

# Cable avoidance reaches a new level



Three world class cable avoidance tools

**C.A.T<sup>3</sup> | C.A.T<sup>3V</sup> | C.A.T<sup>3+</sup>**



**Radiodetection**

## Avoidance Scan™

Search in Power, Radio, and Genny modes simultaneously for improved safety and faster surveys.

## StrikeAlert™

Alerts the user to shallow power cables by flashing an alert icon.

## Precision locate

Improved pinpointing of buried services and exceptionally fast sound and meter response.

## Optimised locate

Operates effectively in congested sites, and sites with overhead cables.



# Introducing a new generation of products with ground breaking features – delivering improved safety, faster surveys and simpler operation.

Buried Utilities represent a major hazard to construction workers the world over. Poorly planned excavations can cause cable or pipe damage resulting in costly repairs, delays and personal injury.

The C.A.T and Genny range are designed to locate these services so that they can be avoided.

The C.A.T (Cable Avoidance Tool) can detect signals naturally radiating from metallic services or the Genny can be used to apply a distinctive signal that the C.A.T can detect.

The C.A.T and Genny has become the industry standard pipe and cable avoidance tool, recognised as the leader providing performance, ruggedness and reliability, together with affordability and low cost of ownership.

The C.A.T<sup>3</sup> is the latest in a line of continuous improvements. The C.A.T<sup>3</sup> utilises the latest technologies to bring you the most optimised cable avoidance tool in the market place today.

### AvoidanceScan™

This new feature allows the user to sweep an area searching for Power, Radio and Genny signals simultaneously, dramatically speeding up pre dig survey times and encouraging the full use of all three modes reducing costs and improving safety.

### StrikeAlert™

Although work practices and guidelines insist power cables are buried below a certain depth, a common cause of cable strike is shallow cables. The StrikeAlert™ feature alerts the user to shallow power cables by flashing the ALERT icon on the display of the C.A.T<sup>3</sup>V or C.A.T+.

### LOCATE QUALITY

Cutting edge technology within the new C.A.T<sup>3</sup> ensures fastest possible processing of data. This has resulted in exceptionally fast sound and meter response, improved precision pinpointing together with a smoothness that puts the user in complete control.

#### LOCATE QUALITY - fast sound and meter response

DYNAMIC RANGE:  
120dB (@ 10Hz bandwidth)

SELECTIVITY:  
141 dBrms/ Hz

SENSITIVITY:  
5x10<sup>-15</sup> Tesla (32,768Hz, 1Hz bandwidth)

### ENHANCED SIGNAL PROCESSING

Latest and patented signal processing techniques have given the C.A.T<sup>3</sup> the ability to reject unwanted signals to a level never achieved before. This has optimised the C.A.T<sup>3</sup> for operation in the most demanding of environments such as congested sites and sites with overhead electrical cables.

### BACKLIGHT

Poor light conditions can lead to misread information from the meter. The auto switching backlight minimises these effects and allows the continued use of the C.A.T<sup>3</sup> into the night.

### PULSE/CONTINUOUS SWITCH ON GENNY

This switch allows the user to select the setting to their individual preference and to optimise battery saving. The new Genny is compatible not only with all the different versions of 33kHz C.A.T<sup>3</sup> but also all previous versions of 33kHz C.A.T.

### REAL SOUND

'Real Sound' means the sound you hear is derived from the signal radiating from the cable or pipe. With very little experience this very important feature helps the user distinguish the signal from random background noise.

### BATTERIES

Fed up with fumbling around with eight AA Cells? Well the new C.A.T<sup>3</sup> uses just two D Cells giving maximum use at minimum costs. Compatibility with the Genny batteries means that you only need buy one type of battery increasing convenience and reducing stock levels. New battery low indicator alerts when battery is getting low.

FOUR OPERATING MODES – INCLUDING THE ALL-NEW AvoidanceScan™



In the P mode the C.A.T<sup>3</sup> detects 'power' signals that are being radiated by loaded cables.



In the R mode the C.A.T<sup>3</sup> detects VLF radio signals re-radiated by buried metallic pipes and cables.



In the G mode the C.A.T<sup>3</sup> detects a tone radiated by the Genny+ to a buried conductor.



