



Threshold



February 12, 2026

**Newsletter for the Historical Recovery Association of North Florida
Dedicated to the Hobbies of Metal Detecting and Treasure Hunting**

Next Meeting: Thursday, March 12, 2026 Time: 6:30 PM

Location: Holiday Hill Church, 730 Mandalay Road, Jacksonville, Florida 32216

Avoiding False Signals While Metal Detecting:

What Causes False Signals When Metal Detecting?

We have all had our fair share of false signals, from incorrect discrimination settings, overclocked sensitivity and phantom items in the ground. This guide will go through all of the types of false signaling, why they appear and how to combat them in practice.

1. Understand What Causes False Signals

False signals in metal detecting can come from several sources, and identifying what type of interference you are experiencing is the first step in solving it.

Electro-Magnetic Interference (EMI):

EMI can be emitted by a great many devices, including your friend's detector! We use metal detectors to create an electromagnetic field around the coil, which allows you to detect the items that cause this field to change. Other devices will emit EMI for various reasons, things like mobile phones, smart watches, GPS trackers, power lines and railways. When the magnetic field of your detector meets another magnetic field, they interfere with each other,

and can cause a wide range of false signals, from a single random bleep in the middle of a field, all the way to uncontrollable erratic behavior. You cannot see EMI, and you cannot escape it, but you can try and get an idea of where it is coming from and use settings on your detector like frequency shift to make detecting easier.

Ground Effect:

Sometimes, ground effects can cause interference too. In places with mineralized soil, the detector will recognize a buildup of mineral in the ground as an item to dig. This is because the Electro-Magnetic field your detector generates is looking for anything it can induce current into, and some soils are faint conductors. To combat this, many machines have a ground balance- this is the optimal setting to change to remove the ground interference.

Salt water or salty sand:

Ever detected on a beach? Found it rather noisy towards the wet sand or in the surf? You are not alone. Many detectorists have felt the effects of the salt water and what it can do to your machine i.e. they make up signals everywhere! This is because salt water is more conductive than fresh water, and when the detector induces a current, it sees the higher conductivity of salt water as a positive tone.

Very similar to mineralized ground. Ground balance can help with this, but you will also see benefits from reducing sensitivity, using a dedicated beach mode, or switching to multi frequency.

Over sensitivity:

Turning the sensitivity up too high can cause your machine to pick up background noise rather than genuine targets. Start high and reduce gradually until the detector runs smoothly.

Set-up of your Detector:

Another form of falsing can come from your machine itself and how it is set up. A loose coil cable will show as a positive target as it swings around your coil, so make sure to wrap it up tight. The same can be said for coil connectors too. Make sure the connection from coil to control box is as tight as you can. Any movement in the connector (as you swing) can cause some pins to 'Make or Break' the connection to the coil, resulting in false signals. A loose coil cable or worn connector can create phantom signals with every swing. Keep cables tight and secure before you start detecting. Swinging too fast or bumping the ground: Moving too quickly or letting the coil knock against the ground can trigger false tones. A steady, controlled swing gives the most accurate results.

2. Fine Tuning Your Settings

Your detector's settings can make a huge difference in how stable it performs. A few small adjustments can help reduce falsing and make your signals clearer.

Sensitivity:

Higher sensitivity does not always mean better depth. Reducing it slightly can smooth out unwanted noise, particularly on mineralised ground or near salt water.

Discrimination:

Use discrimination to filter out junk targets such as iron or foil, but avoid setting it too high or you may block good finds as well.

Ground balance:

Proper ground balancing is one of the most effective ways to reduce false signals. On the XP Deus II, a quick ground grab will usually set it right. On other machines, such as the Garrett Vortex, allows for both automatic and manual ground balancing, which can be useful in more challenging soil conditions. Frequency shift or channel change: If you are detecting near power lines or other sources of EMI, use your frequency shift feature. Detectors such as the Deus II and Garrett Vortex offer easy ways to switch frequencies or channels to reduce interference.

3. Know Your Environment

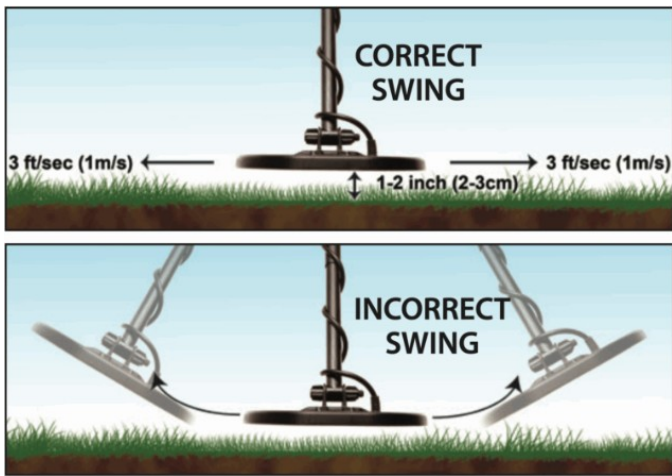
No two detecting locations are the same. Understanding the ground you are working on helps you adapt your settings and avoid unnecessary false tones.

4. Use the Right Coil Technique

Even the best detector will produce false signals if the coil technique is inconsistent. Smooth, level movements make a big difference in accuracy and target identification.

Coil height and speed:

Keep the coil just above the surface and move it at a steady, even pace. Avoid lifting at the end of each swing or scraping the ground.



Firmware and calibration:

Detector manufacturers occasionally release firmware updates that improve stability and EMI resistance. Keeping your machine up to date ensures the best performance.

Coil condition:

Check your coil for cracks, moisture or damage. A faulty coil can cause random signals even when everything else is set correctly.

