

## 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.

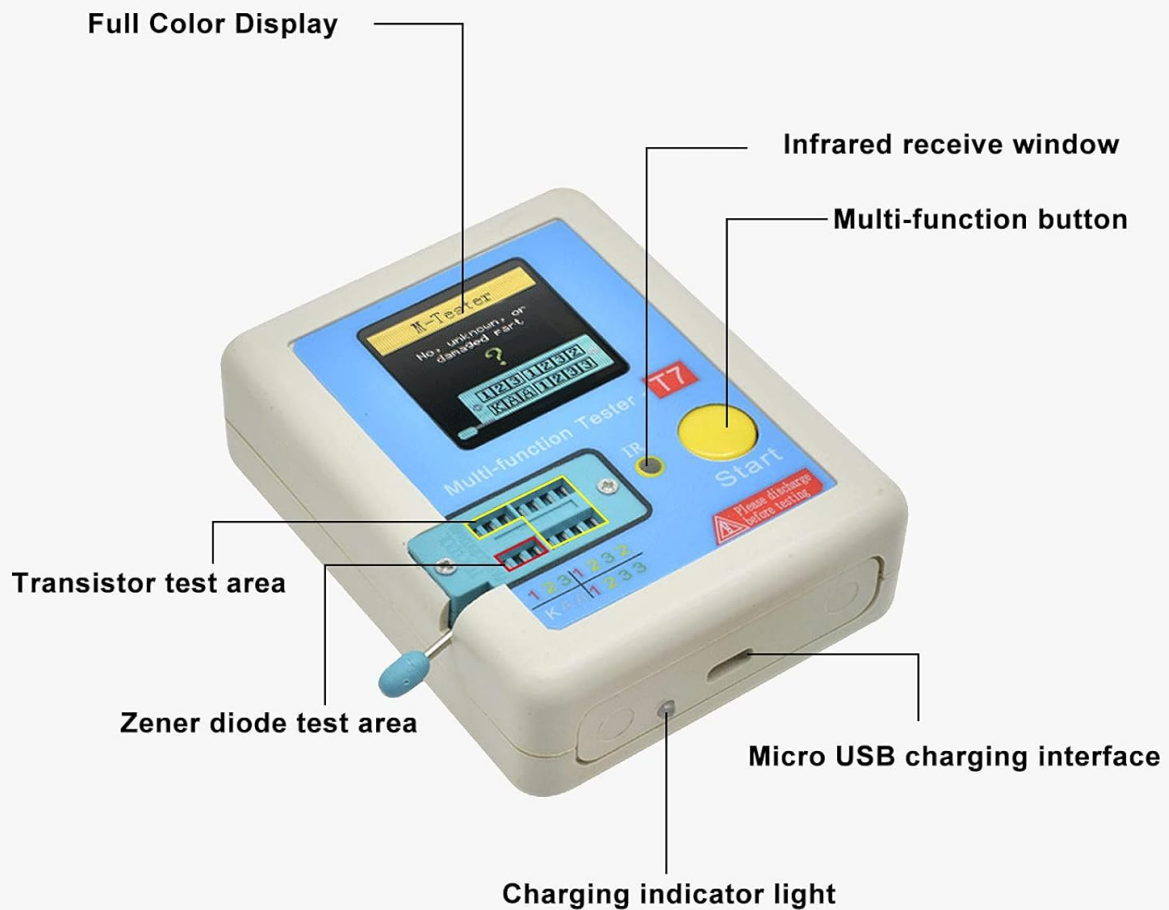


Figure 2: Front view of the LCR-T7 tester with key features labeled.

- **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

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### 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

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### 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.

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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.