



# Tracker II

M E T A L D E T E C T O R

## OWNER'S MANUAL

Your Tracker II is an advanced technology Metal Detector. If you are new to the hobby or have never used a metal detector before, we recommend that you:

- 1) **Do Not Use Indoors.** Household appliances generate electromagnetic fields, which can interfere with the detector.

If demonstrating indoors, turn the sensitivity down and keep the search coil away from floors, walls, and metal objects.

- 2) **Turn SENSITIVITY knob to a low setting in the event of false signals or chatter.** A little practice is required to understand when and how to position the sensitivity at or near 100%.
- 3) Use 9-volt **ALKALINE** batteries only.
- 4) **Please** read this manual.

# TABLE OF CONTENTS

<b>TERMINOLOGY</b> .....	3
<b>ASSEMBLY</b> .....	4
<b>QUICK-START DEMO</b> .....	5
<b>OPERATION</b> –Getting started in the Field .....	6
<b>OPERATING MODES AND CONTROLS</b> .....	7
<b>GROUND BALANCING</b> .....	8
<b>IN THE FIELD TECHNIQUES</b> .....	9 ,10, 11
<b>APPLICATIONS</b> .....	12
<b>TROUBLESHOOTING</b> .....	13
<b>CARE AND MAINTENANCE</b> .....	14
<b>ACCESSORIES</b> .....	15
<b>CODE OF ETHICS</b> .....	16
<b>WARRANTY</b> .....	16

# TERMINOLOGY

The following terms are used throughout the manual, and are standard terminology among detectorists.

## **ELIMINATION**

Reference to a metal being "eliminated" means that the detector will not emit a tone when a specified object passes through the coil's detection field.

## **DISCRIMINATION**

When the detector emits different tones for different types of metals, and when the detector "eliminates" certain metals, we refer to this as the detector "discriminating" among different types of metals. Discrimination is a fixed-start-point elimination system.

## **RELIC**

A relic is an object of interest by reason of its age or its association with the past. Many relics are made of iron, but can also be made of bronze or precious metals.

## **IRON**

Iron is a common, low-grade metal that is often an undesirable target in certain metal detecting applications. Examples of undesirable iron objects are old cans, pipes, bolts, and nails.

Sometimes, the desired target is made of iron. Property markers, for instance, contain iron. Valuable relics can also be composed of iron; cannon balls, old armaments, and parts of old structures and vehicles can also be composed of iron.

## **FERROUS**

Metals which are made of, or contain, iron.

## **PINPOINTING**

Pinpointing is the process of finding the exact location of a buried object. Long-buried metals can appear exactly like the surrounding earth, and can therefore be very hard to isolate.

## **PULL-TABS**

Discarded pull-tabs from beverage containers are the most bothersome trash items for treasure hunters. They come in many different shapes and sizes. We have incorporated special features into the detector to let you eliminate, or be alerted to the presence of, the most common types. Since there are many different types, some cannot be 100% differentiated from other types of metals. For example, newer pull-tabs can possess the same magnetic signature as a nickel.

## **GROUND BALANCE**

Ground Balancing is the ability of the detector to ignore, or "see through," the earth's naturally occurring minerals, and only sound a tone when a metal object is detected.

## **WATERPROOF**

The search coil can be submerged in water. The control housing must stay dry.

## **COINSHOOTING**

Finding buried coins is the most popular metal detecting application. The most valuable are very old; take care in unearthing them to avoid damage.

