R8010

REED INSTRUMENTS

Laser Distance Meter

WARRANTY 1 YEAR WARRANTY

Instruction Manual

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Introduction

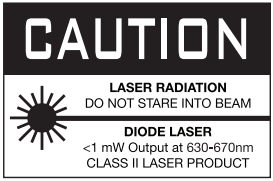
Thank you for purchasing your REED R8010 Laser Distance Meter. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

Product Quality

This product has been manufactured in an ISO9001 facility and has been calibrated during the manufacturing process to meet stated product specifications. If a certificate of calibration is required please contact the nearest authorized REED distributor or authorized Service Center. Please note an additional fee for this service will apply.

Safety

- Never attempt to repair or modify your instrument. Dismantling your product, other than for the purpose of replacing batteries, may cause damage that will not be covered under the manufacturer's warranty. Servicing should only be provided by an authorized service center.



- Use extreme caution when the laser beam is turned on.
- Do not let the beam enter your eye, another person's eye or the eye of an animal.
- Be careful not to point the beam off a reflective surface and strike your eye.
- Do not allow the laser light beam to impinge on any gas which can explode.

Features

- Designed for one-handed operation
- User selectable unit of measure (imperial/metric)
- Laser target pointer
- Reference point selection (front or rear of instrument)
- Backlit multi-line LCD display
- Calculates Area, Volume and Sum of Lengths
- Addition, Subtraction and indirect 2/3 point (Pythagoras) calculations
- Max/Min functions
- Continuous measurement mode
- Internal memory saves up to 20 readings
- Dust and splash-proof (IP54)
- Low battery indicator and auto shut off

Included

- Laser Distance Meter
- Soft Carrying Case
- Wrist Strap
- Screwdriver
- Batteries

Specifications

Measuring Range:	1.92" to 328' (5cm to 100m)
Accuracy:	±0.0018in/ft (±0.15mm/m The standard level of uncertainty up to 10m is +/-1.5mm. After 10m,environmental factors can lead to the accuracy increasing by +/-0.15mm every meter.)
Measuring Units:	Meters, Inches, Feet
Sensor Type:	Laser
Laser Type:	630 to 670nm, <1mW

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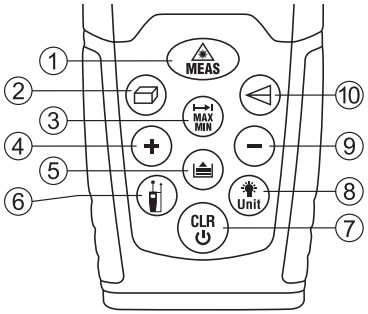
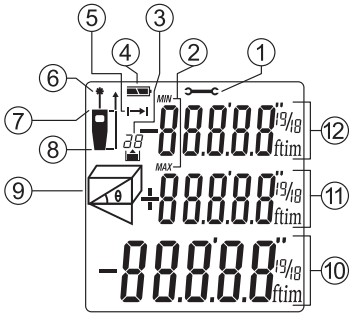
Display:	LCD (Multi-Line)
Backlit Display:	Yes
Start Point Selection:	Yes (Front/Back)
Reading Mode:	2 (Single/Continuous)
Maximum and Minimum Functions:	Yes
Calculation Functions:	Addition, Subtraction, Area, Volume, Sum of Lengths, 2 Point Indirect (Pythagoras), 3 Point Indirect
Internal Memory:	Yes (Up to 20 Readings)
Response Time:	2 secs
Auto Shut-Off:	Yes (After 3 mins)
Low Battery Indicator:	Yes
Power Supply:	2 x AAA Batteries
Battery Life:	Up to 4,000 Measurements
Laser Class:	Class II
Product Certifications:	CE, RoHS, IP54
Operating Temperature:	14 to 122°F (-10 to 50°C)
Storage Temperature:	-4 to 140°F (-20 to 60°C)
Operating Humidity Range:	<95% RH
Dimensions:	4.5 x 1.9 x 1.1" (110 x 46 x 28mm)
Weight:	3.5oz (100g)

