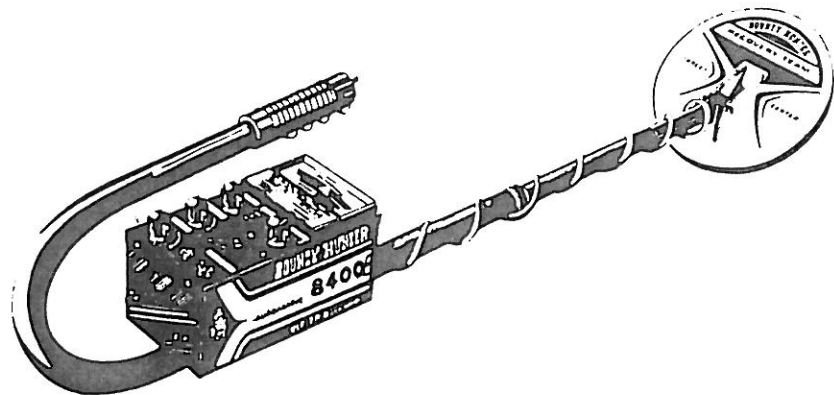




**8400B**  
**VLF Discriminator**  
**Owner's Manual**





#### Treasure Hunter's Code of Ethics:

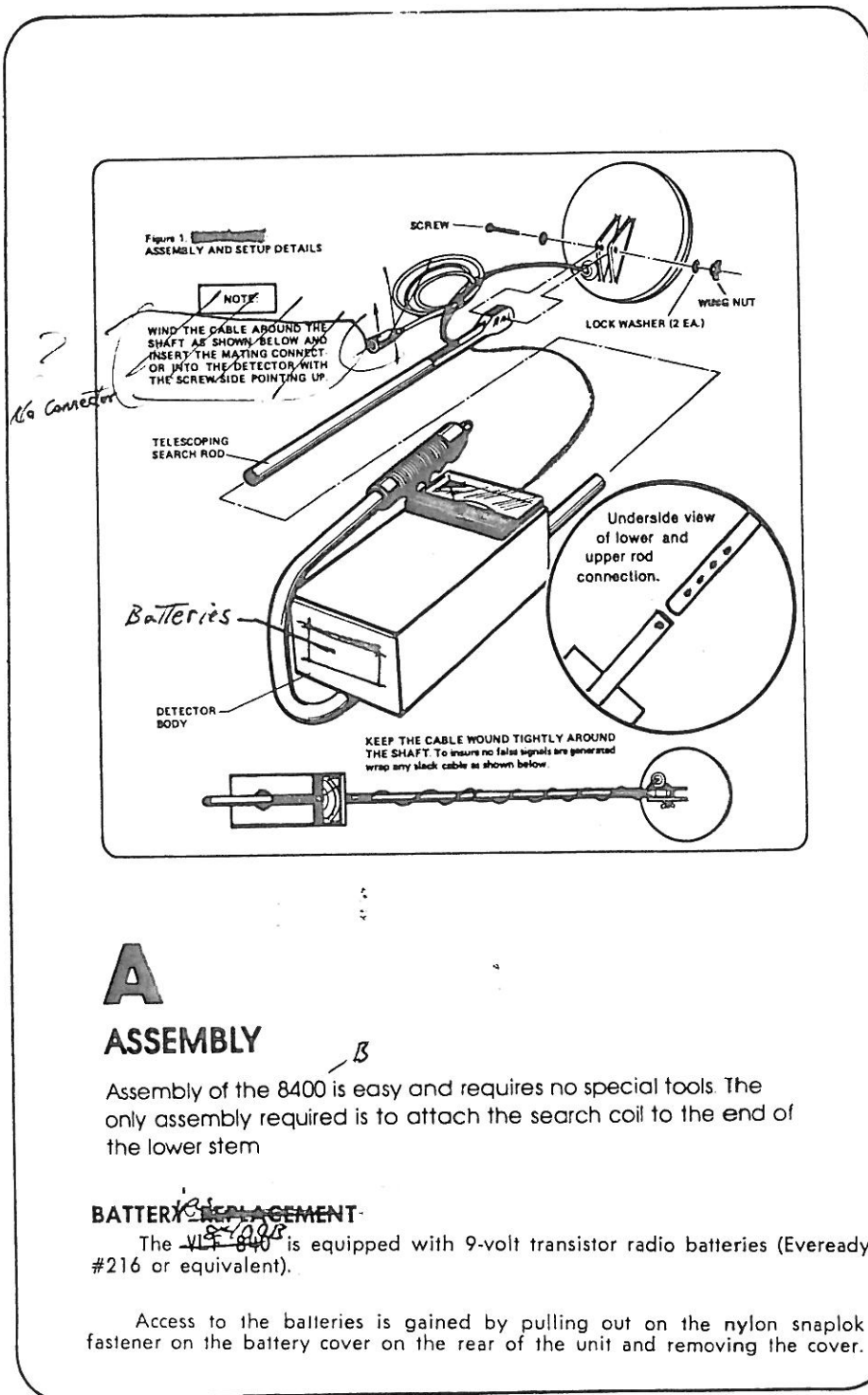
1. Respect the rights and property of others.
2. Observe all laws, whether national, state or local. Aid law enforcement officials whenever possible.
3. Never destroy priceless historical or archeological treasures.
4. Leave the land and vegetation as it was. Fill in all holes.
5. Remove all trash and litter when you leave.
6. All treasure hunters may be judged by the example you set. Always conduct yourself with courtesy and consideration for others.

