

## Elitech LDM-50D

# Elitech LDM-50D Laser Distance Meter

## INSTRUCTION MANUAL

### 1. Introduction

---

Thank you for choosing the Elitech LDM-50D Laser Distance Meter. This device is designed for precise and efficient distance measurements, offering a range of functions for various applications in home DIY, interior design, and professional construction. This manual provides essential information for safe operation, setup, and maintenance of your device. Please read it thoroughly before use.

The LDM-50D features fast and accurate measurements up to 165ft (50m) with  $\pm 2$ mm precision. It includes versatile functions such as single, continuous, area, volume, and Pythagorean modes. The bright backlit LCD ensures clear readability, and it can store up to 99 measurements. Built-in dual bubble levels enhance measurement accuracy.

### 2. Safety Information

---

**Laser Safety:** This device emits a Class II laser. Do not stare directly into the laser beam or direct it at other people. Avoid pointing the laser at reflective surfaces. Always operate the device in a safe manner to prevent eye injury.

**Battery Safety:**

- Use only AAA alkaline batteries as specified.
- Do not mix old and new batteries, or different types of batteries.
- Ensure batteries are inserted with correct polarity.
- Remove batteries if the device will not be used for an extended period to prevent leakage.
- Dispose of used batteries according to local regulations.

**General Safety:**

- Keep the device away from children.
- Do not attempt to modify or disassemble the device. Repairs should only be performed by authorized personnel.
- Avoid exposing the device to extreme temperatures, humidity, or direct sunlight.

## 3. Product Overview

The Elitech LDM-50D is a compact and durable laser distance meter designed for ease of use and portability. It features a clear backlit display and intuitive button layout.

### 3.1 Package Contents

- Elitech LDM-50D Laser Distance Meter
- 2 x AAA Batteries
- Wrist Strap
- User Manual



Image: Elitech LDM-50D Laser Distance Meter with included batteries, wrist strap, and manual.

### 3.2 Device Components



*Image: Front view of the Elitech LDM-50D Laser Distance Meter, showing the display, control buttons, and dual bubble levels.*

The device features a large backlit LCD for clear readings, a 'READ' button for measurements, 'OFF/CLEAR' for power and clearing, and various function buttons for mode selection and unit switching. It also includes dual bubble levels for enhanced accuracy.





*Image: Back view of the Elitech LDM-50D Laser Distance Meter, showing the battery compartment and product labels.*

## 4. Setup

---

### 4.1 Battery Installation

1. Locate the battery compartment cover on the back of the device.
2. Slide the cover open.
3. Insert two (2) AAA alkaline batteries, ensuring correct polarity (+/-).

4. Close the battery compartment cover securely.

## 5. Operating Instructions

### 5.1 Power On/Off

- To power on, press the **READ** button.
- To power off, press and hold the **OFF/CLEAR** button for a few seconds. The device will also automatically power off after a period of inactivity.

### 5.2 Basic Distance Measurement

1. Point the laser at the target surface.
2. Press the **READ** button once. The measurement will appear on the display.



Image: A user holding the Elitech LDM-50D and taking a distance measurement to a wall.

### 5.3 Continuous Measurement

This mode allows for dynamic measurement as you move the device. Press the mode button until the continuous measurement icon appears. The display will update in real-time as the distance changes.

## 5.4 Area and Volume Measurement

The LDM-50D can calculate area and volume automatically. Press the mode button to cycle through measurement modes until the desired icon (area or volume) is displayed. Follow the on-screen prompts to take the required length, width, and height measurements. The device will then calculate and display the result.



Image: The Elitech LDM-50D displaying icons for various measurement modes including distance, area, volume, and different Pythagorean calculations.

## 5.5 Pythagorean Measurement

Use the Pythagorean mode for indirect height or diagonal measurements. Press the mode button to select one of the Pythagorean modes (e.g., for single indirect height, double indirect height). Follow the on-screen instructions to take the necessary measurements (e.g., base and hypotenuse). The device will calculate the unknown side.

## 5.6 Unit Switching

The device supports multiple units: meters (m), centimeters (cm), feet (ft), inches (in), and fractions. To switch units, long-press the 'U' button until the desired unit is displayed.

## Flexible Measurement Units for Every Project

No Conversion Needed — Save Time & Avoid Mistakes

0.0in

0in

0'00"

0.00ft

0.000m

0.00m

**LONG  
PRESS**  
TO SWITCH UNITS



*Image: The Elitech LDM-50D displaying various measurement units like inches, feet, and meters, with a prompt to long-press a button to switch units.*

### 5.7 Data Storage

The LDM-50D can store up to 99 measurement records. To review stored data, press the memory button. Use the arrow keys to navigate through the records. The top of the screen indicates how many records are saved.

