

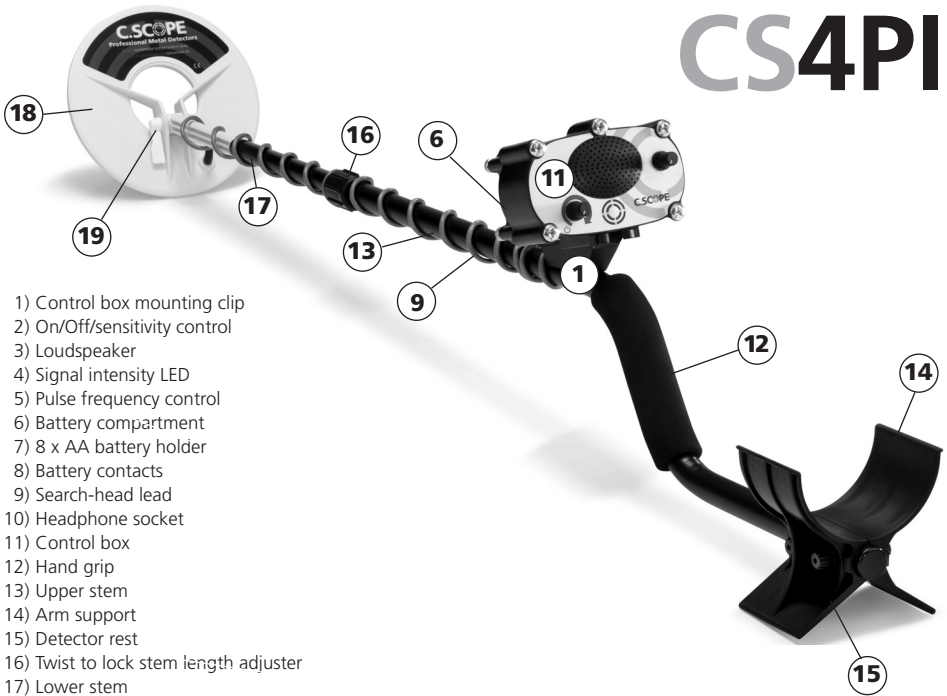


C.SCOPE

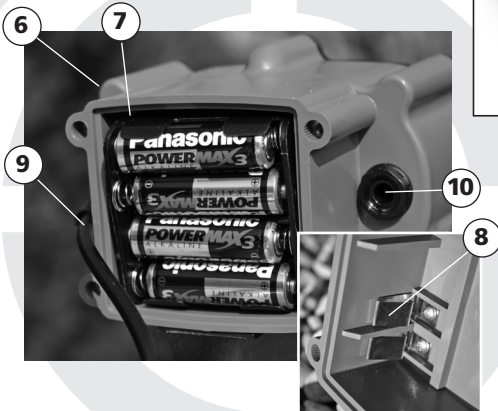
# CS4PI

operating instructions

# CS4PI



- 1) Control box mounting clip
- 2) On/Off/sensitivity control
- 3) Loudspeaker
- 4) Signal intensity LED
- 5) Pulse frequency control
- 6) Battery compartment
- 7) 8 x AA battery holder
- 8) Battery contacts
- 9) Search-head lead
- 10) Headphone socket
- 11) Control box
- 12) Hand grip
- 13) Upper stem
- 14) Arm support
- 15) Detector rest
- 16) Twist to lock stem length adjuster
- 17) Lower stem
- 18) Search-head
- 19) Search-head fixing screw, and wing-nut





## CS4PI Overview

The CS4PI is a high performance metal detector operating on the 'PULSE INDUCTION MOTION' principle.

Optimum performance is achieved by adopting a steady sweep speed.

The CS4PI is an 'all-metal' detector which can operate effectively on ground conditions (notably waterlogged areas or wet salt beaches) where conventional discriminator metal detectors may be virtually unuseable. The CS4PI is designed to offer extremely high performance whilst being easy to operate. We wish you good hunting and a great hobby with the excellent CS4PI!

