

White's Electronics, Inc.

1011 PLEASANT VALLEY ROAD

SWEET HOME, OREGON 97386

OPERATORS INSTRUCTIONS

COINMASTER 4/DB

PUSH-BUTTON

TR DISCRIMINATOR

mineral/metal detector



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

**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 metal detectors. You'll enjoy the many relaxing hours you'll spend with your new detector.

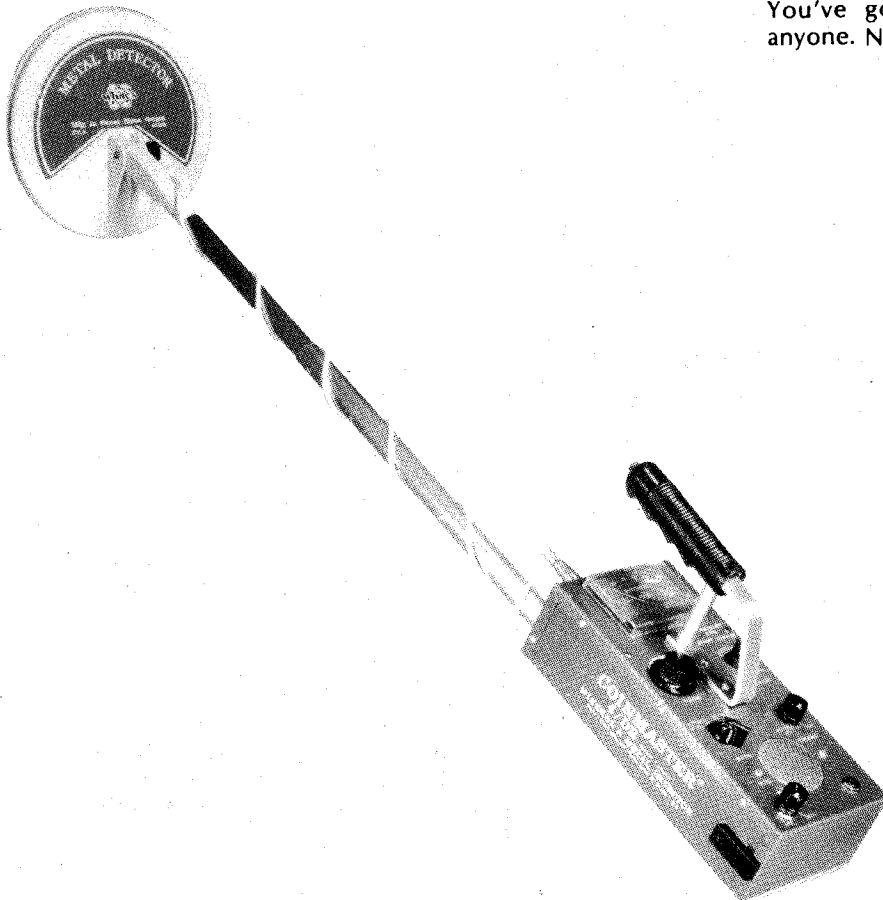
Before we tell you how to assemble and operate your instrument, however, there are two important points to leave you with:

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.

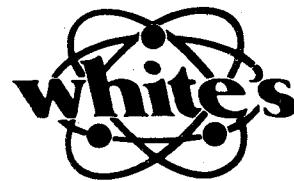
**COINMASTER 4/DB
PUSH-BUTTON
TR DISCRIMINATOR
mineral/metal detector**



Good Hunting,

Kenneth White

Kenneth White, Sr.



