# SuperCAT<sup>®</sup>4+

Utility-specific range for finding CPS protected pipes, sondes, telecom and power cables



SuperCAT4+ and T1 are easy to use, utility-specific locating tools with enhanced features for the challenges faced by particular industries. Detect more, reduce utility strikes and improve safety.





Each model has been designed to meet the needs of a specific industry challenge:

SuperCAT4+CPS - find oil and gas pipelines using rectified CPS signals.

**SuperCAT4+S** – use a range of sondes to find water and drain pipes, and telecom ducts.

**SuperCAT4+** – Multi-frequency cable locator with transmitter options for high impedance telecom cables or low impedance power cables.



## SuperCAT4+ and T1 transmitter range



## High contrast display with auto-backlight

Bargraph 'tidemark' enables operators to quickly spot and zero-in on a buried conductor

#### Fingertip control

Trigger switch ensures power off when not in use

Mode selector switch

Sensitivity control



Detachable loudspeaker for



## Accessible battery compartments

Locator and transmitter powered by the same off-the-shelf batteries. (Locator 2 x D-Cell, Transmitter 4 x D-Cell)

#### **Protected investment**

USB data port ensures product can benefit from future software upgrades





#### Built for on-site use

Light weight high impact ABS casing provides protection to IP54 for all-weather operation. Replaceable wear boot protects against knocks and drops



#### Trace non-metallic utilities

Accurately trace non-metallic pipes or telecom ducts using sondes.



#### Connect more to find more

Choose from a wide range of accessories to ensure target utility can be distinguished easily.



#### Frequency selection

Distinguish target utilities with a range of industry specific frequencies.

### Locate and protect underground assets

Safe excavation relies on the accurate locating of buried assets. Failure to accurately identify the presence of utilities may result in damage to underground pipes and cables which, in turn, can lead to utility outages, costly repairs and project delays. In some instances personal injuries can result.

#### Detect more, reduce utility strikes

Each model of the SuperCAT4+ and T1 range is designed to meet the challenges faced by a specific industry.

For oil and gas pipes using a Cathodic Protection System, the CPS model can locate the rectified signal without attaching an additional transmitter.

The S model locates a range of sonde frequencies that can be matched to the challenges of finding water and drain pipes. Low frequency sondes are used to trace cast-iron pipes. Higher frequencies sondes are used to trace non-metallic pipes and conduits.

SuperCAT4+ can be used to locate a comprehensive set of active frequencies to support the detection and tracing of different cable types in varied environmental conditions. Higher frequencies such as the 131kHz or 65kHz can be used to find well insulated, high resistance, utilities such as small core telecoms cables or insulated pipe joints. For long range locating of lower resistance utilities such as power cables or metallic pipelines, lower frequency options are available.

#### Accessories to extend your capabilities

An array of accessories are available for the SuperCAT4+ range to apply signals safely and effectively to pipes and cables, including live cables.

Flexrods can be used to push a wide range of sondes up to 500' (150m).

For non-conductive pipes or conduits the T1 can be connected to a FlexiTrace enables continuous locating and tracing of non-metallic ducts or pipes, for up to 260' (80m).

Signal clamps can be used to apply a transmitter signal to a specific cable or pipe where direct connection is not possible. Live plug and cable connectors can be used to energize difficult to locate cables such as power cables from private properties to the main distribution cable in the street.









## Operating Modes

Simple mode selection matches SuperCAT4+ to the signal type being located.

## Safety Built-In

All SuperCAT4 + models come with a range of features designed to aid safe working practices.

#### **Dynamic Overload Protection**

High levels of electrical interference, as found around substations and near high-voltage transmission cables can overload sensitive electronics. Dynamic Overload Protection filters this interference out, enabling SuperCAT4+ to continue locating where other units struggle.

#### Dig more safely with StrikeAlert™

Strike Alert warns the user to the possible presence of shallow cables and utility lines in both Power and Active Line modes.

Although work practices and guidelines insist power cables are buried below a certain depth, a common cause of cable strikes, damage and possible injuries are unexpectedly shallow cables.

#### **Automatic Depth Display**

Automatically measure and display the depth in Active Line, Sonde or CPS modes if the environmental conditions are suitable for an accurate reading.

#### Real Sound

The audio signals emitted by the SuperCAT4+ are derived from the signals detected. Radio, Power and Active signals can be easily distinguished from each other and from background noise, helping identification of target utilities and aiding differentiation of closely co-located utilities.

#### **CPS Mode**

Detects the signal radiated by a Cathodic Protection System (CPS)



**CPS** 

#### Sonde Mode

Detects the signal radiated by a compatible sonde.





#### **Active Line Mode**

Detects the T1 signals radiated by buried utilities.





