

QUESTIONS?  
Visit us online at:  
[www.strait-line.com](http://www.strait-line.com)

¿TIENE PREGUNTAS?  
Visítenos en línea en la página  
[www.strait-line.com](http://www.strait-line.com)

QUESTIONS?  
Visitez-nous sur Internet au  
[www.strait-line.com](http://www.strait-line.com)

©2003 **NewellRubbermaid**  
G03368 Huntersville, NC 28078-1801 USA  
1-800-464-7946

85-104-K01-001



This tool emits a laser beam, which, projects a visible spot on the target surface when the tool is used indoors.

This is a Class IIIA (U.S. version) or II (Europe version) laser tool and is manufactured to comply with international safety rule IEC 285.

**SAFETY INSTRUCTIONS:**  
Failure to follow warnings may result in bodily injury.

**WARNINGS:**

**DANGER**  
Class IIIA Laser Product  
Laser radiation emitted from tool  
Max. Power Output < 5mw  
Wavelength: 630-670 nm  
**Do Not Stare Into Beam**  
**AVOID DIRECT EYE EXPOSURE**  
**THIS TOOL EMITS A LASER RADIATION**

This caution notice is reminded with a sticker located on one side of the unit.

**IMPORTANT:** Read all instructions prior to operating this tool and DO NOT remove any labels from the tool.

**CAUTION** – Use of controls or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The power of the emission of the laser beam is less than 1mW in Class II (Europe version) and is less than 5mW in Class IIIA (U.S. version), so the following warnings must be followed to avoid injury:

**DO NOT** stare directly at the laser beam.  
**DO NOT** project the laser beam directly into the eyes of others.  
**DO NOT** set up the tool at eye level or operate the tool on or near a reflective surface, as the laser beam could be projected into your eyes or the eyes of others.

**NEED TO KNOW:**

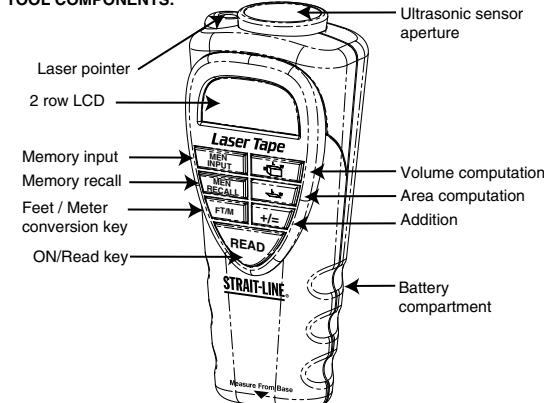
- Inaccurate measurement may result from the following:
- When the battery runs out.
  - When the measured distance is out of the specified range (2' to 50' / 0.6 to 15m).
  - When another ultrasonic source is nearby.
  - When the unit is not held perpendicularly to the target.
- An error message "Err" will be displayed under the following conditions:
- The calculation result exceeded the calculation range as specified.
  - The target surface does not provide good reflection for ultrasonic pulse (i.e. soft and irregular surface such as thick carpet, curtain or irregular wall paper etc)
  - The distance measured is out of specified range (>50' / 15m).

Page 1

Page 2

**Technical Specifications:**  
Recommended use: Indoor  
Measurement range: 2' to 50' (0.6 – 15 meters)  
Accuracy: ±0.5% ± 1 Digit  
Resolutions: 1' (0.01m)  
Aperture angle: Approx. ±5 degrees  
Laser Diode type: Red laser diode 650nm  
Laser Class: Class IIIa (US version) / Class II (Europe version)  
Power supply: 9V block battery (not included)  
Battery life: 10 hours of continuous dynamic measurement with alkaline battery.  
Dimensions: 5-1/4"/134mm x 2-5/16"/59mm x 1-5/8"/41mm  
Weight: 4-1/4oz / 120g (Excluding battery)  
**Calculation range:**  
Length - 9999'11" (9999m)  
Area - 999999 sq ft (99999m<sup>2</sup>)  
Volume - 999999 cu ft (99999m<sup>3</sup>)  
**Operation Environment:**  
Operating temperature: 32°F to 104°F (0°C to 40°C)  
Still Air and hard target surface for accurate measurement.  
**IMPORTANT NOTE:**  
For long distance measuring (between 40' to 50' / 12m to 15m), the relative humidity should be above 48% and target size of at least 10 ft. by 10ft / 3m by 3m.

