The Basics of Metal Detecting

Your Pioneer 101 Metal Detector incorporates Motion Detection Technology. Movement over an object is required in order for the machine to detect the object and emit a tone.

While holding your Pioneer 101 Metal Detector as indicated in the picture to the right, sweep the search coil slowly from side to side. While sweeping, maintain the search coil level with the ground.

If the detector chatters, reduce the sensitivity by turning the left knob (Sensitivity) counterclockwise.

When searching a possible target, move the search coil repeatedly over the target. Be certain that the signal repeats during each pass over the target. If the tone does not repeat consistently, you are probably detecting trash items or oxidation. Only dig up targets with repeatable tones.

IMPORTANT:
• Do not test the detector on the floor of a home or building.
• Most floors contain metal which will interfere with the detector’s operation.
• Unless air testing or demonstrating, use outside only.

PLEASE READ ALL INSTRUCTIONS BEFORE USING YOUR METAL DETECTOR
The Pioneer 101 is a user-friendly instrument, requiring only a minimum of operator skill, yet delivering effective performance over a wide range of conditions and applications.

Streamlined in appearance, with only two operating knobs and a mode selection switch, the Pioneer 101 has eliminated the two most difficult aspects of metal detector operation, Tuning and Ground Balancing. Both of these functions are automatic with the Pioneer 101.

The Pioneer 101 will detect in extreme ground conditions, ranging from salt (for beach hunting) to black sand (for gold prospecting), with no operator adjustments to the circuitry and with no loss of sensitivity.

From salt water beach conditions to black sand deposits common at gold prospecting locations, the Pioneer 101 sees through the earth’s naturally occurring minerals to find buried metals.
Assembling your Pioneer 101 Metal Detector is easy and requires no tools. Just follow these steps:

1. Using the supplied bolt and knurled knob, attach the search coil to 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.

3. Wind the search coil cable around the stem. Leave enough slack in the cable to let you adjust the coil when you are hunting on uneven ground. Then tighten the knob at the end of the search coil.

Note: To adjust the coil, simply loosen the knob.

4. Insert the coil’s plug into the matching connector on the control housing. Be sure the holes and pins line up correctly.

Caution:
- Do not force the plug in. Excess force will cause damage.
- To disconnect the cable, pull out the plug. Do not pull on the cable.
IMPORTANT: Always use ALKALINE batteries for optimal performance.

Always remove the batteries for prolonged storage.

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

1. The unit does not turn on.
2. Low speaker volume.
3. Unit beeps continuously at low sensitivity setting.

The Low Battery indicator light will come on and stay on if the batteries are discharged. It should flash momentarily when the Power Switch is turned off.

IMPORTANT: Your Pioneer 101 metal detector requires two 9-Volt ALKALINE batteries.

Follow these steps to install the batteries.

1. Carefully remove the battery compartment door by pressing the release clip on the right side of the door.
2. Snap one battery onto each of the terminals and place the batteries inside the compartment. Insert one battery with the terminals facing down, and the second battery with terminals facing outward.
3. Replace the compartment door by carefully inserting opposite side of clip first. Then press down on clip side until battery door snaps into place.
Pioneer 101 DEMONSTRATION

Here is a quick way to demonstrate the basic features of your Pioneer 101.

I. Supplies Needed
• A quarter (25¢)
• A nickel (5¢)
• A Penny (1¢)
• A small piece of aluminum foil
• A Nail

II. Position your Pioneer 101
• Place the detector on a table, with the search coil hanging over the edge.
• Be sure that the search coil is far away from walls or metal objects. Keep the search coil away from any metal in the table.

III. Beginning Switch Settings
• Right Knob (Discriminate) – LOW
• Toggle Switch – Middle Position
• Turn detector on with "Sensitivity" knob set to 3:00 position
• Reduce "Sensitivity" in case of interference

IV. All Metal Detection
A. Wave all objects over the search coil
   • NOTICE THE SINGLE TONE

V. Tone Mode Detection
A. Move toggle switch to the right position – TONE
B. Turn the "Discriminate" knob to 2:00 (about 3/4 turn)
C. Sweep all of the different objects back and forth under the search coil
   • NOTICE THE DIFFERENT TONES
   • NOTICE THE METALS REJECTED

VI. Disc Mode Detection
A. Move the toggle switch to the left position – DISC
B. Turn the "Discriminate" knob to LOW
C. Sweep all of the different objects back and forth under the search coil.
   • NOTICE THE METALS REJECTED
D. Turn the "Discriminate" knob slowly to the right while sweeping all of the different objects at different settings.
   • NOTICE THE DIFFERENT TONES
   • NOTICE THE METALS REJECTED
The Pioneer 101 is a “motion” detector. This means that the search coil must be moving to detect the presence of metal. When practicing with a stationary metal detector, keep the target moving over the coil. Objects held still under the search coil will not be detected.

