

FIELD TEST



Fisher F75

Spec sheet

Operating Principal	VLF induction balance
Operating modes	Motion All Metal, Static All Metal & Discrimination
Frequency	13 KHz
Standard Search coil	Waterproof 11" (28cm) open-frame elliptical double-D
Weight	1.6kg (3.5lbs)
Battery type/life	4 x 'AA' /approx 30hrs
Accessory search heads	17cm elliptical double-D

Whenever a new metal detector comes on the market, I hope and pray it has some innovative feature that sets it apart from that preceding it. Thankfully, this machine, released to celebrate Fisher's 75 anniversary, hasn't disappointed me. When taking it out of the box it looked unlike any Fisher detector I had seen before... but those first impressions were deceptive. The single knob and button on the control panel implied that user input would be minimal, but in reality the menu interface was much more comprehensive and enabled control over a wealth of settings. One of the controls I recognised from previous Fisher models was the finger trigger switch, which now operated the Pinpoint system, frequency shifter and the 'Fast Grab' Ground Balancing.

Display

The LCD visual display (fig 1) on this machine is one of the best I have ever used. The upper half of the display is used for target analysis while detecting and the lower half is used for adjusting the settings. The most prominent reading displayed is the central 'target ID', where a numerical value is displayed for a detected target. At the same time a block corresponding to that number is displayed in the graphic meter running along the top of the screen. Below the meter are printed examples of metal objects; iron, foil, tab and some American coins. Iron for example, is indicated by a block to the left of this meter and by a number between 1 and 10 in the central target ID display.

To the left of the target display are the Depth and Confidence level meters (conf). The three bar Depth level gives an automatic estimated depth on a coin sized object to every detected signal. The bar range is calibrated at



Figure 1

0-4 inches, 4-8 inches and also deeper than eight inches. The six segment 'conf' meter tells you how sure the F75 is about the target ID number it has assigned to a detected target. You can also gauge how effective your search technique is and adjust the sweep speed to increase the 'conf' rating.

To the left of the target ID display are the Fe_3O_4 and battery level meters. The six bar Fe_3O_4 meter is a handy tool for discovering the mineralization of the ground, which can be a great indication of previous site habitation. To use, pump the head up and down to get an accurate reading. The more bars that are lit, the higher the level of mineralization (iron mineral magnetite). There is also a backlight to the visual display that is constantly illuminated. This was handy while out testing on the gloomy winter days of January. You would think this backlight would put an excessive strain on the batteries, but apparently not! A set of four AA batteries allowed me to detect for over 28 hours.

Search modes

The F75 has three search modes; All Metal Motion, All Metal Stat (static) and Discrimination.

All Metal Motion search mode is one of the most pleasurable ways of using the F75. The adjustable Threshold ensures that signal responses from metal targets are smooth, thus rising above the base Threshold level. As the name suggests this is an All Metal detecting mode and gives audible responses to All Metal. However, you can use the visual display for target Discrimination, although I found deeper fainter signals were harder to identify. In my experience this mode was the best to use when there were lots of ground mineralization changes and where there weren't excessive amounts of iron.

All Metal Stat is a specialist mode for finding large deep metal objects that would normally be discriminated out with a motion detector. This is not a mode you would use every day, but is great to have in your armoury.

You never know when you might stumble across a scatter of surface coins, and this mode could help you find the pot they came from.

Discrimination Mode is probably the best to use in most situations. This mode is however a lot noisier than the All Metal Motion mode, so in some situations I found I had to lower the F75's Sensitivity considerably. What I liked about this mode was the F75 seemed to have two separate Discrimination systems, Audio and Visual Discrimination working independently of each other. When I received an 'iffy' audible signal, the visual display would often disagree, giving me a solid mid range target number. At other times I would have a sweet shallow non-ferrous audible response only to have the meter tell me it was shallow iron. This is the first time I've ever used a detector that did this, and for me was the moment I realised that the F75 was just a little bit special!

Process numbers

Another innovation is the ability of easily changing the Audio Discrimination characteristics. This is done by choosing the best of four 'Process Numbers' to your search conditions and personal preferences.

dE (default) was my favourite process. I found the signals from small Roman coins a little smoother than the other modes and Discrimination levels of 1-4 best to use with this process. Higher levels reduced the depth capabilities of the machine.

JE (Jewellery) process was by far the sensitive, giving crisper sharper responses to small shallow targets. Being the most sensitive also makes it potentially the noisiest, so I only used this setting on my quieter sites. JE is the only one of the processes not to seriously impact on Depth when higher Discrimination levels were used.

bc (Bottle cap) is a useful mode if you want to discriminate out steel crown caps but this is not the mode to use if Depth and Sensitivity are paramount.

PF (Ploughed field) was the deepest process of all while testing and ideal for most normal pasture and arable fields. It can also be used effectively on Roman sites but I found the signal from small Roman coins not as smooth as the dE process. Like the dE process Discrimination levels of 1-4 are best.

Discrimination

The F75 has two controls that operate Discrimination, the 'Discrimination' and 'Notch' menu controls. Also your choice of process control will affect the overall performance when adjusting the Discrimination. Of all the settings the F75 offers you to adjust, the Discrimination control is the one that can impact its performance the greatest. Get it just slightly wrong and you can lose up to 25% of its Depth capability. Now that sounds pretty scary and implies that fine-tuning is needed, but that's not the case! The Discrimination control gives you the ability to discriminate metal from 0 to 65 (iron through to copper). But if you select any level higher than 4 using any process control other than JE (Jewellery), you will turn one of the deepest detectors on the market into something very ordinary.