In AvoidanceScan™ Mode P, R and G operate simultaneously providing faster surveys.



DETACHABLE LOUDSPEAKER FOR NOISY CONDITIONS

AUTO BACKLIT LCD

BAR GRAPH FOR SIGNAL STRENGTH

UTILITY DEPTH BUTTON

TRIGGER SWITCH - SWITCHES OFF AUTOMATICALLY, WHEN NOT IN USE

SENSITIVITY CONTROL

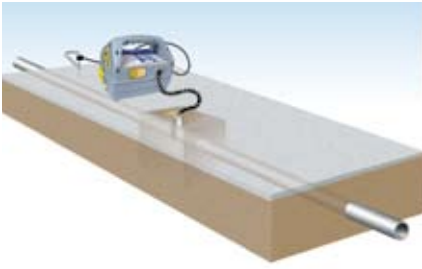
MODE SELECTOR SWITCH

LIGHTWEIGHT, ALL-WEATHER, HI-IMPACT ABS

BATTERY COMPARTMENT

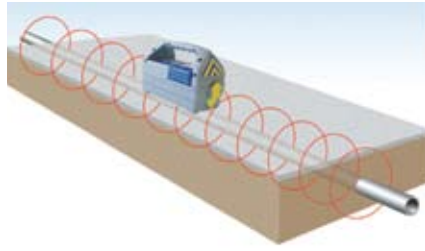
REPLACEABLE WEARFOOT

## APPLYING THE TRACE SIGNAL



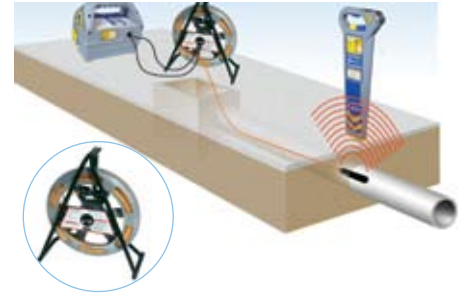
### DIRECT CONNECTION

A very effective method for connecting to a valve, meter, junction box or other access point. Curly leads are compact and easier to handle and pack away.



### INDUCTION

A convenient and quick way of applying the Genny<sup>3</sup> signal to pipe or cable, where direct connection or signal clamping is not possible.



### FLEXITRACE (Optional)

A self-contained flexible rod and transmitter alternative for tracing non-metallic pipes. Energised by connecting to the Genny<sup>3</sup>. The small diameter transmitting head allows access to very small diameter pipes of 15mm or above.

### ON/OFF SWITCH

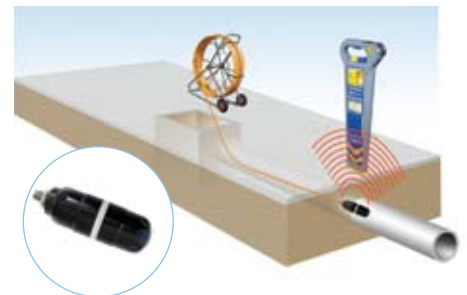
### LOUDSPEAKER

### BATTERY COMPARTMENT

### STORAGE COMPARTMENT

### PULSE/CONTINUOUS SWITCH FOR INDIVIDUAL SELECTION LOCATED IN STORAGE COMPARTMENT

### DIRECT CONNECTION SOCKET



### MOUSE (Optional)

The mouse is a self-contained transmitter which is connected to a push rod and inserted into a non-metallic pipe or duct structure. The mouse can then be detected using the C.A.T<sup>3</sup>.



### SIGNAL CLAMPING (Optional)

Applies a Genny<sup>3</sup> signal safely to a pipe or live cable up to 76mm diameter without interrupting the supply.



### LIVE CABLE CONNECTORS (Optional)

For applying the transmitter signal to a live cable, the most certain method of locating a power distribution system in a street.

