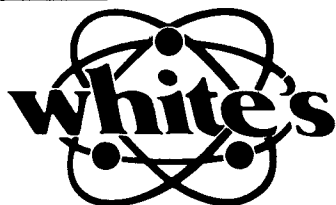


OPERATORS MANUAL

METALMASTER



**INDUSTRIAL
SERIES
METAL
DETECTOR**

Manufactured by WHITE'S ELECTRONICS, SWEET HOME, OR U.S.A

"Simplified Instructions"

**MANUFACTURED BY WHITE'S ELECTRONICS, INC.
Sweet Home, Oregon USA**

OPERATORS MANUAL



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"Simplified Instructions"

TO OPERATE

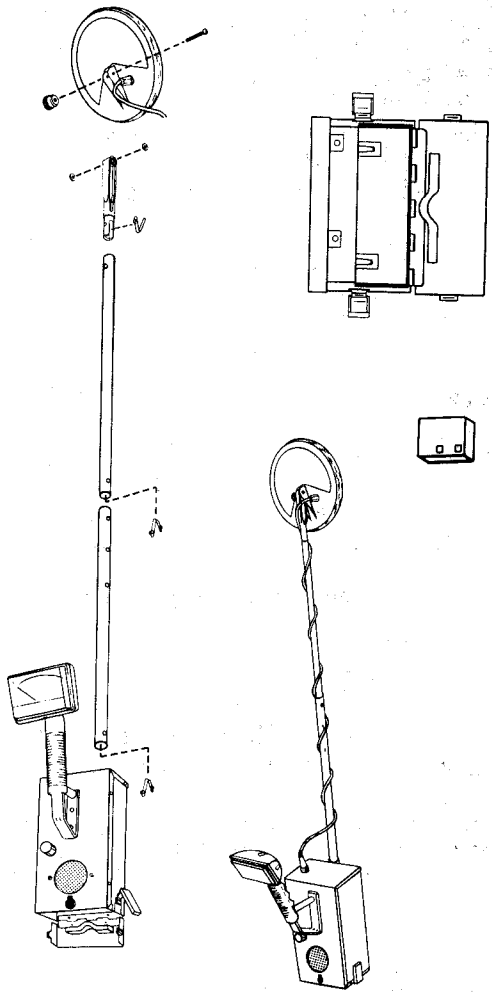
1. ON/OFF Control "ON"
2. Squeeze & release toggle switch on handle with loop held away from metals or the ground.
3. Pass loop close to where metal is suspected, slightly overlapping each sweep.

SEARCH & RECOVERY

4. To Pinpoint "X" the target while squeezing and releasing toggle several times. Repeat step 2 before continuing to search.
5. Constant tone response to environment, ground, etc. eliminated by squeezing and releasing trigger with loop held in search area.

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Sweet Home, Oregon USA

PARTS IDENTIFICATION AND ASSEMBLY



METAL MASTER

I. ASSEMBLY

- a) Assemble the instrument as described on the preceding page.
- b) Assemble the four "C" cell batteries in the holder and insert the holder into the detector as described under STANDARD BATTERIES.

II. TO OPERATE

- a) Turn ON/OFF control to the BAT check position making sure the meter on the handle indicates above 75. If it doesn't, replace the batteries.
- b) Turn ON/OFF control to the ON position.
- c) Squeeze and release the toggle switch, located on the handle below the meter with the loop held away from metals or the ground. You should hear a slight continuous tone.
- d) Pass the loop close to where metal is suspected slightly overlapping each sweep. Metal will be indicated by an increase in the tone and a meter deflection to the right.
- e) To determine the exact location of a metal target (pinpoint) "X" the target while squeezing and releasing the toggle switch on the handle several times.

The loudest sound and strongest meter indication will then occur when the physical center of the loop is directly over the target.

Before continuing to search for additional metals, squeeze and release the toggle switch with the loop held away from the target to reset or clear for further detection.

- f) Occasionally if searching mineralized ground, asphalt or an area with natural conductive properties, salt, iron, etc., the instrument's slight tone may either increase or decrease as the loop is lowered to the search position.

To Operate continued....

