



Features

- ✓ Route tracing of buried underground any metallic cables up to 15 km max length.
- ✓ LCD Bar-graph on Audio frequency receiver unit for precise indication of cable route tracing.
- ✓ Route tracing of underground loaded live cables with passive frequency and inductive coupling.
- ✓ Depth measurement of buried cables up to 5 m with triangulation method.
- ✓ Peak and null reception methods for route tracing of cables.
- ✓ Pin-pointing of contact nature faults.

CRT 10D

Cable Route Tracer

Cable Route Tracer CRT 10D is an essential item in the kit for fault location of underground power and telecom cable network. It is a powerful audio frequency system that can be effectively used for various unique functions such as route tracing of any metallic cable, depth measurement, live loaded cable tracing and ground survey of underground utilities.

The system is capable to trace route of underground cable maximum 10km, and find out the depth up to 5 meter, This method is found to give more accurate results in presence of other metallic utilities in close proximity.

The system can be used to trace route of loaded live cable with the help of receiver unit and search coil in passive mode. It is also use to carry out ground survey and metallic pipe route tracing in inductive mode effectively.

Function

The audio frequency signal passes through the cable conductor an electromagnetic field of sending frequency is developed around on the conductor. When the search coil axis is passing in the developed field, it will sense the field and give it to the receiver unit.

The receiver amplifies that signal and indicates in terms of maximum signal strength and sound in the buzzer on the cable. When the search coil is going away from the field the signal indication and sound will reduce.

Applications

It is used for route tracing of any underground metallic cable in power transmission, distribution and signal cable networks or cable fault location service provider.

Working Principle

The Audio Frequency Generator injects an Audio frequency signal into the cable which generates an electromagnetic field around it.

This field is concentric to the cable & is present over the entire length. The presence of this field is detected by a highly selective and sensitive receiver with a search coil.

Technical Details

CRT 10D

Working Mode Surge & DC Test

Audio Frequency Generator AFR 4

Output Power	1, 2, 5 and 10 Watts selectable
Output Frequency	480Hz, 1450Hz & 9820Hz selectable
Impedance Matching	From 0.5 to 1000 Ohms selectable
Indication	Analog meter indication to indicate of transmitted power and matching ON Indication
Power Supply	230V AC $\pm 10\%$, 50 Hz Single phase or external 12 Volt DC of Internal rechargeable accumulator
Operating Time	Internal accumulator 1.5 Hrs on 10 Watts Mains and Ext. DC Power supply no time limit.
Storage Temp.	-5°C - 60°C
Working Temp.	0°C - 55°C
Dimensions	270 mm (L) x 248 mm(H) x 175 mm (D)
Weight	5.45 Kg Approx

Audio Frequency Receiver AFR 4

Receiving Frequency	Receiving three kinds of sinusoidal AC signals of different frequencies, namely low frequency, intermediate frequency, high frequency, 50Hz, 480Hz, 1.45KHz, 9.82KHz.
Receiving Mode	Crest method (horizontal coil), trough method (vertical coil), external device method (A-frame, coupling clamp).
Signal interface	Three interfaces of digital size, grating length, and voice prompt simultaneously indicate the strength of the signal
Display interface	Large-screen, graphic display, with backlight
Gain Control	Manual adjustment, dynamic range 000-100db.
Detection length	When directly connected to the cable, the maximum length 10 km. When coupling cables, one coupling can measure 3Km, and multiple couplings are infinite. When the cable is inducted, it can measure 300m in one induction and infinitely in many times.
Depth Measurement	Direct reading detection depth, range 000-250cm. 80% method for measuring depth, range 000-250cm (induction)
Current Measurement	Direct reading current
Detection Accuracy	5% of buried depth
Power Source	Standard No. 5 1.2V rechargeable battery 6, charge and discharge 500 time
Stand by Time	more than 12hours, power prompt.
Over heating & Over Current	Automatic Protection.
Working Temperature	0°C - 50°C
Dimensions	690 x 110 x 230 mm
Weight	1.8 kg approx

Standard Accessories

- Transmitter Tongs CTS120
- Connecting Cords
- Transmitter Coil TC8
- Operating Manual

Note : 1) Specification subject to change without notice. 2) Picture is for illustration purposes only.

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