

INKBIRDPLUS LDM-D50

INKBIRDPLUS Laser Distance Meter LDM-D50 User Manual

Model: LDM-D50 | Brand: INKBIRDPLUS

1. INTRODUCTION

Thank you for choosing the INKBIRDPLUS LDM-D50 Laser Distance Meter. This device is designed for precise and efficient measurement of distances, areas, and volumes. It is an essential tool for professionals and DIY enthusiasts alike. This manual provides detailed instructions for safe operation, setup, various measurement modes, maintenance, and technical specifications to ensure optimal performance and longevity of your device.

2. SAFETY INFORMATION

Please read and understand all safety instructions before using the device. Failure to follow these instructions may result in laser exposure, electric shock, fire, or serious injury.

- **Laser Safety:** This device uses a Class 2 laser (620-690nm, <1mW). Do not irradiate people or animals with the laser directly or indirectly. Avoid direct eye exposure to the laser beam.
- Do not disassemble or modify the device. Repairs should only be performed by authorized service personnel.
- Keep the device out of reach of children.
- Do not use the device in explosive atmospheres or near flammable liquids and gases.
- Ensure batteries are inserted correctly according to polarity markings.

3. PACKAGE CONTENTS

Upon unpacking, please verify that all items listed below are present and in good condition:

- INKBIRDPLUS Hand-held Laser Distance Meter (LDM-D50) x 1
- User Manual x 1
- AA Battery (LR6 1.5V) x 2 (Note: Product specifications state batteries are included, but some listings may vary. Please check your package.)
- Hand Strap x 1
- Portable Bag x 1



Figure 3.1: INKBIRDPLUS LDM-D50 Laser Distance Meter with its accessories, including a hand strap, portable bag, user manual, and AA batteries. The image also shows the device dimensions: 121mm height, 56mm width, and 28mm depth.

4. PRODUCT OVERVIEW

The INKBIRDPLUS LDM-D50 is a compact and durable laser distance meter designed for various measurement tasks. It features a clear backlit LCD and intuitive button layout.





Figure 4.1: Front view of the INKBIRDPLUS LDM-D50 Laser Distance Meter. The device features a large digital display at the top, showing measurement readings and icons for various functions. Below the display are several control buttons: a large 'MEAS' button for measurement, an 'OFF/CLEAR' button, and a '+/- UNIT' button for unit selection and addition/subtraction. Two bubble levels are visible on the side and bottom for horizontal and vertical alignment.

4.1 Device Components

- **Laser Emitter/Receiver:** Located at the top of the device.

- **LCD Display:** 2.4-inch backlit screen for displaying measurements and settings.
- **MEAS Button:** Initiates measurements.
- **OFF/CLEAR Button:** Turns the device off or clears the current measurement.
- **UNIT Button:** Switches measurement units (m, in, ft, ft/in) and enables addition/subtraction.
- **Function Buttons:** For selecting different measurement modes (distance, area, volume, Pythagorean).
- **Bubble Levels:** Integrated for horizontal and vertical alignment.

5. SETUP

5.1 Battery Installation

The INKBIRDPLUS LDM-D50 requires two AA batteries (LR6 1.5V) for operation.

1. Locate the battery compartment cover on the back of the device.
2. Slide or unclip the cover to open the compartment.
3. Insert two AA batteries, ensuring correct polarity (+ and -) as indicated inside the compartment.
4. Close the battery compartment cover securely.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off

- **Power On:** Press the **MEAS** button once to turn on the device. The laser will activate.
- **Power Off:** Press and hold the **OFF/CLEAR** button for a few seconds to turn off the device.
- **Auto-Off Feature:** The laser will automatically turn off after 30 seconds of inactivity. The entire device will power off after 180 seconds of inactivity to conserve battery life.

6.2 Unit Switching

Press the **UNIT** button repeatedly to cycle through the available measurement units: meters (m), inches (in), feet (ft), and feet/inches (ft/in).



Figure 6.1: The device display illustrating the selection of 4 different measurement units (m, ft, in, ft/in) and the capability to store up to 10 sets of history data. It also highlights the IP54 rating for dustproof and waterproof protection.

