VOLTAGE AND RESISTANCE PRODUCTS





Megohmmeter

- 1 to 200 MΩ
- 500 V Test Voltage
- Simple One Range Operation
- Measures AC Voltage to 600 V
- · LED on when Voltage is Present
- Rugged to MIL Specifications
- · Single Push Button for Test
- 9 V Battery Operation

The Model R1M-B Handheld Voltmeter/ Megohmmeter complies with MILT-T-28800, Type III, Class 3, Style E for rugged operational environments and shipboard applications. These units perform under the extremes of heat, cold, humidity, shock, vibration, and operator abuse.

The R1M-B is designed to measure insulation resistance in "live" circuits, which may have voltage present. The R1M-B may be connected to 600 V RMS AC or DC without damage, and its mode of operation is automatic. It has no fuse to replace. The R1M-B will operate after a drop from a height of four feet to a concrete floor.

Operation

The R1M-B Voltmeter/Megohmmeter is activated by pressing the "TEST" switch. When the R1M-B is first turned on, its input is automatically selected as a voltage input, reading any voltage present on the test leads, and displaying that voltage on a liquid crystal display. At the same time, the "VOLTS" LED lights.



If the voltage sensed on the test leads exceeds approximately 1 V, the R1M-B will not take any additional readings. However if there is no voltage (or less than approximately 1 V) on the test leads, the instrument will automatically switch to the megohmmeter mode, whereupon the internal 500 V supply is connected to the test leads and the measured resistance is displayed.

As long as the "TEST" switch is depressed, the R1M-B will continue to take readings. Releasing the switch will automatically turn off the unit, to maximize battery life and minimize the risk of the operator being shocked by the 500 V across the test probes during resistance measurements. (Note that the test current is limited to approximately 1 mA, but this can still produce a shock.)

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Specifications

Measurement Ranges	1 to 200 MΩ, for resistance	
	3 to 600 VAC RMS, for voltage	
Test Voltage for Resistance	500 VDC 10%	
Accuracy* & Calibration	Voltage readings within 5% of reading ± 1 count	
	Resistance readings within 3% of reading ± 1 count	
	Suggested Calibraton Interval: 12 months	
	End-of-interval confidence factor: 72%	
Recommended Calibration Cycle	1 year	
Controls and Display	Single "TEST" switch (mode selection automatic)	
	3 ½ digit liquid crystal display with 0.5" digits	
	LCD "LO BAT" legend to indicate low battery	
Environmental		
Operating Temperature	0 °C to 50 °C, 75 % RH, Non-condensing	
Storage Temperature	-40 °C to 71 °C, 0-100 % RH, Non-condensing	
Power and Physical		
Power	Standard alkaline 9 V battery	
Size	3.5" W x 7.0" H x 1.2" D	
Weight	0.6 lb (including battery)	
Included Accessories	Protective carrying pouch	
	Two 40 inch test leads with probes and insulated, detachable alligator clips	
	Operation and Maintenance manual	

Ordering Information	Model	Part Number
Megohmmeter	R1M-B	NSN 6625-01-353-7077

^{*}Accuracy based on recommended calibration cycle.