

field test

C-Scope CS5MX

The CS5MX is the latest addition to the C-Scope range, only having been released in autumn 1994. It is basically a follow-on from their popular CS2MX model, but has a number of additional features. These include C-Scope's new 10 inch 'polo' coil, improved balance, increased depth, and better ground coverage. Like the CS2MX, the CS5MX is a twin-discrimination channel detector working on the 'motion' principle.

Description

In appearance the CS5MX resembles other detectors in the C-Scope range (such as the CS4ZX) apart from one important exception ... it has the new C-Scope 10 inch 'polo' coil fitted as standard. Besides providing increased depth and better ground coverage this new, larger coil is also of more lightweight construction thus giving the detector better balance and handling characteristics.

The CS5MX is of the modern 'S'-shape with a cranked stem and built-in armrest. The main controls and electronics are housed in a compact box above the hand-grip. A further box, situated under the arm-rest, houses the battery compartment, speaker, and two jackplug sockets (one for headphones, one for on-board charging).

Like other mid and top-range detectors made by C-Scope, considerable attention has been paid to weatherproofing on this model. For example, 'O' rings are used on the controls and battery compartment lid, the two jackplug sockets have protective plastic plugs, and the speaker is of the Mylar waterproof cone type.

Controls

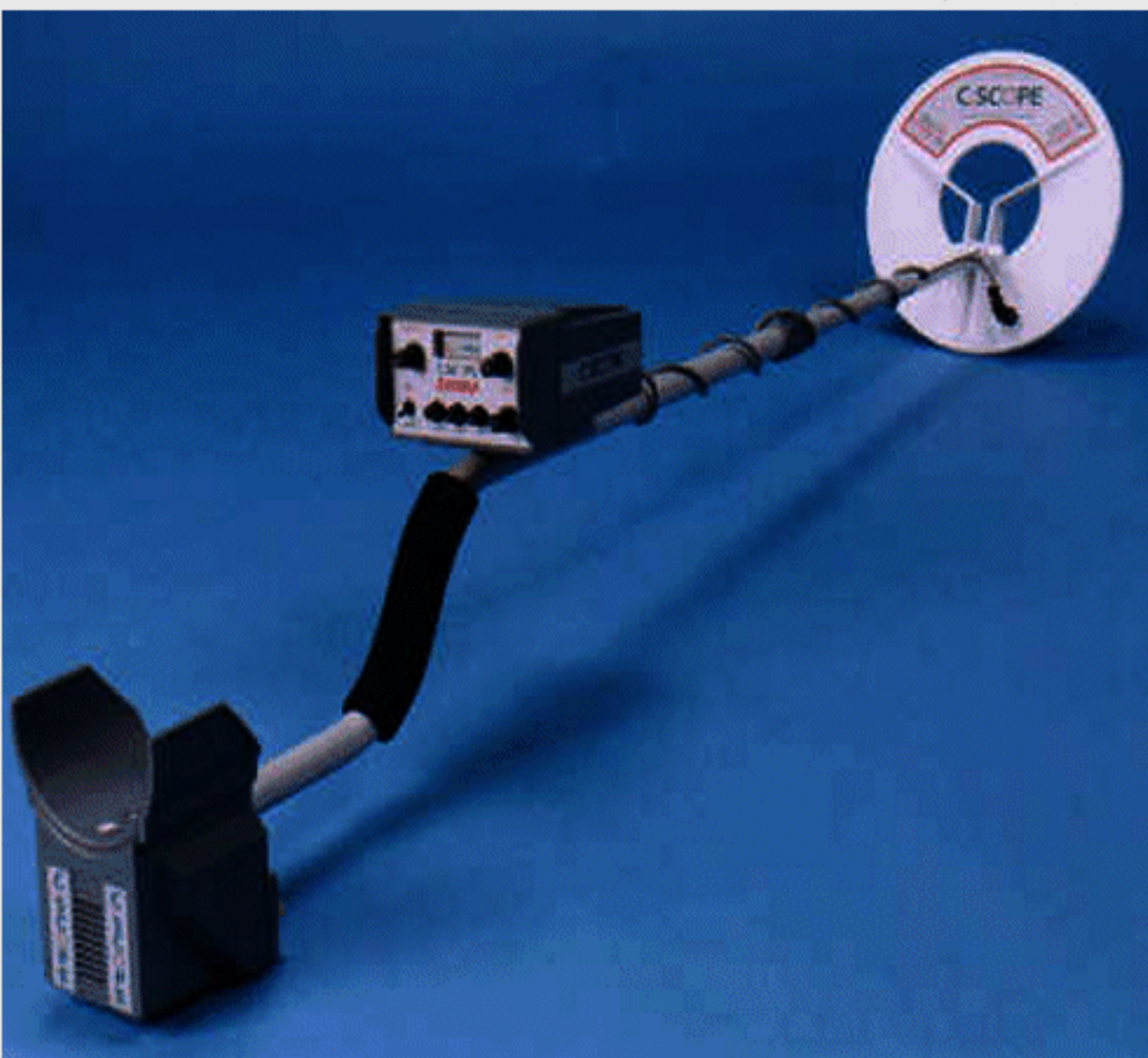
The CS5MX has seven main controls. These are as follows:-

