ZiCO

Zi-2650

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Laser Distance Meter

MEAS

CLR
OFF

Unit

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

1.Safety Instruction

1-1.Permitted Use
• Measuring distances.
• Computing functions, e. g. areas and volumes.

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.

⚠ **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.
Precautions: Do not look directly into the beam with optical aids.

2.Inserting/Replacing Batteries

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.
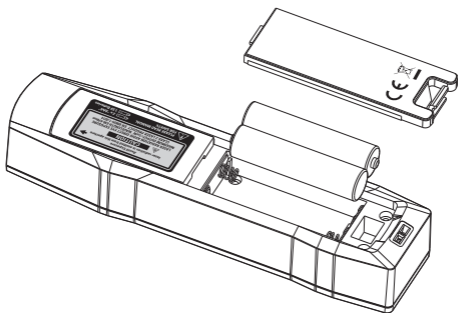
3.Description
3-1.Meter Description
1-Laser Receiving Lens
2-Laser Emitter
3-Level Vial
4-LCD Display
5-ON/MEAS Button
6-Clear/OFF Button
7-MEM/Reference Button
8-Function/Unit Button
9-Label
10-Battery Cover
11-Lanyard Hole
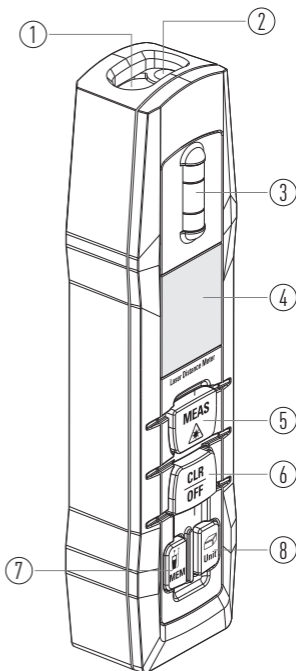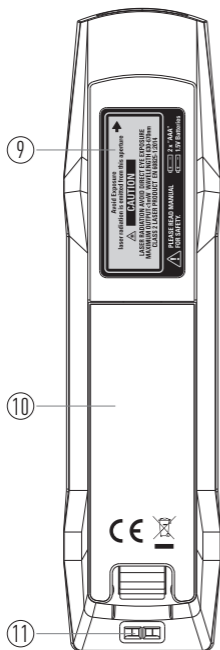
3-2.Symbols Used on LCD Display

1-Laser Active
2-Reference Level (Front)
3-Reference Level (Rear)
4-Battery Status
5-Intermediate Line 1
6-Intermediate Line 2
7-Summary Line
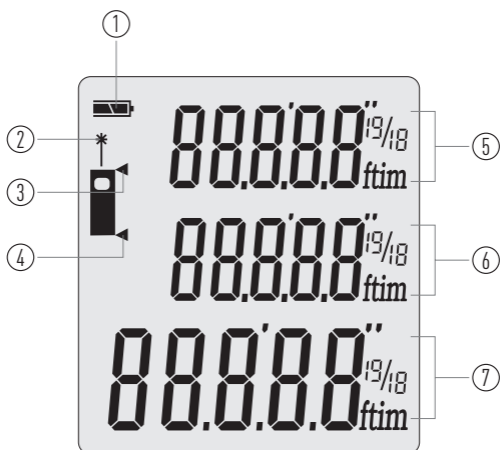
## 4.Initial Operation and Setting

4-1.Switching ON and OFF

- "⚠MEAS" Switches on the instrument and laser.
- "**Clear/OFF**" Press this button longer to switch off the instrument.
- The instrument switches off automatically after three minutes of inactivity.

4-2.Clear Button

- The last action is cancelled or the data display is cleared.
- If in the mode of History storage, press the **MEM/Reference** Button and **Clear/OFF** Button simultaneously will clear all storage data in the memory.

4-3.Reference Level Setting

- The default reference setting is from the rear of the instrument.
- Long press the **MEM/Reference** Button to take the selection from the front edge, a special beep sounds whenever the reference setting is changed.
- After a re-startup the reference returns automatically to the default setting (Rear reference).
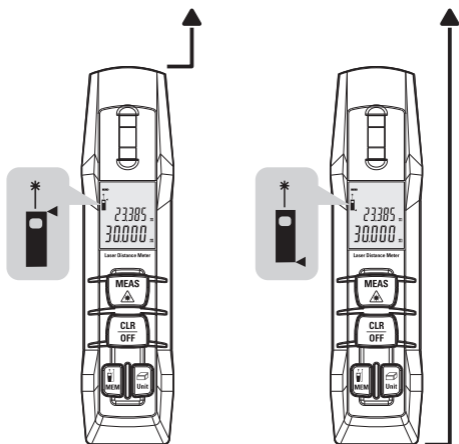
4-4.Distance Unit Setting for Instrument

Click the **Function/Unit** Button longer to change the next type of unit, the following unit can be set:

| Distance	Area	Volume
0.000m	0.000m^2	0.000m^3
0.0in	0.000ft^2	0.000ft^3
1/16in	0.000ft^2	0.000ft^3
0.000ft	0.000ft^2	0.000ft^3
0'00" 1/16	0.000ft^2	0.000ft^3

5.Measuring

5-1.Single Distance Measurement
• Press the **ON/MEAS** Button to activate the laser.
• Press the **ON/MEAS** Button again to trigger the distance measurement, the measured value is displayed immediately.

