



By Steve Herschbach (edited)

July 1



The Nokta Impact was introduced in 2017 and is still in production. It features the ability to switch from 5 kHz to 14 kHz or 20 kHz by merely changing a control setting. The coils work with all three frequencies equally well.

The Nokta Impact has a full

array of search modes designed to cover almost any metal detecting situation. In general the 5 kHz modes will be most efficient for searching for high conductive targets like coins and large items at depth. The 20 kHz frequency excels on small and low conductive targets like gold jewelry or gold nuggets. The 14 kHz setting is a good compromise setting for all around detecting.

The Nokta Impact features built in wireless headphone capability (headphones optional). The Impact can download the latest firmware updates over the internet to be installed from a PC, keeping the detector up-to-date. The coil cables are enclosed inside the rod assembly for a clean, snag-free appearance.

One thing we need to settle however. Nokta went against industry convention and advertise the Impact as being a multifrequency detector. Historically that has meant detectors that receive and compare two or more frequency results simultaneously. The Nokta Impact can run one of three frequencies, but only one of them at a time. This would be better described as switchable or selectable frequency. Read my article on [Selectable Frequency And Multiple Frequency](#)

I am however extremely impressed by what Nokta has accomplished. In 2014 I posted a review of a detector by a company

almost nobody here had ever heard of - [the Nokta FORS Gold](#).

If you look at that review of the Nokta FORS Gold you will see I had made several comments about things I think needed improving on the machine. What amazed me is Nokta fixed every one of them, and in record time - I made a special note in the review about it later. It made a serious impression on me.

What then followed was a quick succession of machines by Nokta and Makro, the sister company. Nothing earth shattering per se but top flight performance at aggressive prices and a willingness to try new ideas and listen to feedback. Frankly, it came on so quickly it actually turned some people off, and I saw complaints about too many machines too fast!



Nokta Impact selectable frequency metal detector

The entire time that we are seeing this rapid succession of machines most of us are waiting on this or that manufacturer to deliver just one new machine. October 2014 to now, and I am looking at a machine in the Nokta Impact that frankly has no exact equivalent from many of the old school top tier manufacturers. Maybe you guys see no merit in being able to select frequencies but I am highly focused on replacing all my various VLF machines with just one detector, and it is most likely going to be a selectable frequency model that wins that competition.

If Nok/Mak can get from FORS CoRe to Impact in three years the "Big 5" manufacturers had better get serious and quick about picking up the pace. The listen and bend over backwards to please attitude alone is getting a lot of fans willing to forgive in other areas. Next up

we will no doubt be seeing PI models and multi frequency.... and who

knows what else. People can and will argue the relative merits of the Impact versus the other top-of-the-line models, but just the fact the Impact is getting compared to the very best anyone else can make says something about how far this company has come.

The Nokta Impact has some very interesting all metal modes, the Gen(D) and Sta(D) modes that appear to be running both all metal and disc modes in parallel. The speculation about these modes garnered attention and we have now been provided this explanation directly from Nokta Software Team Leader Alper Tozan regarding these 2 modes:

"I read a lot of comments about Gen (D) and STA (D) modes in some forums and firstly, I want to thank you about all your positive thoughts. On the other hand, I want to clarify one thing. In some forum

discussions, these modes are defined as "mix modes". These modes are not mix modes as mix modes typically result from at least two different software algorithms or hardware circuits working at the same time for decision making to discriminate and detect metals. These mix modes also show characteristics of two or more different modes at the same time including handicaps of each signal processing.

Gen (D) mode, on the other hand, is a true threshold based all metal mode with motion that can discriminate metal without needing any other hardware or higher order software process level. So it always behaves like a classical true threshold based all metal mode but with iron tone and tone break."

These all metal modes seemed to me to be the perfect fit for a large search coil and extra deep VLF detecting. The Nokta Impact favors this with its exceptional balance and multiple operating frequencies.

