



MMU P1

Pocket Digital Multimeter

Instruction Manual



Disclaimer

The manufacturer assumes no responsibility for any consequences resulting from the use or misuse of this product. Product specifications and manual content are subject to change without prior notice.

Part Number: 7603311
GTIN: 6298043998062



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



Introduction

The MMU P1 is a battery-powered, true-RMS, auto-ranging digital multimeter with a 4000-count LCD display. It provides precise measurements of AC/DC voltage, resistance, capacitance, frequency, duty cycle, diode, and continuity.

Safety Information

To prevent electric shock, fire, or personal injury, read all safety instructions before use.

- Do not exceed the “maximum value” specified in the product specifications.
- Verify test lead connections and insulation before measuring voltages above 36 V DC or 25 V AC.
- Disconnect test leads before changing measurement mode.
- Incorrect mode or range selection can create hazards; the display shows “OL” when the input exceeds range.
- Safety symbols:

	Hazardous Voltage		Earth
	Double Insulated		Low Battery
	Risk of Danger. Check the User Manual.		

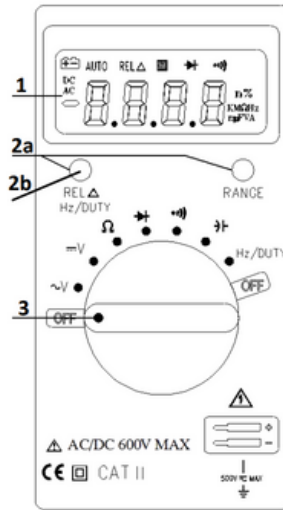
Specifications

Electrical Specifications					
Function	Range	Resolution	Accuracy	MAX.Value	Other
DC Voltage	400.0mV	0.1mV	±(0.5%+4)	600V	
	4.000V	0.001V			
	40.00V	0.01V	±(0.8%+4)		
	400.0V	0.1V			
600V	1V				
AC Voltage	400.0mV	0.1mV	±(1.2%+4)	600V	40Hz-1kHz
	4.000V	0.001V			
	40.00V	0.01V	±(1.5%+4)		
	400.0V	0.1V			
600V	1V				
Resistance	400.0Ω	0.1Ω	±(0.8%+4)	40MΩ	
	4.000kΩ	0.001kΩ			
	40.00kΩ	0.01kΩ			
	400.0kΩ	0.1kΩ	±(2.0%+4)		
	4.000MΩ	0.001MΩ			
40.00MΩ	0.01MΩ				

Function	Range	Resolution	Accuracy	MAX.Value	Other
Capacitance	9.999nF	0.001nF	±(5.0%+20)	9.999mF	
	99.99nF	0.01nF	±(2.0%+5)		
	999.9nF	0.1nF			
	9.999μF	0.001μF			
	99.99μF	0.01μF			
	999.9μF	0.1μF	±(5.0%+5)		
9.999mF	0.001mF				
Frequency	99.99Hz	0.01Hz	±(0.1%+2)	9.999MHz	
	999.9Hz	0.1Hz			
	9.999kHz	0.001kHz			
	99.99kHz	0.01kHz			
	999.9kHz	0.1kHz			
9.999MHz	0.001MHz				
Duty Cycle	1%~99%	0.1%	±(0.1%+2)		
Diode	√				
Continuity	√				

General Specifications		
Display (LCD)	4000 counts	
Ranging	Auto/Manual	
Material	ABS	
Update Rate	3 times/second	
Ture RMS	√	
Data Hold	√	
Low Battery Indication	√	
Auto Power Off	√	
Mechanical Specifications		
Dimension	125*80*19.5mm	
Weight	127g	
Battery Type	1.5V AAA Battery * 2	
Environmental Specifications		
Operating	Temperature	0~40°C
	Humidity	<75%
Storage	Temperature	-20~60°C
	Humidity	<80%
Standard Accessories		
Battery * 2pcs; English User Manual; Gift Box; Wrist Strap * 1pc		

Instruction



Front Panel

(Refer to the front panel illustration above)

1. LCD Display

2. Buttons

2a. RANGE: Press to enter manual range; each press advances to the next range. After reaching the highest range, the next press cycles back to the lowest. Hold for 2 seconds to exit manual range mode.

