Field Test **Report**

Teknetics **Eurotek**

The Eurotek is a brand new metal detector designed for the European market by First Texas Products. It is a switch on and go metal detector. It has basic controls, variable sensitivity, discrimination and visual/tone ID (identification). The fascia has a simple, modern layout with touch pad controls. The build quality is, as you would expect from Teknetics, second to none. Everything fits together perfectly, and the detector is extremely light and incredibly handsome (Fig.1.). The colour scheme is nice too!

When switched on the screen provides the following information. To the left we have target depth in the form of three bars representing inches (but please note that the Eurotek is capable of reaching targets deeper than 3 inches). Central we have a digital numeric scale, this is used for target identification (I'll come back to this shortly) and on the right we have a battery strength indicator. The battery (a single 9 volt PP3) is housed in a small compartment behind the fascia (Fig.2.).

Pressing the menu button (lower centre) provides access to the sensitivity and discrimination settings. The sensitivity ranges from 1 to 10 and the discrimination from 0 to 80; other than that there are no other options to deal with. It really is as simple as that (Fig.3.). I couldn't wait to get started!

Before any metal detecting, however, there was the all important bench testing to do. I'd already formed a good idea of how the Eurotek works on my test bed, but I wanted to investigate how different metals made the machine react.

Taking a selection of finds into the garden with me (Fig.4.) together with a note book and pen, I placed the search coil clear of anything liable to cause interference and did the tests. The results confirmed what I'd already gathered (i.e. generally the higher the numeric readout is, the more desirable the target).

Fig.1. The Teknetics Eurotek.

Fig.2. Battery compartment.

Fig.3. Control panel.

Fig.4. Finds used for bench testing.

Some of the findings taken from the numerical readout	
A small iron nail:	32 (constant)
Copper clad penny:	40 (sometimes jumping to 83)
£2 coin:	80 (constant)
£1 coin:	78 (constant)
50p:	64 (constant)
20p:	60/1 (constant)
10p:	58 (constant)
5p:	55/6 (constant)
Large pre-decimal penny:	77 to 80 (varying)
A large hammered silver of Elizabeth I:	74 (constant)
Smaller hammered coins including cut halves:	50 to 65 (varying)
A silver thimble:	74/5 (constant)
Crotal bell:	64/83 (varying)
Jaws harp:	57 (constant)
Cartridge end:	56/7 (constant).
A small Roman brooch:	57 (constant)
A pull tab:	57 (constant)
A tiny gold St Christopher:	54 (constant)
A gold finger ring:	57/8 (constant)

Fig.5. Lyn detecting in the former park.

I took note of all of my findings, should I need them for reference later.

As I'd expected, the thin gold ring gave pretty much the same reading as the pull tab. However, I was surprised by it matching the brooch too. What we have to bare in mind here is that no matter what make or model of metal detector there is on the market today, only a few of them could possibly get around this. The fact of the matter is that there is, and always will be, a crossover point where different targets meet and give off the same signal.

Another aspect of the bench test was how the Eurotek reacted to the crotal bell. I noticed that sweeping the bell across the coil from various angles caused different reactions. This is because of the shape and size of the bell. I mention this because it tells me that the circuitry is not just investigating what kind of metal the target object is made of, but its shape too…very impressive and very important.

With all that out of the way, the important question was whether the detector would be any good in field. I couldn't wait to put the Eurotek through its paces. The trouble was that with the weather being so poor I didn't have much land to choose from. So rather than wait for the weather to improve, Lyn and I headed for a small area of a former park. Sadly, all the apparatus has been removed and it is only used nowadays by dog walkers. I guessed that there still should be plenty of targets to investigate (Fig.5.).

Grassland or pasture tests the merits of any metal detector. What I found with the Eurotek was that it proved to be no problem whatsoever. It is easily powerful enough to punch through and the grass and into the soil beneath – and for a machine of this price range, at reasonable depths.

As this was once the site of a park and is still in use today as a recreational area, I concentrated my efforts on coinshooting. I unearthed quite a few coins effortlessly (Fig.6.).

