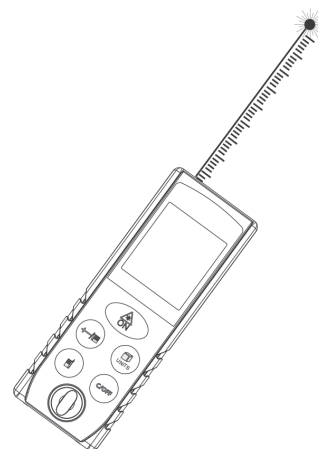


ETHOS

Test Instruments

ETHOS 4495

Laser Distance Meter



Operating Instructions

Introduction

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!

Unpacking Inspection

Unpack and check, if there is any damage or loss, contact with the nearest local sales service agency.

- | | |
|----------------------|------------|
| 1. Mainframe | one unit |
| 2. User manual | one copy |
| 3. AAA battery(1.5V) | two pieces |

1

Basic Functions

Single Measurement	√
Max. / Min. Measurement	√
Continuous Measurement	√
Area / Volume / Pythagoras	√
Unit Setting	√
Reference Setting	√
Bubble level	√
Buzzer Indicator	√
Historical Data Records	20Groups
Data Cleanup	√
Error Message Code	√
Battery Indicator	√
Laser Auto. Switch off	30s
Instrument Auto. Switch off	180s

2

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; Short-time press again, the battery state and laser reflection signal intensity indication as show as figure B

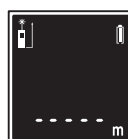


figure B

Long-time press 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;

Change Measurement Reference

Default setting of measurement is rear edge When meter switch on, short-time press will chage the measurement reference.

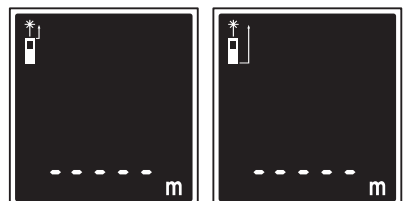


figure C

7

Clear Button

Pressing button to clear the last command or displayed data;

Unit Conversion

Instrument default unit is m. Long-time press button to switch the unit of measurement.

Measurement

Single-mode Measurement

When equipment is switched on, Short-time pressing button will activate the laser and aim the laser onto target and Short-time pressing button again will trigger single-mode measurement, the result is will results displayed immediately as shown in figure D.

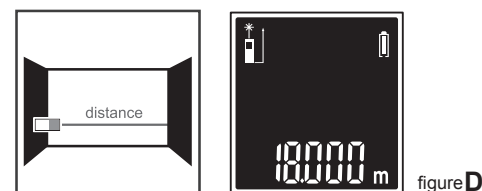


figure D

8

Continuous-mode Measurement

When the equipment is switched on, long-time pressing button will trigger continuous-mode measurement .

MIN: MINIMUM VALUE
MAX: MAXIMUM VALUE

Current measurement value is displayed in LCD bottom line as shown in figure F.

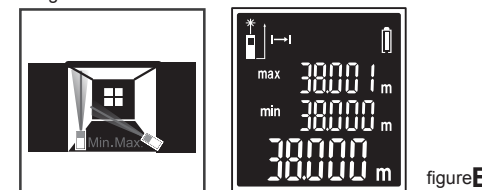


figure E

Functions

Area, Volume, Indirect Measurement (Pythagorean Theorem)

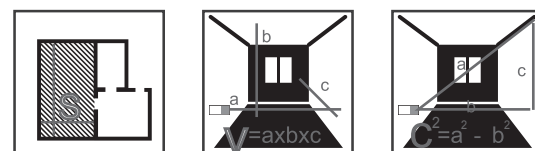


figure F

9

Press button to change measurement functions respectively, as shown in figure F; select corresponding function and begin the measurement;

Measurement	Icons
Continuous Measurement	
Area Measurement	
Volume Measurement	
Pythagorean Theorem	

Addition and Subtraction Functions

- + The current measurement result is added to the previous one
- The current measurement result is subtracted from the previous one, as shown in figure G

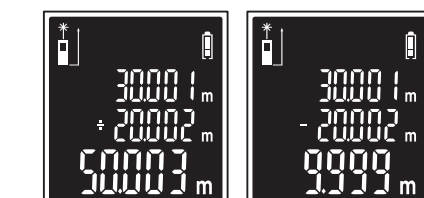


figure G

10

Technical Parameters:

Measuring Range	40m: 0.05m~40m
	60m: 0.05m~60m
	80m: 0.05m~80m
	100m: 0.05m~100m
Measuring Accuracy(Standard Deviation)	±2.0mm
Measuring Unit	m, ft, in.
Area Unit	m ² , ft ²
Laser Type	620~690nm
Laser Class	II, <1mW
Single Measurement Time	0.25s
Operating Temperature	0~+40°C
Storage Temperature	-20~+65°C
Batteries	AAA(Alkaline), 2x1.5V
Measurements Per Battery Set	>5000
Weight (Without Batteries)	Approximately 76g
Dimensions (L×W×H)	110x40x25mm

* Maximum deviation error or Shorter range occurs under unfavourable conditions such as bright sunlight or when measuring too poorly reflecting or very rough surfaces, the environment temperature is too high or too low.

** When measuring within 10m, measurement accuracy is ± 2.0mm; more than 10m, measurement accuracy is calculated as follows: ±2.0mm ± 0.05* (D-10) (D: Measuring Distance, Unit: m)

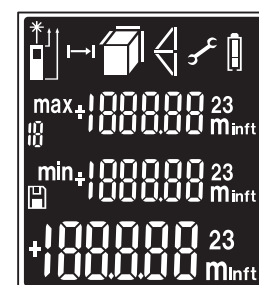
3

Prohibited Use

1. Opening the equipment by using tools (screwdrivers, etc.), as far as not specifically
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
7. Powering the equipment beyond the rated DC voltage

LCD Description

LCD icon indication
SIGNAL POWER INDICATION
AREA/ VOLUME/PYTHAGORAS
LASER "ON"
REFERENCE
CONTINUOUS MEASUREMENT
CURRENT READING
HISTORICAL READINGS
BATTERY STATUS
HARDWARE ERROR
UNIT



4

Key Functions/Icons

Key Functions	Icons
Switch on/Measuring	
Measurement Reference	
Plus(+)/Plus(-) Recall Historical Data Records Button	
Clear/Switch off	
Functions	

5

Start-up

1. Battery Installation

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

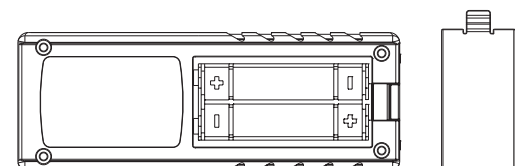


figure A

*Caution:

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 Care for the environment and take them to the collection points provided in accordance with national or local regulations

6

Storage and Recall of Measurements

- 1) Measuring data will be stored automatically, long-time press to the historical reading. The Display will appear like the figure.
- 2) The higher number (up to 20) indicates the most recent measurement taken.
- 3) Use the + or - buttons to scroll through the measurements.

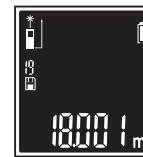


figure I

Message Code

Message Code	Possible cause	Remedy
Err10	Battery too low	Change batteries
Err15	Out of range	Measure target within the range
Err16	Received signal too weak	Use light color target; Hold Quick Measure more steady
Err18	Background brightness too high	Use dark colored target
Err26	Out of display	

11