6. When It Is Not Your Fault

Sometimes the problem is simply the ground you are detecting. Certain locations are naturally noisy, especially those near underground cables, industrial areas or mineral rich soils.

When this happens, do not waste your energy fighting it. Move to a quieter section, take a short break and return later. Every detectorist faces these challenges, and patience often makes all the difference.

False signals are an unavoidable part of metal detecting, but with knowledge and practice, they become far less frustrating.

Understanding what causes them, from EMI to ground effects, will help you react quickly and adjust your machine effectively.

Experiment with your detector's settings, get comfortable with ground balancing, and trust your instincts. The more time you spend learning your equipment, the easier it becomes to recognize when a signal is real. When that genuine target tone rings out, you will know it instantly.

Overlap method:

Overlap each sweep slightly to make sure you cover every inch of ground. Think of it as mowing a lawn — slow and steady with consistent overlap.

Avoid banging or tilting:

Knocking the coil on the ground or tilting it during a swing can create false responses. Keep it flat and level throughout.

Coil recommendations:

In cluttered or trash heavy areas, a smaller coil offers better target separation and control. For open fields, a larger coil will give you more coverage without losing too much depth.

5. Equipment Checks

Sometimes false signals have nothing to do with the ground or settings and everything to do with equipment condition. A quick inspection before you start can prevent hours of frustration.

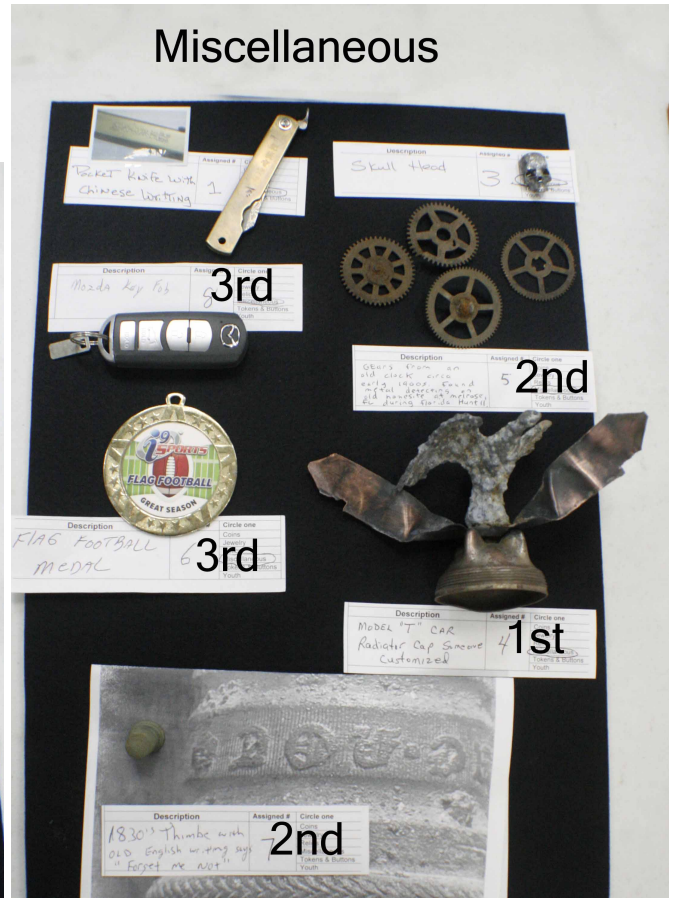
Cables and connectors:

Make sure cables are wrapped tight and connections are firm. Any movement can cause your detector to signal erratically.

Battery life:

Low or uneven battery power can lead to unstable performance. Always start your session with fully charged batteries or a fresh set.

February finds of the month table.





February Finds Competition

February	Coins	Jewelry	Relics	Misc	Tokens/Buttons
1st	Combs, Pete 5	Simmons, Dale 5	Filippi, Jim 5	Terwilliger, Ray 5	Filippi, Jim 5
2nd	Filippi, Jim 4	Terwilliger, Ray 4	Combs, Pete 4	Filippi, Jim 4	Simmons, Dale 4
3rd	Bonella, Karianne 3	Sayre, Terry 3	Simmons, Dale 4	Herzog, Jamie 4	Bonella, Karianne 3
4th	Mule, Philip 1	Combs, Pete 1	Terwilliger, Ray 4	Sayre, Terry 3	Mule, Philip 3
5th	Sayre, Terry 1	Filippi, Jim 1	Bonella, Karianne 3	Simmons, Dale 3	Sayre, Terry 3

2026 Finds Competition Standings

Category and Overall Best Hunter

Coins	Jewelry	Relics	Misc
Filippi, Jim 9	Simmons, Dale 9	Filippi, Jim 10	Filippi, Jim 8
Bonella, Karianne 6	Terwilliger, Ray 9	Combs, Pete 8	Simmons, Dale 8
Combs, Pete 6	Sayre, Terry 6	Terwilliger, Ray 7	Terwilliger, Ray 6
Sayre, Terry 5	Combs, Pete 2	Simmons, Dale 5	Herzog, Jamie 5
Terwilliger, Ray 5	Mule, Philip 2	Bonella, Karianne 3	Combs, Pete 4

Tokens		Overall	
Filippi, Jim	9	0	Filippi, Jim 37
Simmons, Dale	9	0	Simmons, Dale 33
Bonella, Karianne	4	0	Terwilliger, Ray 29
Mule, Philip	4	0	Combs, Pete 22
Lewis, Tyler	3	0	Sayre, Terry 21
			Bonella, Karianne 14
			Mule, Philip 14
			Herzog, Jamie 9
			Lewis, Tyler 7
			Kapustka, Steve 1