

**OPERATOR'S
INSTRUCTIONS**

COINMASTER 4000/D SERIES 2 HIPMOUNT



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

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,

A handwritten signature in black ink that reads "Kenneth White". The signature is written in a cursive, flowing style with a large initial 'K'.

Kenneth White, Sr.

SPECIFICATIONS

For the 4000/D Series 2 HIPMOUNT

(U.S. PAT. 4293816, U.S. PAT. 4030026, U.K. PAT. 1548239, CDN PAT. 1038036)

USES: Coinshooting, relic hunting, beachcombing (shallow water), and prospecting.

WEIGHT: Case: 2 lbs. 4 oz. Probe: 24 oz.

LOOP SIZE AND STYLE: 8" concentric, completely waterproof, non interchangeable

OPERATING FREQUENCY: 6.59 KHZ

AUDIO FREQUENCY: 450 - 605 Hz

OPTIMUM TEMPERATURE RANGE: 33°F - 100°F

OPTIMUM HUMIDITY RANGE: 0% - 75%

DEPTH ON U.S. 25¢ PIECE: G.E.B. - 7"

NOTE: Your actual depth may vary as a result of mineralization, object size, loop size, length of time the object has been buried, and your skill.

MODES OF OPERATION: G.E.B and DISC.

* White'e Electronics, Inc., reserves the right to modify or improve the design capabilities of the 4000/D Series 2 Hipmount without further notice.

PARTS IDENTIFICATION FOR COINMASTER 4000/D SERIES 2 HIPMOUNT

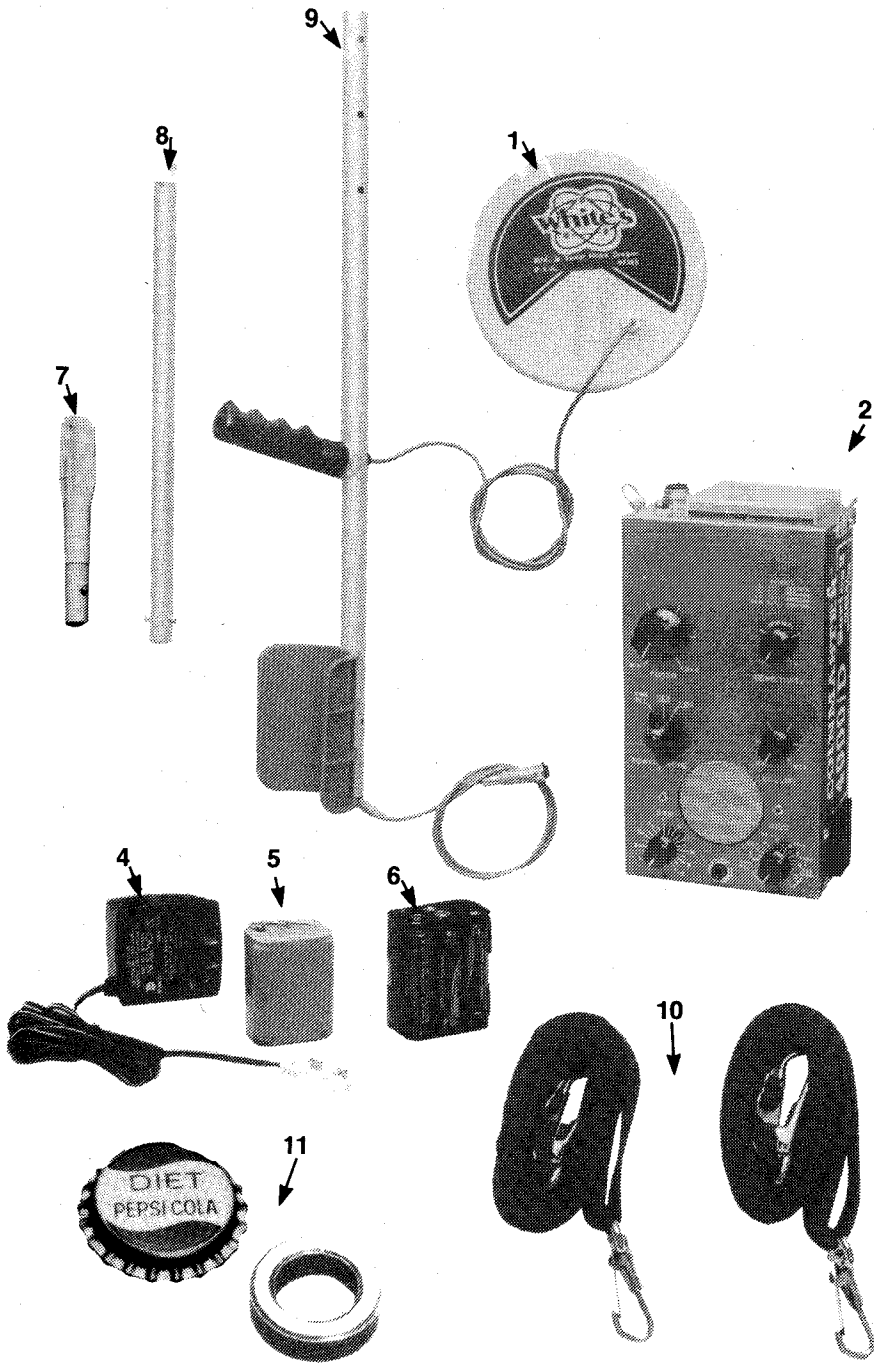
When you unpack your 4000/D Series 2 HIPMOUNT, compare all of your parts with the parts listed on this page and the picture on the following page.