On-off/Sensitivity: Switches the detector on, and allows the setting of its sensitivity to metal.

Disc 1: Variable discrimination control. When clicked 'off' in its fully anti-clockwise position, this control also allows selection of the 'all-metal' mode.

Disc 2: Second variable discrimination channel.

Pinpoint: Push-button control which, when



held in, allows more precise location of metal items in the ground.

Disc 2 Select: Push-button control which, when held in, brings the second discrimination channel into play.

Boost: A two-position switch giving choice of 'Hi/Normal'. The 'Hi' (boost) position gives increased sensitivity to deep objects where ground conditions allow it to be used.

Battery Check: Push-button control which, when operated, shows the condition of the detector's batteries.

In addition to the above controls the CS5MX has a small meter that shows signal intensity, and also gives a visual indication of battery condition.

Use of Controls

Despite its seven controls, the CS5MX is a very easy machine to set up and use. A 'fast start up' procedure for beginners or anyone not used to motion detectors

would be as follows: 1. Switch on and turn the sensitivity clockwise until a faint tone is heard; 2. Set Boost switch to 'Normal' position; and 3. Adjust Disc 1 to position '5'. It will now be possible to use the detector and make finds without having to make any further adjustments to the other controls.

Once you have gained familiarity with the detector adjusted to these settings, the other controls can be brought into play.

As the CS5MX is a motion detector, this means that some movement of the search head is necessary for it to register metal. However, such movement need not be very fast.

The use of the battery check button is fairly self-evident. When the detector is first switched on, this button is pushed in and held down. The needle of the meter will swing right to indicate battery condition. If the batteries are usable, the needle

The field was not as barren as I feared it might be and did produce a reasonable scatter of 18th and 19th century copper coins, buttons, and buckles (plus the usual scrap non-ferrous). However, there was no evidence of earlier use either in the detector finds or surface indications (pot shards etc). In terms of depth performance, the deepest Georgian penny recovered was about 9 inches, while halfpennies were coming up at around 7-8 inches.

One area seemed to show a small concentration of coin finds, and when I had thoroughly searched this in normal mode, I switched to boost and went over it again. This produced three deep coins I had missed the first time.

Generally, the CS5MX seemed quite at home on this type of site. With boost switched on, the detector can be a little noisy where iron or mineralisation levels are high. My personal approach would therefore be to search in normal mode first and then go over the most productive areas with boost selected. But each to his own.

While good iron reject capabilities are a must, there are times when it is useful to be able to detect iron. This is why C-Scopes have provided an 'all-metal' search mode on the CS5MX. With quite a few of the new generation of motion detectors it is possible to search an entire field with virtually no indication of its iron content, apart from the odd 'splutter'. Whilst this is good in one way, it is often the most iron-infested areas of a field that have seen the greatest activity and are most likely to be productive of finds.

