

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

› [PEAKMETER](#) /

› [PEAKMETER PM8225C Digital Multimeter User Manual](#)

PEAKMETER PM8225C

PEAKMETER PM8225C Digital Multimeter User Manual

Model: PM8225C

1. INTRODUCTION

This manual provides detailed instructions for the safe and effective use of the PEAKMETER PM8225C Digital Multimeter. This device is designed for measuring AC/DC voltage, AC/DC current, resistance, capacitance, frequency, diode, continuity, and Non-Contact Voltage (NCV) detection. Please read this manual thoroughly before operation and retain it for future reference.

2. SAFETY INFORMATION

WARNING: To avoid possible electric shock, fire, or personal injury, please read all safety information before using the product.

- Always ensure the multimeter is in good working condition and free from damage before use.
- Do not apply more than the rated voltage, as marked on the meter, between the terminals or between any terminal and earth ground.
- Use caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Always disconnect the test leads from the circuit before changing functions or ranges.
- Ensure the correct function and range are selected for the measurement.
- Replace the battery immediately when the low battery indicator appears to ensure accurate readings.
- Do not operate the meter around explosive gas, vapor, or dust.
- Adhere to local and national safety codes.

3. PRODUCT OVERVIEW

The PEAKMETER PM8225C is a robust digital multimeter designed for electricians and DIY enthusiasts. It features a large digital display and a smooth rotary dial for easy function selection.

Large-Screen

2.0 Inches Large-Screen Digital Display



20 Position
Smooth Rotary
Dial for Easy Use

Figure 3.1: PEAKMETER PM8225C Digital Multimeter showing its large screen and 20-position rotary dial.

The device is equipped with a high-quality PVC soft rubber protection cover and ABS fireproof material, providing double protection, double insulation, anti-drop, and wear-resistance for comfortable handling.

HIGH QUALITY PVC SOFT RUBBER PROTECTION COVER + ABS FIREPROOF MATERIAL

Double protection, double insulation

...

Anti-drop Wear-resistance Comfortable



Figure 3.2: The PM8225C multimeter showcasing its durable protective casing.

3.1 Key Features

- **Full Functioning:** Measures AC/DC Voltage, AC/DC Current, Resistance, Capacitance, Frequency, Diode, Continuity, and NCV.
- **Large Digital Display:** 2.0-inch screen for clear readings.
- **Rotary Dial:** 20-position smooth rotary dial for easy function selection.
- **Overload Protection:** Designed with an oversized measurement range to prevent damage from accidental overloads.
- **Durable Construction:** PVC soft rubber protection cover and ABS fireproof material for enhanced durability and safety.

Full Functioning



Figure 3.3: Icons representing the full range of functions available on the PM8225C multimeter.

4. SETUP

4.1 Battery Installation

The PEAKMETER PM8225C requires 1 Lithium Polymer battery (included). To install or replace the battery:

1. Ensure the multimeter is turned OFF and disconnect all test leads.
2. Locate the battery compartment cover on the back of the device.
3. Use a screwdriver to open the battery compartment.
4. Insert the battery, observing the correct polarity (+ and -).
5. Replace the battery compartment cover and secure it with the screw.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

To turn the multimeter ON, rotate the function dial from the 'OFF' position to any desired measurement

function. To turn it OFF, rotate the dial back to the 'OFF' position. The device features an 'Auto Power Off' function to conserve battery life.

5.2 Basic Measurements

Always connect the black test lead to the 'COM' jack and the red test lead to the appropriate input jack (V Ω mA for voltage, resistance, continuity, diode, capacitance, frequency; 10A for high current measurements).

5.2.1 DC Voltage Measurement (VDC)

1. Set the rotary dial to the 'VDC' range.
2. Connect the test leads in parallel to the circuit or component to be measured.
3. Read the voltage value on the display.

5.2.2 AC Voltage Measurement (VAC)

1. Set the rotary dial to the 'VAC' range.
2. Connect the test leads in parallel to the circuit or component to be measured.
3. Read the voltage value on the display.

5.2.3 DC Current Measurement (ADC)

1. Set the rotary dial to the 'ADC' range (e.g., 400 μ A, 4mA, 40mA, 400mA, 10A).
2. **WARNING:** Ensure the circuit is de-energized before connecting the meter in series.
3. Connect the test leads in series with the circuit. For currents up to 400mA, use the V Ω mA jack. For currents up to 10A, use the 10A jack.
4. Apply power to the circuit and read the current value.