In general I think I can speak for most people when I say we all like lighter weight detectors. However, one area where lighter is not better is when you use large coils. Balance is every bit as important as weight as it determines the amount of torque applied to your wrist as you swing the detector. A large coil on a very light detector creates a very nose heavy detector, one that will put more strain on you when you detect than a heavier but better balanced detector. It just so happens that the Impact with the rear mounted battery power/speaker module is a good design for a large coil from an ergonomics standpoint. This is especially true when in my experience Nokta has designed large coils that are quite light for their size. I was probably one of the first people that really zeroed in on the new IM40 15" x 14" DD coil when it was proposed for the Impact by Nokta. I got on an early wait list for the coil, and just received mine.



Nokta Impact IM40 15.5" x 13.75" coil with scuff cover

The IM40 DD coil measures 15.5" x 13.75" and comes with a fitted skid plate/scuff cover. The coil weighs 1 lb 13.0 oz or 822 grams as pictured with skid plate and cable and weighed on my postal scales. Yes, I had to say that as some people exclude cable weights from coils! For comparison the stock 11" x 7" IMP29 coil weighs 15.7 oz or 446 grams. I like the flat blunted ends on the IM40, which does help the Impact stay upright as the trailing edge of the coil acts as a flat bearing surface when the detector is at rest on the ground.

I am not usually a fan of larger coils and in fact tend to lean to smaller coils for a lot of my urban metal detecting. Large coils "see" more area which can work against them in highly mineralized ground or in areas with lots of closely spaced trash. However, large coils even if they do not get more depth in highly mineralized ground can cover more area faster, and often ground coverage is every bit as important if not more so than depth. In medium to lower mineral ground a large coil can also offer that magic thing all detectorists crave - more depth!

The Nokta Impact has another trick up its sleeve that favors large coils; the ability to change operating frequency on the fly. High frequencies offer more sensitivity to small items and quicker separation in dense trash as well as extended battery operating time. The main issue with higher frequencies is they also "light up" highly mineralized ground and hot rocks more so than lower frequencies. This can work against machines that are locked into higher frequencies when attempting to employ large coils in highly mineralized ground. Lower frequencies give up some of the high frequency "hots" on small targets but also are less sensitive to

ground issues, including salt mineralization. The ability of the Nokta Impact to run at 20 kHz, 14 kHz, or even 5 kHz makes it very well suited for running very large coils. This is accentuated by the plethora of all metal modes available on the Nokta Impact which can deliver extreme performance when coupled with a large coil.

The bottom line is I think the Nokta Impact and IM40 coil may be one of the very best options available for a person wanting to run a large coil on a VLF detector, with depths in all metal modes and milder ground that will challenge many PI detectors.

For a lot of what I personally do, like gold prospecting or beach detecting, I will first attempt high frequency, high gain operation and then back off as ground or EMI conditions require. One thing it is important to know when running the Impact with large coils is how the Gain control works. If the Impact is running at Gain levels that are too high, the OVERLOAD message will appear on the screen. Note: You can increase or decrease the overload volume with the on/off button. When the volume of the device is at maximum, the overload volume will be low. As the volume of the device is lowered, the overload volume will increase. The electronic Gain has at least three distinct levels. There are distinct boosts between settings of 39 and 40 plus again between 69 and 70. Setting over 90 are a sort of hyper-Gain region only obtainable in low mineral/low EMI environments.

Therefore I may attempt to start out in 20 kHz and a very high Gain. If overloading occurs I will lower the Gain for smooth operation, paying particular attention when I get down to 69.

From there on down I need more field time, but at some point it will be better to drop to a lower frequency than to continue to lower the Gain setting. So in theory if at a setting of Gain 39 I still have issues at 20 kHz, it is time to go to 14 kHz and run the Gain back up high. If conditions are still not amenable to running at 14 kHz and high Gain settings, I would then drop to 5 kHz and again attempt to run higher Gain levels. *Note: people hunting larger, higher conductive items like silver coins and brass relics may very well just start out at 5 kHz. My focus is usually on lower conductive, smaller items i.e. gold.*

I so far have only done a small amount of detecting in a local park. I first tried Di3 and while it was working well enough the trash density was high and interpreting signals with a large DD coil can be challenging, especially when the coil generates multiple signals on very shallow items. I finally went to the unique GEN(D) mode and it was night and day. The GEN(D) all metal mode combined with the VCO effect makes sizing targets and identifying shallow targets a breeze, even in a trashy park situation. Shallow ferrous is easily identified also using GEN(D).

