field test |

Nokta Impact Pt 2: Expert Settings, Large Coil & Wireless Headphones

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After its eagerly anticipated release, the Impact has quickly become one of the 'must have' new machines on the UK market. It's no surprise then that detectorists across the land are reporting how good the machine is on a variety of terrains. In this report, I will focus on the EXPERT SETTINGS for those looking to tweak this already capable machine to get the best from their permissions.

It's always a good idea to get out into the fields and start with the pre-programmed settings that have been expertly tuned into the latest machines, in an attempt to get a good balance of sensitivity, depth and stability. However, these modes are generalised and cannot be expected to easily cope with the 27 soil types we can encounter across the UK. Factor that in with the multiple types of ferrous and non-ferrous items we are searching for, and you start to realise there really cannot be one program that suits all!

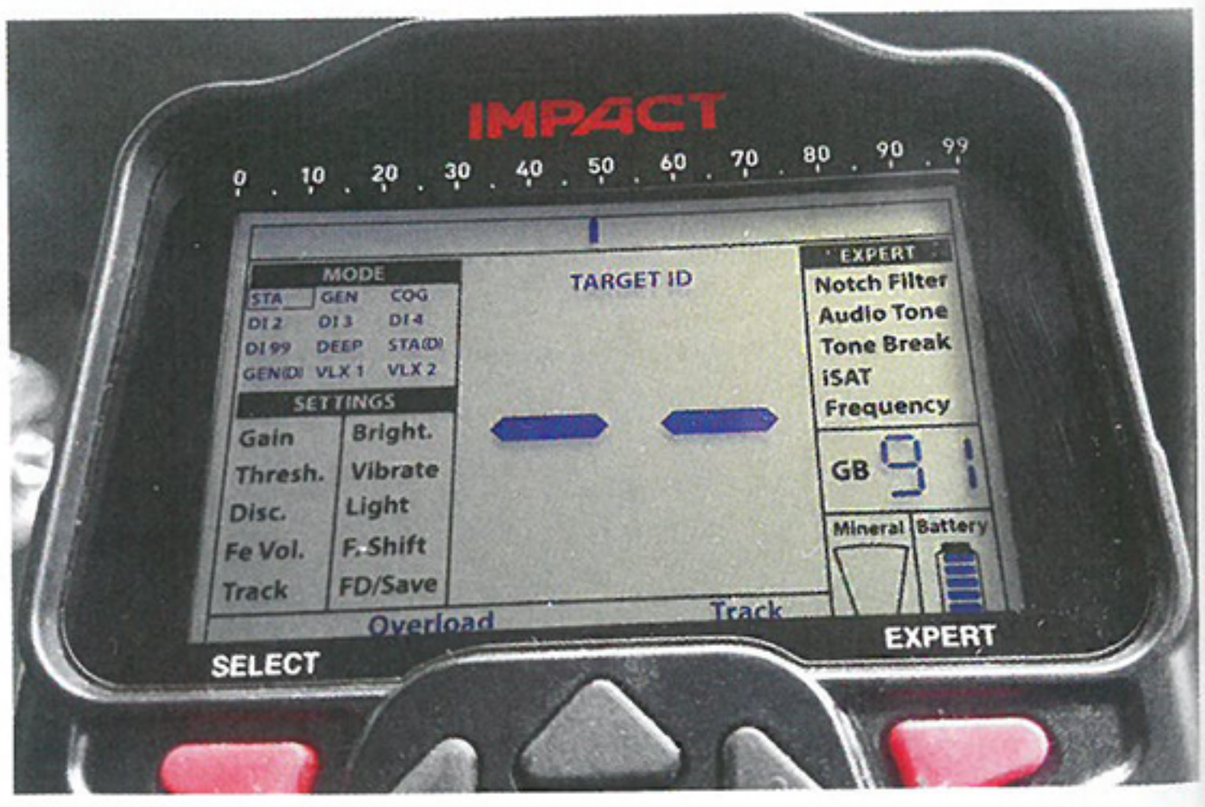
Upon receiving the IMPACT I have spent many an hour going over the same land in all search modes, presets and advanced features to really get to grips with what the machine can do and how it can be tweaked to get the best from the sites. The multiple variables the IMPACT offers means I cannot envisage an area it couldn't cope with if the machine is set up correctly.

