

LJPXHHU XL830L

LJPXHHU Digital Multimeter Voltmeter XL830L User Manual

Model: XL830L

1. INTRODUCTION

This user manual provides detailed instructions for the safe and effective operation of your LJPXHHU XL830L Digital Multimeter. This versatile instrument is designed to accurately troubleshoot a variety of automotive and household electrical problems, making it suitable for car repair, home use, schools, laboratories, and factories.

The XL830L Digital Multimeter measures AC/DC voltage, DC current, resistance, continuity, diodes, and batteries. It features a large backlit LCD display for easy reading in dimly lit areas and includes overload protection on all ranges for enhanced safety and long-term service life.

2. SAFETY INFORMATION

WARNING: Always read and understand this manual before using the multimeter. Failure to follow safety instructions can result in electric shock, fire, or personal injury.

- Do not exceed the maximum voltage or current ratings specified in the specifications.
- Ensure test leads are properly connected and in good condition before each use.
- Do not use the multimeter if it appears damaged or if the test leads are frayed.
- Always turn off power to the circuit before connecting or disconnecting test leads.
- Use caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC, as these pose a shock hazard.
- Do not operate the meter in explosive gas, vapor, or dust environments.
- Replace the battery when the low battery indicator appears to ensure accurate readings.

3. PACKAGE CONTENTS

Verify that all items are present and in good condition:

- LJPXHHU XL830L Digital Multimeter
- Test Leads (one red, one black)

- 9V Battery
- User Manual (this document)



Image: Contents of the LJPXHHU XL830L Digital Multimeter package, including the meter, test leads, 9V battery, and user manual.

4. PRODUCT OVERVIEW

Familiarize yourself with the components of your digital multimeter:

EASY TO USE

User-friendly design for ultimate convenience



Image: Labeled diagram highlighting key components of the XL830L Digital Multimeter, including the LCD display, Data Hold button, Backlight button, Rotary switch, Transistor Test Jacks, 10A range input jack, COM jack, VΩmA jack, and Removable Orange Cover.

- **LCD Display:** Shows measurement readings.
- **Backlight Button:** Activates the display backlight for low-light conditions.
- **HOLD Button:** Freezes the current reading on the display.
- **Rotary Switch:** Selects the desired measurement function and range.
- **VΩmA Jack:** Input for voltage, resistance, and small current measurements (red test lead).
- **COM Jack:** Common input for all measurements (black test lead).
- **10ADC Jack:** Input for high DC current measurements (up to 10A, red test lead).
- **Transistor Test Jacks:** Used for testing transistors (hFE).
- **Protective Orange Cover:** Provides drop protection and a built-in stand.

5. SETUP

5.1. Battery Installation

1. Locate the battery compartment on the back of the multimeter.
2. Remove the screw securing the battery compartment lid.
3. Carefully remove the lid.
4. Connect the 9V battery to the battery clips, observing polarity (+ and -).
5. Place the battery inside the compartment.
6. Replace the lid and secure it with the screw.

5.2. Connecting Test Leads

1. Insert the black test lead into the "COM" (Common) jack.
2. For most measurements (voltage, resistance, continuity, diode, small current), insert the red test lead into the "VΩmA" jack.
3. For high DC current measurements (up to 10A), insert the red test lead into the "10ADC" jack.



Image: The XL830L Digital Multimeter shown with its test leads connected and the 9V battery, illustrating the setup process.

6. OPERATING INSTRUCTIONS

Before taking any measurements, ensure the rotary switch is set to the correct function and range. If the value is unknown, start with the highest range and work downwards.

6.1. AC Voltage Measurement (V~)

1. Set the rotary switch to the desired AC Voltage (V~) range.
2. Connect the red test lead to the "VΩmA" jack and the black test lead to the "COM" jack.
3. Touch the test probes to the points in the circuit where you want to measure AC voltage.
4. Read the voltage value on the LCD display.