## Rapid start

Follow these simple steps to start using the CS4PI within minutes:

- 1) Assemble the CS4PI by inserting the lower stem into the upper stem.
- 2) Rotate the lower stem so that the search-head cable is coiled around the stem as shown in the photo.
- 3) Twist the locking device so that the stem is locked into position at the required length.
- 4) Remove the battery compartment cover by loosening the four retaining screws.
- 5) Fit 8 x AA batteries to the battery holder being careful to observe polarity and good contact.
- 6) Switch on and rotate the sensitivity control to the green section marked on the scale.
- 7) Rotate the Pulse Frequency control to the start of the green zone on the scale. With the search-head off the ground and well away from any metal object listen for interference. If necessary switch to a different frequency within the green zone where the detector is silent and interference free.
- 8) **START DETECTING...** metal targets give an audio signal from the loudspeaker accompanied by illumination of the LED indicator... maintain a steady sweep speed swinging the search-head from side to side with an easy motion. When you encounter a signal, identify the precise target position by reducing the width of the sweep arc until it is just a few centimetres either side... Keep the search-head moving.

# The controls and what they do

1) **Control box mounting clip.** For ultimate lightweight metal detecting the CS4PI control box can be removed and fitted to a belt around the body. This leaves only the search-head on the stem which reduces fatigue on the arm.

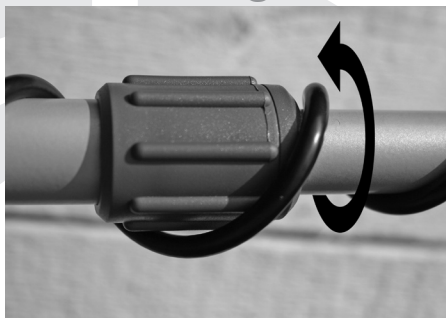
2) **On/off/sensitivity.** Rotary control switches the detector on/off and adjusts the sensitivity. The area on the scale around the control marked in green is the setting recommended for most ground/target characteristics. The CS4PI is at its most sensitive with sensitivity adjusted to the point where a background tone is just starting to become apparent. Some detector users prefer to set sensitivity at a lower level than this so that there is no background tone. (sometimes referred to as 'silent search mode').

3) **Loudspeaker** (and battery condition indicator). The presence of metal is indicated by the increasing intensity of the loudspeaker tone, accompanied by the LED which illuminates.

4) **LED** gives visual confirmation of the audio signal.

5) **Pulse frequency selector** (and battery check position). This control is calibrated in the frequency of the detection signal (pulses per second). The recommended setting is within the green zone on the scale. (A metal detector is a type of radio receiver in its principle of operation and may be subject to interference from, for example, overhead power lines, transmission masts and even other detector users in the near vicinity. The pulse frequency control gives the possibility to change the operating frequency to an area free of such interference). Other pulse frequency settings, within the red zone on the scale, can be used in treasure hunting applications but they tend to be insensitive to thin section non ferrous objects. As many valuable objects fall into this category, we do not recommend the use of these frequency settings. When the battery check switch position is selected (red battery symbol), the detector will emit an audio tone proportional in length to the condition of the batteries. A tone of 1 - 2 seconds duration indicates good batteries. No tone indicates that the batteries should be changed.

## Assembling the CS4PI



The stem height adjuster should be slackened to allow the lower stem to enter the upper stem section. The search-head lead may then be wound around the stem as shown in the photograph. A search-head lead which is not well secured to the stem could move about causing false signals. Cable ties or tape may be used to hold the lead in position. When the search-head lead is fitted correctly, the stem adjusting device can

be tightened at a height suitable for the user. Adjust the position of the search-head so that it is parallel to the ground when the user is in a normal standing position. Tighten the wing-nut on the search-head retaining screw. Do not over-tighten.

Friction of the head lugs against the neoprene washers keeps the search-head in position. Excessive pressure on these parts should not be necessary. (If some form of lubricant should ever find its way onto these washers it will be necessary to disassemble the parts, wash and dry them before careful reassembly).

## Belt mounting

Squeeze the control box retaining clips together using your thumbs as shown in the photograph. The control box will now slide towards you free of the control box mounting clip.

The control box can be fitted to your belt using the clip provided. In belt mounted use be sure to wind the search-head cable up the stem at least to the length adjuster and secure it with tape or cable tie.

This is because the search-head is sensitive to metal objects above to some extent and the lead will be detected if it is left free to move.