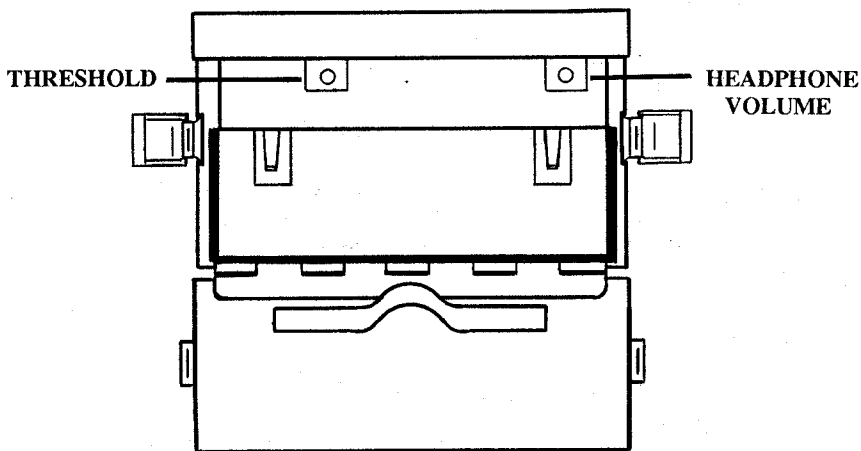
If the slight tone decreases so that the instrument is completely silent, do not be alarmed. Simply pass the loop close to where metal is suspected. Metal will still be indicated by a tone and meter indication.

If the slight tone becomes loud and constant when the loop is lowered to the search position, squeeze and release the toggle switch while continuing to hold the loop in the search position. Slight tone may or may not be heard. Pass the loop close to where metal is suspected. Metal will be indicated by a tone and meter indication.

ADDITIONAL INSTRUCTIONS

There are two additional screwdriver adjustments that can be made by instrument user. These two adjustments have been initially set at the factory for normal useage, but depending on background noise and individuals desire, they may be re-adjusted. They are located inside the instrument, accessible by opening the battery compartment door.

Sketch of trimmer location:



When you open the battery compartment door, you must hold the battery in place with one hand to assure contact between the battery and the pointed terminals in the instrument while making these adjustments.

NOTE: Both screwdriver controls have limited adjustment, i.e., you cannot rotate either control more than 300 degrees.

THRESHOLD ADJUSTMENT

The **THRESHOLD** screwdriver control allows the user to adjust the threshold (background) sound that should be present when the loop is away from any metal or the ground. Increases in the threshold indicate a metal target. Decreases in the threshold indicate minerals. If the threshold is set too loud or too quiet, small metal targets will be missed. Adjust the **THRESHOLD** screw for a barely audible sound as follows:

- 1) Open the battery compartment door.

Threshold Adjustment continued.....

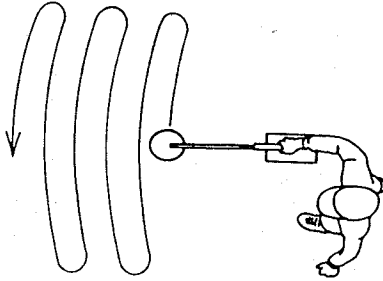
2. Hold the battery in position (against spring contacts).
3. Push the toggle switch on the handle down so that it locks in the lower position.
4. Turn the instrument on.
5. Adjust the threshold screwdriver control so that you can hear a very slight audible sound or hum.
6. Squeeze the toggle switch on the handle so that it returns to the center search position.

HEADPHONE VOLUME ADJUSTMENT

The HEADPHONE VOLUME screwdriver control allows the user to adjust the MAXIMUM sound level the instrument will produce. The HEADPHONE VOLUME may be increased or decreased as desired. To make this adjustment:

1. Open the battery compartment door.
2. Hold the battery in position (against spring contacts).
3. Push the toggle switch on the handle down so that it locks in the lower position.
4. Turn the instrument on.
5. Place a large metal object near loop for maximum speaker sound.
6. Plug in headphones.
7. The HEADPHONE VOLUME screwdriver control is in upper right corner above the battery compartment. Turn clockwise to make it louder, or counter clockwise to make it quieter. Adjust the HEADPHONE VOLUME screwdriver control for desired Maximum headphone sound level.
8. Take the large metal object away from the loop and check that you can still hear the threshold tone.
9. Squeeze the toggle switch on the handle so that it returns to the center search position.

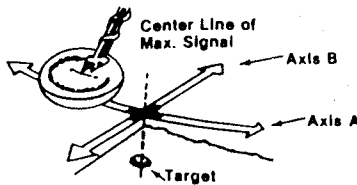
SEARCH METHODS



1. Always keep the loop flat and parallel to the surface being searched. Distance between the loop and the metal target will have an effect on the metal detectors ability to respond.
2. Swing the loop in front while searching. Each swing may cover an area from 4-6 feet in width.
3. The loop should be passed along in smooth, even swings. It does not have to be swung quickly.
4. When a target is detected, sweep it from several directions, noting its Audio characteristics. Larger targets produce larger audio tones.

