ENGINDOT HS-60

ENGiNDOT Digital Laser Distance Meter HS-60

User Manual

1. Safety Information

Please read this manual carefully before using the device. Improper use can lead to injury or damage to the device.

1.1 Laser Safety

This device emits a Class II laser with a power output of less than 1mW. Observe the following safety precautions:

- **Do not stare directly into the laser beam.**Direct eye exposure can cause eye damage.
- Do not aim the laser beam at people or animals.
- Avoid reflecting the laser beam off highly reflective surfaces towards yourself or others.
- Do not disassemble or modify the device. Unauthorized modifications can increase laser radiation.
- Keep the device out of reach of children.

1.2 General Safety

- Use only specified batteries (2 x 1.5V AAA Alkaline).
- Do not use the device in explosive environments or near flammable liquids or gases.
- Protect the device from extreme temperatures, strong vibrations, and direct sunlight.
- Clean the device with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.

2. Product Overview

The ENGiNDOT HS-60 is a digital laser distance meter designed for accurate and efficient measurements. It features a measuring range of up to 196 feet (60 meters) with high precision, multiple measurement modes, and a durable, compact design.

2.1 Key Features

- **High Accuracy:** Measures distances up to 196 ft with an accuracy of ±1/20 inch (0.2 mm).
- **Dual Bubble Levels:** Equipped with two bubble levels for enhanced measurement precision.
- **Multiple Units:** Switchable between meters (m), inches (in), feet (ft), and feet+inches (ft+in).
- **Versatile Measurement Modes:** Includes single distance, continuous, area, volume, and Pythagorean measurements.
- **Data Storage:** Stores up to 30 groups of measurement data.
- **Backlit LED Display:** Large display with backlight for clear visibility in various lighting conditions.
- **Mute Mode:** Option to turn off measurement beeps.
- **Durable Design:** IP54 waterproof and dust-proof rating for protection in challenging environments.

2.2 Package Contents

The package includes the following items:

- 1 x ENGiNDOT HS-60 Laser Distance Measure 196Ft
- 2 x 1.5V AAA Batteries
- 1 x Portable Bag
- 1 x Hand Strap
- 1 x User Manual
- 1 x Gift Box

Image: Contents of the ENGiNDOT HS-60 Laser Distance Meter package, including the device, batteries, portable bag, hand strap, and user manual.

Image: Close-up view of the ENGiNDOT HS-60 Laser Distance Meter, highlighting its optical focusing lens and the emitted laser beam.

3. Setup

3.1 Battery Installation

The ENGiNDOT HS-60 requires two 1.5V AAA Alkaline batteries. Follow these steps to install them:

1. Locate the battery compartment cover on the back of the device.
2. Slide or unclip the cover to open the compartment.
3. Insert the two AAA batteries, ensuring the correct polarity (+ and -) as indicated inside the compartment.
4. Close the battery compartment cover securely.

4. Operating the Device

4.1 Power On/Off

- **To Power On:** Press the **READ** button. The laser will activate.
- **To Power Off:** Press and hold the **OFF/CLEAR** button for a few seconds. The device will also automatically power off after 150 seconds of inactivity.

4.2 Changing Measurement Units

The device supports four measurement units: meters (m), inches (in), feet (ft), and feet+inches (ft+in).

- **To Change Units:** Long press the **UNIT** button (often labeled with 'U' or a unit symbol) to cycle through the available units. Release the button when the desired unit is displayed.

Image: The ENGiNDOT HS-60 display illustrating different measurement units (meters, feet, inches, feet+inches) and the integrated two-bubble level for accuracy.

4.3 Basic Distance Measurement

1. Ensure the device is powered on and the laser is active.
2. Point the laser beam at the target point from which you want to measure the distance.
3. Press the **READ** button once. The measured distance will be displayed on the screen.

Image: A person using the ENGiNDOT HS-60 Laser Distance Meter to measure the length of a wall in a room.

5. Measurement Modes

The ENGiNDOT HS-60 offers several measurement functions. Press the **MODE** button (often labeled with a square icon) to cycle through the different modes.