There are several all metal modes a person can employ on the Impact as well as the extended range ground balance available in the COG (CONductive Ground). While the Impact performs ground balance in the range of 20-90 automatically in the other discrimination modes, it ground balances in the range of 0-90 in the COG mode. This enables easier ground balancing on conductive grounds where normally ground balance cannot be performed at all or performed with difficulty, such as salt water beaches. Remember that ground balancing to salt conditions always comes at the cost of reduced sensitivity to small gold items.

Large coil VLF hunting is not for everyone and is not a magic bullet in any case, but it does offer possibilities for the more adventurous detectorist. Here is a picture of my Nokta Impact with new IM40 coil. The detector with this coil is only slightly nose heavy (keep the rod as short as possible) and weighs with batteries 5 lbs 2.0 oz (5.13 lbs) or 2322 grams.



Nokta Impact with IM40 15.5" x 13.75" coil mounted

 NORMALIZED.....			
	5-Khz.....	14-Khz.....	20-Khz.....	
\$1.00 Gold Coin.....	51.....	47.....	52.....	54
\$2.50 Gold Coin.....	62.....	51.....	62.....	70
\$5.00 Gold Coin.....	72.....	55.....	72.....	80
\$10.00 Gold Coin.....	82.....	65.....	82.....	83
\$20.00 Gold Coin.....	84.....	75.....	84.....	85

The Nokta Impact is quite unique in that not only does it operate at different frequencies, but it has two different target id scales in use depending on the mode employed. Here are Nokta Impact Gold Coin Target ID Responses* in GEN, GEN (D), STA, STA (D), DEEP, VLX1 and VLX2 modes (0-40 ferrous, 41-99 non-ferrous) Seen notes below on alternate target ID scales.

The normalized setting equalizes responses in all frequencies to be the same as the 14 kHz response. At start up, the Nokta Impact will utilize the "Normalized" ID scale and not the Standard ID scale. In other words, the IDs will not change upon frequency change and the device will generate the 14kHz IDs in each frequency. However, based on ground conditions IDs may vary for certain metals.

If you prefer to see the different IDs produced by each frequency, you need use the "Standard" ID scale. To switch to the standard IDs, pull the trigger and push the (+) button at the same time. Letters "Sd" will appear on the screen. If you wish to revert back to the normalized IDs, repeat the same process and letters "no" will appear on the screen.

In General, low frequencies spread out coin responses but compress low conductive responses. High frequencies spread out low conductive responses but move coin responses closer together. See the target table below for reference. Therefore, running in in the 5 kHz "Standard" or un-normalized mode will provide better target ID separation while coin detecting. Running in 20 kHz Standard mode will provide more definition between U.S. nickels, gold jewelry, and various aluminum items. However, target ID number changes between modes may be confusing for some people and make the Impact harder to learn. In need this case using the Normalized setting is recommended.

The Nokta Impact is somewhat unique in that depending on the mode there are two possible target ID scales in use. In DI2, DI3, DI4, DI99 and COG "coin and jewelry" modes, the ferrous range is 00-15 at factory defaults. This provides the most target definition in the non-ferrous range for people only interested in non-ferrous targets. In GEN, GEN (D), STA, STA (D), DEEP, VLX1 and VLX2 "gold and relic" modes, the ferrous range is 00-40. This provides the most target definition in the ferrous to non-ferrous range for people who hunt for items where these ranges overlap.

It may then be seen that by picking a combination of both the mode used and a Standard operating frequency the Nokta Impact can customize target ID responses to a degree quite rare in metal detectors offered today. For instance, most coin hunters may want to use the DI2, DI3, DI4, DI99 modes in Standard 5 kHz frequency mode for the best target definition on silver coin range targets.

*The gold coin responses are from the Tom Dankowski [post at this location](#).