PINPOINTING

1. "X" the target while squeezing and releasing the trigger switch on the handle several times.



2. The loudest sound will then be heard when the physical center of the loop is directly over the target.
3. Before continuing to search, squeeze and release the toggle switch, once more with the loop held away from metal to reset or clear for further detection.

STANDARD BATTERIES

The standard battery pack holds four ALKALINE batteries. ALKALINE BATTERIES ARE THE ONLY DISPOSABLE BATTERIES RECOMMENDED FOR THIS INSTRUMENT. To insert these batteries, proceed as follows:

1. Remove the battery pack from instrument.
2. Remove the battery pack lid gently pulling the top sides of the pack apart until the lid springs up, or apply gentle pressure down on the four locking tab openings, two on each side.
3. Note the position of each cell. (The flat side of each cell fits against one of the 4 springs.)
4. Remove the dead batteries and replace them with new ones. (If the cells are put in backwards, the detector will not work.)
5. Line up the locking tabs on the lid with the holes on the battery pack. Snap them together.
6. Insert the battery pack into the detector. The two terminal points must touch the pointed contacts inside the instrument, sticker on battery pack should be facing up.

NOTE: Rechargeable batteries are available as an option. Refer to Page 13.

"C" Cell Holder Instructions

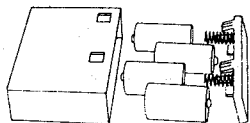
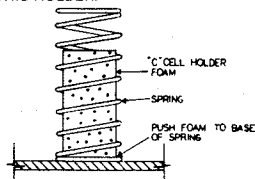
"C" SIZE ALKALINE BATTERIES ARE THE ONLY BATTERIES RECOMMENDED FOR THIS HOLDER.

Installation Instructions:

1. Push foam into the four springs
2. Install 4 batteries (not included) with the flat side of each cell against one of the four springs. (If the cells are in backward, the detector will not work.)

"C" Cell Holder Instructions

"C" SIZE ALKALINE BATTERIES ARE THE ONLY BATTERIES RECOMMENDED FOR THIS HOLDER.



Installation Instructions:

1. Push foam into the four springs.
2. Install 4 batteries (not included) with the flat side of each cell against one of the four springs. (If the cells are in backward, the detector will not work).

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PROPER CARE OF YOUR DETECTOR

The following are precautions you should take to protect your instrument from harm, ensure its long life, and avoid nullifying the warranty.

CLEANING

The loop and 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, will damage 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. If it is left in a car on a hot day, cover it to protect it from the direct rays of the sun, and then leave the window slightly open to permit ventilation. Protect your detector if you operate it near water as water may get into the instrument case.