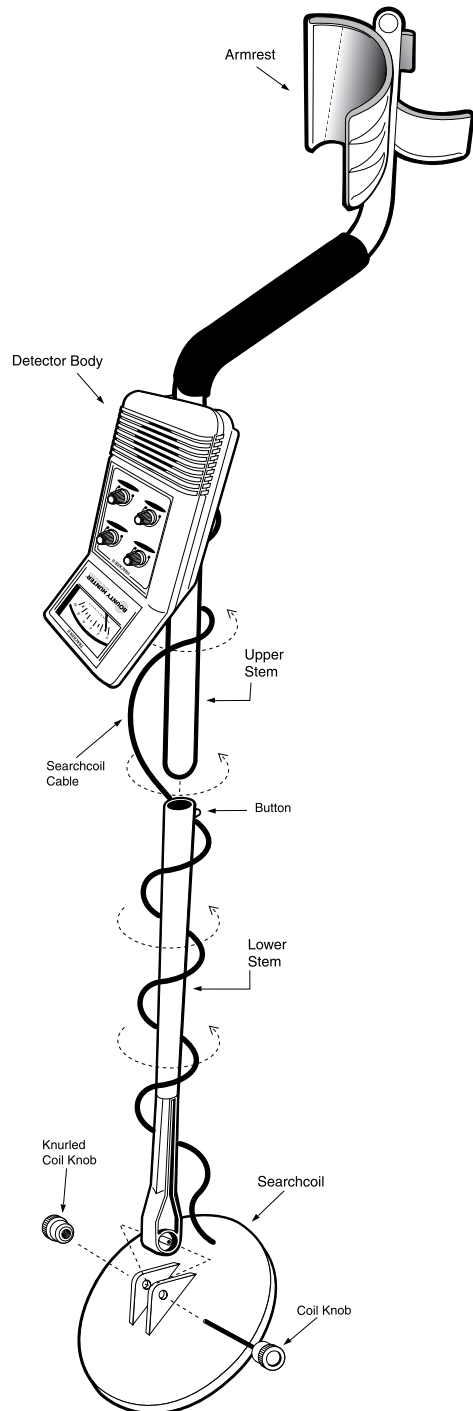
## **CACHE**

Pronounced "cash". A cache is a buried or hidden valuable stored inside a case, strong box, or bag.

# ASSEMBLY

**No tools are required. Follow these steps:**

- 1 Unpack your detector and find the following parts:
  - Detector body, attached to S-rod handle and search coil.
  - Lower stem (short metal tube with plastic extension and silver button).
  - (2) Coil knobs. One with a shaft attached, one without.
- 2 Depress the button on the lower stem and push the lower stem into the upper stem.
- 3 Wind the search coil cable around the two-piece stem.
- 4 Leave some slack in the cable as you reach the end of the lower stem.
- 5 Attach the coil to the stem using the coil knobs.
- 6 Install two (2) 9-volt **ALKALINE** batteries (not included). There are two battery doors on the back of the detector body.



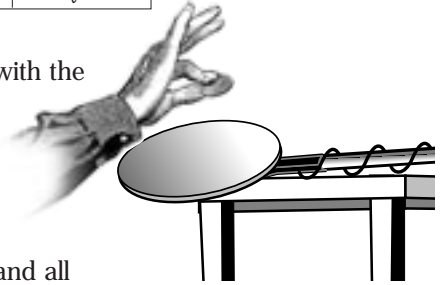
# QUICK-START DEMO

## I. SUPPLIES NEEDED

• A Nail	• a Nickel
• A large screwdriver or other large metal object	• a Dime
• A newer zinc penny (dated after 1982)	• a Quarter

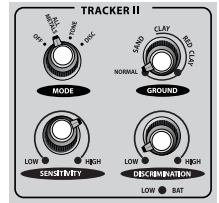
## II. POSITION THE DETECTOR

- Have a friend hold the detector, with the coil raised up off the ground. If testing alone, place the detector on a table, with the search coil hanging over the edge.
- Keep the search coil away from walls, floors, and metal objects.
- Remove watches, rings, jewelry and all metal objects from hands and wrists.
- Position search coil parallel to the ground.



## III. POWER UP

- Click the MODE control on to the ALL-METALS position.
- Turn the SENSITIVITY control to the 2:00 position.
- Keep the GROUND control at NORMAL.
- Turn DISCRIMINATION knob to low.