UNPACKING YOUR 4/DB

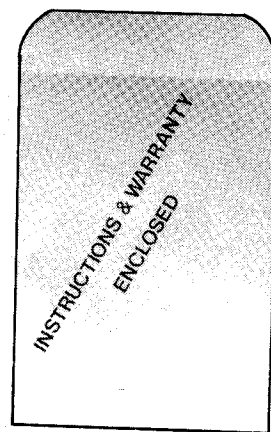
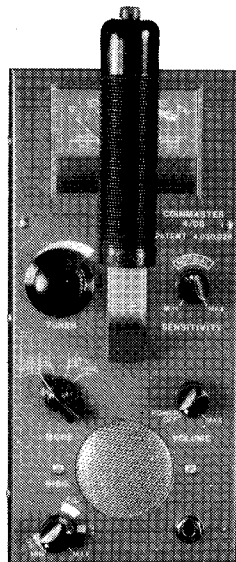
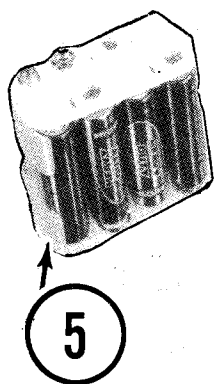
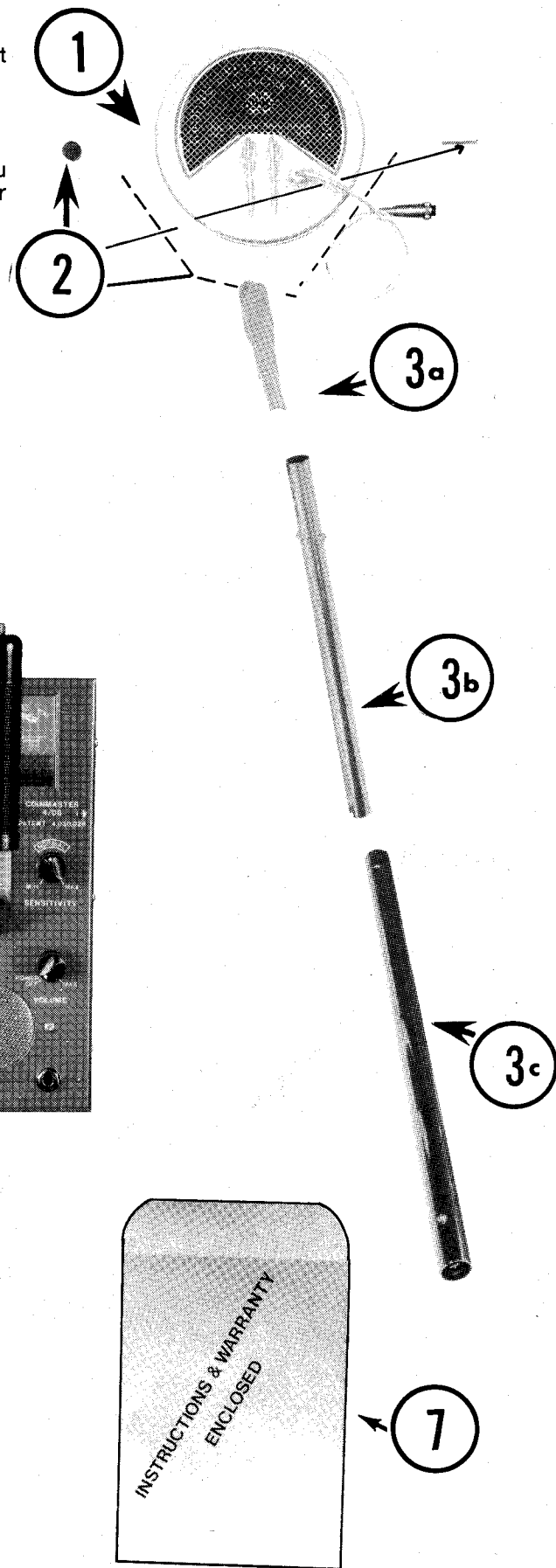
When you unpack your COINMASTER 4/DB, compare what you've got with the items shown on this page.

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. 12 Volt Battery Pack
6. Test Samples
7. Large Envelope containing
 - a. Assembly and Operating Instructions
 - b. Warranty Statement and Card



Assembly Instructions

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

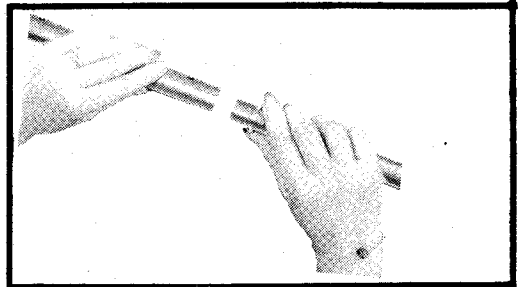


ILLUSTRATION A

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

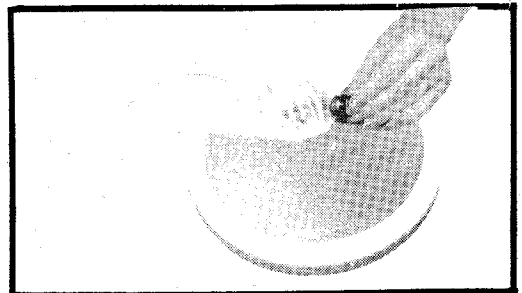


ILLUSTRATION B

CAUTION: NEVER 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.

