

BOUNTY HUNTER

840

VLF TR Discriminator

OPERATING INSTRUCTIONS



**NORMAL OR
DISCRIMINATE
SEARCH!**

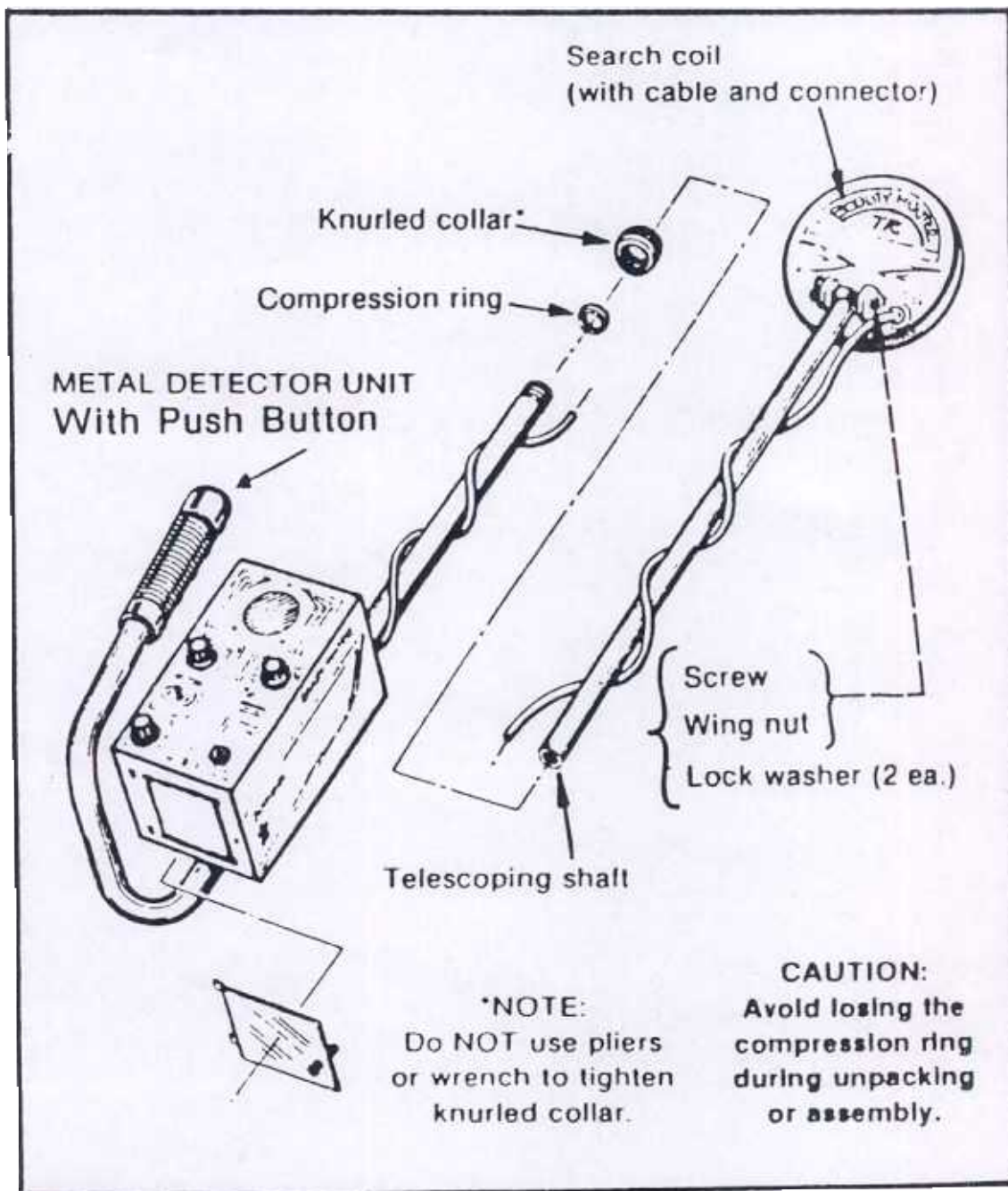
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BOUNTY HUNTER, INC.

INTRODUCTION to the 840 Discriminator

The VLF 840 is a Very Low Frequency discriminating metal detector, utilizing the inductively balanced Transmit/Receive (TR) technique to provide excellent stability and sensitivity in an all-purpose instrument. In the Normal mode, not only are all metals detected, but ground mineralization can be rejected to allow operation in all types of soil conditions.

