OPERATOR'S
INSTRUCTIONS

COINMASTER
TR (A.G.C.) SERIES 2

White's

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,

Kenneth White

Kenneth White, Sr.

INDEX

SPECIFICATIONS
For the TR (A.G.C.) Series 2

PATENT: 4128803

SPECIAL FEATURES: A.G.C. (Automatic Ground Cancellation) - Built in t cancel out most ground mineralization.

USES: Coin hunting and relic hunting

WEIGHT: 2lbs., 12 oz.

LOOP SIZE AND STYLE: 6"

OPERATING FREQUENCY: 12.5KHz

AUDIO: approximately 450 Hz

OPTIMUM TEMERATURE RANGE: 33-100° F

OPTIMUM HUMIDITY RANGE: 0-75%

DEPTH: (Detection depth will vary depending upon amount of mineralization): U.S. 25¢ -6"

White's Electronics, Inc. reserves the right to modify or improve the design capabilities of this instrument without further notice.

PARTS IDENTIFICATION
COINMASTER TR (A.G.C.) Series 2

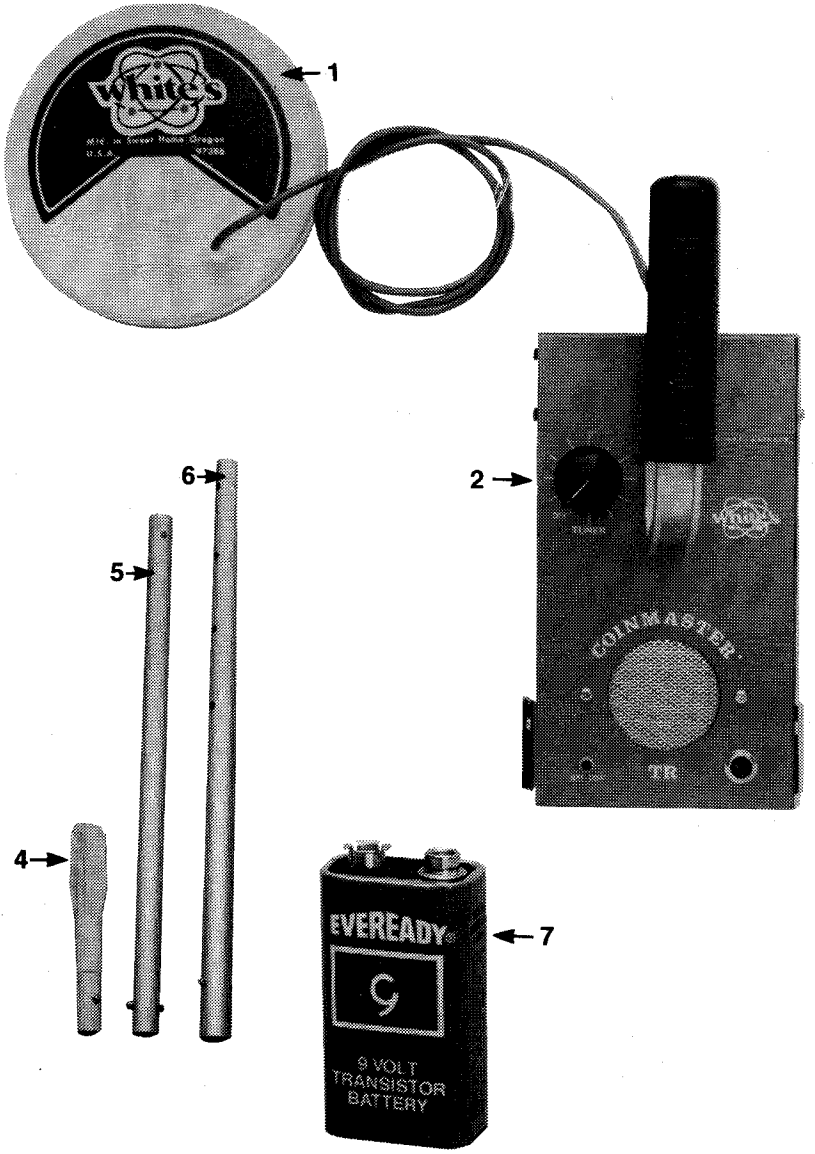
When you unpack your TR A.G.C. Series 2, compare all of your parts with the parts listed on this page and the picture on the following page.

