

# 9500B

## Oscilloscope Calibrator

### Safety Sheet

### Introduction

This document supplies safety information for the 9500B Oscilloscope Calibrator (the Product).

### How to Contact Fluke Calibration

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

- Technical Support USA: 1-877-355-3225
- Calibration/Repair USA: 1-877-355-3225
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31-40-2675-200
- Japan: +81-3-6714-3114
- Singapore: +65-6799-5566
- China: +86-400-810-3435
- Brazil: +55-11-3759-7600
- Anywhere in the world: +1-425-446-6110

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

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

### Safety Specifications

#### Voltage

|                     |                                                                                    |
|---------------------|------------------------------------------------------------------------------------|
| 100 V Setting ..... | 100 V to 115 V rms<br>designed for additional<br>voltage fluctuations $\pm 10\%$ . |
| 120 V Setting ..... | 115 V to 120 V rms<br>designed for additional<br>voltage fluctuations $\pm 10\%$ . |
| 220 V Setting ..... | 220 V rms designed for<br>additional voltage<br>fluctuations $\pm 10\%$ .          |
| 240 V Setting ..... | 230 V to 240 V rms<br>designed for additional<br>voltage fluctuations $\pm 10\%$ . |
| Frequency .....     | 50 Hz to 60 Hz designed<br>for additional frequency<br>variation of $\pm 3$ Hz.    |
| Power Cord.....     | NEMA 5-15 plug, IEC<br>60320-C13 receptacle,<br>cable 3 core<br>18AWG to SVT       |

#### Temperature

|                           |                                                  |
|---------------------------|--------------------------------------------------|
| Operating.....            | 5 °C to 40 °C                                    |
| Specified Operation ..... | 5 °C to 40 °C                                    |
| Calibration (TCal) .....  | 20 °C to 25 °C                                   |
| Factory Cal Temp .....    | 23 °C                                            |
| Storage .....             | 0 °C to 50 °C                                    |
| Warm Up .....             | 20 minutes to full<br>uncertainty specification. |

#### Relative Humidity (non-condensing)

|                 |                      |
|-----------------|----------------------|
| Operating ..... | 5 °C to 30 °C < 90 % |
| Storage .....   | 0 °C to 50 °C < 95 % |

#### Altitude

|                |                |
|----------------|----------------|
| Operating..... | < 2000 meters  |
| Storage.....   | < 12000 meters |

## Safety Information

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

### Warning

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

- Read all safety information before you use the Product.
- Carefully read all instructions.
- Use the Product only as specified, or the protection supplied by the Product can be compromised.
- Use extreme caution when the Product is in use. The Product can supply a lethal electric shock.
- Do not use the Product if it operates incorrectly.
- Examine the Product before use. Do not use the Product if it shows signs of damage. Carefully examine the insulation around the connectors.
- Do not use the Product around explosive gas, vapor, or in damp or wet environments.
- Do not use and disable the Product if it is damaged.
- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Use this Product indoors only.
- Use only the mains power cord and connector approved for the voltage and plug configuration in your country and rated for the Product.
- Do not apply hazardous voltages to any connector other than the mains supply to the mains input.

Table 1 shows the symbols used in the manuals and on the Product.

**Table 1. Symbols**

| Symbol                                                                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Risk of danger. Important information. See manual.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|    | Hazardous voltage. Voltage >30 V dc or ac peak might be present.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|    | AC (Alternating Current).                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|    | Power ON / OFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|    | Functional Earth ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|    | 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. |
|    | Recycle.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|   | Product conforms with the requirements of the applicable EC directives.                                                                                                                                                                                                                                                                                                                                                                                                                            |
|  | Intertek ETL listed mark for CSA C22.2 61010-1, and UL 61010-1.                                                                                                                                                                                                                                                                                                                                                                                                                                    |

- 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.
- Replace the mains power cord if the insulation is damaged or if the insulation shows signs of wear.
- If the mains power cord is to be the accessible disconnect device, the mains power cord must not be longer than 3 meters (118.1 inches).
- Do not remove the cover until the test leads are removed.
- Turn the Product off and remove the mains power cord. Stop for two minutes to let the power assemblies discharge before you open the fuse door.
- 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.
- The mains power service must be a protected branch circuit, and if the mains power cord is internally fused, a 10 A fuse must be fitted in the mains power cord plug.
- Have an approved technician repair the Product.
- Do not use test leads if they are damaged.
- Remove signal connections before the protective ground connection is removed. For example, the mains power cord must be connected when the signal leads are connected.
- Do not connect or disconnect signal leads while they are connected to a hazardous voltage or current source.
- Limit operation to the specified measurement category, voltage, or amperage ratings.
- Complete safety tests after a part replacement to make sure the Product is safe.
- To prevent the public transmission of an unintentional RF signal, never connect the Product output to an antenna outside a shielded room.

**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