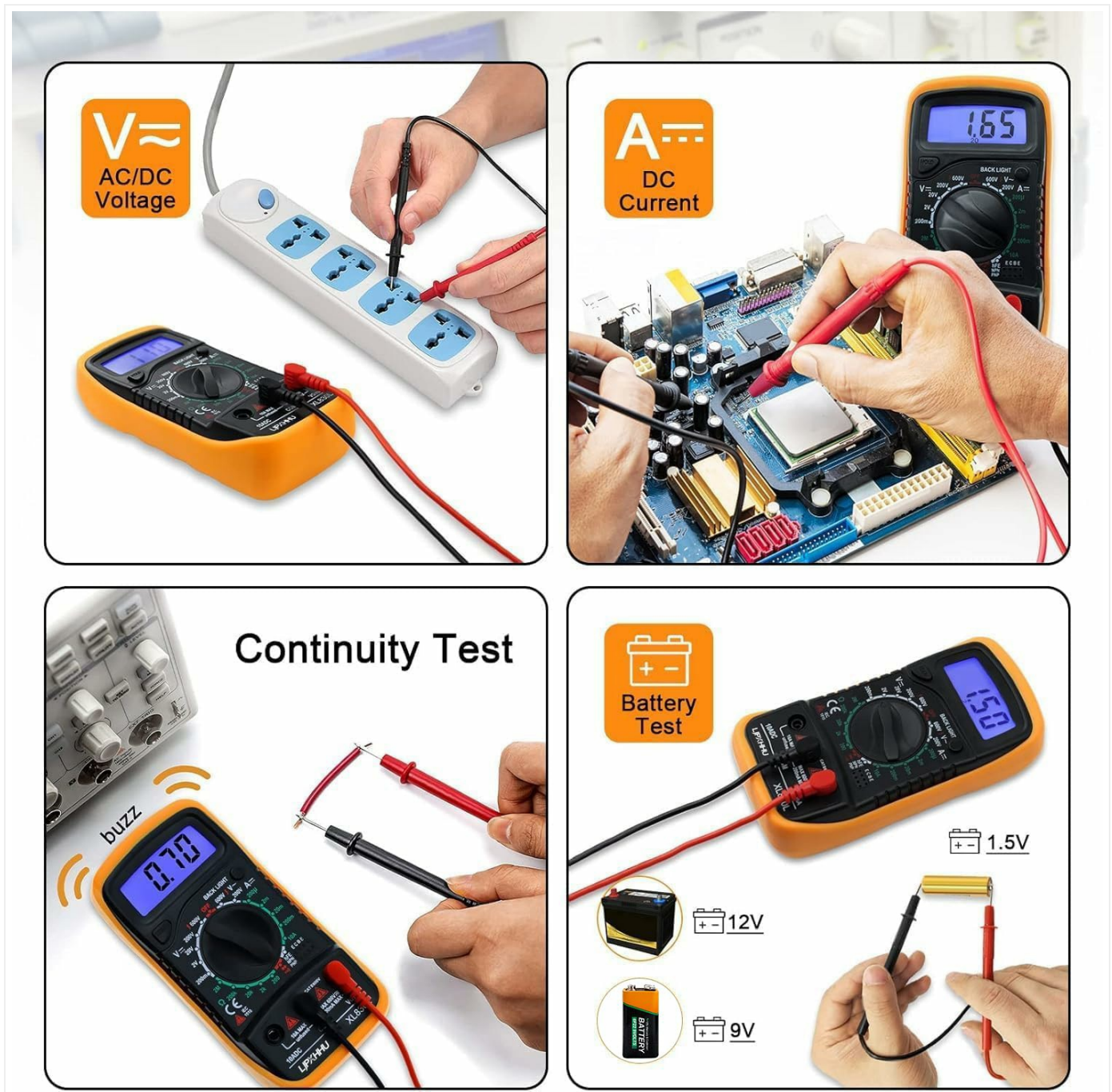


Image: The multimeter displaying an AC voltage reading while probes are inserted into a power outlet.

6.2. DC Voltage Measurement (V-)

1. Set the rotary switch to the desired DC Voltage (V-) range.
2. Connect the red test lead to the "VΩmA" jack and the black test lead to the "COM" jack.
3. Touch the red probe to the positive (+) point and the black probe to the negative (-) point of the DC circuit.
4. Read the voltage value on the LCD display.

