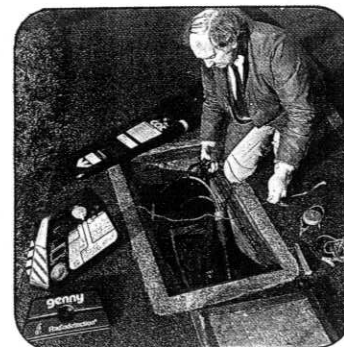




The C.A.T is manufactured in a modern plant with computer aided quality control



Using the C.A.T before tree planting.



Applying the Genny signal with the clamp.

## Technical Data

### 1306 C.A.T

#### Controls

- 1 On/off trigger in handle energizes C.A.T when squeezed.
- 2 Signal level control adjusts response of the loudspeaker.
- 3 3-position function switch.
- P 'Power' mode for detecting electric energy signals.
- R 'Radio' mode for detecting re-radiated radio signals.
- G 'Genny' mode for detecting conductors carrying Genny signal.

#### Depth of detection

The C.A.T will detect conductors to depths (yards/metres):

	P	R	G
Good conditions	3	2	3
Poor conditions	2	1	2

#### Sensitivity

Current detectable at depth 40"/1m  
P Better than 7.5mA RMS  
R 25µA RMS  
G 5µA RMS

#### Reception frequencies

P 50Hz - 3.5kHz  
R 15kHz - 30kHz  
G 22kHz ± 50Hz

#### Control modes

P Automatic gain + manual fine control  
R Automatic gain + manual fine control  
G Fully adjustable manual control

#### Response width

Width of the response as C.A.T is moved across a buried conductor. In poor conditions 30% of depth, good conditions 5% of depth.

#### Accuracy of location

Generally better than 10% of depth.

#### Circuit description

Matched dual-channel sensors, pre-amps and filters produce two signal strengths that are compared to determine if C.A.T is above conductor. Comparator controls passage of signal to loudspeaker. Auto-gain senses and changes level of both channels. Sensitivity control changes balance of signals. BFO's make signals easily audible.

#### Batteries (included)

Type: 8 x 1.5V AA, alkaline.

Life: 40 hours intermittent use at 20°C, 68°F.

Test: Audible bleep when on/off trigger is squeezed indicates satisfactory battery. No bleep indicates need for battery replacement.

Spare: Holder and storage space for spare pack provided. (same pack is also spare for Genny).

#### Weight

Net 5.5lb (2.5kg) with batteries.

#### Packing information

Gross weight: 7lb (3.2kg)  
Carton: 33 x 9.5 x 3.5ins. (84 x 24 x 9cm)

### Optional Extras

#### 1 Signal clamp

Used with Genny in C mode to apply signals to cables. Can be stored in Genny compartment.

Max power: 0.08W RMS  
Typical range: 200yds/m

Clips around cables up to 3ins (76mm) diameter.

Supplied with 80ins (2m) long connection cable.

#### 2 Extension rods

28" (71cm) insulated rods extend the reach of the signal clamp for connection in deep chambers or to overhead wires. Up to three rods can be joined together.

#### 3 Plug connector

Used with Genny in C mode.

3-wire version for use with grounded or polarized power socket applies maximum signal for location by the C.A.T.

2-wire version is suitable for 2 pin power socket. Signal is less effective than 3 wire version.

Both types have circuitry to protect both the user and the Genny from voltages up to 250V RMS, D.C. to 400 Hz.

Cable length: 27ins (70cm)

### C.A.T and Genny Construction

#### Housings

Housings are black one piece impact-proof polyethylene mouldings potted with polyurethane foam for mechanical rigidity and protection of internal components against shock damage.

#### Circuitry

Integral wiring harness links control and coils to printed circuit board with proprietary plugs and sockets. Circuit board can be calibrated without dismantling. Circuit board can be removed and replaced using only a screwdriver and an Allen wrench.

#### Enclosures

Plastic cone loudspeaker is fully waterproof, protected by stainless steel mesh cover.

#### Battery

Two quarter turn fasteners give access to the battery compartments. The compartments are on the exterior of the plastic housing so corroded batteries cannot harm internal circuitry.

#### Instructions

Illustrated handbook is supplied with every C.A.T.

#### Temperature range

5°F to 122°F  
-15°C to 50°C

#### Repair and calibration

Complete calibration sets are available to both the C.A.T and the Genny to insure correct operation after circuit board replacement. The sets can also be used for simple sensitivity and performance checks.

A comprehensive workshop manual is available.

### 1506 Genny

#### Controls

- 1 4 position function switch:

#### Off

- I Induction
- C Connection
- M Metal cover location
- 2 'M' tuning control

#### Frequency

I and C modes. 22kHz crystal controlled, pulsed at 5Hz.

#### Induction

Range: Typically 150 yds/m

#### Connection

Energises sockets for direct connection, signal clamp or plug connector.

Direct connection output power: 0.08W RMS into 33 ohms

Range: Typically 250yds/m

Audible tone indicates quality of connection

#### Metal cover location

Nominal 125kHz frequency shift detector.  
'M' tuning control is adjusted for loudspeaker null.  
Proximity of metal targets increases loudspeaker frequency.

#### Batteries (included)

Type: 8 x 1.5V AA alkaline

Life: 30 hours intermittent use at 20°C, 68°F

Test: Audible bleep in Induction mode indicates satisfactory battery.

#### Connection Equipment Provided

Storage compartment opens with a single quarter-turn fastener and contains:

80ins (200cm) lead with clip and magnet for direct connection.

10yd/m lead on spool with clip and magnet for ground connection.

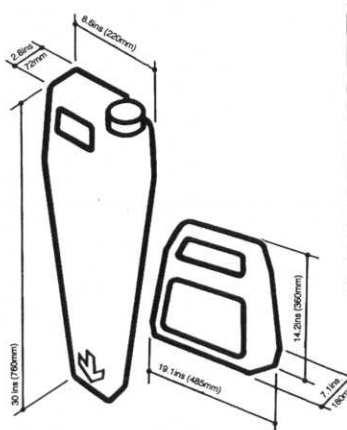
Ground stake.

#### Weight

Net 7.7lb (3.5kg) with batteries.

#### Packing Information

Gross weight: 9.2lb (4.2kg)  
Carton: 19.7 x 7.7 x 14.6ins (50 x 19.5 x 370cms)



### Purchasing

The C.A.T may be purchased by itself for use as a sweeping tool. It may also be purchased with the Genny. Alternatively the Genny can be added later.

Please note the following part numbers to insure speedy order processing:

C.A.T 1306	10/1306CD
Genny 1506	10/1506GD
Signal Clamp	10/CLAMPD
Extension Rod	10/GT109
Two wire plug connector	10/PLC2
Three wire plug connector	10/PLC3
Workshop manual	10/HBOOKD

Other Radiodetection equipment includes high performance pipe and cable locating instruments, equipment for cable fault finding, drain locators and instruments for measuring through rock and soil.

Radiodetection make every effort to ensure that information about locating equipment and its use is correct but do not accept responsibility for damage or problems caused through use of the equipment: priority must always be given to following national and local safety requirements. We are continually developing our products and the design of Radiodetection equipment is subject to change without notice.

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