SCOPE

CFL PP3+

Cable Fault Pin Pointer

Pinpoint cable faults with route tracing quickly and accurately by CFL PP Series

The Product

Cable Fault Pin Pointer: CFL PP3+

Underground cable faults cannot be avoided due to many factors such as ageing, moisture ingress, road widening, infrastructure improvement, digging carried out for repairs of other underground utilities etc.

These faults generally take long time to detect and hence long time to repair the damaged cables and restore the power supply. Long outages cause heavy production loss to industries, revenue loss to power distribution companies and inconvenience to consumers. This calls for quick fault location and restoration of power supply in minimum possible time.

The new generation CFL PP3+ Cable Fault Pin Pointer cum route tracer from SCOPE is the ultimate solution for locating of underground cable faults in minimum time by tracing cable route. It uses advanced technology which helps even an unskilled operator to locate the fault accurately.

For pinpointing it is used along-with CFL SG Series Surge Generators and for route tracing it is used along-with CFL AG Series Audio Frequency Generators. Advanced technology with features like time lapse measurement, makes it a tool that can tackle complicated faults easily.

1. Power ON/OFF Button
2. Synchronize LED
3. Backlit Button
4. 5.7" Colour Touchscreen Display
5. Sensor Input Connector
6. Battery Charging Socket
7. 3.5mm Audio Jack
8. Volume Control Knob

Application Area

- Underground Power Cables
- Signaling and Control Cables
- Communication / Telecom Cables
- Overhead Cable Lines
- IT / Computer Network Cables
- Television Cables

Measurement Modes

Route Tracing Mode

After successful Prelocation of the fault, it is necessary to find out the exact cable route distance. A high frequency, Sinusoidal AC signal is injected into the cable using CFL AG Series Audio Frequency Generator, which completes its path through Earth. This signal is detected by Route Tracer Sensor Coil which is parallel to earth surface; simultaneously displayed on Receiver in the form of graphs and heard on the Headphones in the form of Sound. This is called as Audio Induction Method. Maximum signal strength is detected above the Cable. The movement of Sensor Coil towards either side of the Cable results in weaker signal. This helps in determination of exact cable route.

Pinpointing Mode

According to the approximate fault distance calculated by Prelocator unit and suspected faulty area marked by route tracing procedure, the exact fault location or pinpointing of fault is carried out. For pinpointing High Resistance and Flashing Faults, a HV Surge is applied into the faulty cable periodically using CFL SG Series High Voltage Surge Generator, generating a thumping sound at the fault point and producing strong magnetic field around the cable. These acoustic and magnetic signals are picked with the help of PP Sensor (sensitive ground microphones) and displayed simultaneously on Receiver in the form of graphs and acoustic signals are heard on the Headphones. Since both the signals, acoustic and magnetic are produced at the fault point simultaneously; the exact fault point is precisely located, where the time delay between them is near to zero. The magnetic field also helps user to determine the position of sensor and cable resulting easy pinpointing.

Features

- Compact, Lightweight and Rugged
- Operation via User Friendly 5.7" colour Touchscreen Display
- Universal Receiver used for Route Tracing and Pinpointing
- Backlit facility with intensity control for ease of viewing in direct sunlight
- Simultaneous display of Magnetic and Acoustic waveforms
- Time lapse / delay measurement facility
- Automatic Fault Point Indication using Coincidence Method
- Noise suppression filters to eliminate external influences
- Mute function for headphones to disable noise while moving
- Route guidance (Compass) feature during Pinpointing
- Detection of live loaded cable (50Hz frequency)
- Specially designed light weight, neck carrying case ensuring minimum strain to operator
- Inbuilt Rechargeable Battery
- Water resistant and dust proof design
- Supplied in a IP67 Class Molded Case

Specifications

Parameters	CFL PP3+
Channels	Acoustic and Magnetic (Dual Channel)
Operating Principle	Coincidence Method
Gain	Up to 120dB adjustable for Acoustic & Magnetic
Volume limitation warning	84dB
Headphone	3.5mm jack
O/P impedance of headphone	8Ω to 72Ω (32Ω is recommended)
Acoustic Channel Bandwidth	70Hz to 3000Hz with automatic filtering
Magnetic Channel Bandwidth	120Hz to 20kHz Auto-tuned
Battery	11.1V Lithium-Ion Rechargeable
Charger Input	90V to 270V AC, 50/60 Hz, Single Phase
Operating Time	10 Hours Min (Approx)
Display	5.7", 320 x 240 pixel, Colour, TFT Touch Screen
Environmental	-20°C to 55°C, 95% RH (Non-Condensing)
Dimensions of Receiver	231mm x 90mm x 135mm
Weight of Receiver	1.4 kg

Standard Accessories

Accessory	Quantity	Opted Mode		
		Pin Pointer (PP)	Route Tracer (RT)	PP + RT
PP Sensor: Pinpointing Sensor	1	✓	-	✓
RT Sensor: Route Tracing Sensor	1	-	✓	✓
PP Sensor Spike	1	✓	-	✓
Headphone	1	✓	✓	✓
Adjustable Handle	1	✓	✓	✓
Receiver Carrying Soft Bag with Belt	1	✓	✓	✓
Battery Charger	1	✓	✓	✓
Operation Manual	1	✓	✓	✓
Molded Carrying Case for Main Instrument and other accessories	1 Set	✓	✓	✓
Factory Test and Calibration Report	1	✓	✓	✓

Ordering Code

Example: CFL PP3+	**3**	**F**	**F**	**F**	**F**	**N**	**F**	**F**	**F**	**F**	**I**	**N**
CFL PP3+		**F**	**F**	**F**	**F**		**F**	**F**	**F**	**F**		

1	Only Pin Pointer											
2	Only Route Tracer											
3	Both											
F	Reserved											
F	Reserved											
F	Reserved											
F	Reserved											
N	None											
Z	Customized											

											None	N
											Customized	Z
											Indian Plug	I
											Universal Plug	U
											Reserved	F
											Reserved	F
											Reserved	F
											Reserved	F

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