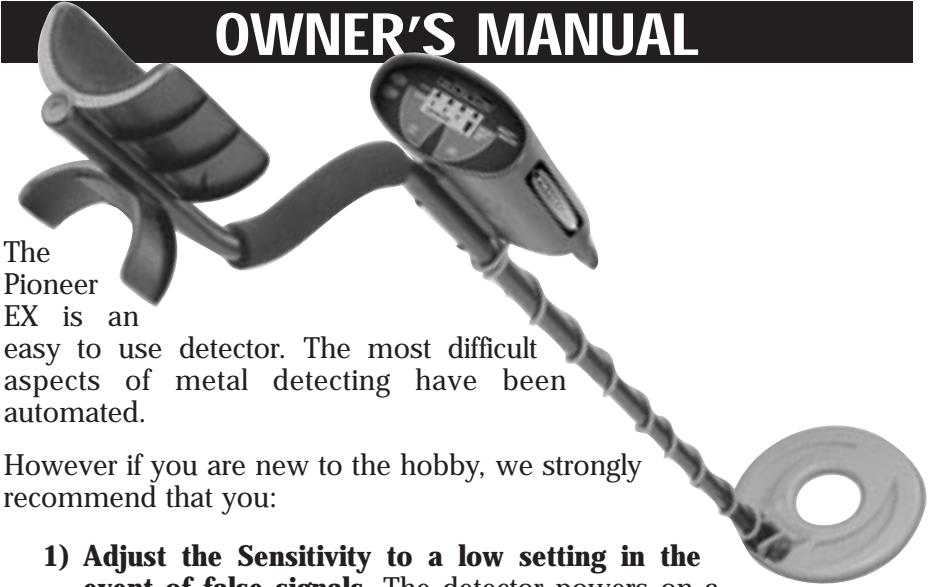


BOUNTY HUNTER®

Pioneer EX

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

OWNER'S MANUAL



The Pioneer EX is an easy to use detector. The most difficult aspects of metal detecting have been automated.

However if you are new to the hobby, we strongly recommend that you:

- 1) Adjust the Sensitivity to a low setting in the event of false signals.** The detector powers on a 3/4 sensitivity; increase to full sensitivity after you have become familiar with the detector.
- 2) Do not use indoors.** This detector is for outdoor use only. Many household appliances emit electromagnetic energy, which can interfere with the detector. If conducting an indoor demonstration, turn the sensitivity down and keep the search coil away from appliances such as computers, televisions and microwave ovens. If your detector beeps erratically, turn off appliances and lights.

Also keep the search coil away from objects containing metal, such as floors and walls.

- 3) Read this manual.** Most importantly, review the **Quick-Start Demo** (p.6) and **Basic Operation** (p. 8-12).
- 4) Use 9-volt ALKALINE batteries only.** Do not use Heavy Duty or ordinary Zinc-carbon Batteries.

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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, nor light up an indicator, 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 an important feature of professional metal detectors. Discrimination allows the user to ignore trash and otherwise undesirable objects.

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 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 soil, and can therefore be very hard to isolate from the soil.

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. Pull-tabs can be discriminated, but some other valuable objects can have a magnetic signature similar to pull-tabs, and will also be eliminated when discriminating out pull-tabs.

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.

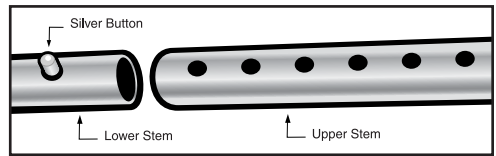
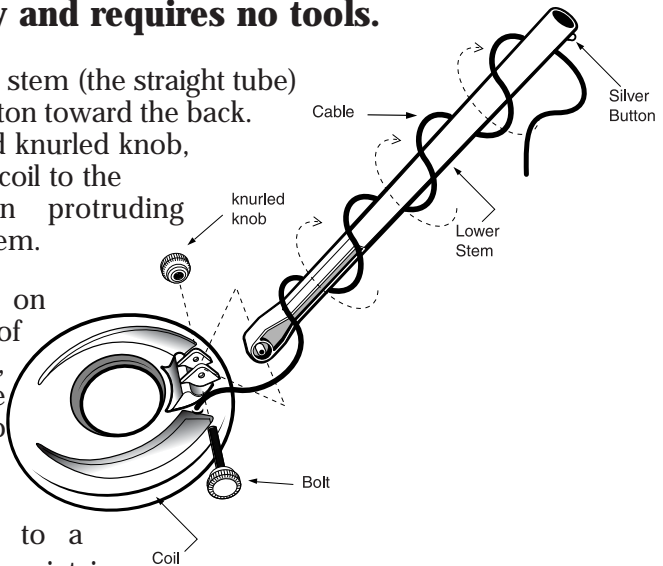
ASSEMBLY

Assembly is easy and requires no tools.

