LD50
Series Handheld Laser Distance Meter User Manual

1.Overview

LD50 is a highly accurate and economical laser distance meter. The range is 50m with accuracy of 1.5mm.

A perfect combination of ergonomics, professional design, and innovative user experience make this meter the go-to device for distance measurement.

2.Unpack for Inspection

Unpack and take out the instrument. Please carefully check whether the following accessories are missing or damaged. If any item is missing or damaged, please contact your local supplier.

User manual---------- 1
Hang Rope---------- 1
AAA Battery---------- 2
Cloth Bag---------- 1

3. Safety Considerations

1) Application Scope
Measurement Distance
Measurement Angle
Other functions

2) Forbidden Scope
Use this device before carefully read this manual;
Damage the safety system of this device and take out the instruction or danger signs;
Use tools (such as screwdriver) to open the device without authorization;
Change or transform the device without permission;
Use other accessories without the approval of Uni-Trend;
Directly measure at the sun or strong light;
Aim the laser directly at people;

3) Laser Level
LD50 has a visible laser and emits the laser from the front end.
This device is a 2nd class laser product.
Do not look directly at the laser, and do not aim at other people in unnecessary situations.
Eyes will instinctively move around or blink for protection.

4) Warning
In order to prevent injury, please follow instructions below:
Please do not use the device in places specified in forbidden range.
Looking at the laser through optical lens (such as eyepiece, telescope, etc.) may cause injury to eyes.
If the device is not working properly, please stop using it. If there is any doubt, send the device to specified locations for maintenance.
Please do not use the device in explosive environments.

5) Cautions
The following gives conditions or actions that may cause damage to the device or measured equipments. To prevent any damage, please use it carefully.
When installing batteries, pay attention to “+” and “-” battery polarity;
If the device is not used for long time, please take out the batteries.

4. Power On and Off

1) Install and Replace Batteries
Open the battery cover, install the alkaline batteries that came with the device, and tighten the cover.

2) Power On:
Press the button READ to power on. A start image appears, then automatically enter the single measurement interface.
When the instrument is not used for a long time, please take out the batteries to avoid battery corrosion.

3) Power Off:
Manual power off: In the absence of laser emission,Long press the button ⏻ under any condition until the screen image disappears.

Auto power off: The instrument will automatically power off if there is no operation within 150s.

5. Buttons and Display



- Screen
- Laser Indication
- Reference Point
- Area and Volume
- Length
- Power Supply
- Area and Volume Unit
- Unit
- Main Display
- Keyboard
- Power on
- Multipurpose
- Power off

6. Basic Settings

1) Unit Settings
Long press U button to change unit. The default unit is 0.000m.
There are 6 different units
Measurement Unit:

	Distance	Area	Volume
1	0.000m	0.000m²	0.000m³
2	0.00m	0.00m²	0.00m³
3	0.0in	0.00ft²	0.00ft³
4	0.00ft	0.00ft²	0.00ft³
5	1/16in	0.00ft²	0.00ft³
6	0′00″1/16	0.00ft²	0.00ft³

2) Reference Point Setting
The device has two reference point settings: front point and end point. In the presence of laser emission , long press " ⏻ " under power-on state, it will switch over between front point and end point.

3) Backlight
The device backlight doesn’t need to be set. Press any button under the power-on state, and the backlight will be on for 15s.
The device backlight will auto power off if there is no operation within 15s to save power.

7. Single, Continuous, Area, Volume and Pythagorean Measurement.

7.1 Single Measurement
The operating steps are as the following:
1) Short press the button READ in measuring mode and the laser will be emitted.
2) Lock the measurement target. Short press the button READ . The distance is measured and shown in the main display area.

7.2 Continuous Measurement
Users can use this mode to find a distance point and get required data without frequent operation.
The operating steps are as following:
1) Long press the button READ in the measurement mode to enter continuous measurement mode. The secondary display area will show the max and min values in continuous measurement, main display area will show the current measurement value.
2) Short press the READ or ⏻ button to exit continuous measurement.

7.3 Area Measurement
Short press the button U once, and the screen will display . One side of the rectangle will be flickering. Finish the following operations according to prompts.
Press the button READ to measure the length.
Press the button READ to measure the width.
The device will automatically calculate the area after measurement. The result will be shown in the main display area. Press the button ⏻ in measurement to exit area measurement state and return to the length measurement mode.

7.4 Volume Measurement

Short press the button twice, and the screen will display . One side of the cube will be flickering. Finish the following operations according to prompts

Press the button to measure the length.

Press the button to measure the width.

Press the button to measure the height.

It is unnecessary for users to measure according to this order. Device can automatically calculate the volume after finishing the third measurement. The result will be shown in the main display area. Users can also press the button to exit the volume measurement state and return to the length measurement mode.

8. Errors

When the ERR or ERR X information appears, the device may not measure correctly.

The followings are the possible error prompts and solutions.

Error Information	Definition and Solution
ERR	Beyond the range, ensure to use the instrument in its' working range
ERR 1	The reflected signal is too weak. Measure the target with stronger reflectivity.
ERR 2	The reflected signal is too strong. Measure the target with weaker reflectivity.
ERR 3	Low power. Replace the battery
ERR 4	Beyond the measurement range. The device should be used under the specified environment.
ERR 5	Memory failure. Contact with your dealer.

9. Technical Parameters

Function	Description
Range	0.05-50m
Min Unit	1mm
Accuracy**	±(5.0mm +d*5/100000)
Max Laser Power	< 1mW
Laser Wave Length	635nm
Continuous Measurement	√
Area/ Volume	√
Auto Power off	150s
Voice Prompt	√
Max Battery Life	8000 times (working in single measurement mode)
Storage Temperature	-20℃~60℃
Operating Temperature	0℃~40℃
Storage Humidity	20%~80%RH
Dimension	106*47*24mm
Battery	1.5V AAA Alkaline Battery*2

* "d" means the actual distance.

** The severe environments are as follows: Strong sunshine, large environment temperature fluctuation, weak reflecting surface, low battery voltage, etc. These conditions may cause greater error. Use with the target reflector will produce better results under these conditions.

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