My search was made easy by the clever use of a specific sound ID. The Eurotek employs a varying tone identification system. However, certain coins give off a digital "chime" sound. Once this high tone comes through the headphones you can be pretty sure you are onto a coin. If I might make a brief aside

here, I recommend using volume adjustable headphones.

While locating the coins, which were mostly decimal copper pennies and tiny halfpennies, I decided to investigate other signals. I'd noticed earlier that some of the low tone signals were still providing a high numerical reading. This is where my bench testing came into use; and experience, of course. From these signals I unearthed several large pre-decimal pennies and halfpennies. The numeric reading was exactly the same as the bench test reading – again, very impressive. I state this because it means that the Eurotek was performing accurately and doing everything that I would expect it to do.

Referring back to my notes, the numerical reading for a pull tab was a constant 57, which was very close to some of the smaller decimal coins. The tone ID was pretty much the same too. Investigating these signals proved very interesting because after a few hours of careful searching, I was starting to notice slight variations in signal tone. Although I was occasionally fooled by older or complete ring pulls, I began to find the 5p, 10p and 20p pieces. Variations in the tone ID is something that will, with plenty of practice, become easier to listen out for.

My first impressions in the park were very encouraging. Everything worked well, the target response was fast, and depths obtained were reasonably good (between 4-6 inches). With sensitivity at maximum and with no discrimination the detector operated smoothly. However, with these maximum settings, interference from passing cars did sometimes cause the circuitry to throw a "brief tantrum".

With a short break in the normal cold weather forecast for the weekend, I gave some thought as to where best to further test the merits of the Eurotek. As mentioned above, the recovery speed of this machine is very fast; but how would it cope in a field highly contaminated with iron?

One of my favourite places to search is an area of pasture next to a 12th century church (Fig.7.). Just to the left of the entrance gate is where the stone masons must have operated from. It is virtually impossible to detect over, even with a top end metal detector, because large iron tools are everywhere, such as chisels and wedges once used to split and shape the stones (Fig.8.).

Concentrating my efforts there for a whole afternoon threw up some surprising results. With the discrimination

Fig.7. 12th century church. The area of pasture next to it is one of my favourite detecting places.

Fig.8. Large iron stonemason's tool.

Fig.6. Coins found in the park.

Fig.13. New kid on the block.

Fig.12. Hammered silver coin.

set at 50 and the sensitivity set at 7, I managed to get in between some of the iron and locate a fair few bits and pieces (Fig.9.). This is without doubt due to the clever combination of recovery speed, the 8 inch (7.81kHz) search coil, sheer determination, and one very capable metal detector.

Some of the finds were rather interesting, although I doubt if the masons were busy posting letters (Fig.10.). or entertaining Cubs for that matter (Fig.11.). The best of the finds for the day however, was a lovely silver hammered coin (Fig.12.), which came up from a digital constant of 51 (remember I'd set the discrimination to 50!).

Summary

Forgive me if my conclusion might seem a tad excessive. The Eurotek is undoubtedly a fantastic piece of kit, and one that performs excellently. Whether it does this better than the only other real contender in its league and price range (I won't name that contender) will have to remain subjective.

However, not only is the Eurotek capable, it's more than that. It is a machine that will stand you in good stead for your future in this hobby in a way that not many manufacturers have thought of. In an age where we are moving towards high specification digital machines, Teknetics are bringing us the beginner metal detector of the future (Fig.13.).

I'm not going to let First Texas get away with a glowing report completely, however. There are a few things I would like to see altered on this model. One is that the quarter inch headphone jack is mounted underneath the fascia housing. In my view this is never a good idea; it should be repositioned to the rear of the arm cup. Second is the length of the hand grip; it's rather short for a large hand such as mine, and I found it uncomfortable after a while. Apart from that there is nothing I would change about the Eurotek.

Specifications
- Turn on and go three button operation
- Motion discrimination mode
- Variable iron discrimination
- Fast, sensitive target response
- Adjustable sensitivity and discrimination
- Three segment depth indicator
- Two tone audio ID system
- 20cm concentric waterproof search coil
- 7.81kHz operating frequency
- 6.3mm (quarter inch) headphone jack

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Fig.9. Finds from near the field gate.

Fig.11. Cub Scout badge.

Fig.10. Letter box flap.