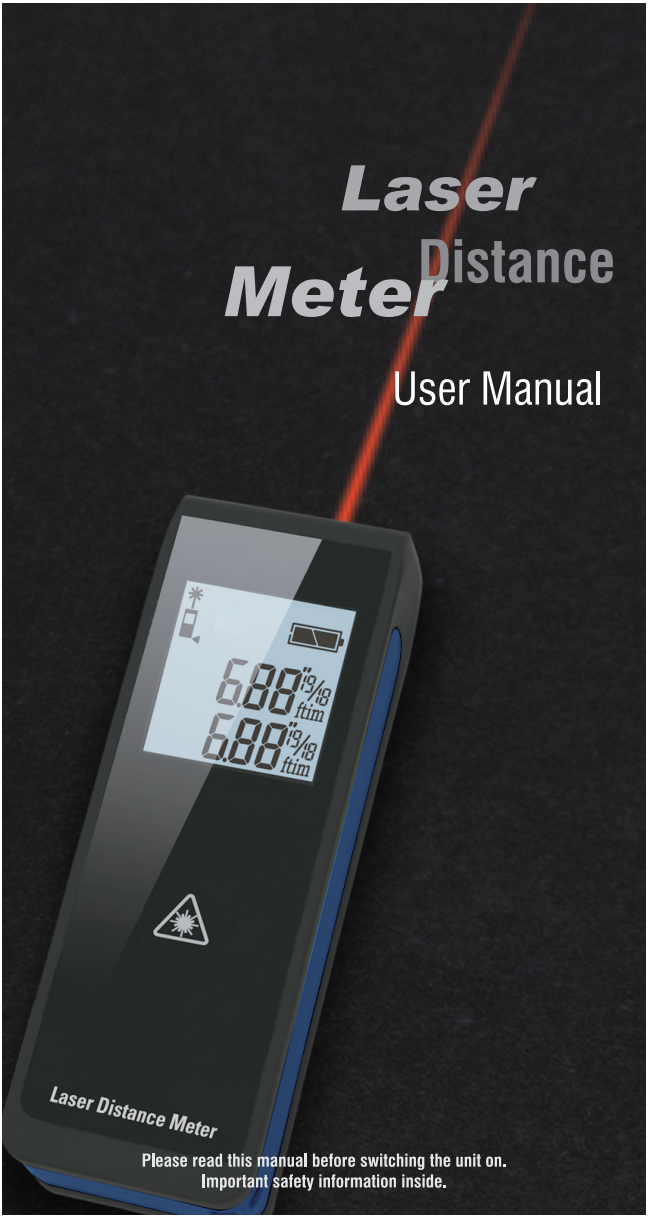
Laser Distance Meter

User Manual



Please read this manual before switching the unit on.
Important safety information inside.

Content

1-Safety Instruction

1-1.Permitted Use

- Measuring distances

1-2.Prohibited Use

- Using the instrument without instruction.
- Using outside the stated limits.
- Deactivation of safety systems and removal of explanatory and hazard labels.
- Opening of the equipment by using tools(screwdrivers, etc.), as far as not specifically permitted for certain cases.
- Carrying out modification or conversion of the product.
- Use of accessories from other manufacturers without the express approved.
- Deliberate or irresponsible behavior on scaffolding, when using ladders, when measuring near machines which are running, or near parts of machines or installations which are unprotected.
- Aiming directly into the sun.
- Inadequate safeguards at the surveying site(e.g.when measuring on roads, construction sites,etc.)

1-3.Laser Classification

This produced a visible laser beam which emerges from the front of the instrument.

Laser Class 2 products:

Do not stare into the laser beam or direct it towards other people unnecessarily. Eye's protection is normally afforded by aversion responses including the blink reflex.

⚠ WARNING:

Looking directly into the beam with optical aids(e.g.binoculars, telescopes) can be hazardous.

Precautions:

Do not look directly into the beam with optical aids.

⚠ CAUTION:

Looking into the laser beam may be hazardous to the eyes.

Precautions:

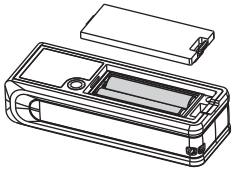
Do not look into the laser beam. Make sure the laser is aimed above or below eye level.

2-Start-Up

2-1.Inserting/Replacing Batteries(See “Figure A”)

1-Remove battery compartment lid.
2-Insert batteries, observing correct polarity.
3-Close the battery compartment again.

- Replace the batteries when the symbol “▭” flashes permanently in the display.
- Use alkaline batteries only.
- Remove the batteries before any long period of non-use to avoid the danger of corrosion.



