FIELD TEST

Minelab X-Terra 70

Spec sheet	
Operating modes	**Coin & Treasure:** Tone ID, Meter ID Motion with Threshold. **Prospecting:** VCO motion with Iron Mask & Threshold.
Frequency (coil dictates frequency)	3, 7.5 & 18.75 KHz
Standard Search coil	9" Concentric coil (7.5KHz)
Weight	1.3kg (2.9lbs)
Battery type/life	4 X 'AA' /approx 20hrs
Accessory search heads	9" Concentric 3KHz 9" Concentric 18.75KHz 10 x 5" Elliptical 'DD' 18.75KHz 10" DD 7.5KHz

When I tested the X-Terra 50 a couple of months ago I was impressed with its performance so when Minelab sent me the new flagship of the X-Terra range, the X-Terra 70 I was more than happy to put it through its paces. This was mainly because I wanted to see whether it performed any better than the 50 or whether it is the same machine with the odd extra whistle and bell added. I also requested that the new 18.75 KHz 'DD' or widescan, elliptical coil be sent as well as the standard coil as I felt many serious users would be interested in the higher frequency alternative.

Not long after arrival the '70' was assembled and ready to go. The stem and control box are exactly the same as the X-Terra 30 & 50 so it is the same lightweight (1.3kg 2.9lbs) chassis and the same build quality. The same 4xAA battery set up is also used. The stem colour is described in the manual as 'Dulux Notre Dame'- which is grey to you and me! (Minelab have even given the colour reference number -36672 so if you scratch the stem all you have to do is nip down to B&Q and buy a tin. 10/10 for attention to detail Minelab!) Seriously though the grey, sorry Notre Dame is an attractive and appealing colour finish.

After a short time playing with the various controls I realised this is a more advanced detector than I had initially assumed and although the basics were straight forward enough, my first part of the test needed to be make a cup of tea and read through the instruction manual. The manual explains every control clearly with both descriptions and diagrams and also goes some way to suggesting the conditions under which the various modes or setting are to be used.

Controls

All functions are accessed through the keypad and are conveniently positioned within easy reach of your thumb for convenience whilst in use.

The diagram (next page) is reproduced from the instruction manual to give Control layout and descriptions.

Uses

The X-Terra 70 has two main detecting modes; Coin & Treasure (C&T) mode and a Prospecting mode. It also accepts coils of three different frequencies – 3 KHz, 7.5 KHz (supplied as standard) and 18.75KHz making for a very versatile detector indeed.

The C&T mode is designed for general purpose use (and beach use when the beach Ground Balance is activated) and has meter and adjustable multi tone audio ID. The operator can select 1, 2, 3, 4 or 99 tones for true audio ID. Discrimination in this mode is in the form of 28 individual blocks along the bottom of the screen. Any one of the blocks can be accepted or rejected to suit your requirements. As with this, and any other detector, utilising this notch Discrimination system caution is advised so as not to reject wanted targets.

The Prospecting mode is a more specialised mode and although designed with gold prospecting in mind is useful for achieving greater depths and/or Sensitivity to smaller objects. It is also an advantage in areas of higher mineralization (pasture being a good example). In this mode there is no form ID, simply an audio signal to indicate an accepted target. Discrimination is of the more traditional accept/reject scale. The level of which is displayed together with a numeric counter.

The Prospecting mode takes a bit longer to master, but it's worth it, more on that later.

Air testing

For an initial air test the detector was used in factory presets except for the Sensitivity which was pushed up as high as possible whilst still remaining stable. This was done for both modes as Sensitivity is adjusted separately for each.

There is no point boring you with pointless air test results other than the depth difference in each mode.

	Pre decimal penny	Cut half (hammered silver)
Coin & Treasure	24cm	13cm
Prospecting	40cm	19cm

The Prospecting mode was considerably deeper although recovery speed is a little slower in this mode suggesting it would struggle on junky sites.