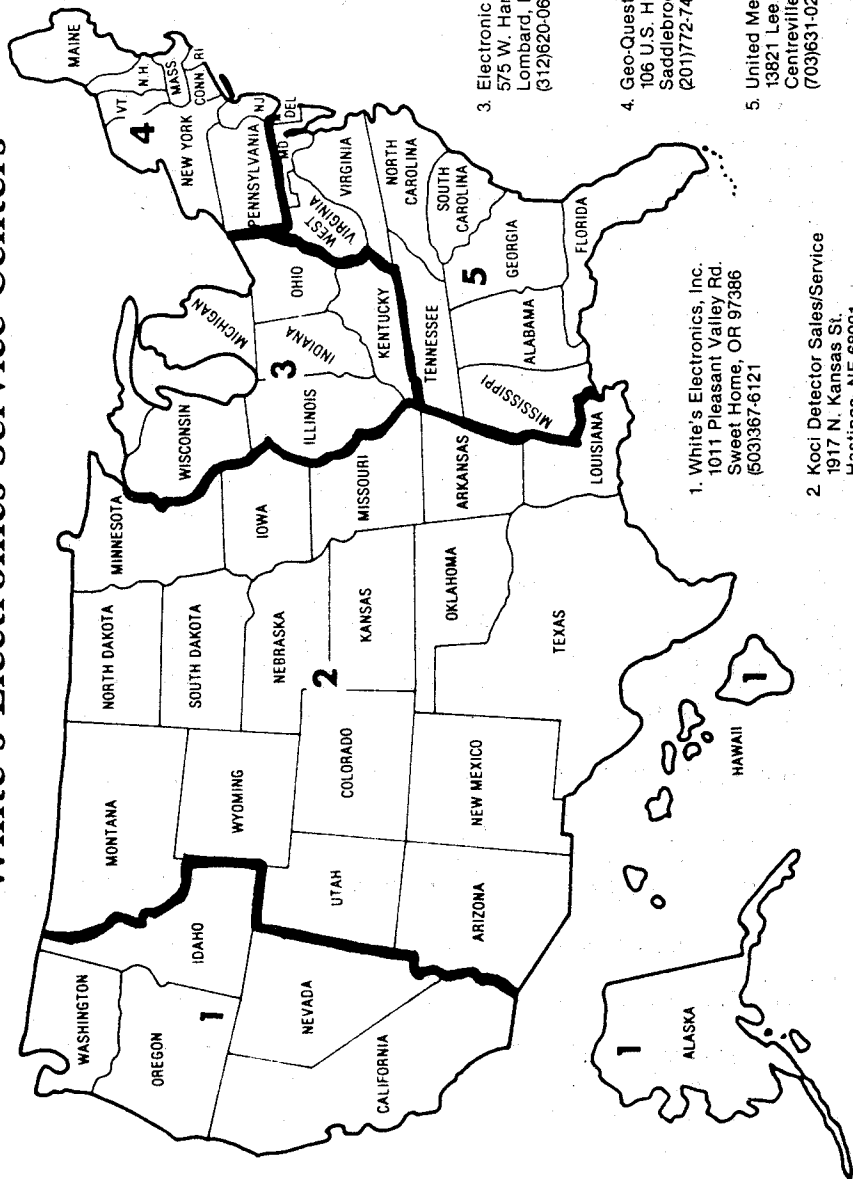
SALT WATER

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.

ADDITIONAL PRECAUTIONS

- *Avoid dropping your detector.
- *Do not use any lubricants on any part of your metal detector.
- *Avoid sharp jars to the loop.
- *Do not allow battery to corrode inside the instrument.
- *Do not alter or modify your instrument during its warranty period. Alterations will void the warranty.

White's Electronics Service Centers



3. Electronic Exploration
575 W. Harrison Rd.
Lombard, IL 60148
(312)620-0618

4. Geo-Quest
106 U.S. Hwy. 46
Saddlebrook, NJ 07662
(201)772-7443

5. United Metal Detectors
13821 Lee Hwy.
Centreville, VA 22020
(703)631-0202

1. White's Electronics, Inc.
1011 Pleasant Valley Rd.
Sweet Home, OR 97386
(503)367-6121

2. Koci Detector Sales/Service
1917 N. Kansas St.
Hastings, NE 68901
(402)463-4705

WHITE'S ELECTRONICS LIMITED WARRANTY

If within two years (24 months) from the original date of purchase your White's detector fails 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 to the dealer where you purchased it. The unit must be accompanied by a completed service coupon provided by your dealer. You must provide proof of date of purchase before the unit is shipped.

If the unit has failed within the first 90 days of purchase, shipping will be prepaid.

If the unit fails after the first 90-day period, the customer is responsible for shipping costs. Please also include \$5.00 for return postage, handling and insurance.

Items excluded from this warranty are non-rechargeable batteries, head-phones and other accessories.

The warranty is not transferable. Nor is it valid unless the Warranty Registration Card 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, alterations, modifications, 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

KEY SPECIFICATIONS

APPROXIMATE BATTERY LIFE:

Rechargeable	15 Hours
Alkaline	20 Hours

ENVIRONMENT:

Optimum Humidity Range	0 - 75%
Optimum Temp. Range	33° - 100° F
	0° - 38° C

FREQUENCIES:

Operating	6.59 KHz
Audio	412 KHz

RECOMMENDED ACCESSORIES

Part Number	Accessory	Suggested Retail
601-1049	Hard Carrying Case	\$29.95
801-3178-1	10" Loop	\$69.95
	(Provides better depth on medium size targets)	
801-3117-1	15" Loop	\$79.95
	(Provides better depth on large size targets)	
512-0016	4.8V Nicad Rechargeable	\$34.95
509-0017	4.8V Charger	\$9.95
802-7073	Attenuator	\$24.95
	(Expands detector capability in salt, black sand or highly mineralized ground)	

white's electronics, inc.

1011 Pleasant Valley Rd. Sweet Home, Oregon 97386

P/N 621-0286

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