

# field test

## C-SCOPE CS2MX Mk II

The detector tested here is the new CS2MX (MkII) introduced around July of this year. It is instantly distinguishable from the original CS2MX in that the speaker, headphone socket, and battery compartment — rather than being situated in the main control box — are now in a separate box situated under the arm rest. It also differs in performance from the previous version, in that it has a faster response speed and greater depth.

As the 'M' in the CS2MX implies, this is a 'motion' detector. Most readers will by now be familiar with this term but for any beginners reading this report, the motion system allows a detector to cancel out ground mineralisation (which can cause cut-back on depth) while at the same time discriminating against junk. To do this the search head must be kept moving to register a signal but with most modern motion detectors, including the CS2MX, this movement (or 'motion') can be quite slow.

### Control Functions

The CS2MX has five user-variable controls in addition to headphones jackplug and charging sockets. Control functions are as follows:

**On-Off, Sensitivity:** Turning this control clockwise switches the detector on. When this action is first carried out an audio tone is heard which is the battery check. A clear, sharp signal means that the batteries are working properly; a weak, broken or non-existent signal means that the batteries should be replaced. The first two-thirds of this control are marked in white, the last third in red. The CS2MX is a silent operating machine but if the control is rotated into the red section a faint threshold tone will be heard.

**Disc 1:** With this control in the clicked off position (fully counter clockwise) the CS2MX detects all metals. If this control is rotated clockwise past the switch position it brings in fully variable discrimination. At the lowest settings most iron objects are ignored, at higher settings silver paper, ring pulls, and bottle screw caps can be rejected.

**Disc 2:** This is also a fully variable discrimination control similar to Disc 1. This is usually set at a higher level



than Disc 1, and is brought into operation by pressing and holding down the 'Disc 2 Push Select Button'. The purpose of this 'dual channel discrimination' is to give the user more information on a target and thus enable a decision to be made as to whether the target should be dug or ignored.

**Disc 2 Push Select Button:** When pressed in and held down, this control places the CS2MX into Disc 2, its second discrimination channel.

**Pinpoint Push Select Button:** This control, if pushed and held in, places

the detector into an all-metal, non-motion mode to aid easy pinpointing.

### Description

The CS2MX is of the 'S'-shaped design now adopted by most manufacturers, and has a built-in arm rest. It is both light in weight and comfortable to use.

In their advertising material C-Scope state that they took advice from enthusiasts as to the features that should be incorporated into the new CS2MX; they appear to have followed the advice.

Amongst other improvements the new detector has an eight AA cell battery pack (rather than the previous 2 x PP3); a battery compartment sealed from water by neoprene gaskets; socket protection covers for both headphone socket and charging socket; and a waterproof Mylar cone loudspeaker.

The detector also shows improvements in electronics having a very fast response speed, a sharp audio tone, and better depth.

### Bench Tests

As with any detector, discrimination on the CS2MX should be set as low as the conditions of the site allow. Too high settings will result in loss of depth and wanted items being rejected along with the junk. In its favour, the CS2MX has two discrimination channels which serve to give the user almost instant extra information to enable a decision to be made as to whether to dig or leave a target.

If you have purchased any new detector, bench testing is recommended to gain an idea of the settings on the discrimination control where wanted targets or junk are accepted or rejected, and to gain a familiarity with the actual sound of signal that various metals give. For example, at low discrimination settings on some detectors it is possible to recognise the larger pieces of iron from the 'broken' or 'fuzzy' signal they give.

On the test machine the following results were achieved. The depths stated are in-air but represent a clear, easily recognisable signal. A fainter signal continued on to greater depth, but this might have been missed in actual search conditions.

## FIELD TEST

With Disc 1 set to 'all metal' and sensitivity at full: 1p — 8 ins; 2p — 9 ins; small 5p — 7.5 ins; large 10p — 10 ins; £1 coin — 9 ins; small silver ring — 8 ins; and medieval hammered silver penny — 6.5 ins.

With Disc 1 set to '4' the detector was rejecting silver paper and most iron. At certain depths a 3 inch iron nail did register, but with a clipped and faint signal easily recognised as iron. Results in this setting were: 1p — 6.5 ins; 2p — 7.5 ins; small 5p — 6.5 ins; large 10p — 8 ins; £1 coin — 8 ins; small silver ring — 7 ins; and medieval hammered silver penny — 5.5 ins.

For older sites or farmland, setting '4' is the highest discrimination I would personally use to avoid rejecting such things as hammered silver coins. Position '5' is marked in red and this is the highest setting that the handbook recommends, apart from searches of coinshooting sites for modern coins. At setting '5' hammered silver pennies are rejected (although the larger hammered denominations still give a signal). As stated, therefore, I would use Disc 1 set to no higher than '4', and in most instances lower than this.

With Disc 1 set to '7' (the position on the test machine where ring pulls are rejected) results were: 1p — 8 ins; 2p — rejected; small 5p — rejected; large 10p — rejected; £1 coin — 6.5 ins; silver ring — 6 ins; hammered silver penny — rejected.

