



C.SCOPE CAT 33XD CABLE ROUTE TRACER CAT 33XD CABLE AVOIDANCE TOOLS with SGV SIGNAL GENERATOR

The C.Scope CAT 33XD Series Cable avoidance tools by Stanley are industry standard locators with Power, Radio & 33kHz Generator Modes that detect and trace buried services simply, quickly and reliably.

The CAT 33XD is a standard cable avoidance tool with Power, Radio & 33kHz Generator Mode that provides information about underground services before you dig.

The CAT 33XD has all the familiar user-friendly features is one of the most durable equipments in the industry and has **Depth measurement capability** (When used in 33kHz Generator Mode for route tracing in conjunction with the SG-V Signal Generator).

The CAT 33XD are used as **stand alone equipments** for **cable locating & avoidance**. When combined with the **SGV Signal Generator** and accessories, the **Cable Avoidance Tool XD** becomes a versatile, all round **Pipe and Cable Locating & Route Tracing Package** with **Depth Measurement**.

BETTER BY DESIGN :

Packed full of features : LCD Meter, Loudspeaker, Fingertip Controls, Adjustable Sensitivity & Rapid Switching between the Locator's Three Operating Modes allow for locating in the toughest of site conditions quickly and with confidence.

EASY TO USE :

The CAT 33XD series range is the most popular equipment in the industry, designed to be used by **ALL levels of staff & in ANY working environment**.

Easy to operate and easily able to cope with the rigors of life on construction and utility maintenance sites. It is the **simplest to use**, 'pick-up-and-go' Locator and will provide valuable information about the position of buried pipes and cables, reliably and quickly, time after time.

BUILT TO LAST :

The CAT 33XD is the **most rugged equipment** in the industry with **IP 65 Water and Dust Proof Rating & Impact Rated**.

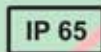
THE IDEAL CHOICE FOR :



SG-V



CAT 33XD



Quality in Construction. Delivered.

CAT 33XD CABLE AVOIDANCE TOOLS

The CAT 33XD have **THREE** detecting modes, each with their own advantages.

The **POWER mode** is the quickest way to detect most buried power cables by detecting the 50/60 Hz signal created by the electrical current itself, just using the CAT 33XD on a stand alone basis.

The **RADIO mode** detects re-radiated "radio" type signals that are often present on metal pipes and cables, allowing their position to be determined using just the CAT 33XD on a stand alone basis.

The **GENERATOR mode** is used to detect the signal applied to a metal pipe or cable by a **SG-V Signal Generator**. When combined with a SG-V Signal Generator & accessories, the **CAT 33XD Cable Avoidance Tool** becomes an all around **Pipe & Cable Locating & Route Tracing Package**. In this mode the CAT 33XD also provides **Depth measurement of Buried Pipes & Cables**.

- The equipments are packed with features necessary for tough on site job use & ease of operation :
- **Double Antennae** system with appropriate vertical separation which **rejects interference/ambient signals** such as signals from overhead power lines, for precise locating.
- **Multi Segment LCD display** with bar graph for easy locating, pin pointing and direction/orientation of buried utility.
- **LCD displays** important operating parameters such as :
 - * Signal strength
 - * Battery condition
 - * Confirmation of selected mode
 - * Depth measurement when used with the SG-V signal generator.
- **Detachable loudspeaker** to allow operation of instrument in noisy environments.
- **Audio response** is an actual analogue derivative of the received signal (not a synthesized tone) ensuring great confidence during locates.
- **Sensitivity control** to ensure very precise locating.
- The impact rated rugged case design protects the equipments from accidental damage. Built to the industry leading **IP65** standard for protection against water & dust ingress.
- Unit includes a **DUAL battery pack (Main + Spare)** in the internal battery compartment to ensure unhindered usage of equipment at site.
- **Trigger operated** on/off switch maximizes battery life.
- **Replaceable wear Foot/Skidplate** allows usage of the equipment on asphalt, rough & rocky surfaces.
- System is designed for **single handed & finger tip operation**.

CAT 33XD



Depth Measurement



C.SCOPE SG-V SIGNAL GENERATOR

The 33kHz SG-V Signal Generator is used to inject a signature frequency signal into a buried metallic cable or pipe either by 'direct connection' to the buried service at access points or nodes or 'induction method' from above ground.