- 1 Position the lower stem (the straight tube) with the silver button toward the back. Using the bolt and knurled knob, attach the search coil to the plastic extension protruding from the lower stem.

- 2 Press the button on the upper end of the lower stem, and slide the lower stem into the upper stem.

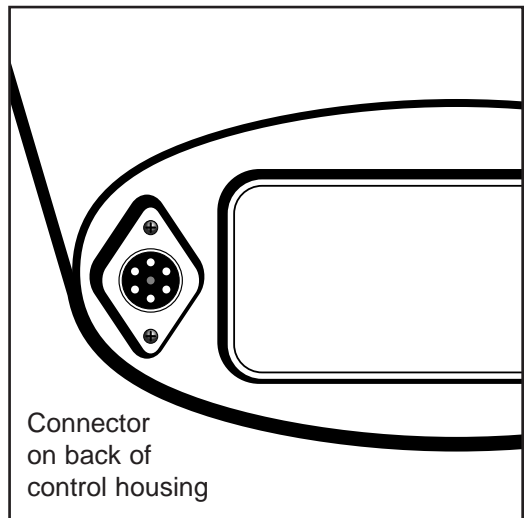
Adjust the stem to a length that lets you maintain a comfortable upright posture, with your arm relaxed at your side, and the search coil parallel to the ground in front of you.



- 3 Wind the cable securely around the stem.
- 4 Insert the plug into the matching connector on the right underside of the detector body. Be sure that the key-way and pins line up correctly.

Caution: Do not force the plug in. Excess force will cause damage. To disconnect the cable, pull on the plug.

Do not pull on the cable.



BATTERIES

IMPORTANT: Always use **ALKALINE** batteries only.
Do not use heavy duty batteries.

Always remove the batteries for prolonged storage.

CHECK THE BATTERIES if your detector exhibits any of the following symptoms:

- ❶ The unit does not turn on.
- ❷ Low speaker volume.
- ❸ Unit beeps continuously or erratically.

The LOW BATTERY indicator will come on and stay on if the batteries are discharge. You may notice erratic beeping if using with LOW BATTERY illuminated.

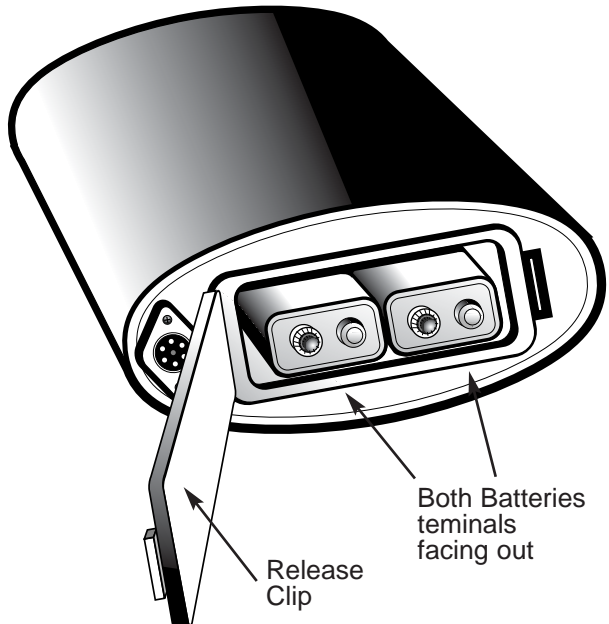
IMPORTANT: Your Lone Star metal detector requires two 9-Volt ALKALINE batteries.

Follow these steps to install the batteries.

- ❶ Carefully remove the battery compartment door by pressing the release clip on the right side of the door.
- ❷ Snap one battery onto each of the terminals and place the batteries inside the compartment.

Insert booth of the batteries with terminals facing outward.

- ❸ Replace the compartment door by carefully inserting opposite side of clip first. Then press down on clip side until battery door snaps into place.