1. Detector Loop
2. Instrument Control Box
3. Loop Bolt, Thumbnut, and 2 Plastic Washers (Not Shown)
4. Battery Charger
5. 6 Cell Rechargeable Battery Pack
6. 6 Cell Standard Battery Pack
7. Loop Isolator
8. Lower Portion of Rod (Shorter Rod)
9. Upper Portion of Rod (Longer Rod)
10. Support Straps
11. Test Samples: A. Bottle Cap; B. Mineral Sample

If you don't have all the parts listed, contact your dealer at once. If that isn't possible, note the missing item on your warranty card and send it in. In either case, your problem will receive prompt attention.

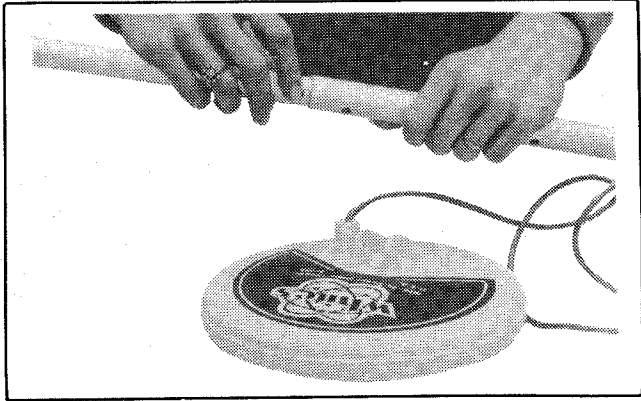
ILLUSTRATION OF PARTS continued on next page...

ILLUSTRATION OF PARTS



ASSEMBLY DIRECTIONS

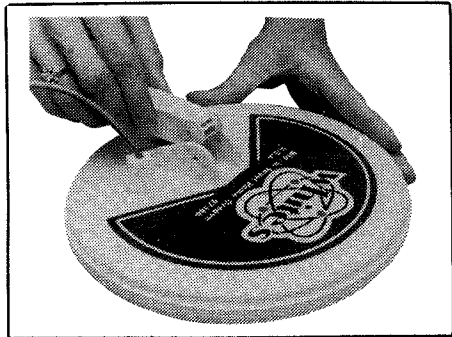
ILLUSTRATION A



Slide the shorter metal rod into the longer metal rod (with the handle, fore-arm rest, and attached loop). Depress the snap locks on the shorter rod to fit into one of the longer rod's three holes. (Illustration A)

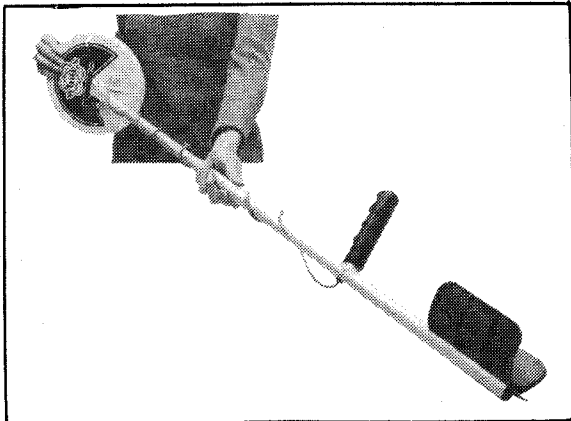
NOTE: Make sure the single hole at the end of the shorter rod is pointing up.

ILLUSTRATION B



Place the two washers in the depressions on the loop isolator and connect to the loop by inserting the bolt and thumbnut, tightening by hand. (Illustration B)

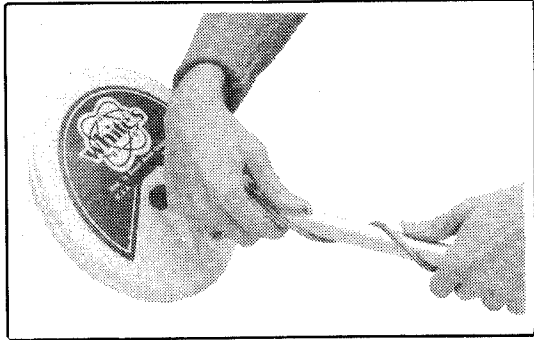
ILLUSTRATION C



ASSEMBLY DIRECTIONS continued

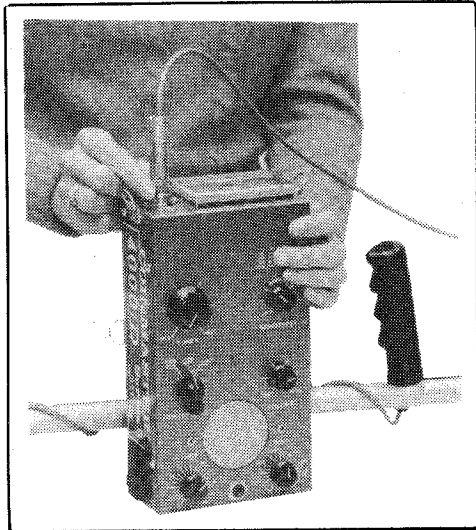
Support the two joined metal rods while wrapping the loop cable around them. It's important for the cable to be snugly wrapped around the metal rods, just reaching the loop isolator. (Illustration C)