## A FULL RANGE OF OPTIONS



|                      | C.A.T <sup>3</sup> | C.A.T <sup>3</sup> V | C.A.T <sup>3</sup> + |
|----------------------|--------------------|----------------------|----------------------|
| POWER                | ●                  | ●                    | ●                    |
| RADIO                | ●                  | ●                    | ●                    |
| AvoidanceScan™       | ●                  | ●                    | ●                    |
| GENNY                | ●                  | ●                    | ●                    |
| ACTIVE DEPTH         |                    |                      | ●                    |
| StrikeAlert™         |                    | OPTIONAL             | OPTIONAL             |
| METER WITH BACKLIGHT |                    | ●                    | ●                    |

| C.A.T <sup>3</sup> TECHNICAL SPECIFICATIONS  |                    |                  | LOCATING DEPTH GUIDE (M/YDS) |                 |
|--|--------------------|------------------|------------------------------|-----------------|
| MODE   | FREQUENCY          | SENSITIVITY @ 1m | GOOD CONDITIONS              | POOR CONDITIONS |
| POWER  | 50 HZ - 3.5 KHZ    | 3 mA             | 3                            | 2               |
| RADIO  | 15 - 30 KHZ        | 25 µA            | 2                            | 1               |
| GENNY <sup>3</sup>   | 32.768 KHZ ± 20 HZ | 5 µA             | 3                            | 2               |
| Avoidance Scan™  | P/R/G COMBINED     | AS ABOVE         | AS ABOVE                     | AS ABOVE        |
| LOCATE ACCURACY: ±10% of depth   |                    |                  |                              |                 |
| DEPTH ACCURACY: on undistorted signal and with no adjacent signals.<br>Line - 5% 0.1 m to 3 m (4in to 10 ft),<br>Sonde - 5% 0.1 m to 7 m. (4in to 16 ft) |                    |                  |                              |                 |
| BATTERIES: 2 x LR20 (D) 1.5 V alkaline. 40 hours life, nominal @ 20°C (68°F) intermittent use. Compatible with D type NiMH rechargeable batteries        |                    |                  |                              |                 |

| GENNY <sup>3</sup> TECHNICAL SPECIFICATIONS |   |  |
|---|---|--|
| DESCRIPTION                                 | FREQUENCY   | REMARKS                                    |
| INDUCTION                                   | 32.768 kHz  | Auto-selected without connection lead      |
| CONNECTION                                  | 32.768 kHz  | Auto-selected by inserting connection lead |
| QUALITY CONTROL:                            | ISO 9001/EN29001  |  |
| POWER OUTPUT:                               | 0.1 W (automatic impedance matching on connection)                                |  |
| BATTERIES:                                  | 4 x LR20 (D) 1.5V alkaline. 30 hours nominal life at 20°C (68°F) intermittent use |  |
| WARRANTY:                                   | 12 months   |  |

## WARNING

- Increased risk of property damage, death, or serious injury may result if buried utilities, pipes, and cables are not properly located before digging.
- Make sure to read and follow all instructions and warnings in the owner's manual when using the C.A.T<sup>3</sup> and Genny<sup>3</sup>.
- The C.A.T<sup>3</sup> detects most buried cables and conductors, BUT SOME CABLES AND CONDUCTORS (EVEN LIVE ONES) DO NOT RADIATE SIGNALS, SO THE C.A.T<sup>3</sup> WILL NOT DETECT THEM. Also, the C.A.T<sup>3</sup> does not indicate whether a signal comes from a single cable or conductor or from several cables or conductors buried in close proximity to each other.
- When using the C.A.T<sup>3</sup>, check whether the StrikeAlert™ feature is activated by looking for the 'StrikeAlert™ Activated' labels situated either side of the display.
- The StrikeAlert™ feature is activated by cables or conductors radiating a power or Genny signal that the C.A.T<sup>3</sup> can detect, BUT NOT ALL LIVE CABLES AND CONDUCTORS RADIATE A SIGNAL THAT THE C.A.T<sup>3</sup> CAN DETECT. THEREFORE, NON-ACTIVATION OF THE StrikeAlert™ FEATURE DOES NOT GUARANTEE THAT THE AREA IS CLEAR OF SHALLOW OR LIVE CABLES OR CONDUCTORS.
- Even if using a C.A.T<sup>3</sup> and Genny<sup>3</sup>, ALWAYS DIG WITH CAUTION.
- Call your local support number (available from [www.radiodetection.com](http://www.radiodetection.com)) for questions regarding the proper use, maintenance, and repair of the C.A.T<sup>3</sup> and Genny<sup>3</sup>.

