Bob Smith

Field Test Teknetics G2

I was recently lucky enough to be given the opportunity to field trial the Teknetics G2. This is a metal detector made by the American manufacturers, First Texas Products, who also produce the Bounty Hunter and Fisher range of models.

The G2 has two on-board microprocessors and a 19kHz operating frequency. The latter was chosen to provide a fast recovery speed, and good ability to hone in on tiny targets. The detector has outstanding sensitivity, and incorporates independent Gain and Threshold adjustment, while still offering the ability to manually ground adjust or work with the Ground Grab facility.

The G2 looks pretty much the same as most of the current Teknetics models being lightweight with a small control box - incorporating a large LCD screen display – and comes fitted as standard with a 11 inch DD elliptical search coil.

Fig.1. Teknetics G2.

Controls & Functions

For a high performance machine controls are kept to a minimum. The panel layout for the G2 and its control box consists of a large LCD screen with a control panel beneath which has three touch pads and two rotary knobs.

The display screen is blank other than an arc of numbers that are permanently displayed 10 to 100 with the 40 in bold and standing out from the rest.

The screen comes to life when you switch the detector on. This is done by turning the rotary knob on the left hand side marked POWER and ON/OFF/GAIN in a clockwise fashion with a click.

This switch also allows you to set the amount of sensitivity you want known as GAIN and the amount you set the G2 to is relayed in number form on the screen.

Next to the POWER knob you have three touch pads: one an arrow marked with a minus symbol (-); next in the upper middle a pad marked GG/PINPOINT; and then pointing left another arrow pad with a plus (+).

Both the plus and minus arrows are used to change the discrimination target settings when working in the DISC mode from 0 to 80 and will move as shaded background colour above the numbered arc on the screen.

These two pads also change the parameters on the Tone Identification. As the level of discrimination is changed the target segments above the numbers of the arc will be displayed in one of three states.

Blank (where there are no segments displayed)

Grey (segments displayed in a shaded colour)

Black (segments are solid black) and no change has been made.

These segments along the arc will remain in this state as you are pressing the plus or minus. This displays your chosen target discrimination parameter.

The arc will remain illuminated in this state until a target is detected.

You can always view your discrimination settings at any time while searching in one of two ways:-

1. On the bottom right of the screen the DISC value number is always shown when in the discrimination mode.
(a) This value is a division between LOW tones and VCO tones.
(b) This value is the lowest target value, which will be detected with a VCO tone.

2. Whenever you press plus or minus, the arc will illuminate and show your current detection parameters. The first press of plus or minus pads will change the discriminate level by one value.

Fig.2. G2 control panel and display.

Fig.3. Underside of the control box showing cable connection.

Fig.4. Display with discrimination setting at 20.

Fig.5. Display showing ground phase number 69 and gain set at 80.

Fig.6. Display showing an ID number with Disc setting at 34.

When a target is detected, the rectangular segments representing the target category are illuminated.

The middle touch pad the GG/PINPOINT is used in the DISC mode; when pressed and held the detector enters into non-motion to pinpoint targets.

If working in the ALL-METAL mode pressing and holding this pad while pumping the search coil up and down towards the ground sets the ground balance through the GROUND GRAB function.

Other information that relayed through the screen includes GROUND PHASE numbering.

The second rotary control is the MODE switch.

When you have switched the G2 on and have set the amount of GAIN you wish to use (leaving the MODE switch alone) the detector is set in the DISC mode of operation.

But when you turn and click the MODE switch you put the G2 into the ALL-METAL mode of operation, which can be turned up to a THRESHOLD.

The threshold can be changed from -40 to 40.

Intensity of target signals is measured by seven tapering bars, which also show a ferrite reading on the left-hand side under the numbered arc.

Target ID numbers are still shown while you are searching in the DISC mode.

Although you don't get these ID numbers showing in the ALL-METAL mode, there is still a likely target indication displayed on the numbered arc.

Simplified Set Up

The simplified version of setting up the detector in the manual is where anyone should start first. Don't get bogged down with advanced settings until you are more familiar with the G2.

G2 ground balancing is carried out as follows.

Turn the detector on via the POWER knob and advance it so the GAIN is at 12 o'clock (around 50 on the screen).

Turn the MODE knob until it clicks; this puts the detector in ALL-METAL

Rotate the MODE knob so you are turning up the THRESHOLD to the edge of noise (faint signal) that you hear.

Look for a patch of clean ground free of metal and surface trash.

Press and hold the GG/PINPOINT touch pad while at the same time pump the search coil up and down over the clean ground.

When the GND PHASE numbers on the display screen settle to only 1 or 2, release the GG/PINPOINT touch pad while still pumping.

After balancing you can hunt in ALL-METAL or DISC.

You can, of course, adjust the GAIN to a preferred level - or if in ALL-METAL do the same with the THRESHOLD.

The signals tones vary depending on the search mode you are in.

When targets are detected the G2 will respond with two types of sound:

1. VCO (Voltage Controlled Oscillator), which is an audio response with variable pitch and volume

2. A low tone beep.

All target responses in ALL-METAL mode are VCO.

The stronger the target signals the higher the volume and the higher the audio pitch. Very weak signals will have the faintest volume and lowest pitch.