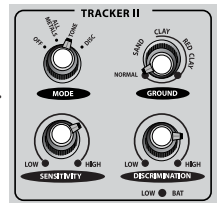


## IV. SWEEP OBJECTS OVER THE SEARCH COIL

- Sweep all objects over the search coil.
- Sweep coins with flat surface parallel to coil. This is usually how you will find them buried in the ground.
- Notice that all objects induce the same tone. All metals are detected.
- Objects must be in motion over the coil to be detected.

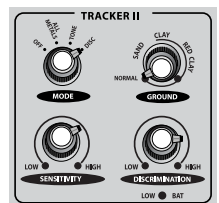
## V. TONE MODE

- Click the MODE control to TONE.
- Turn the DISCRIMINATION knob to the 3:00 position.
- Sweep all objects over the search coil.
  - Notice the different tones for different objects.
  - Notice no tone for ferrous objects



## VI. DISCRIMINATION MODE

- Click the MODE control to DISC.
- Sweep all objects over the search coil.
- Move the DISCRIMINATION knob to different positions for each object. Move between low and high.
- Notice the different tones for different objects.
- Notice that some objects can be completely eliminated with the DISCRIMINATION control knob.



# OPERATION—Getting Started in the Field

## STANCE

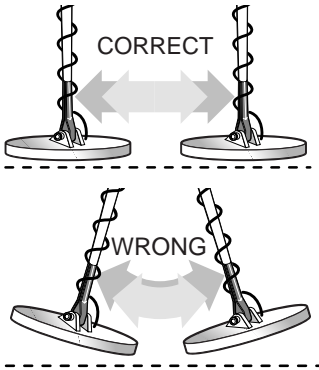
•Stand with your arm extended in front of your body. Hold the search coil off the ground, about 1/2 inch above the surface.

•Position the search coil parallel to the ground.

## SWEEP

•Swing the coil slowly, from side to side. The coil must be in motion to detect metal.

•Maintain the coil parallel to the ground. Do not raise the coil at the end of each sweep.



•Move slowly and overlap each sweep as you move forward, sweeping the coil in half-circle movements.

•The coil must be in motion to detect metal. Your Tracker II incorporates motion detection technology. A motionless search coil will not detect buried objects.

## TARGET RESPONSE

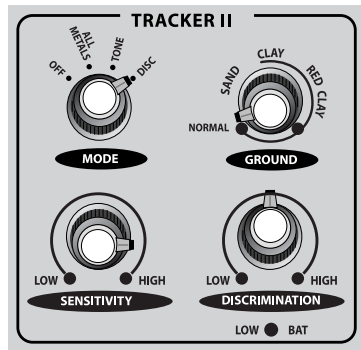
Most desirable targets will induce repeatable tones. When the detector emits a tone, pass the coil over the same spot again, and listen for a consistent repeatable tone each time the coil passes over the target zone.

Broken tones and non-repeatable tones usually indicate the presence of trash or irregularly shaped objects. Electromagnetic interference (EMI) can cause false, or non-repeatable, signals. EMI is emitted by power lines (overhead or buried), other detectors (keep 2 detectors 20 feet apart), or by machinery and motors.

## STARTING CONTROL SETTINGS

The easiest way to get started is with the control settings as follows:

- MODE – at Disc
- GROUND – at Normal
- SENSITIVITY – at 3:00 position
- DISCRIMINATION – at 12:00



# OPERATING MODES AND CONTROLS

## The Tracker II has Three Operating Modes

### 1 ALL-METALS

- All metals are detected
- Single tone response, regardless of metal type
- Maximum depth detection capability

#### Operating Controls





DISCRIMINATION knob does not apply

#### APPLICATIONS

Relic Hunting, Cache Hunting and general applications like property marker locating

### 2 TONE

- Ferrous metals are automatically eliminated from detection.
- Two-tone audio response classifies metals as illustrated:

