

CM IV

White's Electronics, Inc.

1011 PLEASANT VALLEY ROAD

SWEET HOME, OREGON 97386

OPERATORS INSTRUCTIONS



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 IV

Mineral and Metal Locator

Please follow these instructions carefully, to operate the instrument correctly and practice with it at every opportunity.

We do not believe that you can buy a finer instrument than you have chosen for the use that the instrument is designed to do, but remember that an instrument is no better than its operator, (even though we have heard customers say that the instrument was smarter than they). You are the operator, and the more familiar that you become, through use and practice the better operator you will be. The better the operator, the more finds you will make.

To put the instrument into operation, proceed as follows:

1. Install the largest size loop rod in the sleeve, under the instrument, and insert the longest bolt through the sleeve, and through the 2nd hole in the rod. Put on one of the composition nuts and slide the end of the smaller rod, with the single hole in the side, into the end of the larger rod tubing. Line up the two sets of holes. Install the shorter bolt through the bolt holes, and screw on one of the composition nuts. The bolt should be inserted from the bottom side of the rod, so that the composition nut is on top.
2. Slip the two studs on the exploring loop through the two holes in the exploring rod and install the remaining two nuts.
3. Turn the Metal-Null-Mineral Control Knob so that the red line on the white knob is lined up in the center of the circle under the word NULL.
4. Turn the Black Knob, labeled Radio Tuner, so that the #50 is at the top of the dial and centered on the marker line.
5. Turn speaker volume Control 1/2 turn to the right.
6. Turn the Power Switch to the ON position.
7. Turn the Metal-Null-Mineral Control, very very slowly to the Right toward the Metal setting, until the sound just starts in the speaker, and the meter pointer swings to the Right. Very slowly turn the Metal-Null-Mineral Control to the Left until the meter pointer rests on the 0 to the Left on the meter face so you have a Zero Reading. Do not turn the control any further to the left than is necessary to obtain a Zero Reading.

8. Next, very slowly turn the Radio Tuner Control, very slowly to the Right, until the sound just starts in the speaker, then adjust this control until the meter pointer reads approximately 10 on the meter face, for maximum sensitivity.

9. Adjust speaker volume to desired level. When passing the loop over a non-magnetic conductive metal, such as the metal sample you received with your instrument, the sound will increase in the speaker, and a higher reading will be retained as long as the loop is held over the metal object. As soon as the loop passes over the metal object, the sound will lower in frequency and volume, and the meter will lower in reading, and return to approximately the same reading as before the object was detected. No reading will be had when passing the loop over the mineral sample.

Tin cans, bottle caps, tin foil, aluminum foil, cartridge cases, coins, silver, gold, copper, lead, and brass are some of the high conductive metals that will read on the Metal setting.

The instrument is not designed to react to sticks, rags, bones, paper, non-magnetized rocks, nor other non-magnetic objects, or non-mineralized objects.

When looking for small metal objects, such as coins, the ability of the instrument to detect them will vary in different areas. The more mineralized the soil, the more difficult it is to detect them, and the less mineralized, the easier. Also the longer a metal object has been buried, usually the easier and deeper it may be detected, as the ground becomes electrically conductive from the metal object over a period of time. In some cases you may detect a very old tin can, and after digging it up, still receive a reading over the spot the can was buried in.

To locate hidden or buried metal objects, slowly and systematically carry the instrument across the area to be checked, being very careful to hold the instrument so that the loop is held at as constant and uniform height as possible with the least up and down variation in relation to the formation or ground you are using the instrument over. When searching for small objects, such as a single coin, the instrument should be tuned in with the loop held as close to the ground as possible. Hold this height as close as you possibly can, and search the ground carefully. Usually 1 to 2 inches above the surface, if possible, depending on the surface you are using the instrument over. If the ground is rough, you may have to zero the instrument in higher. For larger objects, one can hold the instrument approximately 5 to 6 inches above the surface to be explored. Keep repeating this process until you have explored the entire area. With each

sweep of the instrument you will cover approximately 6 feet by 1 foot. If there is anything under the surface, and it is within detectable range of the instrument, you should be able to find it.

