Laser Distance Meter
Quick Start

Product overview

Thank you for using this handheld laser distance meter, please read the instruction carefully before operation.

This handheld laser distance meter is a professional laser distance meter for outdoor measurement.

Thanks to the creative skeleton design, robust housing and compact inner structure, this can offer the amazing features of IP65 waterproof and super long lifespan. With 2-inch HD colored display, it can also provide better visual experience. What's more, this has reached up to IP65 that the water and dust proof could be truly fulfilled.

This integrated 4x Zoom camera, which could help find the target in sunshine or longer range, as well as allowing user to measure more accurate within the extended range of 200m. The built-in gyro enabling the 3D measurement, P2P function shall be able to measure distance between any two points. The embedded Bluetooth technology can support real time data transmission. Dual power supply can offer more options not limited to rechargeable NI-MH batteries but also AAA alkaline batteries. This also integrated angle sensor to realize real-time angle measurement.

This offering comprehensive measuring functions of Area, Volume, Pythagoras, Auto Level, Auto Height, besides, it also introduces the measurement of Circular area, Cylindrical volume, trapezoid, stake-out and time-delayed measurement, which can satisfy all the needs from different users.

Appearance
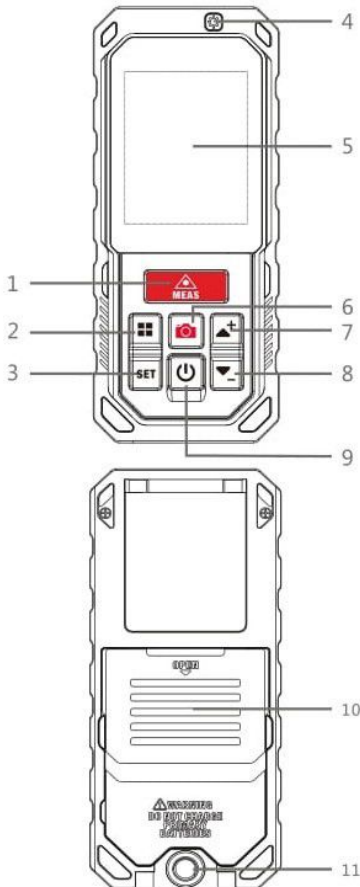
1. Measure Button
Activate the measuring mode, short press to measure, long press to Continuous measure.

2. Menu Button
Press to change measuring mode: Area / Volume / Pythagorean two points / Pythagorean three points / Auto level / Auto height / Point-to-point / Trapezium measurement① / Trapezium measurement② / Triangle Area measurement / Circular Area measurement / Cylindrical Volume measurement / Stake out

3. SET Button
Press the button to select Bluetooth, Unit change, Reference, 3D level, Screen rotation, History and Time-delayed measurement.

4. Laser Emitter Icon

5. Display Screen
Mode selection display

6. Camera
Press the button to activate the camera, press again to switch between zoom in or out.

7. Add/Previous

8. Subtract/Next

9. Power Button
Long press to switch ON/OFF, short press to return to single measurement.

10. Battery Compartment

11. Tripod Hole

Safety Instruction

The safety instructions should be read through carefully before the product is used for the first time.

⚠ Warning
a. The device is categorized into Class 2 laser product. DO NOT stare at laser directly or shoot at others or it will cause damage to eyes.
b. The product is in accordance with strict standards and regulations through the development and manufacturing, but still can't entirely exclude the possibility of interference to other devices, may cause discomfort to human and animals.
- Please DO NOT use this product under explosive or corrosive nvironment.
- Please DO NOT use this product near medical devices.
- Please DO NOT use this product on the plane.

1. Disposal
Everyone is responsible for environmental protection.
It's prohibited to dispose used batteries together with household waste, please collect used batteries to designated waste station.
This product must not be recycled with household waste. Dispose of the product appropriately in accordance with the national regulations in your country.