1. Detector Loop
2. Instrument Control Box (with *attached* loop and cable)
3. Loop Bolt, Thumbnut (not shown)
4. Loop Isolator
5. Lower portion of rod (shorter rod)
6. Upper portion of rod (longer rod)
7. Battery
8. Warranty Card (not shown)

If you don't have all the parts listed, contact your dealer at once.

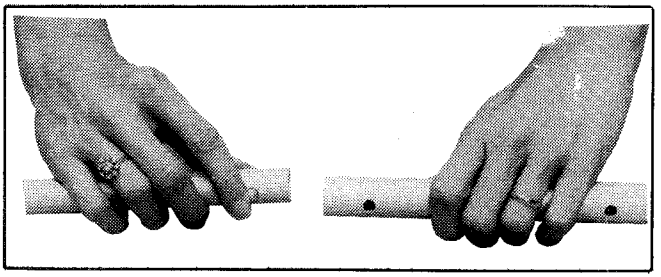
ILLUSTATION OF PARTS continued on next page...

ILLUSTRATION OF PARTS



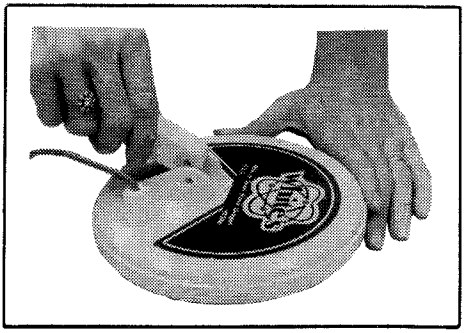
ASSEMBLY DIRECTIONS

ILLUSTRATION A



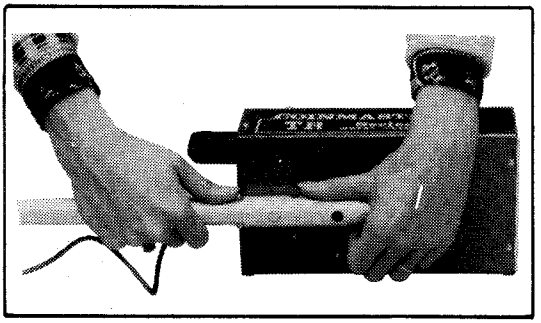
Slide the shorter metal rod into the longer metal rod, depressing the snap locks to fit into one of the longer rod's four holes. (Illustration A)

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)

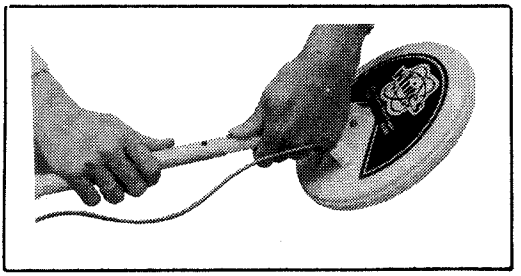
ILLUSTRATION C



Slide the completed rod sections into the rod holder underneath the instrument control box, until snap locks fit into holes. (Illustration C)

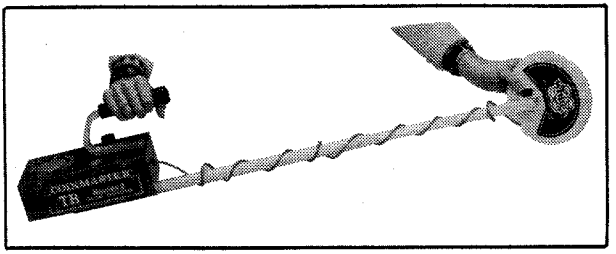
ASSEMBLY DIRECTIONS continued

ILLUSTRATION D



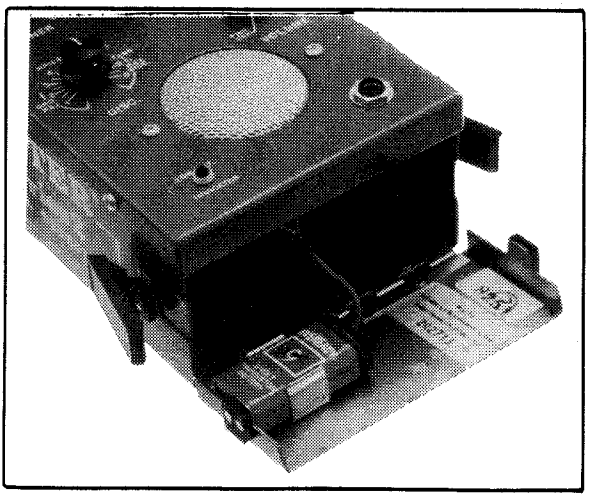
Connect the loop isolator to the upper portion of the rod. Do not lock loop isolator into place at this time. (Illustration D)