ILLUSTRATION D



Depress the loop isolator's snap lock and fit it into the hole at the end of the assembled rods. (Illustration D)

ILLUSTRATION E



Connect the loop cable to the top of the control box. (Illustration E)

ASSEMBLY DIRECTIONS continued

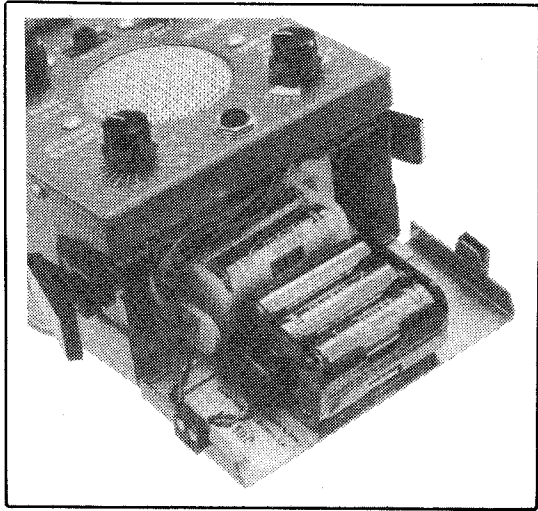


ILLUSTRATION F

Open the door on the bottom of the control box and connect the battery connector to the standard battery pack. Insert the battery into instrument and close the door. Connect the rechargeable battery pack to the battery charger for its initial charge. Following directions on page 12. (Illustration F)

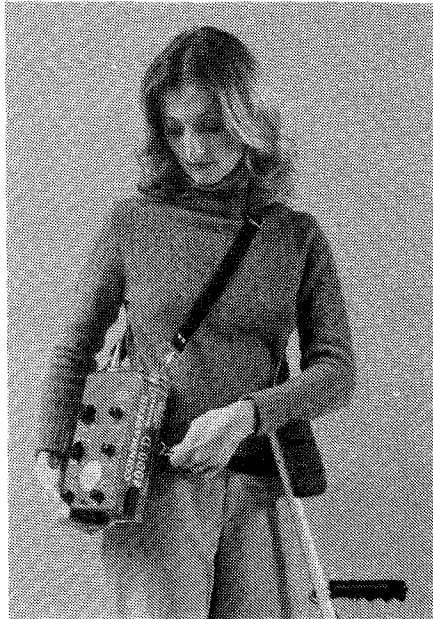


ILLUSTRATION G

Connect the two straps to the control box and then put them around your body as shown, one over your shoulder and one around your waist. Adjust them for your comfort. (Illustration G)

Adjust the probe length for your height by extending the rods and locking them into place with the snap locks. Make sure the cable remains snug around the rods. (Illustration H)

ILLUSTRATION H



GLOSSARY OF TERMS

DISC. (Discrimination)	Refers to the detector's ability to distinguish between "junk" and "good" items.
G.E.B. (Ground Exclusion Balance)	Refers to the detector electronically canceling out the effects of mineralized ground.
GROUND BALANCE	Refers to the detector giving a "neutral" response to the ground. The threshold tone does not change in volume.
HOT ROCK	Any rock which the detector reacts to positively, indicating a mineralization content.
MINERALIZATION	Refers to the ferric oxide or magnetic content of the soil to which the detector will respond.
NULL POINT	It is the point at which there is no discrimination and the detector is balanced with the ground. Nothing will be rejected.
PINPOINTING	Cross the target at right angles, noting where the loop is when the signal is the strongest. Another method of pinpointing is to push and release the push button several times as the loop is moved towards the target. This de-

	tunes the instrument, making only the center of the loop sensitive to the target. The target is then at the center of the loop.
SWEEP	Refers to searching an area. A method of swinging the loop in front of you as you walk along so that you completely cover the ground for good targets.
TARGET REJECTION	Refers to the detector giving a "negative" response to a target. The tone goes quiet rather than increasing in volume.
TH	Treasure Hunting. A "TH'er is a Treasure Hunter!
THRESHOLD	The point of optimum tuning. At this point the detector operates at its maximum depth range. It is recognized by a slightly audible tone.
TR	Transmit Receive type of detector. The "DISC" mode on this detector is a TR Discriminator. It can distinguish between "good" and "junk" targets.

