

RADIODETECTION® 

# C.A.T4® specification

Cable Avoidance Tools



CABLE AVOIDANCE TOOLS – DETECT MORE, FASTER, SMARTER, SAFER

SPX® 



# C.A.T4 Specification

## 1. Product Summary

1.1 Product overview:	4th Generation Cable Avoidance Tool consisting of a highly rugged, weather resistant two antennae, EM detector with Audio and signal strength meter
1.2 Product description:	Cable Avoidance Tool
1.3 Intended use:	Locating and tracing buried utilities
1.4 Supplied with:	Recommended to be used with a Genny4™ Signal Generator

## 2. Product Range

2.1 C.A.T4:	Standard Dual frequency Cable Avoidance Tool
2.2 C.A.T4+:	Standard Dual frequency Cable Avoidance Tool with Depth Estimation
2.6 gC.A.T4+:	Standard Dual frequency Cable Avoidance Tool with Data-logging, GPS and Depth Estimation

## 3. Optional features

3.1 eCert :	Online Calibration Check and Certification of Product
3.2 CALsafe :	Disables the unit when it goes beyond its re-calibration date
3.3 StrikeAlert™:	Warns of shallow buried utilities.
3.4 Data-logging:	Data-logging of all events when used in Power, Genny or Avoidance Modes
3.5 Swing Warning:	Ground-breaking feature warns operators of incorrect usage to promote best working practices (gC.A.T4+ model only)
3.6 GPS*:	Adds location information to Data-logging records
3.7 Service Indicator:	Warns of due service date

## 4. Capability

Mode	Frequency Range	Sensitivity @1m	Locate Depth m	
			Good Conditions	Poor Conditions
Power Signals ( <i>P</i> )	50Hz to 1500Hz	3mA	3	2
Radio Signals ( <i>R</i> )	15kHz to 30kHz	25µA	2	1
Genny4 Signals ( <i>G</i> )	Simultaneous 32.768kHz and 131.072kHz +/- 20Hz	5µA	4	2
Avoidance Mode ( <i>A</i> )	P+R+G As above	As Above	4	2

## 5. Performance

5.1 Dynamic Range:	120dB @10Hz
5.2 Dynamic Overload Protection:	40dB @50Hz (automatic)
5.3 Locate accuracy:	+/- 10% of depth
5.4 Depth Range:	Line depth 4m, Sonde Mode 7m
5.5 Depth Accuracy:	Line mode 5%, Sonde Mode 5%
5.6 Horizontal GPS Accuracy*:	3m CEP (Circular Error Probable)
5.7 Data-logging capacity:	24 months @8hrs day, 5 days per week
5.8 Service indicator:	Provides 30 day warning prior to elapse date

## 6. Operating Modes

6.1 Power:	Non latching trigger On/Off when released
6.2 Visual Indication:	Digital display
6.3 Audio Output:	Audio signal derived directly from signal received, output through wired detachable speaker
6.4 Display:	Burnt Glass Backlit LCD
6.5 Gain control:	Manual Rotary 270 Degree
6.6 Mode control:	Manual 4 position switch
6.7 StrikeAlert:	Alarm that activates in Power, Genny and Avoidance modes when less than 30cm from Cable Avoidance Tool
6.8 Batteries:	Requires 2 x D-Cell batteries (HR20 NiMH preferred) but alkaline LR20 can be used
6.9 Battery Life:	14 hours continuous, 0 to 50°C using Radiodetection NiMH Rechargeable batteries 4 hours continuous 0 to 50°C using Alkaline batteries

## 7. Physical Characteristics

7.1 Operating Temperature Range:	-20°C to +50°C
7.2 Storage Temperature Range:	-20°C to +70°C
7.3 Construction:	High Impact ABS Plastic
7.4 Ingress Protection rating :	Weatherproof to NEMA3S and IP54
7.5 Dimensions:	71.6cm x 25.1cm x 6.4cm
7.6 External connection:	USB 2.0, Bluetooth® Low Energy (BLE) (Android and Apple)
7.7 Weight	2.3kg (including batteries)
7.8 Warranty:	12 months
7.9 Recommended Service Interval:	Annual

## 8. Accessories

8.1 Sonde:	Small transmitter for tracing non-metallic pipes
8.2 FlexiTrace™:	Sonde attached to a Cable for tracing small non-metallic pipes for use with Genny
8.3 Transmitter Signal Clamps	For inducing a Genny signal where direct connection to a pipe or cable is not possible
8.4 NiMH Rechargeable Battery kit	Allows extended working in low temperatures , 500 recharge cycles and up to 7000 hour use before disposal

## 9. Software support

9.1 C.A.T Manager® Online:	Remote management tool that enables automatic usage-monitoring of gC.A.T4 fleets Using a standard web browser, managers and supervisors can review how their entire team of field operators are using their gC.A.T4 Cable Avoidance Tools locators
9.2 C.A.T Manager® PC:	Windows Program to allow operators to transfer and review data-logs, configure and remotely check their C.A.T4s using eCert and install any updates to their C.A.T4 software

\*On GPS model variants GPS accuracy depends by many factors, such as: location, time of the day, weather conditions, number of satellites available and their geometry.

## Our Mission

Provide best in class equipment and solutions, to prevent damage to critical infrastructure, manage assets and protect lives.

## Our Vision

To be the world's leader in the management of critical infrastructure and utilities.

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Kearneysville, WV

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