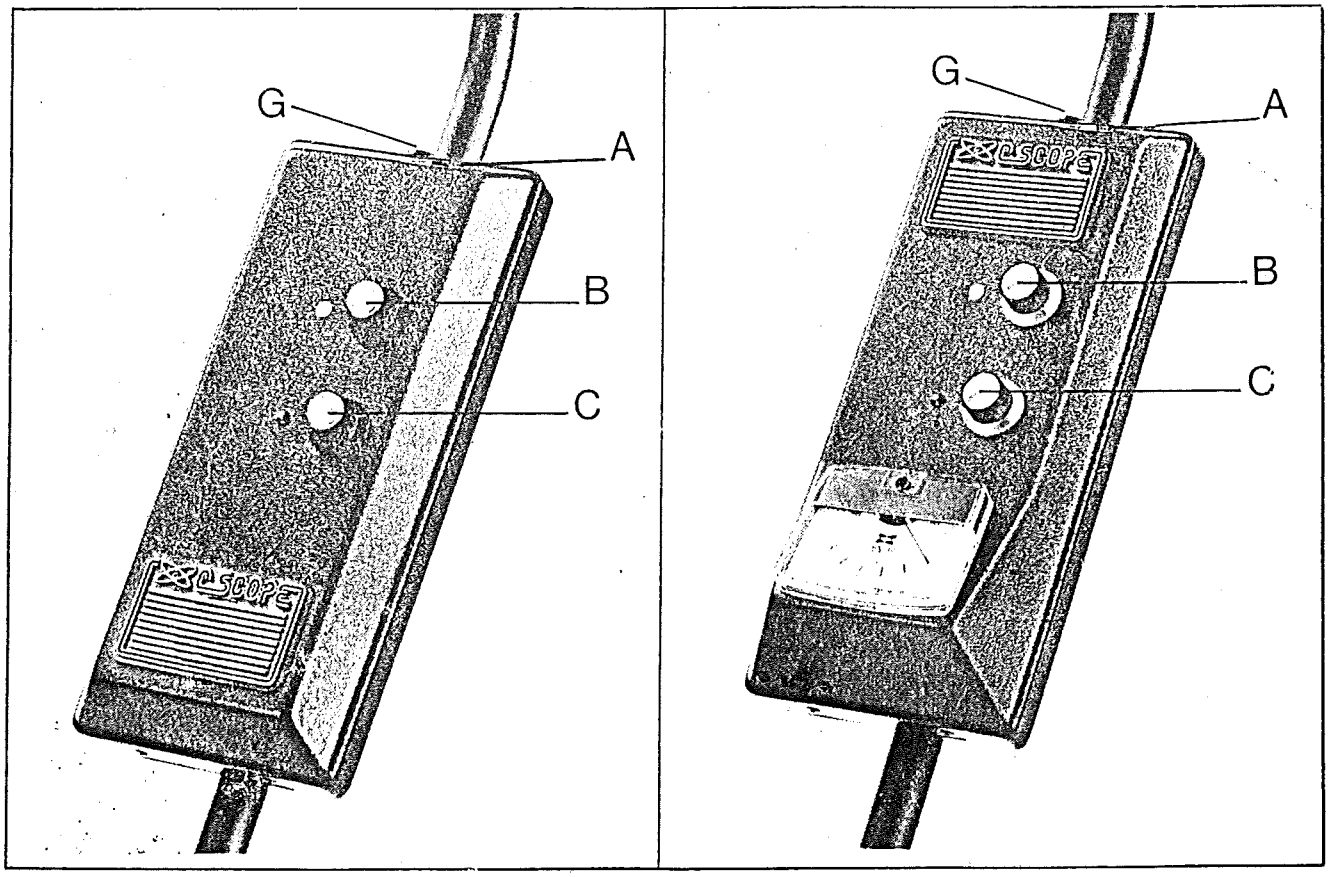
OPERATING INSTRUCTIONS

C-SCOPE IB and TR Models



IB 100 & TR200

IB 300 & TR400

As the owner of a C-Scope Metal Detector, you are now ready to participate in one of the world's most interesting and rewarding hobbies. C-Scopes incorporate all the latest advances in electronics technology to provide you, the treasure hunter, with the best selling and most successful range of detectors in Britain. They are designed and manufactured to the highest standard to give you the maximum enjoyment and success. In order to obtain the best results it is IMPORTANT that you read and follow these instructions carefully.

