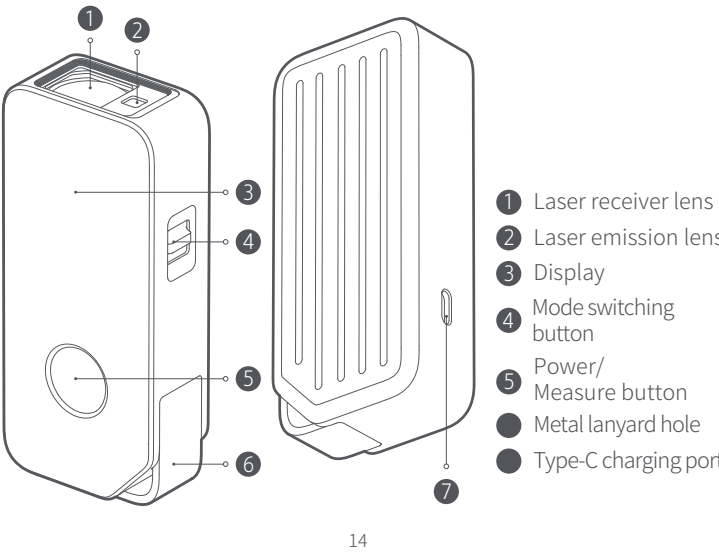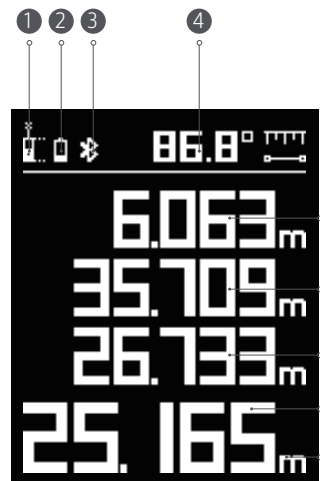## 01 Product Overview

Please read this manual carefully before using the product and keep it for future reference.
Thank you for using HOTO Smart Laser Measure Pro.

1. Laser receiver lens
2. Laser emission lens
3. Display
4. Mode switching button
5. Power/Measure button
6. Metal lanyard hole
7. Type-C charging port

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02 Display

1. Measuring basis/Laser emission alert
2. Battery indicator
3. Bluetooth connection
4. Measuring angles in real time
5. Measurement history – Group 1
6. Measurement history – Group 2
7. Measurement history – Group 3
8. Real-time measurement data
9. Measurement unit

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03 How to Use

Turning on/off

Power-on: In the power-off state, pressing the power/measure button for more than 1s will start the tool. The display will light up and enter test mode.
Power-off: In the power-on state, pressing the power/measure button for more than 3s will turn off the tool.
If the product is inactive for 180s, it will automatically turn off.

Vibration

- The instrument vibrates once when it is manually powered on/off.
- The instrument vibrates once when the switch is flipped to change modes.
- The instrument vibrates once when the measurement is finished.

Mode switching

- Flip the switch down to change modes in turn:
Distance Measurement≥Angle Measurement≥Angles and Height Measurement≥Size Measurement≥Virtual Scale. Flip the switch upwards to change modes in reverse order.

Measuring distance

- After starting the product, short press the power/measure button, and the tool will emit a laser and measure the distance. The present distance will be displayed in real time.
- Press the power/measure button again to stop laser emission. The fixed numbers show measurement values.

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Measuring angles

- Flip the switch up or down to launch the Angle Measuring mode. Angle is displayed in real time.
- Press the power/measure button again to stop laser emission. Numbers will stop to show measurement values.

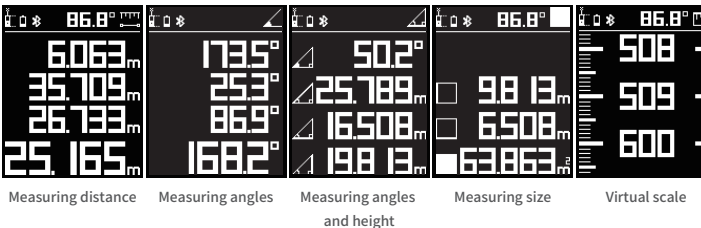### Measuring angles and height

- Flip the switch up and down to initiate the Angle and Height Measurement mode.
- Short press the measure button once to emit laser. The measurement will be conducted in real time and seen on the display.
- Press the measure button again to stop laser emission. The number will stop and show the measurement data of a triangle's hypotenuse and inclination. After measuring the hypotenuse and inclination, the instrument will automatically calculate the height and horizontal distance.
- To continue the measurement, short press the measure button again.

Measuring size

- Flip the switch up or down to enter the Size Measurement mode.
- Short press the measure button once to emit laser. The measurement will be conducted in real time and seen on the display. Press the measure button again to stop laser emission. The measurement shows the rectangle's length.
- Use the same method to measure the rectangle's width, and the instrument will automatically calculate the rectangle's size.
- To continue the measurement, short press the measure button again.

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Virtual scale

- Flip the switch up or down to launch the Virtual Scale mode.
- Short press the measure button once to emit laser. The measurement will be conducted in real time. The default unit is cm.
- Press the power/measure button again to stop laser emission, and the number will stop and show the measurement data.

Measuring distance | Measuring angles | Measuring angles and height | Measuring size | Virtual scale

Connecting to the HOTO app

Scan the product's QR code or search for "HOTO app" in your app store. Download and install the HOTO app. If the app was previously installed, you will be directed to the device connection page.

