



User Manual

Interface



Item	Description
1	Laser receiving lens
2	Laser emission port
3	LCD display
4	Main button
5	Shut down button

6	Function button
7	Lanyard hole
8	Charging port

Operating instructions

1. Do not look directly at the red laser light emitted from the laser emitting port with your eyes. Looking directly at it will cause damage to your eyes.
2. Do not cover the receiving lens and laser emitting port of the rangefinder when measuring the distance, and place the rangefinder on a fixed baffle or bracket plane as much as possible.
3. During measurement, the rangefinder cannot be moved before the measurement result is displayed on the software interface.
4. The better the laser's throwback (scattering, non-reflection) effect on the target surface, the farther its range. When the laser spot falls on the surface of the following objects, the measurement will be inaccurate:
 - Transparent surfaces (water, glass).
 - Surfaces that reflect surfaces

(polished metals)

-- Porous surfaces (e.g. soundproof materials)

-- Textured surfaces (e.g. rough plaster walls, natural stone). If necessary, reflective target paper (e.g. white paper) can be placed on top of these objects

5. Front/Rear reference

Front/Rear reference: means whether the body length is counted in the measurement data of both ways.

Front datum: Without fuselage length. Rear reference: Include fuselage length

Front benchmark display shows by



Rear reference display shows by



Basic operation

① On/Off

a. Press the main button 0.5 seconds to turn on.



b. Press the shut down button 2 seconds to shut down.



② Switching front/rear reference

In the power-on state, press the function button for about 1 second to switch the reference.



Note: The selection of the reference should be before the start of the measurement or after the end of a single measurement. Do not switch the reference during the measurement process.

③ Switch numerical unit



In the shutdown state, press the main button and turn it on and keep the keys on, wait for about 2 seconds after turning on the device to enter the measurement numerical unit switching state. The unit can be switched between m (meter)/ft (feet)/in (inch) in turn.

④ Other operations

a. Return operation

Press the shut down button for about 0.5 seconds to return to the previous level of data or mode.

b. LCD backlight control

Long press the switch button for about 1 second to turn off/on the LCD backlight.



⑤ Simple measurement

a. Single measurement

When power on, press the main button for about 0.5 seconds and turn on the red measurement laser. Short press again to start the measurement and display the data.



If no operation, the meter will be automatically turned off after 20 seconds and automatically turned off after 60 seconds.

b. Consecutive measurement

Long press the main button for about 1 second to enter the consecutive measurement mode. In the process of moving the meter to a new position, the real-time distance measurement data will be displayed on the screen.

Under consecutive mode, the

meter will automatically display the maximum and minimum value of the measured data.

Advanced function Operation



Switch function mode:

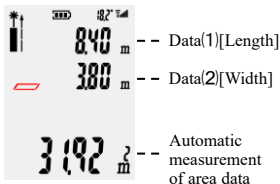
When power on, short press the function button for about 0.5 seconds to switch the function mode, and press once to switch one function mode.

① Area measurement

In this mode, the area can be measured and automatically calculated.

Short press the main button to measure the data (1), and then short press the measured data (2). The meter will automatically work out the volume based on these 2

measurements and display it on the primary display area.



Area measurement symbol:



② Volume measurement

In this mode, the area can be measured and automatically calculated.

Short press the main button to measure data (1), short press again to measure data (2), and short press again to measure data (3).

The meter will automatically work out the volume based on these 3 measurements and display it on the primary display area.



-- Data(1)[Length]

-- Data(2)[Width]

-- Data(3)[Height]

-- Automatic measurement of volume data

Volume measurement symbol:

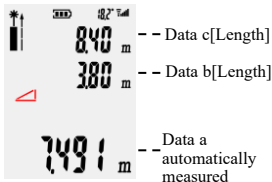


③ Primary Pythagorean

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.

This mode can calculate the length of the target edge only by running the Pythagorean law once, which is also called Primary Pythagorean mode. Short press the main button to

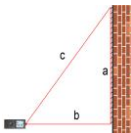
measure data c, and press again to measure data b. After measuring the two data, the meter automatically calculates the length of data a.



Primary Pythagorean symbol:

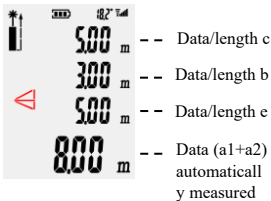


The position of laser distance meter is shown as below.