ASSEMBLING YOUR C-SCOPE

When you receive your C-Scope the unit will have been broken down for shipment. To assemble simply insert the lower stem into the upper stem and tighten the knurled locking collar. This knurled collar has a plastic collar inside which enables the two sections of the stem to lock at the required point.

CAUTION: Should the lower stem be subsequently pulled completely out of the upper stem, follow this procedure:- unscrew the knurled locking collar with its plastic split ring in position, and slide them onto the lower stem. Then fit the lower stem into the upper stem, slide the knurled locking stem up to the upper stem, and tighten securely.

To fit the batteries (2 PP6), turn fastener (G) anticlockwise through 90° and pull out. Open control box outwards, and slide the batteries under the battery clip holders, and snap on battery terminals.

The detector is supplied with an integral loudspeaker. However, if you intend to operate the instrument with headphones, insert the headphone jackplug into the OUTPUT SOCKET (A) at the top of the control box, and the detector is ready for operation.

CONTROLS

1) ON/OFF, FINE TUNING Control (B): the rear knob opposite the white dot.
2) COARSE TUNING Control (C): the forward most knob opposite the black dot.
3) BATTERY CHECK (F): a slide switch located at the front panel of the control box (IB 300 and TR 400 only).

Before commencing an actual search it is advisable to get to know these controls, and the kind of signals the detector will give. The best way to do this is to tune the detector indoors. To do this, lay the detector over a table with the head hanging over the edge. Make sure there is no metal in the vicinity.

OPERATING PROCEDURE

a) Tuning

With the detector lying on the table as described, switch the unit ON at the ON/OFF switch (B). Then turn the COARSE TUNING CONTROL (C) clockwise until a tone can be heard. Then turn this switch back until the tone just fades. The level of tuning can be controlled and accurately set with the FINE TUNING CONTROL (B). The best setting is a level when the sound can JUST BE HEARD. On this setting, the TOTAL change in response to metal can be heard. If the detector is operated on a quiet setting, sensitivity is reduced. Similarly, if the detector is operated too far above the ideal level, sensitivity will be lost.

b) Detecting

To test for the type of signal you will get, take a large coin or metal object, and with the detector still on the table, tuned as previously described, move the object towards the search head. You will note that the volume will increase quickly as the metal object passes near to the search head, with the loudest sound occurring when the search coil is centred over the object. As the object passes beyond the search coil the sound will quickly fade.

IB 300 and TR 400 models are equipped with a visual signal meter, which operates at all times when the detector is in use. When metal is detected the meter needle will travel towards the top of the scale (positive) unless the object is ferrous – in this case the needle may show a negative response.

When an area has been chosen for a search, hold the detector so that the search head is approximately 1 inch from the ground and tune as previously described, until the tone is just AUDIBLE. The search head should then be moved from side to side, slowly and carefully, keeping the airgap between the head and the ground constant. (**NB:** The signal will vary in the field due to changes in ground conditions from one area to another, and also if the distance between the detector and the ground is varied).

After each sweep, move forward by approximately the diameter of the search head. It is particularly important to TAKE YOUR TIME – do not rush, even when completely familiar with the controls.

c) Pinpointing

When you get a signal, indicating the presence of a metal, it is important that you pinpoint the find. To do this employ the following procedure:-

(i) IB Models

Stop the coil when you are directly over the target, then move the coil slightly forward and back to locate the loudest signal. The target object will now be directly under the centre of the search head.

