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› SZ08 Ultra-Thin Split LCD Digital Multimeter Tester User Manual

WnewTools ATOOL1933493-Black

SZ08 Ultra-Thin Split LCD Digital Multimeter Tester User Manual

Model: ATOOL1933493-Black | Brand: WnewTools

PRODUCT OVERVIEW

The SZ08 Ultra-Thin Split LCD Digital Multimeter is a versatile tool designed for electrical measurements. It features an auto/manual ranging function, a clear 1999 counts LCD display, and a compact design with a stowable test pen. This manual provides essential information for the safe and effective use of your multimeter.



Figure 1: Front view of the SZ08 Digital Multimeter, highlighting its ultra-thin design, large LCD display, and rotary function selector. The test lead input jacks are visible at the bottom.

Safety Information

Please read and understand all safety warnings and operating instructions before using this multimeter. Failure to do so may result in injury or damage to the meter or equipment under test.

- **Do NOT exceed the maximum value indicated in the Specifications section.**Overloading the meter can cause damage or pose a safety risk.
- **Do NOT input voltage at the Current Mode, Resistance Mode, Diode Mode, Continuity Mode, or Temperature Mode.** This can damage the meter's internal circuitry.
- **Do NOT use the product when the batteries or the battery cover is not placed properly.**Ensure the battery compartment is securely closed before operation.
- **Turn off the product and remove the test leads from the test points before changing batteries or fuses.**This prevents electrical shock.

- **Do not input voltage exceeding 36V DC or 25V AC when measuring current.** Adhere to these limits to prevent damage to the device and ensure safety.



Figure 2: Rear view of the SZ08 Multimeter, displaying the safety warning label and the battery compartment cover. Always ensure the cover is securely fastened.

PACKAGE CONTENTS

Verify that all items are present in the package before use:

- 1 x SZ08 Digital Multimeter (Batteries not included)
- 2 x Test Leads (Red and Black)
- 1 x User Manual (This document)

SETUP

1. Battery Installation

The SZ08 Multimeter requires two (2) 1.5V AAA batteries (not included) for operation.

1. Ensure the multimeter is turned OFF and test leads are disconnected.
2. Locate the battery compartment on the back of the multimeter (refer to Figure 2).
3. Open the battery compartment cover by sliding or unscrewing it as indicated.
4. Insert two 1.5V AAA batteries, observing the correct polarity (+/-) markings inside the compartment.
5. Close the battery compartment cover securely.

2. Connecting Test Leads

Proper connection of test leads is crucial for accurate and safe measurements.

1. Insert the black test lead into the "COM" (Common) input jack.
2. For most voltage, resistance, diode, and continuity measurements, insert the red test lead into the "VΩHz" input jack.
3. For current measurements (up to 10A), insert the red test lead into the "10A" input jack. For lower current measurements (mA/uA), use the "mA/uA" input jack.



Figure 3: Side view of the SZ08 Multimeter, demonstrating the connection of test leads to the input jacks and the use of the integrated kickstand for convenient viewing.

OPERATING INSTRUCTIONS

The SZ08 Multimeter features a rotary switch for function selection and buttons for additional features.

General Operation

- **Power On/Off:** Rotate the central dial from "OFF" to any desired measurement function to power on the device. Rotate back to "OFF" to power off. The meter also features Auto Power Off to conserve battery life.
- **Ranging:** The meter supports both Auto and Manual Ranging. In Auto Ranging mode, the meter automatically selects the appropriate range. Use the "SELECT" button to switch between functions within a single rotary switch position (e.g., AC/DC voltage, Diode/Continuity).
- **Data Hold:** Press the "HOLD" button to freeze the current reading on the display. Press again to release.
- **Low Battery Indication:** A battery icon will appear on the LCD when the battery voltage is low, indicating that

batteries should be replaced soon.

Measurement Functions

Select the desired function using the rotary switch and connect the test leads appropriately.

1. DC Voltage Measurement (VDC):

- Set the rotary switch to the "V" position (DC voltage range).
- Connect the red test lead to the "VΩHz" jack and the black test lead to the "COM" jack.
- Connect the test leads in parallel to the DC voltage source.

2. AC Voltage Measurement (VAC):

- Set the rotary switch to the "V" position (AC voltage range).
- Connect the red test lead to the "VΩHz" jack and the black test lead to the "COM" jack.
- Connect the test leads in parallel to the AC voltage source.