**TOOL COMPONENTS:**



Page 3

Page 4

**POWER SUPPLY:**  
The Laser Tape requires one 9 volt battery to operate (not included)

**BATTERY INSTALLATION:**

- Open battery compartment door on the back of the unit.
- Plug one 9 volt block battery onto the battery connector.
- Close battery compartment door.

**IMPORTANT NOTE:**

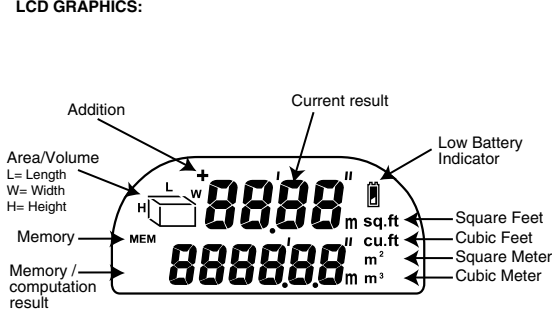
- When battery is low, the low battery icon will be continuously displayed on the LCD.

**HOW TO USE YOUR STRAIT-LINE LASER TAPE**

- Position and point the unit perpendicular to the target. The laser pointer will show where the tool is pointing and is only on while a reading is being taken.
- The target must be a hard regular surface unincumbered by objects / obstacles in the measurement field.
- For more accurate result, choose a target that is flat and large with hard surfaces.
- Put a piece of cardboard in front of the target if the measured target is small, irregular or soft.
- This tool cannot measure through glass even though the laser beam can pass through.

**Caution: Do not stare into Laser beam. Hold tool with beam above or below eye level.**

**LCD GRAPHICS:**



Page 5

Page 6

**LASER TAPE OPERATIONS:**  
Select the measurement unit by pressing the "FT/M" button.

**READ:**

- Point to wall and get measured distance by pressing "Read".
- For dynamic read, press and hold "Read" key to get measured distance displayed while the unit is moving.
- Each measurement erases the previous one.
- Measured distance is displayed on top of the LCD screen.
- Unit automatically turns itself off after 30 seconds of inactivity.

**IMPORTANT NOTE:**

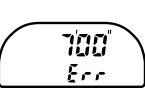
- Make sure to point the unit perpendicular to the target.

**"+" ADDITION:**

- Adds measured lengths, areas and volumes together.

**IMPORTANT NOTE:**

- The addition between different modes (Eg. Length plus area) will result in error. "+" button is ignored and "Err" is shown on screen. Previous state is restored.



**ADDITION (W/O USING MEM):**

- Press "Read" for measurement.
- Press "+/= " to enter the addition mode. A "+" icon will appear on LCD.
- Press and hold "Read" again for second measurement.
- Press "+/= " again the sum is shown on the bottom.



**ADDITION (USING MEM):**

- Press "Mem Input" to save the desired measurement for the addition.
- Press "Read" for new measurement.
- After getting the new measurement, press "+/= " to enter the addition mode. A "+" icon will appear on LCD.
- Press "MEM Recall" to recall previous measurement for the addition. The "MEM" icon will disappear and the stored memory will be automatically cleared.
- Press "+/= " again, the sum is shown on the bottom.

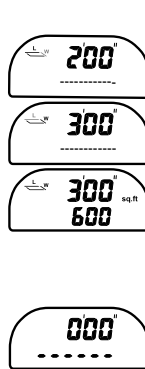


Page 7

Page 8

**AREA:**  
Press "L/W" to enter Area mode for calculation of a room area.

- "L" will blink showing which measurement you will be taking. Press "Read" to take "L" measurement that is displayed on upper portion of screen. (Step 1)
- "W" will blink showing the next measurement to take. Press "Read" to take "W" measurement that is displayed on upper portion of screen. (Step 2)
- Then the Area is automatically displayed on the lower portion of the screen.
- Pressing the "Read" key again will toggle back and forth between the "L" and "W" measurements.
- To start another Area mode, press "L/W" key again.
- To leave the Area mode to make a single measurement, press and hold the "Read" key for about 2 seconds.



