

LM80D PRO/LM120D PRO User Manual

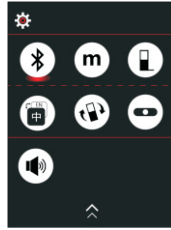


- 1. Distance button**
Short press to measure/confirm;
Long press to enter continuous measurement mode
- 2. Function button**
Press to enter the measurement function menu, use up/down buttons to select and press the distance button to enter the measurement function
- 3. Setup/laser marking button**
Short press to enter the setup menu, use up/down buttons to select and press the distance button to enter the setting;
Long press to turn on/off the laser marking function
- 4. Down/subtract button**
Press to scroll down/subtract
- 5. On/off/clear/back button**
Long press to turn on/off the meter;
Short press to clear the previous operation or return
- 6. Up/Add button**
Press to scroll up/add
- 7. Bluetooth data transmission/history**
Short press to turn on manual Bluetooth/transmit data to APP;
Long press to view history
- 8. Wheel measurement button**
Short press to turn on/off wheel measurement
- 9. Wheel**
In wheel measurement, roll the wheel along the measurement path to measure the distance.
Tip: Each time the wheel measurement is turned on, the measured data in the first rolling direction is positive, and in the opposite direction is negative.
- 10. Battery compartment**
- 11. Tripod mount**

Measurement Function Icons

	Wheel measurement
	Single measurement
	Area measurement
	Triangular area measurement
	Volume measurement
	Direct Pythagoras measurement
	Indirect Pythagoras measurement ①
	Indirect Pythagoras measurement ②
	Auto horizontal measurement
	Auto vertical measurement
	Trapezoid measurement ①
	Trapezoid measurement ②
	Point to point measurement
	Laser marking

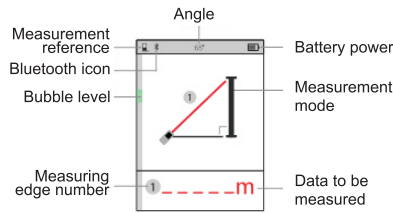
Setup Menu Icons



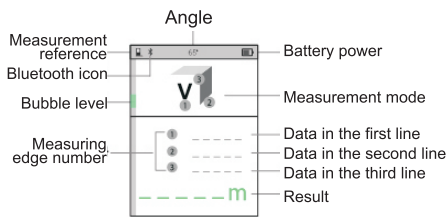
- 1) Bluetooth**
Short press to switch between auto/manual Bluetooth or turn off Bluetooth
 - Auto Bluetooth transmission mode: The measured data is automatically uploaded to APP.
 - Manual Bluetooth transmission mode: In any measurement mode, short press to transmit data to APP.
 - * When the icon color switches to gray, the Bluetooth is off.
- 2) Measurement Units**
Short press to switch the measurement units (m/ft/in/ft+in)
- 3) Measurement References**
Short press to switch the measurement references (front/tripod mount/rear reference).
This distance meter defaults to the rear reference.
- 4) Chinese/English Voice Switching**
Short press to switch between Chinese/English voice broadcast
- 5) Screen Rotation**
Short press to turn on/off the screen rotation, the horizontal and vertical screens can be switched automatically (only in single/continuous measurements).
- 6) Voice**
Short press to turn on/off the voice

Interface

A. Measurement Interface



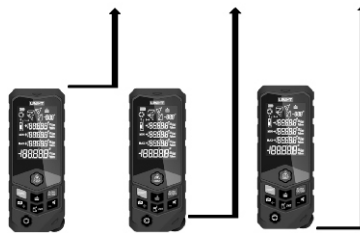
B. Result Interface



Operation Instructions

Turn on the meter and it will enter the single measurement mode by default. Short press to select the measurement mode; the red edge is the edge to be measured.

* Please pay attention to the measurement reference. The starting point will be different when different reference points are selected. The measurement reference in this manual refers to the rear reference.

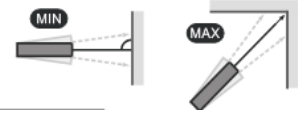


Single Measurement

Turn on the meter and it will enter single measurement mode by default. Point the laser at the measurement target, then press and the measurement result will be displayed at the bottom of the screen.

Continuous Measurement (Max/Min Measurement)

This function can be used to measure the diagonal of a house, look for levels, stake out, etc.
Long press to enter the continuous measurement. Point the laser at the measurement target, then press to stop measuring. The MIN/MAX/current measured value will be displayed on the screen.
* This function will stop automatically after 5 minutes of continuous measurement.

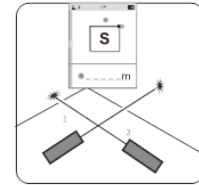


Wheel Measurement

Press to turn on the wheel measurement, scroll the wheel from the start point to the end point, then press to end the measurement.
The wheel auxiliary measurement can be turned on in single/area/volume measurement modes.
Note: Please pay attention to positive and negative directions during wheel measurement.
Note: Please try to keep it balanced when measuring.

