

Laser Distance Meter GL MATE 100

Dear Customer,

Thank you for choosing our product! Safety information provided in this manual should be carefully reviewed before use. Please note that technical specifications and design are subject to change without prior notification.

To ensure the optimal performance of this instrument, it is important to read and understand this manual. Please keep it in a convenient place for future reference. You can find it on-line on our website by scanning the QR code on the box.

Yours truly,

General Laser

CE Conformity

This Laser Distance Meter bears the CE mark, indicating its compliance with specific European standards. The CE conformity has been assessed and confirmed according to the following standards:

EN 61326-1:2013,

EN 61326-2-2:2013,

EN 300 328 v2.1.1:2016,

EN 62479:2010-1:2010.

Specification

Measuring Range ¹	0.2–100m
Measuring Accuracy ¹	±(2.0mm+5x10 ⁻³ D)
Single Distance Measurement	✓
Continuous Measurement	✓
Area Measurement	✓
Volume Measurement	✓
Pythagoras (2-point)	✓
Pythagoras (3-point) ①	✓
Pythagoras (3-point) ②	✓
Auto Level	✓
Auto Height	✓
Point to Point (P2P)	✓
Trapezium Measurement ①	✓
Trapezium Measurement ②	✓
Triangle Area Measurement	✓
Circular Area Measurement	✓
Cylindrical Volume Measurement	✓
Stake Out	✓
Time-Delayed Measurement	✓
Point Finder	✓
Constant Settings	✓
Bluetooth®	✓
Add/Subtract	✓
Tilt Sensor	✓
3D Level	✓
Data Export	✓
Memory	1000 Sets
Measuring Reference	Top/Tripod/Rear
Measuring Units	m/ft/in/ft+in
Auto Power Switch-off	After 180s
Screen Display	2" Coloured Touch Display
Screen Rotation	✓
Protection Class	IP65
Laser Class	Class 2
Class Type	630-670nm, 1mW
Battery Type	3 x AAA NI-MH rechargeable
Operating Temperature	-10°C/+40°C (14°F +104°F)
Dimension (mm)	115x49x26
Weight with battery (g)	140g

Measuring Range:

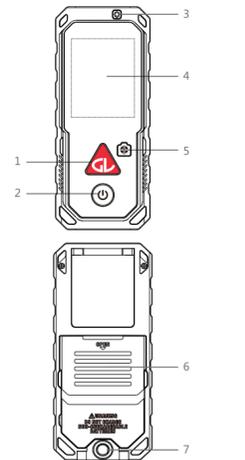
The maximum measuring range is 100 m.

Measuring Accuracy

Under favorable conditions, including a smooth surface, appropriate temperature, and indoor lighting, the device can deliver accurate measurements within the specified range. However, under unfavorable conditions such as strong light, uneven surfaces, or improper temperature, the tolerance of measurements may increase.

Tip: If you encounter challenges with poor sunlight or low reflection from the object being measured, it is recommended to use a target plate or reflector to enhance measurement accuracy.

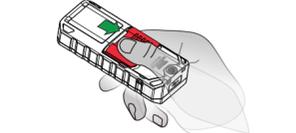
Appearance



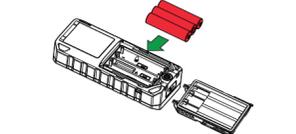
- Measure Button**
Activate the measuring mode - short press to measure, long press to Continuous measure.
- Power Button**
Long press to switch ON/OFF, short press to return to single measurement.
- Laser Emitter Icon**
- Touch Screen**
- Camera**
Press the button to activate the camera, press again to switch between zoom in or out.
- Battery Compartment**
- Tripod Hole**

Battery Installation and Instructions

To open the battery lid, please press and slide the cover downwards, then pull it gently.



Please insert three AAA rechargeable NI-MH batteries, ensuring the correct polarity.



Once the batteries are properly inserted, securely hold the battery lid and press it while sliding it upward until it is fully sealed.



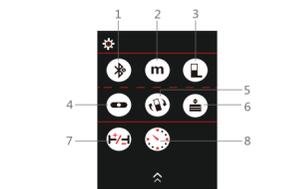
The product is designed to be powered by rechargeable NI-MH batteries. When charging, please use the provided USB cable.