THREE MODES OF OPERATION

The Pioneer 101 allows for three modes of operation:

ALL METAL, TONE AND FULL DISCRIMINATE

After turning the unit on, and adjusting your Sensitivity to the desired setting, you're now ready to decide on your mode of operation.

ALL METAL: (Toggle Switch in the Middle) In this mode, all different types of metal will be detected such as: iron, steel, aluminum, brass, silver, copper and gold. Applications: Relic Hunting, Gold Prospecting, Cache Hunting and general applications such as property marker locating. This mode provides maximum depth detection capability.

FULL DISCRIMINATE: (Toggle Switch to the Left) When using the Full Discriminator, most trash items will be automatically rejected. Adjust the DISCRIMINATE control higher to increase the range of discrimination.

TONE DISCRIMINATE: (Toggle Switch to the Right) When using the Tone Discriminator, a unique dual tone “beep” and automatic iron rejection makes finding treasure fun and easy. It's also possible to achieve a broken tone for certain pull-tabs by adjusting your Discriminate control to the approximate center position (12:00). With the two-tone discrimination, along with a broken tone for pull-tabs, you will be able to identify types of buried metals according to the audio tones emitted. Applications: Coinshooting, Jewelry Hunting and detecting in highly trashed areas.
OPERATION

TONE MODE AUDIO RESPONSES

<table>
<thead>
<tr>
<th>NO RESPONSE</th>
<th>LOW TONE</th>
<th>BROKEN TONE</th>
<th>HIGH TONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron &amp; Steel</td>
<td>Gold &amp; Nickel</td>
<td>Old &amp; New Pull Tabs</td>
<td>Copper, Silver &amp; Brass</td>
</tr>
</tbody>
</table>

TONE DISCRIMINATION (continued)

(Toggle switch to the Right) Classifies detected metal objects by emitting a low or high tone.

Adjust the DISCRIMINATE control higher to increase the range of the low tone. It is possible to set the DISCRIMINATE level so that nickels have a low tone, larger coins have a high tone, and pull-tabs have a low tone or in-between “broken” tone. The "broken" tone makes pull-tabs and trash easily recognizable.

Sensitivity will be reduced slightly when using the Pioneer 101 in the Tone Discrimination mode. If you want optimal depth capability, operate in the All Metal mode by turning the Discriminate control completely counterclockwise; then turn the Sensitivity control clockwise to its highest clockwise position without chatter. If your Pioneer 101 chatters or beeps erratically, reduce the Sensitivity by turning the left knob counterclockwise.
AUTO GROUND CONTROL:
The Pioneer 101 automatic Ground Track feature allows operation in virtually all soil conditions, regardless of mineral content.

Use it effectively on the beach or for gold prospecting. In the ALL METAL Mode (Toggle switch in the middle), the Pioneer 101 will detect gold nuggets through black sand and will find deeply buried relics in all types of soil.

OPERATING TIPS:
Turn the detector on using the left knob. NOTE: The detector will remain silent when turned on. It will emit sound when metal passes beneath the search coil.

As the left knob is clicked on, it will be at the lowest sensitivity setting. Turning the control knob toward "HIGH" increases sensitivity to small or deeply buried objects. If the unit “chatters”, reduce the sensitivity slightly, until the chatter stops.

For maximum performance, operate with the sensitivity as high as possible. The sensitivity can generally be set higher when operating in Full Discriminate (DISC) or Tone Discriminate (TONE) modes.
IN THE FIELD

STANCE
Stand with your arm extended in front of your body. Don’t bend or stoop; stand in a comfortable position. Hold the unit so that the search coil is about 1/2-inch above the ground. Adjust the search coil so that it is parallel to the ground.

SWEEP
Standing in the search position, swing the search coil gently from side to side, slightly overlapping each sweep as you move forward. Keep your search coil approximately 1/2-inch above the ground as you search. Raising it during the sweep, or at the ends of your sweep, can cause false readings. Move slowly; hurrying will cause you to miss targets.

Most desirable objects will respond with a repeatable tone. When discriminating, iron and foil objects generally do not respond. False signals can be caused by trashy ground, electrical interference, or by large irregular trash objects. These signals are easily recognized by their often broken or non-repeatable nature.
IN THE FIELD (cont.)

PINPOINTING

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

1. Once a buried target is identified 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” occurs as you move the coil slowly from side to side.
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” occurs.
6. If needed, “X” the target at different angles to “zero in” on the exact spot on the ground at which the “beep” occurs.