On most sites I found I could run the Discrimination at 0 and because I was using the two tone (2F), all iron was heard as low growls. Any positive signals were easy to distinguish from iron as their tones were higher and smoother. Even 'iffy' multi-tone signals could be easily sussed by just glimpsing at the visual display. The only time I needed to turn up the Discrimination level to 4 was to remove some atmospheric/electromagnetic interference when detecting on the top of a hill. So as a general rule; run the Discrimination setting between 0 and 4, never turn it to 5 or above unless you are willing to reduce the depth capabilities of the F75.

Notch

Notch Discrimination on most metal detectors is used to remove (or accept) specific objects within the detection range (e.g. pull rings). The notch Discrimination on the F75 reverses the settings set in the Discrimination level. So if you wanted to discriminate out just pull-rings and detect everything else, you would set the Discrimination level to '0' and then 'notch out' the 46 - 55 range. You can also

notch accept with this machine. This is handy for instance, if you are detecting a car boot field for £1 coins. Turn the Discrimination control to 65 to discriminate all metal and then 'notch in' 62 to reverse the Discrimination and detect £1 coins. You will now have a detector set up to find mainly pound coins.

I personally never use notch Discrimination here in the UK as there are too many desirable finds sharing the same signal characteristics as junk. It's better to dig a few ring pulls with the chance of finding a gold ring.

Tones

The F75 can be set-up to give up to four audible tones for different metal groups. If you select one tone you will be relying solely on the visual display for target identification as all metal will sound the same (not recommended). There are eight different settings giving you many choices for different situations.

I tried all tone variations before settling on 2F and as I said previously I liked the way the F75 gave low rough growls for iron, and smoother higher tone signals for everything else. I also found that any atmospheric interference and ground falsing was easier to ignore in 2F. Three and four tone settings gave better target tone separation but false signals falsing gave high pitch responses, which was very annoying.

Ground balance

All the best single frequency detectors I've used have had the ability to set the Ground Balance and the F75 has two ways to achieve this. You can push the finger trigger forward actuating 'Fastgrab' Ground Balancing, then pump the detector head up and down until the ground number is displayed in the visual display - or you can achieve Ground Balance using the 'Manual GB' setting via one of the All Metal modes. I found the first method more than adequate and the different numeric values given for each of my test sites were very interesting to compare.

Frequency shifting

While testing the F75 I didn't have any problems with interference when with friends using other detectors. If I had I could've used the F75's frequency shifter. To operate you simply push the trigger forward and press the button to scroll to the next frequency option. There are seven options, marked F1 to F7.

Over head electrical power lines were a problem and couldn't be quietened with the frequency shifter. I found the only way to quieten the detector in these situations was to drop the sensitivity level down to 60 or below.

Preferred settings

While testing all the modes and processes, I finally settled on the following settings:

- Sensitivity 70 - Tweaking higher if site allowed or lower if there is lots of falsing.
- Disc level 0 - Tuning it up to 4 if noise was a problem
- Notch 1 - no segments selected.
- Tones 2F
- Processes dE

In the field

The first site I visited was a previously undetected new farm. The object of this days detecting was to visit all the fields and evaluate their potential and the F75 was ideal for this purpose as it was light and fast to use. Most of the fields were soon dismissed though and soon my detecting buddy and I found ourselves on the same land overlooking the farm. We were soon both digging post medieval finds, comparing both detector signals before digging. I quickly realised that the F75 was going deeper than my buddy's detector, and the visual target identification was giving me a better idea of what was in the ground.



Coils tested



Some of the 60 coins found

Roman Site Using a Small Coil

I was also asked to test the optional 17 x 8.5cm elliptical coil. This little white coil seemed oddly traditional in design when compared to the unique looking standard head. It was obvious that it was going to be a bit of a specialist option. I took it straight to my best Roman site, ploughed last September already been detected on for four months with various makes of machine. It was going to be a real struggle for the F75 to find anything missed by the other detectors, but find it did. In just four hours, and fitted with the tiny white coil found 27 small Roman bronze coins, a hammered cut quarter penny and even a pair of Roman tweezers. This was a lot better than I expected! The following weekend I returned to an area where older Roman coins had been found. This area was particularly bad with high mineralization and tons of small iron. Again the F75 managed to pull out the Roman coins missed by other detector. After a two day search I had found over 60 coins dating from the 1st to 4th century, including five silver Roman coins.



Roman tweezers



Five silver Romans

Conclusion

Some of the controls are a bit quirky, not controlling what I expected them to. But when it came to performance and finds rate, the F75 didn't disappoint. It is light and easy to use and I found I could swing it for hours and not get tired. The visual display is clear and easy to understand, and the menu system simple to navigate. This is a very sensitive and deep detector with a fast recovery rate which will enable it to pull out the goodies in amongst the iron. The various search modes, processes and controls allows users to deal with most sites and environmental conditions.

Yes, I think this is a great detector and my only annoyance that couldn't be worked around was that the detector would fall on its side when placed on uneven ground. So it could have benefited from having a wider stand.

Search Ed

TEST RESULTS	User Features – (Scores out of ten based on price category)	
	Ergonomics (weight/balance)	9
	Simplicity/user friendly	8
	Build quality	7
	Weather resistance	9
	Discrimination performance	9
	Overall detection performance	8
	Value for money (£599)	8
SEARCHER RATING		