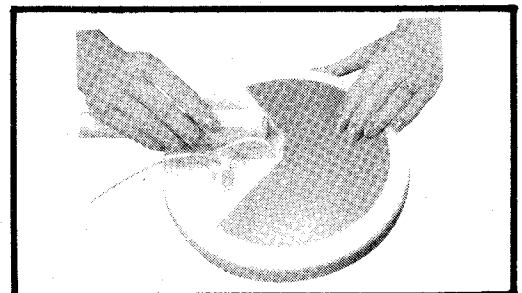


ILLUSTRATION C

4. REINSTALL BOLT and THUMBNUT.

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

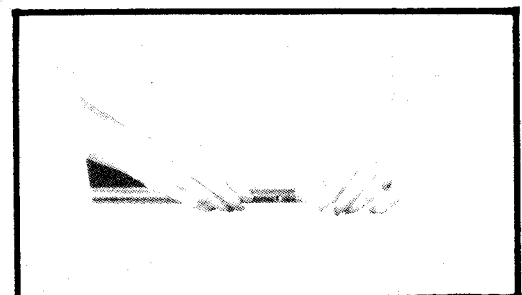


ILLUSTRATION D

ASSEMBLY [CONT.]

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

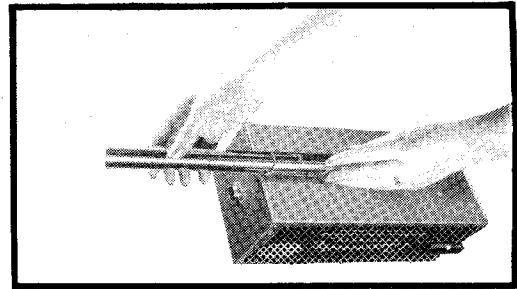


ILLUSTRATION E

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

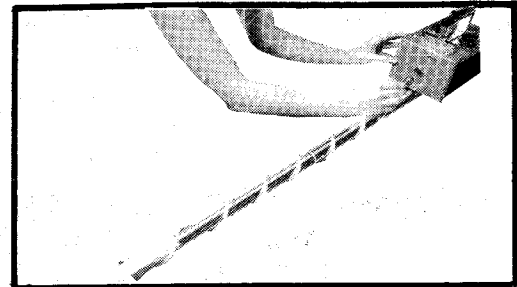


ILLUSTRATION F

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

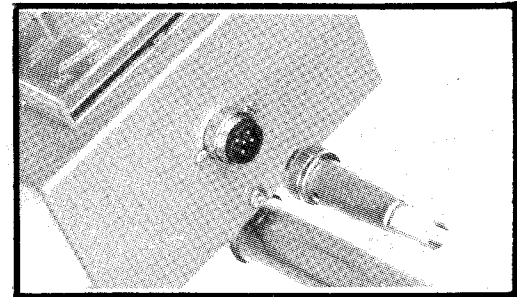


ILLUSTRATION G

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

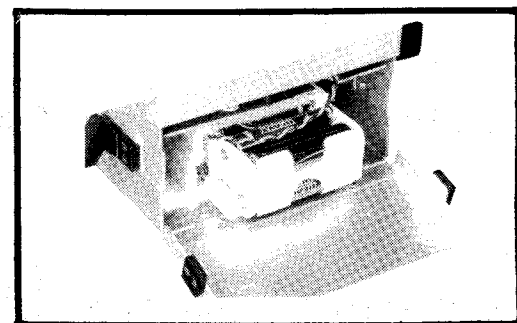


ILLUSTRATION H

Familiarizing Yourself with Your Detector

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 an object may not be able to cause any increase in the **LOUDNESS** of the tone.
2. **MODE** — This switch allows you to select the type of operation you want. If you select "**MINERAL**", then the detector will "sound off" for magnetic objects such as black sand, iron and steel. (The "**MINERAL**" mode is usually used for prospecting by looking for strong deposits of black sand.) If you select "**METAL**", then you are looking for all metals that don't contain iron. If you select "**DISC**", then you are going to be rejecting or **DISCRIMINATING** against selected junk metals such as tinfoil, bottle caps, and pull tabs. You can also place the **MODE** switch in "**BAT. CK.**" position to check the condition of the batteries.
3. **DISCRIMINATE** — This control allows you to select the amount of discrimination best suited for the area and type of hunting you wish to do. If the area has a lot of **PULL TABS** you will want to use that amount of discrimination, but if you are in an older area that is before the "pull tab era" you will want to lower your amount of discrimination to the **BOTTLE CAP** amount so you can detect **NICKELS** and most rings.