REMEMBER: The detector will beep just as the center of the search coil passes directly over the buried object. If you have difficulty pinpointing very strong signals, try lifting the coil higher off the ground until a weaker, but more concise, signal is heard. For very weak signals, try moving the coil in short quick sweeps, closer to the ground.
The following troubleshooting steps may assist you in case you’re having problems with your Pioneer 101.

YOUR DETECTOR IS EMITTING ERRATIC SIGNALS WHEN YOU’RE IN THE FIELD.

Your SENSITIVITY may be set too high. Try reducing the SENSITIVITY slightly until the false signaling disappears. Remember to swing your coil slowly. Some inconsistent signals will occur on highly rusted metals. If the signal does not repeat after successive passes of the coil over the same area, then the target is usually not worthwhile. Natural and man-made electromagnetic fields can cause interference.

YOUR DETECTOR IS NOT STABLE AND HAS A PULSING, DISTORTED TONE INSTEAD OF A CLEAR TONE.

This can occur if you’re operating near another detector or near power lines that can interfere with the detector’s operating frequency.

YOUR DETECTOR IS EMITTING A CONSTANT LOUD TONE OR CONSTANT REPEATING TONES

This usually occurs when the batteries are low. Try replacing your batteries with two new alkaline batteries.

NOTE: Always use Alkaline Batteries for proper performance.
Your Pioneer 101 Metal Detector is an example of superior design and craftsmanship. The following suggestions will help you care for your metal detector so that you can enjoy it for years.

Handle the metal detector gently and carefully. Dropping it can damage electronic components.

Use and store the metal detector only 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 into either fresh or salt water. Be careful to prevent water from entering the control housing. After using the coil in salt water, rinse it with fresh water to prevent corrosion of the metal parts.
COINSHOOTING
The most popular application for metal detectors

CONTROL SETTINGS REQUIRED:
1. Toggle switch to the left (disc. mode).
2. Discriminate knob at 3:00 (3/4 turn).
   Only silver, copper and brass will be detected. Gold items will be eliminated. Different denominations of coins will induce different sounds.

RELIC HUNTING
A relic is a historical object, sometimes of great value. The most effective method for locating relics is to first conduct historical research. Visit your local library to learn of historical events having occurred in your area. You can then target your search to a specific area and gain valuable insight into your local history.

CONTROL SETTINGS REQUIRED:
1. Toggle switch in center position.
2. Discriminate knob is in OFF position.

CACHE HUNTING
A cache, pronounced “cash”, is a buried or hidden valuable stored inside a case, can, strong box, or a bag. A cache could be the loot from a bank robbery or just someone’s life savings. A cache is often hidden in the floor or walls of an old house, or is buried nearby. Also search old camp sites.

CONTROL SETTINGS REQUIRED:
1. Toggle switch in center position.
2. Discriminate knob is in OFF position.

JEWELRY HUNTING
Jewelry can be found wherever people congregate. Beaches, parks, school yards and fair grounds are all littered with lost jewelry.

CONTROL SETTINGS REQUIRED:
1. Toggle switch in RIGHT position (tone mode).
2. Discriminate knob at half way, 12:00 position.
   You should dig only the lower and high tones. Broken tones indicate
trash items. Gold rings will induce a low sound. Be aware that some pull-tabs can also induce a low tone. Silver will induce a high tone. Chains and necklaces are difficult to find. If you are looking for gold rings, don’t get discouraged; you will dig up many broken pull-tabs before you find your first gold ring!

HOUSEHOLD APPLICATIONS
Find property markers, lost keys, machine parts, and other lost items.

CONTROL SETTINGS REQUIRED:
1. Toggle switch in center position.
2. Discriminate control knob is in OFF position.

GOLD PROSPECTING
Find gold in abandoned gold mines and river beds where gold is continuously washed down stream from its place of origin.

CONTROL SETTINGS REQUIRED:
1. Toggle switch in center position.
2. Discriminate control knob is in OFF position.
ACCESSORIES

MAXIMIZE YOUR METAL DETECTING EXPERIENCE WITH THESE OPTIMAL BOUNTY HUNTER ACCESSORIES

4 INCH COIL
Great for searching in trashy areas with its smaller target area. Also perfect for gold prospecting and fitting into tight spaces.

10 INCH COIL
For maximum depth detection.

HEADPHONES
Increase battery life and find more deeply buried objects, evidenced by faint signals sometimes undetected with the standard speaker.

CARRY BAG
Custom-sized to carry your Pioneer 101.

COIL COVERS
Protect your coil from wear & tear. 4 inch, 8 inch, 10 inch.

www.detecting.com
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.

Copyright© 2001 by First Texas Products, L.P.

All rights reserved, including the right to reproduce this book, or parts thereof, in any form.

Published by First Texas Products, L.P.
Bounty Hunter® is a registered trademark of First Texas Products, L.P.

www.detecting.com

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

REVISED 06/01