Charging the product using a computer may take longer than other methods.

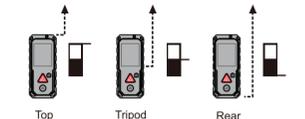
Warning

When using dry batteries, it is important to note that USB charging should not be attempted. Additionally, it is crucial to avoid mixing rechargeable batteries with dry batteries simultaneously to prevent any potential accidents. Any damage resulting from the improper use of charging dry batteries is not covered by the warranty, and General Laser cannot be held responsible for such incidents. During the charging process, it is normal for the device to generate heat. However, this does not impact the performance or lifespan of the product. When the device is not in use, please remember to unplug the charger and remove the batteries for safety purposes.

Display Screen



- Bluetooth**
Slide your finger downwards on the screen and select (i) from the menu. From there, you can activate or deactivate Bluetooth®, allowing for remote control of measurements and data transmission by connecting to the corresponding app. When the Bluetooth® icon (i) turns grey, it indicates that Bluetooth® is turned off.
- Measuring Unit**
Slide your finger downwards on the screen and select (m) from the menu. This will allow you to switch between the unit systems (m/ft/in/ft+in), depending on your preference.
- Measuring Reference**
Slide your finger downwards on the screen and select (S) from the menu. This will allow you to choose between Front/Tripod/Rear. The default reference point is set to Rear.

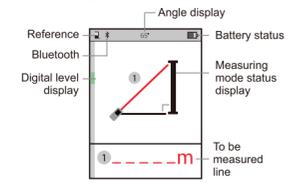


The measured data may vary depending on the reference settings chosen. Different reference settings can result in different measurement values. Please ensure you have selected the appropriate reference setting for accurate measurements.

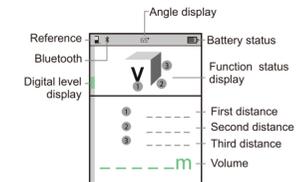
- 3D Level**
Slide your finger downwards on the screen and select (3D) from the menu to activate the 3D level function.
- Display Rotation**
Slide your finger downwards on the screen and select (R) from the menu to enable/disable the auto switch between horizontal and vertical screen orientation.
- Memory**
Slide your finger downwards on the screen and select (M) from the menu to recall memory values, then press (A) or slide to view history values. Press (D) to delete the selected record.
- Constant settings**
Slide your finger downwards on the screen and select (H) from the menu. Use (L) or (R) to move the cursor. Use (F) or (B) to adjust the values accordingly. Press (C) to confirm the changes.
- Time-delayed measurement**
Slide your finger downwards on the screen and select

(S) from the menu. The device will begin measuring in 5 seconds. Please ensure proper positioning and readiness during this period.

A. Measuring Interface



B. Summary Line



Touchscreen Operations

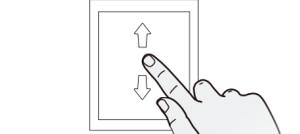
The touch screen serves as the mode selection display. To access the setup menu, slide your finger to the right on the screen. To choose the desired measuring mode, simply slide your finger up or down on the screen accordingly.



To activate the Add/Subtract mode for making calculations in Distance, Area, and Volume measurements, simply slide your finger to the left on the screen.



To access the setup menu, slide your finger downwards on the screen. If you want to retract or hide the setup menu, simply pull your finger upwards on the screen.



Operation Instructions

To access the function menu, slide your finger to the right on the screen. To change the measuring mode, slide your finger upwards or downwards. Press on the desired mode to select and use it. The current measuring line and the corresponding distance will be indicated in red. Measured data will be marked in grey, while the summary will be displayed in green.

Single Distance Measurement

Upon switching on the device, it will automatically enter the Single Distance Measurement Mode. Aim at the target and press (M). The measurement result will be displayed in the summary line.

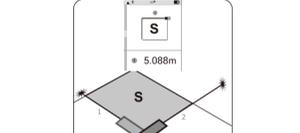
Continuous Measurement

The Continuous Measurement mode you can measure the Maximum or Minimum distance from a fixed measuring point. Press (M) and hold it for a moment. Then sweep slowly the laser back and forth, up and down over the desired target point. The display will indicate the values for both Max and Min distances. The last measured value will be marked in green.



