



RCDC1000 0 – 2 kV
DC Rail Meter
Operating Instructions

Bierer Patent US 6,459,252

CAUTION

The equipment covered in these operating instructions should be used by qualified employees, trained in and familiar with the safety-related work practices, safety rules and other safety requirements associated with the use of this type of equipment. These instructions are not intended as a substitute for adequate training, nor do they cover all details or situations which could be encountered in relation to the operation of this type of equipment.

WARNING

Use appropriate length live line tools and maintain minimum approach distances, for the voltages being worked. Do not let live line tool fittings become grounded in any way; this will damage meter and may cause personal injury.

NOTICE

Before operating this equipment, read, understand and follow all instructions contained in this manual. Keep instructions with equipment.

Design and Function

The RCDC2000 Digital DC Resistive Voltmeter has a single range of 0 – 2kV. The unit consists of a meter probe, second probe and connector cable.

This unit is designed to measure DC voltage between the negative return rail and overhead positive cantenary conductor used on transit systems.

The five position selector switch located on the face, controls OFF, ON, and Test.

The OFF positions are for storage and transit.

The ON position is for measurements from 0 to 1999 volts with one volt resolution.

The T position tests basic meter functions and the digital display.

SPECIFICATIONS

Range	000 to 1999 Full Scale
Accuracy	+/- 1%
Resolution	1 Volt
Power	9 V Battery
Zero	Auto Zero
Resistance	156 KOhms per probe
Connector Cable	10 kV Max Operating Voltage

Testing with DC Power Supply

Before and after each use the unit should be tested using the DC power supply (Optional accessory PN: PA100P). To use, place meter probe tip and second probe tip together.

100 volts +/- 5 volts should display on the meter.

Operating Procedure

- 1 Turn meter on and test basic meter functions by turning the function selector switch to the T position. The meter should indicate 090 or higher, i.e. 9 volts. Low battery (less than 8 volts) is indicated by a symbol of a battery in the top left corner of the display. Battery should be replaced if reading is less than 075. Always test meter before and after each use. (See testing w/ DC supply)
- 2 Attach magnetic rail plate to meter probe and hook attachment to second probe.
- 3 Connect meter probe to second probe using interconnect cable.
- 4 Attach the meter probe and second probe to appropriate length live line tool for the voltage being tested.
- 5 Place meter probe onto negative return rail.
- 6 Raise second probe to make contact with the overhead positive conductor.
- 7 If voltage is present meter will read nominal Positive-to-Negative voltage
- 8 If no voltage is present meter will read zero (000).
- 7 Retest the voltmeter after each use.

NOTES

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