TABLE 1 - TARGET IDs						
	ID SCALE (IRON 0-40)			ID SCALE (IRON 0-15)		
	GEN, GEN (D), STA, STA (D), DEEP, VLX1, VLX2			DI2, DI3, DI4, DI99, COG		
	5kHz	14kHz (normal)	20kHz	5kHz	14kHz (normal)	20kHz
2 Euro	58	71	76	33	52	57
1 Euro	65	82	84	40	68	75
Euro 50 Cent	68	83	84	49	70	77
Euro 20 Cent	64	82	83	40	66	72
Euro 10 Cent	58	78	82	34	59	67
US Coins						
US Quarter	83	87	90	72	87	90
US Nickel	48	55	61	21	30	36
US Dime	78	85	86	60	78	82
US Zinc Penny	64	82	83	38	66	71
US Copper Penny	79	84	86	61	79	84
US Half Dollar	87	93	95	83	93	95
US Silver Dollar	90	95	96	88	96	96
UK Coins						
One Pound (1982)	64	82	83	40	67	72
Two Pounds (2006)	68	83	84	48	71	77
Fifty Pence (2008)	50	59	66	23	35	44
Twenty Pence (1982)	51	63	69	24	38	51
Two Pence (1988)	83	87	89	70	86	90
Penny (1918)	64	82	83	40	66	71
1938 Shilling	68	82	84	47	69	75
1921 Half Crown	83	87	88	70	84	89
1928 Six Pence	55	72	79	30	53	62
1868 Six Pence	74	84	85	55	74	79
1842 Four Pence	68	83	84	49	69	75
1952 Three Pence	74	84	85	56	74	80
IMPORTANT! If you are using the "Normalized" ID scale, the device will produce the 14kHz IDs in all frequencies. Some differences may be observed between the frequencies for certain metals and soil conditions.						

Nokta Impact target id responses in different modes

My focus being gold prospecting I can say that while the Nokta Impact is a very capable machine for gold prospecting it will not match the [Makro Gold Racer](#) for sensitivity to smaller gold. It is closer to the [Nokta Fors Gold+](#) in that regard. Performance on gram plus gold is on par with other machines in the 13 - 20 kHz class, though the ability to drop to 5 kHz may provide some benefits in the worst ground on large nuggets, much like is seen with the 6.4 kHz mode on the Minelab Eureka Gold.



Nokta Impact (with optional 7" x 4" DD coil) next to Makro Gold Racer

The Nokta Impact is a very intriguing metal detector, much like owning several different machines in one. The 99 tone mode has a VCO response more like one might expect of the DEUS than other full tone models, like my DFX. The Gen mode is quite unique being a threshold based all metal mode with a dual tone disc mode layered over it, what is referred to as a [mixed mode](#). Wireless headphone capability (2.4 Ghz lag free) is built-in but headphones will be optional. Physically the unit is a well balanced 4.26 pounds with a straight shaft, molded post style grip. The cable is enclosed in the rod assembly for snag free operation and a clean look. The 7" x 4" DD coil is a real sweet option for trashy locations.

To sum up I have only scratched the surface of the capability contained in this incredible detector. It has been getting rave reviews from users working the small elliptical coil in extremely trashy locations. With so many frequencies, modes, and a great coil selection the Nokta Impact can serve well for almost any metal detecting task.

~ Steve Herschbach

Copyright © 2017 Herschbach Enterprises

Nokta Impact Technical Specifications*	
Internet Price	\$849
Technology	Induction Balance (IB)
Frequency	5, 14 or 20 kHz

Autotune Mode(s)	iSAT Intelligent Self Adjusting Threshold
Ground Rejection	Ground Grab, Manual, Tracking
Soil Adjust	Normal and Salt (Beach) Modes
Discrimination	Variable with Visual ID, Tone ID (2, 3, 4, 99), Notch ID, Variable Tone Breaks, Iron Volume
Volume Control	Yes
Threshold Control	Yes
Tone Adjust	Yes
Audio Boost	Yes
Frequency Offset	Yes
Pinpoint Mode	Yes
Audio Output	1/4" headphone socket & speaker
Hip Mount	Shaft Mount Only
Standard Coil(s)	11" x 7" DD
Optional Search Coils	7.5" x 4" DD, 9.5" x 5" DD, 15.5" x 13.5" DD, 7" Round Concentric
Battery	Four AA
Operating Time	8 - 15 hours
Weight	4.26 pounds
Additional Technology	Wireless headphone capability built in (headphones optional)
Notes	Cable enclosed inside rod assembly

*[Notes on Technical Specifications](#) - Detailed notes about the specifications listed in this chart.