Teknetics G2

Spec sheet	
Operating Principle:	VLF
Frequency:	19 kHz
Standard Search Coil:	Waterproof 11" biaxial
Weight:	2.5 lbs
Battery Type:	1 x 9v rectangular alkaline
Warranty:	1 year
Price:	£575

Occasionally I'm asked to test a detector that inspires me through innovation – for example, those that operate differently to the current trends of other machines. The Teknetics G2 (G2) is such a machine, but not because of some clever feature or through a complicated menu system. Quite the opposite; the G2 just gives me the tools I need … in fact I instantly felt that this detector could've been designed specifically for my detecting style.

The G2 is a gold nugget detector, hence the 'G' in G2. It works at a frequency of 19kHz, which isn't that high for a machine of its type. Most true gold high frequency detectors work at over 50kHz and don't normally crossover well to the coin and artefact side of the hobby. However, the G2 does. Its operating frequency is ideal for locating thin-sectioned objects like the hammered coins we all love to find in the UK.

Out of the box

Figure 1

Fitting together follows the normal procedure; assemble the three-piece stem system, fit the arm cup to the top of the stem, and the coil to the bottom and secure both using the supplied corresponding plastic nuts and bolts. Wrap the coil up around the stem, taking up any slack cable before pushing the cable plug into the back of the control box. Finally secure the connection by twisting the knurled locking collar. Assembly is achieved in less than three minutes. A novel feature is there are two headphone sockets on the left-hand side of the control box. One for the standard 1/4" jack found on most detecting headphones, and also a second 1/8" socket for smaller jacks often found on Hi-Fi 'phones.

Controls

Looking at the control box you realise just how minimalistic the controls are. There are two rotary knobs and a three-button push pad. The left hand rotary control switches the detector on, and as it's turned clockwise the detector increases power by raising its gain.

Figure 2

The right hand knob is the mode control. In the anti-clockwise position it switches into the Discrimination (Disc) mode. When this control is turned clockwise the G2 enters the All-Metal mode; this control should be turned until a slight Threshold is achieved.

The three push buttons have dual uses depending on which mode has been selected. In the Disc mode the two buttons marked '+' and '–' are used to increase/decrease the detectors Discrimination setting. The Discrimination is progressive, so the higher the setting, the more objects are discriminated (from iron up).

The last button is the 'GG Pinpoint, which operates a Pinpoint feature while searching in Disc mode. This switch only operates while being held down.

Once switched to the All-Metal mode, these three buttons change their use to operate a Ground Balance feature. The Pinpoint button is now used to grab a Ground Balance setting (Automatic Ground Balance), and the '+'/ '-' buttons are used to manually adjust this setting.

To use the G2 in the Disc mode is very simple. Turn the power button to a position between one and three o'clock. Leave the second control in its fully anti-clockwise 'Disc' position. Finally press the '+' button to increase the discrimination to your desired setting. That's it; you're ready to search!

Display

One of the most striking features of the G2 is its fantastic LCD display … it's massive! Looking at the screen, there's an arc across the top, the 1-100 target scale. Each time a

target is detected, a three-segment indicator appears above the corresponding section of this scale. The visual display indication (VDI) number is also displayed prominently in the centre of the screen. As you adjust the Disc and Gain settings, a digital setting is displayed bottom right. This is especially useful for the Gain setting, as there's not any screen-printed indication around the control knob.

These are the main readings you will use for detecting. There are also a range of Information sections within the screen giving users useful information on target intensity, battery condition, Ground Balance etcetera.

Test bed

It was while playing with this detector on my mineralised test bed that I first realised it was a bit special!

The first thing I had to discover was where should I set the Discrimination. I first ran it at a level of 50, and when passing the coil over the test bed I received positive responses from most of the buried targets. These gave high pitch responses as opposed to lower grunts from rejected targets (whose VDI numbers were below the selected Disc number). Shallow or large positive targets squealed like Sweep of Sooty and Sweep … and these responses had an urgency, almost violent audio nature.

I re-tested the machine several times while lowering the Disc, until I settled on a setting of 40. At this level all targets in my test bed were detectable, giving strong two-way high pitch responses on shallower targets, and sweet high pitch whispers on the deepest ones. All iron targets were easily identifiable, giving low-tones. I was left with the impression that with these settings, the G2's Discrimination is damn near infallible!

I also tried the unit in the All-Metal mode, and although it was obvious to me it had an increased depth, the need to constantly check every target VDI number became too tiresome to continue. So, this mode will be more useful where iron contamination is low, or while searching for hoards or prospecting.

Figure 3

Field test

When I started the field test I realised something was seriously wrong. On powering up it sounded perfect, all the controls operated correctly, but performance had dropped to nothing, and it had become super sensitive to hot-rocks.

So it was returned to Regton, and a new PCB module fitted. It was then returned back to me in just a couple of days. Things can always go wrong with anything electronic, it's the service you get when things need to be put right … and I can report that the after-service for the faulty G2 was excellent!