Instrument Description

1. Power/Measure button
2. Area/Volume button
3. Single/Continuous Distance Measurement function
4. Plus (+) button
5. Storage button
6. Reference button
7. Clear/Off button
8. Backlight/Unit button
9. Minus (-) button
10. Indirect Measurement button



Display Description



1. Instrument error warning
2. Continuous/Max & Min measurement
3. Memory history, call up values
4. Battery status
5. Single distance measurement
6. Laser is active
7. Reference level (front)
8. Reference level (rear)
9. Measurement indicator
   - Area measurement
   - Volume measurement
   - Indirect measurement
   - Indirect (second) measurement
10. Previous result
11. Secondary display
12. Primary display

Operating Instructions

Measuring Range

The measuring range is limited to 328' (100m). If measuring at night or dusk and the target is in a dark area, the measuring range will increase. To increase the measurement range during daylight or if the target has poor reflection properties you can use a target plate.

Target Surfaces

Measuring errors can occur when taking measurements of colorless liquids (e.g. water) or dust free glass, styrofoam or similar semi-permeable surfaces. Aiming at high gloss surfaces may deflect the laser beam and lead to measurement errors. When measuring against non-reflective and dark surfaces the measuring time may increase.

On and Off

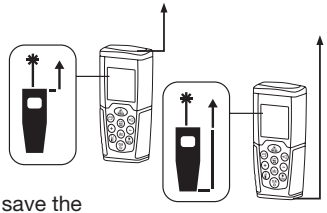
The **Power/Measure** button turns the instrument and laser on. Press the **CLR** button for a few seconds to turn the instrument and laser off. The instrument turns off automatically after three minutes of inactivity.

Clear Button

This button cancels the last action and clears the display.

Reference Point Setting

The default reference point setting is from the bottom of the meter. Press the **Reference** button to toggle between the bottom and top reference points of the meter. A beep will emit whenever the reference setting is changed.



Note: The meter does not automatically save the selected reference point when turned off.

Backlight

Press the **Backlight/Unit** button to turn the backlight on and off.

Setting the Unit of Measure

Hold the **Backlight/Unit** button to toggle between units of measure while in a measurement mode. The default unit of measure is 0.000m. There are a total of 4 selectable units (m, ft., in, ft+).

Measurement Units

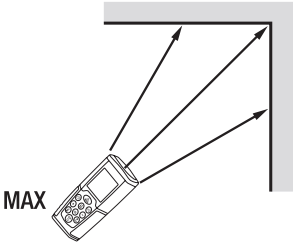
Distance	Area	Volume
0.000m	0.000m^2	0.000m^3
0.0in	0.000ft^2	0.000ft^3
01/16in	0.000ft^2	0.000ft^3
0.000ft	0.000ft^2	0.000ft^3
0'00" 1/16	0.000ft^2	0.000ft^3

Single Distance Measurement

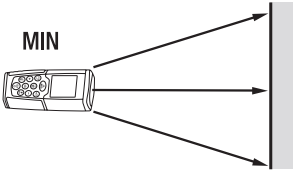
Press the **Power/Measure** button to activate the laser. Press the button again to trigger the distance measurement. The measured value will be displayed immediately.

Continuous (Tracking)/Max & Min Measurement

The continuous measurement function (tracking) is used for the transferring of measurements. In continuous measurement mode, the meter can be moved to the target, whereby the measured value is updated approx. every 0.5 seconds. The corresponding max and min values are displayed dynamically in the first and second line.



For example, the user can move from a wall to the required distance, while the actual distance can be read continuously. For continuous measurement, press the **Max/Min** button until the indicator for continuous measurements appears on the display. Press it again or press the **Power/Measure** button to stop the function. The meter resumes normal operation after 100 continuous measurements.



Addition/Subtraction

Press the **Plus** button to add the current measurement to the previous measurement. Press the **Power/Measure** button to add the second measured value; the result will automatically display.

Press the **Minus** button to subtract the current measurement from the previous measurement. Press the **Power/Measure** button for the result to be shown in the summary line and the previous measurement will be shown in the second line. Press the **CLR** button for the last step to be cancelled. Press the **Max/Min** button to return to single distance measurement mode.