2. Range of Responsibilit
We will not be responsible for the damages caused by improper use below:
*Using the product without instruction;
*Use of accessories from other manufacturers without approval from our ;
*Carrying out modification or conversion of the product.

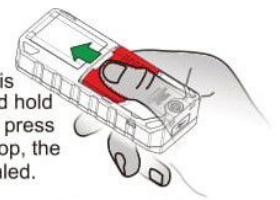## Battery Installation and Instructions
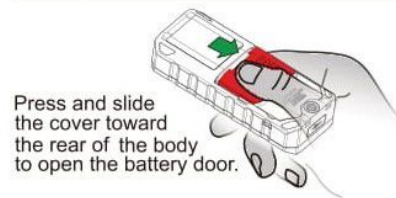
Press and slide the cover toward the rear of the body to open the battery door.
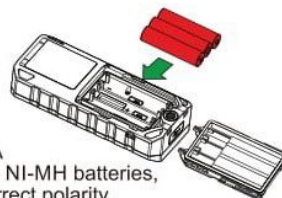
Insert 3* AAA rechargeable NI-MH batteries, observing correct polarity.

After the battery is placed, cover and hold the battery door, press and slide to the top, the cover can be sealed.

The product uses rechargeable NI-MH batteries. Please use provided USB cable while charging. The computer can also be used to charge, but this takes more time.

⚠ Warning

When use dry batteries, please DO NOT use USB to charge. DO NOT mix rechargeable batteries with dry batteries at the same time to avoid accidents. Any damage caused by improper use of charging dry battery is not covered by the warranty, we will not be responsible for it.

While charging, the device may heat up, this is normal, and will not affect the product performance and lifetime.
Please unplug the charger and take off the batteries when not in use.

Specification

Measuring Range [1]	0.05-60/80/100/150/200m
Measuring Accuracy [2]	±(1.5mm+5x10⁻⁵D)
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 Measurement①	√
Trapezium Measurement②	√
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-inch Colored Display
Screen Rotation	√
Protection Class	IP65
Laser Class	Class 2

The Measuring Accuracy value: $\pm(1.5mm+5\times10^{-5}D)$

|	
Class Type	630-670nm, <1mW
Battery Type	3*AAA NI-MH rechargeable batteries
Operating Temperature	0℃~+40℃(32°F~+104°F)
Dimension(mm)	115*49*26
Weight with battery(g)	140g

1. Measuring Range

The Maximum range shall be different according to different models. The actual range refers to the package.

2. Measuring Accuracy

If measuring under favorable conditions, such as smooth surface, proper temperature and indoor lighting, the device is able to work within certain range as indicated. If measuring under unfavorable conditions, such as strong light, uneven surface and improper temperature, the tolerance will be enlarged.

Tips: In case of poor sunlight and bad reflection of the object, please use the target plate or reflector.

Display Screen
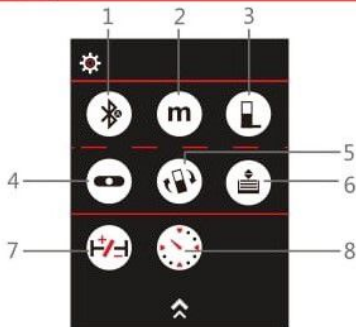
1. Bluetooth

To select 🚹, then press [MEAS] to activate or de-activate the Bluetooth to remote control the measurement and data transmission by connecting with App.
When the icon 🚹 turns grey, the Bluetooth shut off.

2. Measuring Unit

To select (m), then press [MEAS] to change the units (m/ft/in/ft+in)

3. Measuring Reference

To select (🗔), then press [MEAS] to change the reference (Front/Tripod/Rear) , Rear is the default reference.

4. 3D Level

To select (◐), then press [MEAS] to enter 3D level function.

5. Display Rotation

To select (🔄), then press [MEAS] to confirm, it will automatically switch to landscape display when the device placed horizontally.