Field Appraisal

During testing, I tried the G2 over a number of fields including a potato field where the crop had just been lifted. I found the G2 loved working in the flat spaces left by the machinery; it performed extremely well getting some great depths.

I worked in All-Metal and had the Gain set to 80 for most of the time. The threshold in the Disc mode I preferred to set at "0".

Finds, particularly buttons, came in by the pocketfuls, and in this particular field I found more buttons than anything else.

Bits and pieces of scrap lead also came through in quantities, but – as with any detector – if you are not finding these you could also be missing out on good finds.

In All-Metal mode I could still determine good targets with the numbered arc, but it is easy to turn to Disc at any time just to have confirmation with a target ID number.

Pinpointing a target was no problem and it worked very well.

As sensitive as it is, the G2 can pick up coke. However, if working in an area that you know is contaminated with the stuff you will soon know how to recognise it as the target signature comes in at 44 on the number arc.

The 19kHz frequency provided excellent recovery speed - much better than I could have imagined.

The next site I visited was a stubble field that had proved itself in the past as a good spot for hunting hammered coins.

The only problem was that we had already searched this field for the season and thought that we'd done a good job cleaning it out.

Finds were pretty slim here and

showed that our previous searches had been effective, but the G2 went deeper and managed to make finds. This surprised one or two of the lads who were detecting with me.

As I was hoping from previous experience of the field, the G2 found some hammered coins. During testing it found two hammered silver coins in the morning and a further one in the afternoon (from a different part of the field).

The first silver coin was a broken very thin example of what looks to be Elizabeth I. The second coin was a short cross penny of Henry III (I think); it is still in an uncleaned state.

Both coins came up from 4 inches, and the short cross penny appeared as 53 to 59 on the ID numbering in the Disc mode on the arc (it jumped a little giving off a mid to slight high pitch sound).

While I was in the Disc mode I turned up the setting to 40 just to see if there was a variation in the tone quality. Slight differences to sound occur as the Disc is adjusted.

The Elizabeth coin, on the other hand, was found while searching in All-Metal and came through as a faint low tone.

One thing I did notice was that I had only been detecting for three hours or so and the battery indicator segments were already down to the halfway mark.

Notwithstanding, you should still get a complete day out of a fresh battery. Part of the kit that I take with me when using any detector is a spare battery or battery pack.

In the old days we used to always moan about the amount of rusty nails we would pick up (before computerisation and much better discrimination).

In one corner of the field I managed to find scattered small nails, but these were made of copper not iron. Most iron will be knocked out below the 40 mark in DISC mode.

At another site, again consisting of short stubble, the G2 performed very well in a two day search.

Finds included lead seals, more buttons, run-of-the-mill coins, some scrap silver and worn silver coins – all located with comparative ease.

One of the lead seals has proved interesting. It has a building on it with a tiny shield above. Also, included in

Fig.7. Some of the buttons found during testing.

Fig.8. Various lead seals including one with building and crown.

Fig.9. Usual run-of-the-mill coins.

Fig.10. Various non-ferrous metal finds from different periods.

Fig.11. Some of the smaller non-ferrous finds.

Figs.12a & b. Three pieces of scrap silver and broken porcelain crucifix.

Fig.13. Other silver finds including a tiny button.

Fig.14. Snake buckle recovered at some depth.

with the silver were four worn crooked sixpences.

One of the tiniest finds I made was a silver button that could have been some form of lucky charm.

On another field, where carrots had just been lifted, the soil was very sandy but the G2 seemed equally at home as it had been on the stubble sites. A lot of pieces of medieval metalwork came up here, some of the items being recovered at extraordinary depths.

Summary

The G2 is a super detector that can win the day on many a site. From my research I would say that much of its technology was initially centred around hunting for gold nuggets and flakes but it is nevertheless a detector that is multi-purpose and very much at home in UK field conditions.

The 19kHz operating frequency provides super fast recovery and sensitivity. The G2 also incorporates independent Gain and Threshold abilities that will help you to get the results you want.

The detector is lightweight and very easy to use, working off only one battery.

This is a detector that I would be quite happy to have as my main machine.

Specifications

Manufacturer: First Texas Products L.L.C. USA

UK Importers: Regton Ltd. 82 Cliveland Street, Birmingham, B19 3SN
Tel: 0121 359 2379
www.regton.com

Model: Teknetics G2

Type: VLF Induction Balance, micro-processor controlled, with LCD screen, user touch pads, and operating frequency of 19kHz.

Features Include: Super sensitivity on small targets, Autotune Mode and Non-Motion, Pinpoint, Computerised Ground Grab and Manual Ground Balance, Continuous Ground Condition Readouts, Target Signal Strength, Independent Gain & Threshold, 1-99 Target Number ID, Two Tone VCO, Dual Headphone Jacks (quarter and eighth Inch).

Battery Life: Up to 15 hours with a good alkaline battery

Battery Type: Single: 9 volt PP3 alkaline or a rechargeable can used

Search Coil: 11 inch DD elliptical waterproof coil

Weight: 2 lb 8 oz with battery installed

Price: £575.00

Guarantee: Two years

Accessories: Search coil scuff covers, 5 inch search coil, headphones, carry bag, control box cover. TH