

Kethvoz KE-38B

Kethvoz KE-38B Digital Multimeter Instruction Manual

Model: KE-38B

1. INTRODUCTION

Thank you for choosing the Kethvoz KE-38B Digital Multimeter. This portable, pen-type multimeter is designed for safe and accurate measurement of AC/DC voltage, resistance, diode, and continuity. It features an LCD backlight, LED flashlight, data hold function, and automatic power-off for enhanced usability and battery conservation. Please read this manual thoroughly before use to ensure proper operation and safety.

2. SAFETY INFORMATION

Always adhere to basic safety precautions when using this multimeter to prevent personal injury or damage to the device. Improper use can result in electric shock or damage to the meter.

- **Do not** apply voltage or current that exceeds the maximum rated input values.
- **Do not** use the meter if it appears damaged or if the test leads are damaged.
- **Exercise extreme caution** when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- **Always** ensure the test leads are properly connected and the function switch is set to the correct range before making a measurement.
- **Disconnect** the test leads from the circuit before changing functions.
- **Replace** the batteries immediately when the low battery indicator appears to ensure accurate readings.
- **Do not** operate the meter in explosive gas, vapor, or dust environments.

3. PACKAGE CONTENTS

Verify that all items are present and undamaged upon opening the package:

- 1 x Kethvoz KE-38B Digital Multimeter
- 1 x Test Lead Cable
- 1 x English User Manual

Note: 2 x 1.5V AAA batteries are not included and must be purchased separately.

4. PRODUCT OVERVIEW

Familiarize yourself with the components of your Kethvoz KE-38B Digital Multimeter.



Figure 4.1: Kethvoz KE-38B Digital Multimeter with its main functions illustrated.



Figure 4.2: Detailed view of the multimeter's dimensions, LCD display with backlight, and LED flashlight.



Figure 4.3: Measurement capabilities of the KE-38B, including AC Voltage (2V-600V), DC Voltage (200mV-600V), and Resistance (200Ω-30MΩ).

Key Components:

1. **LCD Display:** Shows measurement readings, units, and function indicators.
2. **Function Button (Select):** Used to cycle through measurement modes (e.g., AC/DC voltage, resistance).
3. **HOLD Button:** Freezes the current reading on the display.
4. **Backlight/Flashlight Button:** Activates the LCD backlight and the front LED flashlight.
5. **Test Leads:** Integrated probes for connecting to circuits.
6. **Battery Compartment:** Located at the rear for AAA battery installation.

5. SETUP

5.1 Battery Installation

The Kethvoz KE-38B requires two 1.5V AAA batteries (not included) for operation.

1. Locate the battery compartment cover on the back of the multimeter.
2. Use a screwdriver to loosen the screw on the battery cover.
3. Remove the battery cover.
4. Insert two 1.5V AAA batteries, observing the correct polarity (+ and -) as indicated inside the compartment.
5. Replace the battery cover and tighten the screw securely.



Power Supply: 2 * 1.5V AAA batteries (Not Included)

Figure 5.1: Battery compartment for two 1.5V AAA batteries.

6. OPERATING INSTRUCTIONS

This section details how to use the various functions of your multimeter.

6.1 Power On/Off

Press the 'Select' button to turn the multimeter on. The device will automatically power off after approximately 15

minutes of inactivity to save battery life. A 'beep' warning will sound before auto power-off.

6.2 Function Selection

Press the 'Select' button repeatedly to cycle through the available measurement functions: AC Voltage, DC Voltage, Resistance, Diode Test, and Continuity Test. The selected function will be indicated on the LCD.

6.3 AC/DC Voltage Measurement

1. Turn on the multimeter and select the appropriate AC (V~) or DC (V---) voltage function using the 'Select' button.
2. Connect the red test lead to the positive side of the circuit and the black test lead to the negative side (for DC) or across the points for AC.
3. Read the voltage value on the LCD display. The multimeter features automatic range selection.

6.4 Resistance Measurement

1. Turn on the multimeter and select the Resistance (Ω) function.
2. Ensure the circuit or component under test is de-energized before connecting the test leads.
3. Connect the test leads across the component.
4. Read the resistance value on the LCD display.

6.5 Diode Test

1. Turn on the multimeter and select the Diode ($\rightarrow|$) function.
2. Connect the red test lead to the anode and the black test lead to the cathode of the diode.
3. The display will show the forward voltage drop. Reverse the leads; the display should show 'OL' (Open Line) for a good diode.

6.6 Continuity Test

1. Turn on the multimeter and select the Continuity (Ω with sound wave) function.
2. Connect the test leads across the circuit or component.
3. If the resistance is less than approximately 50 Ω , the built-in buzzer will sound, indicating continuity.

6.7 Data Hold Function

During any measurement, press the 'HOLD' button to freeze the current reading on the LCD. Press 'HOLD' again to release the reading and resume live measurement.

6.8 Backlight and LED Flashlight

Press the Backlight/Flashlight button to activate the LCD backlight for improved visibility in low-light conditions. Press it again to turn on the front LED flashlight. Press a third time to turn both off.

7. MAINTENANCE

7.1 Cleaning

Wipe the meter with a damp cloth and mild detergent. Do not use abrasives or solvents. Keep the display clean and dry.

7.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries as described in Section 5.1. Remove batteries if the meter is not used for an extended period.

7.3 Storage

Store the multimeter in a cool, dry place away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

If you encounter issues with your multimeter, refer to the following common problems and solutions:

- **No display or faint display:** Check battery installation and replace batteries if necessary.
- **'OL' (Overload) displayed:** The measured value exceeds the meter's range for the selected function, or the circuit is open. Ensure correct function selection and proper connection.
- **Incorrect readings:** Ensure test leads are properly connected, batteries are not low, and the correct function is selected. Clean the test leads and input jacks if dirty.
- **No continuity beep:** Check if the resistance is above 50Ω, or if the circuit is open.

If problems persist, contact customer support.

9. SPECIFICATIONS

Parameter	Specification
DC Voltage Range	200mV / 2V / 20V / 200V / 600V
AC Voltage Range	2V / 20V / 200V / 600V
Resistance Range	200Ω / 2KΩ / 20KΩ / 200KΩ / 2MΩ / 20MΩ
Display	1999 Counts LCD
Range Selection	Automatic
Diode Test	Yes
Continuity Buzzer	Yes (sounds for < 50Ω)
Data Hold	Yes
Flashlight	Yes (LED)
Backlight	Yes (LCD)
Auto Power Off	Yes (after 15 minutes of inactivity)
Low Battery Indicator	Yes
Battery Type	2 x 1.5V AAA batteries (not included)
Dimensions (L x W x H)	235 x 54 x 30 mm (9.25 x 2.13 x 1.18 inches)

Parameter	Specification
Weight	200 Grams
Material	ABS Plastic

10. WARRANTY AND SUPPORT

Kethvoz offers a **2-year warranty** for the KE-38B Digital Multimeter, covering manufacturing defects and workmanship. Additionally, lifetime technical support is provided to assist you with any questions or issues you may encounter.

If you experience any problems with your product or require technical assistance, please do not hesitate to contact Kethvoz customer support. Refer to the product packaging or the official Kethvoz website for contact information.