TONE MODE AUDIO RESPONSES			
	-----	^ ^ ^ ^ ^ ^ v v v v v v	-----
<b>NO RESPONSE</b>	<b>LOW TONE</b>	<b>BROKEN TONE</b>	<b>HIGH TONE</b>
			
Iron & Steel	Gold & Nickel	Old & New Pull Tabs	Copper, Silver & Brass

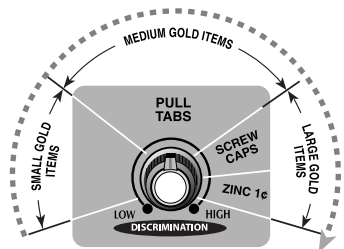
- Adjust the DISCRIMINATION Control when encountering low-tone objects. If the Disc control can be adjusted to induce a broken (or scratchy) tone, the buried item is probably trash. A broken tone can usually be achieved between the 12:00 and 2:00 positions.

#### APPLICATIONS

Coin Shooting  
Jewelry Hunting

### 3 DISC: Full Discrimination

- Ferrous metals are automatically eliminated from detection.
- Two-tone audio response classifies metals as illustrated above under the Tone mode.
- Adjust the DISCRIMINATION control knob to completely eliminate unwanted items from detection. Metals are eliminated from detection as illustrated:



# GROUND BALANCING

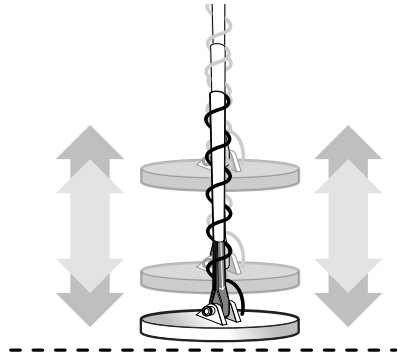
You can effectively detect in most soil conditions with the GROUND control in the NORMAL position. As you sweep the coil from side-to-side, the detector is constantly scanning the ground and self-adjusting to changing soil conditions. Soils vary in their magnetic, conductive and alkaline properties. Soils vary by region of the country, and can even vary within small areas; soil at the top of a hill can be different from the soil in a nearby depression.

Automatic ground balancing requires a level, consistent coil sweep. Do not lift the coil at the ends of your sweeps. Maintain a consistent coil speed as you move the coil from side to side.

For increased detection efficiency in extreme soil conditions, you may want to manually adjust the ground balance. If your detector emits excessive non-repeatable signals, you may be detecting over magnetic, highly conductive or alkaline soils. Most types of sand can be balanced with the GROUND control in the 9:00 or 10:00 position. Clay and red-clay soil common to the Southeastern U.S. can usually be balanced in the 11:00 to 4:00 positions.

## GROUND BALANCE ADJUSTMENT

Move the search coil rapidly straight up and down over the ground in a Yo-Yo fashion. Do not sweep the coil during this ground balance adjustment process. Do not touch the coil to the ground. Move the coil up and down between 1 inch and 1 foot above the ground.



Move the GROUND control to the left-most position at which the detector DOES NOT beep while moving the coil up and down in a Yo-Yo fashion.

*To verify the ground balance at any time in any ground condition, perform this Yo-Yo test (move the coil up and down rapidly over the ground, without touching the ground). If the detector remains quiet while doing the Yo-Yo test (with the GROUND knob motionless, and a spot of ground which does not contain metal), then your detector is ground balanced.*

The detector may beep while turning the GROUND knob; this is normal. Move the knob in small increments.



# IN THE FIELD TECHNIQUES

## TONE RESPONSE

With practice in the field, you will learn to classify buried objects according to the different tones and the clarity and repeatability of the tones.

