

## ANENG SZ308

# ANENG SZ308 Digital Multimeter User Manual

Your guide to safe and effective use of the ANENG SZ308 Digital Multimeter.

## 1. INTRODUCTION

The ANENG SZ308 is a versatile digital multimeter designed for accurate and reliable electrical measurements. It is suitable for a wide range of applications, from household electrical checks to automotive diagnostics and industrial maintenance. This manual provides essential information for setting up, operating, and maintaining your device safely and efficiently.

### 1.1 Safety Information

**WARNING: Always read and understand all safety warnings and operating instructions before using this instrument. Failure to follow these instructions may result in electric shock, fire, or serious injury.**

- Do not exceed the maximum voltage or current ratings specified for the multimeter.
- Ensure test leads are properly connected and in good condition before each use.
- Never use the multimeter on circuits with voltages exceeding 1000V DC or 750V AC.
- Always turn off power to the circuit and discharge high-voltage capacitors before measuring resistance, continuity, or diodes.
- Replace the battery when the low battery indicator appears to ensure accurate readings.
- Do not operate the multimeter if it appears damaged or if the case is open.

## 2. PRODUCT OVERVIEW

The ANENG SZ308 Digital Multimeter is a compact and lightweight device, making it highly portable for various tasks.



Figure 2.1: Front view of the ANENG SZ308 Digital Multimeter.

## 2.1 Multimeter Components



Figure 2.2: Diagram illustrating the main panel functions of the ANENG SZ308.

1. **LCD Screen:** Displays measurement values, units, and function indicators.
2. **Function Dial:** Rotary switch to select measurement modes (Voltage, Current, Resistance, Diode, Continuity, hFE, Square Wave).
3. **Input Jacks:** Ports for connecting test leads (VΩmA, COM, 10A).
4. **hFE Jack:** Socket for transistor testing.

5. **Low Battery Indicator:** Icon on the LCD screen indicating low battery power.
6. **Data Hold:** Button to freeze the current reading on the display.
7. **Backlight:** Button to activate the display backlight for use in dim conditions.

## 2.2 Package Contents

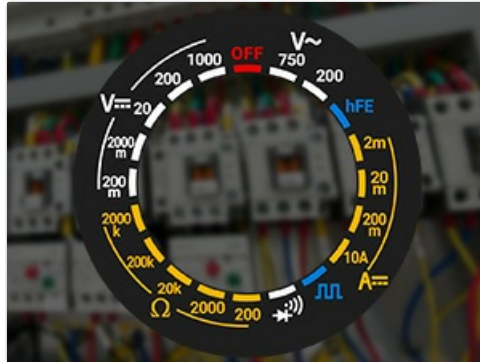


Figure 2.3: The ANENG SZ308 Multimeter package includes the device, battery, test leads, and manual.

The ANENG SZ308 Digital Multimeter package typically includes:

- ANENG SZ308 Digital Multimeter x 1
- 9V Battery x 1
- Standard Test Leads x 1 pair
- Insulated Multimeter Test Probes (Piercing Probes) x 2
- User Manual x 1

## 3. SETUP

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### 3.1 Battery Installation



Figure 3.1: Proper installation of the 9V battery in the multimeter's rear compartment.

1. Ensure the multimeter is turned OFF.
2. Locate the battery compartment cover on the back of the multimeter.
3. Use a screwdriver to remove the screw securing the battery cover.
4. Carefully remove the cover.
5. Connect the 9V battery to the battery clips, observing correct polarity (+ to + and - to -).
6. Place the battery into the compartment and replace the cover, securing it with the screw.

### 3.2 Connecting Test Leads

Connect the test leads to the appropriate input jacks on the multimeter:

- Insert the **black** test lead into the **COM** (Common) jack.
- Insert the **red** test lead into the **VΩmA** jack for voltage, resistance, and small current measurements.
- For measuring currents greater than 200mA (up to 10A), insert the **red** test lead into the **10A** jack.

**CAUTION: Always ensure test leads are correctly inserted for the desired measurement to prevent damage to the multimeter or personal injury.**

## 4. OPERATING INSTRUCTIONS

The ANENG SZ308 features a user-friendly rotary dial for selecting various measurement functions.



Figure 4.1: The function dial allows selection of different measurement modes.

### 4.1 AC/DC Voltage Measurement

**ANENG**<sup>®</sup>

**SZ308 デジタル  
・マルチメータ**

1999年のカウント

**V<sub>~</sub>**  
AC/DC  
の電圧

**A<sub>=</sub>**  
DC  
の流れ

**hFE**  
トラ  
イオード

**スクエア波**

**ダイオード**

**レジスタンス**

**ブザー**

DIGITAL MULTIMETER  
SZ308  
CE

V<sub>~</sub> 200 1000 OFF 750 200  
V<sub>=</sub> 20 2000 m 2000 k 200k 20k 200 2000  
hFE 2m 20 m 200 m 10A  
DCA COM VΩmA

Figure 4.2: Measuring AC voltage at an electrical outlet using the multimeter.