Direct Connection allows specific buried pipes or cables to be individually traced, identified and their depths measured using alligator clamps for injecting the signal directly into the service. A signal clamp is also available as an optional accessory to allow injection of signal from the SG-V onto cables where a direct connection cannot be made.

Whilst use of the **Induction** method allows previously unknown metal pipes or cables to be detected and traced, by inducing signals onto buried services remotely from the surface without physically connecting to the services.

The SG-V Signal Generator is packed with features necessary to assist effective locating :

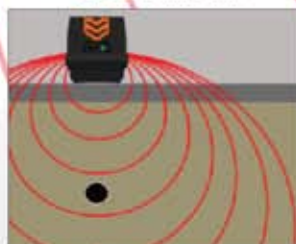
- **FOUR POSITION POWER LEVEL ADJUSTMENT.**
- You control how much power to use and when. The SGV allows you to toggle between a high & low setting.
- Choice of **PULSED or CONTINUOUS SIGNAL OUTPUT.** You actually 'hear' the signal being transmitted through the buried service and have the option to toggle between the pulse & continuous outputs. Enables Triple confirmation of utility being located or traced.
- **Multi Segment LCD display** shows :
 - * Frequency
 - * Pulse/Continuous Output Signal
 - * Output Power Level
 - * Connected/Indirect Mode
 - * Battery Condition
 - * Speaker Mute
- Clear audible signal output to indicate unit in operation, pitch that varies in response to output current (connected mode), with volume control & audio mute button facility.
- Robust case construction built to **IP65** standards.
- Built in storage space for direct connection leads, earth stake & auxiliary earth lead & accessories.
- Standard Accessories Includes :
 - * Combined Direct Connection Lead & Earth Lead, with magnet attached to the crocodile clips.
 - * Auxiliary Earth Lead 10m length.
 - * Earth Stake 250mm length.



DIRECT CONNECTION



INDUCTION



MULTI SEGMENT LIQUID CRYSTAL DISPLAY



SIGNAL CLAMP (OPTIONAL) :

With 100mm dia and 2m connecting lead, the signal clamp allows injection of signal from the SG-V onto most cables where a direct connection cannot be made . Designed to be resistant to ingress of dirt into any moving parts and capable of operation when immersed upto 1m deep in water (e.g. In a flooded man hole).



CAT 33XD TECHNICAL SPECIFICATION :

Mode/ Feature	Frequency (Hertz)	Sensitivity @1m depth	Detection Depth
Power	50-500	7mA	3.0m
Radio	10,000-30,000	12μA	2.0m
Generator	32,100-33,400	2μA	3.0m
CAT 33XD Depth Measurement- Line			0.2 to 3.0m
CAT 33XD Depth Measurement- Sonde			0.85 to 4.5m

Depth Accuracy	Better then $\pm 5\%$ of Depth
Product Dimensions	720 x 270 x 63 (in mm)
Weight	2.9kg (including batteries)
Power Supply	8 x "AA" alkaline batteries
Battery Life	Up to 40 hours intermittent use
Environmental	Case sealed to IP 65
Temperature Range	-20°C to +50°C
Approvals	CE
Item Code	ST-CAT33XD for cable avoidance tool with depth measurement

CAT 33XD



SG-V TECHNICAL SPECIFICATION :

Mode/ Feature	Frequency (Hertz)	Direct Connection	Signal Clamp	Induction Mode
Transmitter 33kHz	32,768	Yes	Yes	Yes

Output Power Supply	Switchable Through Four Levels up to a maximum of 0.3 watt
Product Dimensions	360 x 180 x 230 (in mm)
Weight	3.4kg incl. Accessories and batteries
Power Supply	4 x D alkaline batteries
Battery Life	Up to 40hours intermittent use
Environmental	Case sealed to IP65
Temperature Range	-20°C to +50°C
Approvals	CE, EN300-330, EN301-489
Item Code	ST-SGV



SGV Signal Generator including Direct Connection Lead, Auxiliary 10m Earth Lead, Accessory Tray and 250mm Earth Stake.

ACCESSORIES PROVIDED AS STANDARD :



Carry Bag



Flash
Video
Tutorial
CD

SIGNAL CLAMP SPECIFICATION (OPTIONAL ACCESSORY) :

Product Dimensions	100mm dia
Connection Lead	2m
Construction	Spring loaded jaws
Environmental	Designed to operate upto 1m deep in water
Item Code	ST-SC

