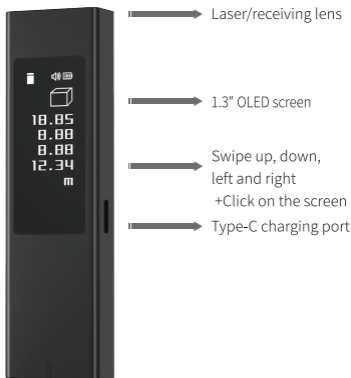




## Product Overview



## Main parameters

Product Type	Portable Laser Rangefinder
Unit	m/in/ft
Operating temperature	-10°C-40°C
Storage temperature	-20°C-60°C
Continuity	280mAh Approx 4000 measurements
Measurement Range	Laser0.03-40m※
Laser Type	620~670nm,<1mw Class 2
Charging method	DC 5V <2A adaptive

※ The number of measurements is obtained based on the laboratory environment (5 meters distance, 300LX brightness). The actual number of daily measurements will have a deviation of about plus or minus 500 times.

## Technical Data

Measurement Range (*General Conditions)	Laser 0.03-40m
Measurement Range (*Unfavorable conditions)	Laser 0.03-40m
Measurement accuracy (General Conditions)	±2mm
Measurement accuracy (Unfavorable conditions)	Laser ±5mm
Maximum relative air humidity	80%
Minimum display unit.	1mm

※General conditions: strong reflectivity in the laser/infrared irradiated area (e.g. painted white walls), dark background lighting and operating temperature of 15°C-35°C. At this point it is important to consider An error effect of plus or minus 0.05 mm/m.

※Unfavorable conditions: weak reflectivity of laser irradiated area (such as black cardboard, polished tiles), strong background illumination and an operating temperature of <-10°C or >45°C. At this time to consider a plus or minus 2 mm / m error impact.

## Suggestions on how to operate

- 1.Laser distance measurement, in order to ensure the accuracy of the measurement, the rangefinder needs to remain stationary. When the hand is shaking, the data error is very large, and may not be able to obtain data.
- 2.Please avoid blocking the light emitting port and receiving lens when measuring.
- 3.Based on physical principles, when measuring on some specific object surfaces errors can occur, for example: transparent surfaces (water, glass), surfaces that reflect surfaces (polished metals), porous surfaces (e.g. soundproof materials)If necessary, reflective target paper (e.g. white paper) can be placed on top of these objects.

## Operation method

### On/Off.

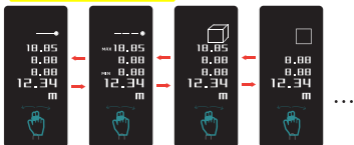
Long press the screen 3 seconds to turn on

Long press for 5 seconds and then shut down 50 seconds without operation automatically shut down



### Measurement function switching.

Swipe the screen left and right to switch between measurement functions



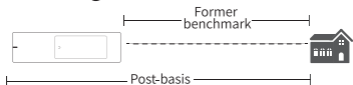
### Switching the measurement reference.

Swipe the screen up and down to switch to reference measurement mode.



Swipe up and down the screen :  
Switching front/back reference

# Swipe up and down the screen : Switching front/back reference



Front benchmark,  
display shows by



Rear reference,  
display shows by



※Front/Back reference: means whether the body length is counted in the measurement data of both ways. Front datum: Without fuselage length. Back reference: Include fuselage length.

## Straight line measurement.

Click on the screen  
and measure the data



## Continuous measurement.

In this mode, the measured  
data, the The system auto  
matically displays the  
measured data  
Maximum and minimum values



# Advanced measurement function description

## A. Area measurement

In this mode, the area can be measured and automatically calculated by clicking the screen to get the data ①, and then click again to get the data ② The system automatically calculates the area data.



Area measurement symbols

----- Data/Length ①

----- Data/Length ②

----- Automatic measurement of area data

## B. Volumetric measurement

In this mode, the volume can be measured and automatically calculated by clicking the screen to get the data ①, click again to get the data ②, click again to get the data ③, the system automatically measures the volume data



Volume measurement symbols

----- Data/Length ①

----- Data / Width ②

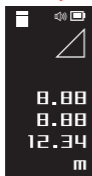
----- Data / Width ③


----- Automatic volume data measurement

### C. Primary Pythagorean/Secondary Pythagorean measurement (indirect measurement)

In this mode, the system uses the Pythagorean law  $a^2+b^2=c^2$   
The third side measurement data is automatically measured by the two side measurement data

#### ※One Pythagoras



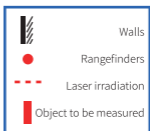
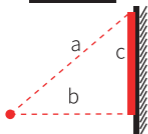
 Primary Pythagorean symbol

----- Data/length a

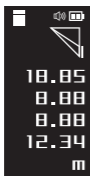
----- Data/width b


----- Data c automatically measured

Click on the screen to get the data a  
Click again to get data b  
The system automatically calculates the data of c



#### ※Quadratic Pythagoras (data subtraction)



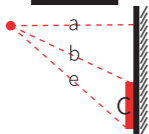
 Quadratic Pythagoras Symbol

----- Data/length a

----- Data/width b

----- Data/width e

----- Data c automatically measured



Click the operation key to get the data a  
Click again to get data b  
Click again to get the data e  
The system automatically measures c data

## D. One-click angle height measurement

In this mode, the system uses the angle sensor of the body and uses the Pythagoras law, the angle, shortest distance and object height can be measured with one click.



