

# FLUKE®

## Fluke 1550 MegOhmMeter

Digital insulation testing  
up to 5000 Volts

### Technical Data

The Fluke 1550 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.

- Test voltages of 500 V, 1000 V, 2500 V, 5000 V
- 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
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- Large digital/analog LCD delivers detailed measurement data
- Cable or insulation capacitance
- Leakage current
- Ramp function (0-5000 V DC) for breakdown testing
- Timer for dielectric absorption and polarization index tests
- 99 memory locations store all measurements parameters



- High capacity rechargeable batteries
- Mobile charging adapter for dc charging
- Includes Quicklink 1550 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
- 2-year warranty

## Specifications

### Electrical Specifications

All stated accuracy tolerances apply to the temperature range 0 °C to 35 °C (32 °F to 95 °F). For operating temperatures between -20 °C to 0 °C (-4 °F to 32 °F) and 35 °C to 40 °C (95 °F to 104 °F), these tolerances double.

### Insulation Resistance Measurement

Test Voltage (dc)	Range	Accuracy (± reading)
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 μF to 15.00 μF	± (15 % rdg + 0.03 μF)
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	
Charger input (DC car adapter)	10 to 15 V dc, 30 VA	
Battery life (typical) Note: At higher temperatures, the battery requires more frequent charging.	Test voltage	Number of tests
	500 V	3600
	1 kV	3200
	2.5 kV	2500
	5 kV	1500

### Environmental Specifications

Operating temperature	-20 °C to 40 °C (-4 °F to 104 °F)
Storage temperature	-20 °C to 65 °C (-4 °F to 149 °F)
Relative humidity	80 % at 31 °C decreasing linearly to 50 % at 40 °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

Quicklink 1550 Software requires a PC running Windows® 95, 98, Me, 2000, NT4.0  
2-year warranty

### Included Accessories

Test leads, 5000 V-rated probes  
Alligator clips  
Interface adapter and cable  
Quicklink 1550 PC software  
DC (Car) charging adapter  
Line cord  
Soft carrying case with water-proof bottom  
User's manual



**Fluke.** Keeping your world up and running.

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