5.2.4 AC Current Measurement (AAC)

1. Set the rotary dial to the 'AAC' range.
2. **WARNING:** Ensure the circuit is de-energized before connecting the meter in series.
3. Connect the test leads in series with the circuit. For currents up to 400mA, use the V Ω mA jack. For currents up to 10A, use the 10A jack.
4. Apply power to the circuit and read the current value.

5.2.5 Resistance Measurement (Ω)

1. Set the rotary dial to the ' Ω ' range.
2. Ensure the circuit is de-energized and any capacitors are discharged.
3. Connect the test leads across the component to be measured.
4. Read the resistance value.

5.2.6 Non-Contact Voltage (NCV) Detection

1. Set the rotary dial to the 'NCV' position.
2. Move the top of the multimeter near a live conductor.
3. The meter will indicate the presence of AC voltage through an audible beep and/or visual indicator.



Figure 5.1: Overview of the PM8225C's measurement ranges, including DC Voltage (400mV-600V), AC Voltage (40V-600V), DC Current (400µA-10A), and Resistance (400Ω-40MΩ).

6. MAINTENANCE

6.1 Cleaning

Wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents. Ensure the meter is completely dry before use.

6.2 Battery Replacement

Refer to Section 4.1 for battery replacement instructions. Always use the specified battery type.

6.3 Fuse Replacement

If the current measurement function fails, the fuse may need replacement. Refer to the specifications for the correct fuse type and rating. Fuse replacement should only be performed by qualified personnel.

7. TROUBLESHOOTING

- **No Display:** Check battery installation and charge level. Replace batteries if necessary.

- **Incorrect Readings:** Ensure test leads are properly connected, the correct function/range is selected, and the battery is not low.
- **Current Measurement Not Working:** Check the fuse. If blown, replace with the correct type and rating.
- **'OL' or 'OVER' on Display:** Indicates an overload or out-of-range measurement. Select a higher range or ensure the input is within the meter's limits.

8. SPECIFICATIONS

The following table details the specifications for the PEAKMETER PM8225C Digital Multimeter.



NEW

SPECIFICATIONS		RANG		ACCURACY	
	PM8225	PM8225A	PM8225B	PM8225	PM8225B
DC Voltage	400mV/4V/ 40V/450V	200mV/2V/ 20V/200V	200mV/2V/ 20V/200V	± (0.8%+2)	± (0.8%+3)
	600V	200V/600V	600V	± (1.0%+2)	± (0.8%+2)
		200mV/2V/ 20V/200V/ 600V	200mV/2V/ 20V/200V	± (1.2%+10)	± (1.2%+3)
AC Voltage	40V/400V/600V	200mV/2V/ 20V/200V/ 600V	200mV/2V/ 20V/200V	± (1.2%+10)	± (1.2%+3)
		400µA/4mA/ 40mA	200µA/2000µA/ 20mA/200mA/ 10A	± (1.0%+2)	± (1.0%+3)
		400mA	200µA/2000µA/ 20mA/200mA/ 10A	± (1.5%+2)	± (1.5%+3)
DC Current		200µA/2000µA/ 20mA/200mA/ 10A	200µA/2000µA/ 20mA/200mA/ 10A	± (1.0%+2)	± (1.5%+3)
		200µA/2000µA/ 20mA/200mA/ 10A	200µA/2000µA/ 20mA/200mA/ 10A	± (1.2%+3)	± (1.5%+4)
		400Ω/4kΩ/ 40kΩ/400kΩ	200Ω/2kΩ/20kΩ/ 200kΩ/2MΩ	± (0.8%+3)	± (0.8%+2)
Resistance	4MΩ	20MΩ	20MΩ	± (1.0%+3)	± (1.0%+2)
		20nF/200nF/ 2µF/20µF	20nF/200nF/ 2µF/20µF	± (2.0%+1)	± (4.0%+5)
Capacitance		20nF/200nF/ 2µF/20µF	20nF/200nF/ 2µF/20µF	± (2.0%+1)	± (4.0%+5)
Frequency		10Hz-10kHz	10Hz-20kHz	± (0.5%+3)	± (1.5%+5)

FEATURE		PM8225	PM8225A	PM8225B
Display	4000 Counts	✓	2000 Counts	2000 Counts
Manual Range	✓	✓	✓	✓
Auto Range	✓	✓	✓	✓
Bar Graph Display	✓	✓	✓	✓
Data Hold	✓	✓	✓	✓
Relative Measurement	✓	✓	✓	✓
MAX/MIN Measurement	✓	✓	✓	✓
Diode Test	✓	✓	✓	✓
Continuity	✓	✓	✓	✓
NCV Non-Contact Voltage Detection	✓	✓	✓	✓
Back Light	✓	✓	✓	✓
Flashlight	✓	✓	✓	✓