ILLUSTRATION E



Wrap the cable around the rod by supporting the loop with one hand and steadying the detector with your other hand. Lock the loop isolator in place with snap locks. (The COINMASTER TR's loop cable does not separate from the control box. (Illustration E)

ILLUSTRATION F



Open the door on the rear of the control box and install the battery, attaching it to the battery leads. (Illustration F)

Set the metal detector for your height by extending the upper rod and locking it in place with the snap locks. Unit is ready to operate. (Illustration G)

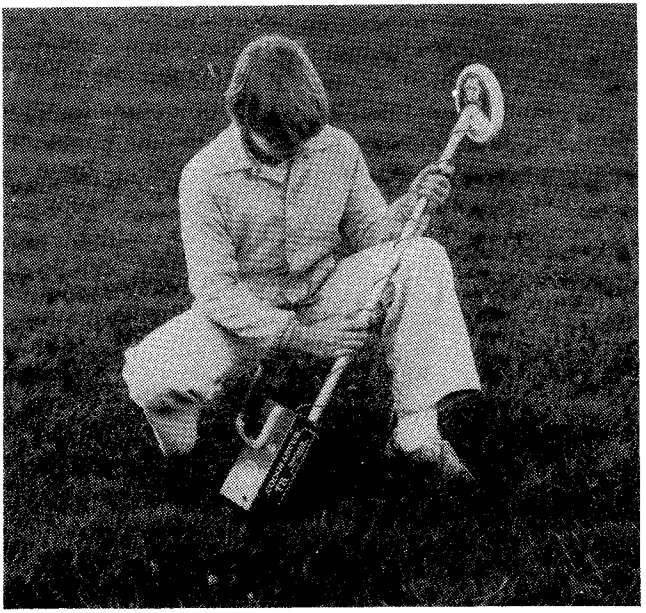


ILLUSTRATION G

GLOSSARY OF TERMS

A.G.C.	Automatic Ground Cancellation. The detector electronically cancels out the effects of mineralized ground. Nothing has to be adjusted by the user because this feature is designed into the instrument.
DISC (Discrimination)	Refers to the detector's ability to distinguish between "junk" and "good" targets.
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 causes the detector to react positively, indicating a mineralization content.
MINERALIZATION	Refers to the ferric oxide or magnetic content of the soil to which the detector will respond.
PINPOINTING	The same as "X"ing. Once a positive target has been located in a general area, cross the target at right angles, noting where the loop is when the signal is the strongest. Item is located below the cross of the "X".

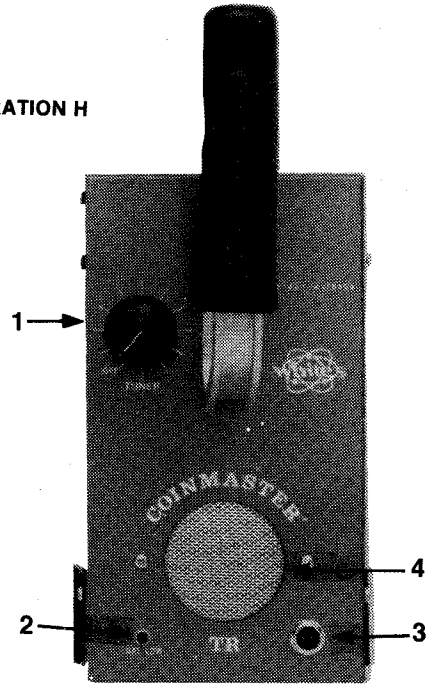
SWEEP	Refers to searching an area. A method of swinging the loop in front of you as you walk along so that you completely cover the ground for good targets.
TARGET REJECTION	Refers to the detector giving a "negative" response to a target. The tone goes quiet rather than increasing in volume.
TH	Treaure 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 slight audible tone.
TR	Transmit-Receive type of detector.