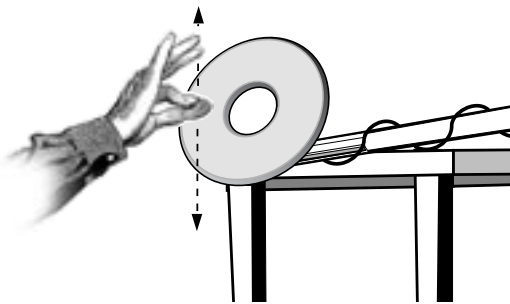
QUICK-START DEMONSTRATION

I. Supplies Needed

- A Medium-Size Nail
- A Nickel
- A Quarter
- A Zinc Penny (dated after 1982)

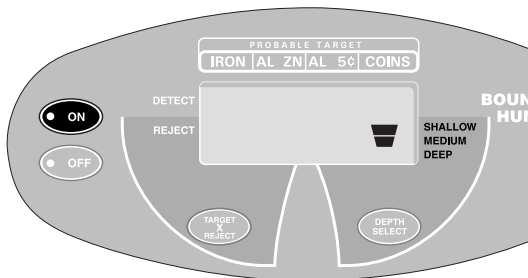
II. Position the Detector

- Place the detector on a table, with the search coil hanging over the edge. (or better, have a friend hold the detector, with the coil off the ground)
- Keep the search coil away from walls, floors, and metal objects.
- Remove watches, rings and other jewelry or metal objects from hands and wrists.
- Turn off appliances or lights that cause electromagnetic interference.
- Pivot the search coil back toward the detector body.



III. Power Up

Press the ON touchpad. The detector will beep several times and the sensitivity setting will be indicated on the right of the display. Two illuminated segments indicates 3/4 sensitivity.



IV. Wave each Object over the Search Coil (pass the flat side of the coins parallel to the coil)

- Notice a different tone for each object.

Low Tone: Nail

Medium Tone: Nickel & Zinc Penny

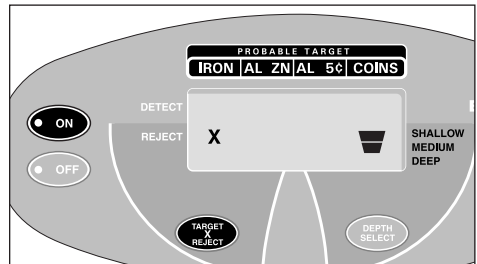
High Tone: Quarter

- Motion is required. Objects must be in motion over the search coil to be detected.

QUICK-START DEMONSTRATION (continued)

V. Press the TARGET REJECT touchpad

- An "X" will appear under the IRON segment.
- The "X" tell us that Iron has been eliminated from detection.



VI. Wave the Nail over the Search Coil

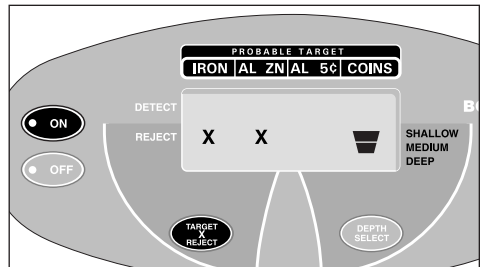
- The Nail will not be detected.
- The Nail has been "Discriminated Out."

VII. Wave the Quarter, Penny, and Nickel over the Search Coil

These non-ferrous objects will be detected with their own distinctive tones.

VIII. Press the TARGET REJECT touchpad again

Another "X" will illuminate under "AL ZN".



IX. Wave all objects over the Search Coil

The Zinc Penny will not be detected. make sure the penny is post-1982; these are made of Zinc. CAUTION: some zinc pennies within 1/2" of the coin surface will induce a high tone.

X. Press the TARGET REJECT touchpad again

- A third "X" appears.
- Pass all object over the search coil.
The nail, penny, and nickel are all eliminated from detection.

XI. Press the TARGET REJECT touchpad to return the detector to all-metals detection, with no "X"s illuminated.

BASIC OPERATION

POWERING UP

Press the ON touch pad.

All display indicators will illuminate momentarily

The inverted-pyramid depth-selection indicator on the right of the display will stay illuminated.

UNDERSTANDING THE DISPLAY

① DEPTH SELECT

The detector default to 3/4 sensitivity, indicated by two illuminated segments. To change the depth range of the detector, and thus its sensitivity to more deeply buried objects, use the DEPTH SELECT touch pad. each touch of DEPTH

SELECT toggles the detector among three different sensitivity settings. The detector is at maximum depth capability when three depth segments are illuminated on the right of the display.

