CLUBMAN Operating Instructions

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INTRODUCTION

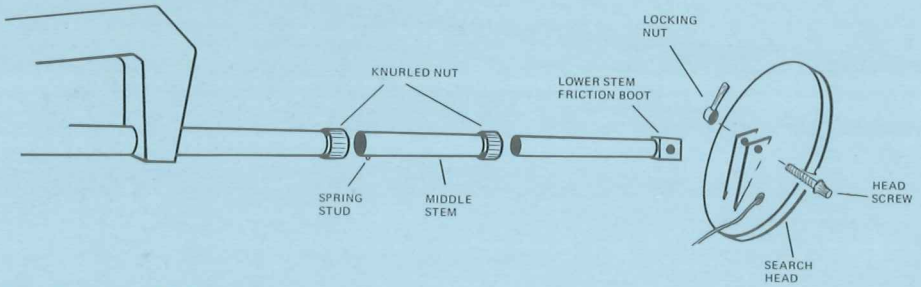
The C-Scope CLUBMAN is ideal for beginners and experienced hobbyists alike, offering simplicity in use yet sophistication in performance. It also satisfies the requirement of some detectorists for a machine which automatically excludes the effect of mineralisation in the ground.

Important.
To protect your investment complete both sections of the guarantee and return the reply paid portion to C-Scope. This is particularly important in order to obtain the free second year parts guarantee. Please retain the original packing box. In the event that your detector should ever require to be serviced, this package will be most suitable for postal protection.

C-Scope detectors are recognised as the finest detectors available. They are designed with lasting quality in mind, high technology, and above all, value for money.

The only way to realise this value is to carefully study and understand this instruction manual. You will then be able to obtain all of the advantages designed into your detector. It is also strongly recommended that you experiment with the detectors operations in air, with various test samples, in order to learn to identify and understand the detector's capabilities and responses.

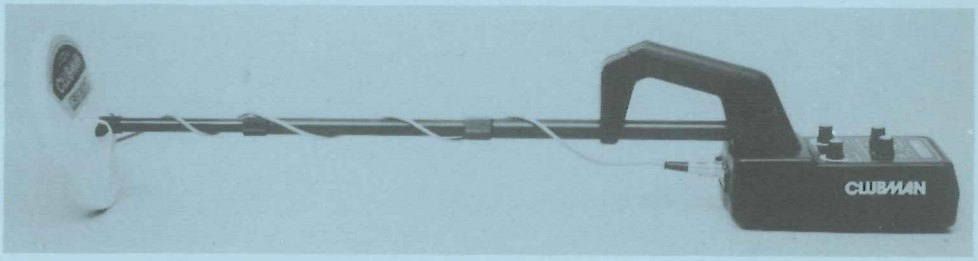
Always remember that becoming a good metal detective is like becoming a good photographer or fisherman. Although it is an advantage to buy the best equipment having bought it, patience and hours of practise are needed to become proficient.



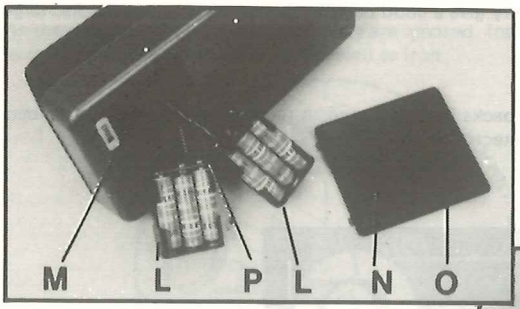
Assembling your Clubman:

Assembly of the CLUBMAN requires no special tools.

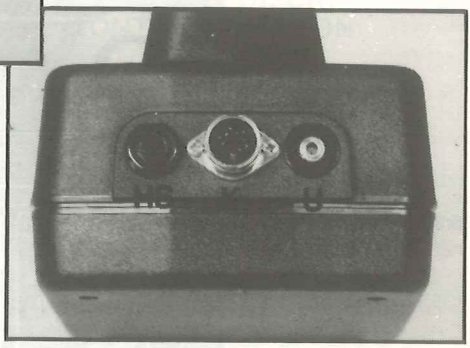
1. Remove the various parts from the box (the lower stem is already inserted into the middle stem) and lay on a clear surface as shown in the diagram above.
2. Unscrew the locking nut and remove the screw from the search head. Insert the lower stem between the lugs of the search head so the holes in the stem, friction boot and lugs are aligned.
3. Insert the head screw from the same side that the cable enters the search head and tighten the locking nut. **Do not** tighten with pliers or tools as this can cause over stress to the lugs. It is advisable to release the tension on the nut when the machine is not in use.
4. Hand tighten the knurled nut between the middle and lower stem. An olive insert ensures a tight grip is achieved.