---

#### PLEASE —

Help protect our great hobby by respecting the rights of others. Always obtain permission before searching on private property. Be extremely careful with your probing, picking up and discarding trash, and **ALWAYS COVER YOUR HOLES.**

**AGAIN. . .**Remember, in the modern metal detector, modern science has given us a valuable and exciting way to search the past for objects of historic and monetary value. Let us consider it a privilege to keep alive by careful and considerate hunting. In many countries of the world today, metal detection and the treasure hunting hobby have been drastically curtailed as a result of inconsiderate actions of treasure hunters who did little more than vandalize!



## B 8400 CONTROLS

The following is a picture of all the controls and switches on your 8400 and their functions.

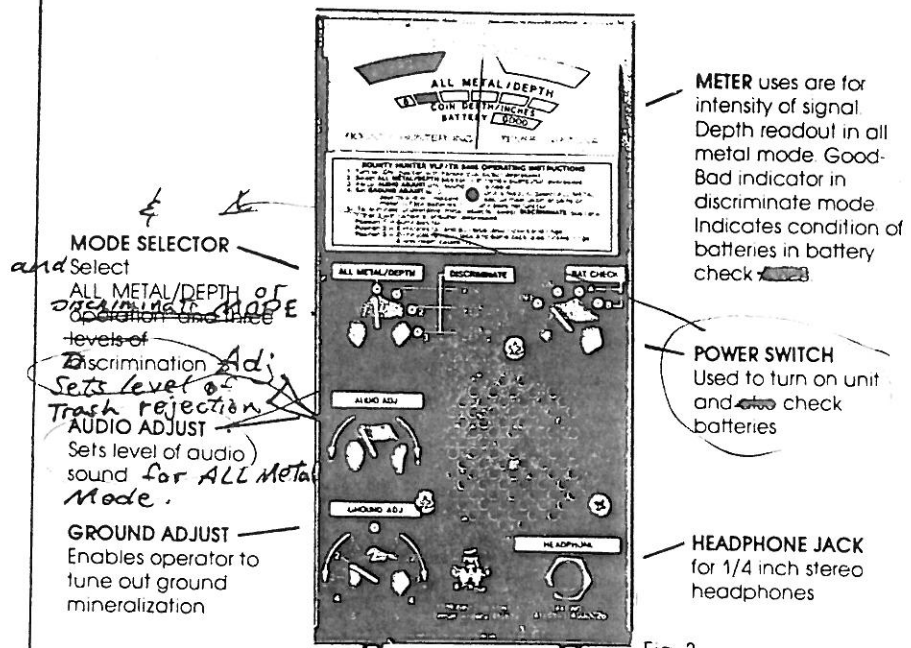
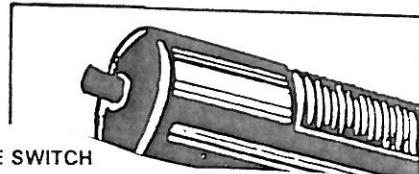


Fig 3

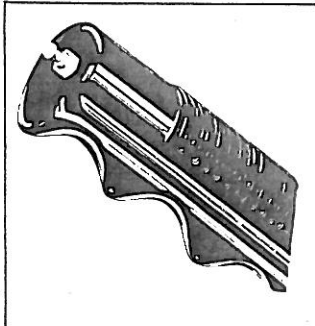
## C PUSHBUTTON TUNING & MODE CHANGE



PUSH BUTTON TUNER/MODE CHANGE SWITCH

Convenient thumb-push button in the tip of the handle may be pressed momentarily to re-establish the tuning threshold...OR...TO CHANGE MODES...It is not necessary to change the mode select switch each time. If searching in the ALL-METAL VLF mode, depressing the push-button switches the unit to the SPD. DISC mode and keeps it there for as long as the button is depressed.