- Angle data a
- Data/length b
- Data/width c
- Data D automatic measurement

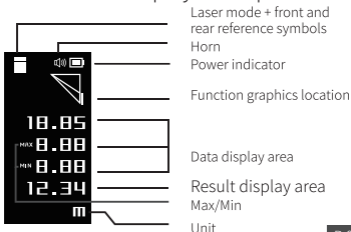
## E. Horizontal measurement

In this mode, the system uses the body gyroscope sensor  
Real-time measurement of the body angle



- Horizontal measurement symbols
- Real-time display of horizontal data

## Screen display description



## Setting Mode

### Setting mode entry method.

Slide left and right to the settings screen

The interface shows click to enter the detailed settings page

### Basic operating logic.

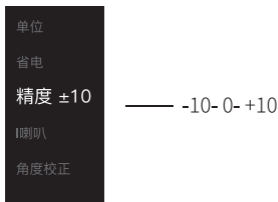
Swipe up and down the screen to switch settings options

Swipe the screen left and right to adjust the setting content

Click on the screen to save the settings and return to the main screen

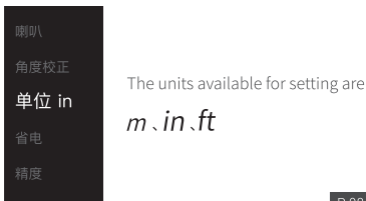
### Setup Page 1: Accuracy Adjustment

Calibration of product accuracy within  $\pm 10\text{mm}$



### Setup Page 2: Switch LS-5 default measurement unit

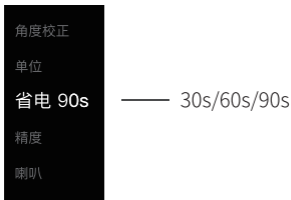
On this setting screen, change the measurement unit of LS-5.





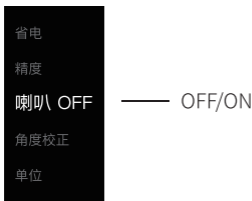
## Settings Page 3: Adjust the backlight time to save power

In this setting page, you can set the screen no operation under the backlight time



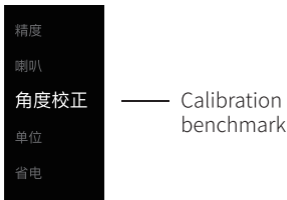
## Setup Page 3: Toggle speaker sound switch

In this setting page, you can set the speaker sound switch



## Setup Page 3: LS-5 for calibration reference

In this setting page, you can correct the base







## Problems and Solutions

Fault Type	Possible causes and solutions
Unable to turn on	1. No battery power, charge and then try to turn on 2. Long press the switch time is not enough, please confirm Press for 1 second 3. Other quality problems, please contact the dealer to solve.
No display	1. No battery power, try to turn on after charging. 2. The display is damaged, please contact the dealer to solve.
Large error	1. Add white reflector for harsh environment. 2. Fix calibration accuracy in setting page
Unable to charge	1. The charging cable is damaged, replace the charging cable to try to solve 2. The charging module is damaged, please contact the after-sales service to solve
Error code D.E	Measuring distance too close, too far or Pythagorean measurement error
Error code T.L/T.H	The ambient temperature is too low/high, please warm up/cool down the equipment
No data	1. Laser receiving / transmitting head defacement, clean treatment 2. Rangefinder shake too much, please rest





## Instructions for use

 Be sure to read all the terms and operating instructions in this manual before using the product. Failure to follow these safety provisions and operating instructions may result in dangerous laser radiation injuries.

 It is strictly forbidden to change the performance of the laser, as this can lead to laser exposure causing danger. It is strictly forbidden to look directly at the laser. Please keep your instrument in a safe place to avoid the use of unrelated persons.

- Do not intentionally irradiate others with the laser.
- Do not shine the laser beam on objects with highly reflective surfaces.
- Please place it in an area out of the reach of children.
- Infrared light source for ordinary LED lamp beads, will not cause any harm to the person. However, prolonged direct vision will lead to brief eye discomfort.

 Do not repair this instrument without permission. If the instrument is damaged, please contact your local dealer.

 Electromagnetic radiation may cause interference to its ground equipment and devices (e.g., pacemakers, etc.).

- Do not use this instrument in a flammable or explosive environment.
- Do not use this instrument near medical equipment.
- Do not use this instrument on board an aircraft.

Please dispose of disused instruments in accordance with the laws of your location.



Class II Safety Laser  
But it is strictly prohibited to  
shoot directly into the eyes



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LASER RADIATION  
DO NOT STARE INTO BEAM  
CLASS 2 LASER PRODUCT  
MAXIMUM OUTPUT < 1mW  
WAVELENGTH 635nm  
IEC/EN 60825-1:2014