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Before use

1. check-up

Thanks for your purchasing our product.
Please read this manual carefully before using this unit and keep it well for future reference.
Unpack the package and check the following components in it. If there is any part missing or incomplete manual, please contact the local dealer.

- Laser distance meter .......................... 1pcs
- Pouch ............................................. 1pcs
- 1.5V AAA battery ............................... 2pcs
- Instruction manual ............................. 1pcs

2. Introduction

This handheld Laser distance meter is portable, easy operation, high precision and reliability:
High precision: Up to ±1.5mm within measuring range;
Reliable: With auto correction and error report technology, the product can minimize the problems resulting from user’s mistake operation.
Smart: Portable with 100s(excluding battery);
Low power consumption: 2 batteries stand 3000 times operation for measuring.

This unit is widely applied in architecture, decoration, gardening, hydropower, and water resources, engineering, and power system maintenance.

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Laser Distance Meter
3. Safety guide:
   a. Permitted use:
      - Measuring distances
      - Computing functions, e.g., areas and volumes
      - Indirect measuring with Pythagorean
   b. 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, as far as not specifically permitted for certain cases
      - Carrying out modification or conversion of the product
      - Use after misappropriation
      - Use of accessories from other manufacturers without the express approval of our technology
      - Inadequate safeguards at the surveying site
      - Aiming directly at the sun
      - Deliberate dazzling of third parties; also in the park
   c. Laser classification:
      - This produced a visible laser beam which emerges from the front of the instrument. Do not stare into the laser beam or direct it towards other people unnecessarily. Eyes protection is normally afforded by aversion responses including the blink reflex.

4. Button functions:
   - 1. Power On/Measuring
   - 2. Area/Volume button
   - 3. Indirect measurement button
   - 4. Continuous measurement button
   - 5. Plus (+) button
   - 6. Minus (-) button
   - 7. Storage button
   - 8. Reference level button
   - 9. Backlight/unit
   - 10. Clear/Off button
Laser Distance Meter

5. LCD display:
- 1. Laser active
- 2. Reference level (front)
- 3. Reference level (back)
- 4. Continuous measurement
- 5. Instrument error warning
- 6. Variable measuring functions
  - Length measurement
  - Area measurement
  - Volume measurement
  - Indirect (2 times) measurement
  - In direct (3 times) measurement
- 7. Battery status
- 8. Historical memory, call up values
- 9. First value display line, minimum value
- 10. Second value display line, maximum value
- 11. Third value display line
- 12. Summary line for last measure or calculation result

Initial operation and setting

1. Start-up & Shut-down
   a. Inserting / replacing batteries
      Pull up the snap of the battery door to open it and insert the battery included in the package, then close the door and lock it up.
   b. Start-up
      Press key to start-up, and directly go to the interface of single measuring.
   c. Manual Shut-down
      Pressing key for seconds to switch the instrument off.
   d. Auto Shut-down
      The instrument switches off automatically after three minutes of inactivity.

2. CLEAR button:
   The last action is cancelled or the data display is cleared, while making measurements.

3. Reference level setting:
   a. The default reference setting is from the rear of the instrument.
   b. Press this button to take the selection from the front edge: Press the button again to go back to the rear reference edge. Repeatedly press this button to select desired reference edge.
   c. Each time after switching on, the rear edge of the measuring tool is preset as the reference level.
Laser Distance Meter

4. LCD backlight
   Press button of the display can be switched on or off. User can trigger the function when he/she is in darkness situation. The value is clearly shown on the LCD.

5. Distance unit setting
   Press the button longer change the unit: m, in, ft, ft+/in.

Operation instruction

1. Single Measuring
   Press to activate the laser. Press again to trigger the distance measurement. The result is displayed immediately.

2. Continuous Measurement
   Press the button for seconds to enter continuous measurement, the readings of min/max and the current are dynamically displayed on screen. Press once the button to exit continuous measurement, the continuous measure function will be stopped after continuously measuring for 8 minutes.

3. Addition/Subtraction operation:
   Press button, the next measurement is added to the previous one, the press the second measured value is shown and the result is shown automatically.
   Press button, the next measurement is subtracted from the previous one. Then press the result is always shown in the summary line with the previous value in the second line.

4. Area Measuring
   Press once, the symbol appears in function field of display.
   Press to take the first distance measurement (e.g. Length).
   Press again to take the second distance measurement (e.g. width).
   The results of length, width, and area are displayed in historical data line in order.
5. Volume Measuring:
   Press \[ W \] twice, the symbol \[ \] appears in the function field on the display, and the volume function activated as well.
   Press \[ C \] to take the first length measurement (e.g. Length). Next get the width, then heights, the final result is displayed in the summary line.

