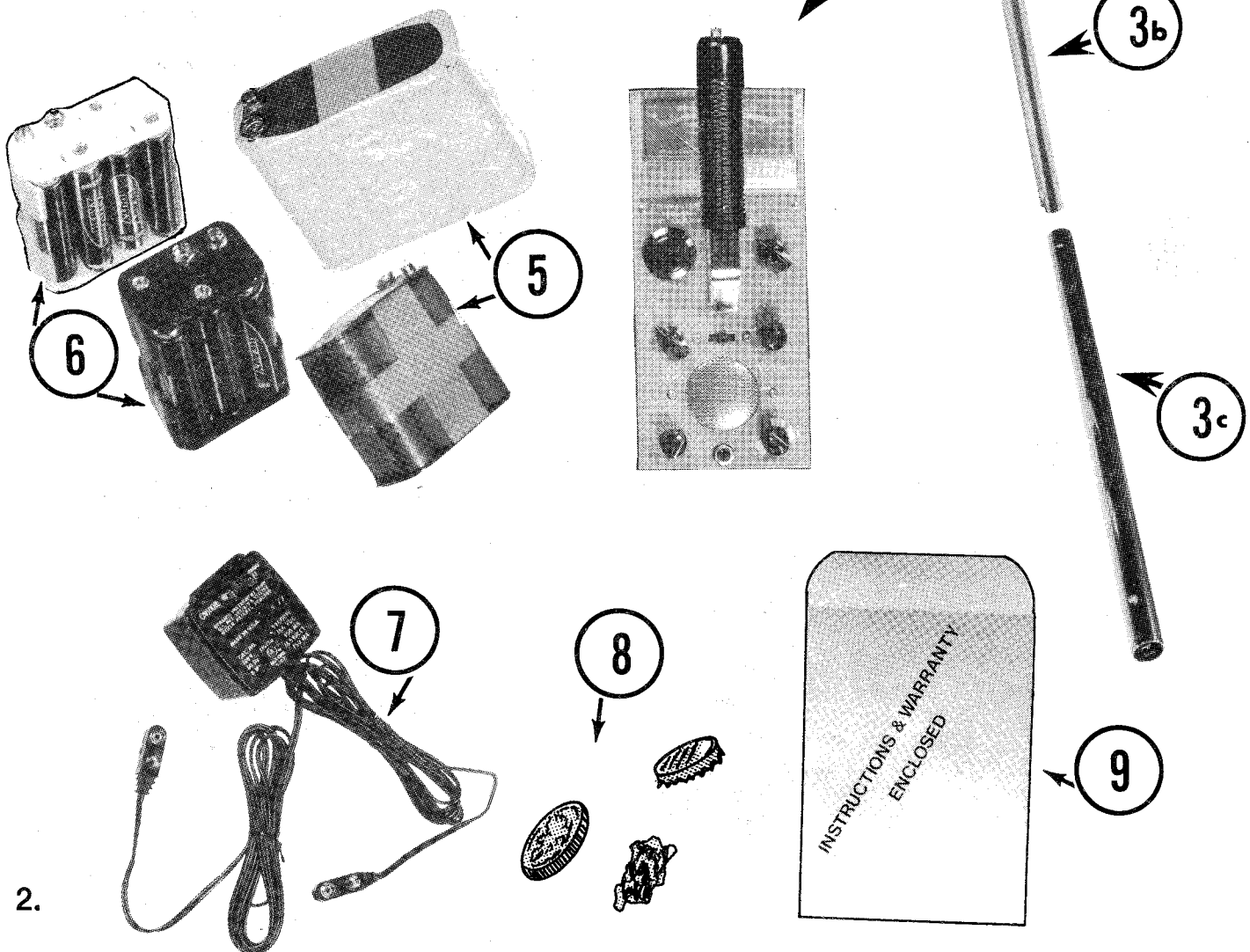
When you unpack your COINMASTER 6000/D, compare what you've got with the items shown on this page.

Fill out the Warranty Card and mail it within 10 days of purchase.

If you can't find all the parts, contact your dealer at once. If you can't do that, note the problem on your warranty card. In either case your problem should receive prompt attention.

You should have the following parts:

1. Detector Loop.
2. Loop Bolt and Thumbnut (with two plastic washers).
3. Loop Rod (three sections).
  - a. Short white plastic section.
  - b. Short brass colored metal section.
  - c. Long brass colored metal section.
4. Instrument.
5. 9 & 12-Volt rechargeable battery packs.
6. Standard 9 & 12-Volt battery packs
7. Battery Charger.
8. Test Samples.
9. Large envelope containing:
  - a. Assembly and Operating Instructions.
  - b. Warranty Statement and Card.