## World leaders



Radiodetection is a proud member of the SPX group of companies, which provide technical products and service solutions worldwide.

Radiodetection and its associated companies specialise in the design and manufacture of products for the location and maintenance of underground pipes and cables. Our aim is to be viewed as the supplier of choice of 'high performance' quality equipment using advanced product technologies. We are also committed to both design innovation and customer support.

To see the full range of products and services provided by Radiodetection group visit [www.radiodetection.com](http://www.radiodetection.com)

**Radiodetection (China) Ltd.**  
Room 708, CC Wu Building  
302-308 Hennessy Road, Wan Chai  
Hong Kong SAR, China  
Tel: 00852 2110 8160  
Fax: 00852 2110 9681  
Email: [chinasales@radiodetection.spx.com](mailto:chinasales@radiodetection.spx.com)

**Radiodetection (China) Ltd.**  
Hong Fu Group Office Building  
Room 322-326  
Bei Qi Jia Township, Changping District  
Beijing 102209, China  
Tel: 010-8975 5540  
Fax: 010-8975 5640  
Email: [china.service@radiodetection.spx.com](mailto:china.service@radiodetection.spx.com)

## Technical support



C.A.T<sup>3</sup> and Genny<sup>3</sup> users have easy access to technical support. A call to your regional representative, or the Radiodetection head office, will put you in contact with our team of field-experienced technical experts.

## Servicing and repair



Radiodetection has a team of factory-trained service technicians and a dedicated service facility accredited to ISO 9000. Turnaround is fast, and costs are very competitive. All repairs carry a six month warranty.

## Training

CITB

C.A.T<sup>3</sup> and Genny<sup>3</sup> training for your operators and training personnel is available on your site, or at Radiodetection's headquarters. Training, by qualified instructors, usually lasts half a day. Each trainee receives a certificate to confirm they have received training on a course registered with CITB.

**Radiodetection Ltd.**  
Western Drive,  
Bristol BS14 0AF  
United Kingdom  
Tel: +44 (0) 117 976 7776  
Fax: +44 (0) 117 976 7775  
Email: [sales.uk@radiodetection.spx.com](mailto:sales.uk@radiodetection.spx.com)

**Radiodetection (Japan) Ltd.**  
Room 203, Maida Building  
7-25, Hiroshiba - Cho Suita, Osaka  
564-0052, Japan  
Tel: +81 (0) 6 6192 0211  
Fax: +81 (0) 6 6192 0212  
Email: [sales@radiodetection.co.jp](mailto:sales@radiodetection.co.jp)

**Radiodetection Sarl**  
13 Grande Rue, 76220  
Neuf Marche, France  
Tel: +33 (0) 232 8993 60  
Fax: +33 (0) 235 9095 58  
Email: [info.fr@radiodetection.com](mailto:info.fr@radiodetection.com)

**Radiodetection**  
154 Portland Road, Bridgton  
ME 04009, USA  
Toll Free: 1-877-247-3797  
Tel: (207) 647-9495  
Fax: (207) 647-9496  
Email: [Bridgton@radiodetection.spx.com](mailto:Bridgton@radiodetection.spx.com)

**Mactek Pty. Limited**  
A Subsidiary of Radiodetection Ltd.  
Unit 20, 14 Jubilee Ave, Warriewood  
NSW 2102, Australia  
Tel: +61 (0) 2 9979 8555  
Fax: +61 (0) 2 9979 7733  
Email: [mactek@mactek.co.au](mailto:mactek@mactek.co.au)

**Radiodetection CE**  
(Germany, Netherlands, Belgium, Luxemburg)  
Industriestraat 11, 7041  
GD's-Heerenberg, Netherlands  
Tel: +31 (0) 314 66 47 00  
Fax: +31 (0) 314 66 41 30  
Email: [info@radiodetection.nl](mailto:info@radiodetection.nl)



# Radiodetection

[www.radiodetection.com](http://www.radiodetection.com)

Radiodetection products are under continuous development and are subject to change, we reserve the right to alter or amend any published specification without notice.

StrikeAlert™ and AvoidanceScan™ are trademarks of Radiodetection Ltd.

Copyright 2005 Radiodetection Limited. All rights reserved.

Radiodetection Ltd. is a subsidiary of SPX Corporation.