Above: Slide the belt mounting clip into the fixing slots on the underside of the control box and push all the way until the retaining lugs click into position

# Batteries

Undo the 4 battery compartment retaining screws and take out the battery holder. Fit 8 good quality AA type batteries into the compartments of the battery holder. Observe polarity of the batteries (the spring contact goes against the flat, negative end of the battery). Roll the batteries in the holder to ensure good contact and replace into the battery compartment with the contacts on the holder lining up with the contacts in the compartment. Replace the battery compartment cover being very careful to avoid cross threading the screws. Battery condition can be checked by switching to the red battery symbol to the left of the Pulse Frequency scale. When the battery check switch position is selected, the detector will emit an audio tone proportional in length to the condition of the batteries. A tone of 1 - 2 seconds duration indicates good batteries. No tone indicates that the batteries should be changed. (After the battery check procedure the detector continues to 'beep' about every 8 seconds if the switch is left in the battery check position. This is just a reminder to you to switch off).



## Detecting with the CS4PI

**Successful treasure hunting starts with a well researched site.**

Sweep the detector head from side to side with a steady relaxed motion. Keep the search-head parallel and as close as possible to the ground right across the arc of the sweep. The use of a search-head cover protects the head from abrasion damage caused by friction with the ground.

Search your chosen site carefully by moving forward only the width of the search-head at each sweep. Move up and down the search area in lines about 75 cms apart so that there is plenty of overlap in the ground you have covered. Search with the sensitivity set as high as possible according to the ground conditions. On the majority of inland sites the recommended sensitivity setting (*green area on the scale*) will give the best results. Some severe ground conditions, for example mining areas containing mineralised deposits, may give rise to false signals and the sensitivity level should be reduced to a point where detector operation becomes stable.

Some detector users prefer to set the sensitivity control at a point where there is no background tone, sometimes called 'silent search'. (*Sensitivity control set around the start of the green zone*). With the detector set like this it is more noticeable when a target signal occurs. If the detector is set at maximum sensitivity (*Sensitivity control set at the end of the green zone*) there will be an audio tone constantly in the background and a metal target will be registered by an increase in the intensity of that tone.



We recommend a pulse frequency setting within the green zone on the control scale. It may be necessary to change to a different pulse frequency to avoid interference from extraneous signal sources. Experimentation with different metal targets will show you how the pulse frequency can affect sensitivity to different metals.

When the detector gives a signal, move the search-head to the approximate area where the signal was heard, and reduce the arc of your sweep so that the search-head is just passing back and forth a few centimetres either side of the signal. In this way you can identify the exact target position. (*The most sensitive part of the search-head is below its centre*). Dig a neat hole by cutting around the signal position with a sharp edged trowel and remove a divot of earth which might now contain the metal object. Run the detector over the area again to see if the metal object is still in the hole or in the piece of earth which you have just removed.

Dig some more and sift through the earth until you find what you are looking for. Fill in the hole before moving on. (recovering finds in sand is very much easier with a sand scoop - a trowel like a sieve where the sand is able to run out leaving the find in the scoop).

The use of headphones will increase battery life and make it easier to discern faint signals.

**Follow the 'Country Code'. Do not trespass. Do not touch anything you suspect might be live ammunition - inform the police. Do not take your detector on any scheduled historic site. If you find anything which looks like it could have historical significance, report it to your local museum.**

**Acquaint yourself with any laws relating to the use of metal detectors particularly if you want to go detecting in countries other than the UK.**

## Detector care

The CS4PI is a robust design, however the control box should be treated with similar care as any electronic product. Dry off any water splashes immediately. The search-head may be immersed in water. Stem and search-head parts should be cleaned and dried at the end of a day's detecting. Do not use solvents. If the detector has been used on a beach it will be necessary to wash sand and salt residue off the stem adjustment mechanism and the search-head retaining parts using tap water. Remove batteries if the detector is going to be stored for any length of time. Do not open the controlbox front panel. There are no user serviceable parts inside and you may invalidate your warranty.

## Warranty & service

Your CS3MX is guaranteed free of manufacturing defects as confirmed in our written warranty document. Contact us if you have any concerns about the operation of your detector.

The C.SCOPE Customer Service Team really know about metal detectors and are always ready with good advice and rapid after-sales-service.

C.SCOPE is an ISO 9001 Quality Manufacturer.

This equipment conforms to the EMC directive 89/336/EEC.

System performance may be impaired by unusually strong electromagnetic fields.



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