#### **Power Mode**

Detects the electromagnetic fields generated by loaded power cables.



#### Radio Mode

Detects long-range radio signals as they are re-radiated along buried metallic cables and pipes.





#### Strike Alert Warning

Warns of shallow buried utilities in Power and Active modes.



## Connect more to find more

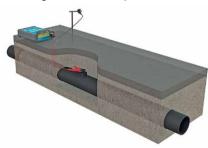
#### **Cathodic Protection Systems**

SuperCAT4+ CPS models are optimized to detect CPS signals to allow tracing of protected pipelines without disconnecting rectifiers.



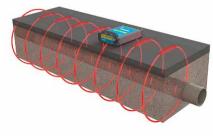
#### **Direct Connection**

The most effective method for connecting to a valve, meter, junction box or other access point, as long as access is possible.



#### Induction

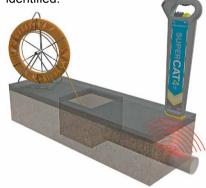
Conveniently apply a transmitter signal to a pipe or cable when, direct connection or signal clamping is not possible.





#### **Sondes**

Sondes enable cast-iron or non-metallic pipes to be accurately traced, depth determined and the position of blockages accurately identified.



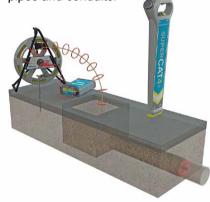
#### Signal Clamping

Safely apply a T1 signal to a pipe or cable up to 220mm/8.5" diameter without interrupting the supply.



#### FlexiTrace<sup>™</sup>

Connect the T1 to a FlexiTrace to radiate a continuous tracing signal from non-metallic pipes and conduits.



#### **Live Cable Connector**

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



## Find the right SuperCAT4+ for your application

### Locate pipelines protected by a Cathodic Protection System

## SuperCAT4+ CPS and T1-512 / T1-640

Optimized for metal pipes that use rectified currents as part of their Cathodic Protection System. The CPS signal can be located and traced without the need to apply an additional transmitter signal to the pipeline.

#### Find water and drain pipes

## SuperCAT4+ S and T1-512 / T1-640

For the challenge of detecting and tracing buried pipes, the SuperCAT4+S locates the widest range of sonde frequencies.

Additionally, an active 33 kHz frequency can be applied to a FlexiTrace using a T1-512 or 640 for continuous signal tracing.

## Detect a broad range of utilities

#### SuperCAT4+

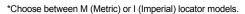
Designed to meet the demanding environments of the construction industry, this multi-utility locator can be used with a wide range of sondes and accessories.

Pair with the higher frequency range of T1-131 for environments where locating Telecom or high-impedance cables are a priority. Alternatively, use with the 65/512/640 for a lower frequency range suitable for pipe tracing.

SuperCAT4+CPS			
Strike <i>Alert</i>	<b>/</b>		
Depth readout*	<b>/</b>		
Dynamic Overload Protection	~		
Passive modes			
CPS locate	<b>✓</b>		
Radio mode	~		
Power mode 50 Hz/60 Hz**	~		
Active locating using:	T1-512 T1-640		
Direct connection			
512/640 Hz**	~		
8 kHz	<b>✓</b>		
8 kHz 33 kHz	<i>V</i>		
¥1111=			
33 kHz			

SuperCAT4+S			
Strike <i>Alert</i>	<b>V</b>		
Depth readout*	<b>V</b>		
Dynamic Overload Protection	V		
Passive modes			
Radio mode	~		
Power mode 50 Hz/60 Hz**	<b>V</b>		
Sondes			
Sonde 512/640 Hz**	<b>✓</b>		
Sonde 8kHz	<b>✓</b>		
Sonde 33 kHz	<b>V</b>		
Active locating using:	T1-512 T1-640		
Direct connection			
33 kHz	<b>✓</b>		
Induction			
33 kHz	~		

SuperCAT4+		
Strike <i>Alert</i>	~	
Depth readout*	V	- 4
Dynamic Overload Protection	~	200
Passive modes		CZ
Radio mode	<b>'</b>	1-
Power mode 50 Hz/60 Hz**	<b>V</b>	/
Sondes		
Sonde 512/640 Hz**	<b>'</b>	3
Sonde 33 kHz	<b>V</b>	///
Active locating using:	T1-512 T1-640	T1-512 T1-640
Direct connection		
512/640 Hz**	<b>/</b>	~
8 kHz	<b>✓</b>	<b>/</b>
33 kHz	<b>/</b>	
65 kHz		~
Super HF 131 kHz		
Induction		
8 kHz	<b>V</b>	~



<sup>\*\*</sup>Power frequency and corresponding active low frequency set by model, (50 Hz - 640 Hz and 60 Hz - 512 Hz).

33 kHz 65 kHz





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