

Professional 40m Laser Rangefinder KALDM40XXA

Hand Held Laser Distance Range Finder

Safety Regulations



- Please read all of the operational guide and safety regulations in this manual before operation. Improper operations with complying with this manual guided could cause damage to the device, influence on measurement result or bodily injury to the user.
- The instrument is not allowed to be disassembled or repaired in any way. It is forbidden to do any illegal modification or performance changed to the laser emitter. Please keep it out of reach of children and avoid using by irrelevant personnel.
- It is strictly prohibited to shoot eyes or other body parts of body with the laser; it is not allowed take the laser to shoot any objects surfaces with strong reflecting properties.
- Due to electromagnetic radiation interference to other equipment and devices, please don't use the meter in the plane or around medical equipment, don't use it in inflammable explosive environment.
- Discarded batteries or meter devices shall not be processed just like house garbage, please handle them in line with related law and regulations

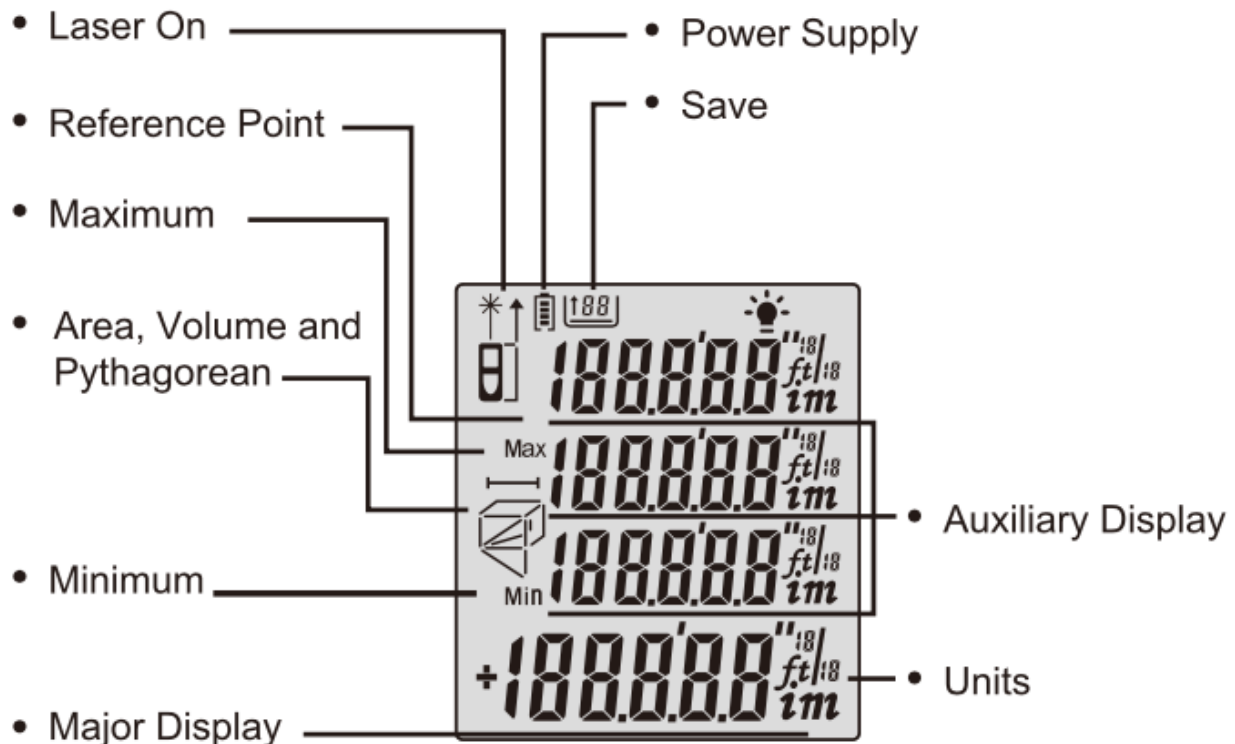
Battery Installation / Display / Keyboard

Batter installation and replacement

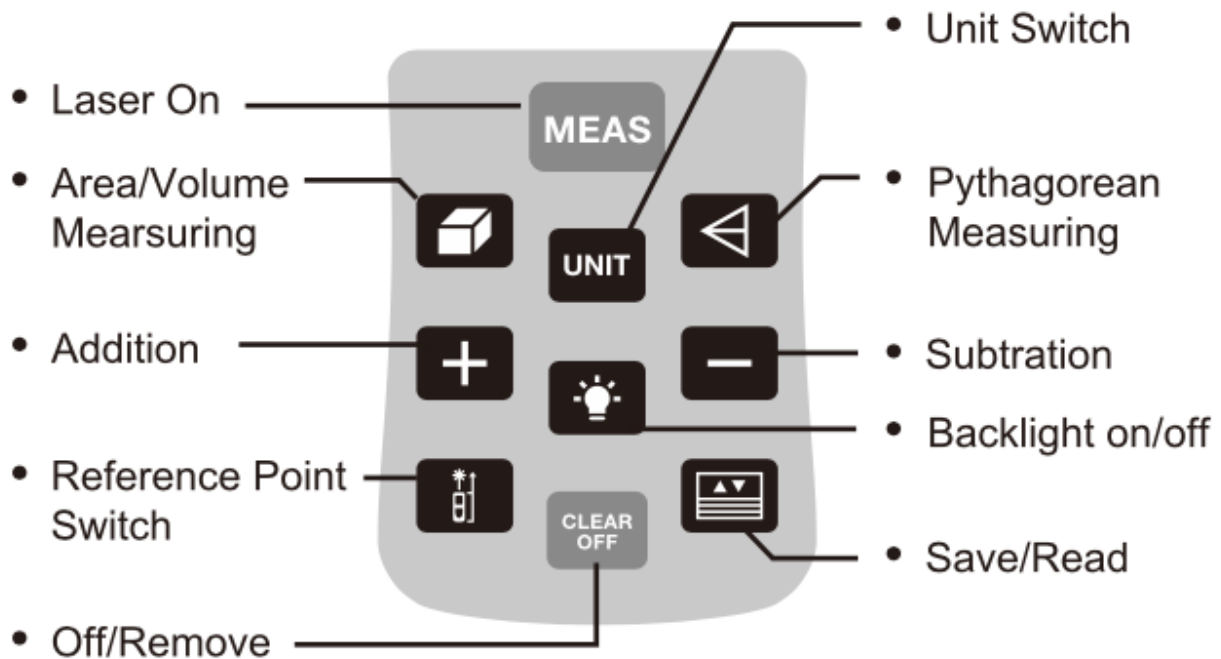


- Discharge the batter door on the back of device, and place the battery according to correct polarity, then cover the battery door.
- Only 1.5V AAA alkaline battier is to be used in the meter.
- If not used for a long time, please take out the battery to avoid battery corrosion to the meter.

Display Screen



Keyboard



Start the instrument/Menu Setting

Turning on/off the meter

Under off status, press the **MEAS** button, the device and laser start simultaneously and standby for measurement.

Under on status, long press button **CLEAR OFF** for 3 seconds to turn the device off. The device will be shut off without any operation for 150 seconds.

Unit Setting

Press the **UNIT** button, reset the current measurement unit, the default unit is 0.00m. There are 6 units for selection:

Length	Area	Volume
0.00m	0.00m ²	0.00m ³
0.00m	0.00m ²	0.00m ³
0.0in	0.0in ²	0.0in ³
0.00ft	0.00ft ²	0.00ft ³
0 1/16 in	0 1/16 in ²	0 1/16 in ³
0'00'1/16	0'00'1/16 ²	0'00'1/16 ³

Reference Point Setting

Press  key to select the reference point. The device reference point by default is rear.

Length Measurement & Calculation

Single Distance Measuring

Turn on the laser beam by short press of the button  under the measuring mode, press the button  again for single measurement of length, then the measured results displayed in the major display area.

Continuous distance measuring

Long press the  button under the measuring mode and enter continuous measuring mode. Minimum measuring result displays in auxiliary display area, present result displays in major display area. Short press the  button to exit continuous measuring mode.

Area Measuring

Press button , shows on the screen.

One side of the rectangle blinks on the display. Please follow the instruction for measuring the area:

- 1 Press  once for length.
- 2 Press  again for width.

The device calculates and shows the result in major display area.

The recent measuring result of the length is showed in the auxiliary display area.

Press  to clear off the result and measure again if necessary.

Press the  again to exit the mode.

Volume Measurement

Double press the  button. A box shows on the top of the screen. One side of the cube blinking on the display. Please follow the below instructions for volume measuring.

- 1 Press  once for length.
- 2 Press  again for width.
- 3 Press  again for height.

The device calculates and shows the result in the major display area.

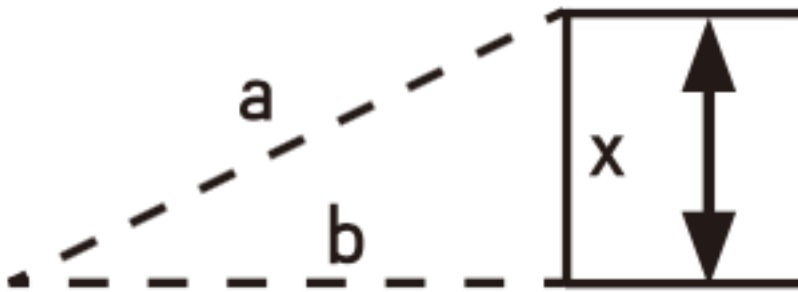
Press  to clear off the result and measure again if necessary.

Press the  again to exit the mode.

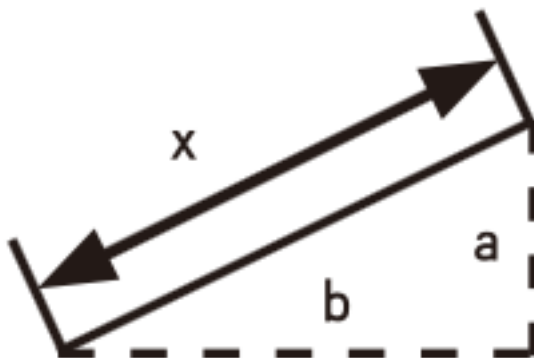
Pythagoras

There are four Pythagoras modes in case the user finds it hard to reach the target. Please follow the below instructions for Pythagoras measuring.

- Press  and the hypotenuse will start blinking. Calculate the second leg by measuring the hypotenuse and the other leg.
 - Press the  button and measure the length of the hypotenuse (a) according to the blinking screen.
 - Press , measure the length of one leg (b) and the device will calculate the length of the other leg (x)

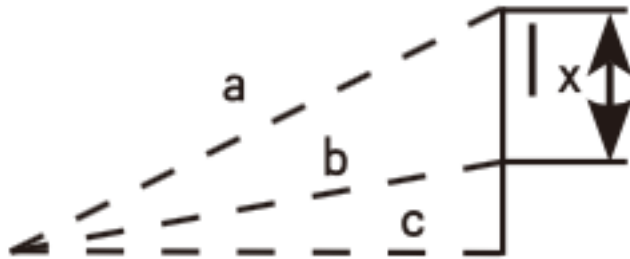


- Press  and one leg of the  is blinking. Calculate the hypotenuse by measuring the length of the two legs.
 - Press the  button and measure the length of the hypotenuse (a) according to the blinking screen.
 - Press , measure the length of one leg (b) and the device will calculate the length of the other leg (x)



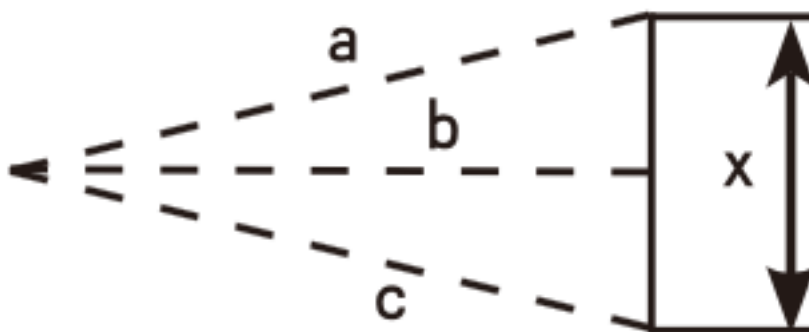
- Press  until the hypotenuse height is blinking on the screen.

- Press , measure the length of one hypotenuse (a)
 - Press , measure the length of another hypotenuse (b)
 - Press , measure the length of one leg (c)
- Device will calculate the length of the leg in a straight line (x)



- 4 Press  until the one hypotenuse side of the  is blinking on the screen.
- Press , measure the length of one side (a)
 - Press , measure the length of the median line (b)
 - Press , measure the length of another side (c)

Device calculates the length of the leg in a straight line.



Legs must be shorter than the hypotenuse, or there will be an error ("err") message shown on the screen. To guarantee accuracy, please make sure all measurements start from the same point.

Addition / Subtraction

The device can be used for length addition and subtraction under a single distance measuring mode.

Press  and a "+" shows in the major display area, entering the cumulation mode. Value of the last measurement and the results of the cumulation will be shown on the screen.

Press the  and a "-" shows on the major display area, entering the regression mode.

Value of the last measurement and the results of the cumulation will be shown on the

screen.

Save and Browse

The storage function can only be used under the single measuring mode.

Save Measuring Results



Press  for 3 seconds, the result will be automatically saved to the memory stick inside the device.

Browse Measuring Results



Press  to read the saved data. Press  or  to browse forward or backward. Long press  to remove all history records.

Tips

You may get some warning information below.

INFO MESSAGE	Cause	Solution
Err1	Signal is too weak	Chose a surface with stronger reflectance. Use the reflecting plate.
Err2	Signal is too strong	Chose a surface with a weaker reflectance. Use the reflecting plate.
Err3	Low battery voltage	Change the batteries/power supply.
Err4	The working temperature is too high and out of working range.	Cool the device down
Err5	Pythagoras measuring error.	Re-measure and ensure the Hypotenuse is bigger than Cathetus
Err6	Device memory is damaged.	Contact the service provider

Self-Calibration

This function can keep the precision of the device.

Instructions: Power off the device and long press the  button and press the  button.

Release the  then release the  until "CAL" and a figure under it displays on the screen.

User can adjust the figure with the ,  buttons.

Adjusting the range: -9 to 9mm, then long press the  button to save the calibration result.

Technology Specifications:

ITEM	Specifications
Distance Measurement Precision	±2mm
Measurement unit options	m/in/ft
Continuous measurement function	Yes
Outdoor target reflection board	No
Area measurement function	Yes
Volume measurement function	Yes
Pythagoras proportion measurement function	Full Mode
Add and subtract measurement function	Yes
Min/Max Value	Yes
Max Storage	100 Units
Automatic Backlight	Yes
Buttons/Key Sounds	Yes
Laser Level	II
Laser Type	635nm, <1mW
Automatically cut off laser	20s
Automatic Shutdown	150s
Storage Temperature	-20 °c - 60 °c
Working Temperature	-0 °C - 40 °C
Storage Humidity	RH85%
Battery	1.5V x 2AAA
Battery Life	8000 times for single measurement
Weight (including Battery)	128g
Dimensions	118 x 54 x 26.5mm

Note: Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties.

Instrument Maintenance:

The meter should not be stored in high temperature and strong humidity environment for long periods of time. If not used very often, please take out the batteries and place the meter in the allocated portable bag. Store in a cool, dry place.

Please keep the device surface clean. Use a wet soft cloth to clean dust. Never use erosion liquid to clean the meter. The laser output window and focus lens can be cleaned with an anti-static cloth.

Package Items:

1. Laser Distance Meter (E Series) – 1 unit
2. AAA Batteries – 2 units
3. User Manual – 1 Unit
4. Portable Bag – 1 Unit
5. Hand Strap – 1 Unit
6. Box – 1 Unit
7. Outdoor target reflection board - 1 Unit (only 100m, 120m and 150m)