

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

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|---------------|--|
| 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

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|------------------------|--|
| 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

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|-----------------------------------|--|
| 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

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|-----------------------------------|---|
| 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

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|----------------------------|---|
| 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.

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

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

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