

OPERATOR'S INSTRUCTION MANUAL

MINI 3 1/2 DIGITAL MULTIMETER DT95B

1. INTERNATIONAL SYMBOLS

~ AC

≡ DC

▶ Diode

o))) Continuity

⊥ Ground

□ Double Insulation

⚠ Warning

2. Feature

Display: 3 1/2 digit LCD. Largest number 1999

Polarity: Automatic polarity display

Outrange: Upper most display "1"

Working Ambient Temperature: 0-40°C

Relative Moisture: < 75%

Storing Ambient Temperature: -15-50°C

Battery: 12V(A23M)

Dimensions: 100*59*22(mm)

Weight: 80g(with battery)

3. Technical Specifications

Requirements for accurate performance guarantee of the instrument:

Temperature 23°C±50°C

Moisture < 75%Rh

Accuracy: □ (% reading + word number)

3.1 DC Voltage

Range	Resolution	Accuracy
200mV	100μV	± (0.8%+2)
2000mV	1mV	
20V	10mV	
200V	100mV	
400V	1V	

Input impedance: 1MΩ

Max input voltage: 400V DC or effective value AC

3.2 DC Current

Range	Resolution	Accuracy
2000μA	1μA	± (1%+2)
20mA	10μA	
200mA	100μA	± (1.2%+2)

Overload protection: fast 0.2A/250V fuse

3.3 AC Voltage

Range	Resolution	Accuracy
200V	100mV	± (1.5%+10)
400V	1V	

Frequency Response: 40-200Hz

Max input voltage: 400V effective value AC

Displayed: Sine wave effective value, average value response

3.4 Resistance

Range	Resolution	Accuracy
200Ω	0.1Ω	± (1.0%+2)
2000Ω	1Ω	
20KΩ	10Ω	

200K Ω	100 Ω	
2000K Ω	1K Ω	

Max open circuit voltage: 2.8V

Overload protection: 250V DC or effective value AC less than 10 seconds

3.5 Battery measurement (9V)

Voltage of 9V battery under certain load is displayed to reveal the load-carrying ability of the battery. The result by this method is more quotable than that obtained by overload voltage measurement.

Overload protection: fuse 0.2A/250V

3.6 Diode and Buzzer.

For diode: measuring voltage: approx 2.7V. Current: 0.8mA. Approximation of positive voltage drop on diode is displayed.

For buzzer: the built-in buzzer will sound when the resistance is less than 30 Ω .

4. Measurement Instrument

4.1 DC voltage measurement (DCV)

A. Set the rotary switch at $V^{\text{---}}$ (DCV) position with proper range. The upper most range position shall be selected when it is not for sure.

B. Connect the red and black test leads to the circuit being measured.

4.2 DC current measurement (DCA)

A. Set the rotary switch at the $A^{\text{---}}$ (DCA) position with proper range.

B. Connect the red and black test leads to the circuit being measured in series.

4.3. AC voltage measurement (ACV)

A. Set the rotary switch at V^{\sim} (ACV) position with proper range.

B. Connect the red and black test leads to the circuit being measured.

4.4. Resistance measurement (Ω)

A. Set the rotary switch at Ω position with the proper range.

B. Connect the red and black test leads to the two ends of the resistance being measured.

C. Power shall be turned off and all the capacitors can be discharged when measuring resistance in circuit.

4.5. Battery measurement (9V)

A. Set the rotary switch at “9V” position.

B. Connect the red and black test leads to the two polars of the battery being measured.

4.7. Diode and make-break measurement

A. Set the rotary switch at “ \rightarrow ” position.

B. Approximation of diode voltage drop is displayed on LCD when the diode is measured forwardly. While “1” is displayed when measured reversely.

C. Connect the red and black test leads to two ends of the circuit. When the resistance value between the two ends is less than 30 Ω , the buzzer will sound and the value is displayed.

5. Cautions

5.1. Never surpass the max input limit.

5.2. To prevent electric shocks, touching of high voltage circuit being measured must be avoided.

5.3. When the measurement error is larger than normal tolerance, the reason might be low battery voltage, and the battery shall be changed (12V/A23M).

5.4. In case there is no response when measuring current or inputting 9V battery signal the fuse shall be checked. The damaged fuse shall be replaced by that of identical type (0.2A/250V).

5.5. The back cover must be mounted on and fixed correctly before using the instrument.