# Assembly Instructions

1. ASSEMBLE the TWO ROD SECTIONS together as shown in illustration A.

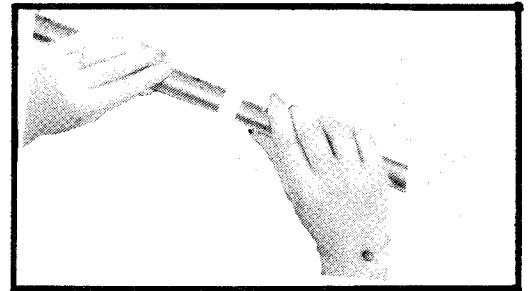


ILLUSTRATION A

2. REMOVE the TWO PLASTIC WASHERS from the LOOP as shown in illustration B.

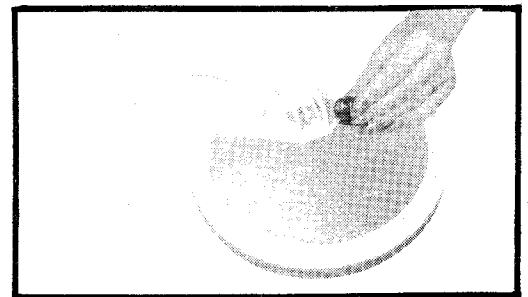


ILLUSTRATION B

**CAUTION: DO NOT EVER TIGHTEN THE WATERPROOF CABLE FITTING ON THE LOOP!**

3. PLACE the TWO WASHERS in the depressions ON the PLASTIC ROD and CONNECT to the LOOP as shown in illustration C.

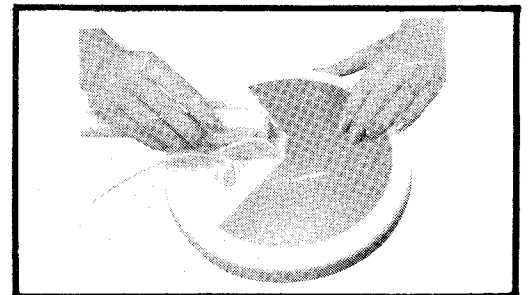


ILLUSTRATION C

4. REINSTALL BOLT and THUMBNUIT.

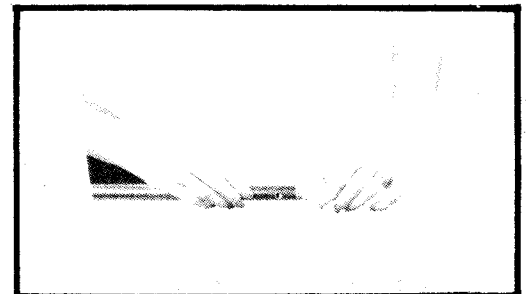


ILLUSTRATION D

5. CONNECT the PLASTIC ROD to the SMALL METAL ROD SECTION as shown in illustration D.

## ASSEMBLY [CONT.]

6. CONNECT COMPLETE ROD to INSTRUMENT as shown in illustration E.

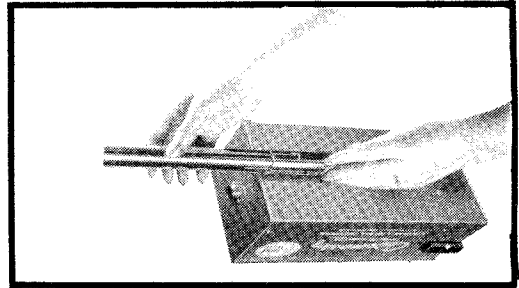


ILLUSTRATION E

7. WRAP the CABLE around the ROD as shown in illustration F.

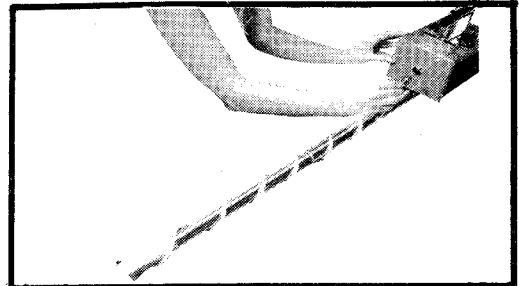


ILLUSTRATION F

8. CONNECT the LOOP CABLE to the top of the INSTRUMENT as shown in illustration G. (small slot up)

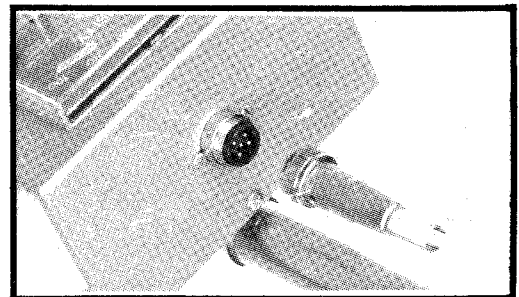


ILLUSTRATION G

9. CONNECT BATTERY CONNECTORS to the BATTERY PACK TERMINALS and INSTALL as shown in illustration H.

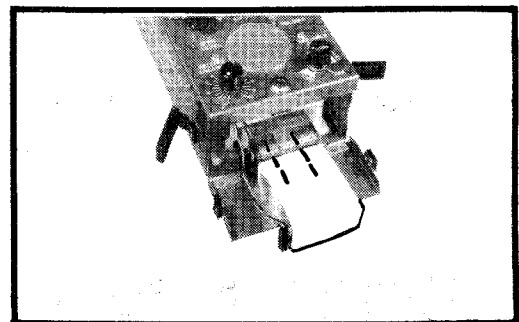


ILLUSTRATION H

(CONNECT WHITE TO WHITE!)

## OPERATING INSTRUCTIONS

### FAMILIARIZING YOURSELF WITH YOUR DETECTOR **INDOORS**

There are seven controls on the 6000/D [Refer to Illustration I]

1. TUNER
2. DISC. LEVEL
3. GROUND BALANCE
4. VARIABLE DISCRIMINATE
5. POWER/VOLUME
6. MODE
7. BATTERY CHECK

A description of these controls will be given later but first you will set the controls for the **THREE TYPES OF OPERATION** (G.E.B., G.E.B. DISC., OR TR DISC.) and notice how it reacts to various objects in these three different modes **INDOORS**.

Even if you have used a Metal Detector before, be sure you follow these tests before you go outside. This detector operates a bit differently from almost all other detectors on the market, especially in the G.E.B./DISCRIMINATE MODE.

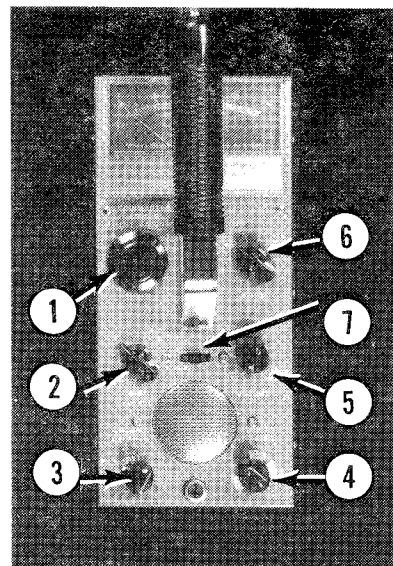


ILLUSTRATION I

### ..... G.E.B. TUNING **INDOORS** .....

#### FOR G.E.B. NORMAL OR G.E.B. MAXIMUM

Place your detector on a table, with the loop extending into the air away from any metal. (Refer to Illustration J). Note that the person in the picture has removed her watch and ring so that there isn't any metal on her hands that might interfere with tuning the 6000/D.

To TUNE the 6000/D for GEB OPERATION, set the controls as follows:

1. TUNER to....."FULL CCW"
2. DISC. LEVEL to....."VARI"
3. GROUND BALANCE to....."0"
4. VARIABLE DISCRIMINATE to....."NAILS"
5. POWER/VOLUME to....."FULL CW"
6. BATTERY CHECK to....."9"

NOTE: If meter reads above "75" proceed to step 7.  
If meter reads below "75" turn to the section on BATTERIES. (Page 17.)

7. BATTERY CHECK to....."12"

NOTE: Sound should come on LOUD to properly check your 12-Volt batteries. If meter reads above "75" proceed to step 8. If meter reads below "75" turn to the section on BATTERIES. (Page 17.)