**ADDITION OF AREAS UNDER AREA MODE:**

- Press "Mem input" to save the calculated area.
- Press "L/W" to measure new area (Follow step 1 & 2 under the Area section).
- After getting the desired area, press "+/= " to enter the addition mode. A "+" icon would appear on LCD.
- Press "Mem Recall" to recall the first calculated area for the addition. The "MEM" icon will disappear and the stored memory will be automatically cleared.
- Press "+/= " again, the sum of both areas is shown on bottom.



**IMPORTANT NOTE:**

- Before press and hold "Read" to leave the Area mode, the measurement of "L" and "W" must be completed first.

Page 9

Page 10

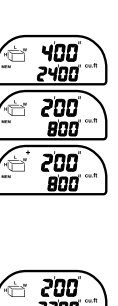
**VOLUME:**

- Press "L/W/H" to enter Volume mode for calculation of a room volume.
- "L" will blink showing which measurement you will be taking. Press "Read" to take "L" measurement that is displayed on upper portion of screen. (Step 1)
- "W" will blink showing the next measurement to take. Press "Read" to take "W" measurement that is displayed on upper portion of screen. (Step 2)
- "H" will blink showing the next measurement to take. Press "Read" to take "H" measurement that displayed on upper portion of screen. (Step 3)
- Then the Volume is automatically displayed on the lower portion of the screen.
- Pressing the "Read" key again will toggle back and forth between the "L", "W" and "H" measurements.
- To start another Volume mode, press "L/W/H" key again.
- To leave the Volume mode to make a single measurement, press and hold the "Read" key for about 2 seconds.



**ADDITION OF VOLUMES UNDER VOLUME MODE:**

- Press "Mem input" to save to the calculated volume.
- Press "L/W/H" to measure new volume (Follow step 1 to 3 under the Volume section).
- After getting the calculated volume, press "+/= " to enter the addition mode. A "+" icon would appear on LCD.
- Press "Mem Recall" to recall the first calculated volume for the addition. The "MEM" icon will disappear and the stored memory will be automatically cleared.
- Press "+/= " again, the sum of both volumes is shown on bottom.



**IMPORTANT NOTE:**

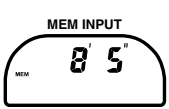
- Before press and hold "Read" to leave the Volume mode, the measurement of "L", "W" and "H" must be completed first.

Page 11

Page 12

**MEM INPUT:**

Inserts a Length, Area or Volume into memory  
The "MEM" icon will appear.



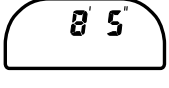
**MEM RECALL:**

Displays the last stored memory. This is either Length, Area or Volume. The "MEM" icon will disappear and the stored memory will be automatically cleared.



**FT/M:**

Change the measurement unit for Length, Area and Volume from ft./in. to metric.



**CARE AND HANDLING:**

- The Laser Tape is a precision instrument which must be handled with care.
- Avoid shock, vibrations and extreme heat.
- Avoid dust and water, which may obstruct the lens. If needed, use a soft cloth or cotton swab and glass cleaner to clean the lens.
- Keep the laser tool dry and clean.
- Check battery regularly to avoid deterioration.
- Remove battery if the laser tool is to be stored for an extended period of time.

**DANGER**  
Class IIIA Laser Product  
Laser radiation emitted from tool  
Max. Power Output < 5mw  
Wavelength: 630-670 nm  
Do Not Stare Into Beam  
**AVOID DIRECT EYE EXPOSURE**  
**THIS TOOL EMITS A LASER RADIATION**

This caution notice is reminded with a sticker located on one side of the unit.

Page 13

Page 14

**WARRANTY:**

Each STRAIT-LINE® laser tool is warranted to be free from defects in material and workmanship for a period of one year from the date of purchase. During the warranty period, should the tool fail to operate under normal conditions and be deemed defective by the manufacturer, the manufacturer reserves the right to repair or replace the product.

This warranty does not apply to any damage resulting from, but not limited to, the following: abuse, negligence, accident, water, being dropped from more than 3 feet, any uses for which the tool is not designed, and/or if repairs have been made or attempted by others. Disassembling the laser tool will also void the warranty.

Return all parts of the broken tool to Newell Rubbermaid™  
Huntersville, NC 28078-1801 USA, for a free repair or replacement if warranty applies.

In Australia or New Zealand, return all parts of the broken tool to Newell Rubbermaid Pty. LTD., 44-48 Rocco Drive, Scoresby Victoria 3179, Australia, for a free repair or replacement if warranty applies.

Page 15