After target identification, the unit can be returned to ALL-METAL by simply releasing the button. If the Mode Select Switch is placed in SPD. DISC mode, the reverse is true. Therefore, searching can be done in SPD. DISCRIMINATE but pinpointing is accomplished in ALL-METAL by simply holding the button depressed. Holding the button in when in TR mode switches mode to SPD. DISC.



# D

## 3 IN-ONE METER

The basic instructions for tuning and operating your 8400 are attached to the meter of the 8400. These instructions are basic and are intended for a reminder when you don't have your instruction manual handy.



Fig. 4

### As BAD-GOOD Indicator

In DISCRIMINATE mode if you get movement to right the object is good. NOTE if in foil mode it might be a pull tab.

### As DEPTH METER

In ALL METAL/DEPTH mode of operation. Indicates depth of coin. As shown a coin would be three inches deep.

### As a battery indicator

When the needle falls within the good section the battery selected is good & ok.

# E

## BATTERY TEST

Your 8400 uses two 9 volt transistor batteries (Eveready No. 916 or equivalent). To test your batteries, switch power switch to ~~to test the A battery~~ CHECK, and to B to test the B battery. The needle must fall within the yellow good box on the meter. ~~See Fig. 5~~ See Fig.

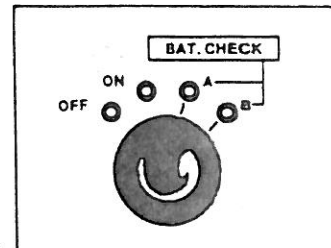


Fig. 5

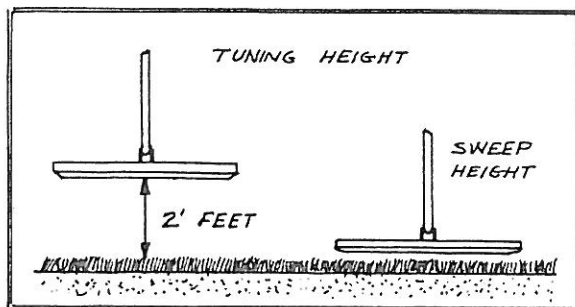
Remember 95% of all detector malfunctions are either due to faulty batteries or poor connections at the battery clip. Always check your battery condition if you feel your detector is not working properly. After you have connected and unconnected your batteries several times the prongs on the clip lead may spread apart or the prongs on the battery itself may be spread. Gently squeeze these prongs together with your fingers to insure a good snug fit.

Anytime you are going to store your detector make sure you remove the batteries. Storing the batteries in your refrigerator is the best place for them.

# F

## TUNING YOUR 8400 B

Hold your 8400<sup>B</sup> so that the search coil is about two feet above the ground and is not near any metal objects.



1. Set Mode Selector to ALL METAL/DEPTH position.
2. Set ground adjust to "0". This is a preliminary adjustment.
3. Depress and hold push button in. Turn power switch to ~~ON~~ <sup>ALL METAL</sup> position. Release push button.
4. With mode switch in the ALL METAL/DEPTH position you will detect all metals and also be able to measure depth of coins up to six inches deep.

5. Adjust audio control until sound is just heard. When the 8400<sup>B</sup> is adjusted in this manner the 8400 is at its most sensitive setting. Some "Thers" prefer no sound and in this case you ~~want to make sure when you adjust for no sound that you have adjusted the audio level to where sound just disappears. This also is the most sensitive setting when you don't want to hear sound until you detect something.~~

6. To discriminate ~~set mode switch to desired level of discrimination. Depress push button with search coil at distance from ground that you want to search at. Depressing the push button will return the unit for the ground conditions you are searching in.~~ <sup>DISCRIMINATE.</sup> ~~Set <sup>Disc. Control</sup> to desired level of trash rejection.~~

*Set <sup>Disc. Control</sup> to desired level of trash rejection. This Mode features silent operation with Audio response only to accepted targets.*

G

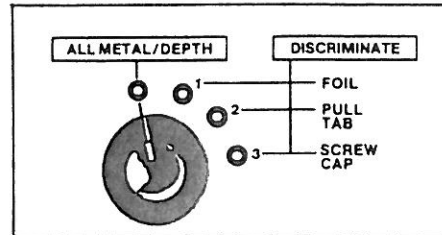


Fig. 6

## DEPTH READING

This is accomplished only when the mode switch is in the ALL METAL/DEPTH position and is most accurate when the 8400 is correctly ground adjusted. Depth reading is only accurate on coins. Rusty small objects will show shallower than they really are. The 8400 depth reading is calibrated only to eight inch search coil.