2-2.Keypad(See “Figure B”)

1-ON/MEAS button

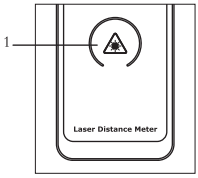


Figure B

2-3.LCD Display(See “Figure C”)

1-Laser active
2-Reference level(rear)
3-Bluetooth(iLDM ONLY)
4-Battery
5-Intermediate line 1
6-Summary line

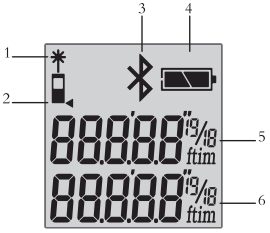


Figure C

3-Initial Operation and Setting

3-1.Switching On and Off

Switches on the instrument and laser.

Press and hold this button for 3 seconds to switch off the instrument.
The instrument switches off automatically after three minutes of inactivity.

3-2.Reference Level Setting(See “Figure D”)

The default reference setting is from the rear of the instrument.

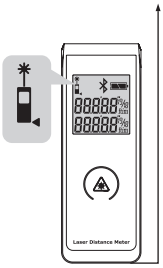


Figure D

3-3.Distance Unit Setting For Instrument

When switching on, press and hold this button longer until the screen display m or ft-in unit icon.

The following unit can be set:

	Distance
1	0.000m
2	0’00”1/16

4-Measuring

4-1.Single Distance Measurement

Press to activate the laser.

Press again to trigger the distance measurement. The measured value is displayed immediately.

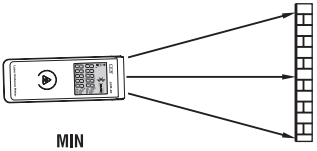
4-2.Continuous Measurement(Tracking) & Min Measurement (See “Figure E”)

The continuous measurement function(tracking) is used for the transferring of measurements, e.g., from construction plans.

Incontinuous measurement mode, the measuring tool can be moved to the target, whereby the measured value is updated approx. every 0.5 seconds in the third line. The corresponding minimum value are displayed dynamically in the first line.

As an example, the user can move from a wall to the required distance, while the actual distance can be read continuously. For continuous measurement, long press the MEAS button will start the continuous measurement. And press MEAS again to stop the function. The function is terminated automatically after continuous 100 times measurement.

The MIN data will display in lines 1.



MIN

Figure E

5-Technical Data

Technical Specifications	
	0.05 to 20 m*(0.2 in to 66 ft*)
Measuring accuracy up to 10m (2σ, standard deviation)	Typically: ±1.5 mm** (± 1/16 in**)
Measuring units	m, ft'in"
Laser Class	Class II
Laser Type	650nm, <1mW
Smallest unit displayed	1mm
Continuous Measurement & Min Measurement	√
Display illumination and two-line display	√
Tripod thread	√
Beep indication	√
Bluetooth 4.0 EDR (iLDM ONLY)	○
Range of Bluetooth (iLDM ONLY)	10m
Bluetooth with Apple iPod/ iPhone support (iLDM ONLY)	√
Bluetooth with SPP support (iLDM ONLY)	√
Dust Protect/Splash proof	IP54
Operating Temperature	0°C to 40°C(32°F to 104°F)
Storage Temperature	-10°C to 60°C(14°F to 140°F)
Batteries	Type "AAA" 2*1.5V
Battery Life	up to 4,000 measurements
Auto laser switch-off	after 30 seconds
Auto instrument switch-off	after 3min
Dimension	100*36*23mm
Weight	80g

* Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties. 0m(33 ft). In unfavourable ure variations, the deviatio in favourable conditions(good target surface properties, room temperature)up to 1 conditions, such as intense sunshine, poorly reflecting target surface or high temperat over distances above 10m(33ft) can increase by ±0.15mm/m(±0.0018 in/ft).

6-Troubleshooting-Causes and Corrective Measures

Code	Cause	Corrective measure
208	Received signal too weak, measurement time too long. Distance out of range.	Use target plate
252	Temperature too high	Cool down instrument
253	Temperature too low	Warm up instrument
255	Hardware error	Switch ON/OFF the device several times, If the symbol still appears, please contact your dealer for assistance.

7-Measuring Sonditions

7-1.Measuring Range

The range is limited as Technical Specifications.

At night or dusk and if the target is in shadow the measuring range without target plate is increased. Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties.

7-2.Target Surfaces

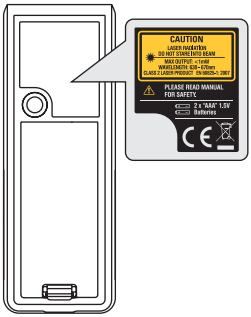
Measuring errors can occur when measuring toward colorless liquids (e.g.water) or dust free glass, Styrofoam or similar semi-permeable surfaces. Aiming at high gloss surfaces may deflect the laser beam and lead to measurement errors.

Against non-reflective and dark surfaces the measuring time may increase.

7-3.Care

Do not immerse the instrument in water. Wipe off dirt with a damp, soft cloth. Do not use aggressive cleaning agents or solutions. Handle the instrument as you would a telescope or camera.

8-Labelling



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