On a very 'quiet' field it could therefore be an idea to search in 'all-metal' (without digging any signals) to purposely attempt to find a concentration of nails or other ferrous items. When such an area is found, and its extent noted, the detector can then be switched back to discrimination for a proper search to be carried out.

Another use for the 'all-metal' mode is to purposely clear a productive area of all the iron in the ground. When a detector is rejecting iron, non-ferrous wanted targets can be 'masked out'. The CS5MX is quite good in its abilities in this respect. In some tests I carried out, it will actually still register a 2p or an old large-type 10p that is actually touching a 3 inch iron nail. However, if a hammered coin is touching the same nail then the signal is lost (although a hammered penny will still register close to small nails). Also, the larger the piece of iron the more area around it (above, below and to the sides) that it will mask out.

So, when an area has produced a few nice hammered coins or similar it could be



worth the trouble - if you have the time and patience - of taking out any pieces of iron that could be masking good finds.

The second test area chosen for the CS5MX was a common that has seen activity at least as far back as early Victorian times. Here junk contamination is something of a problem and higher levels of discrimination are required than on farmland.

To start off, I set Disc 1 to '3' and Disc 2 to '5'; I also reduced the sensitivity slightly from the level I was using on farmland.

These settings generally worked quite well. Using a low level of discrimination such as '3' gave good target pick-up, and it was easy enough to check anything doubtful in Disc 2. Some areas, however, were literally carpeted with silver paper and on these patches it was necessary to increase Disc 1 to '5' and Disc 2 to '8'.

Once again the CS5MX seemed happy enough on the conditions of this site, and accurately identified most of the junk. An afternoon's searching produced a few dozen coins (mostly decimal but with a few pre-decimal coming up), an army cap badge, two enamel badges, plenty of fired .303 rifle blanks, and several items of 'costume' jewellery. This may not seem a great amount of finds for a 'coinshooting' site, but it must be stated that this common has been searched for many years by local detectorists.

Summary

The CS5MX is an interesting new detector from C-Scope with good depth (especially where boost can be used) and excellent iron rejection. Its seven controls and twin-channel discrimination give it the versatility to be used effectively on a range of sites, while its set-up is simple enough for a beginner to quickly master.

The signal intensity meter was a little small, but something of a bonus anyway as the audio tells you all you need to know. I liked the new 10 inch 'polo' coil, provided as standard, and think the CS5MX good value for money at £399.00.

TECHNICAL SPECIFICATIONS

Model: CS5MX

Type: Motion, twin-channel discrimination

Manufacturer: C-Scope International Ltd, Kingsnorth Technology Park, Wotton Road, Ashford, Kent TN23 2LN (tel: 0233-629181).

Price: £399.00 (inc VAT).

Batteries: 8 x AA

Battery Life: Up to 40 hours (alkalines)

Search Coil: 10 inch, concentric, "polo"

Frequency: 12 kHz

Factory Accessories: Rechargeable nicad kit, headphones, carry bags, etc.

Guarantee: Two years (first year parts and labour, second year parts only).

will fall within the green section on the meter. If the needle registers below this section, the batteries will need changing.

To operate the pinpoint feature simply push in and hold down the button with your thumb. When you next sweep over the target, the signal will now appear as a sharp and clearly defined 'blip'. During field testing I did not personally find it necessary to use the feature, as this detector's pinpointing is quite good in the normal search mode. However, this facility could be useful when trying to locate very small targets or when searching areas such as lawns or parks where minimal disturbance is required.

For general searching, the boost switch should be set to the 'Normal' position. When increased sensitivity to deep objects is required, and where conditions allow (eg plough or pasture land with reasonably neutral soil conditions) then the 'Hi' setting can be brought into play. Should false signals result from this (as a result of high soil mineralisation or the presence of small nails/iron fragments) the detector should be switched back to the normal mode.

The dual channel discrimination feature is also easy to understand. Basically Disc 1 represents the search mode, while Disc 2 can be brought into play (set to a higher discrimination level) by pushing the 'Disc 2 select button' to check targets ... if and when required.

