

[Manuals.plus](#) /

› [WnewTools](#) /

› DT9205A Newly HD Digital True RMS Professional Multimeter User Manual

WnewTools ATOOL1833659-Orange

DT9205A Newly HD Digital True RMS Professional Multimeter User Manual

MODEL: ATOOL1833659-ORANGE

Brand: WnewTools

INTRODUCTION

This DT9205A Digital Multimeter is a handheld device designed for precise measurement of various electrical parameters. It is capable of measuring AC/DC Voltage, AC/DC Current, Resistance, Capacitance, and Triode (hFE), and also features a Buzzer for continuity testing. Its HD screen provides clear readings, making it suitable for professional and hobbyist use.

PRODUCT FEATURES

- **AC Voltage Measurement:** Ranges from 2V to 750V with an accuracy of $\pm(1.2\%$ of reading + 3 digits).
- **DC Voltage Measurement:** Ranges from 20mV to 1000V with an accuracy of $\pm(1.2\%$ of reading + 5 digits).
- **DC Current Measurement:** Ranges from 2mA to 20A with an accuracy of $\pm(2.5\%$ of reading + 5 digits).
- **AC Current Measurement:** Ranges from 2mA to 20A with an accuracy of $\pm(3\%$ of reading + 5 digits).
- **Resistance Measurement:** Ranges from 200 Ω to 200M Ω with varying accuracies.
- **Capacitance Measurement:** Ranges from 2nF to 200uF.
- **Triode (hFE) Testing:** For transistor testing.
- **Buzzer/Diode Test:** For continuity and diode testing.
- **Data Retention (HOLD):** To freeze the displayed reading.
- **HD Screen:** For clear digital display.
- **Silicone Sheath:** Provides protection and grip.

COMPONENT IDENTIFICATION

Familiarize yourself with the different parts of your DT9205A Multimeter using the diagram below:



Figure 1: DT9205A Multimeter Front Panel Layout

1. **HD Screen:** Displays measurement readings and indicators.
2. **Silicone Sheath:** Protective outer casing.
3. **Data Retention (HOLD) Button:** Freezes the current reading on the display.
4. **Indicator Light:** Provides visual feedback.
5. **Range Dial:** Rotary switch to select measurement functions and ranges (e.g., Resistance, DC Voltage, AC Voltage, AC Current, DC Current, Capacitance, Buzzer/Diode, Triode).
6. **hFE Jack:** Socket for testing transistors (PNP/NPN).
7. **20A Current Jack:** Input terminal for high DC/AC current measurements (up to 20A).
8. **MA Current Jack:** Input terminal for milliampere DC/AC current measurements (up to 200mA).
9. **COM (Common) Jack:** Common negative input terminal for all measurements. Connect the black test lead here.
10. **VΩmA Jack:** Input terminal for Voltage, Resistance, Capacitance, Diode, and low current measurements. Connect the red test lead here for most measurements.

SETUP

1. Battery Installation:

The DT9205A Multimeter requires a 9V battery (not included). To install, locate the battery compartment on the back of the unit, open the cover, insert the battery observing polarity, and close the cover securely.

2. Connecting Test Leads:

- Insert the black test lead into the **COM** (Common) jack.
- For most measurements (Voltage, Resistance, Capacitance, Diode, low current), insert the red test lead into the **VΩmA** jack.
- For high current measurements (up to 20A), insert the red test lead into the **20A** jack. Ensure the range dial is set to the appropriate current range.

3. Powering On:

Rotate the range dial from the "OFF" position to any desired measurement function to power on the multimeter. The display will illuminate.

OPERATING INSTRUCTIONS

Always ensure the multimeter is set to the correct function and range before connecting to a circuit. Incorrect settings can damage the meter or the circuit.

1. Measuring DC Voltage (V—)

1. Set the range dial to the desired DC Voltage (V—) range (e.g., 20mV, 200mV, 2V, 20V, 200V, 1000V). Select a range higher than the expected voltage.
2. Connect the black test lead to the negative (-) point of the circuit and the red test lead to the positive (+) point.
3. Read the voltage value on the display.

2. Measuring AC Voltage (V~)

1. Set the range dial to the desired AC Voltage (V~) range (e.g., 2V, 20V, 200V, 750V). Select a range higher than the expected voltage.
2. Connect the test leads across the AC voltage source.
3. Read the voltage value on the display.

3. Measuring DC Current (A—)

1. **Safety Warning:** Always connect the multimeter in series with the circuit. Never connect it in parallel with a voltage source when measuring current.
2. Turn off power to the circuit.
3. Set the range dial to the desired DC Current (A—) range (e.g., 2mA, 20mA, 200mA, 20A).
4. Connect the red test lead to the appropriate current jack (MA for up to 200mA, 20A for higher currents).
5. Break the circuit and connect the multimeter in series.
6. Restore power and read the current value.

