

106/107

Digital Multimeters *Safety Information*

Introduction

The Fluke 106 and 107 Multimeters (the Product) are 6000-count instruments.

How to Contact Fluke

To contact Fluke, call one of the following telephone numbers:

- Technical Support USA: 1-800-44-FLUKE (1-800-443-5853)
- Calibration/Repair USA: 1-888-99-FLUKE (1-888-993-5853)
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31-402-675-200
- Japan: +81-3-6714-3114
- Russia: +8-495-664-75-12
- Singapore: +65-6799-5566
- Anywhere in the world: +1-425-446-5500

Or, visit Fluke's website at www.fluke.com.

To register your product, visit <http://register.fluke.com>.

To view, print, or download the latest manual supplement, visit <http://us.fluke.com/usen/support/manuals>.

Safety Information

A **Warning** identifies conditions and procedures that are dangerous to the user.

Warning

To prevent possible electrical shock, fire, or personal injury:

- Carefully read all instructions.
- Read all safety information before you use the Product.
- Use the Product only as specified, or the protection supplied by the Product can be compromised.
- Do not use the Product around explosive gas, vapor, or in damp or wet environments.
- Do not use the Product if it is damaged.
- Disable the Product if it is damaged.
- Do not use the Product if it operates incorrectly.
- Examine the case before you use the Product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.

- Use only correct measurement category (CAT), voltage, and amperage rated probes, test leads, and adapters for the measurement.
- Measure a known voltage first to make sure that the Product operates correctly.
- Do not use test leads if they are damaged. Examine the test leads for damaged insulation and measure a known voltage.
- Do not apply more than the rated voltage, between the terminals or between each terminal and earth ground.
- Do not use the HOLD function to measure unknown potentials. When HOLD is turned on, the display does not change when a different potential is measured.
- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Keep fingers behind the finger guards on the probes.
- Remove all probes, test leads, and accessories before the battery door is opened.
- Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.
- Remove the input signals before you clean the Product.
- Have an approved technician repair the Product.

- **Remove the batteries if the Product is not used for an extended period of time, or if stored in temperatures above 50 °C. If the batteries are not removed, battery leakage can damage the Product.**
- **Replace the batteries when the low battery indicator shows to prevent incorrect measurements.**
- **Use only specified replacement parts.**
- **Use only specified replacement fuses.**
- **Limit operation to the specified measurement category, voltage, or amperage ratings.**
- **Do not use test leads if they are damaged. Examine the test leads for damaged insulation and measure a known voltage.**
- **Do not use in CAT III or CAT IV environments without the protective cap installed. The protective cap decreases the exposed probe metal to <4 mm. This decreases the possibility of arc flash from short circuits.**
- **To prevent possible electrical shock, fire or personal injury, do not use the HOLD function to measure unknown potentials. When HOLD is turned on, the display does not change when a different potential is measured.**
- **To prevent possible electrical shock, fire, or personal injury, remove circuit power before you connect the Product in the circuit when you measure current. Connect the Product in series with the circuit.**

For safe operation and maintenance of the product, repair the Product before use if the batteries leak.

Table 1 is a list of the symbols used on the Product and in this manual.

Table 1. Symbols

	Consult user documentation.		WARNING. RISK OF DANGER.
	Static awareness. Static discharge can damage part(s).		WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	AC (Alternating Current)		Earth
	DC (Direct Current)		Capacitance
	Both direct and alternating current		Diode
	Battery		Fuse
	Conforms to European Union directives.		
CAT II	Measurement Category II is applicable to test and measuring circuits connected directly to utilization points (socket outlets and similar points) of the low-voltage MAINS installation.		
CAT III	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.		

Table 1. Symbols (cont.)

CAT IV	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.
	This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste.

General Specifications

Maximum voltage between any Terminal

and Earth Ground 600 V

Fuse protection for A input..... 11 A, 1000 V, IR 17 kA

Display (LCD)..... 6000 counts, updates 3/sec

Battery Type..... 2 AAA, NEDA 24A, IEC LR03

Battery Life..... 200 hours minimum

Temperature

Operating 0 °C to 40 °C

Storage -30 °C to 60 °C

Relative Humidity

Operating Humidity Non-condensing when <10 °C;
 ≤90 % at 10 °C to 30 °C;
 ≤75 % at 30 °C to 40 °C

Operating Humidity, 40 MΩ Range ≤80 % at 10 °C to 30 °C;
 ≤70 % at 30 °C to 40 °C

Altitude

Operating.....	2000 m
Storage.....	12,000 m

Temperature Coefficient0.1 X (specified accuracy) / °C (<18 °C or >28 °C)

Size (HxWxL)142 mm x 69 mm x 28 mm

Weight200 g

IP Rating.....IEC 60529: IP 40

Safety

General.....	IEC 61010-1: Pollution Degree 2
Measurement.....	IEC 61010-2-033: CAT III 600V

Electromagnetic Compatibility (EMC)

International.....	IEC 61326-1: Portable, IEC 61326-2-2 CISPR 11: Group 1, Class A
--------------------	--

Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.

Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.

Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object. The equipment may not meet the immunity requirements of this standard when test leads and/or test probes are connected.

Korea (KCC).....	Class A Equipment (Industrial Broadcasting & Communication Equipment)
------------------	---

Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

USA (FCC)..... 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This Fluke product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf. To obtain service during the warranty period, 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 problem.

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. FLUKE IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY. Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

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

11/99