3. Resistance Measurement (Ω):

- Set the rotary switch to the " Ω " position.
- Connect the red test lead to the "VΩHz" jack and the black test lead to the "COM" jack.
- Connect the test leads across the component to measure its resistance. Ensure the circuit is de-energized.

4. Continuity Test:

- Set the rotary switch to the " Ω " position and press "SELECT" until the continuity symbol (buzzer) is displayed.
- Connect the red test lead to the "VΩHz" jack and the black test lead to the "COM" jack.
- Touch the test leads to the circuit or component. A continuous beep indicates continuity (low resistance).

5. Diode Test:

- Set the rotary switch to the " Ω " position and press "SELECT" until the diode symbol is displayed.
- Connect the red test lead to the "VΩHz" jack and the black test lead to the "COM" jack.
- Connect the red lead to the anode and the black lead to the cathode of the diode. The display will show the forward voltage drop. Reverse the leads; an open circuit (OL) indicates a good diode.

6. AC/DC Current Measurement (A):

- **IMPORTANT:** Ensure the circuit is de-energized before connecting the meter in series.
- Set the rotary switch to the "A" position (AC or DC current range). Press "SELECT" to switch between AC and DC.
- For currents up to 10A, connect the red test lead to the "10A" jack. For lower currents, use the "mA/uA" jack. The black test lead always goes to "COM".
- Open the circuit where current is to be measured and connect the multimeter in series with the load.
- Apply power to the circuit and read the current.

7. Non-Contact Voltage (NCV) Detection:

- Set the rotary switch to the "NCV" position.
- Move the top end of the multimeter near a live AC voltage source. The meter will beep and the NCV indicator will light up when AC voltage is detected.

Battery Replacement

When the low battery indicator appears on the display, replace the batteries promptly to ensure accurate readings and proper operation.

1. Turn off the multimeter and disconnect all test leads from the input jacks and any circuits.
2. Open the battery compartment cover on the back of the unit (refer to Figure 2).
3. Remove the old 1.5V AAA batteries.
4. Insert new 1.5V AAA batteries, ensuring correct polarity.
5. Close the battery compartment cover securely.

Cleaning

To maintain the multimeter's appearance and functionality:

- Wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents.
- Keep the test leads clean and free of debris.



Figure 4: Thin side profile of the SZ08 Multimeter, illustrating its compact and portable design.

TROUBLESHOOTING

If you encounter issues with your SZ08 Multimeter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No display or dim display	Dead or low batteries; Incorrect battery installation.	Replace batteries; Check battery polarity and ensure secure installation.
"OL" (Overload) displayed	Input value exceeds selected range; Open circuit in continuity/diode test.	Switch to a higher range (if in manual ranging); Check circuit connections.
Incorrect readings	Incorrect function selected; Loose test lead connections; Damaged test leads.	Verify rotary switch position and "SELECT" button setting; Ensure leads are fully inserted; Inspect and replace damaged leads.
Meter does not turn on	Batteries are completely dead; Auto power off activated.	Replace batteries; Rotate dial to OFF and then back to a function to reset.

SPECIFICATIONS

Detailed technical specifications for the SZ08 Digital Multimeter:

Parameter	Value
Model Number	SZ08
Display (LCD)	1999 Counts
Material	ABS+TPE
Ranging	Auto/Manual
Frequency Range	2kHz/200kHz
AC Voltage Range	0~750V; Resolution: 100uV~1V
DC Voltage Range	0~1000V; Resolution: 100uV~1V
AC Current Range	0~10A; Resolution: 1uA~10mA
DC Current Range	0~10A; Resolution: 0.1uA~10mA
Diode Test	YES
Continuity Test	YES
Data Hold	YES

Parameter	Value
Power	2 * 1.5V AAA batteries (Not Included)
NCV (Non-Contact Voltage)	YES
Auto Power Off	YES
Low Battery Indication	YES
Operating Temperature	0~40°C
Storage Temperature	-20~60°C
Test Lead Length	74cm / 29.1 in
Product Size	179.5 x 80.3 x 42.7 x 15mm / 7.06 x 3.16 x 1.68 x 0.6in
Weight	166.5g

WARRANTY AND SUPPORT

For warranty information or technical support regarding your SZ08 Digital Multimeter, please refer to the contact information provided by your retailer or visit the official WnewTools website. Keep your purchase receipt as proof of purchase for any warranty claims.