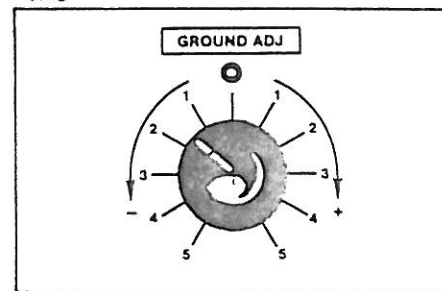


Fig. 7

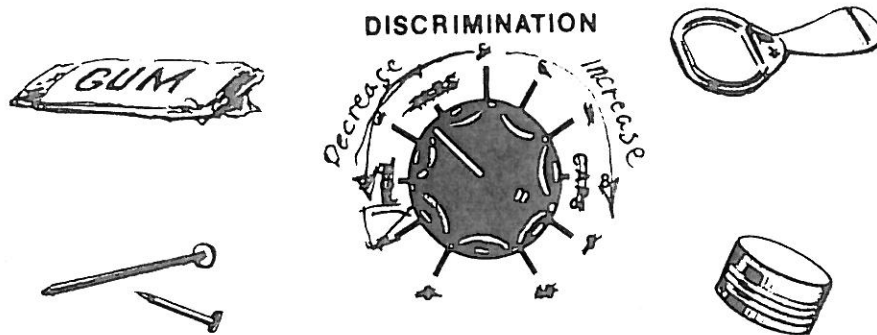
## GROUND ADJUST <sup>show</sup> be set

The ground adjust control ~~only has an effect~~ when you are in the ALL METAL/DEPTH position.

When unit is properly ground adjusted you will get no change in sound or meter reading as you lower search coil to the ground or raise search coil from the ground.

To properly adjust ground first make sure unit is tuned with mode switch in ALL METAL/DEPTH mode. Adjust for slight sound so that you will be able to tell if sound goes away as you lower search coil to ground. After you have tuned your 8400 with search coil in the air, lower search coil to ground and raise back up. If, while lowering your search coil to the ground you got an increase in sound, turn ground adjust control counterclockwise (left) if, you get a decrease in sound or sound went away altogether turn ground adjust control clockwise. When making these adjustments only turn control 2 or 3 increments at a time (about 1/4 inch).

After you make an adjustment depress push button <sup>on</sup> handle to retune 8400. Repeat the procedure of lowering search coil and adjusting ground adjust control until you get no change in sound as you lower the search coil to the ground. As you get less and less change in sound move the ground adjust less and less to avoid overshooting your no change in sound point.



## DISCRIMINATION

In this mode you will be able to tune out items that you don't want to find depending on the level of discrimination you choose.

In addition to tuning out unwanted targets you will get a good or bad indication on the meter.

EXAMPLE: Try this with search coil in the air so that you don't have to be concerned with ground interference. Place mode switch to FOIL position, decrease push button momentarily, pass a piece of tin foil by coil, sound will disappear and you will get meter movement towards bad. Pass a quarter by the search coil and you will get an increase in sound and meter movement towards good.

When switching to the DISCRIMINATE Mode, many unwanted items are rejected AUTOMATICALLY (will fail to generate a signal)! The drawing above shows the sequence of rejection using the DISCRIMINATE LEVEL control. As each instrument is individually calibrated, *Adjust* the search coil distance.

### THESE ITEMS INCLUDE:

**FOIL** (Includes gum, candy, cigarette wrappers, and miscellaneous thin quage scrap)  
**PULL-TABS** From aluminum drink cans).

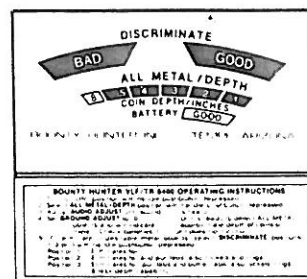
Unlike other detectors, there is negligible loss of sensitivity (depth capability) when changing from the FOIL level to the PULL-TAB level. However, at this level, as with other manufacturer's discriminators, the Nickel Coins can no longer be detected. Also, because of the shape and nickel content some rings may be bypassed.

