CRT 8

Power / Telecon

Cable Route Tracer



Description

- Cable Route Tracer CRT8 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, by triangulation method. This method is found to give more accurate results in presence of other metallic utilities in close proximity.
- The system is accurately identifying the wanted cable from the bunch of cables in communication network.
- 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.

Application

It is used for route tracing of any underground metallic cable in communication, power transmission, distribution and signal cable networks or cable fault location service provider. It is also use to identification of wanted cable from bunch of cables in communication network.

Features

- Route tracing of buried underground any metallic cables up to 10 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.
- Peak and null reception methods for route tracing of cables.
- Depth measurement of buried cables up to 5 m with triangulation method.
- Ground survey of underground metallic utilities.
- Pin-Pointing of contact nature faults.
- Possibility of injecting the signal in 220-240V live cables through separation filter (Optional)
- Inductive coupling in a particular cable using transmitter tong (Optional)
- Identification of cable from bunch of cables in communication cable network.
- Rugged construction and easy to carry on site.





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.

Function

The audio frequency signal is passing 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 given to the receiver unit. The receiver amplifies that signal and indicates in terms of maximum bar-graph and sound in headphone on the cable. When the search coil is going away from the field the signal indication and sound will reduce.

Specifications

Audio Frequency Generator AFG 8

Output Power : 1, 2, 4 and 8 Watts selectable

Output Frequency : 480 Hz, 1450 Hz and 9820 Hz selectable Impedance Matching : From 0.5 to 1000 Ohms selectable

Indication : Analog meter indication to indicate of transmitted power and charge condition of internal batter,

ON indication & Battery Charging Indication

Power Supply : 230V AC +10 %, 50 Hz Single phase, or external 12 Volt DC. or Internal rechargeable accumulator

Operating Time : Internal accumulator 2.5 hrs on 8 watts.

Mains and Ext DC power supply no time limit

Storage Temperature : $-5 \text{ Deg C} \sim 60 \text{ Deg C}$ Working Temperature : $0 \text{ Deg C} \sim 55 \text{ Deg C}$

Dimension : 250 (L) x 120 (H) x 255 (D) mm

Weight : 4.9 kg Approx.

Audio Frequency Receiver AFR 4

Receiving Frequency : Passive - 50 Hz

Active 480 Hz, 1450 Hz, 9820 Hz selectable

Gain : More than 90 db

Indication : LCD Bar- graph display with scale illumination for signal strength & Battery status indication

Power Supply : 8 x 1.5 V AA size alkaline batteries
Operating Time : 8 to 10 hrs without scale illumination

Universal Search Coil SC 4

Receiving Frequency : 50 / 480 Hz, 1450 Hz, 9820 Hz selectable

Axis of Coil : Can be swivelled 45 / 90 Deg Extension of Search Coil : Telescope and Adjustable

Reception : Peak & Null

Dimension : 470 (H) x 80 (W) x 207 (D) mm

Weight : 0.85 kg Approx

Standard Accessories

Transmitter coil TC 8, Cable identification probe CIP 3, Headphones, Output connecting cables, 5 pin connecting cable, Mains cord, Ext. DC supplies cord & Earth spikes.

Optional Accessories

Transmitter Tongs CT 120 and Separation Filter SF 8

Standard Models

Cable Route Tracer CRT 10 - Power 10 Watt Max

Cable Route Tracer CRT 50 - Power 50 Watt Max

Cable Route Tracer CRT 50 - Power 50 Watt Max

Cable Route Tracer CRT 500 - Power 500 Watt Max

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