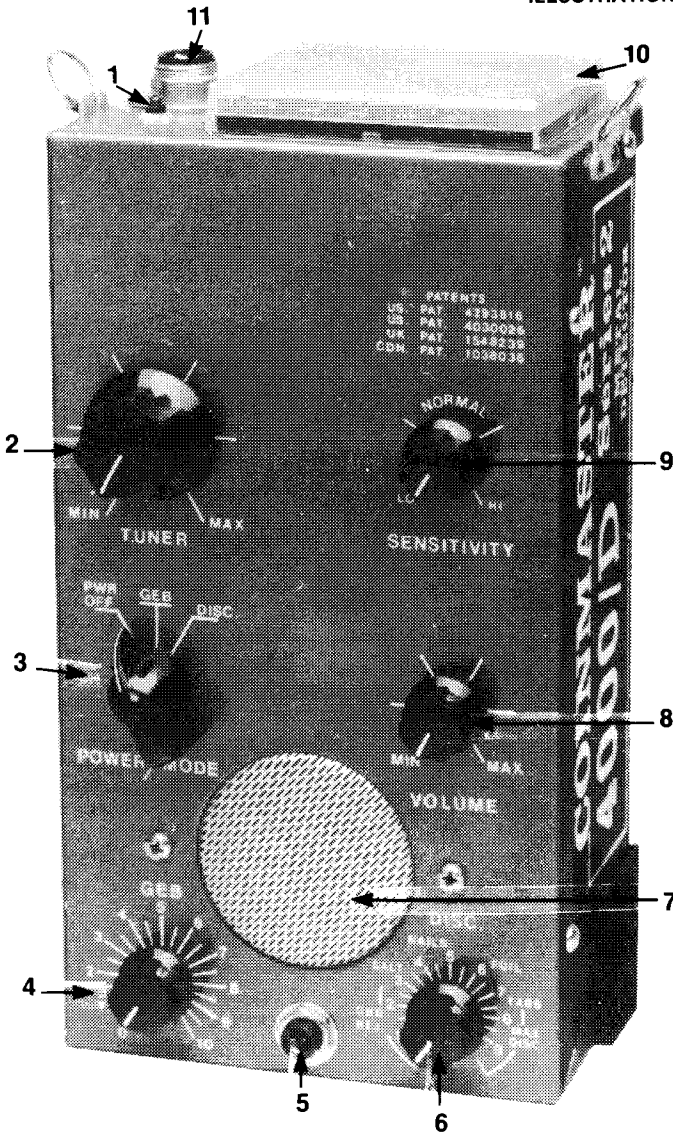
IDENTIFICATION OF CONTROLS AND FEATURES

(SEE ILLUSTRATION ON FOLLOWING PAGE)

1. **LOW BATTERY ALERT** - Illuminates when the battery falls below the minimum power level to effectively operate the detector. Also flashes when instrument is turned on or off.
2. **TUNER** - Adjusts the detector for its threshold tone.
3. **POWER/MODE** - Turns the detector ON and OFF. Also selects operating mode - G.E.B. or DISC.
4. **G.E.B. (GROUND BALANCE)**: Adjusts detector's ability to cancel out effect of soil mineralization in G.E.B. modes.
5. **HEADPHONE JACK** - Allows user to listen to audio tone on mono-headphones. Saves on power drain and gives greater response in distinguishing differences in tone.
 - a. Use of headphones automatically disconnects speaker.
 - b. Stereo headphones may be used if they have a stereo/mono switch and you select Mono. However, this is not recommended.
6. **DISC. (DISC. ADJUST)**: Discrimination control allows you to distinguish between some "junk" items, such as nails, foil, pull tabs, etc., and "good" items such as coins and rings, in the DISC mode. Adjustment is variable, allowing you to increase it only as necessary. Testing your machine will help you establish its discrimination characteristics and its Null Point. **CAUTION**: When set to reject pull tabs or screw caps, the American nickel, some gold rings, and small gold items, will also be rejected.
7. **SPEAKER** - Broadcasts the audio tone; silent with headphones.
8. **VOLUME** - Adjusts the loudness of audio tone for speaker or headphones. Set at **MAX** it will register the greatest difference between "positive" and "negative" tones. **NOTE**: Use of headphones will require turning volume level down from **MAX**, but no sensitivity will be lost.
9. **SENSITIVITY** - Allows the Discriminator to function more effectively in mineralized ground. The more mineralized the ground, the less sensitivity you'll use. As this control is increased, the detector becomes more sensitive to all metals *and* to the mineralization in the ground.

- 10. METER - Gives visual representation of signal intensity when passing over target.
- 11. LOOP CABLE CONNECTOR - This is the terminal where the loop cable is connected to the top of the control box.

ILLUSTRATION I



BATTERIES (NON-RECHARGEABLE)

Batteries are the lifeblood of your instrument. Your battery pack holds six 1½ Volt AA penlight batteries. These are available at drug and grocery stores almost everywhere. Any brand will work well, although we recommend the alkaline type for longer life.

To change batteries, first remove the battery pack from the instrument. Before you remove any batteries, examine the pack. Note the exact position of each battery and the position of the battery lead connectors. Your detector will not work unless the batteries are properly installed and the battery lead is properly connected.

Each battery has a positive (+) end and a negative (-) end. The plus (+) and minus (-) symbols are clearly marked on all batteries. Remove one of the batteries from the battery pack. Notice that the slot from which it was removed also has the positive (+) and negative (-) symbols clearly marked.

To replace the batteries, simply match the plus (+) and minus (-) symbols on the battery pack to the battery and then snap the new battery into place.

The battery lead snaps must also be matched to the button snaps on the pack when you reconnect the power cable.

RECHARGEABLE BATTERY

Your metal detector comes equipped with a rechargeable battery. This rechargeable system will save you hundreds of dollars in regular batteries over the life of your rechargeable pack. The NICKEL CADMIUM battery can be recharged as many as 1000 times or more. Our tests show that under normal conditions you may expect anywhere from 10 to 20 hours of continuous use before you would need to recharge them.