7.a Turn BATTERY CHK. OFF.

8. MODE to....."G.E.B. NORM"
9. PRESS and hold in the button on the handle and turn the TUNER RIGHT (Clockwise) to the "THRESHOLD" (start of tone) and the meter is between "0" and "25".



ILLUSTRATION J

NOTE: "CCW"..... COUNTERCLOCKWISE

"CW"..... CLOCKWISE

For G.E.B. MAXIMUM tuning - Step 8 would be...."G.E.B. MAX".

10. RELEASE the button.
11. HOLD a coin in front of the loop face as in ILLUSTRATION J. Move the coin and notice how the tone changes. The tone should get louder as the coin is brought closer to the loop.
12. Now hold a BOTTLE CAP in front of the face of the loop. Move the BOTTLE CAP and notice how it reacts just like the coin. In G.E.B. all metals are detected.
13. Next hold the "GROUND SAMPLE" (MINERAL ROCK) in front of the loop face. Move the sample and notice how the tone changes. The tone should get QUIETER as you bring the sample closer to the loop.
14. Remove the "GROUND SAMPLE".
15. Turn the GROUND BALANCE control to "10".
16. PRESS and RELEASE the button to retune.
17. Test with the "GROUND SAMPLE" again as you did in step 13 above, only this time the sound should get LOUDER as the sample is brought closer to the loop.

This means that somewhere between "0" and "10" you should be able to "BALANCE OUT" the "GROUND SAMPLE" (Do not get closer than 2" to the loop with the sample.)

18. DECREASE the "GROUND BALANCE" control one number.
19. PRESS and RELEASE the push button.
20. TEST with the GROUND SAMPLE as in step 17.
21. REPEAT steps 18, 19 and 20 until the GROUND SAMPLE does not significantly change the tone. If the sample makes the sound get quieter, then increase the GROUND BALANCE control in step 18.

The main idea is that when you are OUTSIDE you will be able to adjust out the effects of the ground, so that raising or lowering the loop while searching will not affect the tone.

### ....G.E.B. DISCRIMINATE TUNING INDOORS ....

The G.E.B. DISCRIMINATE mode discriminates against selected trash at normal G.E.B. or VLF depths regardless of soil conditions. It is a true G.E.B./DISCRIMINATOR in that it rejects the ground while discriminating.

To tune the G.E.B. DISCRIMINATOR, place the detector on a table with the loop extending into the air away from any METAL. (ILLUSTRATION J )

Set the controls of the 6000/D for "G.E.B. DISCRIMINATE" operation as follows:

1. TUNER to..... "FULL CW"
2. DISC. LEVEL to..... "VARI"
3. GROUND BALANCE to..... "SAME SETTING  
AS FOR G.E.B."
4. VARIABLE DISCRIMINATE to..... "NAILS"
5. POWER/VOLUME to..... "FULL CW"
6. MODE to..... "G.E.B. DISC."
7. Turn the tuner until the sound just starts, and between "0" and "25" on the meter. This setting usually is referred to as the THRESHOLD and is the most effective level for treasure hunting.
8. Hold a coin in front of the loop face as shown in ILLUSTRATION J. Notice that if the coin is held still, the detector does not sound off, but if you move the coin **ACROSS** the face of the loop, the detector will sound off. **DO NOT** get closer than one inch to the loop.  
NOTE: In this mode the loop **must** be in motion relative to the coin or object.
9. Next, move the variable control to its maximum clockwise position.
10. Now try **moving** a pull tab across the face of the loop (about 2 inches away). The detector should go quiet as the pull tab passes by.
11. In step #9 you moved the variable position to the maximum or pull tab setting. You could have changed the "DISC LEVEL" switch to the "PULL TAB" setting and accomplished the same thing, except for the fact that the "LEVEL" setting is a factory calibrated position and "VARIABLE" control can be adjusted for different amounts of pull tab rejection by you.
12. The indoor familiarization of the G.E.B. DISCRIMINATE mode is now complete. More detailed instructions for use outside for this mode will follow.

## .....TR DISCRIMINATE TUNING INDOORS.....

The G.E.B. DISCRIMINATE mode allows you to discriminate without being affected by the mineral in the soil, but the **bottle cap** may be difficult to identify. The bottle cap can easily be checked in the TR DISCRIMINATE mode because it is almost always close to the surface. This is the main purpose of the TR DISCRIMINATE mode.

In TR DISCRIMINATE mode you will NOT be able to adjust out the effects of the ground, so this mode will require more practice and patience to learn how to master, but the rewards will be fantastic.

Again, place the detector on a table as shown in ILLUSTRATION J . To tune the 6000/D for DISCRIMINATE operation, set the controls as follows:

1. TUNER to..... "FULL CCW"
2. DISC. LEVEL to..... "VARI"
3. GROUND BALANCE to..... "same setting  
as for G.E.B."
4. VARIABLE DISCRIMINATE to..... "FOIL"
5. POWER/VOLUME to..... "FULL CW"
6. MODE to..... "TR DISC."
7. Press and hold the button while you adjust the TUNER for the THRESHOLD, (a light tone and between "0" and "25" on the meter), then release button.
8. Hold a coin in front of the loop face as in ILLUSTRATION J . Move the coin and notice how the tone changes. The tone should get louder as the coin is brought closer to the loop.
9. Next hold a Bottle Cap in front of the loop face. Move the Bottle Cap and notice how the tone changes. The tone should get quieter as the Bottle Cap is brought closer to the loop. Do not get closer than 1 inch or you will get a false reading.
10. Locate a PULL TAB (or use a NICKEL) and test as in Step 9. The PULL TAB (or NICKEL) should cause an increase in tone.
11. Press in the button and INCREASE the DISCRIMINATE control.
12. Release the button.
13. Test with the PULL TAB (or NICKEL) as in Step 10 to see if the tone decreases.
14. Repeat Steps 11, 12 and 13 until you have just enough discrimination to reject it (the tone decreases as in Step 9).

NOTE: The reason a NICKEL can be used for the PULL TAB is that in ALL DISCRIMINATORS, a PULL TAB and a NICKEL affect the DETECTOR LOOP almost identically. Some RINGS also look like PULL TABS to DISCRIMINATORS.

15. In order to reject a "screw cap" switch the "DISC. LEVEL" TO "SCREW CAPS", because the VARIABLE DISCRIMINATE cannot be turned to that high a level of discrimination.
16. If you would also like to reject "SCREW CAPS," then repeat Steps II through 15, but substitute the word "SCREW CAP" for "PULL TAB".