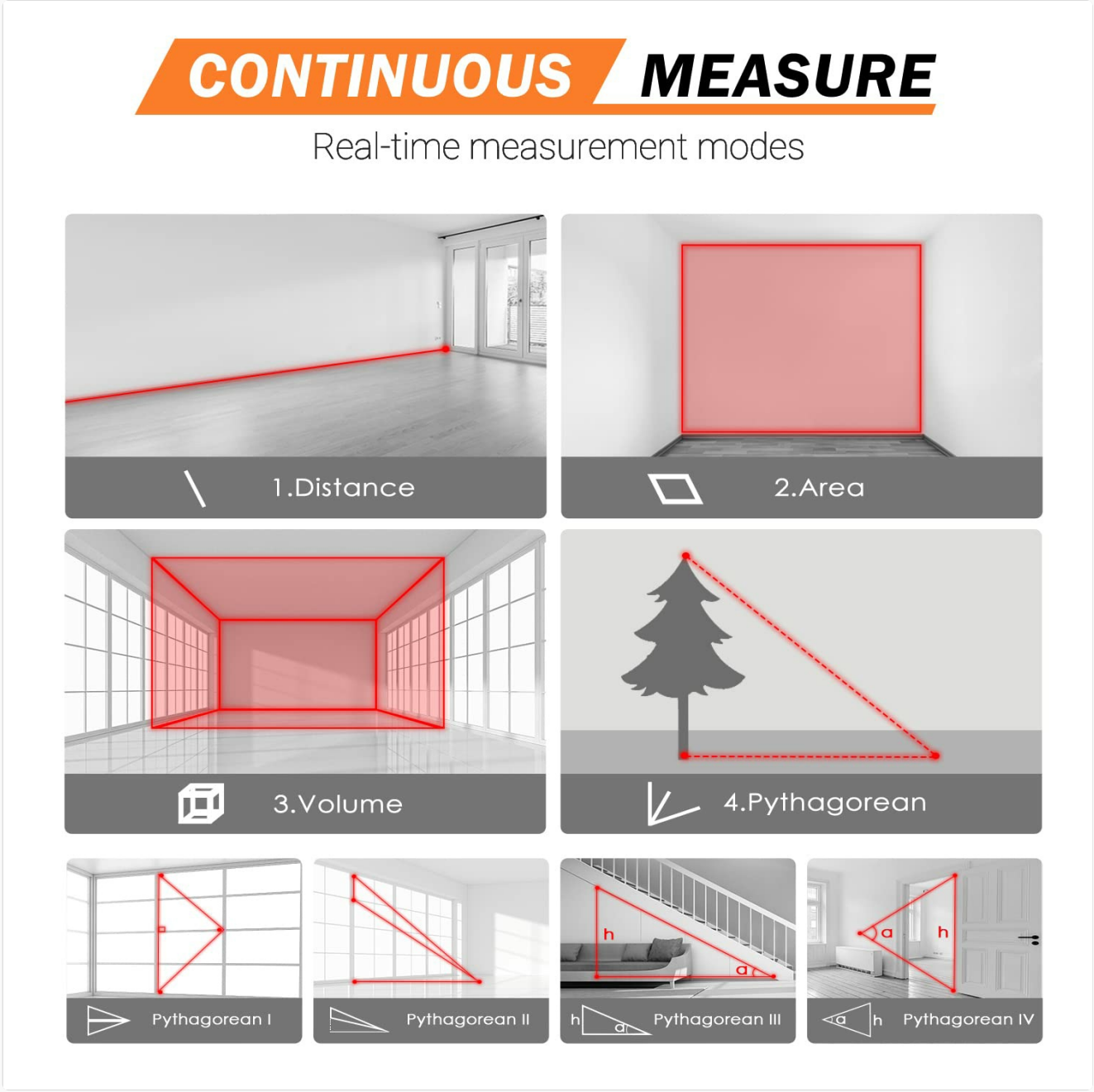

Image: Visual representation of the continuous measurement modes available on the device, including single distance, area, volume, and various Pythagorean calculations.

5.1 Single Distance Measurement

This is the default mode for measuring a single distance between two points. (Refer to section 4.3).

5.2 Continuous Measurement (Tracking)

In this mode, the device continuously measures and displays the distance as you move it. It also shows the minimum and maximum distances recorded during the continuous measurement.

1. Press the **MODE** button until the continuous measurement icon appears (often a moving line or similar).
2. Move the device slowly towards or away from the target. The display will update in real-time.
3. Press **READ** to stop continuous measurement.

5.3 Area Measurement

This mode calculates the area of a rectangular surface.

1. Press the **MODE** button until the area icon appears (a square or rectangle).

2. Measure the first side (e.g., length) by pressing **READ**.
3. Measure the second side (e.g., width) by pressing **READ** again.
4. The device will automatically calculate and display the area.

5.4 Volume Measurement

This mode calculates the volume of a rectangular space.