The COINMASTER 4000/D Series 2 HIPMOUNT is supplied with one standard battery pack and one rechargeable system. The standard battery pack will allow you to begin using your detector immediately while your rechargeable battery is being initially charged OR if you are in the field and your rechargeable battery goes dead, you can insert the standard battery pack and go on detecting until you can recharge your rechargeable battery.

Note: Batteries will last longer when headphones are used.

OPERATING YOUR CHARGER

1. CONNECT the rechargeable battery pack to the charger.
2. Plug the charger into an electrical outlet.
3. Charge the pack 3 to 8 hours: (After 8 hours, the packs will have reached their maximum charge.)
 - a. Before the first use.
 - b. After storage periods of 2 weeks or more.
 - c. When the L.E.D. light comes on.

IMPORTANT CAUTIONS ABOUT YOUR BATTERIES

1. The rechargeable battery pack should not be left on the charger longer than 10 hours.
2. Be sure to connect to the correct terminals.
3. Do not dispose of batteries in a fire.
4. Do not allow any metal (including rings and other jewelry) to lie across the terminals on your packs. The **VERY LARGE CURRENT** available will cause burns and is dangerous.
5. Do not place the battery in your pocket where it might short against coins, etc.
6. Your **RECHARGEABLE BATTERY SYSTEM** (charger and battery) has a specific charge current. Do not attempt to mix other chargers or packs with this rechargeable system. The batteries may explode if the charge current is too high.

PROPER CARE OF YOUR DETECTOR

The following are precautions you should take to protect your instrument from harm, ensure 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 - will 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. If it's left in a car on a hot day, cover it 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.

ADDITIONAL PRECAUTIONS:

- a. Avoid dropping your detector.
- b. Do not use WD-40 on any of the electronic components.
- c. Avoid sharp jars to the loop.
- d. Do not allow batteries to corrode inside the instrument.

G.E.B. INDOOR TEST PROCEDURES

The following procedures will help you to become familiar with your metal detector's operation.

In order to test your detector, it is first necessary to tune it to the threshold point. To do this, place your detector on a table with the loop extending into the air away from any metal. Remove any rings or watch that you may be wearing. Obtain a few test samples, such as a coin, ring, bottle cap, nail, pull tab, foil gum wrapper, etc.. (Illustration J)

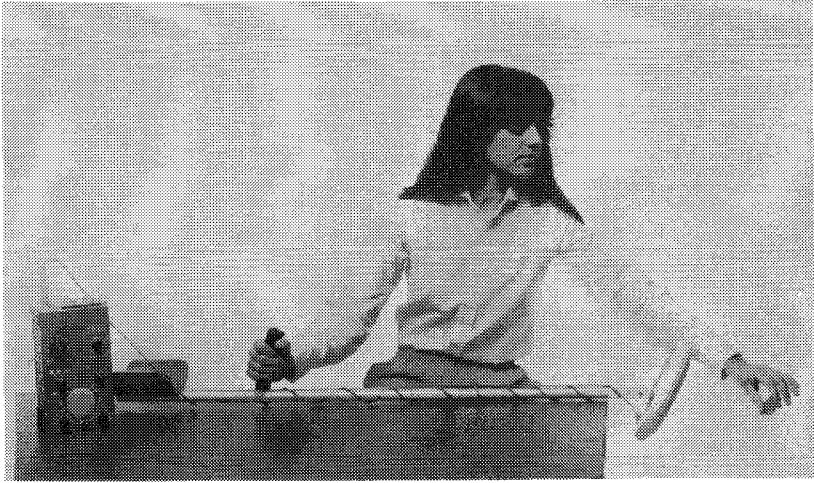


ILLUSTRATION J

Set the controls as follows:

1. TUNER MIN
2. MODE G.E.B
3. GROUND BALANCE 5
4. DISC ADJUST 0
5. VOLUME MAX
6. PRESS and hold in the push-button, then turn TUNER clockwise until the threshold tone is barely audible.
7. RELEASE the button.
8. HOLD a coin in front of the loop face as shown in the illustration, and notice the reaction in the tone. Move the coin closer and farther from the loop, and to either side of the loop and notice how the tone changes. The tone should increase as the coin is brought nearer to the loop. Repeat this test using the ring.
9. HOLD a nail in front of the loop and repeat the movements above. Test the bottle cap, pull tab, etc. in the same way. The tone should increase.

10. NOTICE that the coin and ring react just like the nail, bottle cap, pull tab, etc.! In the G.E.B. mode, all metals are detected, and the ground will be cancelled out. With experience, you will be able to tell the difference between the "good" and "junk" items by the particular sound of the tone.
11. If the threshold is lost for any reason other than a target, the push-button can be momentarily pressed to reset the detector. The Tuner does not need re-adjusting, as the push-button "remembers" where the threshold is.

DISC INDOOR PROCEDURES

There is a true null point in the DISC mode for quick ore sampling and hot rock identification. Since circuit tolerances can result in the true null point being different from instrument to instrument, it is very important that you determine your detector's specific null point before using it in the field. To do this, place your detector on a table with the loop extending into the air away from any metal. Remove any rings or watch that you may be wearing. You will need the small mineral sample which is supplied with your detector.

