FLUKE®

233

True-rms Remote Display Digital Multimeter Safety Information

Go to www.fluke.com to register your product and find more information.

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

⚠⚠ Warning

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

- **Read "Safety Information" before you use the Meter.**
- **Remove batteries when not in use for two or more months, this reduces the chance of battery leakage and corrosion.**
- **When your Fluke 233 Digital Multimeter batteries go dead, remove them immediately and replace them with new batteries.**
- **Use this Meter only as specified in this manual or the protection can be compromised.**
- **Do not use the Meter if it is damaged. Before you use the Meter, examine the case. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.**
- **Make sure the battery door is closed and locked before you operate the Meter.**
- **Replace the batteries when the battery indicator (🔋) appears.**
- **Remove the test leads from the Meter before the battery door on the Meter base is opened.**
- **Examine the test leads for damaged insulation or exposed metal. Measure the test leads for continuity. Replace damaged test leads before you use the Meter.**
- **Do not apply more than the rated voltage, shown on the Meter, between the terminals or between a terminal and earth ground.**

PN 4285854
December 2012

- **Do not operate the Meter with the battery door removed or the case open.**
- **Be careful around voltages >30 V ac rms, 42 V ac peak, or 60 V dc. These voltages pose a shock hazard.**
- **Use only the replacement fuse specified by the manual.**
- **Use the correct terminals, function, and range for measurements.**
- **Do not work alone.**
- **For current measurements, connect the Meter to the circuit after you remove circuit power. Always put the Meter in series with the circuit.**
- **Connect the common test lead before the live test lead and remove the live test lead before the common test lead.**
- **Do not use the Meter if it operates incorrectly. Protection can be compromised. If you are unsure, have the Meter examined.**
- **Remove batteries when not in use for two or more months, this reduces the chance of battery leakage and corrosion.**
- **When your Fluke 233 Digital Multimeter batteries go dead, remove them immediately and replace them with new batteries.**
- **Do not use the Meter around explosive gas, vapor or in damp or wet environments.**
- **Use only specified 1.5-V AA batteries (three in the Meter base and two in the display), correctly installed, for Meter power.**
- **Comply with local and national safety requirements when in hazardous locations.**
- **Only use test leads that have the same voltage, category, and amperage ratings as the Meter and that are approved by a safety Agency.**
- **Measure a known voltage first to make sure that the Meter operates correctly. If you are unsure, have the Meter examined.**
- **Use protective equipment, as directed by local or national authorities when in hazardous work areas.**
- **Measure the test leads for continuity before use. Do not use if the resistance is high or noisy.**
- **Use only specified replacement parts in the Meter.**
- **Keep fingers behind the finger guards on the probes.**
- **Do not make a measurement with a test lead in an incorrect terminal.**

- **When Display HOLD is on, disable Display HOLD to measure the voltage that is possibly different than the Display HOLD measurement.**
- **Do not make an in-circuit current measurement where the open-circuit potential to earth is >1000 V. Meter damage or injury can occur if the fuse blows during such a measurement.**
- **Have an approved technician repair the Meter.**
- **Remove the test leads and all input signals before you replace the batteries or fuses. To prevent damage or injury, install ONLY specified replacement parts shown in Table 7.**
- **Replace the battery when the battery indicator (▭) appears. If the display shows bAtt d ISP the Meter will not function until the display module batteries are replaced. If the display shows bAtt bASE, the Meter will not function until the Meter base batteries are replaced.**
- **Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.**
- **Do not use the TL175 or TP175 test probes in CAT III or CAT IV environments without the probe tip fully extended and correct category rating visible in the window.**
- **When the TL175 is used with instruments or other accessories, the lowest category rating of the combination applies. One exception is when the probe is used with the AC172 or AC175.**

Safety Specifications

Battery Type: NEDA 15A IEC LR6

Temperature:

Operating: -10 °C to +50 °C

Storage: -40 °C to +60 °C

Altitude: Operating: 2,000 m; Storage: 12,000 m

Frequency Overload Protection: 10^7 V-Hz

Symbols

Symbol	Description
	Risk of Danger. Important information. See Manual.
	Hazardous voltage.
	Battery. Low battery when shown.
	Continuity test or continuity beeper tone.
	DC (Direct Current)
	AC (Alternating Current)
	Earth ground
	Double insulated
	Fuse
	Capacitance
	Diode
	Conforms to relevant Australian standards.
	Examined and licensed by TÜV Product Services.
	Conforms to European Union directives.
	Conforms to relevant Canadian Standards Association directives.
	Conforms to relevant South Korean EMC Standards
	Conforms to CAN/CSA-C22.2 No. 61010-1, second edition, including Amendment 1.
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.
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 (2002/96/EC) 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. Go to Fluke's website for recycling information.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This Fluke product will be free from defects in material and workmanship for three years 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