Area Measurement

Press the **Area/Volume** button once to enter Area Measurement mode. The ▱ icon will appear on the display to confirm you are in the correct mode. Press the **Power/Measure** button to take the first measurement (ie: length), press the **Power/Measure** button again to take the second measurement (ie: width). Then the area/surface is automatically calculated and displayed in the summary line on the display. The previous measurement will be shown in the second line.

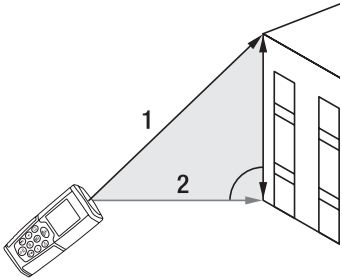
Volume Measurement

Press the **Area/Volume** button twice to enter Area Measurement mode. The ⬚ icon will appear on the display to confirm you are in the correct mode. Press the **Power/Measure** button to take the first measurement (length), press the **Power/Measure** button again to take the second measurement (width), press the **Power/Measure** button again to take the third measurement (height). Then the volume is automatically calculated and displayed in the summary line on the display. The previous measurement will not be shown.

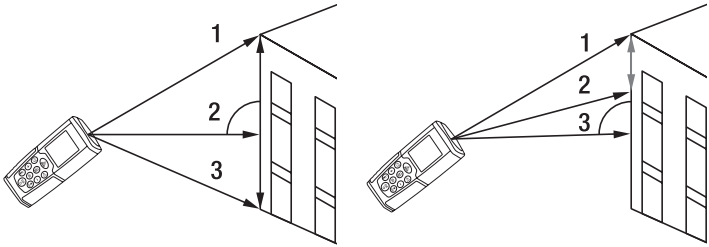
Indirect Measurement

This is used to determine a distance using two auxiliary measurements. Press the **Indirect Measurement** button once, the ◿ icon will appear on the display.

Aim at the highest point and press the **Power/Measure** button to take the measurement. Holding the instrument as horizontal as possible press and hold the **Power/Measure** button to trigger continuous measurement, the horizontal line is measured and shown in the summary and secondary lines.



Three Point Measurement



Press the **Indirect Measurement** button twice, the ◁ icon will appear on the display. Aim at the highest point (1) and press the **Power/Measure** button to trigger the measurement. Holding the instrument as horizontal as possible, press and hold the **Power/Measure** button to trigger continuous measurement and sweep the laser up and down over the ideal target point (2), press the **Power/Measure** button again to confirm the value. Aim at the lower point (3) and press the **Power/Measure** button to trigger the measurement. The results are shown in the summary and secondary lines at the same time.

Measurement Storage

Press the **Storage** button to view the previous 20 records (measurements or calculated results). Use the **+** and **–** buttons to navigate the records.

Battery Replacement

1. When the low battery symbol appears on the display, replace the batteries.
2. Remove the battery cover on the back and insert two (2) new "AAA" batteries.

Note: If the unit will not be used for a long period of time, remove the batteries to avoid battery leakage and corrosion of the battery contacts.

Error Codes

Code	Cause	Corrective Measure
204	Calculation error	Repeat procedure
208	Received signal too weak/ measurement time too long/ distance >50m	Use target plate
209	Received signal too strong	Target too reflective (use target plate)
252	Temperature too high	Cool down instrument
253	Temperature too low	Warm up instrument
255	Hardware error	Switch meter on/off several times

Product Care

To keep your instrument in good working order we recommend the following:

- Do not drop or submerge the unit in water.
- Store your product in a clean, dry place.
- Change the battery as needed.
- If your instrument isn't being used for a period of one month or longer please remove the battery.
- Clean your product and accessories with biodegradable cleaner. Do not spray the cleaner directly on the instrument. Use on external parts only.

Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by phone at 1-877-849-2127 or by email at info@reedinstruments.com to discuss the claim and determine the appropriate steps to process the warranty.

Product Disposal and Recycling

Please follow local laws and regulations when disposing or recycling your instrument. Your product contains electronic components and must be disposed of separately from standard waste products.

Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at 1-877-849-2127 or by email at info@reedinstruments.com.

Please visit **www.REEDInstruments.com** for the most up-to-date manuals, datasheets, product guides and software.

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