

**FLUKE®**

**1550B**  
MegOhmMeter

*Users Manual*

PN 3001289

August 2003, Rev. 1, 6/05

© 2003, 2005 Fluke Corporation. All rights reserved.

All product names are trademarks of their respective companies.

## Limited Warranty and Limitation of Liability

Each Fluke product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is two years and begins on the date of shipment. Parts, product repairs, and services are warranted for 90 days. This warranty extends only to the original buyer or end-user customer of a Fluke authorized reseller, and does not apply to fuses, disposable batteries, or to any product which, in Fluke's opinion, has been misused, altered, neglected, contaminated, or damaged by accident or abnormal conditions of operation or handling. Fluke warrants that software will operate substantially in accordance with its functional specifications for 90 days and that it has been properly recorded on non-defective media. Fluke does not warrant that software will be error free or operate without interruption.

Fluke authorized resellers shall extend this warranty on new and unused products to end-user customers only but have no authority to extend a greater or different warranty on behalf of Fluke. Warranty support is available only if product is purchased through a Fluke authorized sales outlet or Buyer has paid the applicable international price. Fluke reserves the right to invoice Buyer for importation costs of repair/replacement parts when product purchased in one country is submitted for repair in another country.

Fluke's warranty obligation is limited, at Fluke's option, to refund of the purchase price, free of charge repair, or replacement of a defective product which is returned to a Fluke authorized service center within the warranty period.

To obtain warranty service, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that service center, with a description of the difficulty, postage and insurance prepaid (FOB Destination). Fluke assumes no risk for damage in transit. Following warranty repair, the product will be returned to Buyer, transportation prepaid (FOB Destination). If Fluke determines that failure was caused by neglect, misuse, contamination, alteration, accident, or abnormal condition of operation or handling, including overvoltage failures caused by use outside the product's specified rating, or normal wear and tear of mechanical components, Fluke will provide an estimate of repair costs and obtain authorization before commencing the work. Following repair, the product will be returned to the Buyer transportation prepaid and the Buyer will be billed for the repair and return transportation charges (FOB Shipping Point).

**THIS WARRANTY IS BUYER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FLUKE SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY.**

Since some countries or states do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any provision of this Warranty is held invalid or unenforceable by a court or other decision-maker of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision.

Fluke Corporation  
P.O. Box 9090  
Everett, WA 98206-9090  
U.S.A.

Fluke Europe B.V.  
P.O. Box 1186  
5602 BD Eindhoven  
The Netherlands

Visit Fluke's web site at: [www.fluke.com](http://www.fluke.com)

# Table of Contents

Title	Page
Introduction .....	1
Contacting Fluke .....	1
Unpacking the Meter .....	2
Safety Information .....	3
Symbols .....	4
Operating the Meter .....	4
Turning the Meter On and Off.....	4
Using the Pushbuttons.....	5
Understanding the Display.....	6
Charging the Battery.....	6
Using the Guard Terminal.....	8
Making Measurements .....	10
Connecting to the Circuit Under Test.....	10
Selecting a Pre-set Test Voltage.....	11
Programming a Test Voltage.....	12
Selecting a Ramp or Steady-State Test.....	13
Setting a Timed Test.....	13
Polarization Index (PI).....	14
Dielectric Absorption Ratio.....	14
Capacitance.....	14
Performing an Insulation Test.....	14
Storing the Test Results .....	16
Viewing Results Stored in Memory.....	17
Downloading Your Test Results .....	18
Installing FlukeView Forms Basic Software .....	18
Downloading Results to PC .....	19
Deleting Your Test Results .....	19
Maintaining the Meter.....	20
Cleaning .....	20
Principle of Measurement and Resistance .....	20
Specifications .....	22
General Specifications.....	22
Electrical Specifications.....	23
Warranty in Other Languages .....	24

