

User Manual

3 in 1 Laser Distance Meter



Thank you for purchasing our handheld laser rangefinder
***Indoor distance measurement**

I Safety Regulations

Before using this product for the first time, be sure to carefully read all the terms and operating instructions in this manual. Failure to follow these safety terms and operating instructions may result in dangerous laser radiation injury, electric shock or personal injury.

Do not try to change the performance of the laser in any way. This will cause laser exposure and cause danger. Turn on the laser only when using this instrument. Do not look directly at the laser. Please keep your instrument properly to avoid the use of unrelated personnel.

Do not irradiate others deliberately or in the dark.

Do not place it where children can reach it. Do not repair the instrument without authorization. If the instrument is damaged, please contact your dealer.

Electromagnetic radiation may cause interference to its equipment and devices (such as: pacemakers or hearing aids and other medical instruments).

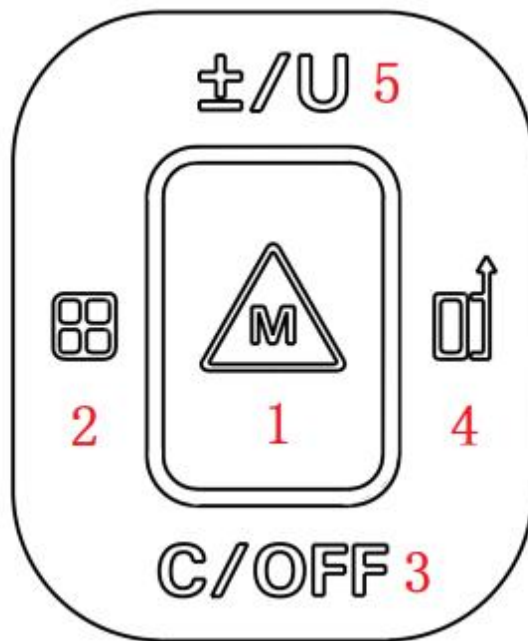
Do not use the instrument in a flammable and explosive environment.

Please dispose of discarded instruments in accordance with the laws and regulations of your location.

II Overview

keyboard

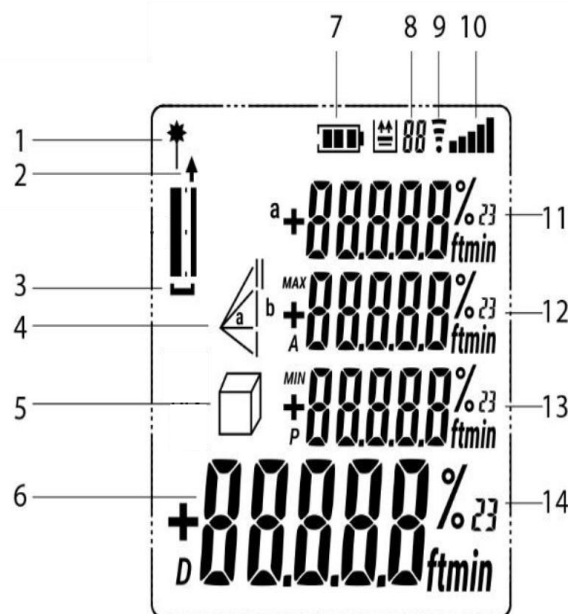
1. Start/single measurement/Press and hold the button continuous measurement
2. Angle/Area/Volume/Pythagorean/Horizontal, vertical display
3. Clear/Press and hold the button shutdown 4 Back and Front Reference/ Press and hold the button cross line ON or OFF
- 5 PLUS(+)/MINUS(-) /Unit:Press and hold the button to convert units (m/ft/in/ft+in)



Display (see picture below)

- 1-Open the laser
- 2-Measure the datum edge(front)
- 3-Measure the datum edge(behind) 4-Use Pythagorean theorem to measure
- 5-Area/Volume measurement
- 6-Continuously measure

- 7- Battery level
- 8- Angle display / Data storage display
- 9- Signal strength
- 10- Power display
- 11- The first display line
- 12- The second display line
- 13- The third display line
- 14- Result



III Power supply

Battery level indicator

When the segment on the battery frame is displayed, it indicates battery full, the number of displayed segments decreases, indicating that the power is relatively reduced. When battery frame is empty, Please charge the battery.

Please charge the battery for 180 minute after battery run out of power with an 5V or less adapter.

IV Operations


ON/OFF

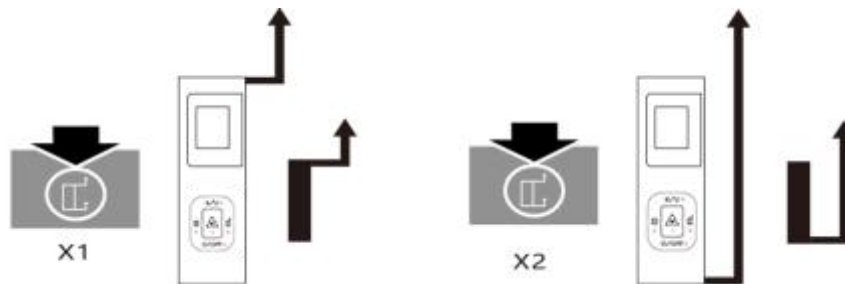
If under power-on state, Long press the **C/OFF** key to turn off.

