

QM55 Quick Measure Distance Meter

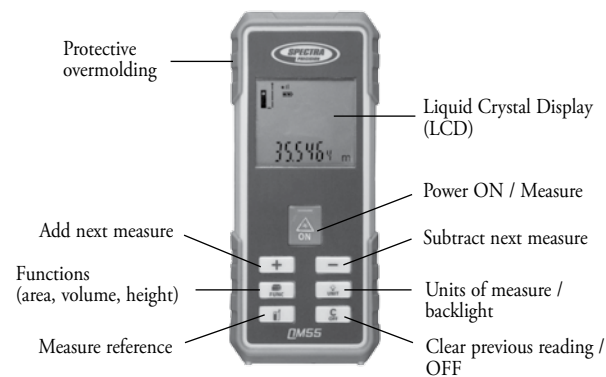
User Guide



Introduction

Thank you for choosing the Spectra Precision QM55 from the Trimble family of precision products. This easy-to-use distance measuring tool will allow you to measure distances quickly, accurately and reliably. Before using the Quick Measure, read this operator's manual carefully. Included is information about operation, safety and maintenance. Ensure that the operating instructions are with the laser distance meter when it is given to other persons. Your comments and suggestions are welcome; please contact us at:
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 8261 State Route 235
 Dayton, Ohio 45424 USA
 Phone: +1 (937) 203-4419
 +1 (800) 527-3771
 Fax: +1 (937) 482-0030
 Internet: www.trimble.com/spectra

Features



Included with the QM55: Pouch, unit, battery, user guide, battery key/extension



Batteries - Installation

1. Open the battery compartment using the supplied battery key or a coin.
 2. Remove the batteries from the packaging and insert them in the tool.
- NOTE** When installing batteries note the positive (+) and negative (-) markings on the housings
3. Close the battery compartment cover.

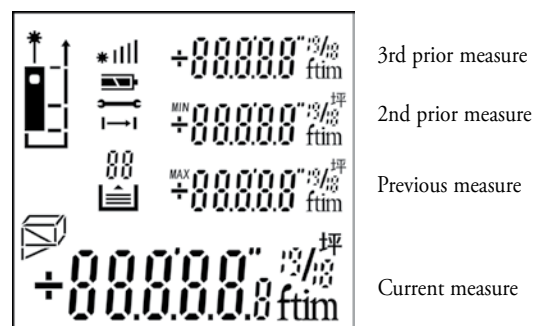


Battery disposal - Some areas have regulations regarding the disposal of batteries. Be sure to dispose of discharged batteries properly.
CAUTION: The batteries should be removed when storing the laser more than 30 days.

Quick Start Guide

Unit OFF	Press	Press Time	Press 2	Press Time	Press 3	Press Time	Comment
Power ON		Long					
Unit ON							
Single measure		Short		Short			1 turn on laser 2 measure
Continuous measure		Long		Short to stop		Last screen shows	Maximum distance Minimum distance Last distance
Change measure reference		Short					Measure from back is the default setting when turned on.
Turn on/off backlight		Short					
Area		Short	Cycle function to: 			Measure as shown	Result shows 2 measures and area
Volume		Short	Cycle function to: 			Measure as shown	Result shows 3 measures and volume
Indirect single height		Short	Cycle function to: 			Measure as shown	Result shows 2 measures and distance
Indirect double height		Short	Cycle function to: 			Measure as shown	Result shows 3 measures and distance
Stake Out		Short	Cycle function to: 			Use + to select digit. Use - to change digits	 Continuous measure; Beeps faster when near set value.
Addition		Short					Adds next measure
Subtraction		Short					Subtracts next measure
Units of measure change		Long		m, ft, in, ft-in			Cycle through units with long presses
Memory		Short				First clear screen measures	Press + or- to cycle through measures.
Clear previous action		Short					Erase previous action
Power off		Long					

Features - LCD Detail



Features - LCD Detail

Icon	Name	Description
	Laser on	Shows that laser is activated
	Measure reference	Indicates measure reference from front, center, back, and back with extended key
	Functions	Indicates functions: area, volume, indirect measure
	Continuous Measure	Symbol flashes when in continuous measure mode
	Signal strength indicator	More bars indicate strong signal, faster and more accurate measure. No bars indicate weak signal - best to adjust conditions
	Battery indicator	More bars indicate more battery power remaining. Flashing indicates it is time to change batteries
	Data storage	Indicates historical reading being displayed. 50 is most recent. 1 is the oldest
	Hardware error	Switch unit on/off several time. If this symbol remains, contact your dealer

General Operation

Single distance measurement

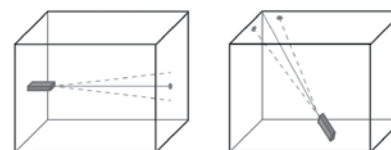
- 1) Switch on the device by pressing the ON button.
- 2) Press the ON button again to activate the laser.
- 3) Aim the laser do to the surface to be measured, and press the On button again. The measurement will be shown in the display
- 4) Press and hold the OFF Button to switch off.

