

# *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

## OPERATING INSTRUCTIONS

for White's

### COINMASTER G. E. B. ALL-METAL DETECTOR

#### FAMILIARIZING YOURSELF WITH YOUR DETECTOR

Examine the detector case, noting each control and its purpose as explained below:

1. **POWER SWITCH:** This control provides operating power to the instrument. It has three positions: "Off," "Bt. Ck.," and "On."
2. **VOLUME CONTROL:** This knob simply adjusts the level of tone "driven" through the speaker. For maximum performance this control should be set fully clockwise (right).
3. **TUNER KNOB:** This control adjusts the tone during tuning to provide a proper level for optimum detection.
4. **GROUND BALANCE CONTROL:** This knob tunes the detector to "balance out" or minimize soil mineralization, thereby eliminating ground interference.
5. **SENSITIVITY KNOB:** This control adjusts the detector's depth of detection. A difference of approximately three inches in depth occurs between this control's minimum level and its maximum point. (NOTE: Adjustment of this control may be very important when using the detector in areas of extreme mineralization.)

#### CHECKING INSTRUMENT CONTROLS

Before actually tuning your new detector, make the following quick-check of controls to insure your instrument and search loop are functioning properly:

1. Turn the Power Switch to the "On" position, and the Volume Control fully clockwise (right).
2. Raise the loop six to eight inches above the ground (Figure 1) and adjust the Ground Balance Control fully clockwise (right).
3. Now adjust the Tuner Knob until a low tone is coming from the speaker. The knob must be turned clockwise (right) to increase or obtain a tone. It must be turned counter-clockwise (left) to decrease the tone.



(Figure 1)

4. Lower the loop back to the ground (Figure 2). THE TONE SHOULD GET LOUDER!
5. Raise the loop above the ground again. Turn the Ground Balance Control fully counter-clockwise (left) and readjust the Tuner Knob for a low tone from the speaker.
6. Lower the loop to the ground once more. THE TONE SHOULD GET QUIETER!



(Figure 2)

(NOTE: Keep clear of metal objects during this procedure. If this test does not work at first, try moving to a new location and beginning again.)

### TUNING YOUR DETECTOR

Now that you have completed the control check, you are ready to tune your new detector. As with the above procedures, however, always tune your instrument away from metal objects as they may cause interference.

To tune your detector, follow these steps:

1. Insure that the Power Switch is in the "On" position and that the volume Control is fully clockwise (right).
2. Set the Sensitivity Knob to its maximum point -- or to the intermediate level you desire. (NOTE: If this control is readjusted after you have tuned the detector, you will have to readjust tuning as well.)
3. Raise the loop six to eight inches above the ground and adjust the Ground Balance Control to its approximate center position. Now adjust the Tuner Knob for a low tone from the speaker.
4. Lower the loop back to the ground and listen to the tone while the loop is being lowered. It will do one of three things:
  - a) The tone will get louder. If so, proceed to Step 5.
  - b) The tone will get quieter. If so, proceed to Step 6.
  - c) The tone will remain at a low level. If so, your detector is fully tuned and ready for operation.
5. With the loop still on the ground, adjust the Ground Balance Control until a low tone appears again. (NOTE: Remember, with the Ground Balance control turned clockwise, lowering the loop caused the tone to get louder.) Now proceed to Step 7.

6. With the loop still on the ground, adjust the Ground Balance Control until a low tone appears again. (NOTE: Remember, with the Ground Balance Control turned counter-clockwise, lowering the loop caused the tone to get quieter.) Now proceed to Step 7.
7. Raise the loop six to eight inches above the ground again. Readjust the Tuner Knob for a low tone from the speaker.
8. Repeat Steps 4 through 7 until there is almost no change in the tone as you lower and raise the loop from the ground. (NOTE: As the changes in tone become smaller and smaller, you should take care not to "overadjust" either the Tuner Knob or Ground Balance Control. Turn these controls slowly and only a small amount each time.)
9. When lowering and raising the loop causes almost no change in the tone, your detector is fully tuned and ready for operation.