5. Slacken the knurled nut on the handle stem and insert the middle stem by depressing the spring stud and locating the stud into one of the four hole positions depending on stem length required (the lower hole is ideal position for use when transporting your machine).
6. Hand tighten both the knurled nuts.
7. Wrap the head cable tightly around the stem and insert the plug into the socket under the handle.



L. Penlight Battery Holders
M. Battery Compartment
N. Battery Cover
O. Fastener
P. Battery Leads.



K. Din Socket
U. Recharge Socket
HS. Headphone Socket

BATTERIES

The Clubman is powered by either:—

a) 12 HP7 penlight Batteries (not supplied) in 2 six-pack battery holders (supplied with detector).
or
b) 2 rechargeable packs (an optional accessory).

HP7s are standard batteries and are available from garages, department stores, etc.

Rechargeable batteries in two packs, together with a charger are available as a C-Scope Accessory.

It is advised that to begin with standard HP7s are used. You can then evaluate the sort of use you give the detector and decide whether the investment in rechargeables is justified.

Battery life is dependent on many things and is difficult ot generalise on. It is certainly recommended that headphones are used as not only does this guarantee better depth penetration, it also extends battery lifg substantially, because the loudspeaker is by far the greatest drain on the batteries.

If HP7 batteries are to be used it is necessary to load these into the penlight battery holders (L) which are supplied with the detector in the battery compartment (M).

First undo the battery cover (N) by turning the fastener with a small coin through 90^{o}. This frees the fastener and releases the cover, which can then be lifted off.

Load the battery holders ensuring that the batteries are inserted the correct way round with the + and — signs on the batteries corresponding with those engraved on the battery holders. After inserting the batteries roll them in the holders to make the connection good.

Connect the battery holders to the battery leads (P) in the battery compartment again making sure the connection is firm and well seated, and place the holders in the battery compartment. Replace the battery cover by locating the two lugs first, and then pushing the end with the fastener home. It may be necessary to align the fastener before pushing it home.

Batteries should not be left in the detector if the detector is stored or not used for long periods, thus avoiding possible leakage and expensive repairs.

As a guide to battery condition a Battery Check facility is provided.
To operate carry out the following simple prodedure:

1. Turn the volume control of the Clubman to setting number 1.
2. Turn the sensitivity control to the clicked position at setting 0.
3. A loud sound indicates that the batteries are in good condition. This sound fades and the detector returns to normal operation after a few seconds.
4. If only a short, quiet sound is heard or no sound at all then the batteries must be replaced or recharged depending on type used.

Please note that sometimes batteries will initially give a good battery check but will quickly discharge after half-hour or so of use.

Rechargeable Battery Charging

It is not necessary to remove the rechargeable packs for recharging. A recharge socket (U) is provided so that the batteries can be recharged in the detector.

Normal HP7s cannot of course be recharged.

Controls:

The CLUBMAN has been designed to offer simplicity of use with high performance.

The control panel comprises of four rotary controls. All have a clicked 'off' position when wound anti-clockwise except the sensitivity control which acts as a battery check (see page 2).

Power on/off volume:
The CLUBMAN is a silent operating detector which does not require tuning. Merely switch on and select the desired volume level.

Sensitivity/Battery Check:
Turn this control anti-clockwise and an indication is given of the state of the batteries (see page 2). Turned clockwise the knob becomes the sensitivity control. The furtherest point giving the maximum range of detection.

However at this setting the unit also becomes more susceptable to interference from external radio transmitters and soil mineralisation.

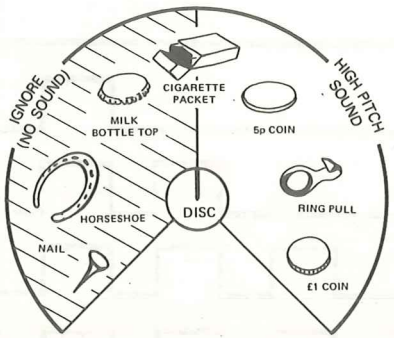
Operate the unit with sensitivity control as high as possible without giving false signals. Generally this will be at maximum in all but the worst conditions.

