

UNI-T UT390B+

UNI-T UT390B+ Laser Distance Meter 40M User Manual

1. INTRODUCTION

The UNI-T UT390B+ is a high-precision laser distance meter designed for accurate and efficient measurements. This versatile device can measure distances, calculate areas, and determine volumes. It also supports indirect measurements using the Pythagorean theorem. Its portable, reliable, and user-friendly design makes it an ideal replacement for traditional measuring tools like tape measures and rulers.

This manual provides essential information on the safe operation, features, setup, and maintenance of your UT390B+ Laser Distance Meter. Please read it thoroughly before using the device.

2. SAFETY INFORMATION

WARNING: This device emits Class 2 laser radiation. Do not stare into the laser beam or direct it at other people. Eye damage can occur.

- Do not attempt to modify or disassemble the device.
- Keep the device out of reach of children.
- Avoid using the device in explosive environments or near flammable materials.
- Ensure the measurement surface is not highly reflective or transparent, as this can affect accuracy.
- Protect the device from extreme temperatures, moisture, and strong impacts.

3. PRODUCT FEATURES

- **High Accuracy:** ± 2 mm
- **Measurement Range:** Up to 40 meters
- **Multiple Measurement Units:** Meters (m), Inches (in), Feet (ft)
- **Laser Type:** Class 2, 620-680 nm, <1 mW
- **Functions:** Single distance measurement, Continuous measurement, Area calculation, Volume calculation, Pythagorean theorem (indirect measurement), Addition/Subtraction of measurements, Max/Min value tracking.

- **Automatic Features:** Auto calibration, Automatic laser shutdown, Automatic power-off.
- **Display:** Backlit LCD with battery level indicator.
- **Durability:** IP68 water resistance rating.
- **Battery Life:** Approximately 8000 measurements.

4. COMPONENTS AND CONTROLS



An image of the UNI-T UT390B+ Laser Distance Meter. The device is red and black, featuring a digital display showing measurement readings in feet, battery level, and MAX/MIN indicators. Below the display, a spirit level is visible. To the right of the display are several control buttons: a large red 'READ' button, '+/-' for addition/subtraction, 'OFF/CLEAR' for power and clearing, a unit selection button, and a function selection button.

4.1. Device Overview

- **Laser Emitter/Receiver:** Located at the top of the device.
- **LCD Display:** Shows measurement values, units, battery status, and function indicators.
- **Spirit Level:** Integrated for horizontal alignment.

4.2. Control Buttons

- **READ Button (Red):** Initiates a single measurement or continuous measurement.
- **+/- Button:** Used to add or subtract measurements.
- **OFF/CLEAR Button:** Short press to clear the last measurement; long press to power off the device.
- **Unit Button (U icon):** Cycles through measurement units (m, in, ft).
- **Function Button (Square with lines icon):** Selects measurement modes (Area, Volume, Pythagorean).

5. SETUP

5.1. Battery Installation

1. Locate the battery compartment cover on the back of the device.

2. Open the cover by sliding or unlatching it.
3. Insert two AAA Alkaline batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

Note: Always use new batteries of the same type. Remove batteries if the device will not be used for an extended period.

6. OPERATING INSTRUCTIONS

6.1. Power On/Off

- **Power On:** Press the **READ** button.
- **Power Off:** Long press the **OFF/CLEAR** button. The device will also automatically power off after a period of inactivity.

6.2. Basic Distance Measurement

1. Point the laser at the target surface.
2. Press the **READ** button once. The measured distance will appear on the display.

6.3. Continuous Measurement (Tracking)

1. Press and hold the **READ** button. The device will continuously measure the distance as you move it.
2. The display will show the current, maximum (MAX), and minimum (MIN) distances.
3. Release the **READ** button to stop continuous measurement.

6.4. Area Measurement

1. Press the **Function** button until the area icon (a square) appears on the display.
2. Measure the first side (length) by pressing **READ**.
3. Measure the second side (width) by pressing **READ** again.
4. The calculated area will be displayed.

6.5. Volume Measurement

1. Press the **Function** button until the volume icon (a cube) appears on the display.
2. Measure the length by pressing **READ**.
3. Measure the width by pressing **READ**.
4. Measure the height by pressing **READ**.
5. The calculated volume will be displayed.

6.6. Pythagorean Measurement (Indirect Measurement)

This function allows you to measure inaccessible heights or distances using two or three measurements.

1. Press the **Function** button until the Pythagorean icon (a triangle) appears. Follow the on-screen prompts for the required measurements (e.g., hypotenuse, base).
2. Take the necessary measurements by pressing **READ** for each segment.
3. The device will automatically calculate the unknown side.

6.7. Adding/Subtracting Measurements

1. Perform a measurement.
2. Press the **+/-** button. A '+' or '-' symbol will appear.

3. Perform the next measurement.

4. The result of the addition or subtraction will be displayed. This can be done for lengths, areas, and volumes.

6.8. Changing Measurement Units

Press the **Unit** button (U icon) to cycle through the available units: meters (m), inches (in), and feet (ft).

7. SPECIFICATIONS

Feature	Specification
Model	UT390B+
Measurement Range	0.05m - 40m
Accuracy	±2 mm
Measurement Units	m / in / ft
Laser Class	Class 2, 620-680 nm, <1 mW
Battery Type	Alkaline (AAA)
Battery Life	Approx. 8000 measurements
Automatic Laser Off	Yes
Automatic Power Off	Yes
Water Resistance	IP68
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Product Dimensions	5 x 23 x 10.8 cm
Product Weight	620 grams

8. MAINTENANCE

- **Cleaning:** Use a soft, damp cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a dry, cool place, away from direct sunlight and extreme temperatures. Remove batteries if storing for extended periods.
- **Laser Lens:** Keep the laser lens clean to ensure accurate measurements. Use a soft, lint-free cloth.

9. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on	Low or dead batteries; incorrect battery installation.	Replace batteries; check battery polarity.
"Error" message on display	Measurement range exceeded; laser beam obstructed; highly reflective/transparent surface.	Ensure target is within range (0.05m-40m); clear obstructions; use a target plate for difficult surfaces.
Inaccurate measurements	Dirty laser lens; unstable measurement position; extreme environmental conditions.	Clean laser lens; ensure stable measurement; avoid extreme temperatures or vibrations.
Laser does not emit	Device malfunction; safety lockout.	Restart device; if problem persists, contact support.

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact your local UNI-T distributor. Keep your proof of purchase for warranty claims.