

METRICA

MADE TO MEASURE

MISURATORE LASER METROLASER LASERMÈTRE Distanzmessgerät MEDIDOR DE DISTANCIA LÁSER



Ref. 61060

Ref. 61100

LASER DISTANCE METER

SAFETY REGULATIONS

Please read the safety regulations and operation guide carefully before operating. Improper operation without complying with this manual could cause damage to the device, influence the measurement result or generate injuries to the user.

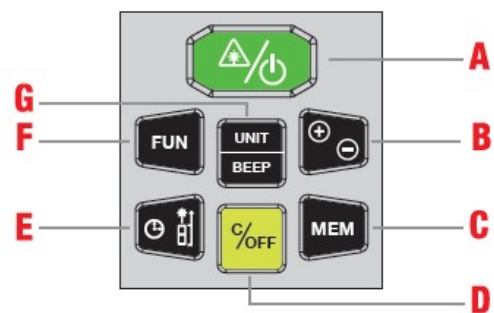
It is not allowed to disassemble or repair the instrument in any ways. It is forbidden to do any modification or performance change of the laser. Please keep it out of reach of children and avoid using by any irrelevant personnel.

It is strictly prohibited to shoot eyes or other parts of body with the laser; it is not allowed to point the laser at any objects with reflecting surfaces. Due to electromagnetic radiation interferences with other equipment and devices, please do not use the laser distance meter on an airplane or around medical equipment, or in inflammable, explosive environments. Discarded batteries or the device shall not be processed just like household garbage, please handle them in line with related law and regulations.

INSTALLATION/REPLACEMENT OF BATTERIES

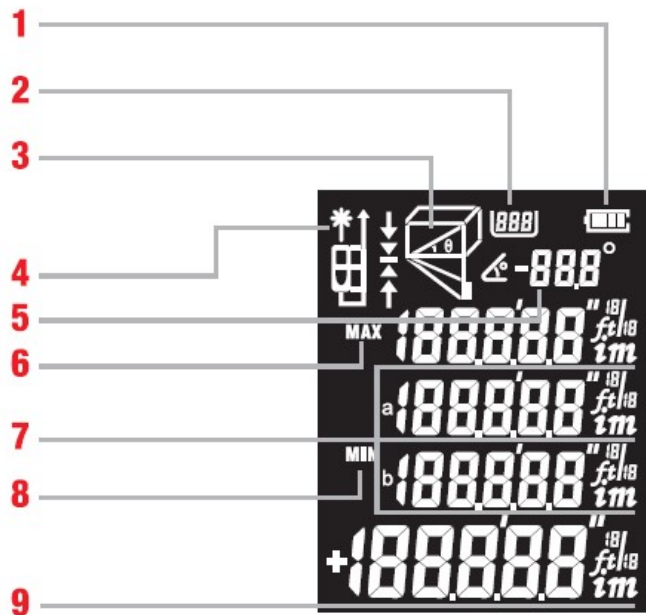
Open the battery compartment on the back of the device and insert the battery following the correct polarity. Close the cover. Use only Li-ion or 3 x 1.5 V-AAA rechargeable batteries

KEYBOARD



- A. Turn on / Measurement
- B. Subtraction / Addition
- C. Data storage and reading
- D. Switching off / Deleting
- E. Select reference point / measurement delay
- F. Functions
- G. Measuring units / Beep

DISPLAY



1. Battery charge level
2. Memory No.
3. Measurement method:
Length - perimeter - area - Pythagoras
4. Laser indicator
5. Angle / inclinometer
6. Maximum
7. Auxiliary display
8. Minimum
9. Primary display

POWER ON/OFF

To turn the device on, press . Then press again to activate the laser.

To turn off the device: press for at least 3 seconds.

If the device is inactive for 150 seconds, it will turn off automatically.

SETTINGS

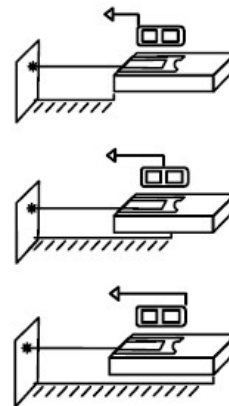
Long press the button to change the unit of measurement. The preset unit of measurement is: 0.000m.