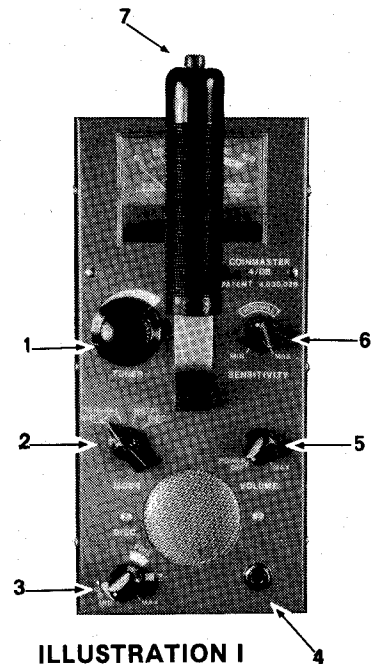


ILLUSTRATION I

NOTE: This control works only when the **MODE** switch is in the "**DISC**" position.

4. **HEADPHONE JACK** - Headphones are great for noisy locations.
5. **ON/OFF AND VOLUME** - This knob turns the detector on and off and adjusts the volume. For best results, always use maximum volume unless you are using headphones.
6. **SENSITIVITY** — This control compensates for the mineral (iron) content of the soil. The mineral in the soil is itself a target. Therefore, by changing the height of the loop the unit will react the same as if it had located a metal item. If you are in a heavily mineralized area you should use minimum sensitivity so changes in the loop height will not have much effect.

The unit will get greater depth when the sensitivity control is on **MAXIMUM**, but if this control is not set correctly for the area you are searching in, your unit will get little or no depth.
7. **PUSH-BUTTON** — This control acts like an automatic recall system, recalling your main tuner control setting. As long as you push and hold the button in while you set your main tuner, the memory circuit will remember the setting the next time you push and release the button.

How to Tune Your Detector

Tuning your detector properly is extremely important. Read the following instructions carefully and practice the tuning procedure until you can do it without looking at this manual.

Your detector has a Discriminate function that can be activated by turning the MODE knob to the "DISC." position. The Discriminate function will help eliminate small junk items (bottle caps, tinfoil, gum wrappers, and nails). It will also eliminate ferrous objects regardless of size. Remember, a ferrous object is one made mostly of iron (belt buckles, cannonballs, chunks of scrap iron, and tin cans).

If you are searching for coins, rings or jewelry on a beach or in a park then you will probably want to use the Discriminate function to help you eliminate both small junk items and the ferrous objects.

TUNING DISCRIMINATE

NOTE: The tuning procedure below is for Discriminate mode, but Metal and Mineral modes are the same except for steps 3 and 4. [See step 2, page 5].

1. Rest the loop on the ground and turn the On/Off Volume knob to MAXIMUM (ILLUSTRATION J).
2. Test the battery. A good battery will read above 74 on the meter when the MODE switch is in the "BAT. CK." position.
3. Place the "MODE" switch in the "DISC." position.

4. Set the Discriminate level. Set the Discriminate knob at "MIN" for normal TR operation without rejection of screw caps or pull tabs. This setting will reject nails and other ferrous minerals. Set the knob to "BOTTLE CAPS" to reject bottle caps. Set the knob to "PULL TABS" to reject pull tabs.

NOTE: With the Discriminate knob set for Bottle Cap rejection the detector may reject a few nickels, and with the knob set to reject Pull Tabs the detector will reject all nickels and rings. Therefore, it is best to use the lowest setting possible to avoid this problem.

5. Lift the loop about 1/2 inch off the ground and press the button and set the "TUNER" for a slight sound. Release the button.
6. Lower the loop to the ground and systematically search the area.