Following on are my experiences with the **expert settings** whilst out in the field teasing every morsel of performance from the machine. Each setting is easy to navigate and unlike some machines, is self-explanatory and the layout of the menu allows for easy adjustment without having to revert back to the manual each time.

Manual Ground Balance

I didn't have much luck on my land when it came to using the Auto Ground Balancing. This isn't a fault of the machine, I get this with any machine I have ever taken on my permission. As this is one of the most overlooked parts of the set-up which can be the difference between the 'day of days' and another failed trip, I wanted to get to get to fully understand the machine's ability to Manual Ground Balance if required. So how do we get that set up if the machine is struggling to understand what is under the coil?

BELOW LEFT TO RIGHT
Adjusting the Audio tone for the Ferrous break
Deep targets on the IM40 coil may show no numbers
iSAT 0 is off, 01 is on & can be adjusted upto 10
Running iSAT high can lose you depth



GEN Search Mode
The most effective way to get this right is to select the GEN search mode (All Metal) and find yourself a clean spot – it's important to Ground Balance over the soil only and no potential metals or hot rocks. This area needs to be around four times larger than the coil itself.

Sensitivity
The next stage is to ramp up the Sensitivity until breaking point. The machine will just about start to chatter and this is the point you want to perform the Ground Balancing.

Search Coil
Hovering the search coil 6" above the ground slowly lower it down to ground level and you should hear increasing feedback. Repeat again but do not pump like you would normally in Auto Modes. Push the GB trigger forward once to get the current reading. If the feedback is noisy when closing in on ground level then you need to lower the GB until the feedback is eliminated. If the feedback increases when the coil is pulled away from the ground then the GB needs to be raised until feedback is eliminated.

Normal Search Mode/Stability
Once you are happy the GB is complete, reduce the Sensitivity a few clicks below the previous breaking point to optimise stability. Now, pull the trigger and release to return to the main screen. You now have your optimum GB setting and can manually introduce that into all your search modes on a tricky piece of land.

Notch Filter
If wanting to Notch out certain targets without having to discriminate the life out of a program, the Notch Filter is the way to do it. However, I would only recommend this for modern sites where you are looking to knock out ring pulls, bottle tops and the like. When using Notch the detecting range is reduced. Sites with potential for older artefacts and coinage should never be detected with such limitations to a program.

Parks
I am fortunate enough to have permission (£20 a year) to detect my local council owned fairground/ park area. This is nothing more than a days coin shooting and if lucky a little jewellery finding. To enhance my experience I opted to Notch out the most common undesirable finds which in this case were aluminium cans, areas of coal and pieces of wire. The IMPACT isn't limited to Notching out single sections of ID's, it can notch out single or multiple target ID's at the same time.

ID'S
Whilst searching, I kept coming across the same repetitive tones and ID's. The first was crushed aluminium. This was obviously from the mower shredding cans and gave a target ID of 67-69. I wouldn't normally Disc or Notch such a number but this was a mind numbingly repetitive good tone so I used the feature to Notch out this nuisance material.

Next to Notch was the bottle tops. I had been finding all types of these tops and the majority were sitting pretty much mid range in the 50-54 bracket along with screwed up foil. So Notching this area out meant I could get in the trashiest of areas with just the Iron Disc and the specific notches meant I could pick out the better targets. Running Notch and Disc anywhere opens you up to potentially missing items but on parks in particular. Noise can be excessive and all it does is start to switch your concentration away from the task in hand.

Multi Notch
Performing the Multi Notch couldn't have been simpler. I selected Notch from the Expert Settings and first thing I noticed was that the current Disc setting was displayed which in my case was 15.

You cannot notch below your Disc setting unless you change the Disc. Using the + & - buttons I moved the cursor to 50 and pressed select. I then pressed + until I reached 54. Pressing SELECT again took me back to a flashing blinker that allowed me to skip past the next set of ID's until I reached 67. Upon reaching 67, I pressed select once and moved the cursor via the + until hitting 69 and pressed Select again to confirm.

PLEASE NOTE: These settings will only affect the current search mode and will not be transferred to the other modes.