6. Indirect Measuring-Pythagoras:
   Indirect measurement determining a distance using 2 measurements
   
   Figure 1

   Indirect measurement determining a distance using 3 measurements
   
   Figure 2

   a. To measure distance with double indirect measurement:
      Press \[ \] button, the icon \[ \] displays, then point at the highest end and press the button \[ \] to perform the first indirect measuring. Keep the unit horizontally the unit enters into horizontal measurement. Press button \[ \] again the readings of side 1, side 2 and the wanted side will be shown on LCD in sequence as shown in figure 1.

   b. To measure distance with 3 times indirect measurement:
      Press button \[ \] two times, the icon \[ \] displays, then point at the highest end and press the button \[ \] to perform the first indirect measuring. Keep the unit horizontally the unit enters into horizontal measurement, then measure side 2 and 3 as shown in figure 2. The readings will be shown on LCD in sequence.

7. Historical record review:
   a. Press the button \[ \] continuously, the last 20 readings will display.
   b. Press button \[ \] to review downside.
   c. Press button \[ \] to review upside.

   During daylight or if the target has poor reflection properties!
   In favorable conditions (good target surface properties, room temperature) up to 60m. In unfavorable conditions.
   Such as intense sunshine, poorly reflecting target surface (black surface) or high temperature variations, the deviation over distances above 10m may increase more.
Troubleshooting - Causes and Corrective Measures

All message codes are displayed with either or "Error". The following errors can be corrected:

<table>
<thead>
<tr>
<th>Code</th>
<th>Cause</th>
<th>Corrective measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>Calculation error</td>
<td>Refer to user menu, repeat the procedures</td>
</tr>
<tr>
<td>208</td>
<td>Temperature too high</td>
<td>The measuring tool is outside the operation range 0~40°C, Cool down instrument, make it working in stable temperature environment</td>
</tr>
<tr>
<td>253</td>
<td>Temperature too low</td>
<td>Warm up instrument</td>
</tr>
<tr>
<td>255</td>
<td>Receiver signal too weak, time too long</td>
<td>Use target plate or change a good reflection</td>
</tr>
<tr>
<td>256</td>
<td>Received signal too strong</td>
<td>Target too reflective use target plate or do not aim at strong light objective</td>
</tr>
<tr>
<td>Error</td>
<td>Hardware error and uncertainty error</td>
<td>Switch on/off the device several times. If the symbol still appears, then your instrument is defective. Please call your dealer for assistance</td>
</tr>
</tbody>
</table>

Technical Specifications

<table>
<thead>
<tr>
<th>Measurement spec</th>
<th>40M</th>
<th>60M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement range</td>
<td>± 1.5mm</td>
<td>± 1.5mm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 1.5mm</td>
<td>± 1.5mm</td>
</tr>
<tr>
<td>Measurement unit</td>
<td>m/in/ft</td>
<td>m/in/ft</td>
</tr>
<tr>
<td>Laser class</td>
<td>Class II</td>
<td>Class II</td>
</tr>
<tr>
<td>Laser type</td>
<td>635 nm, &lt;1mW</td>
<td>635 nm, &lt;1mW</td>
</tr>
<tr>
<td>Auto bias technology</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Area / volume calculations</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Indirect measurement using pythagoras</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Continuous measurement</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Max / min distance tracking</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>
### Laser Distance Meter

**Maintenance and warranty**

1. **Maintenance:**
   a. If there is a icon appears on screen, please replace the battery immediately.
   b. Take out the battery from the battery door if the unit is supposed not to be used for a long time.
   c. The unit may not be turned on properly while in charging, if the battery in unit is not put in use for a long time or the battery is approaching exhausted. Take it easy and just wait for a while after the unit being charged for some time.
   d. Do not try to dismantle the unit or change structure of the unit without authorization.
   e. Use soft and wet cloth to clean the unit, do not use corrosive or volatile cleanser or put the unit immersed into liquid.

2. **Warranty:**
   a. Read carefully the warranty terms stipulated in the warranty card provided.
   b. Any damage resulting from the following situation will set us free from the warranty responsibility:
      - unauthorized dismantling;
      - mistake storage after purchasing;
      - mistake operation or abuse of the unit;
      - unauthorized changing records on the Warranty Card;
      - failing to provide the purchasing proof.

3. **Special declaration:**
   We preserve the right to change the design of the product and amendment of the manual accordingly without further notification!

### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition/subtraction</td>
<td>YES YES</td>
</tr>
<tr>
<td>History measurement recodes</td>
<td>20 20</td>
</tr>
<tr>
<td>Buzzer indication</td>
<td>YES YES</td>
</tr>
<tr>
<td>Battery</td>
<td>2x1.5V AAA 2x1.5V AAA</td>
</tr>
<tr>
<td>Battery life</td>
<td>Up to 3000 measurements</td>
</tr>
<tr>
<td>Dust protect/splash proof</td>
<td>Ip54 Ip54</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0°C<del>40°C 0°C</del>40°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-10°C<del>60°C -10°C</del>60°C</td>
</tr>
<tr>
<td>Auto power off</td>
<td>After 3 min After 3 min</td>
</tr>
<tr>
<td>Unit size</td>
<td>128<em>55</em>26mm 128<em>55</em>26mm</td>
</tr>
<tr>
<td>Weight</td>
<td>131G 131G</td>
</tr>
</tbody>
</table>