

[Manuals.plus](#) /

› [TKDMR](#) /

› TKDMR LED Lamp Bead TV Backlight Tester TD2B User Manual

## TKDMR TD2B

# TKDMR LED Lamp Bead TV Backlight Tester TD2B User Manual

Model: TD2B | Brand: TKDMR

## 1. INTRODUCTION

The TKDMR LED Lamp Bead TV Backlight Tester TD2B is designed for efficient and safe troubleshooting of LED TV backlight problems. It automatically adjusts voltage and current to identify defective LEDs on strips, saving time and effort in repair processes. This tool is suitable for testing individual LED beads, LED strings, LED panels, and integrated optical LEDs.

### What's in the Box:

- 1 x TKDMR LED Lamp Bead TV Backlight Tester (Model: TD2B)
- 1 x User Manual
- 1 Pair x Test Probes
- 1 x US Power Plug



Image 1.1: The TKDMR LED Lamp Bead TV Backlight Tester TD2B, including the main unit, test probes, and power plug, as packaged.

## 2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the device. Failure to follow these instructions may result in electric shock, fire, or damage to the product or other property.

- **Double Isolation Design:** The tester features a double isolated design for enhanced safety.
- **Burn Protection:** Intelligent voltage and current adjustment prevents burning of LED beads.
- **Slow Boost, Soft Start:** The safety design incorporates a slow boost and soft start mechanism, gradually increasing current to prevent sudden surges.
- **Avoid Prolonged Contact:** Do not touch the output terminals of the probes for extended periods during operation.
- **Polarity:** If you are unsure about the positive and negative polarity of the LED, avoid testing for a prolonged duration.
- **Power Off When Not in Use:** Always turn off the power when the tester is not in use.

### 3. SETUP

Follow these steps to prepare your TKDMR LED Lamp Bead TV Backlight Tester for use:

1. Connect the provided US Power Plug to the tester's power input port.
2. Plug the power plug into a standard AC 110-265V electrical outlet.
3. Connect the test probes to the designated output terminals on the tester. Ensure a secure connection.
4. Turn on the power switch located on the side of the tester. The device will take approximately 3 to 5 seconds to initiate.
5. Observe the digital display. After the initial startup, the voltmeter will display the normal 300V value.



Image 3.1: The TKDMR LED Lamp Bead TV Backlight Tester with its power cord attached, ready for connection to an electrical outlet.



Image 3.2: A hand demonstrating the operation of the power switch on the side of the TKDMR LED Lamp Bead TV Backlight Tester.

## 4. OPERATING INSTRUCTIONS

The TKDMR LED Lamp Bead TV Backlight Tester is designed for ease of use with its intelligent voltage and current adjustment.

### General Operation:

1. After plugging in and powering on the device, allow 3 to 5 seconds for it to start. The soft start mode will gradually increase the backlight brightness.
2. Use the test probes to contact the LED components you wish to test. The tester will automatically adjust the output voltage (0-300V) and current (30mA) to safely illuminate the LEDs.
3. Observe the digital display for the output voltage reading. This indicates the voltage required by the LED or LED strip being tested.
4. If testing an LED strip, the tester can identify defective LEDs quickly without requiring panel disassembly.

## Main Applications:

- Testing single LED beads.
- Testing LED strings and LED panels.
- Testing integrated optical LEDs.
- Supporting capacitance voltage and diode voltage testing.
- Troubleshooting LED TV backlights of any size.



Image 4.1: The TKDMR LED Lamp Bead TV Backlight Tester in operation, showing the digital voltage display and connected test probes.



Image 4.2: A series of images illustrating the tester's capability to test both individual LED beads and segments of an LED strip, with voltage readings displayed.

## 5. MAINTENANCE

To ensure the longevity and optimal performance of your TKDMR LED Lamp Bead TV Backlight Tester, follow these simple maintenance guidelines:

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the tester in a cool, dry place away from direct sunlight and extreme temperatures.
- **Probe Care:** Inspect the test probes regularly for any signs of wear or damage. Replace them if necessary to ensure accurate and safe operation.
- **Power Cord:** Ensure the power cord is not kinked or damaged.

## 6. TROUBLESHOOTING

This section addresses common issues you might encounter with your LED Backlight Tester.

- **Tester does not power on:**
  - Ensure the power plug is securely connected to both the tester and a working electrical outlet.
  - Verify that the power switch is in the 'ON' position.
- **LEDs do not light up or flicker:**
  - Check the connection of the test probes to the LED component. Ensure good contact.
  - Confirm the polarity of the LED if testing individual beads. While the tester has burn protection, incorrect prolonged contact is not recommended.
  - The LED component itself might be faulty. The tester is designed to help identify such components.
- **Inaccurate voltage reading:**
  - Ensure the probes are making firm and clean contact with the test points.
  - Allow the tester to fully initialize (3-5 seconds) after power-on before taking readings.

## 7. SPECIFICATIONS

Feature	Specification
Brand	TKDMR
Model	TD2B
Input Voltage	AC 110-265V (International General)
Output Voltage	0-300V (Soft Start Mode)
Output Current	30mA
Item Dimensions	3.7 x 2.1 x 1.1 inches
Item Weight	0.25 Kilograms
Minimum Operating Voltage	85 Volts
Measurement Type	Voltmeter
Style	Digital
Color	White
Certifications	CE, RoHS, UL
UPC	789659036201

## 8. WARRANTY AND SUPPORT

TKDMR is committed to providing quality products. While specific warranty details are not provided in this manual, we offer quality assurance for our products.

If you have any questions, concerns, or require assistance with your TKDMR LED Lamp Bead TV Backlight Tester TD2B during use, please contact TKDMR customer support. Refer to the product packaging or the TKDMR official website for contact information.