GENERAL	
Power Supply	2x1.5VAAA Batteries
Weight	252.2g (not include batteries)
Size	166mmx78mmx48mm
Safety Standard/Rating	EN61010-1, EN61010-2-033, EN61326, CAT.III 600V



Update

SPECIFICATIONS		RANG		ACCURACY	
	PM8225C/PM8225D				
DC Voltage	60mV/600mV/ 6V/60V/600V			± (0.5%+3)	
				± (0.8%+3)	
AC Voltage	60mV/600mV/ 6V/60V/600V			± (0.8%+3)	
				± (0.8%+3)	
DC Current	600µA/6mA/ 60mA			± (0.8%+3)	
	60mA/10A			± (1.2%+3)	
	600µA			± (1.0%+3)	
AC Current	600µA/6mA/ 60mA			± (1.2%+3)	
	60mA/10A			± (1.5%+3)	
	600µA			± (1.5%+3)	
Resistance	600Ω/6kΩ/60kΩ/ 600kΩ/6MΩ			± (1.2%+5)	
	60MΩ			± (2.0%+5)	
Capacitance	10nF/100nF/1µF/ 10µF/100µF			± (3.0%+5)	
	100µF			± (4.0%+5)	
Frequency	10Hz - 10MHz			± (1.0%+5)	
	Duty			1% - 99%	± (3.0%+5)
K-type Thermocouple Temperature	-20°C - 1000°C			± (2.0%+2)	
Temperature	-4°F - 1832°F			± (2.0%+2)	

FEATURE		PM8225C	PM8225D
Display	6000 Counts	✓	6000 Counts
Manual Range	✓	✓	✓
Auto Range	✓	✓	✓
Bar Graph Display	✓	✓	✓
Data Hold	✓	✓	✓
VFD Measurement	✓	✓	✓
Relative Measurement	✓	✓	✓
MAX/MIN Measurement	✓	✓	✓
Diode Test	✓	✓	✓
Continuity	✓	✓	✓
NCV Non-Contact Voltage Detection	✓	✓	✓
Live Line Voltage Detection	✓	✓	✓
Back Light	✓	✓	✓
Flashlight	✓	✓	✓
K-type Thermocouple Temperature	✓	✓	✓

GENERAL	
Power Supply	2x1.5VAAA Batteries
Weight	252.2g (not include batteries)
Size	166mmx78mmx48mm
Safety Standard/Rating	EN61010-1, EN61010-2-033, EN61326, CAT.III 600V



Figure 8.1: Detailed specifications and features for PM8225C and PM8225D models.

PEAKMETER PM8225C Specifications

Measurement Function	Range	Accuracy
DC Voltage	600mV / 6V / 60V / 600V	± (0.8% + 3)
AC Voltage	6V / 60V / 600V	± (1.2% + 5)
DC Current	600µA / 6mA / 60mA / 600mA / 10A	± (1.0% + 3) / ± (1.2% + 3) for 10A
AC Current	600µA / 6mA / 60mA / 600mA / 10A	± (1.2% + 3) / ± (1.5% + 3) for 10A
Resistance	600Ω / 6kΩ / 60kΩ / 600kΩ / 6MΩ / 60MΩ	± (1.0% + 3) / ± (1.2% + 3) for 60MΩ

Measurement Function	Range	Accuracy
Capacitance	6nF / 60nF / 600nF / 6μF / 60μF / 600μF / 6mF / 60mF	± (4.0% + 5)
Frequency	10Hz - 10MHz	± (1.0% + 3)
Duty Cycle	1% - 99%	± (3.0% + 3)
K-Type Thermocouple	-20°C - 1000°C / -4°F - 1832°F	± (3.0% + 5)

General Specifications

- **Display:** 6000 Counts
- **Power Supply:** 2 x 1.5V AAA Batteries (Note: Product specs mention 1 Lithium Polymer battery included, but the image table specifies 2xAAA. Please verify with product packaging.)
- **Weight:** Approximately 268g
- **Dimensions:** 166mm x 78mm x 64mm
- **Safety Standard/Rating:** EN61010-1, EN61010-2-033, EN61326, CAT.III 600V

SIZE



Size: 166mm*78mm*64mm

Weight: about 268g

Figure 8.2: Physical dimensions and weight of the PM8225C multimeter.