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Bluetooth connection

- Bluetooth is on by default and cannot be turned off manually. The screen will show a " ✳ ".
- Bluetooth will automatically turn on once when product is started, displaying a flashing " ✳ " icon flashing. The HOTO app will automatically search for devices to pair with.
- When the product is started, open the HOTO app and click the upper right corner to add a device. Follow the steps, and the " ✳ " will be permanently lit on when the connection is successful.
- If the connection fails within 180s, Bluetooth will automatically turn off to save energy.

Note: HOTO Smart Laser Measure Pro has a non-independent and complete Bluetooth module with CMIIT ID: 2020DP2859.

Tips

- If the QR code cannot be scanned, please search for the product name to add the device.
- Due to updates on the HOTO app, the actual operation may slightly differ from the description provided above. Please follow the indications on the app.

Switching reference plane

By default, the reference plane of the product is the end reference " ⊥ ". So please use the product end " ⊥ " as the reference plane. To use the front reference " ⊥ ", please switch the reference plane in Product Settings - Rangefinder Settings in the app.

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Changing measurement units

The product supports three measurement units, with "m" (meters) by default.
Length units: 0.000m, 0.000ft, 0' 00'' 1/16
Size units: 0.000m^2, 0.000ft^2, 0.000ft^2

To use ft (foot) and 0' 00'' 1/16 (foot, inch, 1/16), please switch the measurement units in Product Settings found in the app.

Bluetooth reset

When the laser measure is on/off, press and hold the power/measure button for 7 seconds, and the screen displays "RESET" and " " to reset the product's Bluetooth network configuration information

Charging

- This rangefinder is equipped with a universal Type-C charging port and comes with a USB charging cable.
- If it has not been used for a long time, fully charge the product before use.
- The tool does not measure during the charging process.

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⚠ 04 Warnings

Warnings!
Read the safety and operating instructions carefully before using the laser measure for the first time.

- Read the safety and operating instructions carefully before use. Failure to use the laser measure in accordance with the instructions indicated by this user manual will lead to damage to the laser measure, decreased measurement accuracy, or injuries to users or other people.
- Do not use any methods to disassemble or repair the laser measure on your own. Never illegally modify or change the laser emi ing performance of the laser measure. Properly store the laser measure and keep it out of reach of children and unrelated people.
- Do not point the laser light at your eyes and other body parts or those of other people. Never aim the laser light at the surfaces of highly reflective objects.
- Do not use the laser measure near aircra or medical equipment, or use it in a flammable or explosive environment, because the electromagnetic radiation of this laser measure may interfere with other devices.
- Do not dispose of used ba eries and unusable laser measures with household waste. Dispose of them per national or local laws and regulations.

LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
Maximum output of laser radiation<1 mW
wavelength 630–680 nm
IEC 60825–1:2014; EN 60825–1:2014

LASER 2

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We Shanghai HOTO Technology Co., Ltd., hereby, declares that this equipment is in compliance with the applicable Directives and European Norms, and amendments.

Federal Communications Commission Supplier's Declaration of Conformity
This supplier's declaration of conformity is hereby for
Product: HOTO Smart Laser Measure Pro
Model Number(s): H-D50
Brand/Trade: HOTO
We declare that the above mentioned device has been tested and found in compliance with CFR 47 Part 15 Regulation.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Representative of Responsible Party for SDoC
Company: Shanghai HOTO Technology Co., Ltd.
Address: Building 45, No.50 Moganshan Road, Putuo District, Shanghai, China
Country: China
Telephone No.: 400-021-8696

FCC Warning:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

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05 Troubleshooting

When the product is in use, the following indicators may appear in the main display area:

Error	Cause	Solution
Quick flashing of the lightning bolt sign ⚡	The battery level is low.	Charge the laser measure.
Couldn't measure and the display shows "-.--".	The laser reflective signal is too weak (such as when measuring black surfaces).	Measure a target with high reflectivity or use the laser measure with a reflectiv board.
	The laser reflective signal is too strong (such as when measuring highly reflectiv surfaces).	Measure a target with low reflectivity or use the laser measure with a reflectiv board.
	Out of the operating temperature range	Use the laser measure within the specified t emperature range.
	Out of measurement range	Use the laser measure within the measurement range

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06 Specifications

Model: H-D50
Measurement Range: 0.05—50 m
Measurement Accuracy: ± (2 mm+D*1/10000)
Minimum Displaying Unit: 0.001 m
Measurement Unit: m/ft
Laser Type: 630–680 nm wavelength
Lithium-ion Battery: 3.7 V▬850 mAh
Display Screen: 1.77-inch LCD screen
luetooth Transmission Distance: Approx. 8 m
Charging Input: 5V▬1 A
Operating Power: 1 W(MAX.)
Charging Time: Approx. 100 min
Automatic Turn-off Time: 180 s
Automatic Laser Off Time: 180 s
Operating Temperature: -10°C to 50°C
Storage Temperature: -20°C to 60°C
Storage Humidity: 20%–80% RH
Item Dimensions: 99.5×44.1×23.3 mm
Net Weight: Approx. 90 g

* "D" refers to the actual distance in an indoor environment with standard reflectic surfaces.
All data produced by this product vary slightly due to different actual measurement environments and should depend on users' actual measurements. The rangefinder is appropriate for indoor measurements. The measurement results will have relatively wide discrepancies in such harsh environments as extremely strong sunlight or excessively fluctuated temperature, weak reflective surfaces, and low battery power. The measuring range of 0.05m is the minimum measurable distance using head-based reference mode.

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