Continuous measurement

- 1) With the device on, press and hold the ON Button for 2 seconds until the continuous measure icon appears to activate continuous measuring mode. The tool beeps during continuous measure mode if beeper is turned on.
- 2) Press the Measure Button again to stop continuous measure. When continuous measure is stopped, the display will show:

- Maximum distance
- Minimum distance
- Last distance

Continuous measure can be useful to find the shortest distance to a wall or longest distance to a corner as shown.



Clear button

Press the C/OFF button to clear the last reading or command. During area and volume measures, the C/OFF button clears the most recent measure, but preserves previous measures.

Change reference

Default measure reference is the back of the unit. Press the MEASURE REFERENCE button to change to front, center or extended back with tail as shown on the icon.

Display backlight

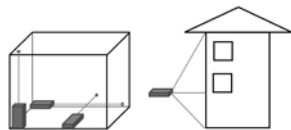
Press the UNIT/LIGHT button to turn the back light on or off.

Setting unit of measure

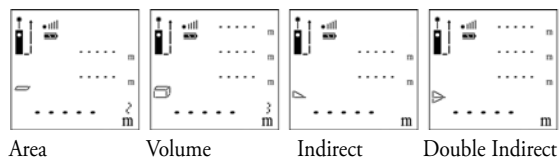
Press and hold UNIT/LIGHT button until the units of measure changes. Press again to change to next unit of measure. Unit of measure options are: m, ft, in, ft-in.



FUNCTIONS - Area, Volume, Indirect Measure (Pythagorean Theorem)



1) Press the FUNC button and cycle through the symbols until you arrive at the desired function as shown in this figure.



2) Press the ON button to activate the laser and take first measure
 3) Press the ON button to activate the laser and take second measure
 4) Press the ON button to activate the laser and take third measure (if required)
 The display will indicate which measure is being taken as per the following chart.

- 13 -

General Care, Safety And Storage

General safety rules

- Check the condition of the tool before use.
- The user must check the accuracy of the tool after it has been dropped or subjected to other mechanical stresses.
- Although the tool is designed for the tough conditions of jobsite use, as with other measuring instruments it should be treated with care.

Do not use prisms or mirrored surfaces

Distances can be measured from all stationary targets without a highly reflective surface, i.e. concrete, stone, wood, plastic, paper, etc. The use of prisms or other highly reflective targets is not permissible and, if attempted, may falsify the results.

Calibration Check

It is recommended to occasionally check the calibration of the tool.

- Select a known measure distance about 1 to 5 meters (3 to 15 ft) that does not change over time.
- Measure the distance 10 times. Calculate the mean deviation from the actual distance. The measured mean deviation should be less than the typical accuracy tolerance of ± 1.5 mm ($\pm 1/16$ in)

- 17 -

Laser Safety

Use of this product by people other than those trained on this product may result in exposure to hazardous laser light.

- Do not remove warning labels from the unit.
- The QM55 is a Class 2M (635 nm) laser product .
- Never look into the laser beam or direct it to the eyes of other people.
- Always operate the unit in a way that prevents the beam from getting into people's eyes.



- 21 -

FUNCTIONS - Area, Volume, Indirect Measure

Measurement Function	Icons	Measurement Sequence
Single Measurement		
Area Measurement		
Volume Measurement		
Height (Pythagorean Theorem) Measurement 1		
Height (Pythagorean Theorem) Measurement 2		

The result will be displayed along with the individual measures.
 NOTE: The indirect and indirect double measurements are based upon the Pythagorean principle which requires a right angle (90°) for accuracy. The indirect measure estimate is less accurate if the measurements do not form a right angle.

- 14 -

Cleaning and drying

- Blow dust off the lens.
- Do not touch the lens with the fingers.
- Use only a clean, soft cloth for cleaning. If necessary, moisten the cloth slightly with pure alcohol or a little water.

NOTE Do not use any other liquids as these may damage the plastic components.

Storage

The temperature limits for storage of your equipment must be observed, especially in winter / summer.

Remove the tool from its pouch if it has become wet. The tool, its carrying case and accessories should be cleaned and dried (at maximum 40°C). Repack the equipment only once it is completely dry. Check the accuracy of the equipment before it is used after a long period of storage or transportation.

Transport

Use the original packaging or packaging of equivalent quality for transporting or shipping your equipment.