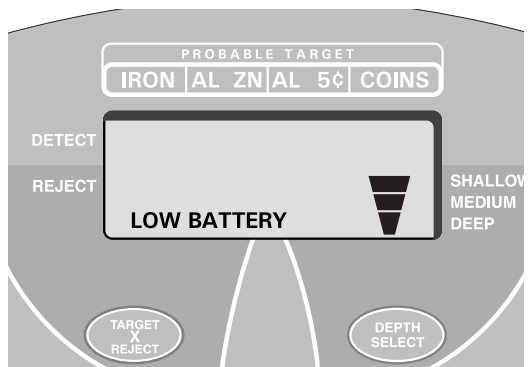
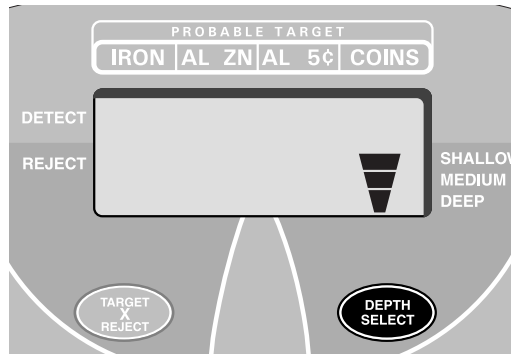
At the maximum depth setting, the detector will detect a coin-sized object buried approximately 6 1/2 inches beneath the surface. With two depth segments illuminated, the detector's depth range will be reduced to 80%, and with one depth segment illuminated, the range will be reduces to 65%.

A more detailed explanation of depth selection is found on page 14.

② LOW BATTERY

The LOW BATTERY indicator will illuminate when the 9-volt batteries are discharged to a level of 6.8 volts.

Replace the batteries as soon as possible after receiving the low battery indication. The detector



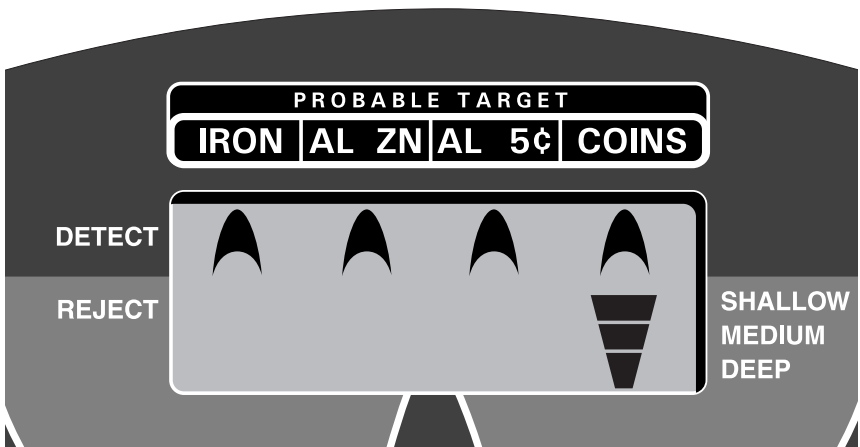
BASIC OPERATION *continued*

will begin to beep erratically and operate unreliably if continuing use with discharged batteries.

To save on batteries, check each battery individually, as the two batteries can discharge at different rates. When LOW BATTERY illuminates, it is possible that only one of the batteries requires replacement.

Under normal conditions, a set of batteries will last for approximately 16 hours in the field, depending upon the brand of battery.

③ PROBABLE TARGET



The four categories depicted across the top of the display indicate the probable identification of buried, detected metal objects. The search coil must be in motion over an object to be detected. Alternatively, you can pass an object over a motion less search coil to test your detector. One of the four target indicators will illuminate, indicating the probable identification of the object. The indicator will remain illuminated until another object is detected.

You will encounter a never-ending variety of buried metal objects. It is therefore impossible to accurately identify all buried metal objects. The target identification system will accurately identify the most common items.

BASIC OPERATION *continued*

Commonly-found objects are classified into the four categories as follows:

IRON _____

- Ferrous objects
- Metals composed mostly or entirely of iron
- Most very small metals objects
- Small foil pieces; small gold pieces.

AL ZN _____

- Post-1982 pennies (are made of zinc, some zinc pennies will register as coins within 1" of the coil)
- Zinc coins, such as recent foreign currency
- Most bottle screw caps
- Large foil pieces
- Many rings; most gold rings
- Older pull-tabs (those which detach from the can)

AL 5c _____

- Large gold rings
- Newer pull-tabs (those which stay connected to can)
- Nickels
- Large Aluminum Pieces

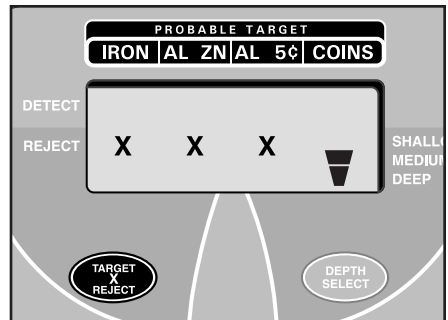
COINS _____

- Silver coins, like dimes and quarters
- Copper pennies (pre-1982)
- Very large metal objects like manhole covers.