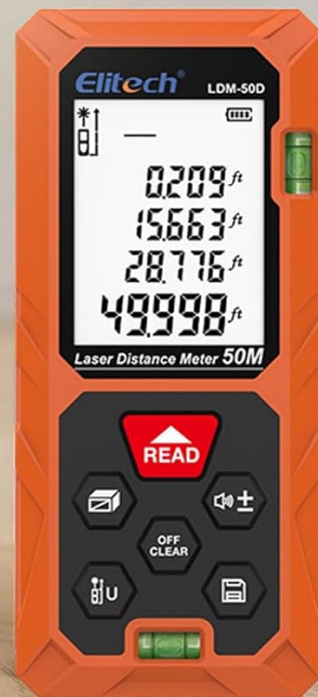
99

## Measurement Record

Keep all your measurements saved and easy to review.

99

The top of the screen shows how many records are saved up to 99 group



*Image: The Elitech LDM-50D display showing multiple measurement records, highlighting the 99-record storage capacity.*

### 5.8 Reference Point Switching

The device allows you to switch the measurement reference point between the front edge and the rear edge of the device. This is useful for measuring from different starting positions. Refer to the display icon to confirm the active reference point.

# Get It Right on the First Try



±1/16  
in (1.5mm)  
Precision



0.5s  
Quick  
Measurement



165Ft  
(50m)  
Range



## 2 Different Reference Points

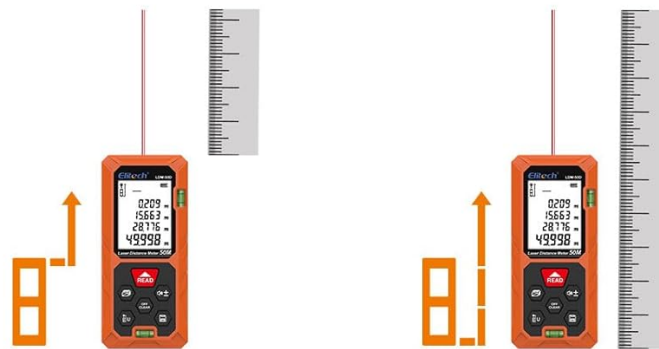


Image: The Elitech LDM-50D illustrating two different reference points for measurement, from the front or rear of the device.

## 5.9 Product Demonstration Video

Your browser does not support the video tag.

Video: A demonstration of the Elitech LDM-50D Laser Distance Meter, showcasing its compact size, instant measurement capabilities, area and volume calculations, Pythagorean mode for indirect measurements, and unit switching functionality. It highlights the device's efficiency and ease of use for various measuring tasks.

## 6. Maintenance

To ensure the longevity and accuracy of your Elitech LDM-50D, follow these maintenance guidelines:

- **Cleaning:** Use a soft, damp cloth to clean the device. Do not use abrasive cleaners or solvents. Clean the laser lens gently with a soft, lint-free cloth.
- **Storage:** Store the device in a cool, dry place, away from direct sunlight and extreme temperatures. Remove

batteries if storing for extended periods.

- **Durability:** The device is designed to be dustproof and drop-resistant (IP54, 1m drop resistance). However, avoid unnecessary drops or impacts to maintain accuracy.



Image: The Elitech LDM-50D highlighting its dustproof (IP54) and drop-resistant (1m/3.3ft) construction, made from ABS Engineering Plastic.

## 7. Troubleshooting

If you encounter issues with your LDM-50D, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on	Low or dead batteries; Incorrect battery installation	Replace batteries; Check battery polarity

Problem	Possible Cause	Solution
Inaccurate measurements	Unstable surface; Obstruction in laser path; Dirty lens; Measurement taken from wrong reference point	Ensure stable measurement; Clear laser path; Clean lens; Verify reference point setting
Laser beam not visible	Bright ambient light; Device not powered on	Move to a darker area; Power on device
Display is dim or unreadable	Low batteries; Extreme temperature	Replace batteries; Move to a moderate temperature environment

## 8. Specifications

Feature	Specification
Measuring Range	0.05m to 50m (165ft)
Accuracy	±2mm (±1/16 inch)
Measurement Units	m / cm / ft / in / ft+in
Measurement Modes	Single, Continuous, Area, Volume, Pythagorean (various types)
Data Records	Up to 99 groups
Laser Class	Class II, <1mW
Laser Wavelength	630-670nm
Display	Backlit LCD
Power Supply	2 x AAA Alkaline batteries (included)
Automatic Laser Off	30 seconds
Automatic Device Off	180 seconds
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Dimensions (L x W x H)	11.2 x 5 x 2.5 cm (4.4 x 2.0 x 1.0 inches)
Weight	0.15 kg (0.33 lbs)
Material	ABS Engineering Plastic
IP Rating	IP54 (Dustproof & Splash-proof)
Drop Resistance	1m (3.3ft)

## 9. Warranty and Support

Elitech products are manufactured to high-quality standards. For detailed warranty information, please refer to the

official Elitech website or the warranty card included with your product. If you require technical support or have questions regarding your LDM-50D Laser Distance Meter, please contact Elitech customer service through their official channels.