1. Press the **MODE** button until the volume icon appears (a cube or cuboid).
2. Measure the length by pressing **READ**.
3. Measure the width by pressing **READ**.
4. Measure the height by pressing **READ**.
5. The device will automatically calculate and display the volume.

5.5 Pythagorean Measurement

The Pythagorean mode allows indirect measurement of heights or distances using the Pythagorean theorem. There are typically several variations (e.g., two-point, three-point).

1. Press the **MODE** button until a Pythagorean icon appears (a triangle).
2. Follow the on-screen prompts or diagram to measure the required sides (e.g., hypotenuse, base).
3. Ensure the device is held steady and level for accurate results, especially for indirect measurements.
4. The device will calculate and display the unknown side.

6. Data Management

The ENGiNDOT HS-60 can store up to 30 groups of measurement data, allowing you to review previous readings.

6.1 Storing Data

Measurements are typically stored automatically after each calculation in most modes. The device will indicate when data is saved.

6.2 Recalling Data

1. Press the **SAVE/RECALL** button (often labeled with a folder or memory icon).
2. Use the **+/-** buttons to navigate through the stored records.
3. Press the **SAVE/RECALL** button again to exit data recall mode.

6.3 Clearing Data

To clear the current measurement on the display, press the **OFF/CLEAR** button once. To clear all stored data, consult the device's specific instructions, as this often involves a long press of a specific button or a menu option.

Image: The ENGiNDOT HS-60 Laser Distance Meter's display showing multiple lines of stored measurement data, indicating its data storage capability.

7. Maintenance and Care

Proper maintenance ensures the longevity and accuracy of your ENGiNDOT HS-60 Laser Distance Meter.

7.1 Cleaning

- Use a soft, damp cloth to clean the device casing. Do not use abrasive cleaners, solvents, or harsh chemicals.
- For the optical lens, use a clean, lint-free cloth specifically designed for optics. Avoid touching the lens with your fingers.

7.2 Storage

- Store the device in its portable bag when not in use to protect it from dust and impacts.
- Remove batteries if the device will not be used for an extended period to prevent leakage.
- Store in a cool, dry place, away from direct sunlight and extreme temperatures.

7.3 IP54 Rating

The device has an IP54 rating, meaning it is protected against dust ingress sufficient to prevent the product from operating normally and against splashing water from any direction. While it offers protection, avoid submerging the device in water or exposing it to heavy rain.

8. Troubleshooting

If you encounter issues with your ENGiNDOT HS-60, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on	Low or dead batteries; Incorrect battery installation	Replace batteries with new 1.5V AAA alkaline batteries; Check battery polarity.
Inaccurate measurements	Laser beam obstructed; Unstable measuring surface; Device not held steady; Environmental factors (e.g., strong sunlight)	Ensure clear path for laser; Measure from a stable surface; Hold device steady; Use a reflective target in bright conditions.
Display is dim or unreadable	Low batteries; Backlight off	Replace batteries; Check if backlight can be toggled (refer to specific button functions if available).
Laser does not activate	Device not powered on; Faulty laser module	Press the READ button to power on; If problem persists, contact customer support.

If the problem persists after attempting these solutions, please contact ENGiNDOT customer support.

9. Specifications

Detailed technical specifications for the ENGiNDOT HS-60 Laser Distance Meter:

Feature	Specification
Measuring Range	2 inch - 196 feet (0.05m - 60m)
Measurement Accuracy	±1/20 inch (±0.2 mm)
Laser Class	Class II, <1mW
Laser Wavelength	635nm
Water Resistance Level	IP54 (Waterproof & Dust-Proof)
Data Storage	Up to 30 groups
Measurement Functions	Length, Area, Volume, Continuous, Pythagorean
Units of Measurement	m / in / ft / ft+in
Self-Calibration	Supported

Feature	Specification
Batteries	2 x 1.5V AAA Alkaline Batteries
Automatic Laser Off	30 seconds
Automatic Device Off	150 seconds
Item Weight	132 g (0.29 Pounds)
Dimensions (LxWxH)	11.2 x 5 x 2.5 Centimeters
Material	Plastic + Electronic Components

10. Warranty and Support

ENGiNDOT is committed to providing quality products and customer satisfaction.

10.1 Customer Support

Your ENGiNDOT product comes with worry-free customer support. If you encounter any problems or have questions regarding your laser distance meter, please do not hesitate to contact us. We aim to respond to all inquiries within 24 hours.

For support, please refer to the contact information provided on the product packaging or the official ENGiNDOT website.