Milwaukee 2235-20

Milwaukee 2235-20 400 Amp Clamp Meter Instruction Manual

Model: 2235-20

1. Introduction

This manual provides detailed instructions for the safe and effective use of the Milwaukee 2235-20 400 Amp Clamp Meter. This heavy-duty True-RMS electrical current tester is designed for professional residential, commercial, and industrial applications. Please read this manual thoroughly before operating the device.

2. Safety Information

Always adhere to the following safety precautions to prevent personal injury or damage to the meter:

- Ensure the meter is rated for the voltage and current levels being measured. The 2235-20 is rated CAT III 600V.
- Do not use the meter if it appears damaged or if the test leads are compromised.
- Always wear appropriate personal protective equipment (PPE), such as safety glasses and insulated gloves, when working with electrical circuits.
- Avoid contact with live circuits. Use the clamp jaw for current measurements to avoid direct contact.
- Do not operate the meter in wet conditions or explosive atmospheres.
- Refer to local and national safety codes for electrical work.

3. Package Contents

Verify that all items are present in the package:

- (1) Milwaukee 2235-20 400 Amp Clamp Meter
- (1) Electrical Test Lead Set (red and black)
- (2) AAA Batteries
- (1) Instruction Manual


Milwaukee
400 AMP
CLAMP METER
Medidor de pinza de 400 A
Multimètre à pince 400 A
400A AC
600V AC/DC
True RMS
CA de 400 A
CA/CC de 600 V
RMC verdadera
400 A c.a.
600 V c.a./c.c.
Véritable valeur efficace
HOLD
AUTO
TRMS
5 YEAR WARRANTY
AÑOS GARANTIA
ANS GARANTIE
CAT III
600 V
OFF
HOLD
TRMS
400.0
A
AC
COM
CAT III
600V
V Ω

Figure 1: Milwaukee 2235-20 Clamp Meter in its retail packaging, showing the meter, test leads, and manual.

4. Product Overview

The Milwaukee 2235-20 Clamp Meter features a robust design for various electrical measurements. Key components include:

- **Clamp Jaw:** For non-contact AC current measurement. Features a 1.0-inch jaw size.
- **Function Dial:** Selects measurement modes (AC Amps, AC/DC Volts, Ohms, Continuity).
- **LCD Display:** Black on white display with backlight for clear readings.
- **Test Lead Inputs:** Ports for connecting the red and black test leads for voltage, resistance, and continuity measurements.
- **LED Work Light:** Integrated light to illuminate the work area.
- **Hold Button:** Freezes the current reading on the display.
- **MIN/MAX Button:** Records minimum and maximum readings.
- **Rugged Over-molding:** Provides increased durability and user grip.

Figure 2: Front view of the Milwaukee 2235-20 Clamp Meter, highlighting the display, function dial, clamp jaw, and buttons.

5. Setup

5.1 Battery Installation

The Milwaukee 2235-20 requires two AAA batteries (included). To install or replace batteries:

1. Locate the battery compartment cover on the back of the meter.
2. Use a screwdriver to open the compartment.
3. Insert two AAA batteries, ensuring correct polarity (+/-).
4. Replace the cover and secure it with the screw.

5.2 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 "VΩ" (voltage/resistance) input jack.

6. Operating Instructions

Turn the function dial to the desired measurement mode.

6.1 AC Current Measurement (Clamp)

To measure AC current up to 400 Amps:

1. Set the function dial to the "A~" (AC Amps) position.
2. Open the clamp jaw and enclose a single conductor (not a bundle of wires) of the circuit to be measured.
3. Ensure the jaw is fully closed around the conductor.
4. Read the current value on the LCD display.

6.2 AC/DC Voltage Measurement

To measure AC or DC voltage up to 600 Volts:

1. Connect the test leads as described in Section 5.2.
2. Set the function dial to the "V~" (AC Volts) or "V-" (DC Volts) position.
3. Touch the test probes to the points in the circuit where voltage is to be measured.
4. Read the voltage value on the LCD display.

6.3 Resistance Measurement

To measure resistance up to 4000 Ohms:

1. Connect the test leads as described in Section 5.2.
2. Set the function dial to the "Ω" (Ohms) position.
3. Ensure the circuit or component is de-energized before measuring resistance.
4. Touch the test probes across the component or circuit to be measured.
5. Read the resistance value on the LCD display.

6.4 Continuity Test

To test for continuity:

1. Connect the test leads as described in Section 5.2.
2. Set the function dial to the "Ω" (Ohms) position, then press the "SELECT" button (if available, or rotate dial further) to activate continuity mode (indicated by a speaker icon).
3. Ensure the circuit or component is de-energized.
4. Touch the test probes across the component or circuit.
5. An audible tone indicates continuity (low resistance).

6.5 Hold Function

Press the **HOLD** button to freeze the current reading on the display. Press it again to release.

6.6 MIN/MAX Function

Press the **MIN/MAX** button to record the minimum and maximum readings during a measurement session. Press repeatedly to cycle through MIN, MAX, and current readings.

6.7 LED Work Light

Press the **LED** button (often indicated by a light bulb icon) to turn the integrated work light on or off.

7. Maintenance

7.1 Cleaning

Wipe the meter's casing with a damp cloth and mild detergent. Do not use abrasive cleaners or solvents. Ensure the meter is dry before storage or use.