(ii) TR Models

Since the TR 200 and 400 utilise C-Scope Widescan Search Coils, the object can be detected across the full width (back to front) of the search head. To pinpoint the find, stop the coil when you are directly over the target; then move the search head across the path of the first sweep (until a signal is heard) thus forming a cross. The target object will be at the intersection of the two sweeps.

d) Recommendations for Use

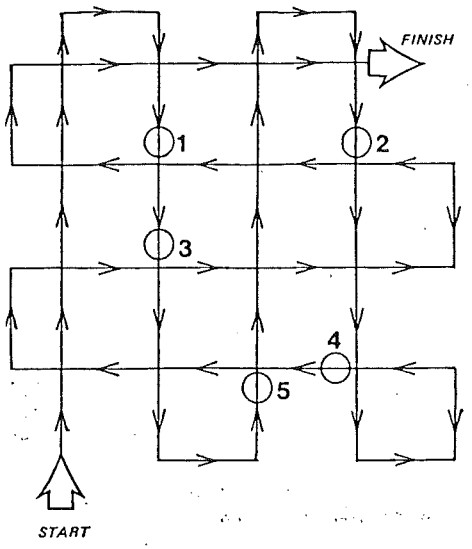
Treasure hunting can be a profitable and a rewarding hobby, if approached in a patient and diligent manner. Time spent researching to locate a worthwhile site for a search, can be time wasted if your search is hasty and erratic.

To achieve maximum results, it is important, then, to decide on your approach to each particular site, in advance of the actual search.

Tactics will be decided by the type of site – it is more profitable to scan a small area thoroughly, than to conduct a haphazard search of the total site. However, when the site is too far away for you to make several return visits, a plan should be adopted which gives maximum site coverage, at the same time as indicating the most likely areas for detailed search.

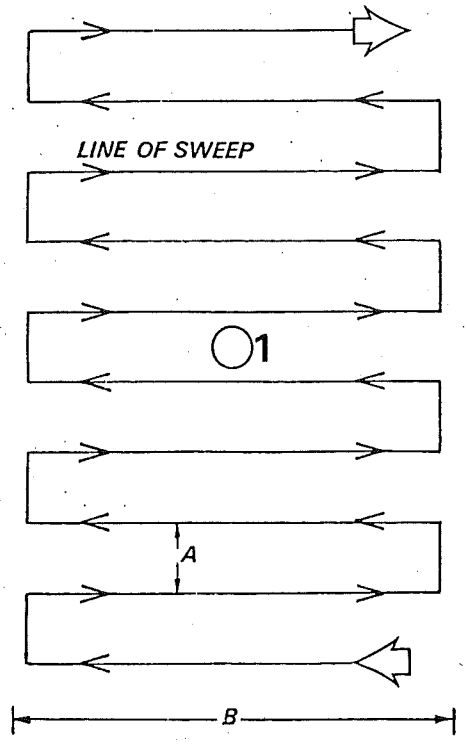
One method is to divide the area into large squares by use of a 'criss-cross' search pattern. Starting along the left hand perimeter, search in a straight line, marking the location of any finds with small sticks, until you have covered the length of the site. Then, moving approx. ten feet to the right, search in a straight line parallel to the first line of search. This pattern should be repeated until the right hand perimeter is reached; then follow a similar pattern **across** the tracks of the first lines of search. (See Diag. 2)

DIAGRAM 2



On arrival at the site a criss-cross search is made marking the positions of finds:- 1, 2, 3, 4, and 5. A detailed search of the area around the finds is made on completion of the criss-cross search as in Dia. 3.

DIAGRAM 3



An area ten foot square is marked out around the find located by criss-cross search. This is then divided into strips which are carefully searched.
Distance A = width of the detectors pick-up area.
Distance B = length of a comfortable sweep.

