FLOUREON EK250

FLOUREON EK250 Laser Distance Meter User Manual

Model: EK250

1. Introduction

This manual provides detailed instructions for the safe and efficient operation of your FLOUREON EK250 Laser Distance Meter. This device is designed for precise distance, area, and volume measurements in various indoor and outdoor applications. Please read this manual thoroughly before using the device to ensure proper handling and to prevent damage.

2. Safety Information

The FLOUREON EK250 Laser Distance Meter is a Class II laser product. Observe the following safety precautions:

- Do not stare directly into the laser beam.
- Do not point the laser beam at people or animals.
- Avoid direct eye exposure to the laser beam.
- The laser type is 635 nm, with power less than 1mW.
- Keep the device out of reach of children.
- Do not attempt to modify or disassemble the device.

3. Package Contents

Verify that all items are present in the package:

- 1 x FLOUREON EK250 Laser Distance Meter
- 1 x Carrying Pouch
- 1 x Hand Strap
- 2 x AAA 1.5V Batteries
- 1 x User Manual

Image: The FLOUREON EK250 Laser Distance Meter shown with its included carrying pouch, hand strap, AAA batteries, and user manual.

4. Product Overview

Familiarize yourself with the components of your laser distance meter:

Image: Front view of the FLOUREON EK250 Laser Distance Meter, displaying the LCD screen, measurement buttons, and laser aperture.

1. **Laser Aperture:** Emits the laser beam for measurement.
2. **LCD Display:** Shows measurement results, unit, battery status, and mode indicators.
3. **MEAS Button:** Initiates a measurement or continuous measurement.
4. **UNIT Button:** Changes measurement units (meters, inches, feet).
5. **Function Buttons (+, -, Area/Volume, Pythagorean):** Selects different measurement modes and operations.
6. **OFF/CLEAR Button:** Turns the device off or clears the last measurement.
7. **Reference Point Button:** Switches the measurement reference point (front or rear of the device).
8. **Bubble Level:** Assists in horizontal alignment.
9. **Battery Compartment:** Houses the AAA batteries.
10. **Tripod Mount:** Threaded insert for attaching to a tripod.

5. Setup

5.1 Battery Installation

1. Locate the battery compartment cover on the back of the device.
2. Slide the cover downwards to open the compartment.
3. Insert two AAA 1.5V batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover by sliding it back into place until it clicks.

Image: The open battery compartment of the FLOUREON EK250 Laser Distance Meter, showing where to insert two AAA batteries.

5.2 Power On/Off

- To power on, press the **MEAS** 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 180 seconds of inactivity (laser off after 30 seconds).

5.3 Unit Selection

- Press the **UNIT** button to cycle through measurement units: meters (m), inches (in), and feet (ft).

5.4 Measurement Reference Point

- Press the reference point button (often indicated by an icon showing the device's base) to switch between measuring from the front edge or the rear edge of the device. The display will show an icon indicating the selected reference point.

6. Operating Instructions

6.1 Single Distance Measurement

1. Point the laser at the target surface.
2. Press the **MEAS** button once to activate the laser.
3. Press the **MEAS** button again to take the measurement. The result will appear on the display.

6.2 Continuous Measurement (Tracking)

1. Press and hold the **MEAS** button for approximately 2 seconds. The device will enter continuous measurement mode, displaying real-time distance updates.
2. The display will show minimum and maximum values during continuous measurement.

3. Press **MEAS** again to stop continuous measurement.

6.3 Area Measurement

1. Press the Area/Volume button (often indicated by a square icon) once. An icon for area measurement will appear on the display.
2. Measure the first side (length) by pressing **MEAS**.
3. Measure the second side (width) by pressing **MEAS**.
4. The device will automatically calculate and display the area.

6.4 Volume Measurement

1. Press the Area/Volume button twice. An icon for volume measurement will appear on the display.
2. Measure the length by pressing **MEAS**.
3. Measure the width by pressing **MEAS**.
4. Measure the height by pressing **MEAS**.
5. The device will automatically calculate and display the volume.

6.5 Pythagorean Measurement (Indirect Measurement)

This mode allows for indirect measurement of heights or distances using the Pythagorean theorem.

1. Press the Pythagorean button (often indicated by a triangle icon) once or twice to select the desired Pythagorean mode (e.g., two-point or three-point measurement). The display will show a diagram indicating which sides to measure.
2. Follow the on-screen prompts to measure the required sides (hypotenuse, base).
3. The device will calculate and display the unknown side.

Image: Visual examples demonstrating how the laser distance meter can be used for various measurements, including room dimensions, height, and diagonal calculations.

6.6 Data Storage and Recall

The device can store up to 100 measurements.

- Measurements are automatically saved.
- To recall stored data, press the memory button (often indicated by a folder or list icon). Use the '+' or '-' buttons to navigate through the stored values.

- To clear all stored data, press and hold the memory button.

6.7 Calibration

The device features an auto-calibration function. If you suspect measurement inaccuracies, you can perform a manual calibration adjustment. Refer to the on-screen menu or specific button combinations for calibration mode, typically involving holding certain buttons during power-on or within a settings menu. The adjustment range is usually around +/- 9mm.

7. Maintenance

- **Cleaning:** Use a soft, damp cloth to clean the device. Do not use abrasive cleaners or solvents. Clean the laser lens carefully with a soft cloth, similar to cleaning camera lenses.
- **Battery Care:** Remove batteries if the device will not be used for an extended period to prevent leakage.
- **Storage:** Store the device in its carrying pouch in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Avoid Impact:** Protect the device from drops and strong impacts.

8. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Dead or incorrectly inserted batteries.	Replace batteries or check polarity.
"Err" displayed on screen.	Measurement out of range, poor reflection, or obstruction.	Ensure target is within 0.05m-40m range, use a reflective target if needed, clear obstructions.
Inaccurate measurements.	Unstable measurement, dirty lens, or device needs calibration.	Ensure stable positioning, clean the laser lens, perform calibration.
Laser not visible outdoors.	Strong ambient light.	Use a target plate, measure in shaded areas, or during lower light conditions.

9. Specifications

Measurement Range	0.05m - 40m
Measurement Accuracy	± 2mm
Laser Class	Class II
Laser Type	635 nm, < 1mW
Data Storage	Up to 100 measurements
Measurement Units	Meters (m), Inches (in), Feet (ft)
Auto Laser Off	30 seconds
Auto Instrument Off	180 seconds
Battery Type	2 x AAA 1.5V Alkaline batteries
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)

Dimensions	*(Specific dimensions not provided in input)*
Weight	*(Specific weight not provided in input)*

10. Warranty and Support

This product is covered by a standard manufacturer's warranty. For specific warranty terms, please refer to the documentation included with your purchase or contact your retailer. For technical support or service inquiries, please contact the manufacturer or your point of purchase.