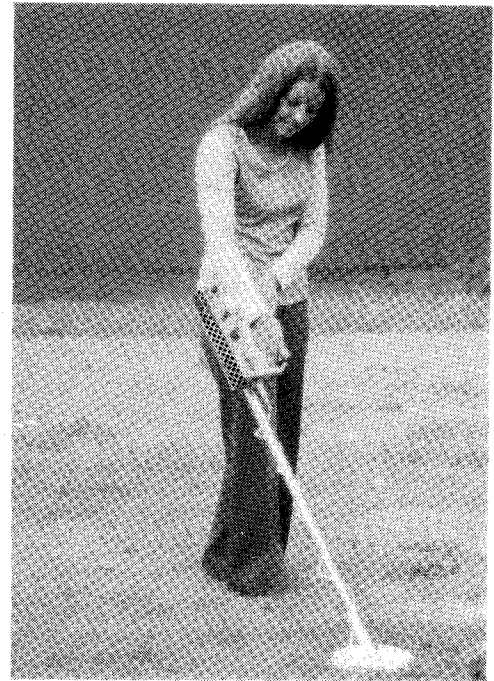


ILLUSTRATION J

[NOTE: If you are searching in an area of rough terrain [a plowed field, for example], it may not be possible to tune your instrument with the loop flat on the ground. In such cases, you should tune the instrument with the loop just barely off the ground, and then search with the loop slightly above that level. It is important to note here that if the loop is raised above the height at which the detector was tuned, a loud tone may be emitted from the speaker. Yet, if the instrument is tuned with the loop higher than necessary, this may result in an unnecessary loss of detection depth. In both instances, these reactions will interfere with your ability to locate buried objects. If possible, you will want to tune the detector with the loop on the ground.]

Searching with Your Detector

To locate hidden or buried objects with a properly tuned detector, systematically sweep the loop from side to side across the area you are working. (ILLUSTRATION K). With an eight inch loop you should take three inch steps, moving the loop ahead the same amount after each sweep. For maximum performance when searching, you should always try to keep the loop at a constant level and as close to the ground as possible, following the tuning procedure outlined earlier in this manual.

It is a good policy to periodically stop and readjust the tuning of your instrument slightly. As you become more experienced however, you will begin to notice whether or not the tuning needs to be readjusted just by the difference in the tone you hear.

After you have located an object you may "pinpoint" it using the method shown. (ILLUSTRATION L). First move the loop from side to side to find the strongest signal on Axis A, then move the loop from front to back to find the strongest signal on Axis B or the "Center Line of MAX. SIGNAL". The strongest signal normally will be located under the center of the loop.

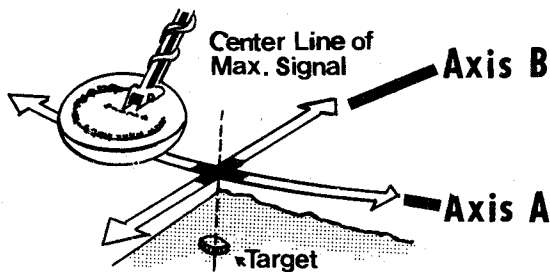


ILLUSTRATION L



ILLUSTRATION K

Practice makes Perfect

In addition to learning the tuning and operating instructions described in this manual, here are a few ideas to help you practice and sharpen your "shooting" skills:

1. Place a small object (a dime or quarter), a medium-sized object (a tin can lid will do nicely), and a large object (a pan from the kitchen) out on the lawn. Leave a few feet between them. Following the instructions given earlier, tune your instrument. Pass the loop over each object, noting how much the volume increases or decreases as you move from object to object.
2. Take two quarters. Place one on top of the grass. A few feet away, dig a small hole, no more than two inches deep, and bury the other coin. Tune your instrument and pass the loop over the coin on the surface, then over the buried coin. Note how the volume increases or decreases as you move from one to the other.
3. Plant a test garden. To become better acquainted with various kinds of buried objects, bury some metal items at known depths. Make sure your test garden is located where you can get to it easily. It's best to make a map of the area, showing what is buried and its depth. Your test garden will help you practice and will also provide a handy method for periodically checking the performance of your instrument.

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.

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 Electronics Service Center or to the factory headquarters. Include a description of the problem, plus \$5.00 for return postage, handling and insurance.

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.

White's Electronics, Inc.
1011 Pleasant Valley Road
Sweet Home, OR 97386 U.S.A.

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.

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.

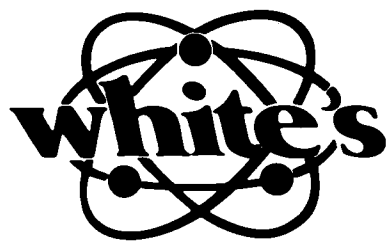
Read your warranty card carefully. It describes completely what is covered and the length of the coverage. If you have any questions don't hesitate to write us. We will be happy to answer any questions you may have.

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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