IMPORTANT: A very small amount of depth will be lost at the "PULL TAB" setting, but a large amount will be lost at the "SCREW CAP" setting.

## .....USING YOUR 6000/D OUTDOORS.....

Now that you have completed the indoor tuning of the 6000/D G.E.B. DISCRIMINATOR, you are now ready to use it to locate objects of your choice. The detector can be used for approximately four different categories.

1. **COINSHOOTING:** This includes coins, rings, jewelry, watches, and other similar valuables. Usually means just the small objects.
2. **RELIC HUNTING:** Almost any metal of historic or monetary value such as swords, buttons, cannonballs, buckles, muskets, and canteens are included in this category.
3. **TREASURE HUNTING:** Anything metallic that has been left or lost on or under the land or beach such as rings, coins, jewelry, treasure chests and other valuables can be included. Both large and small objects are included in this category.
4. **PROSPECTING:** This category includes precious metals in the form of small grains or nuggets.

### G.E.B. TUNING OUTDOORS.....

Prior to actually selecting one of the four categories listed above, it will be necessary to go through the following steps to tune your 6000/D for outdoor operation:

1. Take your detector outdoors and set the controls for G.E.B. operation as described on Page 5, steps 1 through 10.
2. Hold the detector as shown in **ILLUSTRATION K**.
3. Lower the loop towards the ground as shown in **ILLUSTRATION L**.
4. Since the **GROUND BALANCE** control is set to "0" the tone should get quieter as you lower the loop towards the ground. Therefore, raise the loop (**ILLUSTRATION K**), press the button, and **INCREASE** the **GROUND BALANCE** control.
5. Release the button.
6. Lower the loop towards the ground.
7. Repeat steps 4, 5 and 6 until the sound does not change tone when you lower the loop. (This adjustment does not have to be exact, but the better the adjustment the more the depth.)



**ILLUSTRATION K**



**ILLUSTRATION L**



**ILLUSTRATION M**

If you had difficulty adjusting out the ground, you may have been over some metal. Move to another spot to adjust out the ground. The ground does change from one location to another, so minor adjustments may have to be made when you go to a new hunt site.

8. Sweep the loop back and forth as shown in ILLUSTRATION **M**. Try to keep the loop as close to and as parallel to the ground as possible without scraping. A sharp "BLEEP" or increase in the loudness of the tone will tell you that you have passed near or over a METAL object.
9. Bury a large coin such as a QUARTER, a BOTTLE CAP, and a PULL TAB about 2" deep and 2 feet apart. Cover the holes, and practice on this test garden.
10. Learn how to "PIN POINT" these targets by "X"ing the spot to locate the loudest signal. (ILLUSTRATION **N**)

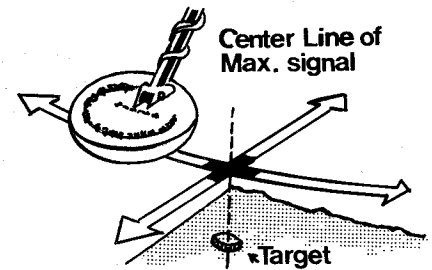


ILLUSTRATION **N**

### .....G.E.B. DISCRIMINATE TUNING OUTDOORS.....

1. With you detector outdoors, set the controls for G.E.B. DISCRIMINATE operation as described on page 6 .
2. Lower the loop to the ground.
3. Sweep the loop as shown in ILLUSTRATION **M**. Notice that in this mode the ground has very little effect on the tone.
4. After you locate an object, you should hold in the button on the handle to pinpoint the target as in ILLUSTRATION **N** . With the button depressed, you will be in the G.E.B. NORMAL MODE which does not require motion to detect objects, so you can slowly move the loop to the strongest indication, as in ILLUSTRATION **N** .
5. When searching in the G.E.B. DISC. MODE, you will find that to a certain point, the faster you sweep the more depth you will get.
6. Practice using the G.E.B. DISC. MODE in your test garden and get used to what a coin "sounds like." Also practice searching in the G.E.B. DISC. MODE and then hold in the button to pinpoint, then practice searching in the G.E.B. NORMAL MODE and hold in the button to identify the target. (Holding in the button switches the detector "MODE".)

#### IMPORTANT NOTICE:

Always be sure you have located **ALL** targets **near** the target you are getting ready to try to identify. Any objects (targets) near the one you are getting ready to identify as good or bad could be influenced by another nearby target unless you **first** locate all other nearby targets and then use the best sweep angle for identification. See pages 13 & 14 for sweep angle tips.

### .....TR DISCRIMINATE TUNING OUTDOORS.....

1. With your detector OUTDOORS, set controls for TR DISCRIMINATE operation as described on page 7.
2. Hold the detector as shown in ILLUSTRATION **K** .
3. Lower the loop towards the ground as shown in ILLUSTRATION **L** .
4. Press and release the button to retune.
5. Sweep the loop as shown in ILLUSTRATION **M** . You will notice that if you tilt or lift the loop the tone will increase, but if you press down on the loop the tone will go quiet. This is very important to understand.

6. To help eliminate false signals caused by lifting or tilting, try to keep the loop more parallel while you sweep or press the button and then release, with the loop about 1" above the ground.

**IMPORTANT NOTICE:**

The more the tone changes for the slightest up or down movement of the loop, the more mineralized the soil. To test for this condition, raise the loop about half an inch. The sooner the tone changes the more the mineralization.

7. Now go over to your test garden.
8. Lower the loop.
9. With the VARIABLE DISCRIMINATE control at "FOIL" you should be able to get an increase in the tone on the COIN and PULL TAB, while the BOTTLE CAP will cause the tone to decrease.
10. Next see if you can figure out how to "adjust out the PULL TAB." If you have trouble refer to page 6, steps 11 through 15.
11. The last step is learning how to retrieve the object without leaving unsightly holes. Refer to the last page under the title of "SOME THOUGHTS ON ETHICS."

YOU SHOULD NOW HAVE A VERY BASIC UNDERSTANDING OF HOW TO USE YOUR DETECTOR. MORE DETAILED INFORMATION FOLLOWS ABOUT THE CONTROLS, TIPS ON USE, BATTERIES AND MORE.

NOTE: G.E.B. MAXIMUM operates just like G.E.B. NORMAL, except for the increased depth.

## .....COINSHOOTING .....

Coinshooting can be divided into two categories--NORMAL COINSHOOTING and RAPID COINSHOOTING.