Discriminate:

In the off (clicked) position the unit detects all metal objects.

Turned clockwise it becomes a fully variable discrimination control. Discrimination is a means of ignoring objects which are generally regarded as junk whilst still detecting the good objects.

At the lowest setting most iron objects are ignored. Increase the setting and the unit will ignore even larger pieces of aluminium paper as well as iron.



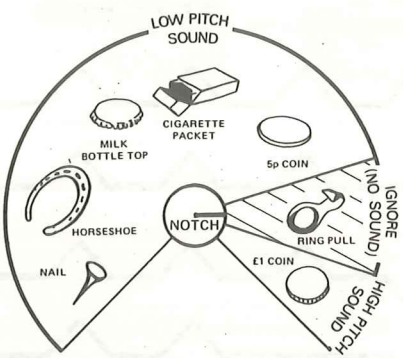
EFFECT OF DISCRIMINATE CONTROL POSITION

At higher levels still, ring pulls will also be ignored. You must, however, realise that at this higher setting you will also loose some low denomination and silver hammered coins, so set the control only as high as is necessary to ignore iron and foil contamination (i.e. level 3-4).

Notch:

The problem identified above when using a high level of discrimination has been overcome in the CLUBMAN by the use of a 'notch' discrimination facility.

This provides the user with a means of ignoring a specific 'band' of objects.



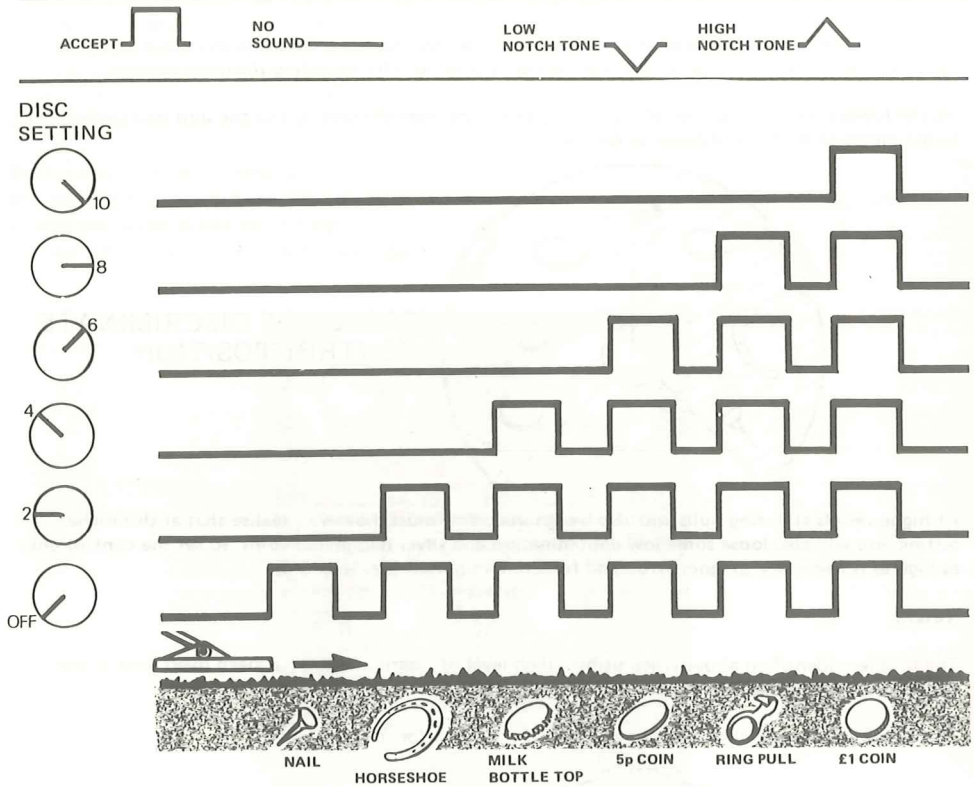
EFFECT OF NOTCH CONTROL POSITION

To set the notch follow this procedure:

1. Turn the discrimination control to the off position.
2. Continually sweep the search head over the object to be 'notched' at the same time rotating the notch control clockwise.
3. As the control is rotated the tone will change from low to high.
4. At a point between these two tones is a 'dead' band in which the object is ignored.
5. Set the notch control to the middle of this band.