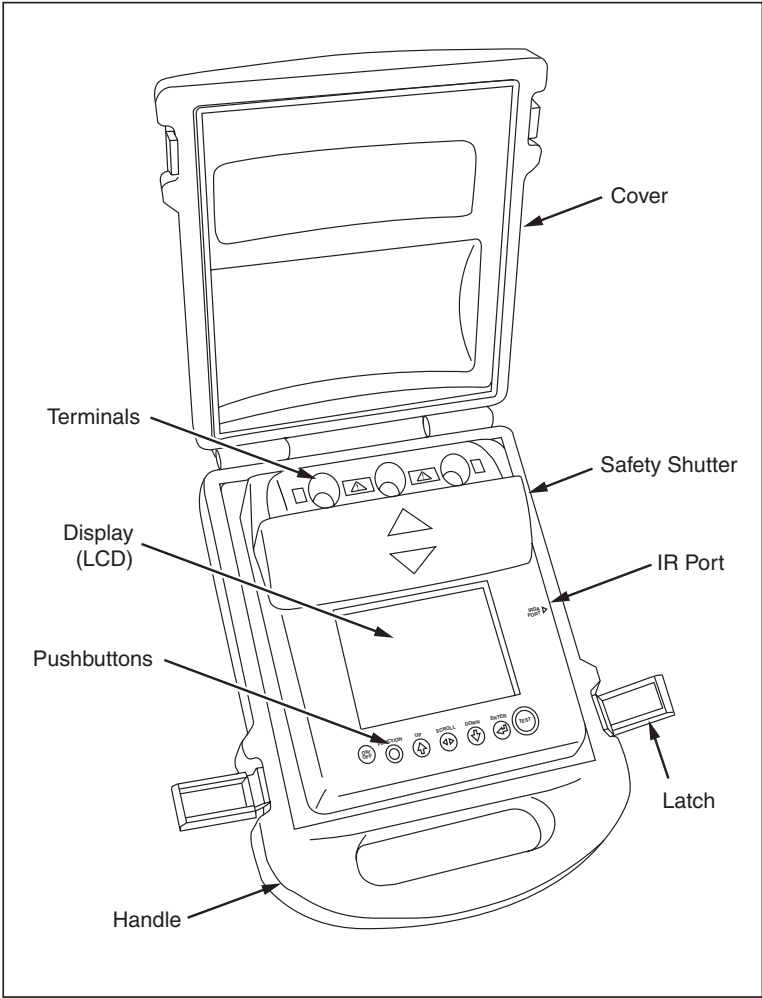


## ***List of Tables***

<b>Table</b>	<b>Title</b>	<b>Page</b>
1.	Symbols .....	4
2.	List of Replacable Parts .....	21
3.	1550B Accessories .....	21

## ***List of Figures***

<b>Figure</b>	<b>Title</b>	<b>Page</b>
1.	Standard Items Provided .....	2
2.	Pushbuttons .....	5
3.	Display Features .....	6
4.	Power Supply Connections .....	7
5.	Surface Leakage Current .....	8
6.	Guard Terminal Connection .....	9
7.	Improved Guard Terminal Connection .....	9
8.	Connecting to the Circuit Under Test .....	10
9.	IR Port on 1550B MegOhmMeter .....	18



**Fluke 1550B MegOhmMeter**

asw16F.EPS

# 1550B MegOhmMeter

## **Introduction**

The Fluke 1550B MegOhmMeter (hereafter "the Meter") is a high voltage insulation tester for testing general circuits, including switchgear, motors, and cables.

The Meter has the following features:

- ⇒ Large liquid crystal display (LCD) with text display
- ⇒ Five pre-set test voltage: 250 V, 500 V, 1000 V, 2500 V, and 5000 V
- ⇒ Programmable test voltage: 250 V to 5000 V (50/100 V steps)
- ⇒ Resistance measurement: 0  $\Omega$  to 1 T $\Omega$
- ⇒ Polarization Index (PI) measurement
- ⇒ Dielectric Absorption Ratio (DAR) measurement
- ⇒ Ramp mode that linearly increases (100 V/s) the applied test voltage
- ⇒ Test timer and storage for test results with user settable ID tag
- ⇒ Breakdown voltage indication
- ⇒ Rechargeable lead-acid battery
- ⇒ Auto shutoff after 30 minutes of inactivity
- ⇒ Infrared (IR) port for downloading test data
- ⇒ PC software supplied

The Meter meets EN 61557 Parts 1 and 2; and EN 61010-1, CAT III 600 V Pollution Degree 2 standards. CAT III equipment is designed to protect against transients in equipment in fixed-equipment installations, such as distribution panels and lighting systems in large buildings.

## **Contacting Fluke**

To contact Fluke for product information, operating assistance, service, or to get the location of the nearest Fluke distributor or Service Center, call:

- 1-888-99FLUKE (1-888-993-5853) in U.S.A.
- 1-800-36-FLUKE (1-800-363-5853) in Canada
- +31-402-675-200 in Europe
- +81-3-3434-0181 Japan
- +65-738-5655 Singapore
- +1-425-446-5500 from other countries

Visit Fluke's web site at: [www.fluke.com](http://www.fluke.com).

Register your Meter at [register.fluke.com](http://register.fluke.com).

































































