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 of trash. And ALWAYS COVER YOUR HOLES!
**Main Features of the Pioneer 101**

- **Interchangeable Coil System**
- **Headphone Jack**
- **Three-Position Toggle Switch**
- **S-Rod Handle System**
- **Meter System**
- **S-Rod Stand**
- **8" Coil System**
- **Comfort Hand-grip**
- **Discriminate Control**
- **Sensitivity Control**

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**Trouble-Shooting Pioneer 202**

**The Pioneer 202 is emitting “Ghost” signals when operating in the field.** The Sensitivity may be set too high. Try cutting back the Sensitivity slightly until the false signaling disappears. Remember to swing your coil slowly. Some ghost signals will occur on highly rusted metals. But if the signal does not repeat after successive passes of the coil over the same area, then the target is usually not worthwhile.

**The Pioneer 202 LCD Readout is not locking in or ID’ing while passing over a target & there is more than one tone being emitted by the detector over the same target.** This will usually occur when there is more than one object in the area you’re sweeping. If it is an odd piece of metal that the detector cannot recognize, the meter will also not lock in. Sometimes, oxidation can cause erratic tones or inconsistent target identification. This may also occur if the Sensitivity is set too high.

**The Pioneer 202 is not stable and has a pulsing, distorted tone instead of a clear tone.** This can occur if operating near another detector or near power lines that can interfere with the frequency that the detector operates on.

**The Pioneer 202 is emitting a constant loud tone or constant repeating tones.** This usually occurs when the batteries are low. Try replacing the batteries with two new alkaline batteries to determine if this is the cause.

**Keep 2 detectors at least 20ft apart.** If 2 detectors are in close proximity, interference from one to the other may cause the detector to emit erratic signals. By keeping the detector at a distance from other operating detectors, it will ensure no loss of performance or erratic “ghost” signals.

**Note:** Always use Alkaline Batteries for proper performance.
**Trouble-Shooting Pioneer 101**

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**Main Features of the Pioneer 202**

**Pioneer 202 Features**

- 8" Coil System
- Meter System
- Discriminate Control
- Touchpad Controls
- Extended Armrest
- Interchangeable Coil System
- Headphone Jack
- Comfort Hand-grip
- S-Rod Handle System
- S-Rod Stand

**Pioneer 202 Faceplate Features**

- Sensitivity Control
- On/Off Switch
- Target LCD Readout
- Depth LCD Readout
- Disc/Notch Control
- LCD Battery Indicator
- 1/4-Inch Headphone Jack
- Touchpads offering 3 Modes of Operation

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**Iron** — Iron is a common, low-grade metal which is often an undesirable target. Examples of undesirable iron objects are old cans, pipes, bolts, and nails.

**Masking** — When a good target is eliminated due to the closeness of a trash target.

**Mineralization** — Refers to soils containing ferric oxides or magnetic particles.

**Pull-tabs and Trash Items** — Discarded pull-tabs from beverage containers are the most bothersome items for professional and hobbyist metal detectorists. These items are generally constructed of aluminum, iron, or steel. We have therefore incorporated special features into the Pioneer 202 to eliminate these targets or to alert you to their possible presence.

**Relic** — A relic is an aged object of historical significance. Note that most relics are made of iron, an otherwise undesirable object in some metal detecting applications.

**Target ID** — Target Identification to identify detected metal objects.

**Target** — Refers to any object sensed by the detector.

**VLF: (Very Low Frequency)** — Most all detectors today are based on the VLF technology.

**Wheatie** — Any penny pre-1959 with the wheat straw symbol on the reverse of the coin.

**Zinc** — Any penny dated from 1982 and after/Usually very pitted when dug out of the ground.
Assembling your Pioneer 101 Metal Detector is easy and requires no special 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. Maintain the search coil about 1/2 inch above the ground as you sweep.

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

I. Supplies Needed
• A quarter (25¢)
• A nickel (5¢)
• A Penny (1¢)
• Aluminum foil rolled into a small ball
• A Nail

II. Position the 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 3/4

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

Are the Pioneer metal detectors waterproof?
The search coils are submersible; the control panels are not waterproof. Although, you may fabricate a waterproof cover for the chassis for those occasions when you want to hunt in the rain. When detecting in saltwater conditions, always wipe your detector clean; saltwater can be extremely corrosive.

What frequency does the Pioneer operate on?
6.6kHz.

Does motion detection mean that if you stop the coil on top of an object the tone will go away? If so, how do you pinpoint an object that way?
Yes. It takes some practice to pinpoint accurately with a motion detection system. Try raising the coil as you're sweeping which will narrow the detection field and, in turn, focus the target area.