IDENTIFICATION OF CONTROLS AND FEATURES

REFER TO ILLUSTRATION H

1. OFF/ON VARIABLE TUNER - Used to achieve a threshold tone and turn machine On and Off.
2. LOW BATTERY ALERT - Will illuminate when the battery needs replacing. Flashes momentarily when unit is turned On or Off.
3. 1/4" HEADPHONE JACK - Will accept any set of mono/headphones that have a ¼" plug. Stereo headphones are not recommended.
4. SPEAKER - Broadcasts the detector's audio tone. It is silent when headphones are used.

ILLUSTRATION H



BATTERY

The battery is the lifeblood of your detector. Your instrument is powered by one 9-volt transistor battery. This type is available at drug and grocery stores everywhere. Any brand of battery will work well, although an alkaline battery will last longer.

NOTE: Your battery will last longer when headphones are used. There is a 9-volt rechargeable battery and charger unit available for this detector. (Battery #512-0013; Charger #509-0013. Available from your nearest White's dealer.)

LOW BATTERY ALERT

The Low Battery Alert on the COINMASTER TR (A.G.C.) Series 2 will illuminate when the battery has discharged to the point where the unit will not funtion properly. Replace the battery at this time.

INDOOR TEST PROCEDURES

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

In order to test your detector, first it is necessary to tune it to the threshold point. To do this, place your detector on a table with the loop extending in 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, and foil gum wrapper, etc.. (Always make sure the battery is in good condition by checking to see that the Low Battery Alert light is not on.) See Illustration I.

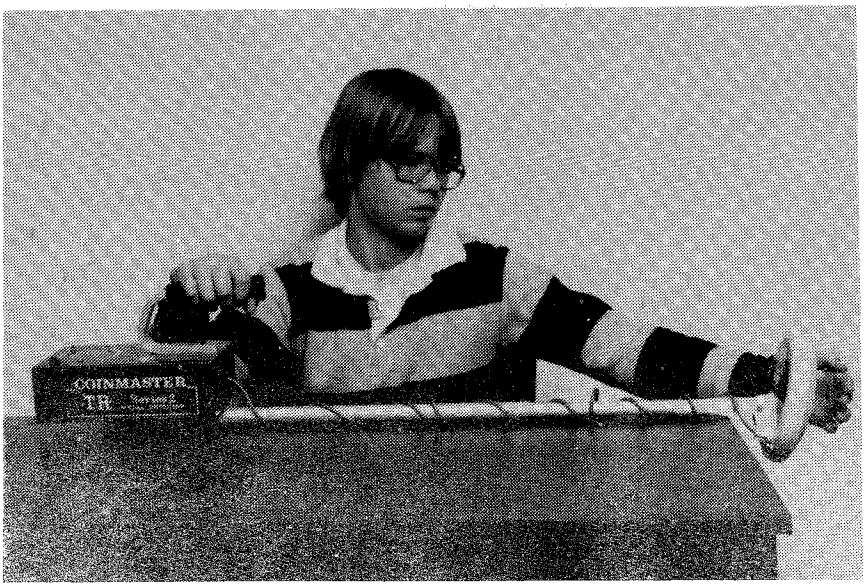


ILLUSTRATION I

Turn the ON/OFF Tuner control clockwise until you hear a loud tone coming from the speaker.

TURN the Tuner counterclockwise now until you just hear a faint tone. This faint tone is called the Threshold. It is the point of optimum tuning and tells you that the detector is operating at its maximum depth capability.

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.

HOLD a nail in front of the loop and repeat the movements above. Test the bottle cap, pull tab, etc. in the same way.

Notice that the coin and ring react just like the nail, bottle cap, pull tab, etc.! The COINMASTER TR will detect all metals. REPEAT the test procedure and note that the detector has a slightly different response to the various items.

When hunting outside, the Automatic Ground Cancellation feature allows you to locate all metals while minimizing the effect of ground mineralization.

FIELD TUNING PROCEDURES

Your detector will help you locate buried metal objects. Gold, silver and copper coins, brass, lead and platinum are all metals.

Tuning your instrument properly is extremely important. Read the following instructions carefully and practice them until you can tune your instrument without looking at this manual. One more thing: Always tune your instrument out-of-doors. That way you won't get unwanted interference from metal objects used in the construction of buildings.

FOLLOW THESE STEPS TO TUNE YOUR DETECTOR

1. While standing, place the loop slightly (about ½" to 1") off the ground and hold it as steady as you can. Illustration J.