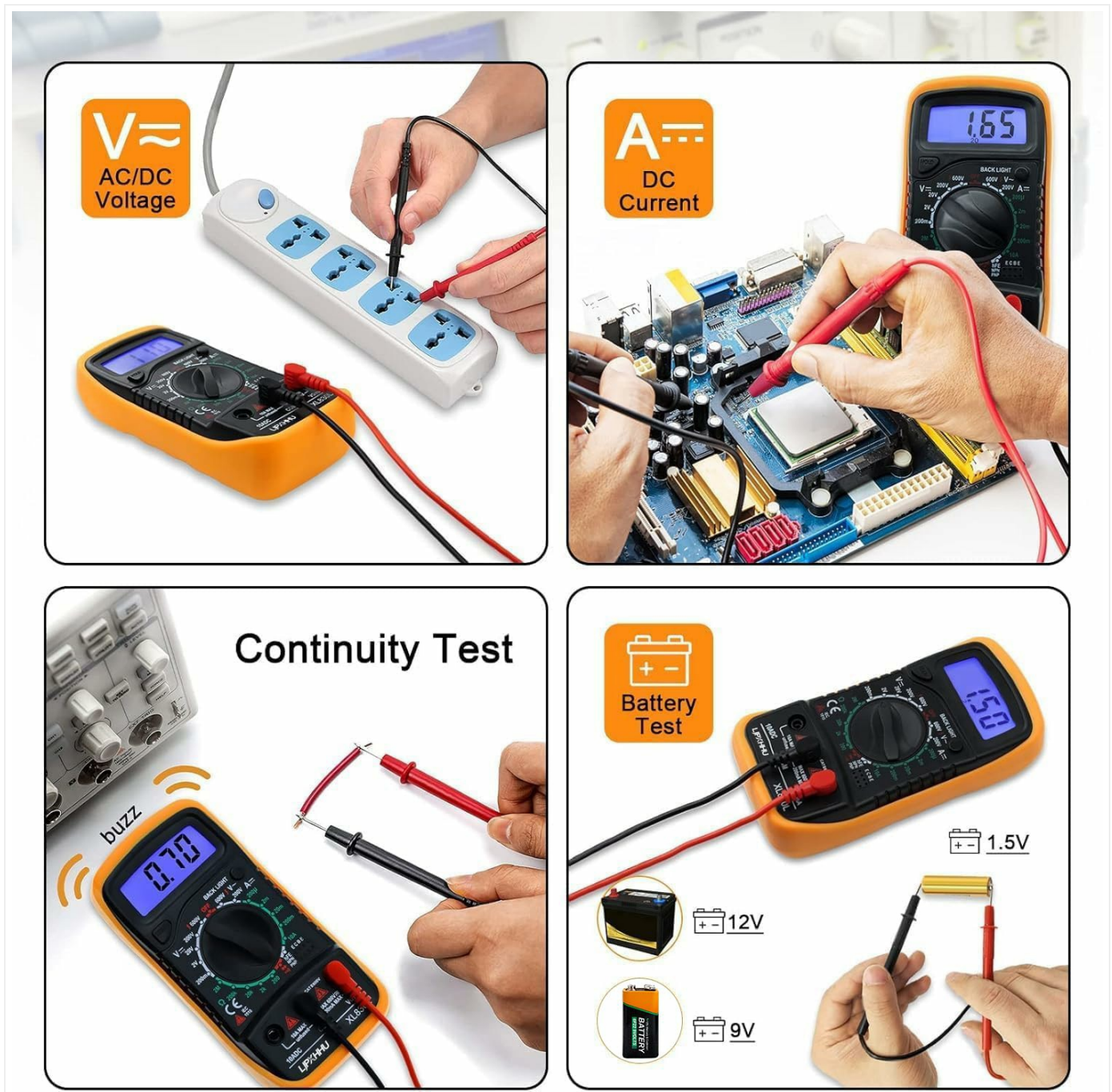


Image: The multimeter displaying a DC voltage reading while probes are connected to a battery.

6.3. DC Current Measurement (A-)

1. Set the rotary switch to the desired DC Current (A-) range. For currents up to 200mA, use the "VΩmA" jack. For currents up to 10A, use the "10ADC" jack.
2. Connect the red test lead to the appropriate current jack and the black test lead to the "COM" jack.
3. Open the circuit where you want to measure current and connect the multimeter in series with the load.
4. Read the current value on the LCD display.