Set the controls as follows:

1. TUNER MIN
2. MODE DISC
3. GROUND BALANCE 5
4. DISC ADJUST 1
5. VOLUME MAX
6. TUNE for threshold - press and hold in the push-button, then turn the Tuner clockwise until a slight tone is heard - release the button.
7. USING the mineral sample, move it directly towards the center of the loop, coming no closer than one inch from the bottom. (The tone should increase.) Then, move the sample away from the loop.
8. INCREASE the DISC ADJUST, in the area marked "GND REJ", until there is only a slight decrease in the threshold tone, as you move the sample towards the loop.
9. RETUNE to threshold after you move the DISC ADJUST control each time, by pressing and releasing the push-button.
10. MARK this point on the DISC ADJUST dial once it has been determined. This will represent your detector's true null point and should not change.

The null point relates to the DISC mode and will be used primarily for prospecting purposes. Setting this point permanently in no way affects the other functions or mode of the detector. When you wish to rely on it, simply turn your DISC ADJUST to this point which you have marked.

To test the DISC mode's response to good items and junk items, repeat the procedures above through #9 with a variety of samples, such as those used to test the G.E.B. mode. As you increase the DISC ADJUST control, notice the way each item affects the tone and note at which number on the DISC ADJUST each item is rejected. Your notes will help you during field use. Remember, the tone will increase in response to good targets, and will go quiet in response to junk.

When using the discrimination mode, you should use no higher level of discrimination than is necessary for the type and amount of trash that is in the area you are searching. Increasing the discrimination level will reject certain items of junk, but will also reject certain good items, such as the American nickel, and some small gold items. Therefore, you should note where certain items are rejected on the DISC ADJUST control. Also, some depth loss will result at the very high levels of discrimination.

G.E.B. FIELD TUNING PROCEDURES

Your detector needs to be Ground Balanced for each location in which you are searching. Following is an initial tuning procedure. But, with experience, you will learn shortcuts and a procedure which best suits you. Remember, the G.E.B. is an all metals mode.

Set the controls as follows:

1. TUNER MIN
2. MODE G.E.B.
3. GROUND BALANCE 0
4. DISC ADJUST 0
5. VOLUME MAX
6. PRESS and hold in the push-button with the detector's loop in the air waist high. Turn the TUNER clockwise until the threshold tone is slightly heard. (Illustration K)
7. RELEASE the button. Pushing and releasing button will retune.
8. LOWER the loop to the ground, as in Illustration L.

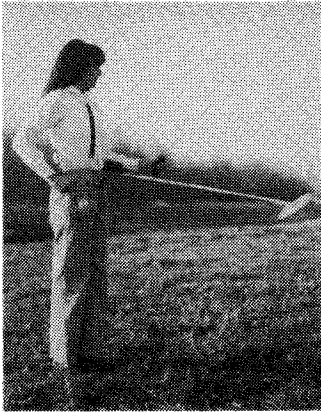


ILLUSTRATION K



ILLUSTRATION L

9. LISTEN to the threshold tone as the loop nears the ground.
10. IF THE TONE DECREASES, raise the loop back up waist high and increase the GROUND BALANCE control slightly (clockwise).
11. PRESS and release the push-button to retune to threshold.
12. LOWER the loop to the ground and listen to the threshold tone.
13. IF THE TONE INCREASES, raise the loop back up to waist height and decrease the GROUND BALANCE control slightly (counterclockwise).
14. PRESS and release the push-button to retune to threshold.
15. IMPORTANT: If the threshold tone increases when the loop is lowered to the ground, decrease the GROUND BALANCE. If the threshold tone decreases when the loop is lowered to the ground, increase the GROUND BALANCE. Continue this process, pressing and releasing the push-button on the handle each time to retune. Do this until the threshold tone remains the same as the loop is moved from the air to the ground.

16. NOTICE: If you have difficulty adjusting the GROUND BALANCE to obtain a constant threshold, you may be over some metal. Move to another spot and repeat procedures.
17. It is advisable to hunt in the G.E.B. mode. But when you locate a target and want to distinguish if it's "good" or "junk", switch to DISC to check it.

DISC FIELD PROCEDURES

In the DISC mode you will not be able to cancel out the effects of the ground. This will require more practice and patience on your part, but in non-mineralized areas the detector's performance will be worth it! The DISC mode is necessary when searching in shallow waters, or on beaches with high salt content, because the discrimination control can be set to reject the salt content. And, it is used for prospecting. Threshold remains the same as when set in G.E.B mode.

Set the controls as follows in order to begin searching:

1. LOWER the loop to approximately 1/2" off the ground.
2. MODE DISC
3. Set the DISC ADJUST for desired discrimination level.
4. PRESS and release push-button to retune to threshold.
5. LOWER loop COMPLETELY to the ground.
6. SWEEP the loop as shown in Illustration M.
7. IMPORTANT: If the loop is tilted or if you lift the loop up, the tone will get louder. To help eliminate false signals caused by tilting or lifting, try to keep the loop parallel while you sweep.

The detector in the DISC mode will not cancel out the effects of the ground. The more the tone changes from the slightest up or down movement of the loop, the more mineralized the soil.

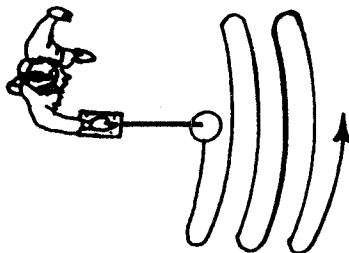


ILLUSTRATION M

COINSHOOTING

In COINSHOOTING, you want to locate all coins, both shallow and deep, so use the G.E.B. mode to search and pinpoint the object. This is the all metal mode which rejects the ground.