If under power-off state, long press the  key to turn on.


While under power-on state, if there is no any operation for 15 seconds, the backlight will automatically turn off, and if there is no operation in 45 seconds, It will automatically turn off.

Reference edge

The default reference edge of the instrument is the rear end of the instrument. press the key  to switch the reference edge .press once to switch to the front end,press 2 times to switch to the back end,cycle switch.



Cross Line Laser Level

Long press the key  cross line ON or OFF

PLUS/MINUS/UNIT UNIT

With long press on \pm / U button it can switch the unit circularly (shown in the figure)

	Distance	Area	Volume
1	0,000 m	0.000 m ²	0.000 m ³
2	0 1/16 in	0.000 ft ²	0.000 ft ³
3	0.000 ft	0.000 ft ²	0.000 ft ³
4	0'00'' 1/16	0.000 ft ²	0.000 ft ³


The last displayed unit will be kept in memory while the device was shut down.

PLUS/MINUS


PLUS:Short press \pm / U this button,The first display line will be shining plus number.The next measuring value will be plus the former one.

MINUS:Again short press \pm / U this button,The first display line will be shining minus number. The next measuring value will be minus the former one.

Self-calibration function

Under power-off mode, long press  the button until the main screen displays BOOK flashing, then long press the M button, until the main screen displays CRL.0 and then short press the M button to adjust the adjustment, the adjustment range is -7-7mm, press C/OFF to save and exit.

Sound on/off

Under power-off mode, long press the  button until BOOK flashes on the main screen, then long press the M button until COR.0 is displayed on the main screen, then long press the M button until the main screen displays m/ft/in, continue Press and hold the ON key until BP.ON/BP.OFF is displayed on the main screen, then press the M key once to turn on/off. press C/OFF to save and exit.

Clear function

Short press the C/OFF key to cancel the last command, single measurement (area or volume, etc.) within the same function, you can use the clear key to clear the last measurement operation and re-measure.

Signal strength indication

When all signal segment are displayed, it indicates that the measured echo signal strength is high, and the number of displayed segments decreases, indicating that the measured echo signal strength is relatively reduced.

V measurements


Single measurement

When the laser is off, short press  the button to turn on the laser.

At this time, the laser mark on the display will flash.

Short press the M button again to measure.

Continuous measurement

Press the  key shortly to turn on the laser. Long press the M key for about 2 seconds to start continuous measurement. To stop continuous measurement, short press the key again.

During continuous measurement, the main display area displays real-time measured values, and the supplementary display shows the maximum value (MAX) or minimum value (MIN) in the measurement process.

VI Functions


Angle

Real-time angle display:

After the instrument is turned on, the real-time angle is displayed on the first line of the screen. If you want to measure the angle of an object surface, please place the back of the instrument flat on the object. At this time, the displayed angle is the angle between the object surface and the horizontal ground. Measuring range $\pm 90^\circ$, accuracy $\pm 0.2^\circ$

Measurement of Object Slope Angle:(When the instrument is placed in a space where the user cannot see the display)


When measuring the slope angle of an object, press this

button  first. A triangle symbol will appear on the screen. Place the instrument's back on the slope and press this


button \pm / U to lock the measurement angle. When locked, the word "Hold" will appear on the screen. At this time, the user can record the measurement value. After

finishing the measurement, press \pm / U this button again to unlock it and proceed with other operations.

Measurement of angle at a distance:

When measuring the angle between the top of an object and the horizontal plane, press this button .

A triangle symbol will appear on the screen. Align the laser point with the top of the object and press the measurement




button . The first line on the screen displays the vertical distance from the top of the object to the instrument placement surface (ground).

The second line displays the vertical distance from the bottom of the instrument to the bottom of the object.




The third line displays the angle between the measurement object's top and the line connecting the two points of the instrument to the horizontal ground.

The last line displays the length between the measurement object's top and the two points of the instrument.

Area measurement




Short press the key  until  on the display, press  the key to complete the first edge measurement, and then press the M key to complete the second edge measurement, the area calculation will be performed automatically, and the result is displayed in the main display area.

Volume measurement



Short press the key  until  displayed on the display, and press the  key to complete the volume measurement after completing the three side measurements, and the result is displayed in the main display area.

Pythagorean measurement

Pythagorean measurement mainly uses the Pythagorean theorem to calculate the target distance that cannot be directly measured.


Press the key  until  displayed. According to side indication showed on the display, press the  key to

complete the measurement of sides, then Pythagorean function will be automatically performed, and the result will be displayed on the main Display area.

Press key , until  displayed on the screen. Make the first measurement with reference to the flashing edge, and the measured distance will be displayed on the first line of the display. Keep the instrument level. The instrument defaults to horizontal measurement, and the second measurement is made with reference to the flashing edge. The measured distance is displayed on the second line of the screen. The distance calculated on the third side will be on the main display line of the screen.