In the short green grass, such as a lawn, it is possible to place the loop on the grass, tune it in, and slide the loop over the grass to locate the smaller objects. The loop automatically is kept at the same height by the grass, so a uniform and more constant meter reading may be maintained, which is important for the very small objects. For large objects, the instrument may be carried at a higher elevation, and it is not so critical to height variation, and will respond to the larger metal objects. To practice, lay some metal objects on a wood floor or on your lawn and move the loop over them, and notice the way the instrument responds.

It is a good policy to slightly adjust the Radio Tuner every 5 or 10 minutes to keep the instrument at its highest peak of sensitivity, when searching for small objects, such as single coins, along beaches, etc., and every 10 or 15 minutes or so for larger objects.

The volume is increased by turning the Volume Control to the Right, and is decreased by turning it to the Left. The Volume Control does not increase or decrease the sensitivity of the instrument. If adjusting the meter to a reading of 10 on the meter is too much sensitivity to use in some areas you may adjust the Radio Tuner, until the meter pointer just returns to Zero, and use it this way, which will be much easier to use in mineralized areas, where the soil has a magnetic content. The instrument may be used around water, but do not submerge the loop in water.

To set the instrument up for detecting on the Mineral Setting to locate mineralized veins with a magnetic content, proceed as follows:

1. Turn the Metal-Null-Mineral Control back to NULL, so that the pointer line is centered on zero, just under the word NULL.
2. Turn the Radio Tuner Knob so the #50 is centered on the line, just above the knob.
3. Speaker Volume Control 1/2 turn to right.
4. Turn the Power Switch to ON position.
5. Turn the Metal-Null-Mineral Control to the Left, towards the Mineral Setting until the sound just starts in the speaker, and the meter pointer swings to the Right. Very slowly turn the Mineral-N-Metal control to the

Right until the Meter pointer rests on the O. Do not turn any further to the Right than is necessary to obtain a zero reading.

6. Next, very slowly turn the Radio Tuner Control, very slowly to the Right, until the sound just starts in the speaker, then adjust this control until the meter pointer reads approximately 10 on the meter face, for maximum sensitivity.

Passing the loop over the mineral sample, -you received with the instrument, will cause the meter to read higher and the sound in the speaker will also increase, and this increase in sound and meter reading will be retained as long as the loop is held over the Mineral sample. The meter will not read on coins, or on soft conductive metals, (when operated correctly), when set on the Mineral setting, (but will usually read on steel bolts due to their hardness and shape.)

You may now locate and trace detectable mineralized veins that have all magnetic content with this fine instrument. The instrument will usually read the highest and sound the loudest over the highest mineralized spots in the veins.

This model contains two batteries, and you may order new replacement batteries direct from our plant, if you can not find them locally. We prepay all battery orders.

The batteries are:

Eveready #228	12 volt	
Eveready #246	9 volt	

Your instrument takes just one of each. These batteries are the heavy duty type of battery for the longest life possible.

To test the batteries, turn the Power Switch ON, and turn the Battery Check switch to each one of the battery check positions in turn, and note the reading. Good batteries will read from 30 to 40 on the meter. The battery should be replaced, when the reading drops to 25, which is the center of the meter face, for the best results.

The instrument has a full 2 year Warranty on parts and labor (except Batteries) to the original purchaser.

Take good care of the instrument, and it should give you many years of faithful service, and we hope many enjoyable and possible profitable hours

of pleasure. (One customer called, and said he found over \$2,000.00 in coins in 2 weeks with his Goldmaster. We thought he had found a cache; but he said they were just single lost coins.)

We wish you the very best of luck.

WHITE'S ELECTRONICS, INC.
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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.

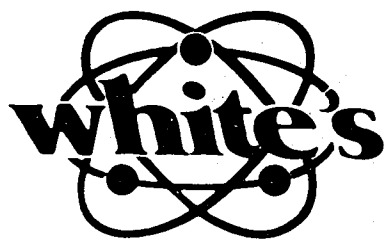
Read your warranty card carefully. It describes completely what is covered and the length of the coverage. If you have any questions don't hesitate to write us. We will be happy to answer any questions you may have.

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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