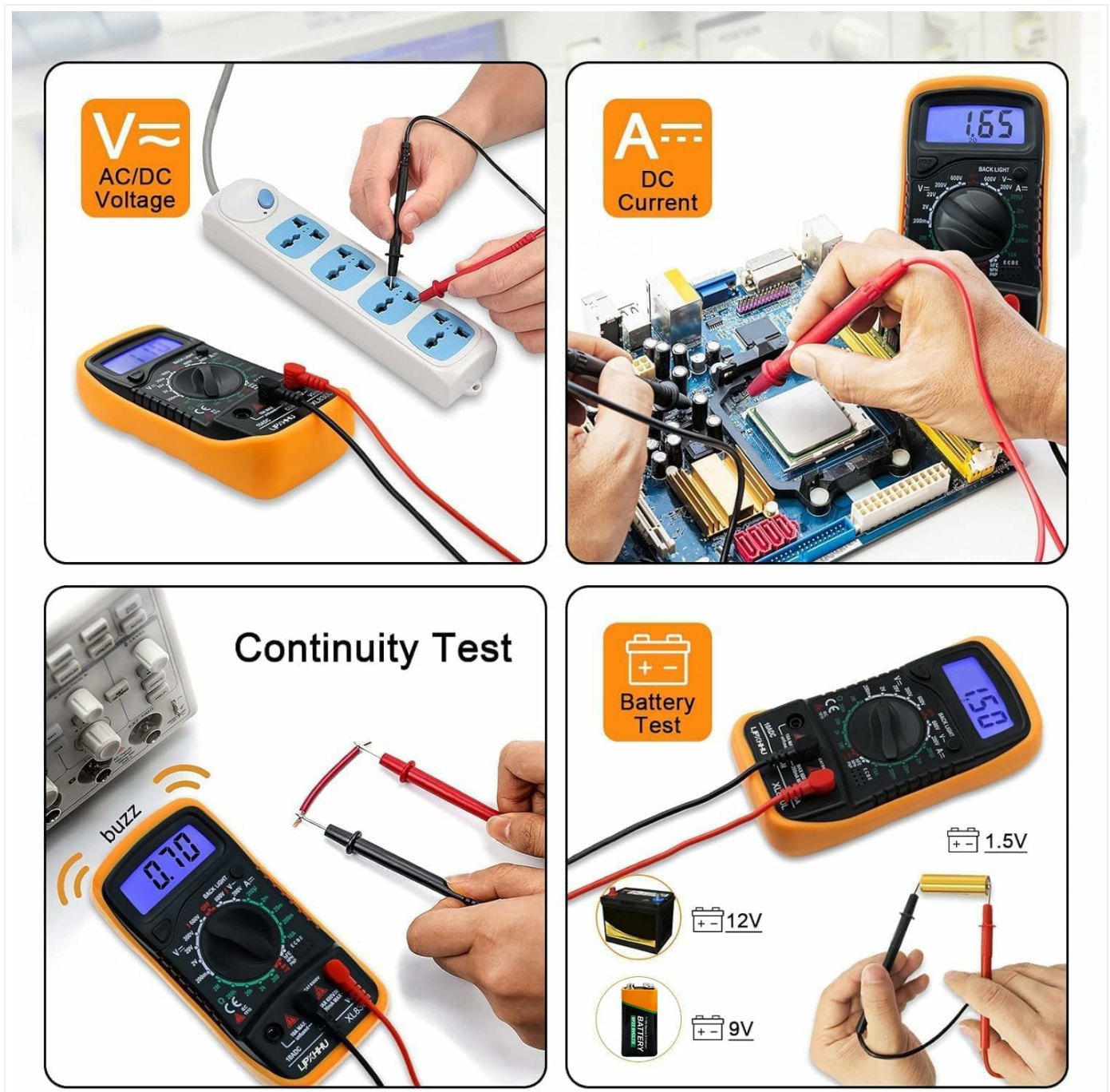


Image: The multimeter displaying a DC current reading while probes are connected in series with a circuit board.