5-2.Continuous (Tracking) & Max/Min Measurement
• The continuous measurement function (Tracking) is used for the transferring of measurements, e.g., from construction plans.
• In continuous measurement mode, the measuring tool can be moved to the target, where by the measured value is updated approx.
• Every 0.5 seconds in the third line, the corresponding minimum and maximum values are displayed dynamically in the first and second 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 **ON/MEAS** Button will start the continuous measurement.
• And press the **ON/MEAS** or **Clear/OFF** Button again to stop the function.
• The function is terminated automatically after continuous 100 times measurement.
• The MIN and MAX data will display in lines 1 and 2 individually.

MIN   **MAX**
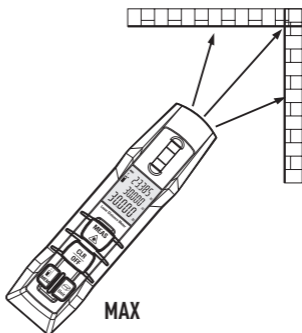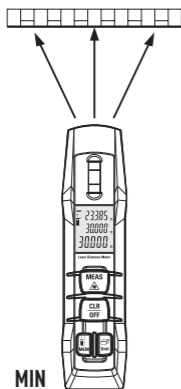
6.Functions
6-1.Area Measurement
1. Press the **Function/Unit** Button once will start the area measurement function.
2. Press the **ON/MEAS** Button to take the first length measurement (e.g. length).
3. Press the **ON/MEAS** Button again to take the second length measurement (e.g. width).
4. The result of the area measurement is displayed in the third line, the individually measured values are displayed in lines 1 and 2.

6-2.Volume Measurement
1. Push the **Function/Unit** Button twice will start volume measurement function.
2. Press the **ON/MEAS** Button to takes first distance measurement (e.g. Length).
3. Press the **ON/MEAS** Button to takes second distance measurement (e.g. width).
4. The result of the area measurement from the values already measured is displayed in the summary line.
5. Press the **ON/MEAS** Button to takes the third distance measurement (e.g. height), the value is displayed in the second line.
6. The result of the volume measurement is displayed in the summary line, the two previously measured values in lines 1 and 2.

6-3.Historical Storage
- The previous 20 records (Measurements or calculated results) are shown in the reverse order.
- Use the **MEM/Reference** Button to navigate through these records.
- You can clear all records by press the **MEM/Reference** and **Clear/OFF** Button simultaneously in historical storage mode.

6-4.Bluetooth Function (Bluetooth Version Only)
- You can use the **Meterbox** APP to connect with this instrument.
- Whilst the first connection between the Phone/PC and the Laser distance meter is being established, a prompt for the Pin-code of the Instrument may be displayed.
- In this case, enter the code ˝**0000**˝ into your Phone/PC.
- The Bluetooth switches off as soon as the instrument is switched off.

7.Technical Specifications

Range *	0.05 to 50m/0.2in to 164ft
Measuring accuracy up to 10m (2σ, standard deviation) **	Typically: ±1.5mm (±1/16in)
Measuring Units	m, in, ft
Laser Class	Class II
Laser Type	650nm, <1mW
Smallest Unit Displayed	1mm
Area/Volume Calculations	Yes
Continuous Measurement	Yes
MIN/MAX Distance Tracking	Yes
Display Illumination	Yes
Multi-Line Display	Yes
Beep Indication	Yes
Bluetooth 4.0 EDR	Bluetooth Version Only
Range of Bluetooth	10m (Bluetooth Version Only)
Bluetooth with iPod/iPhone Support	Bluetooth Version Only
Bluetooth with SPP Support	Bluetooth Version Only
Dust Protect/Splash Proof	IP54
History Measurement Records	20
Keyboard Type	Super Soft-Touch (Long life)
Operating Temperature	0 to 40°C (32 to 104°F)
Storage Temperature	-10 to 60°C (14 to 140°F)
Batteries	Type AAA 2x1.5V
Battery Life	Up to 5,000 measurements
Auto Laser Switch-Off	After 30 seconds
Auto Instrument Switch-off	After 3 min
Dimension	135x33x24mm
Weight	80g

* Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties

** In favourable conditions (Good target surface properties, room temperature) up to 10m/33ft; In unfavourable ure variations, the deviatio conditions, such as intense sunshine, poorly reflecting target surface or high temperature over distances above 10m/33ft can increase by ±0.15mm/m (±0.0018in/ft).

8.Troubleshooting-Causes and Corrective Measures

Code	Cause	Corrective Measure
208	Received signal too weak, measurement time too long. Distance >50m	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.

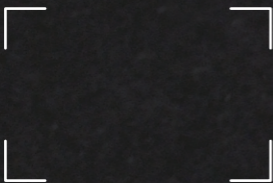## 9.Measuring Condition

9-1.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.

9-2.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.

9-3.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 t he instrument as you would a telescope or camera.