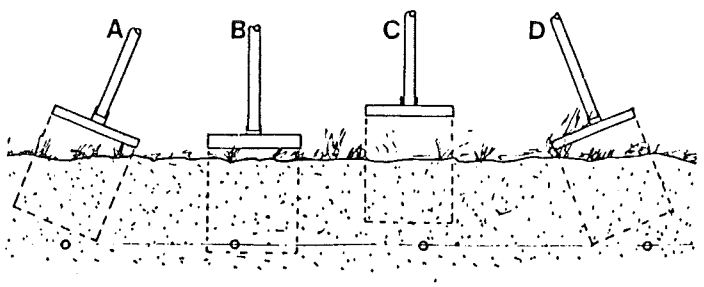


DIAGRAM 4 *It is essential that the search head is kept close and parallel to the ground to avoid missing finds as in A, C, and D*

It quite often happens that where one find is made, other finds will be made in the immediate vicinity. Accordingly, the highest density of 'markers' placed where your finds were made, indicates the most likely spots for a detailed search.

The detailed search is made by marking-out strips of a width determined by the sweep of the detector, and moving forwards the approximate diameter of the search-head after each sweep until the 'strip' has been completely covered. The adjacent strips are covered in a similar manner, until the complete area has been thoroughly searched. (See Diag. 3)

Wooden pegs and string are ideal for marking out these areas, but very often natural landmarks such as trees, rocks, and plants can prove just as effective with practice.

Whilst searching it is important to remember that the search head should be kept as close to the ground as possible. This ensures maximum depth penetration, since there is minimum detection range lost in the air-gap between the search head and the ground. (See Diag. 4)

Be as tidy as possible when extracting the finds from the ground. Nobody likes to see a footpath or field with gre 'pits' left in it through careless digging — and holes left fo people to trip on can be dangerous! So, please, follow the treasure hunters 'Code of Conduct'.

Use a blunt trowel, or a medium-sized screwdriver to cut away the sod, and extract a core of earth from beneath this. Check that the core contains the find, before breaking it open. Avoid the use of sharp instruments (such as knives) at all times, since a scratch on a coin can reduce its value considerably.

After extracting the find, replace the soil and put back the sod as neatly as possible.

Another useful tip is to 'collect' all pieces of silver paper or junk that you come across — if you simply throw them to one side, you will probably end up detecting them again later!

DETERMINING THE TARGET SIZE AND DEPTH

An operator who is familiar with his instrument will be able to do an excellent job of determining object size, shape, and depth before he digs. This technique is learned from care analysis of the audio signals coming from the detector. Each time a signal is heard, listen for any peculiar characteristics it may have; determine over how large an area you get a detector signal; and try to "outline" the object before you dig. Listen for the sharpness or dullness of the signals and determine the magnitude of strength of the signal.

After digging the object, compare the object size, shape, depth, and position in the ground with signal information you received before digging. After careful analysis of many digs, you will learn to "read" the hidden target before digging.

SALT WATER AND BEACH OPERATIONS

You will learn that most beach areas are POSITIVE ground. This is because wet salt is electrically conductive and produces detector signals much the same as metal. Because of this problem, operating a detector on the beach requires some extra added effort. Problems encountered when searching on the beaches can be readily mastered, as many people make their living beachcombing.

NOTE: You will not harm your instrument by submerging the search head into sea water. Just take care not to submerge the control housing. In the event this should occur, remove the batteries and SUBMERGE the control housing in fresh

water to wash out the salt. The speaker and controls may be damaged, but this is far less damage than will occur by the corrosive action of the salt. After operating the search head in salt water, wash it with fresh water. If, when searching on the beach, the instrument produces NEGATIVE signals, you will know you are detecting magnetic iron ore, rusty iron objects, or black magnetic sand (magnetite).