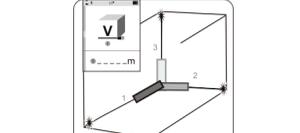
Area Measurement

Turn the device ON and slide right to reach the function menu. Press on (S) to select Area Measurement mode. Press (M) to measure the 1st line (e.g. Length). Repeat the action by pressing (M) again to measure the 2nd line (e.g. Width). The area is calculated based on these measurements, and the result displayed in the summary line.



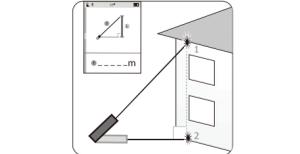
Volume Measurement

Turn the device ON and slide right to reach the function menu. Press on (V) to select Volume Measurement mode. Press (M) to measure the 1st line (e.g. Length). Repeat the action by pressing (M) again to measure the 2nd line (e.g. Width). Press (M) a third time for measuring the 3rd line (e.g. Height). The volume is calculated based on these measurements, and the result displayed in the summary line.



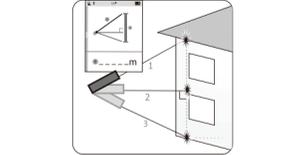
Pythagoras (2-point)

Turn the device ON and slide right to reach the function menu. Press on (P) to select Pythagoras (2-point) Measurement mode. Press (M) to measure the 1st line. Change the position of the device by placing it horizontally. Repeat the action by pressing (M) again to measure the 2nd line. The result is displayed in the summary line.



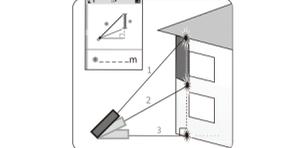
Pythagoras (3-point) ①

Turn the device ON and slide right to reach the function menu. Press on (P) to select Pythagoras (3-point) ① Measurement mode. Press (M) to measure the 1st line. Change the position of the device by placing it horizontally. Repeat the action by pressing (M) again to measure the 2nd line. Aim the device to the 3rd target point and press (M). The result is displayed in the summary line.



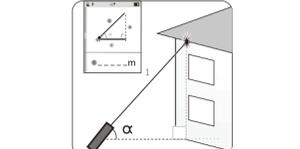
Pythagoras (3-point) ②

Turn the device ON and slide right to reach the function menu. Press on (P) to select Pythagoras (3-point) ② Measurement mode. Press (M) to measure the 1st line. Repeat the action by pressing (M) again to measure the 2nd line. Change the position of the device by placing it horizontally. Aim the device to the 3rd target point and press (M). The result is displayed in the summary line.



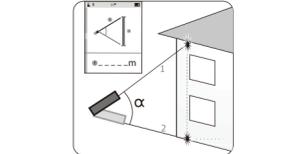
Auto Level Measurement

Turn the device ON and slide right to reach the function menu. Press on (A) to select Auto Level Measurement mode. Press (M) to measure the hypotenuse, vertical and horizontal lines. The result is displayed in the summary line.



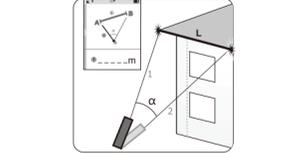
Auto Height Measurement

Turn the device ON and slide right to reach the function menu. Press on (H) to select Auto Height Measurement mode. Press (M) to measure the 1st line. Change the position of the device and measure the 2nd line by pressing (M) again. The result is displayed in the summary line.



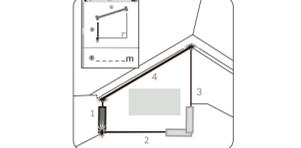
Point to Point (P2P) Measurement

Turn the device ON and slide right to reach the function menu. Press on (P) to select Point to Point (P2P) Measurement mode. To set the measuring reference for the center point of rotation, follow the instruction shown on the display. Hold the device still and wait until the instruction icon disappears, indicating stable performance. Once the device is stable, press (M) to obtain the distance to the first laser point. Move the device from the fixed measuring point. Press (M) again to obtain the distance to the second laser point. The result is displayed in the summary line.



