

RADIODETECTION® 

C.A.T4® specification

Cable Avoidance Tools



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

SPX 
TECHNOLOGIES

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 and 60Hz and harmonics	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.

Our locations



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Canada

Vaughan, ON
Mississauga, ON



Europe

United Kingdom **HQ**
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Germany
The Netherlands



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India
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