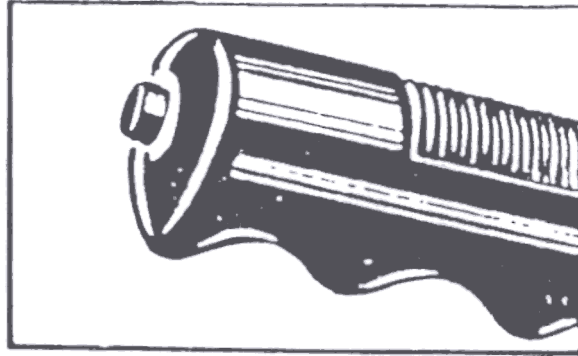
In the "Discriminating" mode the VLF 840 is an ideal detector for the serious coinshooter, allowing the operator to control the amount of rejection of unwanted "junk" targets. Rather than a good/bad indication, the VLF 840 merely ignores unwanted targets, yielding no audio tone as the coil passes over them.



Control and Features of your VLF 840

- 1) On/Off Volume Control. Turning knob clockwise turns the instrument on and increases the audio volume level. Rotating this control completely counter-clockwise until it clicks turns the instrument off. Since the audio indication for a detected target is an increase in volume (loudness), the volume control should be near maximum. If the volume control is turned too low, weak responses to deep targets may be lost due to insufficient volume.
- 2) Tuning Control. The Tuning Control is used to adjust the detector circuitry for maximum sensitivity. Maximum sensitivity is that point at which the sound just starts. This point is called the "Threshold."
- 3) Mode Selector. This is a two-position toggle switch which is used to select the desired operating characteristics of the detector, based on the type of searching being done. The two positions are as follows:
 - a) Normal: In this position the detector will respond to all metals, both ferrous and non-ferrous.
 - b) Discriminate: In this position, the detector will still respond to non-ferrous metals such as gold, silver, and copper, but will reject nails, tinfoil, bottle caps and other ferrous pieces of trash.
- 4) Discriminating Level Control. The control allows the operator to set the desired degree of trash rejection while in the Discriminate mode. The amount of discrimination (rejection of unwanted targets) is at minimum when the control is turned to "0" (fully counter-clockwise) and increases as the control is turned clockwise toward 10.
- 5) Ground Adjust. This control, when properly adjusted, enables the operator to reject ground mineralization which otherwise would cause a loss in depth and stability. The detector can only be "ground adjusted" in the NORMAL mode.
- 6) Earphone Jack. This jack enables operator to bypass the speaker for private listening by using headphones. Headphones are especially desirable in noisy areas where background noise can drown out the weaker signals which normally indicate the older, more valuable targets. The jack is designed for standard 4-16 ohm stereo headphones with 1/4" plug. Variable volume type headphones are recommended. These phones allow the unit to be set at full volume for maximum sensitivity while adjusting the volume on the ear pieces to a comfortable listening level.
- 7) Meter. Provides a visual target indication. Meters are used in conjunction with the audio response to verify in-doubt signals or to aid in pinpointing.
- 8) Battery Test. Provides a meter indication of remaining battery supply power. The batteries should be replaced when they read below .6 on the meter.
- 9) Push-button Tuning Button. The VLF 840 features a convenient thumb-push button at the tip of the handle that eliminates the need to manually adjust the tuning control once the unit is tuned and adjusted for searching. The push button is used as follows:

- a) Hold push button in.
- b) Turn tuning knob clockwise until the "Threshold" of sound is reached.
- c) Release push button.
- d) When retuning is required due to changing modes, discrimination level, or changing ground conditions, simply depress button momentarily and release. This will retune the detector to the original setting.



The VLF 840 has been designed for simplicity of operation, but, as is the case with any detector, operator skill and familiarity with the instrument will determine, in large part, the success of the hunt. We recommend that you read thoroughly the operating instructions and spend some time familiarizing yourself with the instrument. The time you spend doing this will pay off handsomely later.

OPERATING INSTRUCTIONS

Set the Normal/Discriminate mode selector switch to the desired position, based on the type of searching being done.

Normal — for relic or cache hunting when all metals including iron are wanted, for coin hunting in areas relatively free of trash, or for use in highly mineralized soil which prevents adequate performance in the Discriminate mode.

Discriminate — searching for coins and jewelry (coinshooting) in trashy areas with average or better ground conditions.