1. In NORMAL COINSHOOTING, if you want to locate all coins, both shallow and deep, use the G.E.B. NORMAL MODE to search and pinpoint the object.
2. After locating the object, depress and hold the button to change to the G.E.B. DISCRIMINATE MODE to identify the object. A good headphone set, time, and patience are needed.
3. In NORMAL COINSHOOTING, sweep very slowly as shown in ILLUSTRATION O.
4. As in any normal detector, the search signal should "peak" as the target center is passed.

### TYPICAL SEARCH SWEEP

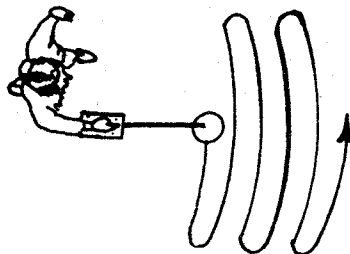


ILLUSTRATION O

5. Try to keep the detector coil parallel to the ground at all times and avoid lifting the coil off the ground at the end of each sweep.
6. Keeping the detector coil parallel to the ground prevents the loss of detection of some deeper targets, since on a careless swing you are putting more distance between the loop and target by lifting it off the ground.
7. When you have pinpointed an object that sounds promising, depress the button to switch the detector to the G.E.B. DISCRIMINATE MODE.
8. Cross the target with a broad rapid sweep, first in one direction, then at right angles to insure a uniform reading as in ILLUSTRATION N.

NOTE: The G.E.B. DISCRIMINATE MODE relies on MOTION for proper operation. To produce the best possible signal, keep the coil in motion in a wide enough sweep to analyze the signal by its characteristic sound.

9. The object may be identified by the type of signal it produces. In some instances, some "junk" objects may be recognized by their erratic signal or the extra large area producing the signal.
10. If you detect an object which produces a signal over a much larger area than a coin, ring or other valuable, it may be several coins close together in a group. (ILLUSTRATION P)
11. To distinguish each separate object, sweep at different angles to screen out unwanted objects or to pinpoint a single object. (ILLUSTRATION Q).
12. If an object produces a very strong signal for its size, switch the DISCRIMINATION LEVEL first to SCREW CAPS to determine if the object is a coin or SCREW CAP.
13. To distinguish a coin from a bottle cap, with the DISCRIMINATE LEVEL at SCREW CAPS, increase sweep speed. This will make the signal from a good object better and cause a "junk object" signal to drop out. This is one of three methods to identify and reject BOTTLE CAPS. The other two methods are: 1.) Use the TR DISCRIMINATE MODE and 2.) The special BOTTLE CAP level setting.

NOTE: The BOTTLE CAPS setting is a special setting found only on the 6000/D, and its use will be discussed later.

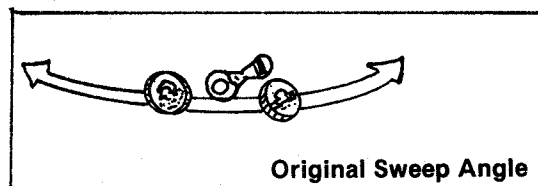


ILLUSTRATION P

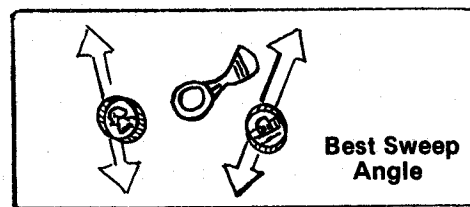


ILLUSTRATION Q

## .....RAPID COINSHOOTING.....

1. After initial tuning and selection of the desired discrimination level, place the 6000/D in G.E.B. DISCRIMINATE MODE.
2. Move the detector coil in a broad rapid sweep as shown in ILLUSTRATION **O**.
3. Keep coil slightly above ground and avoid contact in order to avoid generating a target or object type of signal. A good object will produce a clean, unbroken signal over the target area.
4. When a promising signal is found, press the button on the handle to switch to the G.E.B. NORMAL MODE for pinpointing.
5. Pinpoint the object in this mode as shown in ILLUSTRATION **N**.

NOTE: The 6000/D is designed to identify an object by its metallic composition whether magnetic or conductive. There are many objects which resemble a coin or valuable metal and which you will detect as a coin. Fortunately such objects are in the minority.

## .....RELIC HUNTING.....

There are many areas where relics and other historically valuable objects have been lost due to battles such as the Civil War. In such areas almost any metallic objects may be of interest. To locate such objects, it is best to use the G.E.B. NORMAL or G.E.B. MAXIMUM MODE depending upon the depth the object is buried.

1. Follow the initial tuning procedures.
2. To narrow your search to include only items such as brass, buttons, rings, medals, or buckles, depress button to switch to the G.E.B. DISCRIMINATE MODE to provide for more discrimination.
3. If too much ground clutter is present such as PULL TABS, you may want to set the DISCRIMINATION LEVEL to PULL TABS or SCREW CAPS.

## .....BEACHCOMBING.....

The 6000/D is designed to be used in areas of wet or dry sand and salty or fresh water. The **TR — DISCRIMINATE MODE** can be used on the ocean beach or in other areas of high salt concentration by tuning for salt water.

1. Set the MODE to TR — DISCRIMINATE after initial tuning. If operating over salty water tune out the effects of the salt water, by adjusting the VARIABLE DISC. CONTROL.
2. If the G.E.B. DISCRIMINATE MODE is selected for the primary search, depress button to change to G.E.B. NORMAL MODE for pinpointing in salt-free areas.
3. If the G.E.B. NORMAL or G.E.B. MAXIMUM MODE has been selected for the primary search in a salt-free area, it may be necessary to adjust the GROUND BALANCE control to compensate for changing soil conditions. Switch to G.E.B. DISCRIMINATE MODE for object identification as in coinshooting.

If you are planning to do an extensive amount of beachcombing, a basket is needed with about three eighths of an inch mesh or slightly larger, that is, with holes big enough to allow sand to pass through and retain coins.

## .....PROSPECTING.....

In prospecting you will want to locate an area with gold or similar valuable metals. Gold nuggets or gold dust are usually found along with highly mineralized "Black Sand". You can either pan for gold dust or tune out the "Black Sand" effect with the GROUND BALANCE control and search for nuggets.

1. Place the detector in G.E.B. NORMAL or G.E.B. MAXIMUM MODE.
2. Search in areas where the ground signal increases greatly, even with occasional raising and lowering of the detector coil and retuning with the button on the handle.
3. An excellent place to search is in a stream bed, a wash or dry creek bed, and especially downstream from known mining and mineral areas.