If you experience confusing and non-repeating tones, do the following:

- 1 Turn the SENSITIVITY knob to the 2:00 position
- 2 Ground Balance the detector as described on Page 8.
- 3 Use the DISC mode.
- 4 Turn the DISCRIMINATION knob to High.

It is easiest to start in the DISC mode; ferrous objects will be automatically eliminated, and the DISCRIMINATION knob can be used to eliminate other types of trash items. While searching an area of ground in DISC mode, move the DISCRIMINATION knob to different settings until you understand the relationship between discrimination levels and the types of metals eliminated at each level.

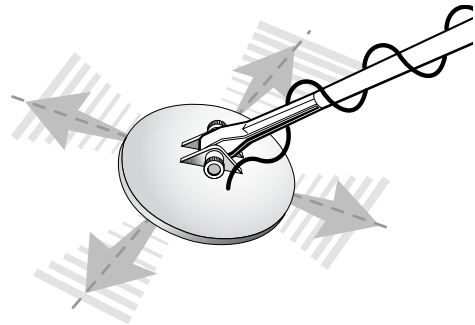
Only dig up targets that induce repeatable tones. Each time you pass the search coil over a possible target, you should hear the same tone. If the tone does not repeat on each pass, varies in tone, or varies in location, then the target is USUALLY not of value.

Inconsistent tones are evidence of high oxidation (rusted metals) or irregularly shaped objects. Note, however, that multiple tones may be evidence of multiple targets. If you cannot pinpoint the location of a very strong signal, lift the coil higher off the ground until a weaker, but more precise signal, is heard. For very weak signals, try moving the coil in short, rapid sweeps, close to the ground.

## PINPOINTING

Accurate pinpointing takes practice and is best accomplished by "X-ing" the suspected target area.

- 1 When a buried target is identified by a repeatable tone response, continue sweeping the coil over the target in a narrowing side-to-side pattern.
- 2 Take visual note of the place on the ground where the "beep" occurs.
- 3 Stop the coil directly over this spot on the ground.
- 4 Turn your stance 90 degrees, facing the target from a different angle.
- 5 Sweep the coil back and forth, making visual reference of the intersection of these two sweep paths.
- 6 If necessary, "X" the target at different angles to "zero in" on the exact location on the ground at which the beep occurs.



*When pinpointing a target, try drawing an "X", as illustrated, over where the tone is induced.*

# IN THE FIELD TECHNIQUES

## GOLD TARGETS

Gold will induce a low tone. In the DISC mode, gold will be eliminated at various DISCRIMINATION knob settings, depending upon the size of the object. Smaller gold objects will be eliminated at lower discrimination settings. A man's gold wedding band, for example, will be eliminated in approximately the 12:00 discrimination position. Gold flakes and necklaces will be eliminated at low discrimination settings. If hunting for gold, you will need to dig all targets, until you become familiar with the slight differences (if any) between gold targets, and common trash objects. Since a gold ring is shaped like older pull-tabs, the two will induce similar tones. A gold ring can induce a double-beep as the coil passes over the two sides of a ring; older pull-tabs can induce a "broken" tone with the discrimination knob in the 12:00 to 1:00 position.

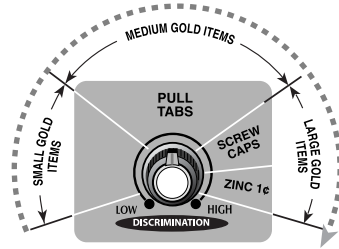
## SILVER TARGETS

Silver objects will induce a high tone. Repeatable high-tone responses are usually worth digging. Highly oxidized metals will, unfortunately, also induce high tones. If a high-tone target is difficult to pinpoint, it could be oxidized metal.

## DISCRIMINATION CONTROL

In the DISC mode, as you rotate the DISCRIMINATION knob clockwise, more types of metals are eliminated from detection. Discrimination is a cumulative elimination system; objects eliminated at a low setting remain eliminated at high settings.