7.2 Battery Replacement

Replace batteries when the low battery indicator appears on the display. Refer to Section 5.1 for battery installation instructions.

7.3 Calibration

For optimal accuracy, it is recommended to send the meter in for calibration service once every year.

8. Troubleshooting

- **No Display:** Check battery installation and charge. Replace batteries if necessary.
- **Inaccurate Readings:** Ensure correct function mode is selected. Verify test lead connections. For current, ensure only one conductor is within the clamp jaw. Consider professional calibration if issues persist.
- **No Continuity Tone:** Ensure continuity mode is active. Check test leads for damage.

9. Specifications

Feature	Specification
Model Number	2235-20
AC Amps	Up to 400 amps
AC Voltage	Up to 600 volts
DC Voltage	Up to 600 volts
Resistance	Up to 4000 ohms
Safety Category Rating	CAT III 600V
True-RMS	Yes
Jaw Size	1.0-inch
Display	Black on White Display, Backlight
Continuity Test	Yes
MIN/MAX Function	Yes
Hold Function	Yes
LED Work Light	Yes
Power Source	2 AAA Alkaline Batteries
Item Weight	1.15 pounds
Dimensions	Approximately 11 inches (27 cm) in length

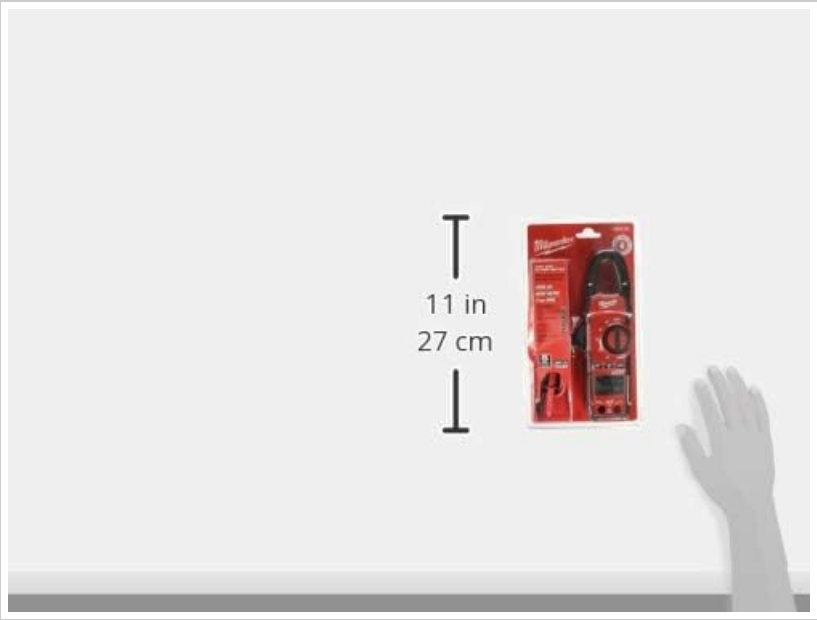

Figure 3: Approximate dimensions of the Milwaukee 2235-20 Clamp Meter.

10. Warranty and Support

10.1 Warranty Information

The Milwaukee 2235-20 400 Amp Clamp Meter is covered by a 5-year warranty. For specific terms and conditions, please refer to the warranty documentation included with your product or visit the official Milwaukee website.

10.2 Customer Support

For technical assistance, service, or warranty claims, please contact Milwaukee customer support. Contact information can typically be found on the product packaging or the official Milwaukee website: www.milwaukeetool.com.
You may also refer to the UPC: 045242236930 for product identification.

Related Documents - 2235-20

	[Milwaukee Auto Voltage/Continuity Tester W/ Resistance 2213-20] Milwaukee Auto Voltage/Continuity Tester W/ Resistance (2213-20) offers accurate measurements, a backlit LCD, LED worklight, and auto-ranging for efficient electrical testing. Includes belt clip, test leads, batteries, and manual.
	[Milwaukee Auto Voltage/Continuity Tester Operator's Manual] Operator's manual for the Milwaukee 2212-20 and 2213-20 Auto Voltage/Continuity Testers. Provides safety instructions, specifications, operation, maintenance, and warranty information for electrical testing.
	[Milwaukee MW805 MAX Portable pH EC TDS Temperature Meter Instruction Manual] Instruction manual for the Milwaukee MW805 MAX portable meter, covering pH, EC, TDS, and temperature measurements. Learn about features, operation, calibration, and maintenance.
	[Milwaukee MW801 & MW802 Portable pH/EC/TDS Meter User Manual] User manual for Milwaukee portable pH/EC/TDS meters, models MW801 and MW802. Includes operation, calibration, maintenance, and specifications.
	[Milwaukee M18 FUEL ONE KEY Impact Wrenches Service Parts List] Official service parts list for Milwaukee M18 FUEL ONE KEY Impact Wrenches (models 2862-20, 2863-20, 2864-20). Includes part numbers, descriptions, and service contact information for Milwaukee Electric Tool.

[Milwaukee MW805 MAX Portable Meter Instruction Manual]

Comprehensive instruction manual for the Milwaukee MW805 MAX portable meter, detailing its features, specifications, operation, calibration, maintenance, and troubleshooting for pH, EC, TDS, and temperature measurements.