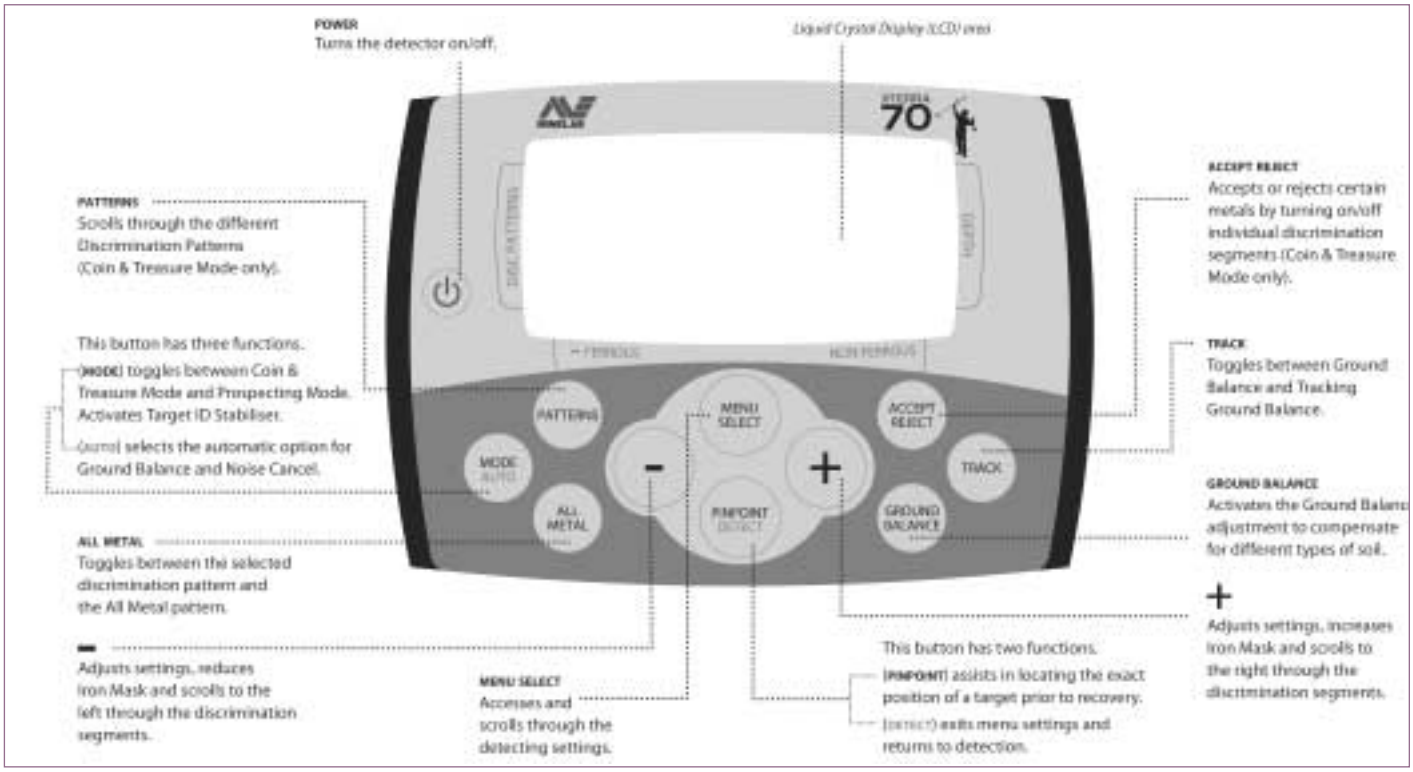

Illustration from the Instruction Manual with permission from Minelab

In the field

The first field was; you guessed it, the pasture field. This time though it was deliberate as I know what to expect in terms of finds and it would be a perfect place to compare the two detecting modes.

I began in the middle of the field with the Sensitivity at 25, and Discrimination set to reject from -8 to -2. There are three ways to Ground Balance; Auto, Manual or Track. Track is by far the easiest method, simply press Track and the detector will constantly track the ground. Manual Ground Balance will generally offer a slight depth improvement. To use this method press Ground Balance then raise and lower the coil from about 10cm to the ground and using the + and - buttons. Adjust until there is little or no change in the high and low tones. Auto is the same but is self adjusting as you raise and lower the coil.

Having three ways of Ground Balancing may seem a little complex or even unnecessary but in practice it is very simple and ensures any level of user can achieve satisfactory Ground Balancing.

With both modes set up I began detecting in the C&T mode. The Threshold remained stable apart from the odd, very fast null, a sweep or two in All Metal confirmed this was iron. Before long a crisp high tone was heard. This turned out to be two pre decimal pennies laid together from a depth of about 14cm. A little further on a lower tone and a reading of 18 produced a fragment of the aluminium alloy that litters this site.

I continued across the paddock for the next half an hour or so, digging various non ferrous bits and pieces of various sizes. Two things became apparent as I did this; Depth and Sensitivity are very good, impressive even. The second is that 'iron reject' is good but the odd bit did get through which I put down to the power that has been built into the detector. Although this was not a big problem as any iron signal was jumpy on the meter and the audio was crackly or 'woolly' where as a non ferrous sound, however faint, is solid and the meter locks on… give or take a number or two.