The notch is now set and the discrimination control can now be used to achieve the desired combination.
It is the skilful combination of these two controls which gives the CLUBMAN its versitile ability in most conditions and the following chart gives graphic explanation as to their effective use.

EFFECT OF DISCRIMINATE & NOTCH SETTING



Although the CLUBMAN is manufactured to the highest specifications, slight variations can occur in all electronic equipment. This chart, therefore, is intended as a guide only and precise setting for maximum performance will be achieved by constant practise.

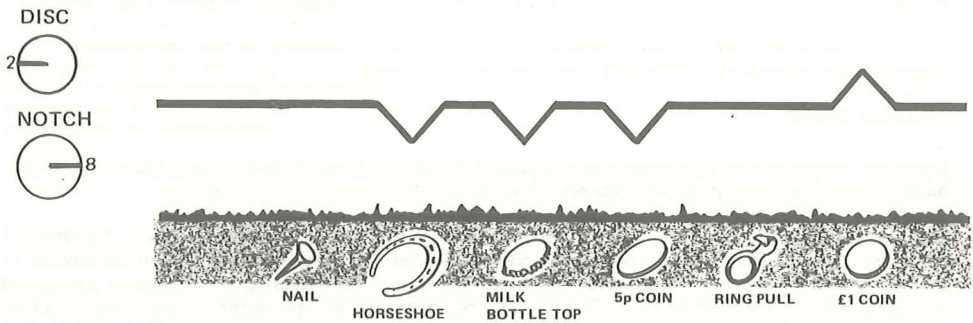
How to Use This Chart:

If you wished to avoid detecting ring pulls and small ferrous objects (e.g. nails) then you would set the notch at 8 and the discrimination at 2.

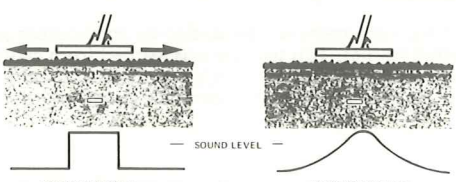
The effect would be:

Ring pulls	–	No sound
Nails	–	No sound
Horseshoe/Milk Bottle Top/5p etc.	–	Low tone
£1 coin etc.	–	High tone

This is graphically shown as follows.



All Metal/Pinpoint Button: Located at the end of the handle this button, when held down, allows the detector to give a varying response which peaks directly above the target.



To pinpoint a target carry out the following procedure:

1) Move the search head to a known clear patch.
2) Hold the pinpoint button down and return the head to the target area; move it slowly and listen for the peak response.

The all metal pinpoint mode gives a positive response to all metals irrespective of the descriminate or Notch setting.

It is not necessary to sweep the target as the pinpoint mode will respond even when held stationary over the object.

Operating Notes

Check the batteries are in good condition prior to searching. Frequently check the battery condition during the search. Rechargeables give little warning of failure so ensure they are fully charged prior to a long period of searching or carry a fresh set with you. (See batteries, page 2).

The unit may operate with reduced sensitivity for a period after indicating 'flat' batteries. However, the batteries should be replaced or recharged at the first opportunity.

Use headphones when possible not only do they extend the battery life, but they also cut out extraneous noise.

(It is instructive to bury some objects in a clear patch of soil and note the response when swept at different rates and with DISCRIMINATE and NOTCH at various levels).

Large pieces of iron are difficult to ignore and may give confusing signals. An aid to determine whether the target is iron or not is to go into an all metal mode either by turning the DISCRIMINATE off or simply by pressing the PINPOINT button. Iron objects will generally give a stronger more positive signal than good objects.

When operating on the beach the all metal mode may give a response to the beach itself. If this is the case operate the unit with the DISCRIMINATE level set to the point at which it is ignored.

If in doubt as to whether a target is good or not – dig it. Your knowledge of how the detector responses will increase each time and soon make you more sure.

Detection Range

Detection ranges will vary depending on the size of the object, the length of time an object has been buried, and the type of ground the object is buried in.

The best ground conditions are well compacted soils and coins can be found at the greatest depths if the object has been buried for some time and the coin has interacted with the salts in the ground, thereby appearing larger to the detector. 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 range will be reduced. 90% of all artefacts are found within 6" of the surface.

N.B. Adverse soil conditions can reduce depth of detection by more than half.

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 careful 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.

After digging up 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.