6. Memory

To select (🗄), then press [MEAS] to confirm, then press [MEAS] or add/subtract to check the records, press [🗑] to delete the record selected.
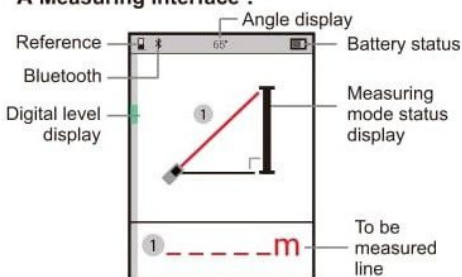
7. Constant settings

To select (H/H), then press [MEAS] to confirm, press [⊞] to move the cursor among the digits, adding or subtracting the value via [▲+] [▼-] button. The measuring results will automatically add/subtract that constant value.
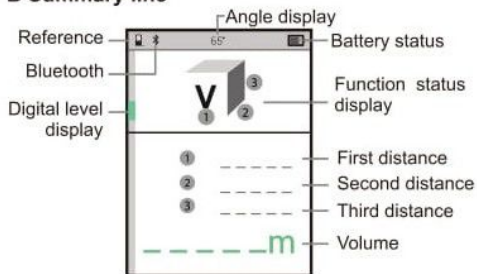
8. Time-delayed measurement

To select (🕐), then press [MEAS] to confirm, the device shall start measuring after 5 seconds.

A Measuring interface :

B Summary line

Operation Instructions

The Single Distance Measurement prompt when it is switched ON. press [⊞] to change the measuring mode, the red indicating the current measuring line, and distance data are displayed in Red, measured data marked in Grey, the summary line displayed in Green.

Top   Tripod   Rear

The measuring data should be different due to different reference settings.

Single Distance Measurement

The device will come to Single Distance Measurement 🔺 when it is switched ON. Press 🔺 after aiming at target to get result in summary line.

Continuous Measurement

The Continuous Measurement allows the user to measure the Maximum or Minimum distance from a fixed measuring point. Press and sweep slowly the laser back and forth and up and down over the desired target point. The value for Maximum and Minimum distances are indicated in the display as well as the last measured value marked in green. You can choose Max or Min value according to your needs.


MIN.   MAX.

Area Measurement

Press [⊞] to select Area Measurement via [S], according to reminding of the red line, press [MEAS] to get the distance for 1st line (e.g Length), press [MEAS] according to the reminding line again to get the distance of 2nd line(e.g. Width), the Area is calculated and displayed in the summary line
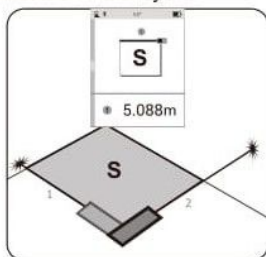

Volume Measurement

Press [⊞] to select Volume Measurement via [V], according to reminding of the red line, press [MEAS] to get the distance for 1st line(e.g Length), press [MEAS] again for 2nd line(e.g Width), press [MEAS] third time for 3rd line (e.g Height), the Volume is calculated and displayed in the summary line.
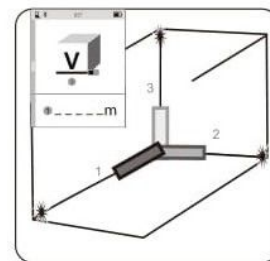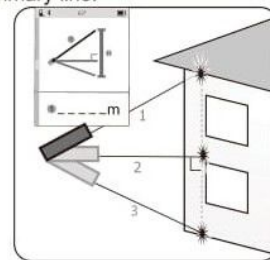

Pythagoras (2-point)