4 REJECTED TARGET

When "X" appears under a target category, objects falling into this category are eliminated from detection. This feature is commonly referred to as target discrimination.

With each press of the REJECT TARGET touch ad, you will progressively eliminate, from left to right, the common, less desirable, targets. When all three "X" are illuminated, the next press will erase all "X"s, returning the detector to all-metal detection status, where all types of metals will be detected.



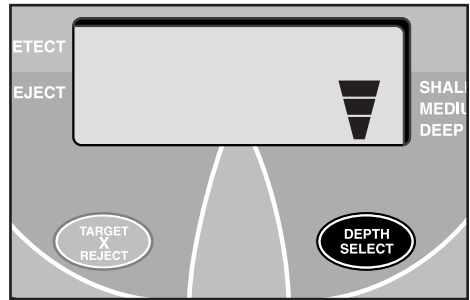
BASIC OPERATION *continued*

OPERATING CONTROLS

The Pioneer EX is the most automated, easy-to-operate, professional metal detector ever designed. It is designed for those who are new to the hobby providing maximum basic target discrimination, while requiring minimal operator adjustment.

DEPTH SELECT

With each press of the DEPTH SELECT touch pad, the detector toggles among three different depth-detection levels. Each of these sensitivity levels is identified through the 3-segment depth-select icon on the right of the display.

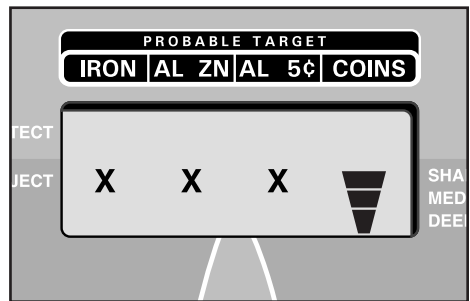


When three segments are illuminated, the detector is at maximum sensitivity. As you press the DEPTH SELECT touch pad, the detector toggles among the three different sensitivity levels. A more detailed explanation of depth selection is found on page 14.

TARGET REJECT

Upon power-up, all types of metals are detected. The TARGET REJECT touch pas allows the user to eliminate undesirable metals from detection.

With each press of the REJECT TARGET touch pad, unwanted metals are progressively eliminated, from left to right on the display. When all three "X"s are illuminated, the next press will erase all "X"s, returning the detector to all-metal detection status, where all types of metals will be detected.



ENVIRONMENTAL CONDITIONS

WATER HUNTING: Your Pioneer EX is ideal for damp grass and shallow water spots. The search coil is waterproof; the case and case-to-cable connection is not. Be careful to keep the detector body dry.

In **saltwater**, keep the search coil from contact with the ground. Contact with saltwater sands will cause the detector to beep falsely. For best result in saltwater, eliminate IRON to reduce false signals caused by conductive beach sands. Coil sweep technique is also important in saltwater; keeping the coil submerged is better than dunking and lifting. The detector needs time to readjust to the conductive salt water.

RED CLAY: The red clay earth found in the southwestern U.S. may require a reduction in the DEPTH SELECT level if encountering false signals. Coil sweep technique is also more critical in red clay; keep the coil level with the ground. Do not lift the coil at the ends of your sweep. Review coil sweep technique on page 15.

RED SANDS: Red sand found in desert locations will react like red clays, so follow the same precautions as outlined in the paragraph above.

BLACK SANDS: The most promising gold prospecting locations can contain large amounts of black sand. This black sand is the most demanding detecting environment, and frequently requires a detector costing thousands of dollars for the best results. Your Pioneer EX will still function in these conditions, but will usually require operation at reduced sensitivity levels. If you receive constant false signals, reduce the sensitivity or move to another area.

SAND: Dry beach sands are no problem for the Pioneer EX. If the sand is damp with saltwater, however, follow the precautions outlined under saltwater above.

HOT AND COLD: Be patient if moving immediately between hot and cold environments, like taking your detector from your air-conditioned home into a blazing summer sun. The search coil is constructed of copper wire which will expand and contract with temperature change. Your detector may require 10 to 15 minutes to stabilize to the ambient temperature.

AUDIO TARGET IDENTIFICATION

While the LCD (Liquid Crystal Display) is very accurate in identifying buried objects, the user in the field does not always maintain the display screen in his field of vision. Therefore, we have incorporated an audio feedback mechanism to alert the user to the nature of buried objects. This audio feedback system first alerts the user to the presence and classification of objects, whose nature and location can be confirmed using the LCD display.

The detector will sound one of three different tones, depending on the type of metal detected.