Iron Tone Notch Filter
If you wish to keep a tone but create a negative tone in a sea of positives then the IMPACT offers the option to turn your Notched selections in to an Iron Tone. This is particularly useful if you want to stay in a busy zone of a site but want to Notch out the trash. In large fields where a hotspot has been found, you can use this feature to make sure you stay in the boundaries of this area. And a very helpful setting for relatively modern fair sites where trash and finds go hand in hand.

Audio Tone
I don't believe that we all like the same tones when it comes to our detecting programs. Many of you will have used bespoke programs from some of the leading authorities in the detecting world and will know that whether it be a HOT, SNIPER or HAMMIE program, the tones have been set up to suit that persons preferences.

I like the low grunt of iron in all metal modes and a nice high 690Hz pip on small silver rather than a squeaky 450Hz. Luckily the IMPACT offers Audio Tone adjustments to tune in with your specific preferences. You can chose between 150Hz and 700Hz depending on what you want from your search mode.

The tones are set against each metal group and in this case is: FE, Gold/Non-FE and Non-FE. I have been searching predominantly for Non-Ferrous items so my tonal set-up was:

Di3 Search Mode

Firstly I adjusted the Tone Break (see below) to make sure the breaks where I felt I needed them. You may decide to keep the factory tone breaks so in that case just adjust the Audio Tone in your factory program of choice as below. (Audio Tone will be available soon in Di4 search mode).

150Hz for FE 0-18: This accounts for ferrous metals so I set it low as an undesirable tone so I could keep swinging without hesitating.

400Hz for Gold/Non-Fe 19-70: This zone is where I'd expect to find the majority of artefacts and Non-Fe metals so it was important I had a nice mellow interesting tone.

690Hz For Non-Fe 71-99: Ding Ding Ding, this is where I wanted the most positive audio signal possible and so went right up to 690Hz.

Adjustments

Adjusting the Audio Tone was very easy. Select your program, enter Expert settings and select AUDIO TONE. You'll notice the metal names appear at the bottom of the screen. The selected metal will be framed in a box. To change the Tone use the + & - buttons. To change between metals just press the Select button. As with the Notch Filter, these settings do not carry across to other programs so be sure to do this set-up with each program, if required.

Tone Break

This is where you can really start to modify your program. Whether you like a single 'dig everything' tone or a melodic symphony of tones, you'll find the ability to adjust the parameters of your desired program here.

I opted to use a Single tone program on an extraordinarily quiet piece of land I have permission on to try an winkle out something, anything, just one thing! This has always proven a difficult task but worth a shot. Selecting Di4 with Disc. 6, I went into Tone Break and adjusted the Iron Volume down to 0Hz. Now all I would hear is a high sound on anything over the Disc.6. It was relatively successful as I managed two copper coins and a belt buckle.

My choice to change Di4 from the factory settings was purely based on my preferences. Many bespoke programs put out for us to try rely mainly on tones to create what we perceive as a better program. If you wish only to hear coins as a high tone and call it 'Coin Shooter' then you can easily do this with Audio Tone and Tone Break. Any items lower than say 70 will give a negative response.

NB. The Tone Break is adjusted in the same way as Audio Tone but by selecting Tone Break in the expert settings.

iSAT (Intelligent Self Adjusting Threshold)

For those who have or still operate manual style controlled machines mainly without a screen, will be all too familiar with control known as Threshold.

Many detectors on the market offer pre-set threshold controls. The problem with that is again, there isn't one setting that suits all types of ground. The Impact offers this Automatic Threshold to enhance your searching over mineralised terrain such as saltwater areas where the ground becomes conductive and areas where iron particles are present, it becomes magnetic. Both forms of ground mineralisation produce false signals that can mask the targets.

When iSAT is activated it enables it to operate smoothly where small changes in ground mineralisation result in the threshold increasing or decreasing in intensity. The iSAT settings are there to enhance the performance but need to be set up with caution.

In high mineralisation, if you receive too many false signals without disruption in the threshold hum, lower the gain first before increasing the iSAT. If the false signals continue, set the Gain back to its original value and increase the iSAT.

The range for modes are different and are:

STA & STA D mode: 0-10
GEN & GEN D modes: 1-10
Discrimination modes: 0-10

The factory default is 3. At '0', the iSAT feature will be inactive. If the ground and environmental conditions do not cause any drifts in the threshold, setting the iSAT to '0' is recommended.

