

# 1672/1673 FC/1674 FC

## Multifunction Tester

### Safety Information



**3-Year Limited Warranty.**  
See the Users Manual for the full warranty.

To register your product, or to view, print, or download the latest manual or manual supplement, go to [www.fluke.com/productinfo](http://www.fluke.com/productinfo).

## Safety Information

A **Warning** identifies hazardous conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

### Warning

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

- **Read all safety information before you use the Product.**
- **Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.**



PN 5588062 (English)  
6/2024

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



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- **Carefully read all instructions.**
- **Do not use the Product if it operates incorrectly.**
- **Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.**
- **Limit operation to the specified measurement category, voltage, or amperage ratings.**
- **Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.**
- **Use Product-approved Measurement Category (CAT), voltage, and amperage-rated accessories (probes, test leads, and adapters) for all measurements.**
- **Do not make connections on hazardous live conductors in damp or wet environments.**
- **Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame-resistant clothes) to prevent shock and arc blast injury where hazardous live conductors are exposed.**
- **Do not operate the Product with covers removed or the case open. Hazardous voltage exposure is possible.**
- **Do not touch exposed metal on banana plugs, they can have voltages that could cause death.**
- **Remove the input signals before you clean the Product.**
- **Do not use test leads if they are damaged. Examine the test leads for damaged insulation, exposed metal, or if the wear indicator shows. Check test lead continuity.**
- **Measure a known voltage first to make sure that the Product operates correctly.**
- **Use the correct terminals, function, and range for measurements.**
- **Do not use the Product around explosive gas, vapor, or in damp or wet environments.**

- **Use only specified replacement parts.**
- **Have an approved technician repair the Product.**
- **Examine the case before you use the Product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.**
- **Do not apply more than the rated voltage between the terminals or between each terminal and earth ground.**
- **Keep fingers behind the finger guards on the probes.**
- **Do not use in CAT III or CAT IV environments without the protective cap installed on test probe. The protective cap decreases the exposed probe metal to <4 mm. This decreases the possibility of arc flash from short circuits.**
- **Batteries contain hazardous chemicals that can cause burns or explode. If exposure to chemicals occurs, clean with water and get medical aid.**
- **The battery door must be closed and locked before you operate the Product.**
- **Do not short the battery terminals together.**
- **Do not put battery cells and battery packs near heat or fire. Do not put in sunlight.**
- **Remove all probes, test leads, and accessories before the battery door is opened.**
- **When the Hazard indicator LED is on, voltages >30 V ac rms, 42 V ac peak, or 60 V dc are present in the circuit. Make sure to use caution when working with the Product.**
- **Do not use the Product in distribution systems with voltages >660 V.**

## Symbols

Symbol	Description
	WARNING. RISK OF DANGER.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	Consult user documentation.
	Fuse
	Double Insulated
	Earth
	WARNING. Do not apply >660 Volts
	Battery Status
<b>CAT II</b>	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.
<b>CAT III</b>	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
<b>CAT IV</b>	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.
<b>CE</b>	Conforms to European Union directives.
	Conforms to the Appliance Efficiency Regulation (California Code of Regulations, Title 20, Sections 1601 through 1608), for small battery charging systems.)
	This product complies with the WEEE Directive and its marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Do not dispose of this product as unsorted municipal waste. For information about take-back and recycling programs available in your country, see the Fluke website.

# Specifications

Maximum voltage between any terminal and earth ground .....	600 V
Size .....	26.25 cm x 14.19 cm x 11.93 cm (10.3 in x 5.6 in x 4.7 in)
Weight (with battery) .....	1.6 kg (3.5 lb)
 Fuses (x2) .....	T 3 A 600 V, IR 20 kA
Battery .....	BP290, Li-ion, 10.8 V, 2500 mAh, 27 Wh (or equivalent approved by Fluke)
Temperature	
Operating .....	0 °C to 40 °C (32 °F to 104 °F)
Storage .....	-20 °C to 60 °C (-4 °F to 140 °F) limited by battery specification
Relative Humidity .....	85 % RH @ 10 °C to 35 °C (50 °F to 95 °F) 70 % RH @ 35 °C to 40 °C (95 °F to 104 °F)
Altitude	
Operating .....	2000 m
Storage .....	12 000 m
Vibration .....	MIL-PRF-28800F: Class 2
Safety	
General	
IEC 61010-1 .....	Pollution Degree 2
IEC 61010-2-030 .....	CAT IV 300 V/CAT III 600 V
IEC 61010-2-034 .....	CAT IV 300 V/CAT III 600 V
Performance	
IEC 61557-1 .....	General Requirements
IEC 61557-2 .....	Insulation Resistance
IEC 61557-3 .....	Loop Impedance
IEC 61557-4 .....	Resistance of Earth and Bonding
IEC 61557-5 .....	Earth Resistance
IEC 61557-6 .....	RCD
IEC 61557-7 .....	Phase Sequence
IEC 61557-8 .....	Insulation Monitoring Devices for IT Systems
IEC 61557-10 .....	Combined Measuring Equipment
Accessories .....	IEC 61010-031
TP165X Remote Probe with cap .....	CAT IV 600 V, CAT III 1000 V, 10 A
TP165X Remote Probe without cap .....	CAT II 1000 V, 10 A

TL-L1, TL-L2, TL-L3

Test Leads .....CAT IV 600 V, CAT III 1000 V,  
10 A

Test Probes with cap.....CAT IV 600 V, CAT III 1000 V,  
10 A

Test Probes without  
cap .....CAT II 1000 V, 10 A

AC285 Alligator Clip.....CAT IV 600 V, CAT III 1000 V,  
10 A

Mains Test Cords .....CAT II 250 V, 1000 V dc

Ingress Protection.....IEC 60529: IP40

Electromagnetic Compatibility (EMC)

*Some mobile devices (for example, handheld transceivers) that transmit RF energy can transmit levels that exceed 3 V/m and can damage sensitive electronic circuits. To ensure the best performance, do not allow a device that transmits RF energy in >3 V/m to be within 30 cm of the Product while in use.*

International .....IEC 61326-1: Portable  
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.*

*Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.*

*Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.*

Wireless Radio with Adapter

Frequency Range .....2400 MHz to 2483.5 MHz

Output Power .....<100 mW

## **SIMPLIFIED EU DECLARATION OF CONFORMITY**

Hereby, Fluke declares that the radio equipment contained in this Product is in compliance with Directive 2014/53/EU. The full text of the EU declaration is available at the following internet address: [www.fluke.com/red](http://www.fluke.com/red)