BASS TONE

Ferrous objects, such as iron and steel, will induce a bass tone. The smallest gold objects can also induce a bass tone.

MEDIUM TONE

Pull-tabs, newer pennies (post-1982), larger gold objects, zinc, small brass objects, and most bottle screw caps will induce medium tones. Many recent vintage foreign currencies will induce medium tones. Medium tone objects will illuminate the two center target indicators.

HIGH TONE

Silver and copper coins, larger brass objects, older pennies (pre-1982), and highly oxidized metals will induce high tones. Quarters, dimes and other precious coins fall into this category.

LOW TONE



Nails, Bottle Caps,
& Smaller Gold

MEDIUM TONE



Old & New Pull Tabs, Zinc
Pennies (Post 1982), Nickel,
Larger Gold Objects

HIGH TONE



Copper, Silver & Brass
Copper Pennies (Pre 1982)

Audio Target Identification (ATI) classifies metals into four categories.

DEPTH SELECT (Sensitivity Adjustment)

Upon power-up, the detector defaults to 3/4 sensitivity. To increase to full sensitivity, press the DEPTH SELECT touchpad once.

ELECTROMAGNETIC INTERFERENCE

The principle use for the Sensitivity Control is to eliminate Electromagnetic Interference (EMI).

A hobby metal detector is an extremely sensitive device; the search coil creates its own magnetic field and acts like an antenna. If your detector beeps erratically when the search coil is motionless, the unit is probably detecting another electromagnetic field.

Common sources of EMI are electric power lines, both suspended and buried, motors, and household appliances like computers and microwave ovens. Some indoor electronic devices, such as dimmer switches used on household lighting, produce severe EMI and can cause the detector to beep erratically. Other metal detectors also produce their own electromagnetic fields; so if detecting with a friend, keep two metal detectors at least 20 feet apart.

If the detector beeps erratically, REDUCE THE SENSITIVITY by using the Depth Select Control.

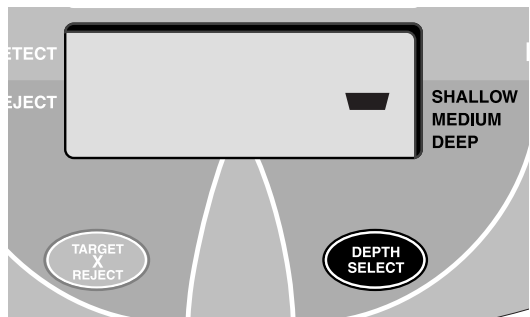
SEVERE GROUND CONDITIONS

A secondary use for the Sensitivity Control is to reduce false detection signals caused by severe ground conditions. While your Pioneer EX contains circuitry to eliminate the signals caused by most naturally occurring ground minerals, 100% of all ground conditions cannot be anticipated. Highly magnetic soils found in mountainous and gold-prospecting locations can cause the detector to emit tones when metal objects are not present. High saline content soils and sands can also cause the detector to false.

If the detector emits false, non-repeatable, signals, REDUCE THE SENSITIVITY.

MULTIPLE TARGETS

If you suspect the presence of deeper targets beneath a shallower target, reduce the sensitivity to eliminate the detection of the deeper targets, in order to properly locate and identify the shallower target.

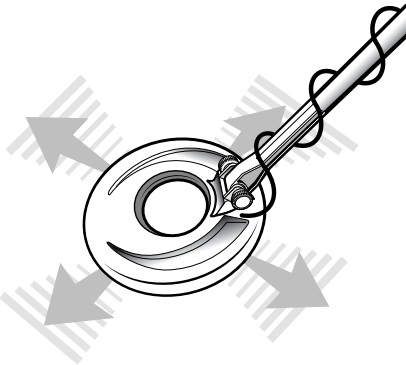


IN THE FIELD TECHNIQUES

PINPOINTING

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

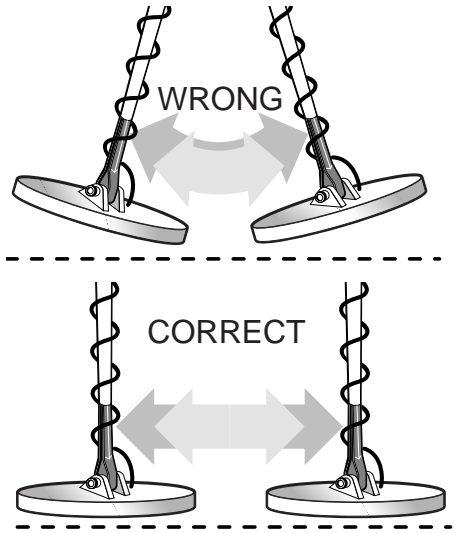
1. Once a buried target is indicated by a good tone response, continue sweeping the coil over the target in a narrowing side-to-side pattern.
2. Take visual note of the place on the ground where the “beep” sounds.
3. Stop the coil directly over this spot on the ground.
4. Now move the coil straight forward and straight back towards you a couple of times.
5. Again make visual note of the spot on the ground at which the “beep” sounds.
6. If needed, “X” the target at different angles to “zero in” on the exact spot on the ground at which the “beep” sounds.