The Importance of the Right Approach

Treasure hunting can be a profitable and 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 any 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.

Your detector alone is not a guarantee of successful treasure hunting. Any detector needs an operator and for the best results the operator needs the right approach, attitude and technique. Too many beginners neglect the importance of pre-planning and research before using their detector in the field, and patience and technique during the actual search.

A successful search should begin with research sometime before the day of the actual search. The extent and thoroughness of your research will be one of the major factors in the success of your

detecting. You should aim to get as complete an understanding as possible of the local history and geography.

The key to the choice of the site is to think of people, where they congregated over the past few hundred years. What were their customs and pursuits? Where did they spend money? Where did they carry money? The answers are not Roman sites, nor are they associated with mystic treasure stories of crocks of gold. Rather, they are unassuming, undramatic places, like public footpaths and ancient rights of way, old houses and so on.

When you have chosen your site, allocate a whole day from early morning to early evening for the search. Make sure that you have all equipment you are likely to need. Your detector should be checked before starting out, and you should always carry a spare set of batteries. You will also need a strong, sharp trowel. It is also a good idea to have a set of lines and pins so that you can lay out your search area scientifically. Most beginners make the mistake of rushing about hoping to chance upon a rare find. If for example there happened to be a valuable ring that was buried 4" deep on the site you were searching, if you rushed about haphazardly and quickly on the site, the odds would be very much against your finding it. On the other hand, if you pegged out the area scientifically and searched slowly and thoroughly, the odds of finding the ring would be much more in your favour.

Remember, BE PATIENT and WORK SLOWLY. Do not try to cover too large an area. Restrict yourself to a small area and work through it thoroughly. Make a note of the position and extent of the area, and then when you return you can start again further on without missing any ground or covering the same area twice.

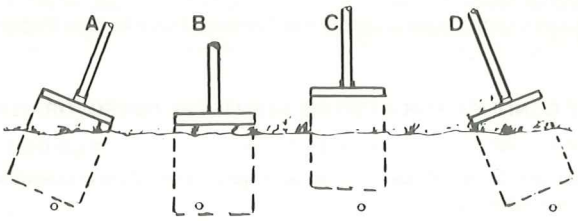
It is also important to keep the detector head as close to the ground as possible. Ideally, you should "iron" the ground with the search head of the detector, so that you do not lose any detection range.

Similarly, if you work slowly and carefully you should be able to distinguish the faint signals as well as the clear-cut signals and further increase your finds.

The technique of getting the best out of your detector is not learnt overnight. You need to get as much experience as possible so that you can recognise every kind of signal. Indeed, a good detector operator can often tell you what is being detected before it is unearthed.

DIAGRAM 13.

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.



Sweeping — For Example:

For extremely small object searching, such as coins, rings, nuggets, etc. lower the search coil to within one inch of the ground. Sweep the coil from side to side in a straight line in front of you. Keep the coil at a constant height as you sweep from side to side. Move the coil at the rate of one foot per second.

After you have become familiar with the instrument the sweep rate may be increased to two feet per second. The optimum sweep rate must be determined by each operator.

The detector should be held comfortably in the hand, with the coil held as closely to the ground as possible. As the detector is scanned from side to side in front of the operator, the search coil should be advanced approximately two-thirds the diameter of the coil. This keeps the operator moving ahead, and it allows some overlapping of each sweep. This overlapping ensures that nothing will be missed. It is as well to note here that the operator SHOULD NOT RUSH. This is one of the most common mistakes made by detector users. If you rush, you will not adequately cover the ground.

Rights of the Finder

The rights of the finder fall into two distinct classes. The first relates to objects that have recently been lost, and the second to items of gold or silver which are subject, or might be subject, to the laws of the Treasure Trove.

In the first place, where the object has been recently lost and found and is valuable, it should be handed to the Police as soon after it has been found as possible. The Police will then attempt to locate the owner. If they succeed in locating the owner, he has the legal right to the object and is not legally bound to reward the finder. That is a matter for the owner's conscience.

In the event of the Police failing to locate the owner they will probably return the object to the finder. If, however, the owner makes a claim for the object at a later date, the finder must return the item to the owner.

If the owner is not located the finder has the best rights to ownership, provided that the object was not found on private property, in which case the owner of the land often has a better right than the finder. The solution here, of course, is to obtain permission beforehand and to come to some agreement with the landowner with regard to the division of any finds.

