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› [Aideepen](#) /

› [Aideepen LCR-T7 Multi-Function Transistor Tester User Manual](#)

Aideepen LCR-T7

Aideepen LCR-T7 Multi-Function Transistor Tester User Manual

Model: LCR-T7 | Brand: Aideepen

1. INTRODUCTION

The Aideepen LCR-T7 is a versatile multi-function transistor tester designed for efficient and accurate identification and measurement of various electronic components. Featuring a 1.8-inch full-color TFT graphic display, this device simplifies component testing with its intuitive one-button operation and automatic detection capabilities. It is an essential tool for hobbyists and professionals working with electronics.

Key Features:

- Wide Application:** Automatically detects NPN and PNP transistors, N-channel and P-channel MOSFETs, diodes (including double diodes), thyristors, Mega328, BJTs, resistors, capacitors, IGBTs, JFETs, and triacs.
- Infrared Decoder:** Capable of detecting infrared waveforms and decoding data codes from infrared remote controls.
- Built-in Battery:** Equipped with a convenient built-in lithium battery. The charging input voltage is 4.5V.
- One-Button Operation:** Simplifies testing with a single multi-functional button for automatic detection and shutdown.
- Full Color Graphic Display:** Results are clearly displayed on a 160x128 TFT screen in color.

2. PACKAGE CONTENTS

Upon opening your Aideepen LCR-T7 package, please ensure all the following items are present:

- 1 x LCR-T7 Transistor Tester
- 1 x USB Cable
- 1 x Test Clip
- 1 x Capacitance Sample
- 1 x Resistance Sample



Figure 1: Contents of the Aideepen LCR-T7 package, including the tester, USB cable, test clip, and sample components.

3. PRODUCT OVERVIEW

Familiarize yourself with the various parts and interfaces of your LCR-T7 Transistor Tester.



Figure 2: Front view of the LCR-T7 tester with key features labeled.

- **Full Color Display:** 1.8-inch TFT screen for displaying test results and information.
- **Infrared Receive Window:** Used for detecting infrared signals from remote controls.
- **Multi-function Button (Start):** Initiates component testing and serves as a power button.
- **Transistor Test Area:** Socket for inserting and testing transistors and other components.
- **Zener Diode Test Area:** Dedicated area for testing Zener diodes.
- **Micro USB Charging Interface:** For charging the internal lithium battery.
- **Charging Indicator Light:** Indicates charging status (green when fully charged).



Figure 3: Detailed view of the transistor and Zener diode test areas. Always discharge capacitors before testing.

4. SETUP

4.1 Initial Charging

Before first use, fully charge the LCR-T7 tester. Connect the provided USB cable to the Micro USB charging interface on the device and to a 4.5V USB power source. The charging indicator light will turn green when the battery is fully charged.

Warning: Do not use an overvoltage charger (above 4.5V), as this may damage the tester.

4.2 Power On/Off

To power on the device, press the multi-function button (Start). The device will automatically perform a self-test and display the main interface. To power off, the device will automatically shut down after a period of inactivity, or you can press the multi-function button to manually shut it down.

5. OPERATING INSTRUCTIONS

5.1 Component Testing

The LCR-T7 can test a wide range of electronic components. Always ensure components, especially capacitors, are fully discharged before testing to prevent damage to the tester.

- 1. Insert Component:** Place the pins of the component into the corresponding holes in the transistor test area or Zener diode test area. For larger components or those with non-standard pin configurations, use the provided test clips.
- 2. Secure Component:** Ensure the component is securely seated. If using the ZIF socket, lower the lever to lock the pins in place.
- 3. Start Test:** Press the multi-function button (Start). The tester will automatically detect the component type and measure its parameters.
- 4. View Results:** The results, including component type, pinout, and measured values (e.g., capacitance, resistance, voltage drop), will be displayed on the TFT screen.



Figure 4: The LCR-T7 tester connected to a component using test clips for measurement.

5.2 Infrared (IR) Remote Control Decoding

The LCR-T7 includes an IR decoder function to analyze infrared remote control signals.

1. **Enter IR Mode:** After a component detection is completed (or if no component is inserted), the tester is ready for IR decoding.
2. **Aim Remote:** Align the infrared remote control with the "IR" light window on the tester.
3. **Press Button:** Press a button on the remote control.
4. **View Results:** If the detector successfully decodes the signal, it will display the data code and infrared waveform on the screen.

5.3 Self-Calibration

The device has a self-calibration function to ensure accuracy. Refer to the on-screen prompts or the detailed user manual for the specific steps to perform self-calibration.

5.4 Video Tutorial (LCR-TC1/T7 Similarities)

The following video demonstrates the operation of the Aideepen LCR-TC1, which shares many functional similarities with the LCR-T7 model, particularly regarding component testing. This can serve as a helpful

visual guide for general usage.

Your browser does not support the video tag.

Video 1: Demonstration of component testing using the Aideepen LCR-TC1 Transistor Meter. The LCR-T7 operates similarly for these functions.

6. MAINTENANCE

6.1 Cleaning

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure no liquids enter the device openings.

6.2 Storage

Store the LCR-T7 in a cool, dry place away from direct sunlight and extreme temperatures. Keep it in its original packaging or a protective case when not in use.

6.3 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Charge the device regularly, even if not in active use, to maintain battery health.

7. TROUBLESHOOTING

- **Device does not power on:** Ensure the battery is charged. Connect the USB cable to a 4.5V power source and allow it to charge for some time before attempting to power on again.
- **Inaccurate readings:** Perform a self-calibration as described in the operating instructions. Ensure components are properly inserted and discharged. Check if the test clips are making good contact.
- **"Unknown device" or "damaged part" displayed:** This may indicate a faulty component, incorrect insertion, or a component type not supported by the tester. Verify the component's condition and re-insert it correctly.
- **IR decoding not working:** Ensure the remote control is aimed directly at the IR receive window. Check the remote control's battery.
- **Screen is dim or unresponsive:** Adjust the screen brightness in the settings (if available) or ensure the battery is sufficiently charged.

8. SPECIFICATIONS

Feature	Detail
Model Number	LCR-T7
Display	1.8-inch TFT Full Color Graphic Display (160x128)
Power Source	Built-in Lithium Polymer Battery
Min. Operating Voltage	4.5 Volts
Measurement Type	LCR Meter (Transistor, Diode, Capacitor, Resistor, Inductor, etc.)

Feature	Detail
Dimensions	11.1 x 8.2 x 4.9 cm
Weight	109 g
Color	White
Country of Origin	China

9. WARRANTY AND SUPPORT

Aideepen provides a **24-month service warranty** for each product purchased. If you encounter any quality issues with your LCR-T7 Transistor Tester within this period, you are eligible for a new replacement.

For further assistance, troubleshooting, or warranty claims, please contact Aideepen customer support through your original point of purchase or visit the official Aideepen store online.