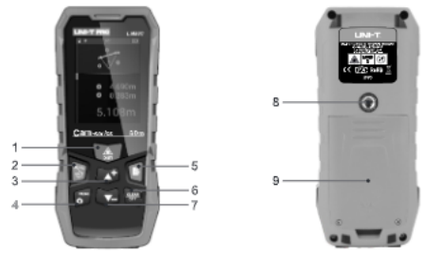
Laser Distance Meter English Manual

LM80C/LM120C/LM200C

Product Description



1. Distance button
Short press to enter single measurement mode
Long press to turn on the meter (off state)/enter continuous measurement mode

2. Function button
Short press to switch measurement functions and use up/down buttons to select

3. +/page up button
Short press to add/page up

4. Menu button
Long press to enter the camera assisted measurement mode
Short press to enter the setup menu, use up/down buttons to select the function needed and press the distance button to confirm the setting
Short press back/off button to return back
The items of setup menu are as follow:

- A: Sound effects (on/off)
- B: Measurement units (m/ft/in/ft+in)
- C: Measurement references (front/tripod mount/rear reference)
- D: Universal horizontal bubble (enter/exit)
- E: Screen auto-rotation (on/off)
- F: Backlight timeout (5s-60s adjustable)
- G: Laser duration (5s-120s adjustable)
- H: Auto power off (100s-300s adjustable)

5. Log button
Short press to scroll through history

6. Back/off button
Short press to delete records (returns back after clearing)

7. -/page down button
Short press to subtract/page down

8. Tripod screw hole
Equipped with 1/4" tripod screw hole, can measure with the tripod

9. Battery compartment

Symbols

- Single/continuous measurement
- Area measurement
- Triangle 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 measurement②
- Lofting measurement
- Delay assisted measurement

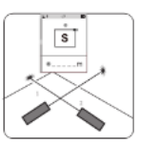
Operation Instructions

Turn on the meter and it will enter the single measurement by default. Press to select the measurement mode and the flashing 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.

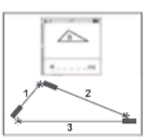
1. Single Measurement
Turn on the meter and it will enter single measurement mode by default. Point the laser at the measurement target, then press and the measurement result will be displayed at the bottom of the screen.

2. Continuous Measurement (Max/Min Measurement)
This function can be used to measure the diagonal of a house, look for horizontal lines, 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.

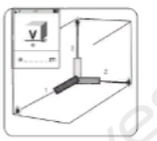
3. Area Measurement
1) Press to switch to area measurement
2) According to the flashing edge, point the laser at the first point of the target, press to measure the first edge (length).
3) Point at the second point, press to measure the second edge (width).
4) The calculation results of the length, width, circumference and area will be displayed on the screen.



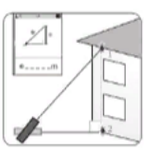
4. Triangle Area Measurement
1) Press to switch to triangle area measurement .
2) According to the flashing edge, point the laser at the first point of the target, press to measure the first edge.
3) Point at the second point, press to measure the second edge.
4) Point at the third point, press to measure the third edge.
5) The calculation results of three edges and area will be displayed on the screen.



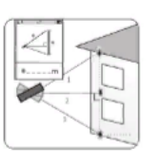
5. Volume Measurement
1) Press to switch to volume measurement
2) According to the flashing edge, point the laser at the first point of the target, press to measure the first edge (length).
3) Point at the second point of the target, press to measure the second edge (width).
4) Point at the third point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



6. 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.
1) Press to switch to direct Pythagoras measurement
2) According to the flashing edge, point the laser at the first point of the target, press to measure the hypotenuse.
3) Rotate to the direction perpendicular to the target with the set reference as center, press to measure one right-angle side.
4) The calculation result of the other right-angle side is displayed at the bottom of the screen.

