

# Fluke 1550B MegOhmMeter

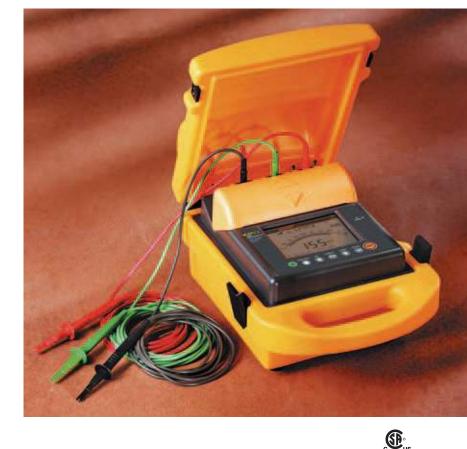
### Digital insulation testing up to 5000 Volts

## **Technical Data**

The Fluke 1550B is a digital megohmmeter capable of testing switchgear, motors, generators and cables at up to 5000 V dc. It can be used for a wide range of tests: from simple spot checks to timed tests and breakdown tests. Measurement storage and PC interface software make it ideal for preventive maintenance. Heavy-duty leads, probes and alligator clips fit in the custom carrying case, for a rugged field testing kit.

- Standard test voltages of 250 V, 500 V, 1000 V, 2500 V and 5000 V
- Additional test voltages available in 50 volt steps from 250 to 1000 volts, 100 volt steps from 1000 to 5000 volts
- Measures up to 1 Tera-Ohm
- Warning voltage function alerts the user that line voltage is present and gives the voltage reading up to 600 V ac or dc
- Automatic calculation of Dielectric Absorption and Polarization Index with no setup
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- Large digital/analog LCD delivers detailed measurement data

- Measures cable or insulation capacitance
- Measures leakage current
- Ramp function (0-5000 V dc) for breakdown testing
- 99 minute timer for timed tests
- Automatically stores test data in up to 99 locations that user can name for quick recall later
- High-capacity rechargeable batteries
- Includes FlukeView\* Forms Basic 1550B Software and Optical Interface cable for downloading to a Windows\* PC
- Custom soft case for tester and accessories
- Includes heavy-duty leads, probes and alligator clips
- Two-year warranty





#### Specifications

#### **Electrical specifications**

The meter's accuracy is specified for one year after calibration at operating temperatures of 0 °C to 35 °C. For operating temperatures outside the range (-20 °C to 0 °C and 35 °C to 50 °C), add +/-25% per °C, except on the 20 % bands add +/-1% per °C.

#### **Insulation resistance measurement**

Test Voltage (dc)	Range	Accuracy (± reading)
250 V	200 kΩ to 5 GΩ 5 GΩ to 50 GΩ	5 % 20 %
500 V	200 kΩ to 10 GΩ 10 GΩ to 100 GΩ	5 % 20 %
1000 V	200 kΩ to 20 GΩ 20 GΩ to 200 GΩ	5 % 20 %
2500 V	200 kΩ to 50 GΩ 50 GΩ to 500 GΩ	5 % 20 %
5000 V	200 kΩ to 100 GΩ 100 GΩ to 1 TΩ	5 % 20 %

Short circuit current	greater than 1 mA and less than 2 mA
Bar graph range	0 to 1 TΩ
Insulation test voltage accuracy	-0 % to +10 % at 1 mA load current
Induced ac mains current rejection	2 mA maximum
Charging rate for capacitive load	5 seconds per μF

	Range	Accuracy
Leakage current	1 nA to 2 mA	± (5 % + 2 nA)
Capacitance measurement	0.01 uF to 15.00 µF	$\pm$ (15 % rdg + 0.03 $\mu\text{F})$
Live circuit indicator	30 V to 600 V ac/dc, 50/60 Hz	± (5 % + 2 V)

Timer	0 to 99 minutes; settable in 1 minute increments; indicated to within 1 second
Ramp	0 % to 100 % of selected test voltage, or until breakdown

#### **Mechanical specifications**

Dimensions (L x W x H)	170 mm x 242 mm x 330 mm (6.7 in x 9.5 in x 13.0 in)
Weight (with battery)	4 kg (8.8 lbs)

#### **Power**

Battery type	12 volt, lead-acid, rechargeable	
Charger input (AC)	85 to 250 V ac 50/60 Hz 50 VA	
Battery life (typical) Note: At higher temperatures, the battery requires more frequent charging.	Test voltages 250 V 500 V 1 kV 2.5 kV 5 kV	<u>Number of tests</u> 4138 3913 3462 2043 1000

#### **Environmental specifications**

Operating temperature	-20 °C to 50 °C (-4 °F to 122 °F)	
Storage temperature	-20 °C to 65 °C (-4 °F to 149 °F)	
Relative humidity	80 % at 31 °C decreasing linearly to 50 % at 50 °C	
Operating altitude	0 to 2000 meters	
Enclosure sealing	IP-40	
Shock, vibration	MIL-PRF-28800F, CLASS II	
EMI immunity	EN 61326	
Safety	EN 61010-1, CAT III, 600 V, EN61557, PARTS 1 & 2	
Input overload protection	600 V ac continuous	

#### **Software specifications**

FlukeView<sup>®</sup> Forms Basic 1550B Software requires a PC running Windows<sup>®</sup> 95, 98, Me, 2000, NT4.0 Two-year warranty

#### **Included accessories**

Test leads and low leakage probes Alligator clips Interface adapter and cable FlukeView<sup>\*</sup> Forms Basic 1550B PC software Line cord Soft carrying case with waterproof bottom User's manual CD with 12 languages Getting Started Guide

#### **Optional accessories**

FVF-UG FlukeView<sup>®</sup> Forms Upgrade to Version 3.0 TL1550EXT 25 foot extension leads

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