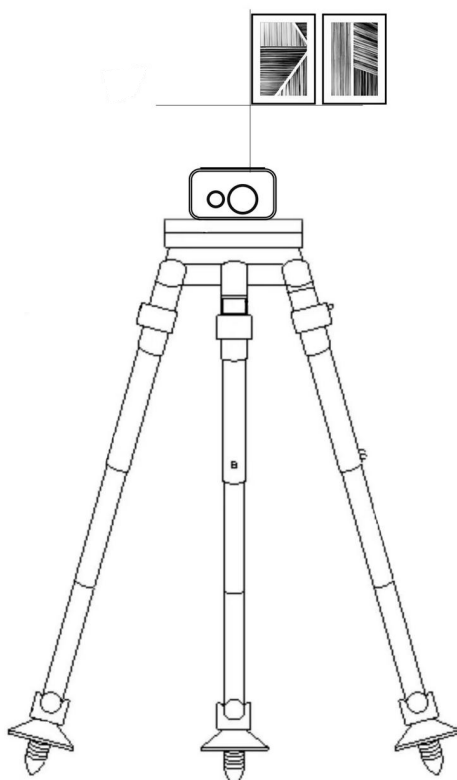
The instrument is equipped at third Pythagorean measurement, which is a rare measurement method. If you need it, you can refer to the previous operations and use it yourself.

Use of cross laser

Press and hold this button  for 1-2 seconds to turn on the cross laser. The screen will show the angles of the a (X) axis and the b(Y) axis. Please adjust the instrument level so that the cross laser horizontal line is more accurate when the angle approaches 0°. (Under normal circumstances, the two angle values within $\pm 0.3^\circ$ can basically meet your usage requirements)

Press and hold this button  to turn off the cross laser projection.

Our product does not include a tripod, please purchase it yourself !



VII error codes and solutions

In the process of using the instrument, it may appear the following error

Message	Reason	Solution
B.L	Too lower battery Voltage	charge the battery
T.L	Too lower temperature	To warm up the device
T.H	Too higher temperature	To cool the device
D.E	Data error	Rock is too big
No new data	Too weaker signal strength	Use the target
No new data	Too stronger signal strength	Use the target
<i>H.F</i>	Hardware failure	Such as in the open and closed after several instruments still have the same .please contact your dealer.

VIII Technical parameters

Model	S3B
Measure range	0.05-40/60/80m
Measure accuracy	±2mm
Measure unit	m/inch/ft/ft+in
The smallest display	1mm
Laser level	Class II
Laser Type	630-650nm, <1mw
Area,volume	√
Pythagorean theorem	√
Add/subtraction	√
Continuous measure	√
Angle Measure	√
Cross Line Laser Level	√
Back light	√
Datum transformation	√
Operating temperature	0° C to 40° C
Storage temperature	-20° C to 60° C

Rechargeable model	500mAh ,3.7V Rechargeable
Automatically turn off the laser	15s
Automatically power off	45s
Size	120x 32x 19mm
Weight	60g

*There shall be quite big error in measurement accuracy with +3mm+40PPM under the poor measuring conditions(such as too stronger light,too higher or lower temperature,reflection conditions on the measured points)






*Under the circumstances with strong sunlight or poor reflection of the object,please use the baffle reflector boarding.

Instrument Accuracy Calibration

If your instrument has unacceptable errors, then do the following:

Instrument measurement accuracy calibration and other settings:

(1) Calibration of instrument measurement accuracy:


① Long press the button  for about 2 seconds to enter the background setting state of the instrument in the off state, the word "boot" will appear on the screen, release the button , Long press the button  press the button word CRL and a number will appear on the screen, short press  the button, and the number will Adjust it to "0", then Long press  to power off.



② **Use a standard size to determine your instrument.**

For example: measure a standard size of 1.000m, your instrument measures

0.996m, you need to add 4mm to the instrument.

(instrument adjusted to CRL+4)




③ Long press the button  for about 2 seconds to enter the background setting state of the instrument in the off state, the word “boot” appears on the screen, release

the button,  Long press the button  again, the word CRL .0 appears on the screen, short press the button, according to your determined Error value, add or subtract this error value. The error range can be corrected between -7 and +7mm.

Press C/OFF exit after adjustment.

(2) Set the sound on or off

The same as the method of accuracy calibration above, enter the instrument settings, after the instrument is out of CAL,

Long press  again, bP appears on the screen, short press this button , switch ON or OFF, After the setting is complete, press  Exit.

IX Maintenance

It is forbidden to immerse the instrument in water. Wipe the surface dust with a soft cloth. Do not use aggressive cleaning liquid. Wipe the surface of the optical components (including the laser exit window and signal receiving lens) in the same way as the camera lens.

X Services

1. The product is covered by 1 year warranty from purchase date.
2. The following conditions are not applied by warranty
 - A The instrument is damaged by abuse use
 - B The instrument is damaged by violently throwing