### Dual Channel Discrimination

The CS2MX is a detector that could be used immediately by a beginner. All that would be necessary in the way of control adjustment would be: turn on and rotate sensitivity control to maximum white band setting, and set Disc 1 to '4'. As a motion detector the 2MX keeps itself automatically tuned to threshold, there is no meter to worry about, and ground adjustment is also automatic. The detector,



if set as mentioned, could be picked up and used by a beginner to good effect, without any further adjustment of the controls.

The other controls are also not particularly complicated to set up. However, if there is an area when user skill and experience comes in, it is in the balancing of the settings of Disc 1 and Disc 2.

The handbook, whilst giving warning that wanted items could be lost at higher discrimination settings and that minimum possible discrimination should always be used, suggests the following settings:—

Disc 1 '0', Disc 2 '0' (not employed): These settings allow all-metal searching and would be used on, for example, an ancient site where the nails and other iron items become wanted

finds. Another application would be where exceptional items have been found and the user intends to dig even a signal. This mode can also be used to find the most promising areas or areas etc. for the presence of large amounts of iron can often indicate habitation and the possibility of good non-ferrous finds. Disc 1 would be used as the primary and only search mode, and there would be no need to consult Disc 2 to check targets.

Disc 1 '5', Disc 2 '0' (not employed): For general searching where all signals that register at the '5' setting would be dug. Once again, using the detector in this way there would be no need to consult Disc 2. Personally, I would suggest a setting of '4' as maximum if searching in this way.

Disc 1 '5', Disc 2 '7': To analyse for possible ring pulls when coinshooting.

Disc 1 '5', Disc 2 '10': Used when searching for modern currency (eg £1 coins) in highly screw cap contaminated areas such as picnic sites.

Disc 1 '7', Disc 2 '0' (not employed): Used for beaches or picnic areas that are highly ring pull contaminated.

Disc 1 '10', Disc 2 '0' (not employed): Used for beaches or picnic areas that are highly screw cap contaminated.

### Field Appraisal

Have you ever had that experience when somebody you are detecting with gets a signal and asks you to check it for them? When you do this, your detector gives a clear positive indication and the target turns out to



be something good. You then kick yourself because you have already searched that patch and missed the find.

Such situations result when you are searching in company with somebody else. If you are searching alone, who knows what you are missing?

The reasons for this happening are either haphazard searching, or simply that too much discrimination is being used. And this leads back to the dual-channel system of the CS2MX.

If too much discrimination is used then depth is lost and targets that are difficult or of low grade metal (such as lead or pewter) are rejected or just not heard. With a detector set to low discrimination, however, it is working at maximum performance and is far more likely to register the weak or dif-

ficult signals. In some cases these signals can be 'iffy' but it is far easier to analyse a target once you know its exact location (similar to when somebody else has already located a target, and you are checking it out).

Once you have the exact location of a target you can bring the search head closer to the ground, scuff away leaves or surface soil, approach the target from a different direction or employ any of the other techniques that help in analysing an 'iffy' signal. One of the best ways of doing this is to increase the discrimination level for a brief interval, and this is where 'dual channel discrimination' comes into play.

The CS2MX was tested on both a farm field and a coinshooting site. On farmland I set Disc 1 at '2' and Disc 2 at

'4'. The Disc 1 primary search channel setting enabled most of the smaller iron to be ignored whilst giving good performance. Some of the targets picked up on Disc 1 and checked on Disc 2, gave an indication of iron and proved to be large nails etc (I dug a few to confirm). There was also some 'chatter' and broken signals from other iron, but this was to be expected at the low discrimination setting. To make up for this the detector was giving good depth and performance and during testing found, amongst other objects, a George III farthing at a measured in-ground depth of 7 inches.

The detector was equally at home on the coinshooting site, and pulled up a great many coins without too much junk. The settings I used here were Disc 1 '3', Disc 2 just under '5', Sensitivity I reduced to three-quarters as the targets on this modern site were not buried particularly deep. Although the detector does have a pinpoint facility I found that I had no trouble accurately locating targets in the normal motion mode.

### Summary

The new CS2MX is not only a greatly uprated machine compared to the Mkl but is cheaper too (the Mkl retailed at £349.50). During field testing I was impressed at both the depth it was pulling up targets and its fast response speed. It is a detector suitable either for beginner or advanced enthusiast and in view of its top-range performance, the new CS2MX represents good value for money.

### Accessories

At present the following factory accessories are available for the CS2MX: coil cover RRP £4.50; rechargeable batteries, charger and leads for on-board charging RRP £39.95; and new-style good quality carrybag £19.95.

One very useful accessory for farmland searching, but not yet available for this detector would be a larger accessory coil, such as a 12 or 14 inch. How about it C-Scopes? I believe the demand is certainly there amongst users.

### Specifications

Model: CS2MX (new style post July 1992)

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

Recommended Retail Price: £299.90

Batteries: eight AA Search Head : 8 inch Frequency: 12kHz

Weight: 4 lbs