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

COIL MOVEMENT

When swinging the coil, be careful to keep it level with the ground about 1/2 inch from the surface. Never swing the coil like a pendulum.

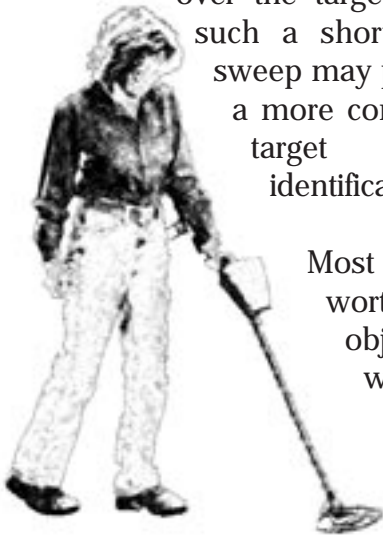


TARGET DEPTH ESTIMATION

After verifying a desirable target, pass the coil again, but raise the coil 1” over the ground, progressively higher with each sweep. Note the coil elevation at which the signal disappears. With practice, you will be able to approximate target depth.

IN THE FIELD TECHNIQUES (continued)

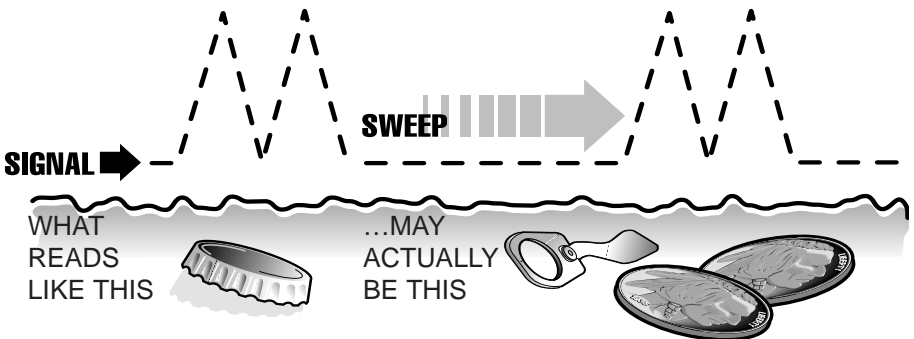
Swing the search coil slowly, overlapping each sweep as you move forward. It is important to sweep the coil at a consistent speed over the ground as you search. After identifying a target, your sweep technique can help in identifying both the location and the nature of the target. If you encounter a weak signal, try moving the coil in short, rapid sweeps over the target zone; such a short rapid sweep may provide a more consistent target identification.



Most worthwhile objects will

respond with a repeatable tone. If the signal does not repeat after sweeping the coil directly over the suspected target a few times, it is more than likely trash metal.

Crossing the target zone with multiple intersecting sweeps at multiple angles is another way to verify the repeatability of the signal, and the potential of the buried target. To use this method, walk around the target area in a circle, sweeping the coil across the target repeatedly, every 30 to 40 degrees of the circle, about ten different angles as you walk completely around the target. If a high-tone target completely disappears from detection at a given angle, chances are that you are detecting oxidized ferrous metals, rather than a silver or copper object. If the tone changes at different



IN THE FIELD TECHNIQUES (continued)

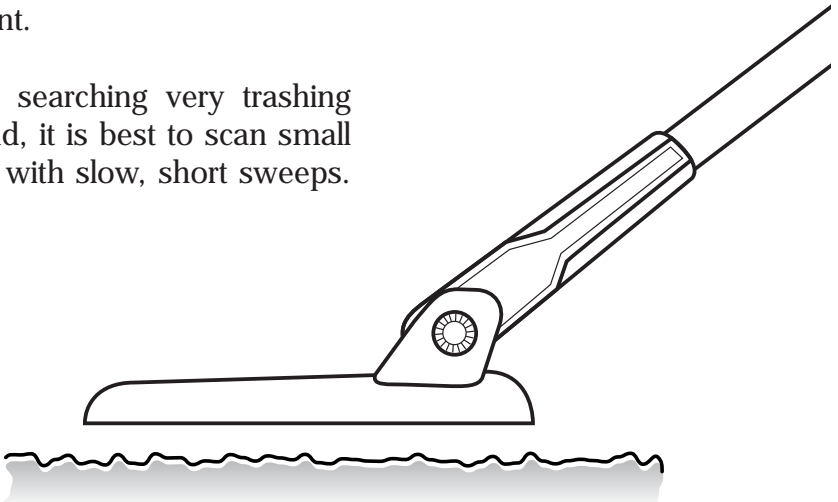
angles, you may have encountered multiple objects. If you are new to the hobby, you may want to dig all targets at first. With practice in the field, you will learn to better discern the nature of buried objects by the nature of the detector's response.