A set of headphones, time, and patience, will also help.

1. In COINSHOOTING, sweep the loop very slowly in front of you as you walk along. (Illustration M)
2. The search signal and tone will "peak" as the target center is passed.
3. 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.

4. Keeping the detector coil parallel to the ground prevents the loss of detection on some deeper targets. On a careless swing you are putting some distance between the loop and target by lifting it off the ground.
5. The object may be identified by the type of signal it produces. In some instances, junk objects may be recognized by their erratic signal or the extra large area producing the signal.
6. 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 together in a group. (Illustration N)
7. To distinguish each separate object, sweep at different angles to screen out unwanted objects or to pinpoint a single object. (Illustration O)
8. To identify and reject bottle caps, place the detector in the DISC mode and set the DISC ADJUST to the point at which foil is rejected. Then, slowly sweep the target again. A bottle cap is always a strong signal and can usually be rejected in this mode with great certainty.
9. When you have decided the target is a good object, retune and pinpoint it, and recover. (See procedure 5 on page 20)
10. When in doubt about the target...DIG! You will learn with experience, which targets are truly worth digging. But until then, don't miss a valuable opportunity!

ILLUSTRATION N

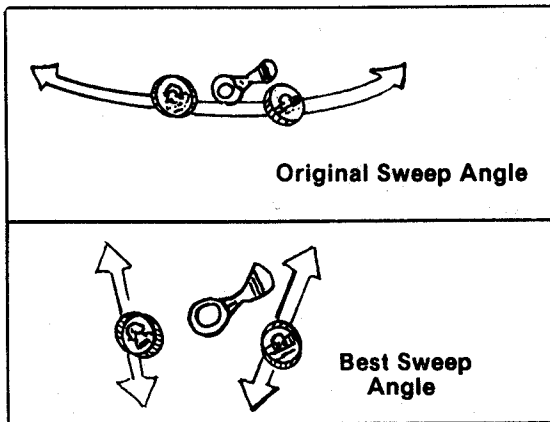


ILLUSTRATION O

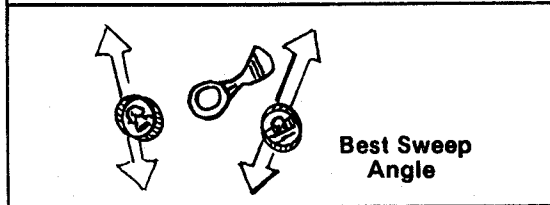
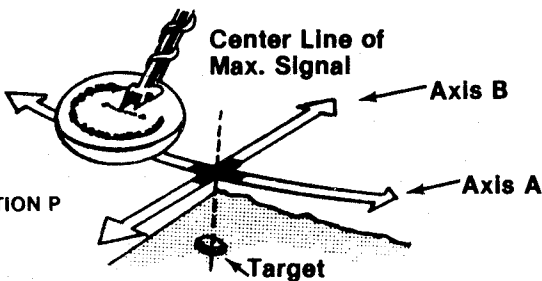


ILLUSTRATION P



RELIC HUNTING

There are many areas where relics and other historically valuable objects have been lost due to battles, such as in the Civil War. Old homesteads, ghost towns and dump sites will often yield displaced treasures. You should research areas where people were living, or where battles were fought, to determine good hunting locations before setting out to search. In such areas almost any metallic object may be of interest. To locate them on the site, it is best to use the G.E.B. mode.

1. Follow the initial tuning procedures on Page 16.
2. To narrow your search to include only items such as brass, metal buttons, rings, medals, or buckles, switch to the DISC mode, which will allow you to discriminate against other objects.
3. If too much ground clutter is present, such as pull tabs, you may want to set the DISC ADJUST to the level at which pull tabs and screw caps are discriminated against.

BEACHCOMBING

The COINMASTER 4000/D Series 2 HIPMOUNT is designed to be used in areas of wet or dry sand and salt or fresh water. The DISC mode can be used on the ocean beach, or in other areas of high salt concentration, by tuning the DISC ADJUST for salt water.

1. Set the mode for DISC after initial tuning. If operating over salt water, or in it, tune out its effects by adjusting the DISC ADJUST control. (For non-mineralized beaches.)
2. If the G.E.B. 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.
3. If you are planning to do an extensive amount of beachcombing, a basket with about 3/8" mesh or slightly larger is helpful. Scoop the target bearing sand into the basket in order to sift the sand out, allowing the coin to remain behind.

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 a 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. mode.
2. Search in areas where the ground signal increases greatly, even with occasional raising and lowering of the detector loop and push-button retuning.
3. An excellent place to search is in a stream bed (a wash or dry creek bed). Especially good places are downstream from known mining and mineral areas.
4. Once you have detected a possible gold bearing rock, you should switch your unit into the DISC mode and set the DISC ADJUST control to its null point. This level will help to identify it as a hot rock and can be used for quick ore sampling.

