

Dr.Meter PM2016A

Dr.Meter PM2016A Digital Clamp Multimeter Instruction Manual

MODEL: PM2016A

1. Introduction

The Dr. Meter PM2016A Digital Clamp Multimeter is designed to make household electricity maintenance safe and simple. This auto-ranging device allows for the measurement of AC/DC voltage, AC current, resistance, and continuity with ease, eliminating the need to break circuits or come into direct hazardous contact with electrical components. Its intuitive design includes a Hold button to conveniently lock readings on the LCD display.

This manual provides detailed instructions for the safe and effective operation, maintenance, and troubleshooting of your Dr.Meter PM2016A Digital Clamp Multimeter.

2. Safety Information

Always observe the following safety precautions when using the Dr.Meter PM2016A to prevent personal injury or damage to the meter or equipment under test.

- Read and understand all instructions in this manual before using the meter.
- Do not apply more than the rated voltage, which is DC 600V or AC 600V RMS, between the terminal to be measured and ground.
- Do not use the meter if it appears damaged or if the insulation on the test leads is compromised.
- Exercise extreme caution when working with voltages above 60V DC or 30V AC RMS, as these pose a shock hazard.
- Always disconnect the test leads from the circuit before changing functions.
- Ensure the battery compartment is securely closed before operation.
- Remove batteries if the meter is not used for an extended period to prevent battery leakage.

3. Product Overview

The Dr.Meter PM2016A is a compact and lightweight digital clamp multimeter designed for portability and ease of use. Key components include:

- **Clamp Jaw:** Used for non-contact AC current measurement.
- **LCD Display:** Large, backlit display for clear readings up to 6000 counts.
- **Function Button (FUNC.):** Selects measurement modes (AC current, AC/DC voltage, resistance, continuity).
- **Data Hold Button:** Locks the current reading on the display.
- **Input Jacks:** For connecting test leads (COM and VΩmA).
- **Test Leads:** One pair included for voltage, resistance, and continuity measurements.

Figure 1: Overview of the Dr.Meter PM2016A Digital Clamp Multimeter. This image illustrates the device's compact design, highlighting the clamp jaw for current measurement, the large LCD screen for clear readings, and the intuitive button layout for function selection and data hold. The test lead input ports are also visible at the bottom of the unit.

4. Setup

4.1. Battery Installation

1. Ensure the meter is powered off.
2. Locate the battery compartment cover on the back of the meter.
3. Use a screwdriver to loosen the screw(s) securing the cover.
4. Remove the cover.
5. Insert two (2) 1.5V AAA batteries, observing the correct polarity (+/-) as indicated inside the compartment.
6. Replace the battery compartment cover and tighten the screw(s).

4.2. Connecting Test Leads

For voltage, resistance, and continuity measurements, connect the test leads:

- Insert the black test lead into the "COM" (common) input jack.
- Insert the red test lead into the "VΩmA" input jack.

5. Operating Instructions

The PM2016A features auto-ranging, simplifying measurements. Use the FUNC. button to cycle through different measurement modes.

5.1. Measuring AC Current

1. Turn on the meter.
2. Press the FUNC. button until the AC current symbol (A~) is displayed.
3. Open the clamp jaw by pressing the trigger.
4. Enclose only one conductor of the circuit within the clamp jaw. Ensure the jaw is fully closed.
5. Read the AC current value on the LCD display.

5.2. Measuring AC/DC Voltage

1. Connect the test leads as described in Section 4.2.
2. Turn on the meter.
3. Press the FUNC. button until the voltage symbol (V) is displayed. The meter will automatically detect AC or DC voltage.
4. Touch the red test lead to the positive side of the circuit and the black test lead to the negative side (or ground).

5. Read the voltage value on the LCD display.

5.3. Measuring Resistance

1. Connect the test leads as described in Section 4.2.
2. Turn on the meter.
3. Press the FUNC. button until the resistance symbol (Ω) is displayed.
4. Ensure the circuit or component under test is de-energized before measuring resistance.
5. Touch the test leads across the component or circuit to be measured.
6. Read the resistance value on the LCD display.

5.4. Measuring Continuity

1. Connect the test leads as described in Section 4.2.
2. Turn on the meter.
3. Press the FUNC. button until the continuity symbol (speaker icon) is displayed.
4. Ensure the circuit or component under test is de-energized.
5. Touch the test leads across the component or circuit.
6. If the resistance is below a certain threshold (typically $<50\Omega$), the meter will emit an audible beep, indicating continuity. The resistance value will also be displayed.

5.5. Data Hold Function

Press the "HOLD" button to freeze the current reading on the LCD display. Press it again to release the hold and resume live readings.

5.6. Auto Off Feature

To conserve battery life, the meter will automatically shut down after approximately 10 minutes of inactivity. Press any button or rotate the function switch to turn the meter back on.

6. Maintenance

6.1. Cleaning

Wipe the meter's casing with a damp cloth and mild detergent. Do not use abrasives or solvents. Keep the input terminals free of dirt and moisture.

6.2. Battery Replacement

When the low battery indicator appears on the display, replace the batteries as described in Section 4.1. Prompt battery replacement ensures accurate readings and proper operation.

6.3. Storage

If the meter is to be stored for an extended period, remove the batteries to prevent leakage and corrosion. Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures.

7. Troubleshooting

Problem	Possible Cause	Solution
---------	----------------	----------

Problem	Possible Cause	Solution
"OL" or "-OL" displayed	Over range indication; the measured value exceeds the meter's maximum range for the selected function.	Ensure the correct function is selected. If measuring current, ensure only one conductor is within the clamp jaw. The value might genuinely be out of range.
Low battery indicator	Batteries are low.	Replace the two (2) 1.5V AAA batteries.
No display/Meter does not turn on	Dead batteries; incorrect battery installation; meter damage.	Check battery polarity and ensure they are fresh. If problem persists, contact customer support.
Inaccurate readings	Low battery; poor test lead connection; external interference.	Replace batteries. Ensure test leads are securely connected and making good contact with the circuit. Move away from strong electromagnetic fields.

8. Specifications

Parameter	Value
AC Current (Max.)	200A, accuracy $\pm(2.5\% \text{ Reading} + 8 \text{ digits})$
DC Voltage (Max.)	600V, accuracy $\pm(0.5\% \text{ Reading} + 3 \text{ digits})$
AC Voltage (Max.)	600V, accuracy $\pm(0.8\% \text{ Reading} + 5 \text{ digits})$
Resistance (Max.)	6k Ω , accuracy $\pm(0.8\% \text{ Reading} + 3 \text{ digits})$
Max Display Value	6000 numbers
Over Range Indication	'OL' or '-OL'
Sampling Rate	Approx. 3 times per second
Auto Off Time	10 minutes
Power Supply	2 x 1.5V AAA battery
Dimensions	155 x 45 x 25 mm
Weight	134g

9. Warranty and Support

Dr.Meter provides comprehensive support for your PM2016A Digital Clamp Multimeter:

- **12-Month Replacement Warranty:** Covers defects in materials and workmanship for one year from the date of purchase.
- **30-Day Money Back Guarantee:** If you are not satisfied with your purchase, you may return it within 30 days for a full refund.
- **Lifetime Support Guarantee:** Dedicated customer support is available for the lifetime of the product to assist with any questions or issues.

For warranty claims or technical assistance, please refer to the contact information provided on the Dr.Meter official website or the warranty card included with your product.

© 2024 Dr.Meter. All rights reserved.
Information in this manual is subject to change without notice.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question