NORMAL MODE

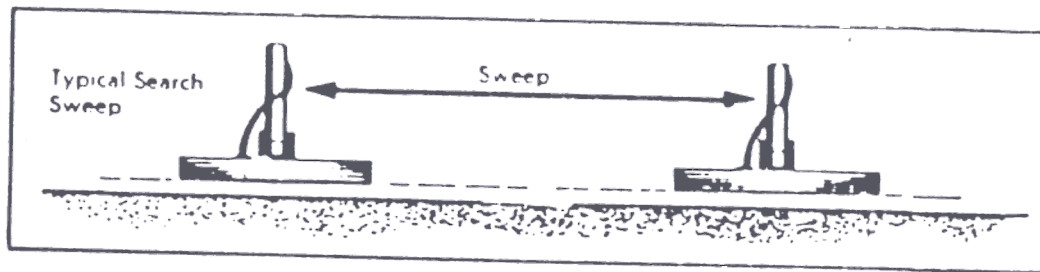
1. Turn the On/Off-Volume control fully clockwise.
2. Depress push button.
3. While holding push button depressed, rotate tuner control clockwise until sound just starts (threshold) and then release button.
4. Lower the search coil to the ground.
 - a) If the sound **DECREASES**, turn the Ground Adjust control clockwise.
 - b) If the sound **INCREASES**, turn the Ground Adjust counter-clockwise.

Raise the search coil at least one foot above the ground and depress push button to retune. Lower the search coil to the ground again and if the sound changes, repeat step (a) or (b) accordingly.

Repeat this procedure, turning the Ground Adjust in smaller and smaller increments, until you obtain the least amount of change in sound when going from air to ground with search coil.

The detector has now been "ground adjusted" so that searching may be done independent of ground conditions. If the ground adjust is improperly adjusted (i.e., if it is turned to the extreme right), the unit will actually reject coins and jewelry in the normal mode.

Sweep the coil across the ground in an arc about 6 feet wide, advance about 6 inches and sweep the coil back, overlapping each arc. (See Search Techniques.) An object detected will cause an increase in sound level.



It would be good practice to bury several coins at various depths in your yard and practice detecting them to familiarize yourself with the instrument and its controls and to practice pin-pointing the buried objects.

When using the detector in short grass, the coil can be slid back and forth on top of the grass to help maintain the constant height and maximum sensitivity.

NOTE:

All of the time you spend practicing with your detector will pay off in increased finds and in digging smaller holes to recover them.

DISCRIMINATE MODE

The Discriminate mode allows the operator to control the detector response to unwanted items such as nails, tin foil, bottle caps, and aluminum pull-tabs. The amount of rejection of such "junk" finds is controlled by the "Discriminate Level Control." The setting of this control has no effect on the detector when used in the "Normal" mode.

To begin searching in the Discriminate mode, place the mode selector in the Discriminate position, and the Discriminate Level Control on minimum degree (0). When changing from Normal to Discriminate, the threshold will be lost. Simply press the push-button to retune to the threshold.

The unit is now adjusted to respond positively to all coins and jewelry but to ignore tin foil and ferrous objects such as rusty nails and bottle caps. Aluminum is not being rejected at this setting. Fortunately, almost all foil is tin foil and not aluminum foil. However, the aluminum pull-tab does present a problem. The Discrimination Level Control can be increased to the point at which pull-tabs are rejected. However, this causes some loss in sensitivity, and nickel coins and some small gold rings are lost. For this reason, most serious coinshooters do not choose to reject pull-tabs until it is absolutely necessary, such as under bleachers or around picnic tables.

Note that if the coil passes less than an inch over a piece of trash, you may hear a sharp audio "blip." This blip is caused by the circuitry being overdriven, and the unit will not give a normal target sound. To make certain that you have passed over a piece of trash, raise the coil two inches above the target, retune, and pass over it again. Only good targets will respond.

Mineralized Soil:

If the ground becomes highly mineralized, it is recommended that the searching be done in NORMAL until a target is detected; then, if desired, the unit can be switched to Discriminate to verify before digging. At a sacrifice in sensitivity, it is possible to search in the Discriminate mode in some mineralized areas by detuning the detector slightly. By operating just below the threshold, the false target indications due to mineralization can be eliminated.

NOTE:

The electronic circuitry of this detector was designed to provide excellent stability but, as with any detector, it is a good idea to check the control settings occasionally to maintain the best sensitivity and discrimination level.

SEARCH TECHNIQUES

Stance

Stand up straight and let your arm hang down straight at your side. Adjust the telescoping stem until the search head is about $\frac{1}{2}$ " above the ground. Adjust the search head so it is parallel to the ground. Bounty Hunter detectors are designed for perfect balance so the detector should not be "held up" with the arm bent as this can be very tiring.