TIPS FOR DEVELOPING YOUR SKILLS

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 DISC MODE the depth is determined by the same four main factors plus 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. 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:
 - a. The size of the signal both in ground area and strength.
 - b. 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 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 detector coil above the ground before it fades, and test it in the DISC. MODE.
4. PUSH BUTTON retuning may be necessary due to changing ground conditions when searching in the G.E.B. MODE or DISC MODE. To retune, just press the button and release.
5. 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 P. 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.
 - a. It is possible to exactly pinpoint the target's location by detuning the detector in the G.E.B. MODE.
 - b. Move the loop towards the target, noticing at which point the tone is loudest. Make the next sweep at 90 degrees to this point.
 - c. Detune the detector as you move the loop closer and closer to the target by pressing and releasing the push-button several times, until there is only a very slight signal heard as you "X" the target.
 - d. The object will be directly below the center of the loop.
6. Always "criss-cross" an area when searching it.
7. After you have dug up a coin, always check the hole again for more.
8. Don't forget to fill in the hole! Public officials, and property owners will be more likely to allow continued Treasure Hunting in the area if you do NOT environmen-

tal damage.

9. When beachcombing, the best place to look for coins is near concession stands.
10. Check the shallow water in swimming areas. Most rings and coins are lost when people enter the water.
11. If you make plans for coinshooting, check the history records of the area.
12. Always carry a plastic bag for your detector in case you get caught in the rain.
13. Never ask permission to treasure hunt over the phone. People tend to visualize you using a pick and shovel, making large holes.
14. Join a local historical society or get acquainted with its members.
15. When coin hunting, search parks, school yards and areas where fairs or carnivals were recently held.
16. Always carry extra batteries with you in case the set in the instrument gets too low for maximum power.
17. If you want more weight on your loop, for use underwater for example, obtain a small sack and fill it with sand. (Check it with your detector to make sure it doesn't cause a response.) Tie it to the loop isolator.

SERVICE TIPS

Here are some service tips that may help if difficulties are encountered:

1. The detector is "Dead", will not operate:
 - a. Check battery condition and battery leads.
 - b. Check for proper connection of the coil cable.
 - c. Check controls for intermittent operation.
2. Oscillating or pulsing speaker sound:
 - a. This effect is many times due to external electric sources such as: Other near-by metal detectors, power lines, television sets, and CB radios.
 - b. In many cases moving to another area may be necessary. If the problem persists at other locations, the detector may need servicing.
3. Erratic operation:
 - a. Check for loose battery connections.
 - b. Be sure the coil cable is wrapped snugly around the rod and properly connected.
 - c. Check battery condition.
4. The detector "drifts" out of tune:
 - a. Drift may occur as a result of sudden changes in temperature. Allow stabilization time.
 - b. The detector may appear to drift if not properly ground balanced in the G.E.B. MODE, or if used in the DISC MODE in mineralized soil areas.
 - c. Steady drift may be caused by component failure. Detector may need servicing.
5. No sensitivity in the discriminate mode:
 - a. Reduced depth as a result of increased ground mineralization.
6. Headphones (Stereo):

This instrument is equipped with a mono-headphone jack. Sound will emanate from only one side of the headphone unless modified for mono use. The use of stereo headphones is not recommended.

SERVICE AND WARRANTY INFORMATION

If a problem occurs with your metal detector, first contact the White's dealer who sold it to you. In many cases the dealer can solve the problem. If not, the dealer will advise you on how to proceed to have your instrument repaired under the National Warranty Service Program.

If you are unable to contact the dealer who sold the instrument to you, call this Toll Free number to learn the name and location of the White's dealer nearest to you.

1-800/547-6911

CODE OF 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 unmistakably "good" signal. It will be a real thrill to discover there's treasure right beneath your feet!

But wait a minute! 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 long 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 no HOLES. HOLES ARE BOTH UNSIGHTLY AND DANGEROUS!

Detectors designed for locating large and deeply buried objects should be used with discretion - never in the lawn area, and with careful judgement in other locations. Consider the scar you may leave, before you start digging. 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.

WHITE'S ELECTRONICS LIMITED WARRANTY

If within two years (24 months) from original date of purchase, your White's detector fails through normal use and due to defects in either material or workmanship, White's Electronics will repair or replace, at its option, all necessary parts without charge for parts or labor. Simply return the detector, with all transportation charges prepaid, to the nearest White's National Warranty Service Center. (For the location of your nearest Service Center, call Toll Free: 1-800/547-6911.) Center or to the factory headquarters. NOTE: If instrument fails in first 90 days, return shipping will be prepaid if proof of purchase date is provided. Include a description of the problem. Include \$5.00 for return postage, handling and insurance if after 90 day period.

Items excluded from this warranty are batteries, headphones, charger, rechargeable batteries, and other accessories.

The warranty is not transferable. Nor is it valid unless the **Warranty Registration Card** enclosed in the shipping package is returned to the factory address below within ten (10) days of original purchase for the purpose of recording that date, which is the actual commencement date of the warranty. The warranty does not cover damage to detectors caused by accident, misuse, neglect or unauthorized service.

Duration of any implied warranties (e.g., merchantability and fitness for a particular purpose) shall not be longer than the stated warranty. Neither the manufacturer nor the retailer shall be liable for any incidental or consequential damages resulting from defects or failures of the instrument to perform. Some states, however, do not allow limitations on the length of implied warranties, or the exclusion of incidental or consequential damages. Therefore, the above limitations and exclusions may not apply to you. In addition, the stated warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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