## APPROXIMATE DISCRIMINATION POSITIONS



The illustration above shows the approximate positions where different types of metals are eliminated. Objects come in many shapes, sizes, and levels of purity, so these positions can vary.

## SENSITIVITY ADJUSTMENT

Use the SENSITIVITY knob to eliminate Electromagnetic Interference (EMI). EMI is both naturally occurring and man-made. Common sources of EMI are power lines, both suspended and buried, and broadcasting antennas. Operating machinery can also produce EMI.

If your detector chatters or beeps erratically with the SENSITIVITY knob in the 100% clockwise position, reduce the sensitivity until the chatter stops (usually to the 1:00 to 3:00 position)

The SENSITIVITY knob can also be used if you suspect the presence of deeper targets underneath a shallower target. Reduce the sensitivity to eliminate the detection of the deeper target, so as to properly locate and identify the shallower target.

# IN THE FIELD TECHNIQUES

## LOW BATTERY INDICATOR

The indicator light on the control panel will light up and stay on if the batteries need replacing. When replacing batteries, replace both batteries at the same time. Use ALKALINE batteries only. Non-alkaline batteries will cause poor detector operation and lose power quickly.

## TRASH ITEMS

**Pull-Tabs:** You will encounter a never-ending variety of pull-tabs. Most of the older variety, those that detached completely from the can, will produce a broken, scratchy tone with the discriminator adjusted to the 12:00 to 1:00 position in TONE mode, and can be completely eliminated from detection in DISC mode. Many newer pull-tabs have a magnetic signature similar to that of a nickel.

**Cans:** Older cans were made from tin, and can oxidize, inducing a high tone in DISC mode. The best way to distinguish tin cans from valuable silver coins, is with careful pinpointing. With practice, you can learn to recognize a smaller target zone for a coin, and a larger zone for a tin can.

**Foil:** Foil can generally be eliminated in DISC mode. Small pieces of foil usually induce a low tone.

# APPLICATIONS

## COINSHOOTING

The most popular metal detecting application. When coinshooting, you want to discriminate out pull-tabs, screw caps, and iron objects. Beware that highly oxidized steel may also be detected. In the event of low tones, tune Discrimination control to induce "scratchy" tones; these might be trash items.

**Control Settings Required:**

- 1) DISC Mode
- 2) DISCRIMINATION knob in 2:00 position

## RELIC HUNTING

A relic is a historical object, sometimes of great value. Relics can be found in abandoned homes, plowed fields, or even your own back yard. Research the local library to learn of historical events or places in the area. You can then target your search to a specific area and gain valuable insight into the local history. Always obtain permission before entering private or government property.

**Control Settings Required:**

- 1) ALL-METALS Mode
- 2) SENSITIVITY at High

## CACHE HUNTING

A cache, pronounced "cash" is a buried or hidden valuable stored inside a case, strongbox, or bag. A cache can be hidden in the floor or walls of a house, or buried nearby.

**Control Settings Required:**

- 1) ALL-METALS Mode
- 2) SENSITIVITY at High

## JEWELRY HUNTING

Jewelry can be found wherever people congregate. Beaches, parks, schoolyards, and fair grounds are all littered with lost jewelry. Gold necklaces are very difficult to detect unless they are packed tightly together. Rings can induce tones similar to pull-tabs.

**Control Settings Required:**

- 1) TONE Mode
- 2) DISCRIMINATION Control adjusted constantly to discern nature of buried object.

## UTILITY APPLICATIONS

Use your Tracker II to find property markers and lost items. Keep your detector in the ALL-METALS mode for these tasks.

