REED

Model R8002

Laser Distance Meter

Instruction Manual

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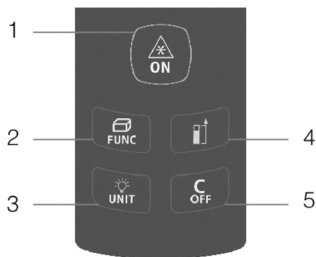
Table of Contents

Features

- Measures Distance, Area, and Volume
- Indirect measurement using Pythagoras
- Max/Min Measurements
- Continuous Measurements
- Reference Setting
- Saves the last 10 measured records

Specifications

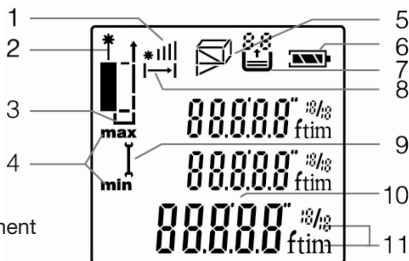|	
Measuring Range:	0.05 to 45m
Measuring Accuracy:	Within 10m: ±2.00mm; < 10m: ±2mm ± 0.05 x (Distance in Meters - 10)
Measuring Units:	m, ft, in
Laser Type:	Class II, < 1mW, 620 to 690nm
Measurement Time:	0.25 to 4 seconds
Operating Temperature:	0 to 40°C
Storage Temperature:	-20 to 65°C
Power Supply:	2 x AAA Batteries
Weight:	120g
Dimensions:	112 x 48 x 25mm

Instrument Description

1. On/Measure Button
2. Function Button
3. Unit/Backlight Button
4. Reference Set Button
5. Clear/Off Button

Display Description

1. Signal Strength
2. Laser Icon
3. Reference Point
4. Max/Min Icon
5. Measurement Type
6. Battery Indicator
7. Record Number
8. Continuous Measurement
9. Hardware Error
10. Measurement Result
11. Unit of Measurement

Operating Instructions

Press the On button to turn the meter on. Press the Off button to turn the meter off. The meter will automatically turn off after 3 minutes of inactivity.

Press the Measure button to activate the laser. Press the Measure button again to take the measurement. While taking any measurement, press the Clear button to cancel.

Press the Backlight button to turn the backlight on and off.

Press and hold the Unit button to change the measuring units.

Different measuring functions will be displayed as symbols on the LCD.

Area: Volume: 2-Point: 3-Point:

Setting the Reference Point

The default reference point is from the back of the meter. Press the Reference Set button to switch between the front, back, or rear. The LCD will display where the reference point with the below icons.

Front   Back   Rear

Area Measurements

1. While the meter is on, press the Function button till the Area symbol appears on the LCD.
2. Press the Measure button to take the first measurement.
    Press the Measure button to take the second measurement.
3. The Area will be automatically calculated and displayed on the LCD.

Volume Measurements

1. While the meter is on, press the Function button till the Volume symbol appears on the LCD.
2. Press the Measure button to take the first measurement.
   Press the Measure button to take the second measurement.
   Press the Measure button to take the third measurement.
3. The Volume will be automatically calculated and displayed on the LCD.

2-Point Indirect Measurements

1. While the meter is on, press the Function button till the 2-Point symbol appears on the LCD.
2. Aim at the top measurement point and press the Measure button to take the first measurement.
3. Turn the meter horizontal and press the Measure button to take the second measurement.
4. Press the Measurement button again to display the result on the LCD. Press the Clear button to return to single measurements.

3-Point Indirect Measurements

1. While the meter is on, press the Function button till the 3-Point symbol appears on the LCD.
2. Aim at the top measurement point and press the Measure button to take the first measurement.
3. Turn the meter horizontal and press the Measure button to take the second measurement.
4. Point the meter to the bottom of the measurement point and press the Measure button to take the third measurement.
5. Press the Measurement button again to display the result on the LCD. Press the Clear button to return to single measurements.

Continuous, Max/Min Measurement

1. While the meter is on, press and hold the Measure button to start Continuous Measurement.
2. While measuring the Maximum and Minimum measurements will appear on the first and second rows on the LCD.
3. Press the Measure button to stop taking measurements. The meter will automatically stop after taking 100 continuous measurements.

Data Records

1. Press and hold the Feature button to access the last 10 recorded measurements. The Record Number icon will appear on the LCD.
2. The records will appear in reverse order from the time they were taken. Press the Function button to scroll through them.
3. Press the Measure or Clear button to return to single measurements.

Battery Replacement

When the Battery Indicator is flashing you will need to replace the batteries.

1. Turn the meter off and remove the battery compartment door on the back of the meter.
2. Insert new batteries observing correct polarity.
3. Close the battery compartment door.

Troubleshooting

Error messages are displayed by a number code on the LCD.

Code	Cause	Remedy
101	Battery too low	Change batteries
104	Calculation Error	Repeat procedure
152	Temperature too high	Cool down the meter
153	Temperature too low	Warm up the meter
154	Out of range	Put target between 0.05 & 45m
155	Signal too weak	Ensure surface is flat and large enough
156	Signal too strong	
157	Measure error or background brightness	Darken or change target
160	Too much shaking	Stabilize the meter

When the Hardware Error icon appears on the LCD, turn the meter on and off several times. If the symbol still appears contact REED Instruments at info@reedinstruments.com for repair.

Be sure to take care with the meter's mirror. Avoid dirt, scratches, and solvents. These may affect the accuracy and precision of the meter.