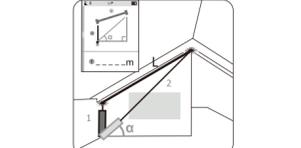
Trapezium Measurement ①

Turn the device ON and slide right to reach the function menu. Press on (T) to select Trapezium Measurement ① mode. Press (M) to measure the 1st line. Repeat the action by pressing (M) again to measure the 2nd and 3rd line. The result is displayed in the summary line.



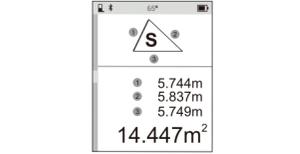
Trapezium Measurement ②

Turn the device ON and slide right to reach the function menu. Press on (T) to select Trapezium Measurement ② mode. Press (M) to measure the 1st line. Take the fixed measuring point as a center then rotate the meter aiming at the next target. Press (M) to measure the 2nd and 3rd line. The result is displayed in the summary line.



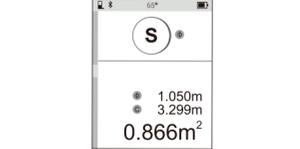
Triangle Area Measurement

Turn the device ON and slide right to reach the function menu. Press on (S) to select Triangle Area Measurement mode. Press (M) to measure the length of the three sides of the triangle ①②③. The result is displayed in the summary line. **Attention:** If the three measured lines cannot form a triangle, the device will display an error message.



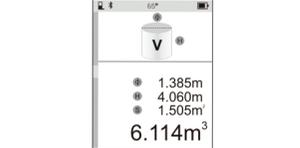
Circular Area Measurement

Turn the device ON and slide right to reach the function menu. Press on (S) to select Circular Area Measurement mode. Press (M) to measure the diameter. The result is displayed in the summary line.



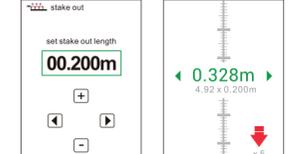
Cylinder Volume

Turn the device ON and slide right to reach the function menu. Press on (V) to select Cylinder Volume Measurement mode. Press (M) to measure the diameter. Repeat the action by pressing (M) again to measure the height of the cylinder. The result is displayed in the summary line.



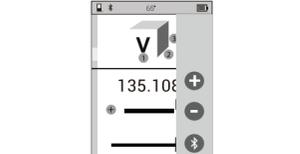
Stake Out

Turn the device ON and slide right to reach the function menu. Press on (S) to select Stake Out Measurement mode. Use (L) or (R) to move the cursor. Press (F) or (B) to add/subtract the value until the desired distance is reached. Press (M) to begin stake out measurement. The green value displayed will indicate the distance in real-time. As you move the device forward or backward, follow the direction indicated by the red arrow. When you are approaching the target, the instrument will start buzzing. The labels X1/X2/X3 below or above the red arrow represent the order of the data group.



Add/Subtract

In the Single Distance, Area, and Volume measurement modes, you can slide to the left to access the add/subtract menu. Press the (L) or (R) buttons to perform addition or subtraction calculations based on the previous record. The result of the calculation will be displayed in the summary line.



Camera

In any measurement mode, if the laser point cannot be confirmed, you can press (C) to locate the target in the image. Additionally, you can use the zoom in/out function by pressing (Z) again.

Error Code

Errors or failures encountered during operation will be displayed as codes for easy identification. Refer to the table below for the meaning of each code and its corresponding solution:

Code	Meaning	Solution
204	Calculation Error	Repeat the measurement
208	Excessive current	Please contact your dealer
220	Low battery	Replace batteries or charge the batteries
255	Received signal too weak or measuring time too long	Change the target surface
256	Received signal is too strong	Change the target surface
261	Out of range measurement	Select the measurement distance within the range
500	Hardware error	Switch off/on the device; if the error still appears, please contact your dealer for assistance

Safety Instructions

It is of utmost importance to carefully follow the instructions provided in this user manual.

Never stare directly into the laser beam as it can cause eye injuries. Even looking at the beam from a greater distance can be harmful to the eyes.