### SCREW CAPS

A bothersome obstacle to the Treasure Hunter is the twist off aluminum screw cap used on many large soft drink bottles. Our detector has a level to counter this problem. In the SCREW CAP level some sensitivity is lost, so it is recommended that, for maximum performance, you discriminate at no higher than the PULL-TAB level unless the search area is heavily strewn with SCREW CAPS. In fact, the best rule of thumb is always to use the lowest level of discrimination possible for a particular area.

## GOOD-BAD INDICATOR

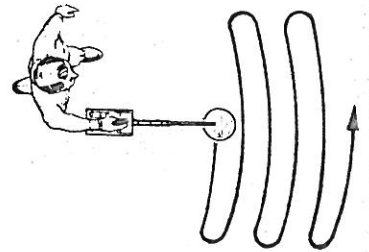
When you have the Discriminator level set to TIN FOIL pull tabs will show good since you haven't tuned them out. When you have the discriminate level set to PULL TABS the large aluminum screw caps will show good. Also when you are set to the PULL TAB level most gold rings and all nickles will show bad.



## IN THE FIELD

The detector should be held ~~as shown on page 10~~ in a position that is comfortable for you. Sweep the detector from side to side in about a three foot arc. The Bounty Hunter 8400 does not need to be hurried, so do at a pace that doesn't wear you out.

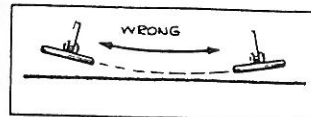
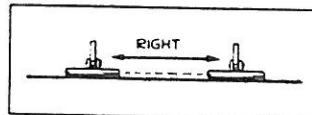
Sweep in a slightly overlapping pattern as shown. Use as you would any normal detector — the search signal should "peak" as the target center is passed. Try to keep the search coil parallel to the ground at all times and avoid lifting the coil off the ground at the end of each swing. This will prevent loss of detection of some deeper targets, since you are putting more distance between the coil and the target on a careless swing.



Proper Sweep OK

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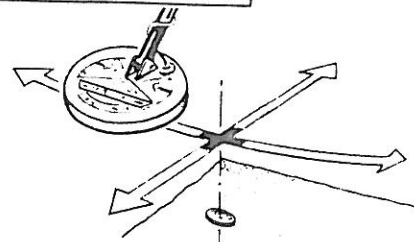
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### PINPOINTING THE TARGET

When operating with the 8-inch coil, if a target is located generally with a side-to-side sweep, the exact location may be determined by also passing the coil in a forward and back sweep as shown at the right.



To pinpoint or locate a target which doesn't peg the meter and audio, simply move the coil around to find the point where the loudest audio and highest meter reading is given. The target will be right below the center of the coil. If the target response is so strong it pegs the meter and audio, simply push the tuning button momentarily over the strongest signal. This will tune out most of the response to the target and the detector will go totally quiet if it is moved away from the target. It may be necessary to retune a couple of times to almost totally tune out the target.

## DETECTION TIPS

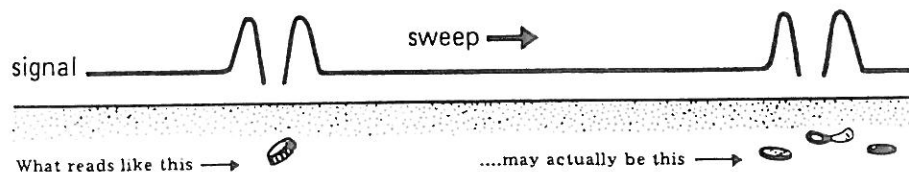
*disc.*

**NOTE:** The search coil must be moving to detect a target using the SPD system. However, the detector operates very effectively at slow sweep speeds and with a little practice, you can pinpoint in ~~SPD~~ *disc.* MODE.

The ~~SPD~~ *disc.* DISCRIMINATION Mode is not affected by ground mineralization, and when used at the beach it will go from wet sand to dry and back without changing tune! the DISCRIMINATE Mode is recommended for areas of heavy surface trash. Any level in this mode will reject small surface area targets such as wire, nails, tacks, rivets - that to other detectors may look like coins! Larger junk targets are easily identifiable because of their erratic signal or widespread signal area.

Often you will receive a signal from a target that is difficult to "Read" to really determine what it is. What may seem to be a bad target because of the signal pattern, may be a combination of targets.