In Oxfordshire, one field can change from highly mineralised gravel below the grass, through to a rich red low medium mineralisation iron type of soil and back to clean soft soil again, here the iSAT setting was a good advantage.

In Di2 where iSAT is set at 01 (0 is off), I adjusted it over the gravel area

BELOW LEFT TO RIGHT
The frequency can be adjusted between 5, 14 &2 0khz, Finds on coil

to 3 which is on the edge of its comfort zone. Now, the issue here is you can lose a lot of depth running it hot, so to speak, so it's not advisable to run it too high or you also miss smaller conductive targets.

This is the first time I have taken a detector over this whole field without it being 'chattery' in areas. The Impact became a very stable machine with just a few clicks of a button. This is not a setting to be ignored!

Frequencies

Its multiple frequency offering, is one of the reasons it's proved so popular. But what do each of the 3 frequencies offer and are there any advantages to one over the other? Below I briefly explain what each are designed for and then what to expect.

5kHz - The lower of the frequencies is designed predominately for searching out large deep objects. If on clean land with a slower reactivity speed and a slow swing, your finds depth will be very impressive. The deepest item I detected during this test was a horse harness buckle. The depth was just shy of 15". The signal was very strong and sounded like a large piece of iron. I don't doubt the buckle could have been found deeper. I also found a silver sixpence which shows this frequency is not a one trick pony.

14kHz - Classed as a 'general detecting frequency', 14kHz is an ideal choice on land where you are looking for small - large coins of mixed conductivity. The advantage of 14kHz over 20kHz is that on land where aluminum has been shredded or tiny pieces of metal area dominant, this frequency will be less responsive. Marry this with a slow swing speed and you'll be picking out the desirable finds amongst the trash without having to use notch and potentially miss targets.

20kHz - This high frequency is where it excels. Looking for the smallest of ancient coins? The tiniest of bronze artefacts? This frequency picks out those items with ease. On an Iron Age/ Roman site where finds can be tiny mixed in with iron contamination.

I found that it was brilliant in 20kHz on freshly turned over/ploughed soil and would be my 'go to' choice. If the ground is wet, then it would be between 20kHz and 14kHz depending on its stability or the depth I was getting on targets. I did find that on damp pasture in 20kHz, the shallow large coins I found such as the Victorian pennies and a Cartwheel penny gave an iron buzz. Dropping down to 14kHz gave an unmistakable clean positive signal.

Impact Accessories
IM40 Waterproof DD Search Coil
RRP £155.00

The optional 15.5" x 14" coil is designed to penetrate the ground further than the standard coils and reach those targets just outside the normal detecting zone. It's well known that on VLF detectors, 15" diameter is the optimum size for a large coil and only Induction machines benefit from larger.

The IM40 comes with a scuff plate and in total weighs 822grams which is almost double the stock coil. Straight away I was concerned but as the Impact is really well balanced, it wasn't affected by the additional weight.

Being able to switch between frequencies really benefits this large coil. Fixed higher frequency machines with large coils can struggle on mineralised ground and around hot rocks. This is no problem for the Nokta.