THERE ARE 8 UNITS OF MEASUREMENT POSSIBLE SELECTION

Item	Distance	Area	Volume
1	0.000m	0.000m ²	0.000m ³
2	0.00m	0.00m ²	0.00m ³
3	0.00ft	0.00ft ²	0.00ft ³
4	0.0in	0.00ft ²	0.00ft ³
5	0 1/32 in	0.00ft ²	0.00ft ³
6	0`00`1 /32	0.00ft ²	0.00ft ³
7	0.000米	0.000米 ²	0.000米 ³
8	0.00米	0.00米 ²	0.00米 ³

REFERENCE POINT

Press key to change the reference point. There are four reference points: top, screw, bottom and the end piece.



SINGLE DISTANCE MEASUREMENT


Turn on the laser beam by short pressing of the button under measuring mode.


Press the button again for single measurement of length : the measured result will be displayed.


The latest 3 records will be shown in the auxiliary display area.

Short press to delete the result.



CONTINUOUS MEASUREMENT

To activate this mode, press and hold : the display shows the results of the minimum and maximum measurements.



The display shows the instantaneous measurement and the results of the minimum and maximum measurements. To exit the continuous measurement mode press briefly .

To reset the result to zero on the display, press .



AREA MEASUREMENT

Press the  button and the display shows .



Complete the following operations according to the display suggestions:

- Press  to measure the first side (length)
- Press  to measure the second side (height)

The area will be calculated automatically and the result will be displayed


- Briefly press  to delete the results and be ready for another measurement.
- Long press  to save the result in memory.

VOLUME MEASUREMENT

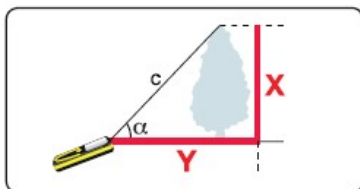
Press the  button twice and the display shows .


Complete the following steps according to the display:


2. Calculate the hypotenuse by measuring the two cathets of the right triangle.
3. Calculate an unreachable height by measuring the 2 hypotenuses and the cathetus of a compound rectangle triangle.
4. Calculate the third side of the triangle by measuring the two hypotenuses and the height of the two triangles (double Pythagoras).






Press the  button to select the correct mode among these four:

1st mode: Calculate the length of two cathets by measuring the hypotenuse and the angle.





Press  four times, the screen shows .




Press  to measure hypotenuse and slope angle. The results of the two catheti will be displayed after the measurement.

- Press  to measure the first side (length)
 - Press  to measure the second side (depth)
 - Press  to measure the third side (height)
- The volume will be calculated automatically and the result will be displayed
- Press  to clear the results and be ready to another measurement.
 - Long press  to save the result



PAINTER FUNCTION

Press the  button 3 times and the display shows .

Complete the following steps according to the display:

- Press  to measure the first side (length)
- Press  to measure the second side (depth)
- Press  to measure the third side (height)

The surface area of the two walls will be calculated automatically and the result will be shown on the display

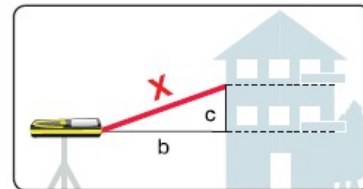
- Press  to clear the results and be ready to another measurement.
- Long press  to save the result



PYTHAGORAS FUNCTION



There are four methods of measuring the triangle:

1. Calculate the length of the two cathets by measuring the hypotenuse and the angle.

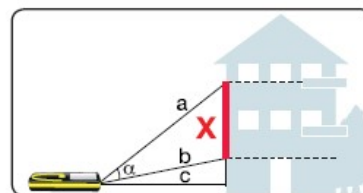
2nd mode: Calculate the hypotenuse by measuring the two cathets of the triangle rectangle






Press  five times, the screen shows .

Press  to measure the length of cathetus b
Press  to measure the length of cathetus c
Device calculates the length of the hypotenuse x

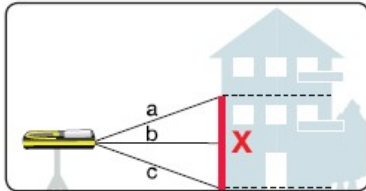
3rd mode: Calculate the unreachable height by measuring the 2 hypotenuse and the cathetus of a compound rectangle triangle.