## .....TIPS.....

1. "How deep will it go?" In the G.E.B. MODE of operation, the depth is determined by four main factors
  - a. The SIZE of the object.
  - b. The SIZE of the loop.
  - c. The LENGTH OF TIME the object has been buried.
  - d. The SKILL of the operator.

In the TR DISCRIMINATE MODE the depth is determined by the same four main factors plus one other--the AMOUNT OF MINERALIZATION.

The longer an object has been buried, the better you will be able to detect it. A chemical reaction called a "HALO" effect may cause your detector to register a much larger increase in volume than might otherwise be expected for a small coin. If the effect is strong enough, your detector may continue to register even after you have dug up the coin.

2. "What will the detector locate?" Silver, lead, copper, bottle caps, tin foil, pull tabs, cartridge cases, rings, brass and tin cans are just a few of the conductive objects which can be detected. Your detector will not locate sticks, rags, bones, paper, wood or other non-metallic objects.
3. Learn how to interpret different types of responses from your detector such as the following:
  - a. BOTTLE CAPS produce a coin-like sound, but there are three ways to identify and reject BOTTLE CAPS. One way is to place the detector in the G.E.B. DISCRIMINATE MODE, and the DISCRIMINATE LEVEL to SCREW CAPS. Then sweep with a fast SWEEP speed. This is necessary to reject a BOTTLE CAP in the SCREW CAP position as shown in ILLUSTRATION R.

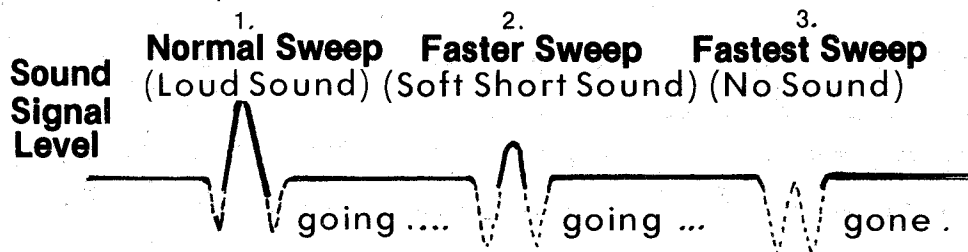


ILLUSTRATION R

If the object is a coin or other valuable metallic object, the sound signal level will increase with a fast sweep speed rather than drop out as shown in ILLUSTRATION S.

A second way to test for BOTTLE CAPS is to leave the detector in the "G.E.B. DISCRIMINATE" MODE, but switch the "DISC. LEVEL" control to the "BOTTLE CAPS" position. In this setting you need to use a normal sweep speed or maybe a little slower than normal. If the object is a BOTTLE CAP the sound will "BREAK-UP" or "RING". This special BOTTLE CAP setting will take lots of practice and should "ONLY BE USED AFTER YOU HAVE BECOME FAMILIAR WITH THE 6000/D".

A third way to identify and reject BOTTLE CAPS is to place the detector in the TR DISCRIMINATE MODE and the DISC. LEVEL control to "PULL TABS". Then slowly check the target again. A BOTTLE CAP is almost always a strong signal and can usually be easily identified in this mode.

With this fantastic detector, you will get very deep objects in the G.E.B. DISCRIMINATE MODE regardless of the soil conditions, but occasionally you might dig up a BOTTLE CAP by mistake, so **learn to identify them!**

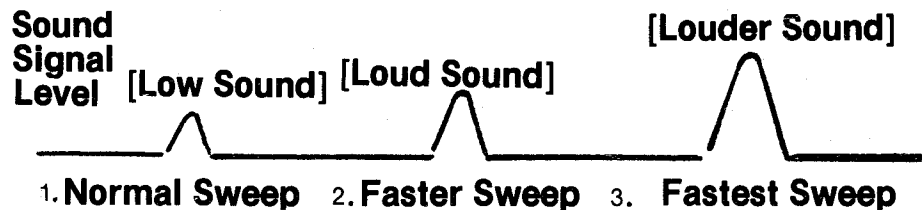


ILLUSTRATION S

- b. SWEEP ANGLES are important in locating and pinpointing a combination of objects. For example, with the detector set at G.E.B. DISCRIMINATE MODE and PULL TAB DISCRIMINATE LEVEL you will often get an audio or sound signal as in ILLUSTRATION T.

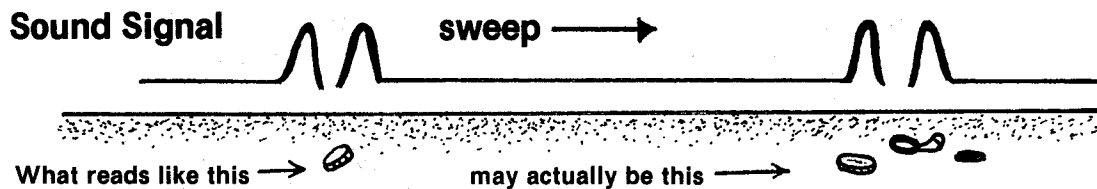


ILLUSTRATION T

If you are tempted to pass on and forget such a signal, don't. Instead, do the following:

1. Switch to the G.E.B. NORMAL for pinpointing.
  2. Sweep the detector coil across the target area in both directions. You may be able to isolate the signal from more than one object.
  3. If it appears that there is more than one object present, try sweeping the detector coil at different angles with the detector in G.E.B. DISCRIMINATE MODE for the most reliable reading. See ILLUSTRATIONS **P** and **Q**.
- c. TOO BIG TARGET signals are produced by objects possessing a large surface area and may consist of an alloy or plating which causes the detector to respond to the non-ferrous or non-iron portion of the object. Such objects include beer cans, pop cans, and alarm clocks. Characteristics of such signals include:
1. The size of the signal both in ground area and strength.
  2. The distance you can raise the swinging detector coil above the ground before it fades. You may detect pennies buried about 5 or 6 inches below the surface of the ground and yet hit a strong signal with the detector coil raised 10 inches above the ground. Such a signal will not be produced by pennies, quarters or dollars, unless possibly there is a large quantity buried in one place such as in a gallon can. To check out such a signal, see how far you can raise the swinging detector coil above the ground before it fades, and test it in the **TR DISC. MODE**.
- d. DEPTH ESTIMATING can be accomplished as follows:
1. Locate an object with a detector signal.
  2. Raise the detector coil as you swing it until the signal fades.
  3. Note the maximum distance of the coil above the ground.
  4. Subtract the depth that a coin or similar object is usually detected from the distance above ground and you will have an idea of how deep you must dig to uncover the object.
- e. PUSH BUTTON retuning may be necessary due to changing ground conditions when searching in the G.E.B. MODES or TR DISCRIMINATE MODE. To retune, just press the button and release.
- f. PINPOINTING a target or object can be accomplished by sweeping a target in one direction and sweeping it at right angles to the original direction as shown in ILLUSTRATION **N**. This is called "X-ing" the target. It is also helpful to sweep the target at several different angles as you move around it. Coins will usually produce one reading regardless of sweep direction.
4. Rather than waste time, check around trees for junk items such as foil, pull tabs, bottle caps, etc. This will frequently indicate whether someone has already been in the area with a detector.
  5. Always "criss-cross" an area when searching it.
  6. After you have dug up a coin, always check the hole again for more.
  7. When beachcombing the best place to look for coins is near concession stands.
  8. Check the shallow water in swimming areas. Most rings and coins are lost when people enter the water.
  9. If you make plans for coinshooting, check the history records of the area.
  10. Always carry a plastic bag for your detector in case you get caught in the rain.
  11. Never ask permission to treasure hunt over the phone. People tend to visualize you using a pick and shovel, making large holes.
  12. Join a local historical society or get acquainted with its members.

# COINMASTER 6000/D CONTROLS

1. TUNER - This control should always be adjusted for a slight tone, sometimes referred to as a THRESHOLD tone. If it is adjusted for NO SOUND then you may miss some or all objects depending upon how far away you were from the THRESHOLD. If you have too much sound then an object may not be able to cause any increase in the LOUDNESS of the tone.
2. GROUND BALANCE - This control only works in the G.E.B. MODES. When in the G.E.B. MODES you can adjust out the effect of the ferric oxide (mineralization) content of the GROUND.
3. MODE - There are four separate modes of operation which is like having four detectors in one.
  - a. \*G.E.B./NORMAL- Detects all metals at normal G.E.B. or VLF depths.
  - b. \*G.E.B./DISCRIMINATE - Discriminates against selected trash at normal G.E.B. or VLF depths regardless of soil conditions. A true G.E.B./DISCRIMINATOR, it rejects the ground while Discriminating. Pinpointing is accomplished by holding in the button.
  - c. \*TR/DISCRIMINATE - Discriminates against selected trash at TR depths which varies depending upon soil conditions. Pinpointing can be done in this mode. Also, salt water can be adjusted out in this mode, by adjusting the VARIABLE DISC. control.
  - d. \*G.E.B. MAXIMUM - Detects all metals at deeper than normal G.E.B. or VLF depths. This is an ideal mode for relic hunters who want maximum depth.
4. DISC. LEVEL - This control has four preset settings:
  - a. VARI - This setting allows you to use the VARIABLE DISC. control for a continuous selection from thin rings in the NAILS setting to FOIL, TABS, and other items at the Maximum Control setting of the VARIABLE DISC. control.
  - b. TABS - At this setting you will screen out PULL TABS.
  - c. SCREW CAPS - This setting screens out PULL and SCREW CAPS.
  - d. BOTTLE CAPS - This is a special setting on the 6000/D to screen out BOTTLE CAPS, in the G.E.B. DISC. mode.
5. VARIABLE DISC - This control is used in conjunction with the DISC. LEVEL control at the VARI setting and allows for fine discrimination of thin rings in the NAILS level; also it adjusts out FOIL and TABS. This control allows the experienced person a greater degree of selectivity than is possible using the TABS, SCREW CAPS, and BOTTLE CAPS settings on the DISC. LEVEL control.
6. POWER AND VOLUME - This control turns the detector OFF or ON and provides for different levels of VOLUME from minimum to maximum. This control allows you to adjust the loudness of the tone in the speaker or headphones. You should set this control for the loudest possible comfortable level. The louder the volume the more the APPARENT depth.
7. BAT. CK. - This control has a 9-Volt setting to test the 9-Volt battery pack, a 12-Volt setting to test the 12-Volt battery pack and an OFF setting once the testing is completed.
8. EAR PLUG - This feature allows you to connect a headset to save on power drain of the batteries and provide greater sensitivity in distinguishing one sound signal from another.
9. PUSH-BUTTON - This control can be thought of as a "MEMORY" control for the tuner. As long as you push in the button when you set the tuner, the memory circuit will remember the initial setting the next time you push and release the button. So if the tuning changes because of any reason (other than actually moving the TUNER KNOB), such as changing the DISCRIMINATE, or GROUND BALANCE control (and you did not hold in the button as you changed one of these controls), all you have to do to retune is press and release the button. You do not have to hold in the button in the G.E.B. DISCRIMINATE MODE, for tuning or when adjusting the discriminate controls.

## **.....RECHARGEABLE BATTERIES.....**

The battery system supplied with your 6000/D is the newest battery system available today. As far as we know WHITE'S has become the first to sell rechargeable batteries with a metal detector. This rechargeable system will save you up to \$2,000 in regular batteries over the life of your rechargeable pack. These NICKEL-CADMIUM batteries can be recharged as many as 1,000 times or more. Our test shows that under normal conditions you may expect anywhere from 10 to 20 hours of continuous use before you would need to recharge them. If used for only a few hours a day you can expect many more hours of use.

The 6000/D is supplied with two battery packs, a 9-Volt pack and a 12-Volt pack, both rechargeable **plus** a 9 and 12-Volt battery pack of regular batteries. The regular batteries allow you to begin using your detector immediately while your rechargeable batteries are being initially charged **or** if you are in the field and your rechargeable batteries go dead you can insert the regular battery packs and go on detecting until you can recharge your rechargeable battery pack.

## **.....OPERATING YOUR CHARGER .....**

1. Connect the terminal with the "WHITE" tape to the 12-Volt battery pack and the terminal without tape to the 9-Volt battery pack.
2. Plug the charger into the wall.
3. CHARGE the pack 5 to 8 hours for the following reasons:
  - a. Before the first use.
  - b. After long periods of storage (2 weeks or more).
  - c. When the battery pack tests below "75" on the meter.