2b. REL: Enables relative measurements for Voltage, Resistance, and Capacitance. Press once to activate, press again to exit. In Hz/DUTY mode, press to toggle between frequency and duty cycle.

3. Rotary Switch: Used to select mode or range (clockwise from OFF):

- OFF
- AC Voltage
- DC Voltage
- Resistance
- Diode
- Continuity
- Capacitance
- Frequency/Duty Cycle
- OFF

Measure AC Voltage

1. Set the rotary switch to AC Voltage Mode.
2. Place the probes on the correct test points of the circuit.
3. Read the AC voltage value on the display.

Caution:

- Do not measure voltages exceeding the MAX value specified.
- Do not touch high-voltage circuits during measurement.

Measure DC Voltage

1. Turn the rotary switch to the DC Voltage Mode
2. Touch the probes to the correct test points of the circuit to measure the voltage
3. Read the measured voltage on the display.

Caution:

- Do not measure voltage that exceeds the MAX Value as indicated in the Specifications;
- Do not touch high voltage circuit during measurements.

Measure Resistance

1. Set the rotary switch to Resistance Mode; the display will indicate "OL."
2. Place the probes on the desired test points of the circuit.
3. Read the measured resistance value on the display.

Caution:

- Disconnect circuit power and fully discharge all capacitors before testing resistance.
- Do not apply voltage in Resistance Mode.

Measure Diode

1. Set the rotary switch to Diode Mode.
2. Connect the red probe to the anode and the black probe to the cathode of the diode.
3. Read the forward bias voltage value on the display.
4. If the test lead polarity is reversed or the diode is faulty, the display will show "OL."

Caution:

- Do not apply voltage in Diode Mode.
- Disconnect circuit power and fully discharge all capacitors before testing diodes.

Measure Continuity

1. Set the rotary switch to Continuity Mode.
2. Place the probes on the desired test points of the circuit.
3. The beeper sounds when resistance is below 50Ω, indicating a short circuit.

Caution: Do not apply voltage in Continuity Mode.

Measure Capacitance

1. Set the rotary switch to Capacitance Mode.
2. Connect the probes to the capacitor terminals. For electrolytic capacitors, observe polarity (red to anode, black to cathode).
3. Read the capacitance value on the display once the reading stabilizes.

Caution: Disconnect circuit power and fully discharge all capacitors before testing capacitance.

Measure Frequency and Duty Cycle

1. Set the rotary switch to Frequency Mode; press REL once to switch to Duty Cycle Mode if required.
2. Place the probes on the desired test points of the circuit.
3. Read the frequency or duty cycle value on the display.


Caution: Frequency mode is intended for low-voltage test points within the instrument's measurable frequency range.

Auto Power Off

- The product powers off automatically after 15 minutes of inactivity.
- The beeper sounds five times one minute before shutdown
- To restart, turn the rotary switch to OFF, then select the desired mode.

General Maintenance

Do not attempt to repair or service the product unless you are qualified and have access to the required calibration and service instructions.


- Do not operate the product in hot, wet, flammable, explosive, or strong magnetic environments.
- Clean with a damp cloth and mild detergent; avoid abrasives or solvents.
- Disconnect all input signals before cleaning.
- Remove batteries during extended storage to prevent leakage.
- When "  " appears on the display, replace batteries as follows:
 1. Loosen the screw and remove the battery cover.
 2. Install new batteries of the same type and rating.
 3. Replace the cover and fasten the screw.
- Replace fuses using the same procedure; use only identical fuses as originally supplied.

Warning:

1. Do NOT exceed the "maximum value" indicated in the Specification;
2. Do NOT input voltage at the the Resistance Mode, the Diode Mode, or the Continuity Mode;
3. Do NOT use the product when the batteries or the battery cover is not placed properly;
4. Turn off the product and remove the test leads from the test points before changing batteries or fuses.

Troubleshooting

If your product does not function normally, the following steps may help you. If the problem still cannot be solved, please contact your dealer.

Problem	Possible Reason
Display Multifunction	Low battery; replace batteries
 Symbol	Replace batteries
No current input	Replace fuse

LIMITED WARRANTY AND LIMITATION OF LIABILITY

Customers enjoy two-year warranty from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination or abnormal conditions of operation or handling.

All rights reserved. Specifications are subject to change without notice.