1. Turn the function dial to the desired AC Voltage (V~) or DC Voltage (V=) range.
2. Connect the black test lead to the COM jack and the red test lead to the VΩmA jack.

3. Touch the test probes to the points where you want to measure voltage.
4. Read the voltage value on the LCD screen.

## 4.2 DC Current Measurement

The ANENG SZ308 can measure DC current in various ranges.

1. Turn the function dial to the desired DC Current (A=) range (e.g., 200m, 10A).
2. For currents up to 200mA, connect the black test lead to COM and the red test lead to VΩmA.
3. For currents up to 10A, connect the black test lead to COM and the red test lead to the 10A jack.
4. Open the circuit where you want to measure current and connect the multimeter in series.
5. Read the current value on the LCD screen.

## 4.3 Resistance Measurement

1. Turn the function dial to the Resistance ( $\Omega$ ) range.
2. Connect the black test lead to COM and the red test lead to VΩmA.
3. Ensure the circuit is de-energized before measuring resistance.
4. Touch the test probes across the component or circuit you wish to measure.
5. Read the resistance value on the LCD screen.

## 4.4 Continuity Test

1. Turn the function dial to the Continuity (buzzer icon) range.
2. Connect the black test lead to COM and the red test lead to VΩmA.
3. Ensure the circuit is de-energized.
4. Touch the test probes to the two points you want to check for continuity.
5. If there is continuity (low resistance), the multimeter will emit an audible beep.

## 4.5 Diode Test

1. Turn the function dial to the Diode (diode symbol) range.
2. Connect the black test lead to COM and the red test lead to VΩmA.
3. Ensure the diode is disconnected from the circuit.
4. Place the red probe on the anode and the black probe on the cathode of the diode.
5. Read the forward voltage drop on the LCD screen. Reverse the probes; an open circuit (OL) reading indicates a good diode.

## 4.6 hFE Measurement (Transistor Test)



# AC電圧は 何ですか

Figure 4.3: Using the hFE function to test transistors.

1. Turn the function dial to the hFE range.
2. Identify the type of transistor (NPN or PNP) and its emitter, base, and collector leads.
3. Insert the transistor leads into the corresponding holes in the hFE socket.
4. Read the hFE value (DC current gain) on the LCD screen.

## 4.7 Square Wave Output

# hFE トライオード



Figure 4.4: The multimeter can generate a square wave signal for testing.

1. Turn the function dial to the Square Wave (square wave symbol) setting.
2. Connect the test leads to the V $\Omega$ mA and COM jacks.
3. The multimeter will output a square wave signal through the test leads, which can be used for testing audio circuits or other electronic components.

## 4.8 Data Hold Function

Press the **HOLD** button to freeze the current reading on the LCD screen. Press it again to release the hold and resume live measurements.

## 4.9 Backlight

Press the **Backlight** button (often indicated by a light bulb symbol) to illuminate the LCD screen for better visibility in low-light conditions. Press it again to turn off the backlight.

## 5. MAINTENANCE

### 5.1 Battery Replacement

When the low battery indicator appears on the LCD, replace the 9V battery as described in Section 3.1. Using a low battery can lead to inaccurate readings.

## 5.2 Cleaning

Wipe the multimeter's casing with a damp cloth and mild detergent. Do not use abrasives or solvents. Ensure the device is completely dry before use.

## 5.3 Fuse Replacement

The ANENG SZ308 is equipped with internal fuses for overload protection. If the multimeter fails to measure current, the fuse may need replacement. Refer to the internal diagram or contact customer support for guidance on fuse specifications and replacement procedures. Always replace with a fuse of the same type and rating.

## 6. TROUBLESHOOTING

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- **No display or faint display:** Check battery installation. Replace the 9V battery if low battery indicator is on or if the display is dim.
- **No reading in current mode:** Check if the test leads are connected to the correct current jacks (V $\Omega$ mA or 10A) and if the fuse is intact.
- **"OL" (Overload) displayed:** The measured value exceeds the selected range. Select a higher range or ensure the circuit is within the multimeter's capabilities.
- **Inaccurate readings:** Ensure the battery is not low, test leads are properly connected, and the correct function is selected. Avoid strong electromagnetic interference.

## 7. SPECIFICATIONS

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Feature	Specification
Brand	ANENG
Model	SZ308
Display Count	2000 Counts
Power Source	9V Battery (included)
AC Voltage	Up to 750V
DC Voltage	Up to 1000V
DC Current	Up to 10A
Resistance	Up to 20MΩ
Continuity	Yes (with buzzer)
Diode Test	Yes
hFE Test	Yes
Square Wave Output	Yes
Data Hold	Yes
Backlight	Yes
Overload Protection	Yes (by fuses)
Product Dimensions	50 x 50 x 20 mm
Item Weight	0.6 grams
Color	Black

## 8. WARRANTY AND SUPPORT

ANENG electrical testers come with service and technical support. For warranty claims, technical assistance, or any questions regarding your ANENG SZ308 Digital Multimeter, please refer to the contact information provided with your purchase or visit the official ANENG website. Please retain your proof of purchase for warranty purposes.