

PRO LOOP ANALYZER



The Cable Fault Pre Locator Pro Loop Analyzer is a state-of-the-art cable fault locator designed to meet the demanding needs of telecom and power utilities. Built on advanced ARM and FPGA technologies, it provides the accurate and reliable fault detection, ensuring minimal downtime and optimal network performance. underground Cable Fault Pre Locator Pro Loop Analyzer is an automatic Cable Fault Locator which adopts ARM, FPGA & Dot Matrix Color LCD display Technology. This tester combines both pulse reflecting technology (TDR) & intelligent Bridge testing (Bridge) for measuring the exact fault location such as broken line, cross faults, earthing, poor insulation & poor contact of the lead covered cables as well as plastic cables. It is capable of giving IR tests in Bridge mode.

It is a microprocessor based fault locator with a user friendly menu. It is easy to operate. It tests almost all power cables, telecom & signal cables. It has an English menu which is easy to understand & use. With Megameter & Ohmmeter it enables to test insulation resistance & loop resistance. It has USB Port for uploading test data to computer.

STAR INFOMATIC PVT LTD

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PRO LOOP ANALYZER

FEATURES:

- Small size, light weight and ABS plastic housing which is ergronomically designed for easy use by user.
- Menu driven simple operation.
- Measurement maximum 8 km in selectable ranges.
- >> Tests any type of copper telecom and signal cables.
- Range, VOP and Gain are selected automatically.
- ➤ Color LCD Display (480 x 280 dots).
- Automatic testing mode.
- Both pulse reflection (TDR) and intelligent bridge (Bridge) testing for open, short, or low insulation cable faults.
- With mega meter it enables to test insulation resistance and loop resistance.
- Six function keys and simple operation.
- Manual testing function is also available.
- > chargeable lithium battery with intelligent charger
- Continued 8 hours operating time on internal battery.
- Rugged construction and easy to carry on site.



- ► Compact and Ergonomic Design:- Lightweight ABS plastic housing, designed for easy handling in the field.
- Advanced Testing Technologies:- Combines Pulse Reflection (TDR) and Intelligent Bridge Testing for pinpoint accuracy in locating faults, such as broken lines, short circuits, or insulation failures.
- Wide Testing Range:- Capable of measuring faults up to 10 km with selectable ranges, making it suitable for a variety of cable types including copper telecom and signal cables.-
- → High-Resolution Display:- Equipped with a 480 x 280 dots color LCD, providing clear and precise readings.
- User-Friendly Operation: Simple menu-driven interface, with both automatic and manual testing modes, making it accessible for users of all skill levels.
- Integrated Insulation Resistance Testing: Megameter and Ohmmeter functions allow for comprehensive testing of insulation and loop resistance.
- Data Management:- Features a USB port for easy data transfer to a computer, allowing for efficient recordkeeping and analysis.
- Durable Power Supply:- Powered by a rechargeable
 7.4V Li-ion battery, providing up to 8 hours of continuous operation with quick recharge times.
- ▶ Built for Tough Conditions:- Rugged construction suitable for operating in a wide temperature range (-20°C to +60°C) with high humidity tolerance.

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CABLE FAULT PRE LOCATOR PRO LOOP ANALYZER

GENERAL SPECIFICATIONS:

Display Readout: Color LCD: 480*280.

Continued operating time: 8 hoursCharging time: 3 hours

▶ Power Supply: 7.4V Rechargeable Li-ion battery. Charging voltage 230V +/-10%,

50Hz, single phase.

Storage Temperature : $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$; RH < 85%RH.

Working Temperature : $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$; RH < 85%RH.

Dimension : $290 \times 145 \times 83 \text{ mm (approx.)}$

Weight: 1.20 Kg Net (approx.)

ELECTRICAL SPECIFICATIONS:

Measurement Mode: TDR (Time Domain Reflectometer) & Bridge TDR Mode

TDR Mode

Fault Distance Range: 10 km (240m, 480m, 1000m, 2000m, 4000m, 8000m)

Fault Measurement Accuracy: 1 meter
 Cable Constant (VOP) range: 100 - 300
 Sampling Speed: 100 MHZ

→ Testing accuracy: +/- 1% × cable length

Auto Measurement dead zone : 0 Meter

Resistance (DC) (with CO Voltage) 0 to 1000 Mohm

▶ Opens 0 to 30Km
 ▶ Fault Range 0 to 20 Mohm
 ▶ Resistance to Fault 0 to 7 km

Measurement dead zone:

O Meter

Pulse Width:

40ns---10us

► Pulse Waveform : Two polarity pulse

Pulse Amplitude: 0 - 30V adjustment adaptive

Impedance matching : Automatic

Output Impedance : 25 - 120 adaptiveGain adjustment: Automatic and Manual

▶ Gain Range Control: 0 - 9
 ▶ Resolution: 1 Meter
 ▶ Memory Location: U - disk
 ▶ Serial port for PC / Printer: USB

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BRIDGE Mode

The max length of testing cable: 10 Km

Max poor insulation resistance : 100 M Ohm

➤ Testing accuracy: +/- 1% x cable length

Maximum resistance of defective insulation: 100 M Ohm

OPERATING PRINCIPLE:

TDR Mode

A narrow electromagnetic frequency pulse of 40ns-10us with a fast rise time is sent on the cable that reflects back from the fault point /far end where the impedance was mismatched or changed. The velocity of propagation (VOP) for each cable depending on the cable dimension and material is set and the distance to the fault is then computed automatically and displayed in meter on LCD screen.

BRIDGE Mode

The equipment has menu driven insulation tester capable of giving IR test and displays insulation resistance in Meg Ohm. A healthy core/pair is used to get the loop resistance of the cable under test. When the faulty core/pair is connected to the equipment, balancing of the bridge is done automatically by the intelligent circuit incorporated in the equipment. However, the balancing can also be done manually in specific cases. After the balancing, the result of the fault distance from sending end is displayed on the screen.

ACCESSORIES:

Carrying case, Re-chargeable battery charger/adapter, Connecting test cables, and User Manual.

Applications:

Telecom Network Maintenance:- Ensure uninterrupted service by accurately locating faults in underground and overhead telecom cables.

Power Utility Networks:- Detect and rectify cable faults in power distribution systems to maintain a stable power supply.

Industrial Cable Testing:- Suitable for testing a wide range of industrial cables, including signal and control cables.



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