



ELECTRONIC DEVELOPMENT LABS, INC.

The Temperature People



Megaohm Validator - MOV-1 Operation Manual

RESISTANCE TESTER

MEGAOHM VALIDATOR OPERATION MANUAL

The Megaohm Validator is a hand-held device, which provides a simple method of ensuring insulation resistance testers are operating properly. Designed to meet the needs of industry professionals, this compact instrument is housed in a protective case, which makes it resilient and portable.

Measurements with insulation testers in high resistance ranges are difficult to interpret when problems exist in the unit under test. Polarization, moisture and poor insulation often result in erratic readings causing doubt in the measurement. The Megaohm Validator is recommended for DC measurements from 1 MΩ to 10GΩ. Verifying the tester and lead performance is absolutely vital to understanding the measurement.

Megaohm Validator Specifications	
Dimensions	5" x 6.5" x 8" (127 cm x 165 cm x 203 cm)
Weight	1.6 lbs. (0.73 Kg)
Voltage Limit	1000 VAC 5000 VDC
Range	0 Ω, 1 MΩ, 10MΩ, 100 MΩ, 500 MΩ, 1 GΩ, 10 GΩ
Power Rating	1 MΩ = 2.0 W 10 MΩ = 3.0 W 100 MΩ = 2.0 W 500 MΩ = 3.5 W
Power Rating	1 MΩ = 2.0 W 10 MΩ = 3.0 W 100 MΩ = 2.0 W 500 MΩ = 3.5 W 1 GΩ = 1.5 W 10 GΩ = 1.5 W
Resistor Break Down Voltage	1 MΩ = 15.0 KV 10 MΩ = 20.0 KV 100 MΩ = 15.0 KV 500 MΩ = 25.0 KV 1 GΩ = 7500 KV 10 GΩ = 7500 KV
Accuracy	1% for all decades
Temperature Coefficient	25PPM/ °C, 10 Gig 100 PPM/ °C
Case	Powder Coated Aluminum
Terminals	Nickel Plated Copper

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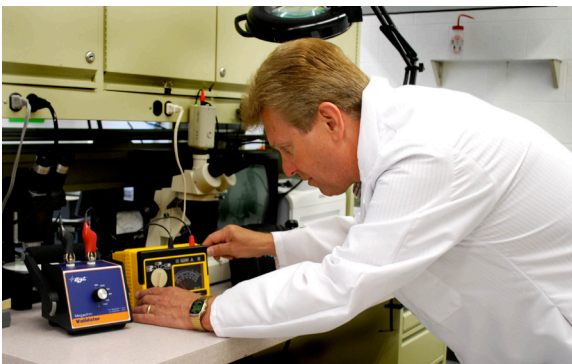
Current & Wattage @ 1KV, 5 KV

Current		
AMPS	E	E
	1000	5000
1.0E+06	1.0E-03	5.0E-03
1.0E+07	1.0E-04	5.0E-04
1.0E+08	1.0E-05	5.0E-05
5.0E+08	2.0E-06	1.0E-5
1.0E+09	1.0E-06	5.0E-06
1.0E+10	1.0E-07	5.0E-07

Wattage		
Watts	E	E
	1000	5000
1.0E+06	1.0E+00	2.5E+01
1.0E+07	1.0E-01	5.2E+00
1.0E+08	1.0E-02	2.5E-01
5.0E+08	2.0E-03	5.0E-02
1.0E+09	1.0E-03	2.5E-02
1.0E+10	1.0E-04	2.5E-03

General Precautions

- *This instrument is a passive device that requires no external power.
- The user should follow all recommended safety guidelines set fourth by the manufacturer of the insulation resistance tester.
- Follow all good practice for high voltage when using this instrument.
- Do not make contact with this instrument during testing.
- Always discharge the instrument before removing the leads.
- If the insulation resistance tester does not have a discharge switch then move the Validator knob to zero before removing the leads.
- Do not apply more than 1 KV to the 1 mega Ohm setting as the resistor is not designed for power greater than 2 watts. (See **Wattage** tables above in specifications)
- Do not apply a voltage higher than 5 KV on any other setting.
- Note that some testers may have internal current limits below that required for specific resistor values. (See **Current** table in above specifications)
- All of the resistors are 1% accuracy or better.



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NOTES: