Slim Size

MULTI FUNCTION ELECTRICAL ELECTRONIC INSTRUMENTS MEET® Technology

Laser Distance Meter

Model No

☐ **MS-LDM1130A**

☐ **MS-LDM1130B**

Thank you for purchasing MEET Slim Size Laser Distance Meter

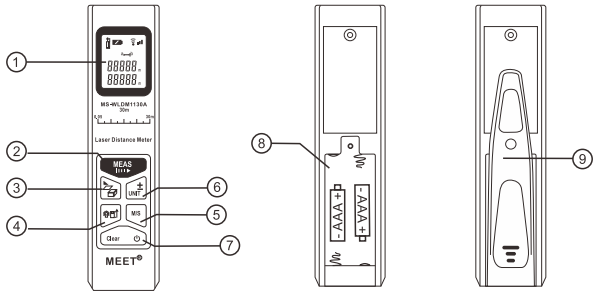
1. Contents

- Laser distance meter
- 2 AAA (R03 / LR03)
- Operating manual

2. Technical Specifications

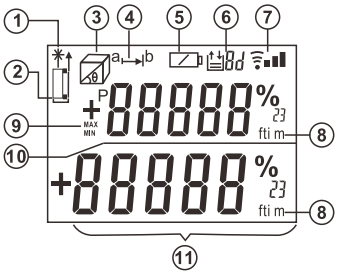
Model No.	MS-LDM1130A	MS-LDM1130B
Measuring distance range	0.05 to 30M	
Display in two rows	*	
Accuracy	±1.5mm(±0.06 in)	
Unit conversion	m / in / ft	
Laser type	Class 2, 635 nm, < 1mW	
Laser beam	*	
Dynamic measurement	*	
Area / Volume measurement	*	
Pythagorean proposition measurement	*	
Indirect measurement	*	
Add / Subtract calculation	*	
Max. / Min. measurement display	*	
Historical storage memory	10	
Auto Power Off (2.5 mins.)	*	
Front / Bottom measurement select	*	
Signal strength indicator	*	
Backlight ON / OFF select	*	
Buzzer sound	*	
Operating temperature	0°C to 40°C (32°F to 104°F)	
With pocket clip		*
Battery life (time) alkaline type (approx.)	>3000 (times)	
Battery powered	2 AAA (R03 / LR03)	
Dimensions (LxWxD) mm	128x32x23	128x32x28
Weight (approx.) grams (without battery)	60	64

3. Descriptions



① LC Display
② Power On / One shot / Dynamic measurement
③ Area / Volume / Pythagorean proposition measurement
④ Front or Bottom measurement select / Backlight
⑤ Record view / Setup function
⑥ a) Add / Memory recall (increment display)
b) Subtract / Memory recall (decrement display)
c) Unit conversion
d) Max. / Min. reading select when at dynamic measuring mode
⑦ Power off / Clear
⑧ Battery compartment
⑨ Pocket clip

4. Explanation of symbols and units on the meter



① Target / aiming laser beam
② Reference measurement from front or bottom side
③ Area / Volume measurement, Pythagorean proposition / Indirect measurement
④ Distance measurement indicator
⑤ Battery level indicator
⑥ Store memory
⑦ Signal strength indicator
⑧ Unit display (including square and cubic)
⑨ Max/Min reading display (when at dynamic measurement)
⑩ Supplementary display area
⑪ Primary display area

5. How to replace the battery

Loosen the screw of battery cover and replace 2 pcs. AAA alkaline type battery with proper polarity indicated inside the battery compartment. Then, tighten the screw.
To avoid chemical leakage from the battery, remove the battery if you are intended not to use the meter in short time.

6. Safety instructions

A. Before using this product, please read the safety precautions and instruction carefully. Failure to follow the instructions mentioned in the user manual may cause damages to this meter.
B. Do not try to disassemble or repair the meter by yourself, especially the laser transmitter part which is highly sensitive. Take a good care of your meter and don't place it anywhere within the children's reach. This meter is prefered to be used by professionals only.
C. Never point the laser beam towards yourself or someone else, especially to the eye. Of course, don't stare at the laser beam either.
D. Don't try to stare at the laser beam through optical lens (such as eyepiece, telescope…).It may still harm your eyes.
E. Don't point the laser beam at any highly-reflective object, such as mirror.
F. Dispose the damaged meter and exhausted batteries properly and discreetly. Don't mix them up with other normal household garbage. Follow the related government regulations during disposal.

7. Care and Handling

- The meter is a high precision instrument which must be handled with care.
- Avoid dust and water, use a soft cloth to clean the meter.
- Avoid shock, vibrations and extreme heat.
- Keep the meter clean and dry.
- Check battery regularly to avoid deterioration.
- Remove battery if to be stored for long time.

8. How to use the press button

A) Power ON / Measuring MEAS button ②

i) Press once the MEAS button to Power ON the unit. It turns off after 8 minutes without pressing any button or inactive mode.
ii) Another press to measure the distance.
iii) Press and hold for 2 secs. to enter dynamic measuring mode, max. or min. value will display on supplementary display area.

B) Add / Subtract / Unit switch UNIT button ⑥

i) Press once the UNIT button to enter accumulation mode, another press once to enter subtraction mode, press Clear button to cancel this function.
ii) Incremental reading recall from stored memory. (after pressed the store memory MS button).
iii) Press and hold for 2 secs. to enter unit conversion setting.
iv) Max. / Min. reading select when at dynamic measuring mode.

C) Area / Volume / Pythagorean / Indirect measurement mode button ③

i) Press the button once for area measurement, press Clear button to cancel this function.
ii) Press the button twice for volume measurement, press Clear button to cancel this function.
iii) Press the button three / four / five times to enter Pythagorean measurement mode.

D) Store memory / Setup function button⑤

- **View stored memory**

i) Press once the button ⑤ to enter stored memory function.
ii) Press once the ③ or ⑥ button to recall previous record value from the memory.

Note: The meter automatically store the reading after each measurement and store upto 10 memory.

- **Setup function:**

i) Press and hold 2 secs. the button ⑤ to enter 'setup' mode.
ii) Press once the button ② to select below five functions.
☞Press once the button ⑥ to ON/OFF or set the accuracy of the meter.
a) Set 'Laser beam' ON/OFF / when power on.
b) Set 'Laser beam' ON/OFF, / for area, volume, Pythagorean proposition indirect measurement before operating.
c) Set accuracy calibration of the meter CAL 0.
d) Set 'Beep' ON / OFF, bP on / bP oFF when power ON.
e) Set 'Backlight' ON / OFF, bL on / bL oFF when power ON.

E) Front or bottom measurement select / backlight button ④

i) Toggle the button to set the measurement from 'front' or 'bottom' side of the meter.
ii) Press and hold the button for 2 secs. to ON / OFF backlight. Meter turns off after 60 secs. when inactive mode.

D) Area / Volume measurement

- Under single shot measurement mode, press the button ③ once to enter area measurement mode, an icon "▱" with bottom bar blinks, press the button twice to enter volume measurement mode, an icon "▱" with middle bar blinks.
- Take first reading by pressing the button②once, the result will appear in the first row of the supplementary display area.
- Take second reading by another pressing button②, second reading cover up first reading of supplementary display area.
- Simultaneously, the results of area will automatically display on primary display area.
- Obviously, when at volume measurement mode:
- By pressing the button ② to measure three sides result one by one.
- Third reading covers up second reading on supplementary display in sequence.
- Simultaneously, the calculated result of volume will automatically display on primary measurement area.

E) Pythagorean proposition / Indirect measurement

- The meter automatically calculate the distances based on Pythagorean Proposition theory.

i) Fig. A shows how to find the height " X ".

- Under single shot measurement mode, press the button③ three times to enter this function, an icon "△" will appear on the top side of the screen with hypotenuse line blinking.
- Take first blinking hypotenuse ⓐ reading by press the button②once, the result of "ⓐ " will appear on in the supplementary display area.

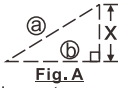


Fig. A

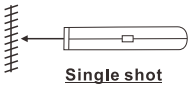
- Take second blinking straight line ⓑ reading by holding the meter perpendicular and pressing the button②once, the result of " ⓑ" will cover up the first reading of supplementary display area.
- Simultaneously, the result height " X " will appear on primary measurement area.

F) Power off / Clear button ⑦

i) Press and hold for 2 secs. to power OFF the meter.
ii) Press once to clear the current setting / reading.

9. Start measurement

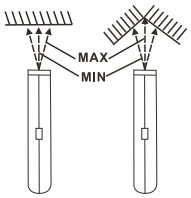
A) Single shot measurement


Single shot

- Press once the button② for 2 secs. to activate the power and laser beam.
- Point the laser beam aiming towards the target.
- Press the button② again, the measuring results appear on primary display area.
- The latest measurement results appear on supplementary display area with another press.

B) Dynamic measurement with Max. or Min. results

- Under single shot measurement mode, press the button② for 2 secs. to enter dynamic measurement mode. The meter automatically starts taking measurements, and Max. or Min. results appear on supplementary display area by pressing once the button ⑦, as well as dynamic reading display appear on primary area.
- To stop the dynamic measurement mode, press the button②once, another press will revert back to single shot measurement mode.



C) Add / Subtract function

After single shot measurement, press the button⑥ once to enter accumulation mode, an icon " + " will appear on the display.
Press it twice to enter subtraction mode, an icon " - " will appear on the display.
When measurement taken, the result simultaneously appear on the screen with the accumulated (when adding) or difference (when subtract) result will appear on primary display area.

ii) Fig. B shows how to find the height " Y "

- Under single shot measurement mode, press the button ③ four times to enter his function, an icon "◁" will appear on the left side of the screen with hypotenuse line blinking ⓐ.
- Take the first blinking hypotenuse line ⓐ reading by pressing the button② once, the result of "ⓐ " will appear on the supplementary display.
- Take the second blinking middle straight line "ⓑ" by holding the meter perpendicular reading by press the button②once, the result of " ⓑ " will cover up the first reading of supplementary display.

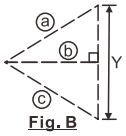


Fig. B

- Take the third blinking hypotenuse line ⓒ reading by pressing the button② once, the result of "ⓒ " will cover up second reading of supplementary display.
- Simultaneously, the result of " Y " will appear on primary measurement area.

iii) Fig. C shows to find the height " Z "

- under single shot measurement mode, press the button ③ five times to enter this function, an icon "◁" will appear on the left side of the screen with hypotenuse line blinking ⓐ.
- Take the first blinking hypotenuse line ⓐ reading by pressing the button②once, the result of "ⓐ" will appear on the supplementary display.
- Take the second blinking hypotenuse line ⓑ reading by pressing the button②once, the result of ⓑ will cover up the first reading of supplementary display.
- Take the third blinking straight line ⓒ by holding the meter perpendicular reading by pressing the button②once, the result of "ⓒ" will cover up second reading of supplementary display.
- Simultaneously, the result height " Z " will appear on primary measurement area.

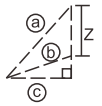


Fig. C

NOTE:

In this Pythagorean proposition / Indirect measurement, the straight flange has to be shorter than the hypotenuse in same triangle, otherwise the meter is unable to do the calculation and an "error code" message "Er. dE" will appear on the screen.
In order to guarantee the accuracy, please make sure to take all these measurements from the same point and measure the hypotenuse, straight flange in sequence.

☞ When taking perpendicular straight line measurement, move and observe the bubble of the vial to the center.

10. Measurement store memory

A) Store memory

- Under single shot measurement mode. If the current data is valid, the internal memory automatically store up to 10 measurements.

B) View stored memory

- Under single shot measurement mode where there is no valid data. Press the button⑤ once to enter the memory recall mode.
- To view the memory, press the button⑥or button③once.

C) Delete memory

Current reading automatically delete and cover the previous memory.

11. Trouble Shooting

Meaning of Error Codes "Er"

Code	Error Caused	Solution
Er.bL	Low battery	Replace the battery
Er.tL	Internal temp. of the meter is too low	Wait, to warm up the meter
Er.tH	Internal temp. of the meter is too high	Wait, to cool down the meter
Er.dH	Out of range	Move closer
Er.dE	Measure error	Retry again
Er.SL	Weak return signal	Use reflective target plate
Er.SH	Returned laser light signal too strong	Use reflective target plate
Er.HF	Malfunction	- Retry - Consult / Contact your supplier if the same problem still occurs after you re-test the meter several times

NOTES:

1) Unfavorable conditions will affect the accuracy of the measurement, such as under strong sunlight; low reflective object; low battery and dramatical temperature fluctuations.
2) Use a reflective plate to measure more accurate when under bright sunlight or on inadequately reflective object.

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