6.4. Resistance Measurement (Ω)

1. Set the rotary switch to the desired Resistance (Ω) range.
2. Connect the red test lead to the "V Ω mA" jack and the black test lead to the "COM" jack.
3. Ensure the circuit or component is de-energized before measuring resistance.
4. Touch the test probes across the component or circuit you wish to measure.
5. Read the resistance value on the LCD display.

6.5. Continuity Test (🔊)

1. Set the rotary switch to the Continuity (🔊) position.
2. Connect the red test lead to the "V Ω mA" jack and the black test lead to the "COM" jack.
3. Ensure the circuit is de-energized.
4. Touch the test probes to the two points you want to check for continuity.

5. If there is continuity (a complete circuit), the meter will emit an audible beep and display a low resistance reading.

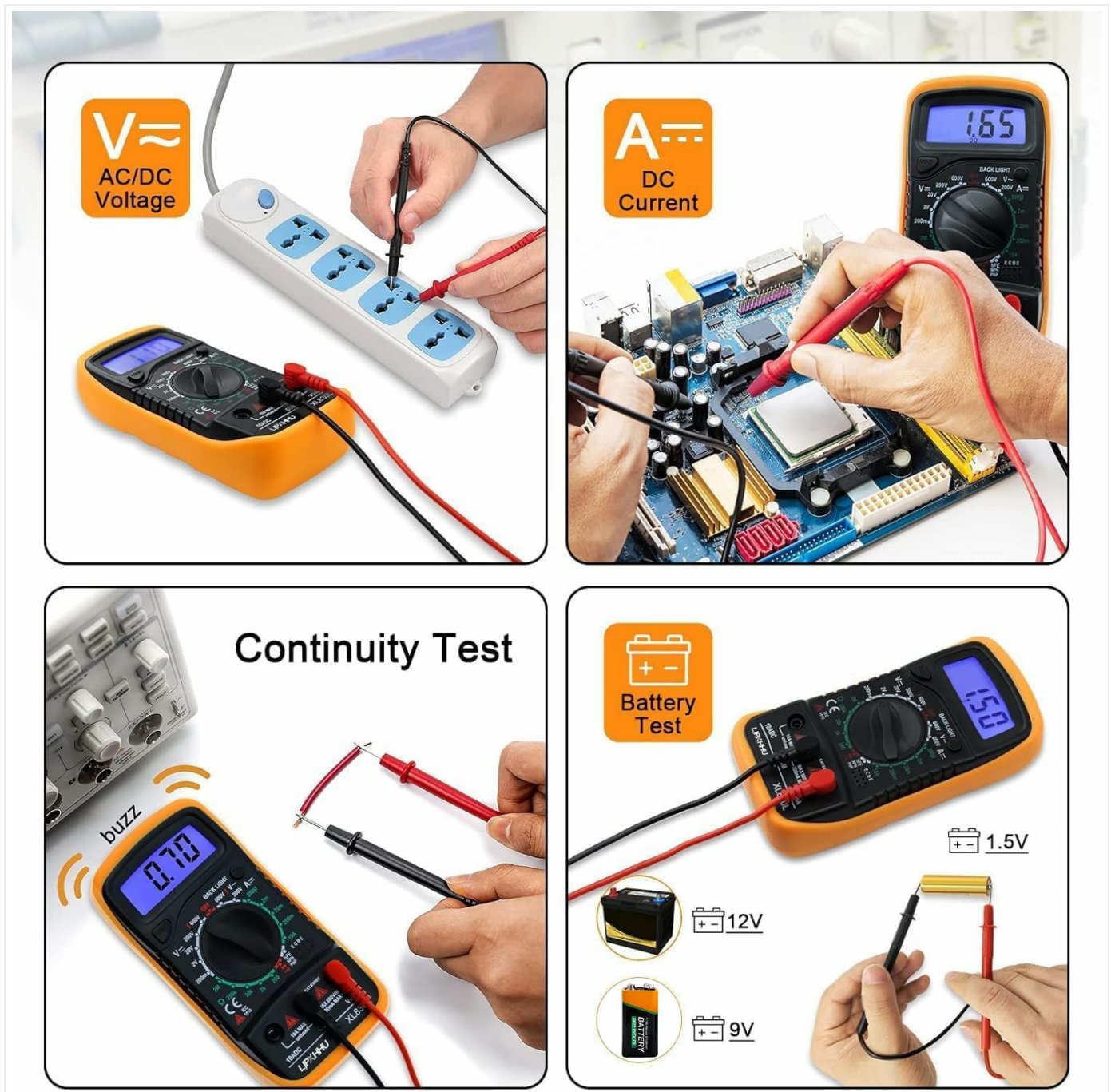


Image: The multimeter showing a continuity test in progress, with the display indicating a low resistance and a visual representation of an audible buzz.