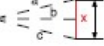





Press  six times, the screen shows .

Press  to measure the length of hypotenuse a,
 Press  to measure the length of the auxiliary line b,
 Press  to measure the length of cathetus c, the device calculates the length of the height x.

4th mode : Double Pythagoras. Calculate the third side of the triangle by measuring the two hypotenuse and the height of the two triangles.





Press  seven times, the screen shows 
 Press  to measure the length of the hypotenuse a
 Press  to measure the length of the height b
 Press  to measure the length of the hypotenuse c
 Device calculate the length of the third side x




CALCULATION

Sum of lengths


Step 1 - Press 2 times the button  to get the first result

in length. Press 
 Step 2 - Press 2 times the button  to get the second result ;
 The sum will be shown on the main display.
 Repeat step 1 and step 2 to continue the summation.

Subtraction of lengths





Step 1 - Press 2 times the button  to get the first result in length. Press 
 Step 2 - Press 2 times the button  to get the second result;
 The difference will be shown on the main display.
 Repeat step 1 and step 2 to continue subtraction

STORAGE OF MEASUREMENTS

During measurement, when the data is final, press  for at least 3 seconds , the data detected will be automatically stored on the memory card of the device.

The device can also store values in the following calculation modes : area, volume and Pythagoras.

READING STORED DATA

Press the  button briefly to read the stored data.
 Press  to scroll forward or backward through the data, you can search for the memory sequence indicated on the top of the display. Long press the  to delete all stored data. To delete the data in the previous memory, briefly press .

BATTERIES

The device is supplied with rechargeable batteries and connector cable.

The icon  indicates the battery charge level.

Warning: We recommend that you only use the supplied cable in the box.

MAINTENANCE

Do not leave the device in too hot or too humid environments for too long. If you do not use the device for a long time, remove the battery and store the instrument in your storage in a cool, dry place. Keep the surface of the device CLEAN, remove the dust with a soft cloth.

Do not use corrosive liquids/agents.

For maintenance of the laser output window and lenses use the same procedures as for optical lenses.

CONTENTS OF THE PACKAGE

- 1 Laser distance measuring instrument
- 1 Li-Ion battery
- 1 Instruction manual
- 1 Pouch for the device
- 1 Connection cable
- 1 Lace

NOTE

There may be large differences in measurements if made in difficult environments, such as strong sunlight, excessive variability temperature, poorly reflective surface, low battery.

SUGGESTIONS

During the course of operations the following suggestions may appear on the display:

MESSAGE	CAUSE	SOLUTION	MESSAGE	CAUSE	SOLUTION
Err0	Measurement detected beyond range	Use the device within maximum range	Err3	Battery voltage too low	Replace the battery
Err1	Signal too weak	Choose a location measuring with better reflective capabilities	Err4	Operating temperature	Use the instrument within out of range the specified temperatures
Err2	Signal too strong	Choose a location measuring with lower reflective capacity	Err5	Incorrect measurement in Pythagoras function	Repeat measurement making sure that the hypotenuse length is greater than cathetus
			Err6	Measuring range exceeded	

TECHNICAL DATA

Capacity	60 m (code 61060)	Timer	Yes
Capacity	100 m (code 61100)	Angle measurement	90°
Minimum measurement	0,05 m	Memory capacity	99 units
Measurement accuracy	$\pm (2+5 \times 10^{-5} D)$ mm	Auto shut off laser	after 20s
Laser Class	II	Automatic shutdown of the instrument	after 150s
Laser type	500-535nm, <1mW	Batteries	Rechargeable Li-Ion
Continuous measurement function	Yes	Storage temperature	-20° C / 60° C
Area measurement /		Operating temperature	0° C / 40° C
Volume measurement	Yes	Storage humidity	RH 20 / 80%
Pythagoras function	Yes	Dimensions	118x52x27 mm
Sum and subtraction of measures	Yes		
Min/Max value	Yes		



GSR Laser Tools
Unit 7 / 7 Prindiville Drive - Wangara WA 6065 - Ph: 08 9409 4058
sales@gsrlasertools.com.au - www.gsrlasertools.com.au