6.3 Measurement Modes

The LDM-D50 supports various measurement functions. Press the dedicated function buttons to select the desired mode.

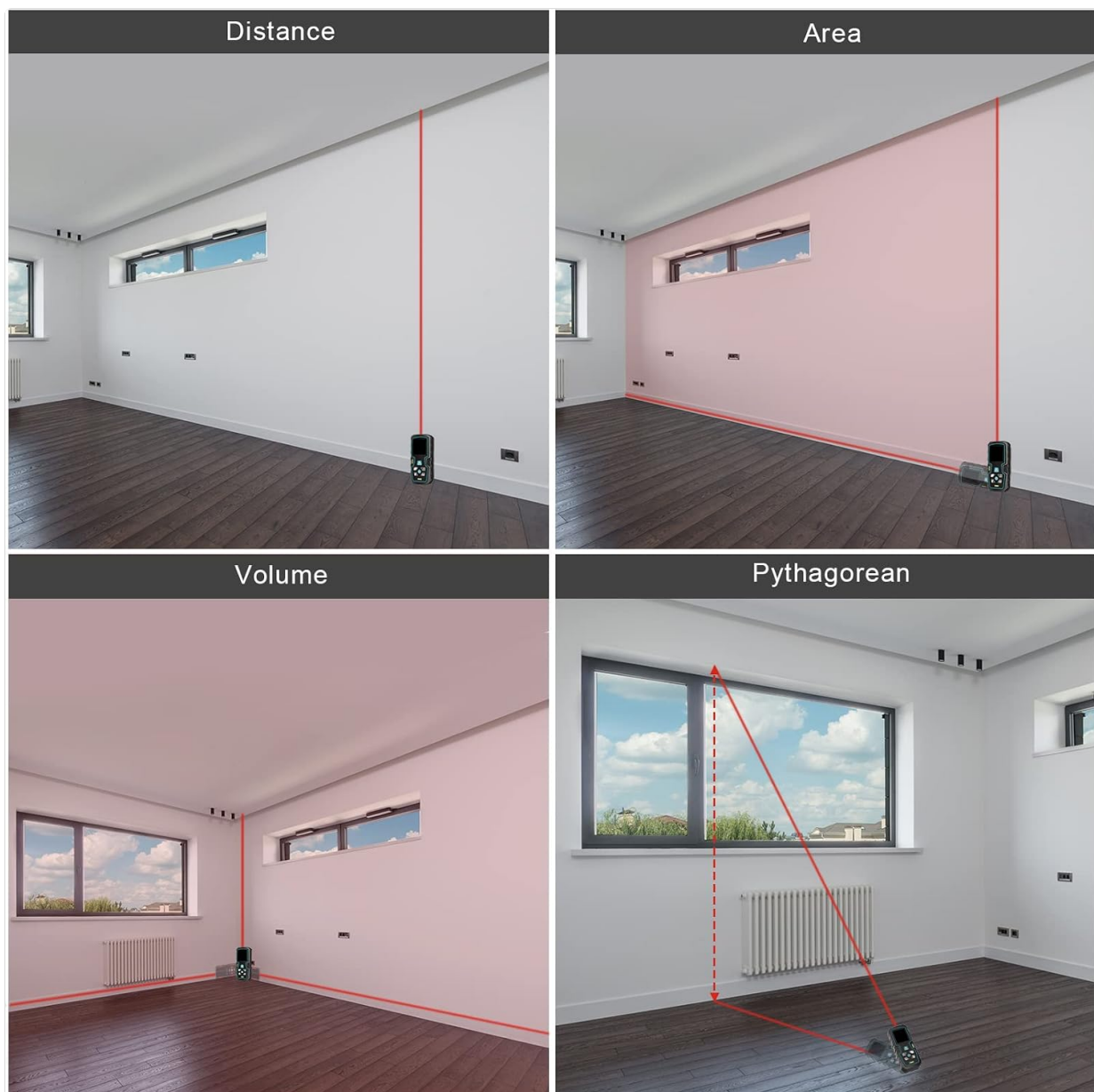


Figure 6.2: Visual representation of the four primary measurement modes: **Distance** (single linear measurement), **Area** (calculating surface area from two measurements), **Volume** (calculating cubic volume from three measurements), and **Pythagorean** (indirect measurement using the Pythagorean theorem).