What type of batteries does the Pioneer require? What affects battery life?
(2) 9-Volt Alkaline Batteries...Battery life is determined by many factors: Battery Quality, where you're hunting (trashy areas will drain a battery quicker because of the constant signal drain), whether you're operating with headphones or not (there is less draw when operating with headphones).

Where can I hunt with the Pioneer?
The possibilities are truly endless. Just imagine, anywhere there's grass or dirt and people have been there, metal objects will be found! Whenever you see dirt or a grassy area, consider the possibilities. Sometimes a little research in the local library will reveal these types of potential sites.

In conclusion, where to hunt is only limited by your own imagination. Always gain permission when hunting private property.
Here is a quick way to demonstrate the basic features of the PIONEER 202.

I. Supplies Needed
- A quarter (25¢)
- A nickel (5¢)
- A dime (10¢)
- A penny (1¢)
- Aluminum foil rolled into a small ball
- A nail

II. Position your Pioneer 202
- 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 (DISC/NOTCH) — 100% counterclockwise to low
- Left Knob (SENSITIVITY) — click on and set to 3:00 (3/4 turn)
- Do not press any touchpads

IV. All Metal Detection
A. Wave all objects under the search coil
   • NOTICE THE TONES

V. Discriminate Mode
A. Turn the right knob (DISC/NOTCH) slowly to the right past the “DISC” indication.
B. Wave all objects under the search coil at different “DISC” settings.
   • NOTICE THE DIFFERENT TONES
   • NOTICE THE METALS ELIMINATED

VI. Notch Mode
A. Press the NOTCH touchpad
B. Right knob (DISC/NOTCH)
   100% counterclockwise to low
C. Wave all objects under the search coil while slowly turning the right knob clockwise.
   • NOTICE THE DIFFERENT TONES
   • NOTICE THE METALS ELIMINATED

VII. Auto Notch Mode
A. Press the AUTO NOTCH touchpad
B. Right knob (DISC/NOTCH)
   100% counterclockwise to low
C. Wave all objects under the search coil while slowly turning the right knob clockwise.
   • NOTICE THE DIFFERENT TONES
   • NOTICE THE METALS ELIMINATED

Frequently Asked Questions

How deep will my metal detector go?
Many factors come into play when determining depth of a metal detector. In answering this question we will focus on the 3 main issues:
1. Soil Conditions
   When hunting in high mineralization, such as wet salt areas or black sand, the detector may lose considerable depth depending on how well it’s ground balanced.
2. Size of Object
   The size of the object targeted will definitely influence what level of depth will be achieved. The larger the object, the deeper the detector will go.
3. How long the object was buried
   If the object has been buried long enough to begin oxidizing, the object will have more of a halo effect thereby increasing the potential depth capability of your metal detector.

To illustrate a typical situation, with ideal soil conditions, expect at least 6 to 8 inches on older coins and 3 to 5 feet on larger objects. Handheld-type metal detectors will not detect at depths of 6-20 feet.

Is there such a thing as a detector that will detect nothing but gold or other precious metals while eliminating all trash metal completely?
No.
The 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, the unit is probably detecting mineral deposits or oxidation. Only dig up targets with repeatable tones.

CAUTION:
- Do not test the detector by placing coins or metal objects on the floor: Most floors contain metal, which will cause interference.
- Use 9-VOLT ALKALINE batteries only.

The Pioneer 202 Metal Detector incorporates patented microprocessor-controlled technology. The Pioneer 202 is a motion detector; movement over an object is required in order for the machine to detect the object and emit a tone. Alternatively, you can sweep a metal object over a motionless search coil.

1. ALL METAL DETECTION
   All metals will be detected.

2. DISCRIMINATE, NOTCH, and AUTO NOTCH modes
   In any of these three detection modes, the detector will emit different tones, depending upon the type of metal present. The characteristics are adjustable. Depending on the detector control settings, some metals will be eliminated from detection.

   DISCRIMINATE:
   Eliminates iron and trash items with the use of the DISC/NOTCH knob.

   NOTCH:
   Provides an adjustable rejection “window” to eliminate undesirable metals from detection. Enlarge the rejection “window” with the DISC/NOTCH knob.

   AUTO NOTCH:
   Provides a pre-set rejection “window”, automatically eliminating most pull-tabs and trash items from detection. Enlarge the rejection “window” with the DISC/NOTCH knob.

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

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- Do not test the detector by placing coins or metal objects on the floor: Most floors contain metal, which will cause interference.
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