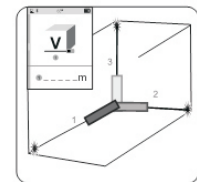
Area Measurement

- 1) Press to switch to area measurement .
- 2) According to the red edge, point the laser at the first point of the target, press to measure the first edge (length) ①.
- 3) Point at the second point, press to measure the second edge (width) ②.
- 4) The area calculation result will be displayed at the bottom of the screen.



Volume Measurement

- 1) Press to switch to volume measurement .
- 2) According to the red edge, point the laser at the first point of the target, press to measure the first edge (length) ①.
- 3) Point at the second point of the target, press to measure the second edge (width) ②.
- 4) Point at the third point of the target, press to measure the third edge (height) ③.
- 5) The volume calculation result will be displayed at the bottom of the screen.



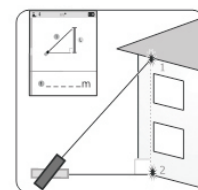
Pythagoras Measurement

All Pythagoras measurements can be applied to different plane measurements, just ensure that the right-angle side is perpendicular to the object being measured.

Note: In Pythagorean Theorem, the right-angle side cannot be longer than the hypotenuse; otherwise a calculation error will occur.

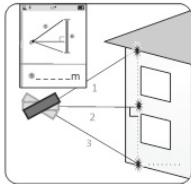
Direct Pythagoras Measurement

- 1) Press to switch to direct Pythagoras measurement .
- 2) According to the red edge, point the laser at the first point of the target, press to measure the hypotenuse ①.
- 3) Rotate to the direction perpendicular to the target with the set reference as center, press to measure one right-angle side ②.
- 4) The calculation result of the other right-angle side is displayed at the bottom of the screen.



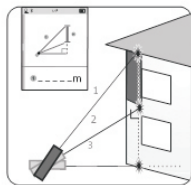
Indirect Pythagoras Measurement ①

- 1) Press to switch to indirect Pythagoras measurement ① .
- 2) According to the red edge, point the laser at the first point of the target, press to measure the hypotenuse ①.
- 3) Rotate to the direction perpendicular to the target with the set reference as center, press to measure one right-angle side ②.
- 4) Rotate to the third point of the target, press to measure the hypotenuse ③.
- 5) The calculation result of the length between the first point and the third point is displayed at the bottom of the screen.



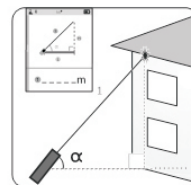
Indirect Pythagoras Measurement ②

- 1) Press to switch to indirect Pythagoras measurement ② .
- 2) According to the red edge, point the laser to the first point of the target, press to measure the first hypotenuse ①.
- 3) Rotate to the second point of the target with the set reference as center, press to measure the second hypotenuse ②.
- 4) Rotate to the direction perpendicular to the target, press to measure one right-angle side ③.
- 5) The calculation result of the length between the first point and the second point is displayed at the bottom of the screen.



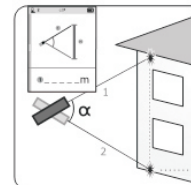
Auto Horizontal Measurement

- 1) Press to switch to auto horizontal measurement .
- 2) According to the red edge, point the laser to the first point of the target and press .
- 3) The angle degree between the hypotenuse and the horizontal edge, the length of the hypotenuse ①/vertical edge (H)/horizontal edge (L) will be displayed on the screen from top to bottom.



Auto Vertical Measurement

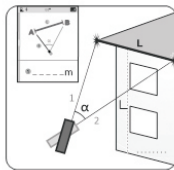
- 1) Press to switch to auto vertical measurement .
- 2) According to the red edge, point the laser to the first point of the target, press to measure the first hypotenuse ①.
- 3) Rotate to the second point of the target with the set reference as center, press to measure the second hypotenuse ②.
- 4) The angle degree between both hypotenuses, the length of ①/②, the vertical height (H) will be displayed on the screen in sequence.



Point to Point Measurement

- 1) Press to select the point to point measurement and a dialog box of "please wait..." will appear.
- 2) Make sure that the distance meter is not moving, when the dialog box disappears, point at the first point of the target according to the red edge indication. Press to measure the length to the first point ①.
- 3) Rotate to the second point of the target with the set reference as center, press to measure the length to the second point ②.

- 4) The angle degree between both hypotenuses and the length of ①/②, the length between the two points will be displayed on the screen.



Note: If the calibration fails, please return and re-enter the calibration.

Trapezoid Measurement ①

- 1) Press to switch to the trapezoid measurement ① .
- 2) According to the red edge, point at the first point of the target. Press to measure the first right-angle side ①.
- 3) Point at the second point of the target, press to measure the second right-angle side ②.
- 4) Point at the third point of the target, press to measure the third right-angle side ③.
- 5) The calculation result of the fourth bevel edge will be displayed at the bottom of the screen.