Press [⊞] to select Pythagoras via ◺, according to reminding of the red line, press [MEAS] to get the distance of 1st line, change to the horizontal direction of the object from the fixed measuring point, press [MEAS] again to get the distance of 2nd line, the result is displayed in the summary line.
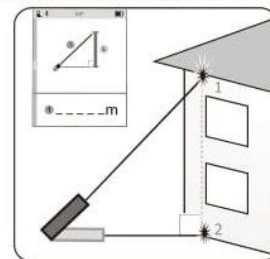
Pythagoras (3-point) ①

Press [⊞] to select Pythagoras ① via ◁, according to reminding of the red line, aiming at 1st target point, press [MEAS] to get the distance of 1st line, change to the horizontal direction of the object from the fixed measuring point, press [MEAS] again to get the distance of 2nd Line, move to the 3rd target point, press [MEAS] to get the distance of 3rd line, the result is displayed in the summary line.

Pythagoras (3-point) ②

Press [⊞] to select Pythagoras ② via ◸, according to reminding of the red line, aiming at 1st target point, press [MEAS] to get the distance of 1st line, change to the horizontal direction of the object from the fixed measuring point, press [MEAS] again to get the distance of 2nd Line, move to the 3rd target point, press [MEAS] to get the distance of 3rd line, the result is displayed in the summary line.
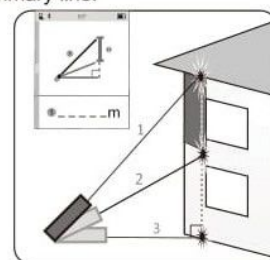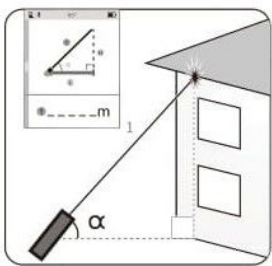

Auto Level Measurement

Press [⊞] to select Auto Level Measurement via ◺, according to reminding of the red line, press [MEAS] to get the distance of hypotenuse, vertical and horizontal lines, the result is displayed in line accordingly.
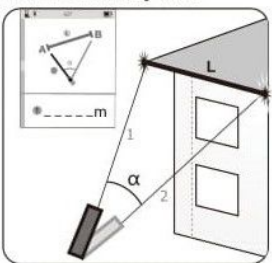
Auto Height Measurement

Press ▦ to select Auto Height Mode ◁ , according to reminding of the red line, press [MEAS] to get the distance for 1st line; press [MEAS] again for 2nd line, then you can get vertical height displayed in summary line.
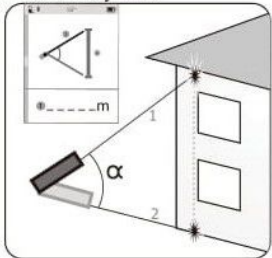
Point to Point (P2P) Measurement

Follow the instruction:"To set the measuring reference for the center point of rotation, wait for stable performance before operating", hold the device still and wait until the instruction icon disappear. According to reminding of the red line, press [MEAS] to get the distance to 1st laser point, move the device from the fixed measuring point, press [MEAS] again to get the distance to 2nd laser point, the distance between two points is displayed in the summary line.

Trapezium Measurement ①

Press ▦ to select Trapezium Measuring mode ⬜ , according to reminding of the red line, press [MEAS] to get the distance for 1st line; press [MEAS] according to the reminding line again to get the distance of 2nd and 3rd line, meanwhile, the last line shall be displayed in the summary line.
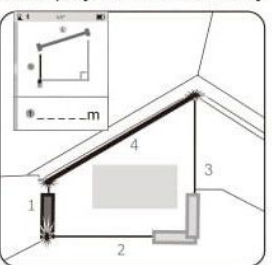
Trapezium Measurement ②

Press ▦ to select Trapezium Measuring mode ⬜ , according to reminding of the red line, press [MEAS] to get the distance for 1st line; taking the fixed measuring point as center then rotate the meter aiming at next target, press [MEAS] to get the distance of 2nd line;