Turned fully anti-clockwise until it clicks, the Disc 1 control also allows the detector to be put into its all-metal mode. This is useful when searching salt-wet beaches, or where the site is ancient/productive enough to make the recovery of every target worthwhile (including pieces of iron).

The level setting of the two discrimination controls calls for experimentation on the sites where you are using this detector. However, as with any detector, the minimum level of discrimination should be used to suit the site. If too much discrimination is used, loss of depth and loss of sensitivity to wanted targets will result.

The settings that I would personally use would be as follows:-

Farmland: Disc 1 '1' (which will reject most iron); Disc 2 '3' (to check any targets that give a broken or 'iffy' signal in Disc 1).
Salt Wet Sand: Disc 1 'all-metal'; Disc 2 '3'. (If the detector gives false signals in these settings, it may be necessary to also reduce sensitivity).

Parks and Commons: Disc 1 '3'; Disc 2 '5'. Where reasonable amounts of junk are present.

Ring-Pull Contaminated Areas: Disc 1 '8'; Disc 2 not used. Such high levels of



discrimination as '8' should only be employed where there are literally hundreds of ring-pulls, and it would be impossible to search at any lower settings.

Bench Test Results

Most manufacturers recommend that you carry out some bench tests with a new detector before taking it out for the first time. This allows you to gain a familiarity with the controls, and acquire a reasonable idea of which targets are accepted or rejected at certain settings.

Following up this advice, I carried out some experiments with the CS5MX using headphones with an extension lead (a great help for this task!). Settings can vary slightly from detector to detector - even when of the same make and model - but the following are the results of my experiments with the test machine.

In general terms regarding discrimination levels, silver paper was rejected at '5'; most ring pulls were fully rejected at '8', although some knocked-out at the lower setting of '7'.

With discrimination set to minimum, the detector still showed good iron rejection capabilities. It effortlessly ignored a 3 inch iron nail, and when I tried a full-size pair of iron pliers it also rejected these at minimum setting.

Earlier I suggested '3' as the search mode setting for commons, parks etc. This is because although the CS5MX will comfortably take out iron at lower settings, at '3' it will also reject some small fragments of silver paper. However, it should be noted that silver paper is not fully rejected until position '5'.

The following are the in-air depths obtained with the test machine. Sensitivity was not set to full, but just where a faint threshold tone could be heard.

All Metal

Edward I silver penny: 5 ins (7.5 ins with boost)

New small 5p: 7.5 ins (8 ins with boost)

2p: 10.5 ins (11 ins with boost)

Old 10p: 11 ins (12 ins with boost)

Minimum Discrimination

Edward I silver penny: 5.5 ins (7.5 ins with boost)

New small 5p: 7 ins (8 ins with boost)

2p: 10 ins (10.5 ins with boost)

Old 10p: 10.5 ins (12 ins with boost)

Set to '3' on Disc 1

Edward I silver penny: 5 ins (7 ins with boost)

New small 5p: 6 ins (7.5 ins with boost)

2p: 9 ins (9.5 ins with boost)

Old 10p: 9.5 ins (11 ins with boost)

Field Appraisal

The CS5MX is a light and comfortable machine to use. I certainly liked the new 10 inch 'polo' coil which gave good ground coverage, while still retaining all the sensitivity of the previous standard 8 inch coil to small targets. I also find that the open style of loop helps with pinpointing, as you can see and memorise the spot of ground where the target signal is strongest.

The first site on which I tried the detector was a small set-aside field which had not been ploughed since its last crop. This was a new site that I had not searched before, and I was only attempting it now as it was the only farmland available. From its location, which was somewhat remote from habitation, I did not expect much in the way of finds.

Apart from the large near-surface large pieces of iron, I found the CS5MX to be very good in its iron-rejection capabilities, even when discrimination was set at minimum. It did give the odd 'spit' or 'splutter' on those odd-shaped pieces of iron that you sometimes get (rusty bolts, nodules etc), but any motion machine is the same on these. Generally, there were very few occasions when I had any difficulty in deciding whether a target was ferrous or non-ferrous.