

# 5322A

## Multifunction Electrical Tester Calibrator

### Safety Information



1-year limited warranty. See the Operators Manual for the full warranty.

### Contact Fluke Calibration

To see product information or download the Users Manual and the latest manual supplements, visit Fluke Calibration's website at [www.flukecal.com](http://www.flukecal.com).

### Introduction

This document supplies safety information for the Multifunction Electrical Tester Calibrator (the Product).

### Safety Information

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



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

- Read all safety information before you use the Product.
- Carefully read all instructions.
- Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.
- Do not use the Product if it is altered or damaged.

- Replace the mains power cord if the insulation is damaged or if the insulation shows signs of wear.
- Do not use test leads if they are damaged. Examine the test leads for damaged insulation.
- Do not put the Product where access to the mains power cord is blocked.
- Use this Product indoors only.
- Do not use the Product around explosive gas, vapor, or in damp or wet environments.
- Make sure that the space around the Product meets minimum requirements.
- Use only the mains power cord and connector approved for the voltage and plug configuration in your country and rated for the Product.
- Make sure the ground conductor in the mains power cord is connected to a protective earth ground. Disruption of the protective earth could put voltage on the chassis that could cause death.

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- Do not use a two-conductor adapter or extension cord; this will break the protective ground connection. If a two-conductor power cord must be used, a grounding wire must be connected between the Product ground terminal and a protective earth ground before connecting the power cord or operating the Product.
- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Do not use the Product if it operates incorrectly.
- Do not apply more than the rated voltage, between the terminals or between each terminal and earth ground.
- Use only high-quality, shrouded test leads and adapters with the appropriate voltage rating between the Product and instruments being calibrated.
- Do not connect to live output terminals. The Product can supply voltages that can cause death.
- Keep hands away from all Product terminals during operation. Lethal voltages can be present on terminals.
- Do not connect a hipot or insulation resistance voltage source to the Product terminals that can source more than 100 mA.
- Limit operation to the specified measurement category, voltage, or amperage ratings.
- Use the correct terminals, function, and range for measurements.
- Use only cables with correct voltage ratings.
- Remove all probes, test leads, and accessories that are not necessary for the measurement.
- Do not touch exposed metal on banana plugs, they can have voltages that could cause death.
- When appropriate cable adapters are not available and single test leads are used for calibration, hazardous voltages can exist on the test leads. Test leads and connectors should not be touched while the Product is in the Operate mode.
- Whenever the nature of the operation permits, keep one hand away from equipment to reduce the hazard of current flowing through vital organs of the body.
- Make sure the Product is in Standby while making connections to the OUTPUT HI and LO or the ZL, ZGND, RCD terminals. Lethal voltages can be present on these connectors during Operate mode.
- When you use the Resistance Multiplier adapter, connect its chassis to protective earth ground (PE) on the Product front panel. The ground terminal on the rear panel of the Product can also be used for this purpose.











**For safe operation and maintenance of the Product:**

- Turn off the Product and remove the mains power cord. Stop for 2 minutes to let the internal circuits discharge before you open the fuse door or remove Product covers.
- Do not operate the Product with covers removed or the case open. Hazardous voltage exposure is possible.
- Disconnect the mains power cord before you remove the Product covers.
- Remove the input signals before you clean the Product.
- Use only specified replacement parts.
- Use only specified replacement fuses.
- Have an approved technician repair the Product.

## Symbols

The symbols used in the manuals and on the Product are shown below.

### Symbols

Symbol	Description
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	WARNING. RISK OF DANGER.
	Consult user documentation.
	Fuse
	Earth
	Certified by CSA Group to North American safety standards.
	Conforms to European Union directives.
	Conforms to relevant Australian EMC standards.
	Conforms to relevant South Korean EMC Standards.
	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.

## Safety Specifications

Full specifications are located online in the *5322A Specifications*.

### General Specifications

**Power Line** ..... 115/230 V ac (50/60 Hz)  
+10 % / -14 %, with the maximum voltage difference between neutral and protective earth not exceeding 15 V. Operation with power line between -10 % and -14 % has limitations in burden current for voltage outputs.

**Power Consumption** ..... 1250 VA maximum

### Fuse Protection

AC Mains Input ..... 2 A, 250 V for 230 V, Time delay (T2L250 V – 5 mm x 20 mm)  
4 A, 250 V for 115 V, Time delay (T4L250 V – 5 mm x 20 mm)

RCD input ..... 3.15 A, 250 V, Fast (F3.15H250 V – 5 mm x 20 mm)  
Meter amps (A) input ..... 20 A, 500 V, Time delay (F20H500 V – 6.3 mm x 32 mm)  
Loop/Line impedance input ..... 4 A, 500 V, Time delay (T4H500 V – 6.3 mm x 32 mm)  
Leakage current input ..... 100 mA, 250 V, Fast (F100 mL250 V – 5 mm x 20 mm)  
Storage Temperature ..... -10 °C to 50 °C

### Relative Humidity

**(operating)** ..... <80 % to 28 °C (resistance outputs >10 GΩ specified for <70 % to 28 °C)

### Relative Humidity

**(storage)** ..... <90 % non-condensing 0 °C to 50 °C

### Altitude

Operating ..... 3050 m (10 000 ft)  
Storage ..... 12 200 m (40 000 ft)

**Dimensions** ..... 430 mm x 555 mm x 170 mm (16.9 in x 21.8 in x 6.7 in)

**Weight** ..... 20 kg (44.1 lb)

### Compliance

#### Safety

Mains ..... IEC 61010-1: Overvoltage Category II, Pollution Degree 2  
Measurement ..... IEC 61010-2-030: 5000 V (Not Category Rated)

### Electromagnetic Compatibility (EMC)

International ..... IEC 61326-1: Basic Electromagnetic Environment  
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.*

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.