- Do not direct the laser beam towards people or animals.
- When setting up the laser plane, ensure it is positioned above the eye level of individuals to avoid accidental exposure to the laser beam.
- Limit the usage of the Laser Distance Meter to its intended purpose of carrying out measuring tasks. Avoid using it for any other purposes.
- Do not attempt to open the housing of the instrument. If repairs are required, contact authorized workshops or your local dealer for assistance.
- Preserve the integrity of the warning labels and safety instructions provided with the instrument. Do not remove or tamper with them.
- Ensure that the Laser Distance Meter is kept out of reach of children to prevent accidents or misuse.
- Avoid using the instrument in areas with potentially explosive atmospheres to mitigate any risk of ignition.

Range of Responsibility

The manufacturer, or its representatives, have outlined specific exceptions from responsibility regarding the usage of the product. These exceptions include and are not limited to: **User Responsibility.** The user is expected to follow the instructions provided in the user manual. Additionally, periodic checks of the product's accuracy and performance are the responsibility of the user, even though the product is initially supplied in perfect condition

and adjustment.

Faulty or Intentional Usage or Misuse: The manufacturer, or its representatives, do not assume responsibility for the results of faulty or intentional usage or misuse of the product. This includes any direct, indirect, or consequential damage, as well as the loss of profits that may arise from such usage.

Consequential Damage and Loss of Profits in Unusual Conditions: The manufacturer, or its representatives, are not responsible for consequential damage or loss of profits resulting from disasters (such as earthquakes, storms, floods), fires, accidents, acts of third parties, or usage of the product in conditions other than those considered usual.

Data Loss and Interruption of Business: The manufacturer, or its representatives, do not assume responsibility for any damage or loss of profits caused by a change of data, loss of data, or interruption of business resulting from the use of the product or a product that becomes unusable.

Usage Outside User Manual Instructions: The manufacturer, or its representatives, are not responsible for any damage or loss of profits caused by using the product in a manner not explained in the user manual.

Damage Caused by Connection with Other Products: The manufacturer, or its representatives, do not assume responsibility for damage caused by incorrect movement or action resulting from connecting the product with other products.

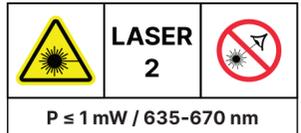
Laser Classification

Warning

The GL MATE 100 Laser Distance Meter is classified as a Laser Class 2 product according to DIN IEC 60825-1:2014. This classification indicates that the laser's output power is within the defined limits for class 2 lasers, ensuring a level of safety during use. As a class 2 laser product, the Laser Distance Meter can be used without additional safety precautions. The inherent protection is provided by the natural aversion responses and the blink reflex, which serve as protective mechanisms against potential eye hazards.

To further indicate the laser's classification and potential risks, the instrument is labeled with class 2 warning labels. These labels serve as a visual reminder to users about the laser's classification and the importance of following the safety guidelines associated with it.

It is essential to respect the laser's classification and warning labels, as they are designed to ensure safe usage.



Warranty

The warranty provided by the manufacturer covers this product for a period of two (2) years from the date of purchase. It guarantees that the product is free from defects in material and workmanship under normal use.

During the warranty period, if any defects occur and you can provide proof of purchase, the manufacturer will repair or replace the product at their discretion, without charging for parts or labor. It's important to note that you should contact the dealer from whom you originally purchased the product in case of a defect. The warranty will not apply if the product has been misused, abused, or altered. Activities such as battery leakage, bending, or dropping the unit are typically considered signs of misuse or abuse and are not covered under the warranty.

If you believe your product is experiencing a defect covered by the warranty, you should reach out to the dealer where you purchased it for further assistance and to initiate the warranty claim process.

If you need to return the instrument for repair or any other service, it is advised to disconnect the batteries or rechargeable batteries from the instrument before sending it. This precaution is taken for safety reasons during transportation and handling.

It is recommended to send the instrument in its original packaging to your local dealer if maintenance is required. The original packaging provides proper protection and ensures the safe transportation of the instrument.

Contact Us / Kontaktiere uns

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Mod. GL MATE 100

Art. № GL-LDM101

Assembled in China / Hergestellt in China