You may encounter some false signals as you proceed. False signals occur when the detector beeps, but no metal target is present. False signals can be induced by electromagnetic interference, oxidation, or highly mineralized ground soils. If the detector beeps once, but does not repeat the signal with several additional sweeps over the same spot, there is probably no target present.

When searching very trashing ground, it is best to scan small areas with slow, short sweeps.

You will be surprised just how much trash metal and foil you will find in some areas. The trashiest areas have been frequented by the most people, and frequently hold the most promise for finding the most lost valuables. To make searching easier in very trashy areas, consider purchasing the Bounty Hunter 4-inch Search Coil. The 4-inch coil's narrower detection field can better distinguish between two objects in close proximity.

Also maintain the search coil positioned just above the surface of the ground, without making contact with the ground. Making contact with the ground can cause false signals.



TROUBLE SHOOTING

TROUBLE SHOOTING GUIDE

SYMPTOM	CAUSE	SOLUTION
Detector chatters or beeps erratically	<ul style="list-style-type: none">• Using detector indoors• Using detector near power lines• Using 2 detectors in close proximity• Highly oxidized buried object • Environmental electromagnetic interference	<ul style="list-style-type: none">• Use detector outdoors only• Move away from power lines• Keep 2 detectors at least 20' apart• Only dig up repeatable signals• Reduce sensitivity until erratic signals cease
Constant low tone or constant repeating tones	<ul style="list-style-type: none">• Discharged batteries• Wrong type of batteries	<ul style="list-style-type: none">• Replace batteries• Use only 9V alkaline batteries
LCD does not lock on to one target ID or detector emits multiple tones	<ul style="list-style-type: none">• Multiple targets present• Highly oxidized target• Sensitivity set too high	<ul style="list-style-type: none">• Move coil slowly at different angles • Reduce sensitivity
No power, no sounds	<ul style="list-style-type: none">• Dead batteries• Poor battery contact• Cord not connected securely	<ul style="list-style-type: none">• Replace batteries• Check connections

METAL DETECTING APPLICATIONS

COIN SHOOTING:

The most popular metal detecting activity.

Find coins where people congregate frequently. Many detectorists revisit the same areas again and again to find a never-ending treasure trove as people continue to lose valuables every day. Parks, fairgrounds, and play areas are good choices. The most valuable old coins are frequently found in abandoned home sites, or if you live on an older property, maybe in your own backyard.

Control settings required. Target-Rejected at least 2-Xs to eliminate iron, foil, and old pull tabs. Target-Rejected all 3-Xs if you want to find only copper and silver. If you search for nickels, remember that you will also encounter some newer pull-tabs. Some newer pull-tabs have a magnetic signal indistinguishable from nickel.

RELIC HUNTING:

The most effective relic hunting is best accomplished after conducting historical research. Visit your local library, or check the internet, for historical events in your area. You can target specific areas and gain valuable insight into your local history. Remember to ask permission and respect laws regarding private and government property.

Control settings required. No X's should be displayed. Do not discriminate out any types of metals as many of the oldest relics contain iron.

JEWELRY HUNTING:

This is the most challenging treasure hunt. Gold rings will register in the same range as pull-tabs. Necklaces will register with zinc and foils. You will dig up many trash items in your search for jewelry, but jewelry hunting holds the most potential for reward. Please pick up and throw away those pull-tabs to help clean the environment.

Control settings required. Target-Reject only the 1st X; eliminate IRON only.

JEWELRY HUNTING:

A cache, pronounced "cash," is a buried or hidden valuable stored inside a case, can, strong box, or bag. A cache could be the loot from a bank robbery or someone's life savings. Caches can be hidden in floors or walls of an old house, or buried nearby.

Control settings required. No X's should be displayed. The container holding the treasure will frequently be a ferrous object, so you want to detect all types of metal objects.

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 the 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

Bounty Hunter Metal Detectors are 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.

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