Field Test **Teknetics T2 Special Edition**

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Fig.1. The basic T2 kit (headphones not included).

Fig.3. On/Off and Volume control.

Fig.2. The three search coils used for the test – 11 inch, 13 inch and 5 inch.

Fig.4. Battery compartment.

When I first began detecting back in 1976 I started with a rather basic C.Scope IB300, which was a large swan-neck handled machine with only two control knobs on the console. One knob was for On/Off – Fine tuning, the other Sensitivity. Today's machines often present the operator with a plethora of knobs and controls, which deal with a whole range of functions and can become mind-bogglingly complex.

It was a surprise for me, though, when I received a Teknetics T2 through the post for field testing and found it had only two control buttons on the console.

Teknetics metal detectors are relatively new on the detector market so it was a pleasure for me to take up the challenge and see what it could do.

The particular model I tested was the Teknetics T2 (Special Edition), which is classed as a professional grade detector and comes within the price range of many top-of-the-range models currently on the market.

The basic kit (Fig.1) is the detector plus two covers, one for the console and the other for the elbow rest. The machine does not come with headphones. For the purpose of the test I was also supplied with two extra coils, a Karma 13 inch DD elliptical coil, plus the 5 inch DD closed round coil (Fig.2).

Product Features

- Simple easy-to-use controls.
- Large LCD screen with Target ID and operating control displays.
- Straightforward menu-driven user interface.
- Trigger actuated 'Fastgrab' ground cancelling with manual over-ride.
- 11 inch DD elliptical open waterproof searchcoil.
- Single-Filter All-Metal Mode for maximum detection depth.
- Double-Filter Discrimination Modes for searching in trashy areas.
- Trigger actuated target pinpointing with variable audio pitch.
- Four levels of Fe Tone for quiet iron-infested areas.
- D.S.T. (Digital Shielding Technology) process at searching and ultimate EMI suppression.
- Fast Process (FA) is for trashy sites to give a sharper response.

Basic Specifications

Batteries: 4 Alkaline or NiMh (not included)
Weight: 1.6kg (3.5lbs) with batteries installed.
Ground Cancelling range: From ferrite to salt, inclusive.
Battery life: 40 hours with good alkalines, slightly less with rechargeables.
Standard coil: 11 inch DD elliptical open waterproof coil.

Controls

The On/Off switch for the Teknetics T2 is situated under the left hand side of the battery compartment, just below the armrest. This is also the Volume control (Fig.3).

The Teknetics T2 takes four AA alkaline, or NiMh rechargeable batteries, which fit in pairs into the battery compartment at the end of the armrest (Fig.4).

The console has two controls, a Menu button and a Settings switch (Fig.5).

The Menu button, on the right hand side, is a push-button control which allows you to scroll through the menu. Each push of the button will scroll to the next menu setting. You can also use it to recall the last menu setting you adjusted.

The Settings switch, situated on the left, allows you to alter each of the menu settings as you scroll through with the Menu button. It also allows you to switch between All-Metal and Disc modes when that particular menu setting is selected.

Fig.5. Console interface.

Beneath the console is a dual-function Trigger Switch (Fig.6). When pulled back this puts the Teknetics T2 into Pinpoint Mode. This can be used in both All-Metal and Disc modes. When pushed forwards it activates the Fastgrab automatic ground canceling function. This also works in both All-Metal and Disc modes.

The Menu System

The entire menu is shown on the LCD display. As described earlier, you simply press the Menu button to scroll through and select each function, which you can then adjust by turning the Settings switch. Each of the search modes has three adjustable function settings:

All-Metal Mode: Sensitivity, Hum Level and Manual Ground Cancellation.

Disc Mode: Sensitivity, Discrimination Level and Number of Tones.

The Hum Level, or threshold tone, only operates in the All-Metal mode.

Digital Shielding Technology (D.S.T.)

The T2's latest technological advance, Digital Shielding Technology, permits the use of maximum sensitivity settings with reduced background noise. The operator can choose to have it either on or off. D.S.T. is employed as a default setting when the machine is switched on. The manual gives clear instructions on how to deactivate D.S.T. if not required.

All-Metal Mode

The All-Metal mode is generally the more sensitive mode, and is my preferred mode whenever I go detecting, though it works best on non-trashy, uncontaminated ground. When in this mode on the T2 you can alter the sensitivity and threshold tone level to suit your own requirements.

Discrimination Mode

Unlike the All-Metal mode, the T2 operates silently in Disc mode. The Sensitivity control allows you to make adjustments from 1 to 99. If any noise is heard whist there is no metal present it is advisable to lower the Sensitivity level.