# TROUBLESHOOTING

## TROUBLE SHOOTING GUIDE

SYMPTOM	CAUSE	SOLUTION
<p>No power, no sounds</p> <p>Detector chatters or Beeps Erratically</p>	<ul style="list-style-type: none"> <li>• Dead batteries</li> <li>• Batteries not connected properly</li> <li>• Electromagnetic Interference</li> <li>• Using Indoors</li> <li>• Using Near Another Metal Detector</li> <li>• Wrong Type of Batteries</li> <li>• Sensitivity Set Too High for Environment</li> </ul>	<ul style="list-style-type: none"> <li>• Replace batteries</li> <li>• Securely snap batteries on to connectors</li> <li>• Stay away from Power lines or operating machinery</li> <li>• Use Outdoors Only</li> <li>• Keep 2 detectors at least 20 feet apart</li> <li>• Use 9-Volt ALKALINE batteries only (<i>do not use heavy duty batteries</i>)</li> <li>• Reduce Sensitivity</li> </ul>
<p>Detector Beeps at End of Sweeps <i>(false signals)</i></p>	<ul style="list-style-type: none"> <li>• Improper Sweep Technique – Swinging Coil Like a Pendulum</li> </ul>	<ul style="list-style-type: none"> <li>• Sweep Coil Parallel to Ground</li> </ul>
<p>Many False Signals in the Field</p>	<ul style="list-style-type: none"> <li>• Detector Not Ground Balanced Correctly</li> <li>• Sensitivity Too High</li> <li>• Oxidized Targets</li> </ul>	<ul style="list-style-type: none"> <li>• Ground Balance Detector per P.8 instruction</li> <li>• Reduce Sensitivity</li> <li>• Only Dig Up Repeatable Signals</li> <li>• Increase Discrimination Level (<i>turn control clockwise</i>)</li> </ul>

# CARE AND MAINTENANCE

Your Tracker II Metal Detector is an example of superior design and craftsmanship. The following suggestions will help you care for your metal detector so you can enjoy it for years to come.

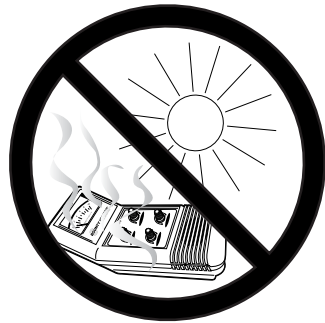
Handle the metal detector carefully. Dropping it can damage circuit boards and cases.

Use and store the metal detector in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.

Wipe the metal detector with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the metal detector.

The coil is waterproof and may be submerged in either fresh or saltwater. Be careful to prevent water from entering the chassis. After using the coil in saltwater, rinse it with fresh water to prevent corrosion of the metal parts.

Modifying or tampering with the detector's internal components can cause a malfunction and will invalidate your detector's warranty.



# TREASURE HUNTER'S CODE OF ETHICS:

1. Respect the rights and property of others.
2. Observe all laws, whether national, state or local.
3. Never destroy historical or archaeological treasures.
4. Leave the land and vegetation as it was. Fill in your holes.
5. All treasure hunters may be judged by the example you set. Always obtain permission before searching any site. Be extremely careful while probing, picking up, or discarding trash items. And ALWAYS COVER YOUR HOLES!

## FIRST TEXAS PRODUCTS, LP 5-YEAR LIMITED WARRANTY

This product is warranted against defects in workmanship or materials under normal use for five years from date of purchase to the original user. Liability in all events is limited to the purchase price paid. Liability under this Warranty is limited to replacing or repairing, at our option, any Bounty Hunter Detector returned, shipping cost prepaid, to First Texas Products, LP. Damage due to neglect, accidental damage or misuse of this product is not covered by this warranty.

Copyright ©2002 by First Texas Products, L.P.

All rights reserved, including the right to reproduce this book, or parts thereof, in any form, except for the inclusion of brief quotations in a review.

Published by First Texas Products, L.P.  
Bounty Hunter® and Tracker® are registered trademarks of First Texas Products, L.P.

[www.detecting.com](http://www.detecting.com)



First Texas Products, LP  
1100 Pendale Road  
El Paso, TX 79907  
(915) 633-8354

REVISED 08/02 • 120959