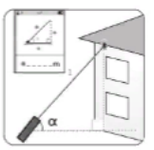


7. Indirect Pythagoras Measurement ①
1) Press to switch to indirect Pythagoras measurement ①.
2) According to the flashing edge, point the laser at the first point of the target, press to measure the first hypotenuse.
3) Rotate to the direction perpendicular to the target with the set reference as center,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

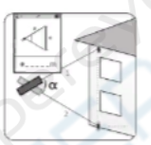


8. Indirect Pythagoras Measurement ②
1) Press to switch to indirect Pythagoras measurement ②
2) According to the flashing edge, point the laser to the first point of the target, press to measure the first hypotenuse.
3) Rotate to the second point of the target with the set reference as center, press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

9. Auto Horizontal Measurement
1) Press to switch to auto horizontal measurement
2) According to the flashing 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/horizontal edge/vertical edge will be displayed on the screen from top to bottom.



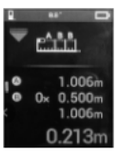
10. Auto Vertical Measurement
1) Press to switch to auto vertical measurement
2) According to the flashing edge, point the laser to the first point of the target and press
3) Rotate to the second point of the target with the set reference as center, press to measure the second hypotenuse.
4) The angle degree between both hypotenuses, the length of both hypotenuses, the vertical distance will be displayed on the screen in sequence.



11. Trapezoid Measurement ①
1) Press to switch to trapezoid measurement ①
2) According to the flashing edge, point the laser to the first point of the target and press to measure the first vertical edge.
3) Rotate to the second point of the target with the set reference as center, press to measure the second vertical edge.
4) Rotate to the third point of the target with the set reference as center, press to measure the third vertical edge.
5) The hypotenuse length of trapezoid will be displayed at the bottom of the screen.

12. Trapezoid Measurement ②
1) Press to switch to trapezoid measurement ②
2) According to the flashing edge, point the laser to the first point of the target and press to measure the first vertical edge.
3) Rotate to the second point of the target with the set reference as center, press to measure the second vertical edge.
4) The hypotenuse length of trapezoid will be displayed at the bottom of the screen.

13. Lofting Measurement
1) Press to switch to lofting measurement
2) Use up/down buttons to select lofting distance A and press .
3) Select lofting distance B and press to measure.



14. Delay Assisted Measurement
Under measurement mode (except the continuous/lofting measurement), long press to switch to delay measurement , then enter 5s count down with ticking. Delay assisted measurement can only be used under current single measurement mode and should repeat in every step if needed.

Technical Parameters

Range (m)	80m/120m/200m
Display type	2.4" IPS screen 240 x 320
Measurement units	m/ft/in/ft+in
Measurement references	Front/tripod mount/rear reference
Accuracy (mm)	± (2.0mm+5x10⁻⁵D)
Laser class	2
Laser type	630-670nm, ＜1mW
Single measurement	√
Continuous measurement	√
Max/min value	√
Area measurement	√
Volume measurement	√
Direct Pythagoras	√
Triangle area measurement	√
Auto Horizontal Measurement	√
Auto Vertical Measurement	√
Data logging	100 groups
Auto power off	100s-300s adjustable
Auto laser off	5s-120s adjustable
Auto backlight off	5s-60s adjustable
Electronic tilt angle measurement range	±90.0°
Sound effects	√
Battery status display	√
Battery type	3pcs 1.2V (AAA) NiMH batteries
Interface type	Micro USB cable for charging/data transmission
Protective level	IP65
Size (mm)	59×28×137mm
Weight (g)	170g

Standard Accessories

Accessories	Quantity
1.2V (AAA) NiMH batteries	3
Micro USB cable	1
Manual	1
Device	1
Cloth bag	1

1. Range
The range data is based on the rear reference by default; the maximum range may vary depending on the model version, please refer to the screen printing and 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, D is +/-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.

Laser Class 2 products;
Do not look into the beam directly or indirectly with optical aids.

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