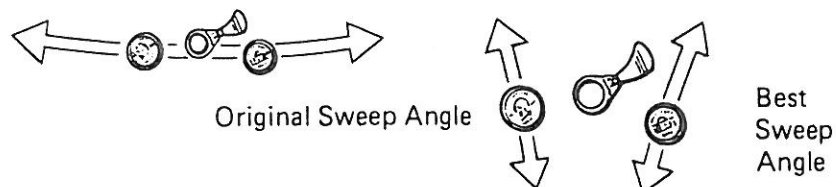
Let's take an example: With the detector set in the SPD MODE and DISCRIMINATE level set at 4.5 to 5.5.



With the audio signal produced, at first you may be tempted to pass on and forget it. Don't! A situation like this may be worth an investigation.

1. Switch to the "ALL METAL" (VLF) MODE for pinpointing
2. Sweep the search coil across the target area in both directions to see if you can isolate the signal into more than one target.
3. If you do determine that there is more than one target present, try sweeping the coil over it at a more favorable angle in the DISCRIMINATE MODE to get a more reliable reading.

For example:



earphones will greatly extend the battery life, since it takes much  
**REJECTING THE STEEL BOTTLE CAP**

Although the iron bottle cap is rejected at any level of discrimination when operating in the TR DISCRIMINATE MODE, this is ~~not the case when using SPD~~. While searching in the SPD DISCRIMINATE an iron bottle cap will "blip", but can be ~~readily~~ *and your sweep* identified quite easily.

Once a large signal has been received, take notice of its audio strength at a normal sweep *direction*. Now sweep over the same target at increased speed and compare the strength to the first response. If the signal diminishes at all, you may leave it for a bad target (iron bottle cap). However, if it ~~gets stronger the faster you sweep over it~~ *remains*, it is a good target. With very little practice, this procedure will become second nature and you will begin to experience the real joy of using your detector.

## THE "TOO-BIG" TARGET SIGNAL

From time to time, you will acquire a good sounding signal that seems to pass all the tests for a coin or other valuable. It will be loud, clear and positive. In fact, targets like this are usually objects having a large surface area and may consist of an alloy or plating that will cause the detector to respond to the non-ferrous portion.

Among these may be aluminum containers, such as beer and pop cans, or a composite item such as a discarded alarm clock.

The big give-away to this kind of signal will be its size, both in ground area and signal strength. With practice, you will soon discover ~~other objects. If, for example, you are just above the surface, and you get ground, you know that it is not a per-~~ The sound response can tell a lot - a coin usually gives a good solid sound regardless of sweep direction. When checking a target, listen to the "Size" of the sound in the ~~GB Pinpointing mode - a~~ large target produces sound over a greater area than does a single coin.

~~However, you may want to dig just for buried-galleys. Signals - see~~

7. Hot Rocks: On all motion type detectors, you will find some targets that read "good" in the "motion discrimination" mode but when you switch to the "All Metal" mode to pinpoint, you find that the target had "nulled out" or caused the All Metal mode to "go quiet" when directly over this target. This is because you have located what people call "Hot Rocks". The hot rocks are objects that are less conductive than the ground you are hunting.

## CARE AND SERVICING

### PROPER CARE FOR YOUR DETECTOR

Metal detectors are sensitive electronic instruments. Although it does not have to be babied, reasonable care must be taken to help ensure a long trouble-free life for your detector.

**KEEP IT CLEAN . . .** Take a few minutes after each use to remove dirt and dust. Wipe the housing and wash the coil, especially if it has been dipped in salt water. A plastic bag over the control box at the beach will help protect the unit from sand and prevent corrosion due to salt air.

**KEEP IT COOL . . .** Never store your detector in an extremely hot environment, such as an automobile trunk in the summer, for extended periods of time. The prolonged heat will not only shorten battery life considerably, but can cause electronic component breakdown.

**KEEP IT SAFE . . .** Never transport your detector in such a manner that will subject it to extreme vibration or shock. The unit may be cushioned by wrapping it in a blanket or by putting it in a carrying bag or case designed for the purpose.

The coil is waterproof and may be submerged in either fresh or salt water. Caution should be exercised to prevent water from entering the chassis. After the coil is used in salt water, the coil should be rinsed well with fresh water to prevent corrosion of the metal parts.

The use of earphones will benefit you in two ways. Most earphones will very effectively block out most of the ambient noise, such as traffic noise and wind noise, which will enable you to better hear the fainter signals caused by the deeper targets. Secondly, using earphones will greatly extend the battery life, since it takes much less power to operate them. Any good 8 or 16 ohm set with 1/4 inch stereo jack will do.