4. Measuring AC Current (A~)

1. Follow the same safety warnings and series connection procedure as for DC Current.

2. Set the range dial to the desired AC Current (A~) range (e.g., 2mA, 20mA, 200mA, 20A).
3. Connect the red test lead to the appropriate current jack.
4. Break the circuit and connect the multimeter in series.
5. Restore power and read the current value.

5. Measuring Resistance (Ω)

1. Ensure the circuit or component is de-energized before measuring resistance.
2. Set the range dial to the desired Resistance (Ω) range (e.g., 200 Ω , 2k Ω , 20k Ω , 200k Ω , 2M Ω , 20M Ω , 200M Ω).
3. Connect the test leads across the component to be measured.
4. Read the resistance value on the display.

6. Measuring Capacitance (F)

1. Ensure the capacitor is fully discharged before testing.
2. Set the range dial to the Capacitance (F) range (e.g., 2nF, 20nF, 200nF, 2 μ F, 200 μ F).
3. Connect the test leads across the capacitor terminals.
4. Read the capacitance value on the display.

7. Diode and Continuity Test (Buzzer/Diode Symbol)

1. Set the range dial to the Buzzer/Diode symbol.
2. For Diode Test: Connect the red lead to the anode and black lead to the cathode. The display will show the forward voltage drop. Reverse the leads; an open circuit reading indicates a good diode.
3. For Continuity Test: Connect the test leads across the circuit or component. If continuity exists (resistance below a certain threshold), the buzzer will sound.

8. Transistor (hFE) Test

1. Set the range dial to the hFE position.
2. Identify if the transistor is NPN or PNP.
3. Insert the transistor leads (Emitter, Base, Collector) into the corresponding holes in the hFE jack on the multimeter.
4. The display will show the hFE (DC current gain) value of the transistor.

9. Data HOLD Function

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

MAINTENANCE

- **Cleaning:**

Wipe the multimeter casing with a damp cloth and mild detergent. Do not use abrasive cleaners or solvents. Ensure the device is off and disconnected from any circuits before cleaning.

- **Battery Replacement:**

When the battery low indicator appears on the display, replace the 9V battery promptly to ensure accurate readings. Follow the battery installation steps in the "Setup" section.

- **Storage:**

If the multimeter will not be used for an extended period, remove the battery to prevent leakage. Store the device in a cool, dry place, away from direct sunlight and extreme temperatures.

• **Test Lead Inspection:**

Regularly inspect the test leads for any signs of damage, such as cracks in the insulation or exposed wires. Replace damaged leads immediately to prevent electrical shock hazards.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No display or dim display	Low battery; Multimeter is off; Damaged display.	Replace battery; Turn range dial to a function; Contact support if display is damaged.
Incorrect readings	Incorrect function/range selected; Poor test lead connection; Damaged test leads; External interference.	Select correct function/range; Ensure leads are firmly connected; Replace leads; Move away from strong electromagnetic fields.
Buzzer does not sound during continuity test	No continuity; Range dial not set to continuity; Open circuit.	Check circuit for breaks; Ensure dial is on buzzer/diode setting; Verify component is not open.
Multimeter does not respond	Battery completely drained; Internal fault.	Replace battery; If issue persists, contact manufacturer support.

SPECIFICATIONS

Feature	Range	Accuracy
AC Voltage	2V - 750V	±(1.2% of rdg + 3 dgts)
DC Voltage	20mV - 1000V	±(1.2% of rdg + 5 dgts)
DC Current	2mA - 20A	±(2.5% of rdg + 5 dgts)
AC Current	2mA - 20A	±(3% of rdg + 5 dgts)
Resistance	200Ω - 200MΩ	Varies by range (e.g., ±(1.0% of rdg + 10 dgts) for 200Ω)
Capacitance	2nF - 200uF	Varies by range (e.g., ±(4% of rdg + 3 dgts) for 2nF-2uF)

General Specifications:

- **Item Model Number:** ATOOL1833659-Orange
- **Manufacturer:** Wnew
- **Power Source:** Handheld (requires 9V battery)
- **Style:** Professional
- **Color:** Orange
- **Min. Operating Voltage:** 20 Millivolts
- **Package Dimensions:** 4.72 x 3.15 x 1.97 inches
- **Weight:** 10.23 ounces

WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or service, please refer to the documentation provided with your purchase or contact the manufacturer, WnewTools, directly. Contact details are typically available on their official website or through the seller from whom the product was purchased.

© 2023 WnewTools. All rights reserved.

This manual is for informational purposes only. Specifications are 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