6.6. Diode Test (🔌)

1. Set the rotary switch to the Diode (🔌) position.
2. Connect the red test lead to the "VΩmA" jack and the black test lead to the "COM" jack.
3. Touch the red probe to the anode and the black probe to the cathode of the diode.
4. The display will show the forward voltage drop. Reverse the probes; the display should show "OL" (Overload) for a good diode.

6.7. Battery Test

1. Set the rotary switch to the appropriate battery test range (e.g., 1.5V, 9V, 12V if available, or use DC Voltage measurement).

2. Connect the red test lead to the "VΩmA" jack and the black test lead to the "COM" jack.
3. Touch the red probe to the positive (+) terminal and the black probe to the negative (-) terminal of the battery.
4. Read the battery voltage on the LCD display.

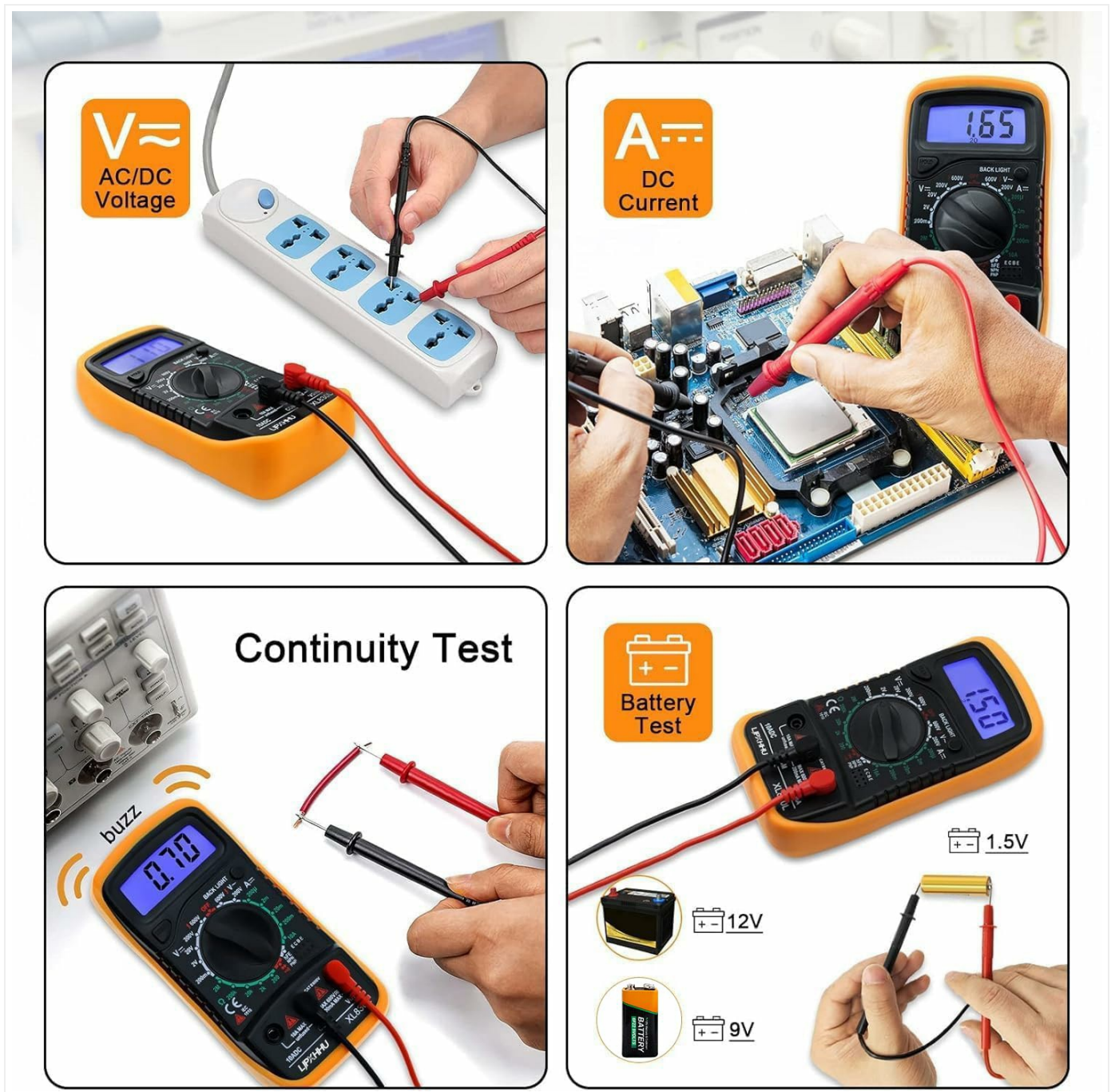


Image: The multimeter displaying battery voltage readings for both a 1.5V AA battery and a 9V battery.

6.8. Transistor (hFE) Test

1. Set the rotary switch to the "hFE" position.
2. Identify if the transistor is NPN or PNP.
3. Insert the transistor leads into the corresponding holes in the Transistor Test Jacks (E, B, C for Emitter, Base, Collector).
4. Read the hFE (DC current gain) value on the LCD display.

6.9. 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

measurements.

6.10. Backlight Function

Press the "BACK LIGHT" button to illuminate the LCD display for better visibility in low-light conditions. Press it again to turn off the backlight.

6.11. Instructional Video



Video: An official product video demonstrating various functions and features of the LJPXHHU Digital Multimeter, including backlight, accessories display, AC voltage measurement, data retention, DC voltage measurement, resistance measurement, diode measurement, on/off buzzer detection, triode detection, and DC current measurement.

7. MAINTENANCE

7.1. Cleaning

Wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents. Keep the test leads clean and free of debris.

7.2. Battery Replacement

When the **low battery indicator** appears on the display, replace the 9V battery as described in Section 5.1. Prompt battery replacement ensures accurate readings and proper operation.

