Megohmmeter

- Measure to 200 GΩ in 6 Selectable Ranges
- Measurement Accuracy ± 5 %
- 50, 100, 250, 500 VDC Test Voltages
- 3½ Digit Display
- Rugged Weather Tight Case
- Versatile Test Probes
- Front panel LED to indicate the presence of voltage

The Model R1M-A series portable megohmmeter is designed to measure very high values of insulation resistance The instrument has six resistance ranges from 1 MΩ full scale to 100 GΩ full scale, with 100 % over-range capability. Four test voltages of 50, 100, 250, and 500 VDC are provided (50 V maximum to be used with resistances less than 1 MΩ). Resistance readings are displayed on a 3½ digit LCD display with 0.5 inch character height.

The R1M-A series is packaged in a rugged weather tight case, designed to withstand the wear and tear of industrial and military applications, and has a gasketed lid. An internal compartment is provided to store the line cord and a set of test cables.

Operation

The user selects a resistance range and test voltage. Depressing a momentary pushbutton switch connects the selected test voltage and starts the gigaohmmeter operation. For safety reasons, the pushbutton must be held in to take a reading. A front panel LED turns ON to indicate the presence of voltage at the terminals. When the pushbutton is released, the test voltage is shorted out to prevent accidental injury to the operator.

Controls and Input Connections

An ON/OFF toggle switch controls power supplied through a line cord from a standard 120 VAC, 60 Hz power receptacle. A six-position rotary switch selects the resistance range, and a four-position rotary switch selects the test voltage. A pushbutton switch is depressed to take resistance measurements.

Four input terminals are provided. The TEST terminal is a recessed terminal, which outputs up to 500 VDC, for use with a shrouded banana-plug test lead. The other three terminals, SIG (signal), GUARD, and GND (ground), are 5-way binding posts.

Specifications

Resistance Ranges	1 MΩ 1 GΩ 10 MΩ 10 GΩ 100 MΩ 100 GΩ All ranges include 100 % over-range capability; minimum resistance readable is 5 % of the selected range.
Test Voltages	50, 100, 250, and 500 VDC 50 V max. to be used with resistance < 1 MΩ Short circuit current < 6 mA
Accuracy	**Test Voltages:** Within ± 3 % of specified value **Resistance Value:** Within ± 5 % of reading
Environmental	**Operating Temperature:** 0 °C to 50 °C, 75 % ± 5 % RH, Non-condensing **Storage Temperature:** -40 °C to 71 °C, 95 % ± 5 % RH, Non-condensing
Physical and Power	**Size:** 10"W x 4.9"H x 9"D **Weight:** 6 lb (2.7 kg) **Power:** 103.5-129 VAC, 50/60 Hz
Included Accessories	Test HV Cable, Test Signal Cable, Line Cord Operator and Maintenance Manual
Ordering Information	**R1M-A:** NSN 6625-01-344-9273 (US Navy version) **R1M-AR:** NSN 6625-01-494-2682 (US Army version)

10 TEGAM Way • Geneva, Ohio 44041
Phone: 440-466-6100 • Fax: 440-466-6110 • E-mail: sales@tegam.com • www.tegam.com