Trapezoid Measurement ②

- 1) Press to switch to the trapezoid measurement ② .
- 2) According to the red edge, point at the first point of the target. Press to measure the first right-angle side ①.
- 3) Rotate to the second point of the target with the set reference as center, press to measure the second diagonal ②.
- 4) The angle degree between the diagonal and the horizontal edge, the length of the right-angle side ①/diagonal ②/bevel edge (L) will be displayed on the screen in sequence.

Triangular Area Measurement

- 1) Press to select the triangular area measurement .
 - 2) According to the red edge, press to measure the three edges (①②③) of the triangle separately.
 - 3) The calculation result of the triangular area will be displayed at the bottom of the screen.
- Note: If the measured three edges cannot form a closed triangle, it is a calculation error.

Addition/Subtraction

In the single/wheel/area/volume measurement mode, after the first result is measured, you can press +/- buttons to add or subtract the next measurement result. The calculation result will be displayed at the bottom of the screen.

Laser Marking

Long press to turn on the laser marking function. The red laser beam will mark on the target, and the interface will display the angle of the laser beam in real time. The angle of the laser marking will change according to the angle of the distance meter. Press the back button or shutdown to turn off the laser marking.

Notes:

- 1) When using the "angle marking function", the emitting surface should be parallel to the target wall, and then turn left or right to adjust the angle along the "laser emission axis", and an angled laser marking line is formed on the wall.
- 2) Considering the site environment and operation errors, the angle marking function will generate an "approximate value"; if the accuracy requirement for the marking angle is very high, please use angle auxiliary tools.

Technical Parameters

Range (m)	80/120
Accuracy (mm)	±(2.0mm+5x10 ⁻⁵ D)
Wheel measurement	✓
Single measurement	✓
Continuous measurement	✓
Area measurement	✓
Triangular area measurement	✓
Volume measurement	✓
Direct Pythagoras	✓
Indirect Pythagoras ①	✓
Indirect Pythagoras ②	✓
Auto horizontal measurement	✓
Auto vertical measurement	✓
Trapezoid measurement ①	✓
Trapezoid measurement ②	✓
Point to point measurement	✓

Laser marking	✓
Addition/Subtraction	✓
Bluetooth 4.0	✓
Angle sensor	✓
Screen rotation	✓
Display type	2.4" color screen
Voice broadcast	Chinese/English
Measurement references	Front/tripod mount/rear reference
Measurement units	m/ft/in/ft+in
Data logging	50 groups
Auto power off	3 minutes without operation
Laser class	2
Laser type	630-670nm, <1mW
Battery type	3 AAA batteries or AAA rechargeable batteries
Charging port	Type C
Operating temperature	0°C ~ +40°C (32°F ~ +104°F)
Storage temperature	-20°C ~ 70°C (-4°F ~ 158°F)
Size (mm)	137 x 55 x 26
Weight (g)	132g

1. Range

The range data is based on the rear reference (default); the maximum range may vary depending on the model version, please refer to the product packing for the actual ranges.

2. Accuracy ("D" represents the measured length)

Under good measurement conditions (good measurement surface/room temperature/indoor lighting, etc.): up to the rated range.

Under bad measurement conditions (too much light, weak reflection on the surface of the measured objects or large temperature difference, etc.): the error may increase. Tip: Use a target board or a good reflective surface in case of poor daylight or target reflection.

3. In the ideal state, the short distance accuracy can be up to 1mm

(Ideal state refers to constant speed (speed < 1m/s) and flat contact surface; short distance means <1.5m)

4. Angle Error

0.1° is the error caused by the temperature, Dis +/-0~45°. For example, the 0 degree error is +/-0.3° at room temperature, the 45 degrees error is +/-0.85° at non-room temperature.

Fault Code – Problems and Solutions

All information is displayed in code or "Error". The following shows the codes and their explanations and the corresponding solutions:

Code	Problems	Solutions
204	Calculation error	Follow the instructions and operate again
220	Low battery	Please replace the battery or charge it
255	The reflected light received is weak, or the measurement time is too long	Please improve the reflective surface (use a reflector, white paper, etc.)
256	The received signal is too strong	Please improve the reflective surface (use a reflector, or do not aim at strong light)
261	Over range	Please measure within the range
500	Hardware malfunction	If it still appears after the meter has been turned on/off multiple times, please contact your dealer.


UNI-T

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说明书菲林做货要求：

序号	项目	内容	
1	尺寸	展开尺寸：210X260mm 折后尺寸:130X70mm	
2	材质	60g书纸	
3	颜色	单色	
4	外观要求	完整清晰、版面整洁，无斑墨、残损、毛边、刀线错位等缺陷。	
5	装订方式	无	
6	表面处理	无	
7	其它	无	
版本			
DWH 设计	宣浩	MODEL	Part NO.
CHK 审核		机型： LM120D PRO	物料编号： 110401108033X
APPRO. 批准		 优利德科技(中国)有限公司 UNI-TREND TECHNOLOGY (CHINA) LIMITED	