

# Megohmmeter Model 5000N



True Megohmmeter® Model 5000N is a portable, multiple-range, high sensitivity megohmmeter. It is capable of measuring a wide range of insulation resistances from 10k $\Omega$  up to 3,000,000M $\Omega$  (3T $\Omega$ ). The Model 5000N has four test voltages: 500V<sub>DC</sub>, 1000V<sub>DC</sub>, 2500V<sub>DC</sub> and 5000V<sub>DC</sub>. Each test voltage setting has two overlapping resistance ranges of 30M $\Omega$  to 30,000M $\Omega$  and 3G $\Omega$  to 3000G $\Omega$  on a long (9.4") dial.

In addition, the Model 5000N has a unique low insulation test range of 10 to 30,000k $\Omega$  with a constant current of 33 $\mu$ A (maximum voltage of 1300V<sub>DC</sub>), which is useful for testing old or flooded installations. A voltmeter (safety check) with a range of 0 to 600V<sub>AC/DC</sub> is standard. Other features are a lock-in ON/OFF button

for hands-free operation, and color-coded terminals, including a guard terminal, used to minimize the effect of leakage for stable readings.

The Megohmmeter Model 5000N may be powered by either AC or DC. The DC power is supplied by eight 1.5V Alkaline AA batteries. An AC line supply module and cord for 110/220V<sub>AC</sub> at 47 to 400Hz, available as an optional accessory, is designed to plug into the back portion of the Model 5000, directly replacing the batteries.

An audible signal consisting of approximately 10 beeps per minute is present when the megohmmeter is ON and serves as a time base for tests of long duration. A green neon

lamp lights to indicate that the batteries are good when the push-to-measure button is depressed. This light also serves as a warning lamp when the instrument is in use, indicating the selected test voltage is present at the terminals. The Model 5000N is housed in a high-impact polycarbonate housing designed for field use. A metal carrying handle serves as a tilt bail when folded behind the meter.

The Model 5000N is supplied with two color-coded safety leads with insulated alligator clips, one shielded lead, separate insulated alligator clip, test probe, spare fuse, batteries and carrying case with strap.

## Features

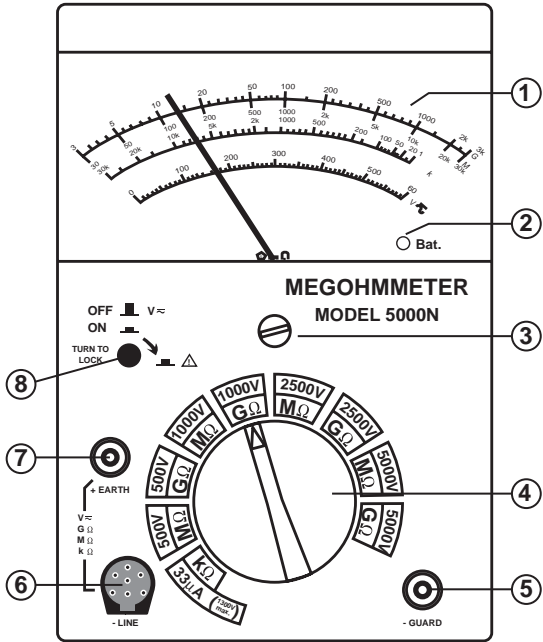
- True Megohmmeter®
- Four constant test voltages of 500V, 1000V, 2500V and 5000V
- High sensitivity, direct resistance readings to 3,000,000MΩ (3TΩ)
- Compact and portable
- Large, easy-to-read scale with excellent resolution
- Lock-in test button; automatic discharge when released
- Safety check to 600V
- Dual operation: batteries or optional AC line supply
- Safety terminals and guard terminal for stable readings
- Built-in battery check and test voltage indicator
- Supplied with a carrying case and test leads
- CE Mark

## Applications

- Test insulation of cable, transformers, insulators and wiring installations
- High resistance tests of materials
- Spot reading tests
- Timed resistance or absorption tests
- Dielectric and polarization tests
- Step voltage tests
- Low insulation test range for testing old or flooded installations

## Specifications

MODEL	5000N	
<b>ELECTRICAL</b>		
<b>INSULATION TESTS</b>		
Test Voltage	500V 1000V 2500V 5000V	For each test voltage two direct reading ranges: 30 to 30,000MΩ; 3 to 3,000,000MΩ (3TΩ)
Short Circuit Current	3mA (max)	
Accuracy	±5% of Reading	
Automatic Discharge	When test button is released; 0.1s/μF	
Charging Time	MΩ range: 0.3s/μF, GΩ range: 3s/μF	
Scale	Two large overlapping scales: 4.7" (119mm) for each range	
Voltage Test/Safety Check	0 to 600V <sub>AC/DC</sub>	
Test Voltage Generation	Solid state circuitry generating rated test voltage across the full range	
<b>RESISTANCE TESTS</b>		
Measurement Range	10 to 30,000kΩ (30MΩ)	
Test Voltage	1300V <sub>DC</sub>	
Test Current	Constant 33μA <sub>DC</sub>	
Accuracy	±5% of Reading	
<b>GENERAL</b>		
Audible Test Signal	10 beeps per minute	
Power Source	8 x 1.5V AA Alkaline batteries (NEDA 15A) Battery life: 350 one-minute tests; power consumed only when test button is depressed; built-in battery check by green neon light. Option: 110/220V selectable, 47 to 400Hz AC supply module	
Dielectric Test	4000V <sub>AC</sub> , 60Hz, 1 minute	
Fuse Protection	0.3A high interrupting capacity fuse between line and guard terminals	
Meter Movement	Rugged taut band suspension	
Dimensions	7.7 x 5.2 x 3.75" (196 x 132 x 95mm)	
Weight	2.2 lbs (1kg)	
Temperature Range	23° to 122°F (-5° to 50°C)	
Case	High impact gray polycarbonate	
Terminals	Color-coded safety terminals; guard terminal eliminates surface leakage errors	
<b>SAFETY</b>		
CE Mark	Yes	



1. Analog measurement scale
2. Battery power indicator
3. Mechanical zero adjust
4. Selection switch
5. Guard terminal (blue)
6. Line terminal (black)
7. Earth terminal (green)
8. Press-to-Test button



Shock resistant housing  
Catalog #2980.02



Model 5000N with  
standard accessories

## ORDERING INFORMATION

## CATALOG NO.

Megohmmeter Model 5000N (Analog, 500V, 1000V, 2500V, 5000V) . . . . . **Cat. #186.100**

Includes one shielded lead, two color-coded safety leads, insulated alligator clip, test probe batteries, spare fuse, carrying case and user manual

### Accessories

Shock resistant housing with handle for Models 1000N/5000N, safety-yellow . . . . . **Cat. #2980.02**

AC Supply Module for Models 1000N/5000N . . . . . **Cat. #100.142**

## Contact Us

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