CABLE FAULT PRE-LOCATOR

Model - KM-CFPL-620 (TDR TESTING)

Underground Cable Fault Pre Locating Equipment for telecom & signal cables

"KUSAM-MECO" underground Cable Fault Pre-locator is an automatic Cable Fault Locator which adopts ARM, FPGA & Dot Matrix Color LCD display Technology. This tester combines both pulse reflecting technology (TDR) 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 a microprocessor based fault locator with a user friendly menu. It is easy to operate. It tests almost all 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.



GENERAL SPECIFICATIONS :

- 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 large LCD Display (480 x 280 dots).
- Pulse reflection (TDR) for open, short.
- Automatic testing mode.
- With mega meter it enables to test insulation resistance and loop resistance.
- Six function keys and simple operation.
- Manual testing function is also available.
- With 4 GB USB Pen drive, it is easy to upload memory data to computer.
- Rechargeable lithium battery with intelligent charger
- Rugged construction and easy to carry on site.
- **Continued operating time :** 8 hours
- **Charging time :** 4 hours
- **Power Supply :** 7.4V Rechargeable Li-ion battery. Charging voltage 230V +/-10%, 50Hz, single phase.
- **Storage Temperature :** -15°C ~ + 55°C; RH <85%RH.
- **Working Temperature :** -15°C ~ + 55°C; RH <85%RH.
- **Dimension :** 212 (L) × 170 (W) × 90 (H) mm (approx.)

ELECTRICAL SPECIFICATIONS :

✷ **Measurement Mode:** TDR (Time Domain Reflectometer)

TDR Mode :

- ✷ **Fault Distance Range :** 8 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
- ✷ **Measurement dead zone :** 0 Meter
- ✷ **Pulse Width :** 40ns---10us
- ✷ **Pulse Waveform :** Two polarity pulse
- ✷ **Pulse Amplitude :** 0 - 30V adjustment adaptive
- ✷ **Impedance matching :** Automatic
- ✷ **Output Impedance :** 25 - 120 adaptive
- ✷ **Gain adjustment:** Automatic and Manual
- ✷ **Gain Range Control:** 0 - 9
- ✷ **Resolution :** 1 Meter
- ✷ **Memory Location :** U - disk
- ✷ **Serial port for PC / Printer :** USB

✷ **ACCESSORIES :** Carrying case, Re-chargeable battery charger / adapter , Connecting test cables, Software CD 4GB Pen Drive and User Manual.

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.