(NOTE: You will find that the position of one control may slightly affect that of the other -- this is completely normal. You may also find that you will need to occasionally readjust the Ground Balance Control to compensate for slight differences in ground from one location to another -- this, too, is normal. As you practice and use your new detector, you will find that these procedures become increasingly simpler, taking very little time to accomplish.)

#### SEARCHING WITH YOUR DETECTOR

To locate buried or hidden objects, slowly and systematically sweep the search loop from side to side (Figure 3). Keep the loop as close to the ground as possible, without actually scraping it. For maximum depth and coverage, you should take four inch steps, moving the loop ahead the same amount after each sweep. Work a chosen area in blocks and mark your boundaries to insure complete coverage.



(Figure 3)

Listen to the tone! It will tell you exactly where objects are located. When the level of the tone increases, the loop is over an object; when the level decreases, the loop has passed away from the object. Normally, the tone will be loudest when the center of the loop is directly over the center of the object. An exception to the rule, however, is a coin buried "on edge." In that case, the tone will be loudest when the edge of the loop passes over the coin.

The longer many metal objects have been buried, the better you may be able to detect them. A chemical reaction between such objects as silver and copper coins and the surrounding soil often creates a "halo" effect. This "halo"

may cause your detector to register a much larger increase in the level of the tone than might otherwise be expected from a small coin. Thus, the "halo" can actually help you detect better. In fact, if the "halo" is strong enough, your instrument may continue to register even after you have dug up the coin!

#### PROPER CARE OF YOUR DETECTOR

1. CLEANING: Both the loop and rod are waterproof and can be cleaned with fresh water and a mild cleanser. 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.
2. 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 instrument if you operate it in the rain, as water may get into the instrument case.
3. SALT WATER: Salt water is very corrosive! After your detector has been exposed to salt water, 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.
4. STORAGE: If you plan to store your instrument for any length of time, unsnap the battery pack, remove it from the detector and take the batteries out of the holder. Whenever your detector is not in use, turn the Power Switch all the way to the "Off" position.

#### TESTING AND REPLACING BATTERIES

To test your batteries, turn the Power Switch to the "Bt. Ck." position and set both the Tuner Knob and Volume Control fully clockwise. Now check the position of the indicator needle inside the Battery Check Meter. This meter is located to the left of the instrument handle.

If the needle is in the green area, your batteries have sufficient charge to power your detector. If it is on the center line or in the red section, however, you should replace the batteries before using the instrument.

For maximum performance, you should check your batteries before tuning your detector and then periodically throughout a day of operation. Never operate your detector with the Power Switch in the "Bt. Ck." position, as this will shorten battery life.

To change batteries, simply unsnap the two latches at the rear of your detector and open the battery compartment door. Pull the battery holder out and unsnap the lead wires. Be sure to match plus (+) and minus (-) symbols on new batteries with plus (+) and minus (-) on the battery holder when snapping batteries into place. Reinstall the battery holder into the instrument and latch the battery compartment door again.

#### SERVICE AND WARRANTY INFORMATION

If your new 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 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, Inc.**

1011 Pleasant Valley Road, Sweet Home, Oregon 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.

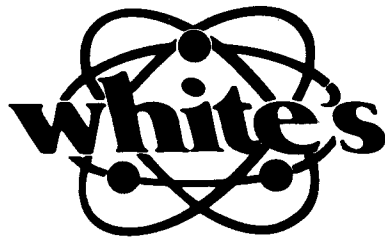
Read your warranty card carefully. It describes completely what is covered and the length of the coverage. If you have any questions don't hesitate to write us. We will be happy to answer any questions you may have.

## 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.



1011 Pleasant Valley Rd.  
Sweet Home, Or. 97386