The 'Number of Tones' setting allows a choice of tones, or audio discrimination, to allow the operator to try and identify the nature of any target detected. The instruction manual gives a comprehensive list of the tones available and how to use them. The list is far too long to include here.

Pinpoint Mode

The Pinpoint mode can be used in both All-Metal and Disc modes. This is

Fig.6. Trigger Switch for Pinpoint Mode and Ground Cancel.

Fig.7. Adjustable arm rest.

Fig.8. Starting off with the 11 inch coil on pastureland.

performed by simply pulling the toggle switch, or trigger, below the console when a target is detected. The trigger needs to be kept pulled during this operation, although continuous swinging of the search coil is not necessary. You can adjust the sensitivity of the pinpoint mode by pulling the trigger and turning the Sensitivity switch at the same time. The default setting is 60.

LCD Visual Display

At the top of the LCD display is the Numeric Target ID table, which is set in increments ranging from 0 to 99. An arrow moves along the display according to the type of metal detected. Below the arrow is a display of the range of metal types that could correspond with the value displayed above the arrow.

Target Depths

Target depth is indicated when the machine is in Pinpoint Mode. By pulling the trigger switch and holding the coil directly over the target the object depth is displayed on the screen as a series of numbers. These numbers give the target depth in inches.

To the right hand side of the LCD display are two bar graphs.

One of these is the Fe/Mineralisation range and the other is the Battery Condition Indicator.

In the Field

It was unfortunate that I got the T2 to test in June, when most of our available sites were under crop and a prolonged spell of hot dry weather left many areas difficult to detect on. The ground was both very dry and hard to dig, so unfavorable conditions for detecting. I was therefore limited to some pasture land and the outer edges of cropped fields. I was accompanied by my detecting colleague, Julian Evan-Hart, who helped by double-checking any signals located with the T2 with his own detector.

I began with the standard 11 inch elliptical coil using the All-Metal mode on grassland. My first task was to adjust the 'Hum Level', or threshold tone, to suit my own preferences; I don't like it to be very loud, where it can drown-out any weaker signals.

I also found the adjustable armrest a very useful addition, which I don't have the luxury of on my own detector (Fig.7).

Moving across an area of short grass (Fig.8) I soon had my first signal. Looking at the Numeric Target Indicator on the top of the LCD screen showed a reading of between 55 and 60. I almost began digging when I then thought to try the Pinpoint Mode. I pulled the trigger and gently moved the coil around over the target area. This also gave a depth indication of around 5 inches.

I stepped back and allowed Julian to check the signal with his own machine. His detector gave a similar reading. I dug the object out, which took some effort due to the dry conditions, and found it to be a broken dining fork, probably from the Georgian period (Fig.9).

I continued across the pasture using a methodical search pattern, where the grass was short enough to allow. It wasn't long before I had another signal; this one gave a similar reading to the last. I switched over to Disc Mode and tried again. The results were similar. Target depth read about 3 inches. This object turned out to be a brass naval tunic button, probably from the Victorian period

Fig.12. The Karma 13 inch coil (boxed).

Fig.9. Broken Georgian dining fork.

Fig.13. Digging the first target found with the 13 inch coil.

Fig.10. Naval tunic button.

Fig.11. Georgian keyhole cover.

(Fig.10). I switched over to the Disc Mode and continued searching.

Not having a threshold tone in this mode seemed slightly disconcerting. I found myself regularly checking the screen or sweeping my spade over the coil to make sure it was working. That aside, I soon got another signal.

The target indication read somewhere between 80 and 85. I assumed the target was probably some type of copper-alloy object. In Pinpoint Mode the depth reading was about 6 inches. I turned to sweep the target from another angle, which gave a much weaker signal. I guessed that the object wasn't laying flat in the ground.

When I dug the object out it turned out to be an old, broken Georgian keyhole cover (Fig.11). I laid it on the grass and carried out an in-air test. I was surprised to find that, considering the object's size, the machine couldn't seem to detect it above 8 inches, using both All-Metal and Disc modes.

At this point I decided to change over to one of the other search coils, which I had been supplied with. I took the 11 inch coil off and went to fit the 13 inch Karma coil, which I had brought along with me still packed in its box (Fig.12).

Here I hit a snag, as the coil's lead was coiled up and bound with a cable tie and I didn't have any method of cutting it. It was back to primitive basics. Julian picked up a piece of flaked flint from the field edge and passed it to me. With a quick sawing motion I managed to cut the cable tie and unwind the lead. With the larger coil now fitted I switched the T2 back on and carried on detecting.