ILLUSTRATION J

2. Now, turn the On/Off Tuner knob clockwise until you hear a loud tone coming from the speaker.
3. Turn the Tuner counter clockwise until you just hear a faint tone, referred to as the THRESHOLD tone.
4. Keeping the loop close to and level with the ground, make a single sweep (away from any metal objects) listening for an increase in the tone. This is the signal of a target. NOTE: Due to different amounts of iron, some soils may necessitate slight retuning to maintain THRESHOLD.
5. With your detector now properly tuned, you are ready to search.

LISTEN FOR THE TONE

The tone coming from the speaker of your detector will tell you where the objects are located. When you hear an increase in the volume of the tone, the loop is over an object. When the volume decreases, the loop has *moved away from an object.* Generally, the volume will be loudest when the center of the loop is *directly over* an object. An exception to this rule however, is a coin buried on its edge. In this case, the volume will be loudest when the edge of the loop passes over the coin, thus causing a double sound when detected.

FIELD OPERATIONS

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. With the six-inch loop, you should take 6-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. Begin searching as shown in Illustration K.

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. Illustration L.

THE MORE THE TONE CHANGES from the slightest up or down movement of the loop, the more mineralized is the soil.

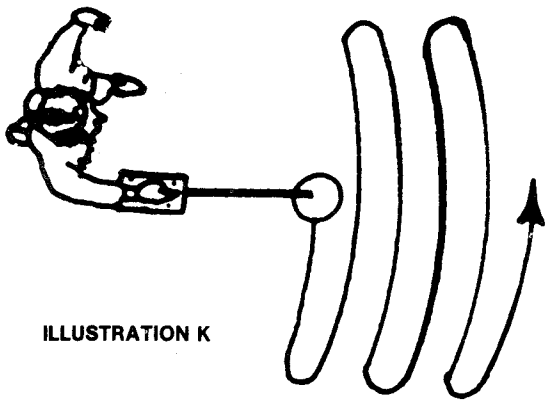
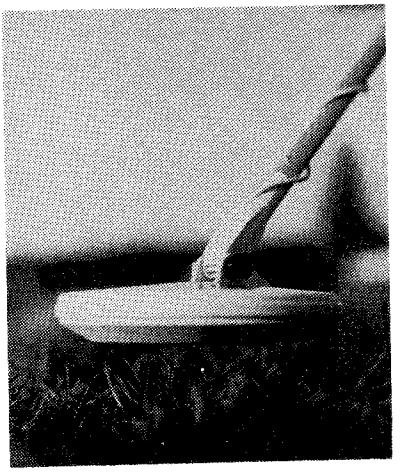


ILLUSTRATION K

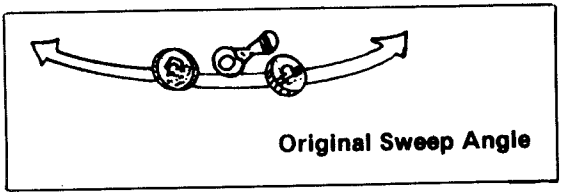
ILLUSTRATION L



COINSHOOTING

1. In COINSHOOTING, sweep the loop very slowly in front of you as you walk along. Illustration K.
2. The search signal and tone will "peak" as the target center is passed.
3. Try to keep the detector loop parallel to the ground at all times and avoid lifting the loop off the ground at the end of each sweep.
4. Keeping the detector loop 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. If you detect an object which produces a signal over a much larger area than a coin, ring, or other target, it may be several objects together in a group. Illustration M.

ILLUSTRATION M



6. To select one for pinpointing, sweep at different angles to separate it from the others. Illustration N.

7. When you have located a target, pinpoint it. Illustration O.
8. As you cross the target, note the point at which the audio signal is loudest. The target will be below the center of the loop at that point.

ILLUSTRATION N

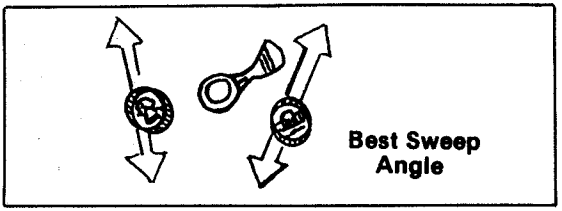
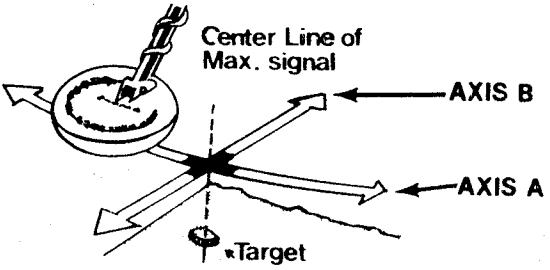


ILLUSTRATION O



BEACHCOMBING

The COINMASTER TR A.G.C. Series 2 is designed to be used in areas of wet or dry sand and salt or fresh water. It can be used on the ocean beach, or in other areas of high salt concentration.

