FLUKE®

945

Sound Level Meter

Users Manual

English

PN 4971109

January 2009, Rev. 1, 5/18

LIMITED WARRANTY AND LIMITATION OF LIABILITY

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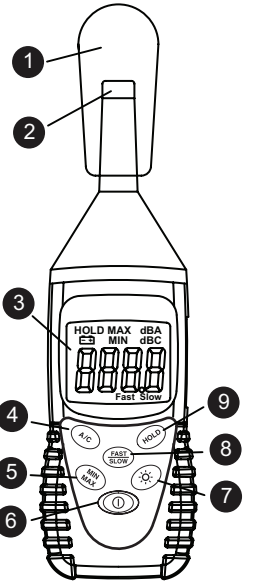


1. Windscreen
2. Microphone
3. LCD display
4. Frequency weighting select button
5. Maximum/Minimum button
6. Power button
7. Backlight button
8. Time weighting select button
9. Data Hold button

CONTENTS

SYMBOLS
The following symbols are used on the Product and in this manual.

Symbol	Description
	WARNING.RISK OF DANGER.
	Consult user documentation.
	Battery or battery compartment.
	Conforms to relevant South Korean EMC Standards.
	Conforms to relevant Australian Safety and EMC standards.
	Conforms to European Union directives.
	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.

⚠ Warning and Precautions

- **For wind speeds over 10 m/sec (22.3 mph), use the windscreen on the microphone.**
- **For general sound level measurements use A weighting. For checking the low-frequency content of noise use C weighting. If the C-Weighted level is much higher than the A-weighted level, then there is a large amount of low-frequency noise**
- **For normal measurements use the FAST mode. For checking average level of fluctuation noise use the SLOW mode.**

UNPACKING AND INSPECTION

Your shipping carton should include:

1 Fluke-945 sound level meter
1 9 volt battery
1 Users Manual

If any of the items are damaged or missing, return the complete package to the place of purchase for an exchange.

INTRODUCTION

This Sound Level Meter has been designed to meet the measurement requirements of safety Engineers, Health, Industrial safety offices and quality control in various environments. This unit conforms to the IEC651 Type 2, ANSI S1.4 Type 2, JISC1502 requirements for Sound Level Meter.

OPERATION

1. Press ⏻ button for power ON.
2. Select the desired response time and weighting. If the sound source consists of short bursts or only catching sound peak, set response to FAST. To measure average sound level, use the slow setting. Select A weighting for general noise sound level and C weighting for measuring sound level of acoustic material.
3. Hold the instrument comfortably in hand or fix on tripod and point the microphone at the suspected noise source, the sound pressure level will be displayed.

MIN/MAX

The MIN/MAX feature reads and updates the display to show the maximum or minimum value measured after you press the MIN/MAX button. Each time the button is pressed, the meter will alternate between MAX and MIN. Press the MIN/MAX button for more than 2 seconds to disable this feature.

HOLD

Freezes the reading present on the LCD at the moment the button is pressed. To use this button feature set up the meter for the type of measurement and range desired before pressing the button.

Backlight

Press the button you enable the display backlight to easy readings in dark environments. Press more than 1 second to disable backlight, which however it automatically OFF after 15 seconds.

Calibration Procedures

Using a standard Acoustic Calibrator (94dB, 1 kHz Sine wave)

1. Set meter for dBA and FAST.
2. Insert the Microphone nozzle carefully into the insertion hole of the calibrator.
3. Press A/C button then press the HOLD button, hold the 2 buttons at the same time more than 1 second. LCD will be blinking to confirm calibration.
4. When LCD blinked, release the A/C and the HOLD buttons. The sound level meter will display 94.0 dBA . The calibration is done.
5. The 94 dB calibration process can be repeated until the meter reads 94.0 dB. Recalibration cycle: 1 year.

SPECIFICATIONS

General

Display:	4 digits LCD
Microphone:	1/2 inch Electret condenser microphone
Low Battery Indication:	Replace battery when LCD displays "🪫"

Power Supply:	9V NEDA 1604, IEC 6LR61
Power Life :	Approx. 50 hrs (alkaline Battery)
Auto Power Off:	Approx. 5 min
Environment:	Indoor operation, < 2000 m
Temperature / Humidity Operation:	5°C to 40°C (41°F to 104°F); < 80% RH
Storage:	-10°C to 60°C (14°F to 140°F); < 70%RH
Dimension:	200 x 55 x 38 mm (7.8 x 2.2 x 1.5 in)
Weight:	233g. (0.5 lb.) Including battery

Electrical (Audio)

Standard applied:	IEC 651 Type2, ANSI 1.4 Type 2.
Dynamic range:	50 dB.
Resolution:	0.1 dB, Display Update: 0.5 sec.
Time weighting:	FAST(125mS), SLOW(1 sec).
Frequency range:	31.5 Hz to 8 kHz.
Measuring level range:	(Auto Range)
A Weighting:	30 to 130 dB.
C Weighting:	35 to 130 dB.
Accuracy:	± 1.5 dB.
Temperature Coefficient:	0.1dB per °C (<18°C and >28°C)
Calibration cycle:	1 year.

Electromagnetic compatibility (EMC)

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

Group1: 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.

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.

MAINTENANCE AND REPAIR

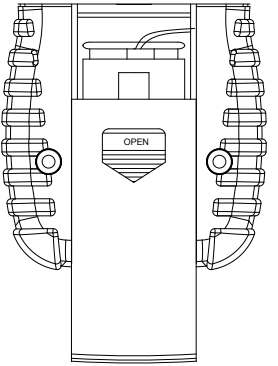
If there appears to be a malfunction during the operation of the meter, the following steps should be performed in order to isolate the cause of the problem.

1. Check the battery. Replace the battery immediately when the symbol "⊟+" appears on the LCD.
2. Review the operating instructions for possible mistakes in operating procedure.

Except for the replacement of the battery, repair of the meter should be performed only by a Factory Authorized Service Center or by other qualified instrument service personnel. The front panel and case can be cleaned with a mild solution of detergent and water. Apply sparingly with a soft cloth and allow to dry completely before using. Do not use aromatic hydrocarbons or chlorinated solvents for cleaning.

BATTERY REPLACEMENT

1. Turn off the meter and slide out the battery cover. Replace the battery with a NEDA type 1604 (IEC 6LR61) or equivalent 9V alkaline battery. Replace the cover.
2. Remove battery when the Fluke-945 is not used for extended period.



Battery Replacement