7.3. Storage

If the meter is not to be used for a long period, remove the battery to prevent leakage and damage to the meter. Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No display or dim display	Dead or low battery; incorrect battery installation.	Replace the 9V battery; check battery polarity.
"OL" (Overload) displayed	Measurement exceeds selected range; open circuit (for continuity/resistance).	Select a higher range; check for breaks in the circuit or component.
Inaccurate readings	Low battery; incorrect function/range selected; damaged test leads.	Replace battery; verify rotary switch setting; inspect and replace test leads if damaged.
No continuity beep	Open circuit; incorrect function selected.	Ensure circuit is complete; set rotary switch to continuity mode.

9. SPECIFICATIONS

Parameter	Value
Model	XL830L
Display	2000 Counts, Backlit LCD
DC Voltage (V-)	200mV / 2V / 20V / 200V / 600V ($\pm 0.5\%$ - $\pm 0.8\%$)
AC Voltage (V~)	200V / 600V ($\pm 1.0\%$)
DC Current (A-)	200 μ A / 2mA / 20mA / 200mA / 10A ($\pm 1.0\%$ - $\pm 2\%$)
Resistance (Ω)	200 Ω / 2k Ω / 20k Ω / 200k Ω / 2M Ω ($\pm 0.8\%$)
Continuity	Audible Beep
Diode Test	Yes
Transistor (hFE) Test	Yes (NPN/PNP Triode hFE)
Power Source	1 x 9V Battery (included)
Dimensions	5.51 x 2.56 x 1.18 inches
Weight	5.86 ounces (166 Grams)
Color	Orange and Black

10. WARRANTY AND SUPPORT

10.1. Quality Guarantee

LJPXHHU provides a **2-YEARS Quality Guarantee** against faulty materials and workmanship. If there is any issue within 24 months of your purchase, the manufacturer will replace it for you without doubt.

10.2. Customer Support

For any questions, technical assistance, or warranty claims, please contact LJPXHHU customer support through the platform where you purchased the product or visit the official LJPXHHU store for contact information.

[Visit the LJPXHHU Store on Amazon](#)

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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.

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