Being wider than the last coil I began locating more targets, though many of them turned out to be trash signals from objects left by campers in years gone by: silver paper, pull-tabs and drink cans. I did eventually pick up a target with a much higher number value, again in the 75 to 80 range.

The depth reading gave about 7 inches and was consistent even when I swept the coil from another angle. I switched to Disc Mode and tried adjusting the Tones. As I made adjustments using the Selection switch. I found the best tone I heard was when I switched through the selections and came to 'CL' (Cache Locating), which is meant for locating larger targets at depth.

When I finally got to my knees and unearthed the object (Fig.13) I was surprised to find it was an old pre-decimal penny (Fig.14).

Moving on, I soon had another signal, though the target indicator was telling me that the object was ring-shaped with a reading indicating a probable pull-tab. I had a signal like this some months earlier using my own machine and dug it 'just to be sure' and found it to be a gold ring. So I decided to dig it to be on the safe side.

At first I thought the object was a pull-tab, but to my surprise it too turned out to be a ring (Fig.15). Disappointment soon followed, though, when I found it to be only a piece of junk jewellery. The T2 was accurate in that respect.

Despite being a larger coil, I didn't seem to locate any much deeper objects. But I put that down to poor soil conditions brought about by lack of any moisture in the ground. Julian and I

Fig.14. Pre-decimal penny found with the 13 inch coil.

Fig.15. Costume jewellery ring.

Fig.16. Working field edges with the 13 inch coil.

Fig.17. Roman bronze coins found with the 13 inch coil.

moved over into a neighbouring field, which had been planted with sugar beet, although this was sparse along the edges, with many large 'bald patches'.

This field had yielded finds from many periods, so we hoped to make a few decent finds, despite the limitations.

I got to work with the T2 and the 13 inch coil again (Fig.16).

The T2 wasted little time in picking up targets between the rows of sugar beet, and although most of these were shotgun caps some small Roman coins also came to light. None of these came up from any great depth, as it was mainly down to coil width that I was picking them up (Fig.17).

It was easy to get carried away using the larger coil but I remembered that I also had the tiny 5 inch round coil to test also. Frustratingly, though, I found that I'd left it at home.

I continued for a short while using the 13 inch coil but found little else on this patch of field. I made plans to return a day or so later with the 5 inch coil.

Two days later I returned to the site and made sure I had the 5 inch coil fitted (Fig.18) before I ventured out. Moving to the far side of the field, where we hadn't detected previously, I set off with the smaller coil.

These types of coils are more suited to nugget finding, or searching river banks. I struggled, initially, to find many signals with it and found myself having to increase the sensitivity levels in order to pick up any decent signals.

The advantage of this coil, though, was that I found it much easier to weed my way between the rows of sugar beet, which I couldn't do with the large coil. After a short while I managed to find two Georgian pewter buttons (Fig.19) and a medieval lead loom weight (Fig.20).

I found the 5 inch coil wasn't really suited to this type of site, so after an hour or so I switched back to the standard 11 inch coil and carried on along the field edge.

Despite the limitations of detectable areas, I managed to weed out a small medieval buckle and harness ring (Fig.21). A quick switch-over to the 13 inch coil brought up a nice, but broken, silver ring (Fig. 22), which was almost on the surface. Despite its old appearance, though, I checked the hallmark and found it only dated from around 1823 (Fig.23).

Conclusion

I was very impressed with the Teknetics T2. Its lightweight ergonomic design makes it an easy machine to use for a considerable length of time. Just having the two controls on the interface also makes it far easier to operate than many other top-of-the-range models currently on the market; and many detectorists prefer that kind of simplicity.

I couldn't say that the T2 has greater depth-seeking capabilities than other machines, and I'm putting this down to the poor detecting conditions I had to work on – very hard, dry, soil conditions. But I'm confident it performs as well as any other machine in the same price bracket.

I didn't find using the 13 inch coil gave any great advantage over the standard 11 inch coil, but I'm also putting this down to soil conditions not being favorable during the test.

The adjustable arm-rest is something I wished I had on my own machine, and many will find very useful.

Personally, I couldn't find any faults with the Teknetics T2 and I'm sure anyone who opts for this machine will be very pleased with it. TH

Fig.23. Image showing the 1823 hallmark.

Fig.22. Georgian silver ring found on the field edge.

Fig.18. The 5 inch DD coil.

Fig.21. Medieval buckle and harness ring found among the sugar beet.

Fig.20. Medieval loom weight found with the 5 inch coil.

Fig.19. Pewter buttons found with the 5 inch coil.