Sweep

With the detector held in the proper position, swing the search coil side to side slightly overlapping each sweep as you move forward. Make sure the search coil stays the same height above the ground and don't allow it to lift on the outside edges of the sweep.

Sweep speed and height of coil above the ground are usually determined by the type of terrain and sensitivity desired by the operator. When trying to obtain maximum depth, slow down. Concentrate on the very weakest signals which often indicate the deeper (and usually more valuable) targets. If you listen for strong signals, the weak signals will not be noticed. However, if you concentrate on the faint signals, you will be sure to detect everything.

Target Pinpointing

When the detector signals a find, slowly sweep the search coil from side to side and then forward and back until the strongest signal can be obtained. Your find will be directly beneath the center of your search coil.

You will notice that the weaker signals are more easily pinpointed than the stronger ones. On strong spread-out signals, pinpointing can be done very accurately by "detuning" the detector until it is barely responding to the target. With push-button tuning, this can be done very simply. Once a strong signal has been centered up, press the push button while holding the coil still over the target. Release the button before moving the coil from the target and then re-pinpoint using the new weaker response. Before going on to the next find, be sure to press the tuning button once more to bring back maximum sensitivity.

Grid

To make sure you search an area thoroughly without gaps you may wish to lay out the search area in a grid pattern. Stake out two parallel strings the width of your sweep (about three feet wide) and sweep this area thoroughly. Next move one string over and make a new search area, and so on until the entire area has been covered. You may also grid an area mentally using trees, rocks, buildings, etc., as points of reference.

NOTE:

Approximately 90% of the problems from metal detectors are caused by weak, dead, or improperly connected batteries. If the unit does not come on, or comes on but has weak volume, will not tune properly, has erratic operation, or drifts — **CHECK THE BATTERIES!**

When replacing the batteries, make sure fresh batteries are purchased. Many units are received at the factory for repair because bad batteries were replaced by "new" batteries with expired shelf life.

BATTERY REPLACEMENT

The VLF 840 is equipped with 9-volt transistor radio batteries (Eveready #216 or equivalent).

Access to the batteries is gained by pulling out on the nylon snaplok fastener on the battery cover on the rear of the unit and removing the cover.

A battery lead connector snaps to the respective battery terminals. The "B" battery powers part of the circuitry and the "A" battery powers the remaining circuitry, plus the audio output.

Batteries should last from 15-30 hours of use, depending on the make and freshness of the batteries and the length of hunt periods. Using headphones will extend the battery life of the "A" battery.

When replacing the battery cover, insert the cover tabs in the slots, close the cover inserting the snap-lok fastener through the round hole and press the fastener until it snaps into the locked position.

Caution:

When the detector is to be stored for a month or more, it is a good practice to remove the batteries from the unit as weak batteries can vent and leak. This leakage is corrosive and can do serious damage to the unit.

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 designed for the purpose.

TREASURE HUNTING TIPS

Use headphones! They are more sensitive than the speaker and will greatly increase the audio battery life.

2. Always try to run the coil as close to the ground as possible. Coil covers are available to protect the coil when scrubbing the ground.
3. In order to thoroughly cover an area, always search in both directions. Many deeper coins on edge might be missed going North and South, but detected going East and West.
4. After you have dug up a coin, always re-check the hole. It is not unusual to find several coins in one hole.
5. If a strong signal is received but then lost after cutting a divot, check the loose dirt at the bottom of the hole for a coin on edge.
6. In order to do the very best in a particular area, try searching immediately following a good rain while the soil is damp. Coins, jewelry, and relics oxidize. This oxidation causes a "halo" effect surrounding the item. The longer an item is buried, the larger it appears to the detector. This halo effect is more pronounced when the soil is damp. Not only are the signals stronger at this time, but probing is also easier when the ground is soft.
7. Don't worry about how many times a particular area has been searched. Usually the very best finds still remain in a supposedly "worked" area. Persistence and a positive attitude are the two main ingredients for successful treasure hunting.
8. Use your imagination. It's your best source for ideas of places to search — possibly productive areas previously overlooked by other TH'ers, but . . .
9. Also listen to the "pros" with many years of THing experience. If they say that old church yards are good for old coins, or swimming areas are the best places to find lost jewelry, etc., you can bet that they know what they are talking about.

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.**

BOUNTY HUNTER®, INC.