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› AUTOOL DM202 Digital Multimeter User Manual: True RMS, NCV, Voltage, Current, Resistance, Continuity, Diode Testing

AUTOOL DM202

AUTOOL DM202 Digital Multimeter User Manual

Model: DM202

1. INTRODUCTION

The AUTOOL DM202 is a compact, auto-ranging digital multimeter designed for accurate and efficient electrical measurements. It features **True RMS** for precise readings on non-linear loads, a **Non-Contact Voltage (NCV)** detection function for enhanced safety, and an **automatic measurement mode** that simplifies operation by detecting the type of measurement required. With a 4000-count display, it is suitable for automotive diagnostics, industrial installations, and household electrical tasks.



4000 COUNTS



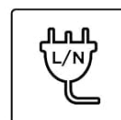
AC/DC
voltage



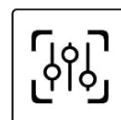
AC/DC
current



Frequency



Live/Neutral
Wire Test



Automatic
Mode
Identification



Capacitance



Diode
Continuity
Test



Continuity



Data retention



Figure 1.1: AUTOOL DM202 Multimeter with key function icons.

2. SAFETY INFORMATION

To ensure safe operation and prevent damage to the multimeter, please read and follow all safety instructions carefully.

- **WARNING:** Always adhere to local and national safety codes.
- Do not exceed the maximum input values specified for each measurement range. The device is rated **600V CAT II**.
- Ensure test leads are in good condition, free from damage, and properly connected before any measurement.
- Do not use the multimeter if it appears damaged or is not operating correctly.
- Exercise extreme caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC, as these values pose a significant shock hazard.
- Use the NCV function as a preliminary check, but always verify with direct contact measurement when safety is critical.
- Replace batteries promptly when the low battery indicator appears to ensure accurate readings and proper device function.

3. PRODUCT COMPONENTS

Familiarize yourself with the parts of your AUTOOL DM202 Digital Multimeter:



Figure 3.1: Labeled diagram of the AUTOOL DM202 Multimeter.

1. **Display:** Shows measurement readings and indicators.
2. **NCV Button:** Activates Non-Contact Voltage detection.
3. **Power Button:** Turns the multimeter on or off.
4. **Backlight / Hold Button:** Toggles display backlight and activates data hold function.
5. **Current Jack (A):** Input for current measurements.
6. **Common Jack (COM):** Common return for all measurements.
7. **Voltage/Resistance/Diode/Continuity Jack (VΩ):** Input for voltage, resistance, diode, and continuity measurements.
8. **Flashlight:** Provides illumination for dark work areas.
9. **Kickstand:** Allows the multimeter to stand upright for hands-free operation.

4. SETUP

4.1 Battery Installation

The AUTOOL DM202 requires two AA batteries for operation.

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

4.2 Test Lead Connection

Proper connection of test leads is crucial for accurate and safe measurements.

- For most measurements (Voltage, Resistance, Continuity, Diode): Insert the **red test lead** into the **VΩ jack** and the **black test lead** into the **COM jack**.
- For Current measurements: Insert the **red test lead** into the **A jack** and the **black test lead** into the **COM jack**.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

To turn the multimeter on or off, press and hold the **Power Button** for approximately 2 seconds.

5.2 Automatic Measurement Mode

The DM202 features an intelligent automatic mode that simplifies measurements.

1. Ensure the multimeter is powered on.
2. Connect the test leads to the circuit or component you wish to measure.
3. The multimeter will automatically detect and display the measurement type (AC/DC voltage, resistance, or continuity) and its value. The display will show "Auto" during detection.



Figure 5.1: Automatic measurement process.

5.3 Non-Contact Voltage (NCV) Test

The NCV function allows for safe detection of AC voltage without direct contact.

1. Press and hold the **NCV Button** to activate the NCV function.
2. Move the top of the multimeter near the conductor or outlet you suspect has AC voltage.
3. The device will indicate the presence of AC voltage through an audible beep and a visual indicator (e.g., LED light). A stronger signal (faster beeping, brighter light) indicates higher voltage or closer proximity to the source.

PROBADOR DE VOLTAJE SIN CONTACTO NCV



Figure 5.2: Non-Contact Voltage (NCV) detection in action.

5.4 Backlight and Flashlight

The DM202 includes illumination features for working in low-light conditions.

- **Display Backlight:** Briefly press the **Backlight / Hold Button** to toggle the display backlight on or off.
- **LED Flashlight:** Press and hold the **Backlight / Hold Button** to turn the integrated LED flashlight on or off.

CLARO Y CONVENIENTE



Figure 5.3: Backlight and LED Flashlight features.

5.5 Data Hold

To freeze the current reading on the display, briefly press the **Backlight / Hold Button**. Press it again to release the hold and resume live readings.

6. MAINTENANCE

6.1 Cleaning

Wipe the multimeter's casing with a dry, soft cloth. Do not use abrasive cleaners, solvents, or harsh chemicals, as these may damage the device.

6.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries immediately to ensure continued accurate readings. Refer to Section 4.1 for battery installation instructions.

6.3 Storage

Store the multimeter in a cool, dry place, away from direct sunlight, high temperatures, and excessive humidity. If storing for extended periods, it is recommended to remove the batteries to prevent leakage.

7. TROUBLESHOOTING

If you encounter issues with your AUTOOL DM202, refer to the following common troubleshooting steps:

- **No Display / Device Not Powering On:**
 - Check battery installation and ensure correct polarity.
 - Replace batteries if they are low or depleted.
 - Ensure the power button is pressed and held for approximately 2 seconds.
- **Inaccurate Readings:**
 - Verify that test leads are securely connected to the correct jacks.
 - Ensure the component or circuit being measured is functioning correctly.
 - Replace batteries if the low battery indicator is present.
- **NCV Not Responding:**
 - Ensure the NCV button is pressed and held to activate the function.
 - Verify that actual AC voltage is present in the area being tested.
 - Ensure the NCV sensor area at the top of the multimeter is clear of obstructions.

8. SPECIFICATIONS

Feature	Specification
Model	DM202
Brand	AUTOOL
Display	4000 Counts, True RMS
Measurement Functions	AC/DC Voltage, DC Current, Resistance, Continuity, Diode, NCV
Safety Rating	CAT II 600V
Power Source	2 x AA Batteries
Dimensions (L x W x H)	14 x 7.5 x 14 cm (5.5 x 3 x 5.5 inches)
Weight	200 g (0.44 lbs)

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The AUTOOL DM202 Digital Multimeter comes with a **3-year warranty**. This warranty covers defects not caused by user error or misuse. Free replacement of damaged components will be provided within this three-year period.

9.2 Customer Support

For any inquiries, technical assistance, or warranty claims, please contact AUTOOL customer support. Our team is available **24/7** to assist you.

10. PACKAGE CONTENTS

Upon opening your AUTOOL DM202 package, you should find the following items:

- 1 x AUTOOL DM202 Digital Multimeter (Main Unit)
- 1 x Pair of Test Leads (Red and Black)
- 1 x Storage Bag
- 1 x User Manual (Multilingual)



Figure 10.1: Included accessories with the AUTOOL DM202 Multimeter.

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