Fault Location Scope

PCA201

Power

Power Cable Analyzer

The PCA201 was developed to assist power cable fault location technicians in pre-locating and pre-determining distances to faults existing in power cables. It gives a direct reading in meters or feet to the fault position. Fault distances can also be determined from the far end of the cable by simply moving two cursors to any two points on the display screen. It is capable of locating low resistance (that is any fault lower than about 120 ohms or infinity ohms) or high resistance faults with the help of any standard impulse generator and the Adret AE101 high voltage coupling unit.

Operating Modes

The unit is capable of pre-locating distance to fault in three distinct modes. The unit features an automatic mode in all ranges where the cable length, gain level and fault positions are indicated by the press of only a few buttons. In addition to this there is also the Expert Mode where all settings can be set by hand.

TDR

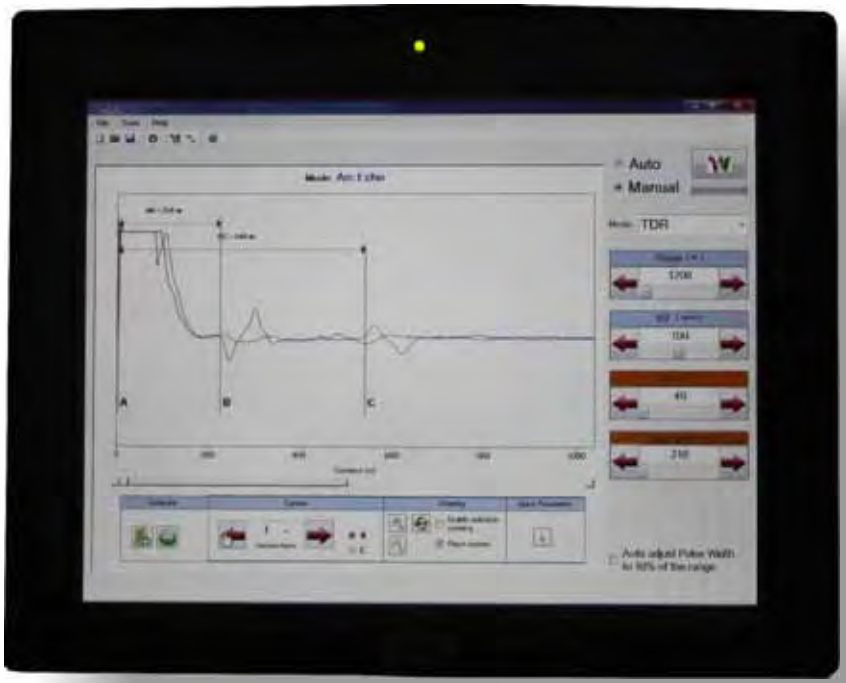
In the TDR (Time domain Reflectometer) mode the instrument transmits a pulse which is reflected off the far end of the cable. Any impedance mismatches (i.e. Joints, open or short circuits) along the cable are also reflected. The waveforms are easy to analyze.

Impulse Current

In the Impulse Current Mode a high voltage discharge generated by a surge generator is applied to a faulty cable until the fault breaks down. Thus the surge energy is then reflected back to its source. Upon arriving at the source it is reflected back into the cable. This continues until the energy is depleted. The PCA101 will capture and store the current waveform flowing in the cable and display it for analysis.

ARC-Echo

In the ARC-Echo mode the instrument is connected to the faulty cable via the AE101 Coupling unit. This unit provides the suitable isolation and filtering required to superimpose a TDR waveform on top of the high voltage surge generated by the surge generator. When the high voltage energy arrives at the fault it temporarily breaks it down causing a short term short circuit. The waveforms are simple and easy to analyze and look exactly like TDR waveforms.



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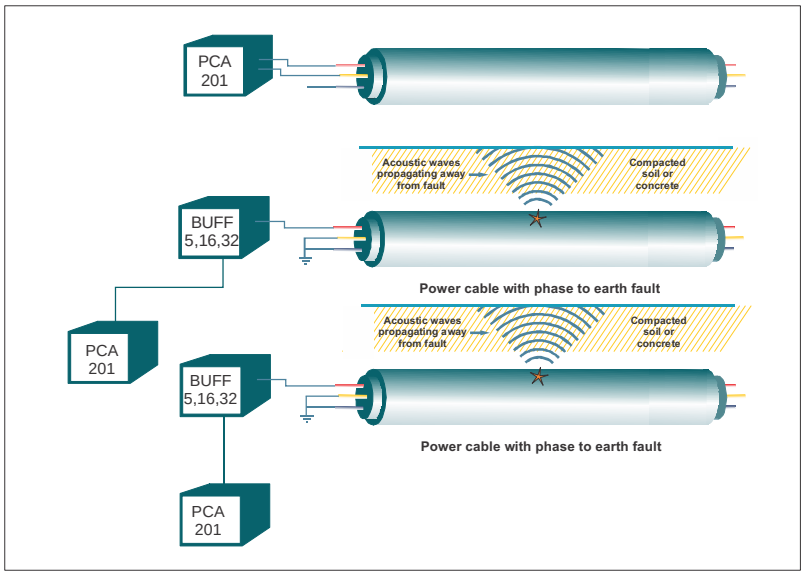
Test and Measurement Instruments C.C.
www.instrumentsgroup.co.za

Application



Specifications

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Weight	6Kg
Size	450 x 300 x 200 mm
Controls	Watertight front panel with integrated multi-function tactile membrane switches
Power source	Mains. Rechargeable Lead Acid battery pack(Optional)
Battery life	Approximately 3 hours for continuous use
Display	12" VGA Full Color Touch Screen with Stylus
Enclosure	Scratch resistant PVC enclosure with lifetime guarantee.
Operating System	Windows XP, Windows 7
Waveform Storage	Windows Capabilities(Unlimited)
Printer	All Windows driven printers.
Keyboard	Windows Virtual Keyboard

Standard Accessories

1. Padded canvas carry case
2. All necessary cables
3. Operator manual
4. Windows License
5. USB Ports for external keyboard, mouse and printers

Optional: Buffalo units, Surge Generators and AE101

Products available

Surge Generators SG 200032, SG 130032, SG 50016, SG 7505
Cable Identification System CI75, CI200
Burndown Unit BU 3500
Ground Microphone Amplifier GMA105
Cable Reel System CRS30
DC Pressure Testers 2010PT
AC Pressure Testers 3010PT
Combination Pressure Testers (AC+DC) 5010PT, 7010PT, 10010PT, 3042PT
VLF Pressure Testers VLF20
Fault Pre-Locators PCA101+AE101
Test Vans & Trailers
Sheath Fault Locators SFL16

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