The angle between the diagonal edge and the horizontal edge, the length of right-angle side, the length of diagonal edge and hypotenuse shall be displayed accordingly on screen.
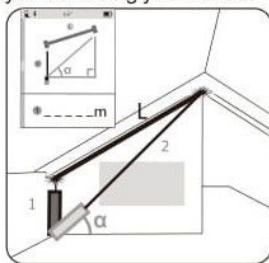
Triangle Area Measurement

Press ▦ to select Triangle Measuring mode ◺S , according to reminding of the red line, press [MEAS] to measure the length of the three line of the Triangle ①②③, the result of area shall be displayed on screen.
Attention: If the Triangle could not be composed by that three measured lines, then outputs error.

①	5.744m
②	5.837m
③	5.749m

14.447m²
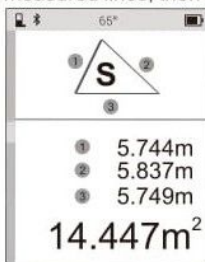
Circular Area Measurement

Press ▦ to select Circular Area Measuring mode S , according to reminding of the red line, press [MEAS] to get the diameter, then area and circumference shall be automatically output on the screen.

⊕	1.050m
⊙	3.299m

0.866m²
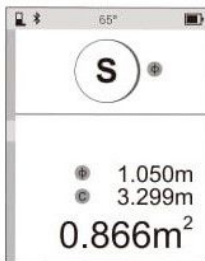
Cylinder Volume

Press ▦ to select Cylinder Volume Measuring mode v , according to reminding of the red line, press [MEAS] to get the diameter and height of the cylinder, the device will automatically calculate the area and volume, and display on screen.

⊕	1.385m
H	4.060m
S	1.505m²

6.114m³
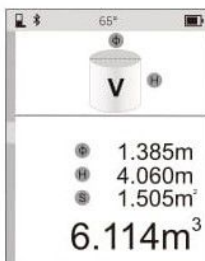
Stake out

Press ▦ to select Stake out , press ▦ to move the cursor and select the corresponding number, press ▲ ▼ to add/subtract the value until the desired distance is reached. Press [MEAS] and start Stake out measurement. The green value would be the distance in real-time. You can move the device

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forward or backward according to the red arrow, when approaching the target, the instrument starts buzzing.
The X1/X2/X3 well below or above the red arrow stands for the order of data group.

stake out

set stake out length

00.200m ◀ 0.328m ▶
4.92 x 0.200m

▦ move cursor
⬍ plus/minus value

x 5
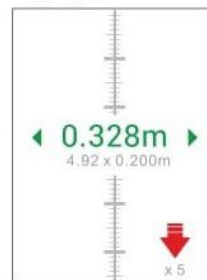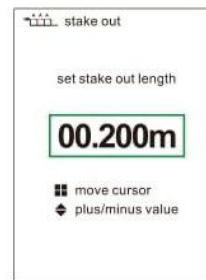
Add/Subtract

Under the mode of single measurement, Area and Volume measurement, press "▲" or "▼" to make add/subtraction calculations on the basis of previous record, the result is displayed in the summary line.

Camera

Under any measurement mode, when the laser point cannot be confirmed, press 📷 to locate the target in the image. Press 📷 to zoom in/out the image and press the [MEAS] when you confirm the target, the display will automatically switch to measuring mode, the result will be displayed at the bottom of the line.

Error Code

All errors or failures will be shown as codes. The following table explains the meaning of codes and solutions.

Code	Cause	Corrective Measure
204	Calculation error	Refer to user manual, repeat the procedures.
208	Excessive current	Please contact your distributor
220	Low battery	Replace batteries or charge the batteries
255	Received signal too weak or measuring time too long	Change target surface
256	Received signal too strong	Change target surface
261	Out of the range of measurement	Select the measurement distance within the range of measurement.
500	Hardware error	Switch on/off the device several times. If the symbol still appears, please contact your dealer for assistance.

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