If you are planning to do an extensive amount of beachcombing, a basket is needed with about 3/8" mesh or slightly larger. Scoop the target bearing sand into the basket in order to sift the sand out, allowing the target to remain behind.

1. Tune for Threshold.
2. Hunt along the beach and in the shallow water.

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 treasure. To determine good hunting locations prior to going into the field, take the time to research areas where people were living or where battles were fought. In such areas almost any metallic object may be of interest.

Follow the initial tuning procedures for Threshold.

PROSPECTING

In prospecting, you will want to locate an area with gold or similarly 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 search for nuggets.

1. Tune for Threshold.
2. Search in areas where the ground signal increases greatly, even with an occasional raising and lowering of the detector loop and 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.

TIPS FOR DEVELOPING YOUR SKILLS

1. "How deep will it go?" The 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 AMOUNT OF GROUND 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. LARGE 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.
4. 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 O. This is called "X"ing the target. It is also helpful to sweep the target at several different angles as you move around it.
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. 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 NO environmental damage.
8. When beachcombing, the best place to look for coins is near concession stands.
9. Check the shallow water in swimming areas. Most rings and coins are lost when people enter the water.
10. If you make plans for coinshooting, check the history records of the area.

11. Always carry a plastic bag for your detector in case you get caught in the rain.
12. Never ask permission to treasure hunt over the phone. People tend to visualize you using a pick and shovel, making large holes.
13. Join a local historical society or get acquainted with its member.
14. When coinhunting, search parks, school yards and areas where fairs or carnivals were recently held.
15. Always carry extra batteries with you in case the battery in the instrument gets too low for maximum power.
16. 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.

PROPER CARE OF YOUR DETECTOR

CLEANING: Both the loop and rod are waterproof and can be cleaned with fresh water and a mild soap. After cleaning, dry the instrument thoroughly. Caution! Never raise the wet loop above the level of the instrument case. The instrument case is not waterproof and water may run down the rod into the case, damaging the electronic components.

WEATHER CONDITIONS: Protect your detector from excessively cold weather. Freezing can damage the electronic components, the case and/or the battery. Excessive heat can also damage the instrument. Never leave it in the sun. It's best to lay it in the shade when not in use. 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. Protect your instrument if you operate it in the rain, as water may get into the instrument case.(Use a plastic bag.)

SALTWATER: Saltwater is very corrosive! After your detector has been exposed to saltwater, rinse it thoroughly in fresh water being careful not to let the loop rise higher than the level of the instrument case. Then wipe it with a cloth dampened with fresh water and dry it thoroughly.

STORAGE: If you plan to store your instrument for any length of time, unsnap the battery and remove it from the instrument. Whenever your instrument is not in use, turn the ON/OFF Tuner all the way to left until it clicks off.

SERVICE TIPS

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

1. The detector will not operate and the Low Battery Alert L.E.D. is not glowing:
   a. Check battery connection.
   b. Replace battery.
   c. Check control for intermittent operation.
2. 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.

3. The detector "drifts" out of tune:
   a. Drift may occur as a result of sudden changes in temperature and humidity. Allow stabilization time.
   b. Steady drift may be caused by component failure. The detector may need servicing.
4. Headphones (Stereo):

   Audio may come from only one side of the headphones unless it has a Mono/Stereo switch selected to Mono Mode. The use of stereo headphones is not recommended.

SERVICE TIPS INFORMATION

If your metal detector is ever in need of service, ship it to your nearest National Warranty Service Center. For the address of your nearest National Warranty Service Center, call our toll free number: 1-800-547-6911.

Insure the instrument fully; pre-pay the charges and enclose a letter describing the nature of the problem. As long as your instrument is under warranty, there is no charge other than a small handling and postage fee.

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 that there is 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 begin a search, check the laws, ordinances 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!

Consider the scar you may leave, before you start digging. This will vary alot 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 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 one year (12 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. Include a description of the problem, plus $5.00 for return postage, handling and insurance.

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

The warranty is NOT transferable. It is not 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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