- **Single Distance Measurement:** Press **MEAS** once to activate the laser, then press **MEAS** again to take a measurement.
- **Area Measurement:** Select the area mode. Take two consecutive distance measurements (length and width). The device will automatically calculate and display the area.
- **Volume Measurement:** Select the volume mode. Take three consecutive distance measurements (length, width, and height). The device will automatically calculate and display the volume.
- **Pythagorean Measurement:** Select the Pythagorean mode. Follow the on-screen prompts to take the required measurements (e.g., hypotenuse and one leg) for indirect height or distance calculation.
- **Continuous Measurement:** In single distance mode, press and hold **MEAS** to enter continuous measurement. The device will display real-time maximum and minimum distances as you move it. Press **MEAS** again to exit.

6.4 Data Storage

The device can store up to 10 sets of measurement data. Use the history data button (if available, typically indicated by a folder icon) to review previous measurements.

6.5 Mute Mode

The LDM-D50 features a mute mode, ideal for use in quiet environments such as libraries, museums, or classrooms. Refer to the device's specific button for activating/deactivating the mute function (often a speaker icon or long press of a specific button).

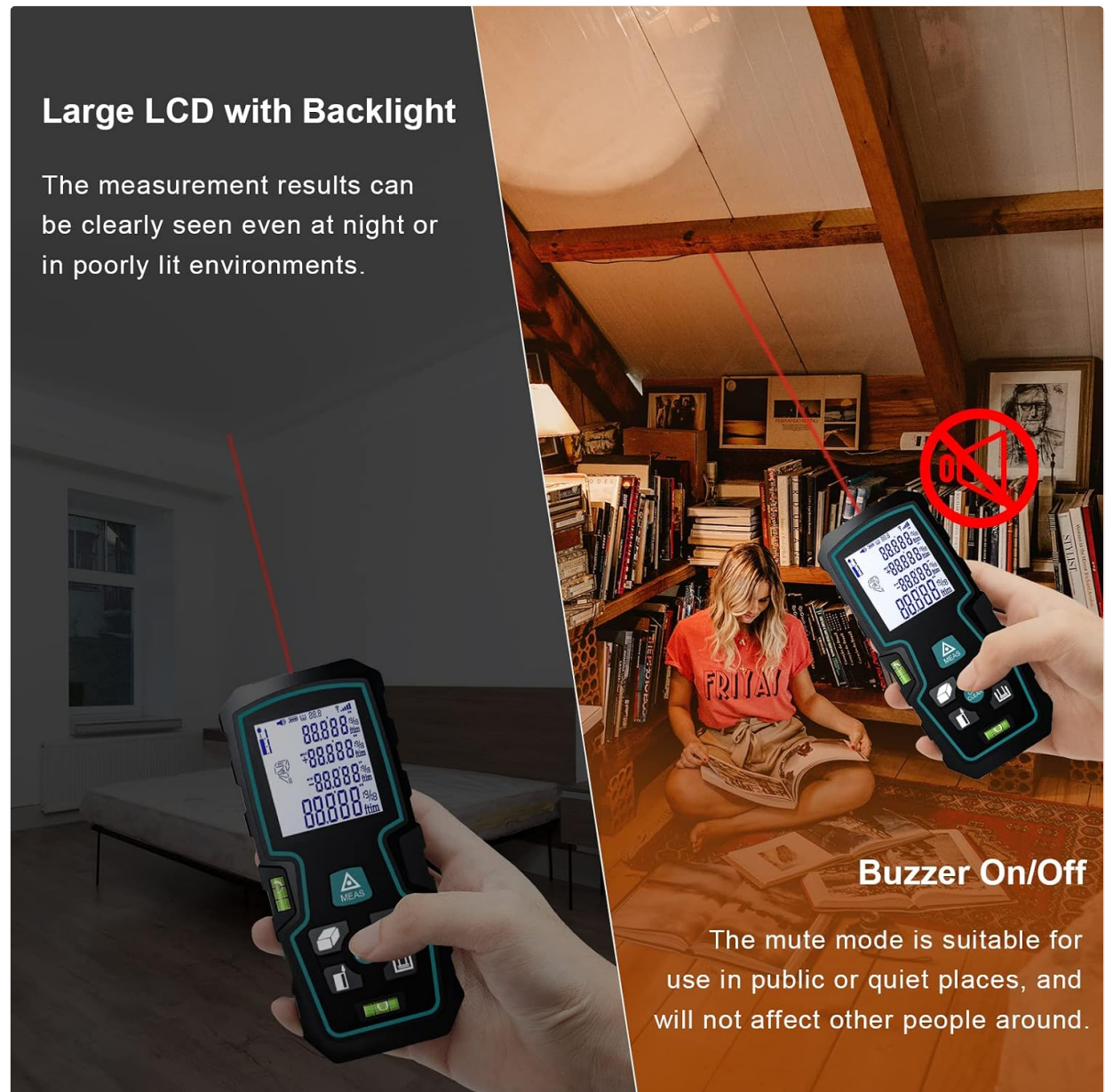


Figure 6.3: The device's large backlit LCD display ensures clear readability in low-light conditions. The image also depicts the mute mode feature, which allows for silent operation, suitable for environments where noise is a concern.

7. MAINTENANCE

Proper maintenance ensures the accuracy and longevity of your laser distance meter.

- **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 cloth, similar to cleaning camera lenses.
- **Storage:** Store the device in its protective case in a cool, dry place when not in use. Remove batteries if the device will not be used for an extended period to prevent leakage.