## **IMPORTANT CAUTIONS ABOUT YOUR BATTERIES:**

1. The battery pack should not be left on the charger for extended periods. A maximum of overnight.
2. Always be sure to connect to the correct terminals.
3. Do not dispose of the batteries in a fire.
4. Do not attempt to replace one defective cell in your rechargeable packs.
5. Do not allow any metal to lie across the terminals on your pack. The VERY LARGE CURRENT available may cause severe arcing and is otherwise dangerous. This includes the rings on your hand.
6. Do not place the pack in your pocket, where it might short against keys, coins, etc.
7. Do not substitute this rechargeable pack with a different rechargeable pack. Each cell is matched to allow charging of the entire pack.
8. Non-rechargeable batteries may explode if you attempt to charge them.

## Some Thoughts on Ethics

Treasure hunting is the kind of new hobby that fires the imagination and generates its own enthusiasm. It's the most natural thing in the world to dig as fast as you can the minute you hear that first loud, unmistakable signal. It will be a real thrill to discover what treasure is right beneath your feet.

But stop a minute! Be a little far-sighted and consider the long-run, too.

We strongly urge you to adopt a code of ethics which will preserve the environment and also the rights of treasure hunters to operate detectors with as few restrictions as possible.

Before you even begin a search, check the law, ordinance or regulations about hunting on publicly owned sites. Abide by the rules. If the area is private property, get written permission from the owner to search it. You may find he will be more eager to give permission if you suggest sharing your finds with him, or if you offer to search for a specific item he has lost.

About digging: In lawn areas use a screwdriver of no more than six or eight inches as your tool. Limit the size of the hole to a maximum of two inches in diameter, cutting a plug of sod which can be easily replaced after you make your find and fill the hole. Leaving holes is both unsightly and dangerous!

Detectors or detector modes designed for locating large and deeply buried objects should be used with discretion--never in lawn areas, and with careful judgment in other locations. Consider the scar you may leave by your digging before you start. This will vary a lot from one part of the country to another, depending on local soil and climatic conditions.

Public officials and private property owners will be much more likely to allow continued treasure hunting if you do no environmental damage. You may even be able to increase your reputation as an ethical hunter by volunteering to carry out and dispose of whatever trash items you find.

Adoption of these attitudes can only enhance the public's opinion of treasure hunters and assure that many areas, both public and private, remain open to you and your new detector.

## Service And Warranty Information

If your new metal detector is ever in need of service, ship it to us at the factory address below or to one of the Service Centers listed on the back of the warranty statement. Insure it fully, prepay the charges and enclose a letter describing the nature of the problem. As long as your detector is under warranty, there is no charge other than a small handling and postage fee.

Read your warranty card carefully. It describes completely what is covered and the length of the coverage. If you have any questions, don't hesitate to write us. We will be happy to answer any questions you may have.

# Proper Care of Your Detector

The following are precautions you should take to protect your instrument from harm, insure its long life, and avoid nullifying the warranty.

**Cleaning:** The loop and rod or probe are waterproof. They can be cleaned with fresh water and a mild cleanser. After cleaning, however, dry the instrument thoroughly. Caution! The instrument case is not waterproof, and water—if allowed to enter it—may damage electronic components.

**Weather Conditions:** Protect your detector from excessively cold weather. Freezing can damage the electronic components, the case and/or the batteries. Excessive heat can also damage the instrument. Never leave it in the sun. It's best to lay it in the shade when temporarily not in use. If it's left in a car on a hot day, cover it with a blanket or something similar to protect it from the direct rays of the sun, and then leave the windows slightly open to permit ventilation. Needless to say, protect your detector if you operate it in the rain, as water may get into the instrument case.

**Salt Water:** Salt water is very corrosive! Immediately after your detector has been exposed to salt water, rinse it thoroughly with fresh water, being careful not to allow water to enter the instrument case. Then wipe it with a cloth dampened with fresh water and dry it thoroughly.

**Storage:** If you plan to store your detector for any length of time, unsnap the battery and remove it from the instrument. Whenever your detector is not in use, turn the **VOLUME** knob all the way to the "**PWR OFF**" position.

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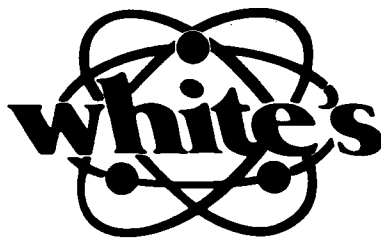
Read your warranty card carefully. It describes completely what is covered and the length of the coverage. If you have any questions don't hesitate to write us. We will be happy to answer any questions you may have.

## HELPFUL HINTS AND TIPS

1. "How deep will it go?" Detection depth is determined by five main factors.
  - a. The **SIZE** of the object.
  - b. The **SIZE** of the loop.
  - c. The **LENGTH OF TIME** the object has been buried.
  - d. The **SKILL** of the operator.
  - e. The ground **MINERAL CONTENT**.

The longer an object has been buried, the better you will be able to detect it. A chemical reaction called a "halo effect" between such objects as silver or copper coins and the surrounding soil may cause your detector to register a much larger increase in volume than might otherwise be expected for a small coin. If the halo effect is strong enough, your detector may continue to register even after you have dug up the coin.

2. "What will my detector locate?" Silver, lead, copper, bottle caps, tin foil, pull tabs, cartridge cases, rings, brass and tin cans are just a few of the conductive objects that can be detected. Your detector will not locate sticks, rags, bones, paper, wood or other non-metallic objects.
3. Learn how to interpret the different types of responses from your detector. A nail lying flat in the ground will sometimes produce a double or single reading depending upon whether your loop passed across it lengthwise or across its width. So it's a good idea to sweep your finds from several different directions to try to learn as much as possible about the object you have located. Coins will usually only produce one reading regardless of sweep direction.
4. Rather than waste time, check around the trees for junk items such as foil, pull tabs, bottle caps, etc. This will frequently indicate whether or not someone has already been in the area with a detector.
5. Always "criss-cross" an area when hunting it.
6. After you have dug up a coin, always check the hole again for more. As many as 10 coins have been found in one hole!
7. When beachcombing the best place to look for coins is near the concession stands.
8. Check the shallow water in swimming areas. Most rings and coins are lost when people enter the water.
9. If you make plans for coinshooting, check the history records of the area.
10. Always carry a plastic bag for your detector in case you get caught in the rain.
11. Never ask permission to treasure hunt over the phone. People tend to visualize you using a pick and shovel, making large holes.
12. Join a local historical society or get acquainted with its members.
13. In lawn areas, use a screwdriver of no more than eight inches as your tool. Limit the size of the hole to a **MAXIMUM** of two inches in diameter. Don't forget to fill in the hole. Public and private officials and property owners will be more likely to allow continued treasure hunting if you do no environmental damage.



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