# **USER MANUAL** English

First of all, thank you for your choice on the handheld laser distance meter.

Please carefully read the safety instructions and the user manual before using this product otherwise it may result in hazardous laser radiation and electric shock. The person responsible for the equipment must ensure that all users understand these directions and adhere to them.

#### Safety Instructions

- 1. This product is a class II laser product. Please DO NOT stare into beam at any time when operating this product!
- 2.Please DO NOT looking directly into the beam with optical aids (e.g.binoculars,telescopes)!
- 3.Please DO NOT remove any safety labels on this product!

#### Equipment Performance

- 1.Measuring range is from 0.05 to 50m;
- 2.Calculation function
- a. Area b.Volume c.Height (Pythagorean theorem)
- d. Addition and subtraction e. Area Summation
- 3.Storage and recall of measurement results
- 4.Metric and British unit system 5.LCD with background light
- 6. Automatically switch off



# Technical Parameters: Tachnical Considerations

| l echnical Specifications  |                         |
|--|-------------------------|
| Measuring accuracy typically ( m <sub>d</sub> Standard deviation ) | ±2mm                    |
| Range  | 0.05~50m                |
| Laser type   | 620~690nm, < 1mW,class2 |
| Distance in mølaser spot in mm                                     | 10,50m, 6,30mm          |
| Measurements per battery set                                       | up to 8000              |
| Distance unit  | m, ' " ,ft,in           |
| Operating Temperature  | 0~+40℃                  |
| Storage Temperature  | -20~+65℃                |
| Minimum and maximum measurer                                       | ments $\checkmark$      |
| Continuous measurement   | √                       |
| Addition/subtraction   | √                       |
| Area/volume pythagorean measurements                               |                         |
| Spray proof/dust protected   | IP40                    |
| Batteries  | AAA,2×1.5V              |
| Weight   | approximately 90g       |
| Dimensions   | 112×48×25mm             |
|  |                         |

#### Prohibited Use

- 1. Opening the equipment by using tools (screwdrivers,etc.), as far as not specifically permitted for certain cases
- 2. Aiming directly into the sun
- 3. Using outside the stated limits
- 4. Immersing the equipment in water
- 5. Cleaning the lens using alcohol or any other organic solvent
- 6. Wiping the lens directly with fingers or other rough surfaces

Press putton to change measurement functions,respectively,as

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 $\Box$ 0

 $\Rightarrow$ 

shown in figure G:select corresponding function and begin the

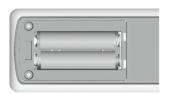
7. Powering the equipment beyond the rated DC voltage

| keypad functions             |
|------------------------------|
| 12 POWER ON/ MEASURING - KEY |
| 13 AREA/VOLUME/PYTHAGORAS    |
| - KEY                        |
| 14 PLUS[+] - KEY             |
| 15 BACK LIGHT/UNIT- KEY      |
| 16 REFERENCE - KEY           |
| 17 MINUS[-] - KEY            |
| 18 CLEAR/OFF - KEY           |
|                              |
|                              |
|                              |
|                              |
|                              |

# LCD and Keypad Description 13 15 figure 🙆

# Start-up

- 1. Battery Installation
- a. According to figures, remove battery compartment lid b. Insert batteries with correct polarity according to battery lid
- c. Close the battery compartment lid



#### \*Caution:

figure 🖸

- 1. Please do not mix new and old batteries. Use alkaline batteries or rechargeable batteries only
- 2. Please replace batteries when the symbol flashes permanently in the display
- 3. Please remove the batteries before any long period of non-use
- 4. Flat batteries must not be disposed of with household waste. Care for the environment and take them to the collection points provided in accordance with national or local regulations

# **Equipment Operation**

Switch on and off

Long-time press button to switch on the equipment with default reference setting of single measurement mode, rear reference and metric unit system: At the same time battery state and laser reflection signal intensity indication as shown as figure C;



Long-time press of button to switch off the equipment; the laser will be switched off automatically after 30 seconds and the equipment will be powered off after 3 minutes of inactivity;

# Clear Button

Pressing of button to clear the last command or displayed data by

# Change Measurement Reference

Default setting of measurement is rear edge when switching on. Pressing this button will change the measurement reference;

## Display Background Light

uit Default setting of LCD background is switching off. Pressing the button will switch on or off LCD background light;

# Unit Conversion



 $\text{figure} \boldsymbol{\Theta}$ 

Default setting of measurement unit is metric unit. Long-lime pressing unit button will convert metric unit British unit from ft, in to "and so on as shown in figure D.



#### Measurement

#### Single-mode Measurement

the laser and aim the laser onto target and pressing button again will trigger single-mode measurement, the result is will results displayed immediately as shown in figure E.



shown in figure F.

... ° 1868 ~ t869 1868 figure G

# Functions

Area, Volume, Indirect Measurement (Pythagorean Theorem)







figure @

When equipment is switched on pressing button will activate



#### Continuous-mode Measurement

When the equipment is switched on,long-lime pressing button will trigger continuous-mode measurement with ı→ı symbo flashing

MIN:MINIMUM VALUE MAX:MAXIMUM VALUE

Current measurement value is displayed in LCD bottom line as

Addition and Subtraction Functions + The current measurement result is added to the previous one

measurement:

Measurement Functions

Single-mode Measurement

Area Summation Function

Volume Measurement

Height Measurement 1

Height Measurement 2

Area Measurement

- The current measurement result is subtracted from the previous one,as shown in figure H



Icons Measurement Sequence

485 ( - 3480 1391. figure @

#### Storage and Recall of Measurement Results

The equipment will automatically store the last 50 measurement results at reverse seqence. On standby state, pressing + or - buttons will recall historical measurement results with the first reading as record No.1 and so on, shown in figure I. When 50-record space is full the equipment will directly delete the first reading and store the current reading



## Appendixes

Message Code

| Message Code | Cause   | Remedy  |
|--------------|---|---|
| 101          | Battery too low                                       | Change batteries                                      |
| 104          | Calculation error                                     | Repeat procedure                                      |
| 152          | Temperature too high                                  | Cool down equipment                                   |
| 153          | Temperature too low                                   | Warm up equipment                                     |
| 154          | Out of range  | Please measure target with in distance of 0.05 to 50m |
| 155          | Received signal too weak                              | Use target plant                                      |
| 156          | Received signal too strong                            | Use target plant                                      |
| 157          | Measure error or<br>background brightness<br>too high | Darken target or change target                        |
| 160          | Shake too much  | Stabilize equipment and repreat measurement           |
|              |   |   |

#### Important Icons Icons Content Description Flashing Continuous measurement More singal power bar indicates stronger Received singal | reflection singal with faster measurement speed and higher accuracy More battery bar indicates more battery Batter indicator energy;Flash of this icon means batteries run out Measurement results are stored at Data storage reverse time Switch on/off the equipment several times if the symbol still appears, then your instrument is defective please call your

## Warranty

We guarantee TWO-year warranty. More information can be found at local dealer. All illustrations, description and technical specifications may be subject to change whitout prior notice.

dealer for assistance