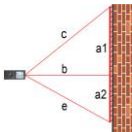


④ Secondary Pythagorean (data addition)

This device can measure height in two segments by taking three measurements. Press the operation key the get the data c, data b and data e, the laser automatically calculates the length of data $(a1+a2)$.



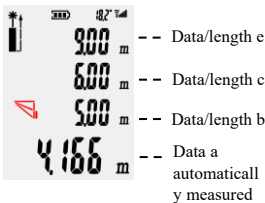
Secondary Pythagorean symbol (data addition):



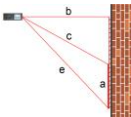
The position of laser distance meter is shown as on the left.

⑤ Secondary Pythagorean (data subtraction)

This device can measure height in two segments by taking three measurements. Click the operation key to get the data b, data c and data e, the laser automatically calculates the length of data a.



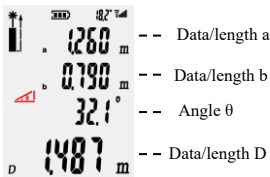
Secondary Pythagorean (data subtraction):



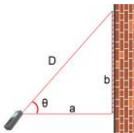
The position of laser distance meter is shown as on the left.

⑥ One-key angle height measurement

In this mode, the system uses the built-in angle sensor and uses the Pythagorean law to measure, short press the key to measure the length D , the angle θ , shortest distance a and object height b can be measured by one key.

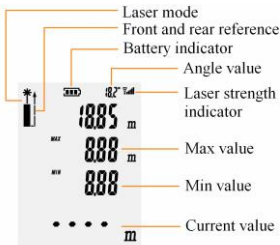


Primary Pythagorean and Angle measurement symbol:



The position of laser distance meter is shown as on the left.

Screen display Interface



Safety information

1. Please don't look into the beam directly. The laser project a class 2 laser (635nm, <1mW) that meets IEC 60825-1 standar.
2. Please place it in the area out of the reach of children.
3. Don't use this instrument in a flammable or explosive environment
4. Don't use this instrument near

medical equipment or on the air

5. The meter parts must keep clean at any time, Please turn it off before clean it. When there is dust on the laser emitting port and the receiving lens, use a soft cloth with cleaning water or a neutral screen cleaner, then wipe it. Do not use acid or alkaline detergents for cleaning; as well, do not use alcohol or other solvents for cleaning.

6. The meter is not waterproof, and it cannot be wetted or placed in water.

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

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

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 one second.
No display	1. Turn off the backlight, short press shut down button for about 1 second to turn on/ off the backlight. 2. The display is damaged, please contact the supplier to solve.
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 supplier to solve.
Large	1. Add white reflector

error	for harsh environment. 2. Fix calibration accuracy in setting page. 3. The ambient temperature is too low/high, please warm up/cool down the equipment.
No data	1. Laser receiving / emission port defacement, clean treatment. 2. The meter shake too much, please rest.

Specification

Item	Laser distance meter
Measuring range (general conditions*)	0.03--30/40/50m (according to the actual selected equipment)
Measuring accuracy	±2mm

Measuring range (unfavorable conditions*)	0.03-20/30/40 M (according to the actual selected equipment)
Measuring accuracy (unfavorable conditions)	±3mm
Display Unit Minimum	1mm
Laser type	620~670nm, Class2 ,<1mw
Battery life	250mAh 5000 measurements (approx.)
Charging	DC 5V<1A
Operation Temperatur e	0°-40°C
Storage Temperatur e	-20-60°C
Relative air humidity	80%

General conditions*

Refers to the strong reflection ability of the laser irradiation area (such as painting a white wall), the background lighting is dark and the working temperature is 15-35°C. under this conditions, an error ± 0.05 mm/m should be considered.

Unfavorable conditions*

Refers to the weak reflection ability of the laser irradiation area (such as black cardboard polished tiles), strong background lighting and working temperature is $<0^{\circ}\text{C}$ or $>45^{\circ}\text{C}$. Under this conditions, an error ± 0.15 mm/m should be considered.

Measuring range *

When measurement under the laboratory environment (5 meters distance, 300LX brightness), the times of the measurement, there will be deviation about ± 500 .