The next step was to try the X-terra 70 in Prospecting Mode. And boy is this mode a different animal! In this mode you are working with a VCO (Voltage Controlled Oscillator) whereby there is an increase in volume and pitch when a target is encountered. There is no form of ID, simply an audio signal for accepted targets and even then a slow sweep speed is required to allow the Discrimination (or Iron mask as it is referred to in Prospecting) to jump in (it takes a fraction of a second and does literally jump in). I found with larger bits of iron this was no problem but with smaller bits it could be fooled and these were identified by switching back to C&T.

Using the two modes back to back did prove successful. On a couple of occasions there was no signal on switching back to C&T and each time a deep non ferrous target was uncovered. One particular signal was interesting; a clear signal was encountered and the iron mask would not jump in no matter how I approached it. Assuming it to be a good signal I double checked C&T. There was the faintest of signals, so faint it would have missed it had I not already known of its presence. On digging, a copper alloy scoop was unearthed from a depth of about 15cm. This was positioned vertically in the soil and so did not provide a good surface area for the coil to 'see'. When you consider that the C&T mode is very good in its own right, the level of audio given by this object in the Prospecting mode was impressive to say the least.

I continued for the rest of the session in Prospecting but finding it useful to be able to refer back to C&T for reference, which at the push of one button is no problem. All target information in Prospecting has to be gleaned from the audio and this is where the learning curve lies. The more I used this mode the more I liked it and couldn't help feeling that with experience I could use this on all but the 'junkiest' of sites.

On arable land

Luckily an invitation to detect on some new land cropped up during my time with the 70 so it was a chance to get on some arable and pitch it against another detector.

It was rainy as I set out on my journey to meet my friend Dave, and about an hour later we were stood in the rain at the edge of a sodden sugar beet field deciding what to do next. The field was not our planned venue as the farmer had decided that the one we wanted was too wet to risk his seedlings and offered us this as an alternative. The field did not look very productive but we had a go anyway.

I had fitted the 18.75KHz DD coil and was soon scanning the field stepping carefully between the young beet shoots. The field did not seem to be particularly mineralised so I pushed up the sensitivity to 28 and used the C&T mode. Before long the first positive signal gave a reading of 12 on the meter. This turned out to be the percussion cap from a 12 bore cartridge. A few steps further and a small button was dug from about 9cm. From then on finds were few and far between for us both.

The finds from the suger beet field. The copper alloy object that eluded Dave's detector is bottom right.

With the rain coming down harder we both stayed at the lower end of the field close to our cars in case the rain should turn torrential. I worked my way steadily across the field for about half an hour and unearthed a steady stream of non ferrous items, the smallest of which was a little copper alloy 'blob.' At one point Dave was close enough to me to check a signal. This was rather faint and the meter was not really sure giving numbers from 15 to 19. To my amazement Dave's detector rejected the target. I dug and extracted a small piece of molten copper alloy from 10cm. I am not about to name Dave's Detector model as this was only one example and could have been a fluke but I can say its retail price is within a few pounds of the 70.

Shortly after we were both soaked through and called it a day. Neither of us had anything spectacular. My finds total though was 14 items and Dave had 8 so the 70 had proved itself (although find of the day was a 1904 halfpenny which fell to Dave!)

Summary

With detectors such as this that edge towards the top of the range, it is difficult to do them justice in a short field test. There are many features that cannot be covered because editorial space will not allow. Also because one needs more than a few hours of use to realise its full potential. I can say the X-Terra 70 is an excellent all round metal detector. It has the Sensitivity and Depth to satisfy the seasoned enthusiast searching for the elusive 'Sceat' or tiny hammered silver coins, particularly if the 18.75KHz elliptical coil is used, yet is suitably 'turn on and go' enough for a beginner to use and get to grips with. The Prospecting mode is not for the faint hearted and will take time to learn. If you are the impatient type, stick to the C&T mode. Those of you prepared to work with this alternative mode and master it, will need to buy a bigger finds pouch! It will only be the junky sites where difficulties will be encountered when using Prospecting.

I am enthusiastic about this detector and have negotiated that it stays with me for a while longer with a view to submitting a more Advanced test in the future.

TEST RESULTS

User Features – (Scores out of ten)	
Ergonomics (weight/balance)	8
Simplicity/user friendly	7
Build quality	9
Accessory search coil compatibility	9
Arable land use	9
Pasture land use	8
Park land use	8
Dry beach use	8
Wet salt beach use	7

SEARCHER RATING