If on the other hand, the find of gold or silver can be proved to have been deliberately concealed, with a view to recovery at a later date, the find comes under the laws of the Treasure Trove. If the objects cannot be proved to have been deliberately concealed, the find cannot be declared Treasure Trove. Usually this point centres around the quantity of coins in a hoard, or whether the find is in a container. Obviously, if there are a hundred or so coins in a pot, they were almost certainly deliberately concealed. If, however, there are only one or two coins, it is more likely that they were lost accidentally.

If the objects are declared Treasure Trove, the finder has no need to worry, for he is rewarded with a cash settlement to the full market value of the find.

When the objects are not declared Treasure Trove, the owner of the land on which the find was made usually has a better claim to ownership than the finder.

In Scotland all newly discovered ancient objects of all metals, whether deliberately concealed or not are subject to the same procedure as Treasure Trove finds in England.

CODE OF CONDUCT FOR RESPONSIBLE METAL DETECTOR USERS.

1. Do not trespass. Ask permission before venturing on to any private land.
2. Respect the County Code. Do not leave gates open when crossing fields, and do not damage crops or frighten animals.
3. Do not leave a mess. It is perfectly simple to extract a coin or other small objects buried a few inches under the ground without digging a great hole. Use a sharpened trowel or knife to cut a neat circle or triangle (do not remove the plug of earth entirely from the ground); extract the object; replace the soil and grass carefully and even you will have difficulty finding the spot again.
4. Help to keep Britain tidy — and help yourself. Bottle tops, silver paper and tin cans are the last things you should throw away. You could well be digging them up again next year. Do yourself and the community a favour by taking the rusty iron and junk you find to the nearest litter bin.
5. If you discover any live ammunition or any lethal object such as an unexploded bomb or mine, do not touch it. Mark the site carefully and report the find to the local police.
6. Report all unusual historical finds to the landowner.
7. Familiarise yourself with the law relating to archaeological sites. Remember it is illegal for anyone to use a metal detector on a scheduled ancient monument unless permission has been obtained from the Historic Buildings and Monuments Commission for England. Also acquaint yourself with the practise of Treasure Trove.
8. Remember that when you are out with your metal detector, you are an ambassador for our hobby. Do nothing that may give it a bad name.

CARE OF YOUR DETECTOR

Storage

When not in use your detector should be stored in a dry and warm environment. If it is not to be used for a certain length of time it is advisable to remove the batteries to avoid leakage which could cause serious damage.

The working life of your detector will be shortened by careless use or neglect of the unit. Think of your detector as a scientific instrument NOT A TOY. Your detector is 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 fresh water, paying particular attention to the head, and carefully wiped dry.

Salt Damage

If you use your detector continually in a salty environment, particularly when the wind is blowing off the sea, salty air can penetrate the control box.

Corrosion can occur in vital parts of the delicate electronic circuitry.

It is therefore recommended that precautions such as covering the control box with polythene be taken to avoid damage.

The guarantee cannot cover such occurrences and any repairs needed because of salt water or spray will be charged.

Detector Not Operating

(a) Check the condition of batteries under load using meter. (See Battery Check Procedure)

(b) Check that the search head is properly attached to the control box via the search head cable connector.

(c) Interchange batteries and ensure connections are correct and secure. Battery life can vary tremendously between makes, therefore your 'new' batteries may already be insufficiently powerful to run your detector.

Oscillating Signal Accompanied by Slight Meter Fluctuation

(a) Caused most often by outside equipment such as fluorescent lights, taxis, radios, power lines, and other metal detectors working nearby.

Intermittent Sound from Speaker

(a) This could be due to poor battery connections. Ensure they are tight and the batteries are securely clipped into place.

(b) Loose search head cable connection — tighten.

(c) Radio transmission from passing taxi or vehicle using radio transmitter equipment.

The Detector Drifts out of Tune

(a) Temperature drift caused by the change in air temperature when a machine is moved from a house or a car into the open.

(b) The greater the change in temperature the more the drift, and up to 30 minutes may be needed for the electronic circuitry to acclimatize itself.

(c) Sometimes battery drain can cause drift of signal. Replace batteries and this should help to maintain a stable signal.

Before returning a detector for repair to C-Scope ensure you have done the following:-

(a) Read instructions thoroughly.

(b) Tried new batteries and checked procedure outlined above.

Return detector with letter giving full details of fault.