CAUTION

Always remove the batteries before shipping the tool.

- 18 -

Warranty

Trimble warrants the Quick Measure QM55 to be free of defects in material and workmanship for a period of 3 years. For the first 2 years, Trimble or its authorized Dealer or Service Center will repair or replace, at its option, any defective part, or the entire product, for which notice has been given during the warranty period. For the 3rd year, an exchange fee may apply. This warranty period is in effect from the date the system is delivered by Trimble or its authorized Dealer to the purchaser, or is put into service by a Dealer as a demonstrator or rental component.

Any evidence of negligent or abnormal use, or any attempt to repair equipment by other than factory-authorized personnel or Trimble certified or recommended parts, automatically voids the warranty.

The foregoing states the entire liability of Trimble regarding the purchase and use of its equipment. Trimble will not be held responsible for any consequential loss or damage of any kind.

This warranty is in lieu of all other warranties, except as set forth above, including an implied warranty. Merchantability of fitness for a particular purpose is hereby disclaimed.

Customers should send products to the nearest authorized Factory, Dealer or Service Center for warranty repairs, freight prepaid. In countries with Trimble Service Subsidiary Centers, the repaired products will be returned to the customer, freight prepaid.

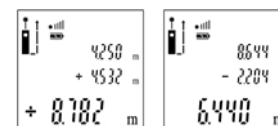
- 22 -

Addition and Subtraction

+ The next measure is added to the previous one

- The next measure is subtracted from the previous one

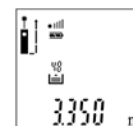
See figure



Storage and Recall of Measurements

The QM55 will automatically store the previous 50 measurements results.

- To retrieve these measures: press the clear button (C/OFF) until there are no measures shown on the screen
- Press the + button. The Display will appear like the figure.
- The higher number (up to 50) indicates the most recent measurement taken.
- Use the + or - buttons to scroll through the measurements.



- 15 -

Trouble Shooting

Message Code	Possible cause	Remedy
101	Battery too low	Change batteries
104	Calculation error	Repeat procedure
152	Temperature too high	Allow the unit to cool down
153	Temperature too low	Allow the unit to warm up
154	Out of range	Measure target within distance of 0.5 and 50 m (1 to 165 ft)
155	Received signal too weak	Use light color target; Hold Quick Measure more steady
156	Received signal too strong	Use dark colored target
157	Background brightness too high	Use dark-colored target
*1	Weak signal	Adjust measurement conditions until signal strength is stronger
	Hardware error	Switch unit on/off several time. If this symbol remains, contact your dealer

- 19 -

Service Request

To locate your local dealer or authorized Trimble Service Center outside the U.S.A. for service, accessories, or spare parts, contact one of our offices listed below.

North-Latin America
 Trimble / Spectra Precision Division
 8261 State Route 235
 Dayton, Ohio 45424-6383
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Specifications

Measuring Range	0.5 m to 50 m (1.6 to 165 ft)
Accuracy	± 1.5 mm typical ($\pm 1/16$ in)
Functions	Measure, Continuous measure, Area, Volume, Pythagorean, Add/Subtract, Stake out, memory 50 measures
Measure reference	Front, Center, Rear, Rear with Extension
Automatic shut off	Laser - 0.5 minutes Product - 3 minutes
Battery life (alkaline)	5000+ measures
Operating temperature	-10°C to +50°C (14°F to 122°F)
Storage temperature	-20°C to +65°C (-4°F to 149°F)
Power supply	2 x AAA x 1.5V
Power indication	LCD 3 segments - 100%, 50%, 0%
Laser Safety	Class II as per EN 60825-1:2007; IEC 60825-1:2007 CFR 21 § 1040 (FDA)
Laser Type / Power	635 nm visible red / 0.95 mW max
Dimensions	52 x 28 x 125 mm (2.0 x 1.1 x 4.9 in)
Weight	180 g (6.35 oz) without batteries
Dust & Water resistance	IP54
Drop Performance	1.5 m (5 ft)

- 16 -

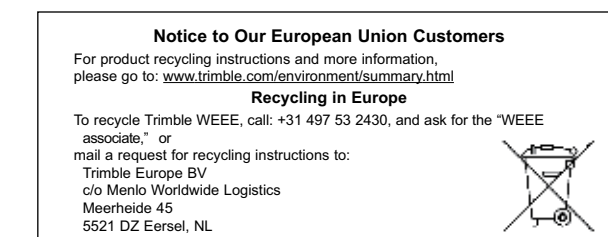
Declarations

We declare, on our sole responsibility, that this product complies with the following directives and standards:

EN 50081-1, EN 61000-6-2, 2004/108/EC.

Designation: Laser range meter

Type: QM55



- 23 -