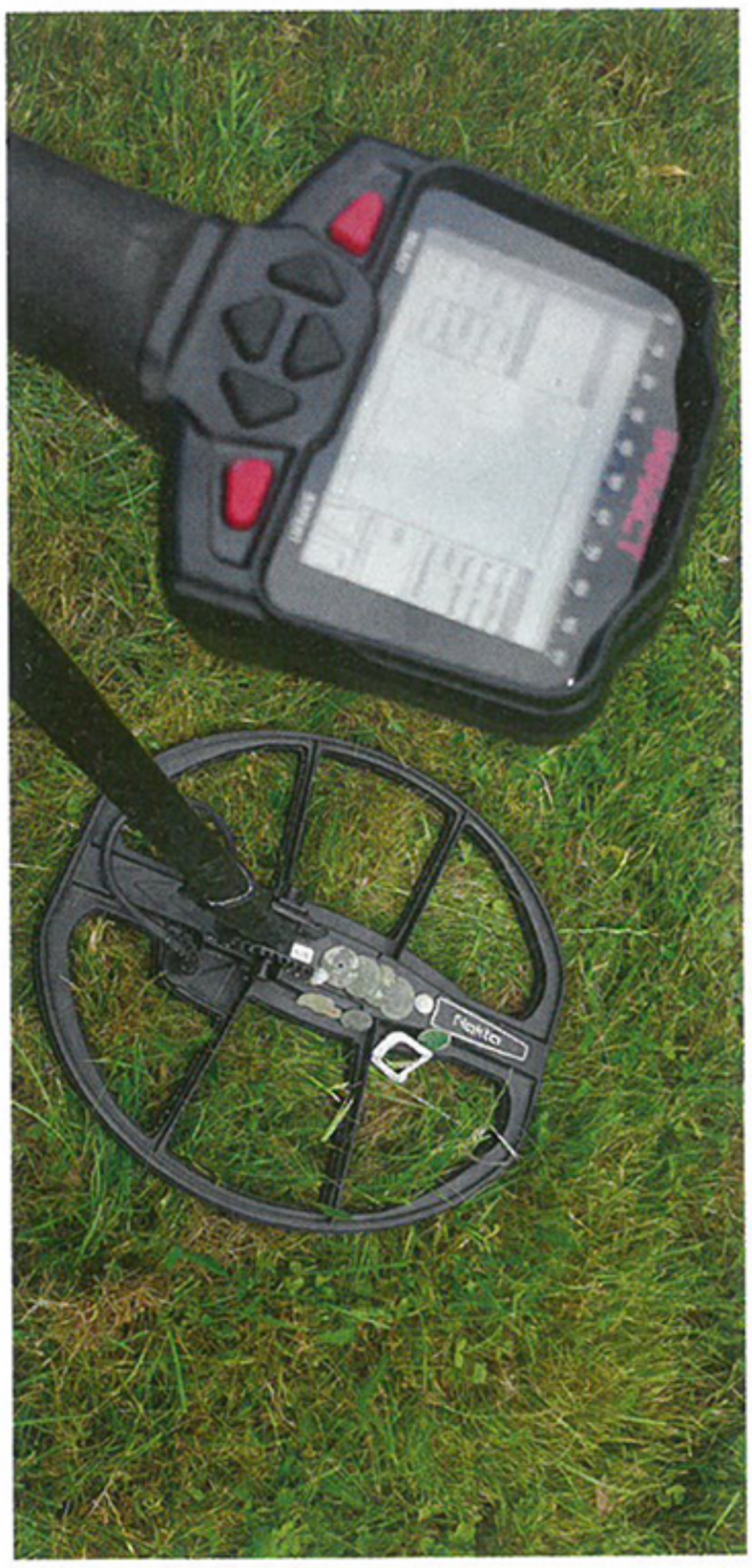
On the beach, 14kHz using the COG setting, the machine was a dream to use. Ground Balancing in COG mode is 0-90 where as the Discrimination modes are between 20-90. This allows for easier balancing on conductive ground but can come at the expense of missing the smaller gold items like earring's.

The coil did not feel at all large or heavy and was stable over both wet and dry sand. Pinpointing was accurate and exactly where I'd expect the find to be. All too often large coils can be hit and miss with pinpointing but thankfully not in this case.

The IM40 was as equally at home on pasture as it was on the beach. I could run the coil at maximum sensitivity without a glitch, meaning I would have less chance of missing the smaller shallower finds. It did become a little noisy in the trashier areas so backing the sensitivity off helped. I used 5kHz in the trashy area and pulled out a couple of halfpennies at mid depth. This coil is going to prove very popular!

Wireless Headphones
RRP: £119.00

Following the launch of the Impact and its included wired headphones, the masses have been looking forward to getting their hands on a wireless option. Nokta have recently launched a pair of



headphones compatible with the Impact and Racer 2.

The headphones are compact, well constructed and have good clarity. Soft non-slip padding around the earcup gives comfort, whilst the headband wrapped with more non-slip material keeps the headphones in place. The cups are ergonomically shaped and stop the headband moving back and falling off your head.

On the beach where the wind was blowing into my face, I found no issues with wind getting into the cups. Connection to the Impact is as simple as turning the headphones on next to the machine. The sound is clear and a world apart from the stock headphones. These will make you feel more at one with the machine and enhance your experience.

Charging is via the supplied USB cable and there is a back up phono port to use with the supplied cable in case you find yourself running out of charge in the field. I got eight hours of detecting time from the headphones each time without any signs they were running out of power.