- **Protection:** The device has an IP54 rating, providing protection against dust and splashing water. However, it is not fully waterproof; avoid submerging it in water. The soft rubber casing provides anti-skid and anti-collision protection.



Portable&Durable

Allows the device to do its job in a variety of environments



Portable Bag + Hand Strip

Shatter-resistant Silicone Case

Figure 7.1: The INKBIRDPLUS LDM-D50 is designed for portability and durability, featuring a shatter-resistant silicone case, a portable bag, and a hand strap for secure handling and transport.

8. TROUBLESHOOTING

If you encounter issues with your LDM-D50, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not turn on	Low or dead batteries; Incorrect battery installation	Replace batteries; Ensure correct polarity
Inaccurate measurements	Laser lens dirty; Unstable measurement surface; Environmental factors (strong light)	Clean laser lens; Ensure stable positioning; Measure in suitable conditions
Laser not visible	Strong ambient light; Laser auto-off activated	Measure in dimmer conditions; Press MEAS button to reactivate laser
Display error message	Measurement out of range; Internal error	Ensure target is within 0.05m-50m range; Restart device; Contact support if persistent

9. SPECIFICATIONS

Technical specifications for the INKBIRDPLUS LDM-D50 Laser Distance Meter:

Feature	Specification
Brand	INKBIRDPLUS
Model	LDM-D50
Measuring Range	0.05m - 50m (165ft)
Accuracy	±2mm
Measurement Units	m, in, ft, ft/in
Laser Type	620-690nm, <1mW
Laser Grade	Class 2
IP Rating	IP54 (Dustproof & Splash-proof)
History Data Storage	10 Groups
Screen Size	2.4 inch
Power Source	2 x AA Batteries (LR6 1.5V)
Battery Life	Max 5000 points (once fully charged, if rechargeable; otherwise, per set of batteries)
Auto Laser Off	30 seconds
Auto Device Off	180 seconds
Dimensions	121 x 56 x 28 mm (4.76 x 2.2 x 1.1 inches)
Net Weight	102g (3.6oz)
Color	Black & Red

10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the warranty card included with your product or visit the official INKBIRDPLUS website. You may also contact your retailer for assistance.