The first site I chose was a sloping field situated in the 'V' of two Roman roads. These converged at a ford over the Great Ouse, and this field sits on higher ground overlooking the crossing. The area has been detected for many years and finds tend to be very small these days, as the easier to detect large coins have long gone. Iron is a real problem searching this field, and the best machines for these conditions tend to be the ones that don't blank over iron.

The G2 is just such a detector, so I started searching with high expectations. I wasn't disappointed! After five hours, I'd pulled 30 coins from the field. Most of these were small, including seven minims! Not bad from a field that hadn't been deep ploughed for several years.

The second outing worthy of mention was some new fields in Suffolk. The first of the fields was ploughed and disked, but not yet seeded. As I walked I noticed the soil was a lot darker than the neighbouring fields, so I started to detect with heightened anticipation of good finds to follow.

After digging some small pieces of lead, the first good find was a small Roman coin. The next three decent targets were all medieval, followed by my first hammered penny. This was a nice short-cross, which had been slightly folded in the plough soil. The next couple of targets were buttons, and then my second hammered was revealed, a cut short-cross penny. I continued to detect for several hours finding predominantly medieval material, with a few Roman coins in-between.

The second field to search on this farm had its crop showing to about three inches. I worked an area close to a public footpath, and was instantly rewarded with a cut quarter found at a depth of about 3". This field didn't have the concentration of finds of the first one, but I still managed a small Tudor dress fastener and a cut William III sixpence.

The last find of note was discovered where a small housing estate was being built in the grounds of a 16th century manor house. I'd been too late to search the first phase, but on arriving at the site I could see the second phase roads had been stripped.

I was surprised at how iron contaminated the soil was. Considering 18" had been stripped, the iron signals were constant and it was a matter of trying to hear the higher tone targets in-between all the low tone noise. I pulled the normal array of 19th century buttons and buckles and was just about to call it a bad job, when I got a sweet high tone response in an area where the soil was noticeably lighter in colour. I dug down a couple of inches and out popped a small black disc. Lightly rubbing it I could see it was a hammered Henry VIII halfpenny with a portcullis mintmark. I continued to search this area, finding two more cut halves. Not bad for 30 minutes detecting!

At the end of the field test I was completely satisfied in the Teknetic G2's performance, and would be happy to use it on any of my sites where target separation from iron was the requisite.

Figure 4

Figure 5

Conclusion

The G2 is a great machine for the style of detecting here in the UK. Although a gold nugget machine, it excels on Roman sites where its sensitivity will find the smallest of Roman coins in the worse iron contamination imaginable.

It is simple to use and there are no complicated menu systems and minimal controls. Once you get used to the Disc settings, you have mastered this machine …

Even the price of the G2 is a bargain, and it is sure to run rings around some detectors costing twice as much.

I love this machine, and can't think of anything major I would change … I guess if I were being really picky I would change the battery to six AA's instead of a single 9v PP3. This would add weight, but keep the running cost down a little.

If *The Searcher* is planning to give this machine away in a competition, the winner will have a real fight on his hands collecting it from me!

TEST RESULTS

Test Results Teknetics G2 (Scores out of ten based on price category)	
Ergonomics (weight/balance)	9
Simplicity/user friendliness	10
Build quality	9
Weather resistance	8.5
Discrimination Performance	9
Overall detection Performance	9.5
*Value for money £575	10
SEARCHER RATING	

Competition: Win this Teknetics G2

Thanks to First Texas, makers of the Teknetics range, we have a Teknetics G2 to give away worth **£575.00**. All you have to do is fill in the coupon (no photocopies allowed unless you are a current subscriber and your number is required) answering this question: **What does the G stand for in G2?** Then send it to us at Teknetics G2 Competition, ***The Searcher***, 17 Down Road, Merrow, Guildford, Surrey, GU1 2PX by **7th January** together with your name, address and contact number. Good luck!

Please enter me in the draw for the Teknetics G2 competition:
What does the G stand for in G2?

.....

Name .....

Address.....

.....

.....Postcode.....

Tel number.....

Subscriber no. (if required) .....

WIN! WIN! WIN!

Competition Rules:

This competition is open to all citizens of the UK except employees of ***The Searcher*** (which includes all regular contributors and their families) and our printers and distributors: Warners Group PLC. Only one entry is permitted per person. Entries will be accepted by POST only addressed to: ***The Searcher*** **– Teknetics G2 Competition, 17 Down Road, Merrow, Guildford, Surrey. GU1 2PX**. To be valid, entries need to be received on or before **7th January 2012**. The draw will take place soon after and the winners will be notified by telephone (if possible).

There is no cash or other alternative to the prizes stated and the prizes is not transferable and no part or parts of the prize may be substituted for other benefits, items or additions. The judges decision is final and binding. No correspondence will be entered into. No responsibility can be accepted for entries lost, delayed or damaged in the post.