

# 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

### #3 OPERATING INSTRUCTIONS

To put the instrument into operation, proceed as follows:

1. Install the loop, spiral the excess loop cable around the rod and plug the loop plug into the socket.
2. Turn the Radio Tuner to #5.
3. Turn the Battery check to OFF position.
4. Turn the Power Switch to the ON position.
5. If a squeal or motor-boat sound is heard, then slowly turn the Zero Control knob in the direction that the tone lowers and slows, until the sound stops, and the intensity meter indicates Zero. This is the null position.
6. Very slowly turn the Zero Control knob to the RIGHT of Null until the motor-boating just starts and the meter indicates 50. If this control is turned too far to the right, you cannot make the next adjustment.
7. Very slowly, turn the Radio Tuning control to the Right until the beat slows and the meter indicates between 10 and 20. This should be done with the instrument held with the 6" loop approximately 2" above the ground or beach sand to be checked. If you have a 12" or an 18" loop with your instrument, these loops should be held approximately 4" above the ground or beach sand to be checked.) As soon as the loop is passed over a metal object, the motor-boating sound will increase and the meter indication will increase.

Lay a coin on the ground and notice the ease with which the instrument detects a small object.

You will notice that frequently the instrument may stop or increase motor-boating for no apparent reason. This is caused by changes in temperature, battery voltages, or moving the loop excessively higher or lower in relation to the ground that you have adjusted it for, and the extra high sensitivity of this instrument.

You can easily compensate for this by slowly turning the Radio Tuner to the RIGHT just slightly to slow the motor-boating, or to the LEFT to just start. When the instrument is adjusted as described above, it reacts to gold and silver coins, gold and silver bars, copper, rings, watches, etc., but not to nails, spikes, bolts, etc., (but will detect tin cans and bottle caps, as they are conductors).

The loudest sound and the highest meter indication will be when the loop is directly over the center of the object. As soon as the loop passes the object, the sound will lower and the meter indicator will decrease.

You may test for nails, bolts, etc., in woodwork or in the ground by slowly turning the zero control to the LEFT of Null, until the motor-boating just starts and the intensity meter indicates 50. (If this control is turned too far to the LEFT, you cannot make the next adjustment.) Very slowly turn the Radio Tuning control to the LEFT until the beat slows and the intensity meter indicates between 10 and 20. In this position whenever the loop is passed over nails, bolts, etc.; the sound will increase and as soon as the loop is passed over coins, gold, copper, and silver objects, the sound will decrease or stop, depending on the quantity or size.

To test the battery, the power switch must first be turned on. Then turn the Battery Check switch to On position (be sure to return to Off position after checking batteries). A fresh battery reads between 35 and 40. Replace the battery when the voltage drops to 20 or 25 on the indicating meter. To replace the battery, remove the red-headed screws from the rear of the instrument. The batteries may then be removed.

When through operating the instrument, turn the zero control to null where no sound is heard, the radio tuner to 5, and be sure to turn the power switch OFF.

Do not submerge the loop in water unless it is the water-proof model.

If ever in need of service, ship the instrument by insured parcel post, freight or stage, prepaid and a letter advising the nature of your trouble.

Any of the following batteries may be used for replacement: Marathon #1605, Eveready #246 or Burgess 2N6. Fresh pretested batteries are available from our laboratory here at \$1.85 each, (price subject to adjustment with cost changes), prepaid to you.

WHITE'S ELECTRONICS

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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.

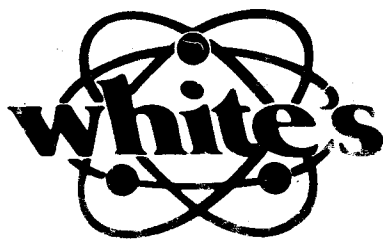
Read your warranty card carefully. It describes completely what is covered and the length of the coverage. If you have any questions don't hesitate to write us. We will be happy to answer any questions you may have.

## 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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