DETECTION RANGE

Detection ranges will vary, depending on the length of time an object has been buried, and in what sort of ground. Generally speaking, the best results will be obtained on well-compacted, fairly dry soils and when the object has been buried for a year or two. During this length of time, the metal is able to interact with the salts in the ground, and becomes more easily detectable. Under these conditions, detection ranges will be up to 12" on a large coin, and 4' to 5' on a large object such as a metal chest. The worst conditions for detecting are on loosely compacted or freshly dug ground, or when the object has only recently been buried. In these conditions, detection ranges will be reduced.

CARE & MAINTENANCE

a) Care of your C-Scope

The working life of your detector will be shortened by careless use or neglect of the unit. Think of your C-Scope as a scientific instrument – NOT A TOY. C-Scopes are designed to withstand rugged handling on any terrain, but mis-use or lack of due attention will tell in the end.

After using your detector in a hostile environment (salt water, sand etc.) the exterior parts of the casing should be flushed with clean water, paying particular attention to the head and carefully wiped dry. Foreign particles in the control box can be removed by brushing carefully (or with compressed air or vacuum cleaner).

The life of the controls may be extended by periodic (100 hrs of use) application of small quantities of light lubricant to the spindles, threads and knob grub screws ('3 in 1' or similar household oil is suitable). This operation requires the knobs to be removed.

Light packing grease should be smeared on the threads of the locking collar and at the same time, the head fixing bolt. Do not store the detector in a damp place.

If these suggestions are followed, your detector will give you many years of efficient use.

b) Replacing Batteries

Two PP6 batteries are used and they will last for approx. 40 hours of actual use. When the unit is not in use, it is IMPORTANT to make sure the detector is switched off or battery drain will result. As the batteries get weaker, the volume deteriorates, and the detector will become unstable. To replace batteries undo black plastic screw (G) anticlockwise, a quarter turn. Take out this screw and lift the top of the control box. Take out the old batteries and replace with new ones.

With IB 300 and TR 400 models, first test the condition of the batteries by Battery Check ON/OFF Switch (F) – if the meter scale reads below the required level when Battery Check is ON, **change batteries.**

IN THE EVENT OF A FAULT

All faults or queries must be notified direct to C-SCOPE METAL DETECTORS (UK) LTD., at Candle International House, Wotton Road, Kingsnorth Industrial Estate, Ashford, Kent, TN23 2LW.

If there are any problems quote the serial number on your copy of the guarantee form or inside the control box, and write to the above address or telephone Ashford 29141. Please state as clearly as possible the nature of the problem.

Please do not send faulty detectors back to the retailer. Please send them direct to C-Scope with an explanatory letter. Please check thoroughly with these operating instructions before sending your instrument back, particularly ensuring that the batteries are not simply run down.

C-SCOPE REPAIR CONTRACT

C-Scope have the reputation for providing the treasure hunter with a quality metal detector and a first class after-sales service.

The guarantee given with a C-Scope metal detector is one of no-quibble. All faults which occur within the first year of purchase are repaired free of charge provided that the machine has not been grossly mis-used.

However, should a fault occur after the guarantee has lapsed, expensive repairs may be necessary. For a small yearly premium, your detector will be repaired **free of charge** – all you pay is the cost of postage. (See guarantee card).

IMPORTANT NOTICES

Following the one year guarantee period, C-SCOPE will correct all normal detector wear and failures at factory cost, plus shipping. A service charge of £2.50 plus shipping costs, will be made on any instrument that is sent to the factory and needs ONLY a battery. Please check your detector thoroughly with a new battery before sending it in.

C-SCOPE is continuously improving its products. Because of this, we reserve the right to make changes at any time. If you receive an instrument that has some feature that is slightly different from what is shown in the brochures that you have seen, or if a switch or control is relocated, etc., rest assured that this change is an improvement.

You may sell or trade your detector with the full assurance that the guarantee will continue for a full year after the original purchase, regardless of who owns the instrument.