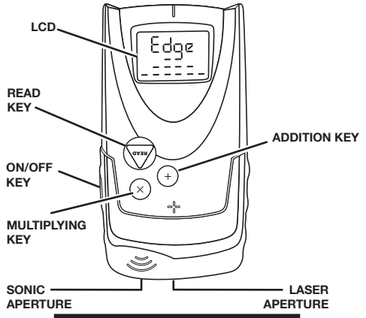
EMTP006 ELECTRONIC *MeasureTech Plus™*



RYOBI

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The Ryobi Electronic ***MeasureTech Plus™*** is intended for fast convenient distance measurement and for locating wood and metal studs behind walls, floors and ceilings.
For damage caused by usage other than intended, the user is responsible.

WARRANTY

This product is a consumable item. Therefore it is warranted against defective parts and labor only and not misuse or deterioration of the product through normal wear and tear for a period of 2 years from date of purchase.

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NOTE: This equipment has been tested and found to comply with the limits for an ultrasonic equipment, pursuant to Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

TURNING ON THE UNIT

- Press “Read” or side yellow “On/Off” button on the unit, if LCD screen lights up the power is on.

FEATURES

Stud Sensor:
- Up to 1-1/2 in. deep stud detection.

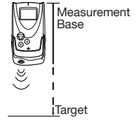
Sonic Tape:
- Instant measurement.
- Dynamic measurement capability.
- Select measurement unit - ft. in./m
- Computation of area and volume.
- Addition of distances.

CALIBRATION AND SCANNING IN *MeasureTech Plus™*

- Position the unit against the wall.
- Press and hold the “ON/OFF” button on side of unit. Hold the unit in still position until calibration is complete (approximately 3 seconds). A single beep will be generated and “ON” will be shown on the LCD after calibration is completed.
- Slowly slide the unit horizontally across the wall, right or left. As you begin to approach the stud, the bars on the LCD will light up.
- When the word “EDGE” flashes and a continuous beep is heard, mark location as the first edge.
- Continue scanning beyond the marked spot until the word “EDGE” disappears on screen. Slide unit in reverse direction to locate the other stud edge.
- Mark this second spot. The middle of the 2 spots is the stud center.
  NOTE: Because of the powerful scanning capability of this tool, be sure to mark the two edges of the stud. The two marks may indicate wider than actual stud width, but center of stud will be between the two marks.

MEASUREMENT PROCEDURES

- The unit functions as a distance measurer with the top edge as the measurement base, and is to be held upside down. The LCD will automatically adapt to this orientation and show reading accordingly.



- Select the measurement unit.
- Point the bottom of the unit perpendicular to the target. The laser will show where the unit is pointing and is “ON” only while reading is being taken.
- Caution: Do not stare directly at the laser beam. Hold the unit above or below eye level.
- Press the “READ” button to take the measurement.
- Hold the “READ” button for continuous measurement.

CALCULATION - ADDITION

1). Take the first reading.
2). Press the “ + “ button.
3). Take the second reading.
4). Press the “ + “ to get the result of length addition
5). Repeat step one and two for further additions.
6). The result of the addition is shown at the upper row of the LCD.
7). The 1-digit counter records the number of readings added. It’s maximum value is 9 and larger number will be displayed as “-”.

CALCULATION - MULTIPLICATION

1). Take the first reading.
2). Press the “ x “ button.
3). Take the second reading.
4). Press the “ x “ to get the result of square measurement (sq. ft / sq. m)
5). Take the third readings.
6). Press the “ x “ to get the result of cubic measurement (cu. ft / cu. m)

CHANGING MEASUREMENT

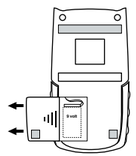
Press the “ + “ and the “ x “ buttons simultaneously to change measurement unit from ft. to m or vise versa.

HINTS

- Any large obstacle found within ± 5 degrees of the viewing angle of the unit might be regarded as the target.
- Hard surfaces usually give more accurate results.
- To measure small, irregular or soft objects, place a piece of cardboard on front of the object.
- The unit cannot measure through glass.

INSTALLING THE BATTERY

- Slide the door off the back of the unit. Attach a 9V battery to the connector. Place battery in compartment and reinstall door.
- Alkaline Battery life is approximately 20 hours.
- The battery should be replaced when battery indicator reads low charge.



OPERATING NOTES

Stud Sensor - Depending on the proximity of electrical wiring or pipes to the wall surface, the ***MeasureTech Plus™*** may detect them in the same manner as studs. Caution should always be used when nailing, cutting of drilling in walls, floors and ceilings that may contain these items.
To avoid electrical, plumbing, etc., remember that studs or joists are normally spaced 16 in. (406 mm) or 24 in. (610 mm) apart and are 1-1/2 in. (38 mm) in width. Anything closer together or a different width may not be a stud, joist or firebreak. Always turn off the power when working near electrical wires.

Sonic Tape - The use of this tool other than specified may cause hazardous radiation exposure. The emission power of the laser beam is less than 5mW Class IIIA (US version) . User must follow the below warnings to avoid injury:
When the laser beam is on, do not stare directly at it. The laser is used for locating a target only. Please do not point the laser into the eyes of others.
The unit should not be positioned at eye level or operated near a reflective surface so as to avoid beaming into the eyes of others accidentally.

WORKING WITH DIFFERENT MATERIALS

The ***MeasureTech Plus™*** is designed for use on dry interior walls only. Three factors can affect sensing depth: Thickness, density and moisture content.
The ***MeasureTech Plus™*** is not designed to penetrate materials with inconsistent density such as:
- Ceramic floor tile
- Carpeting and padding
- Wallpaper with metallic fibers
- Freshly painted walls , not completely dry.
- Lath and plaster

SPECIFICATION OF PRODUCT

Operating Temperature: 32°F to 104°F
Storage Temperature: -4°F to 150°F
Distance Range: from 2 ft. to 50 ft.
Stud Sensor: ± 1/2” accuracy of center location behind drywall up to 1-1/2” thick.
Sonic Tape: Distance range from 2ft. to 50ft. Accuracy: D ± (D x 0.5% + 1 least significant digit) where D is the actual physical distance. e.g. D = 20 ft., reading = 20 ft. ± 3 in.
Computation range of addition: 9999’11” (999m)

Situations	Possible Causes	Solutions
No indications.	• No studs in that area. • You accidently calibrated over a stud.	• Move several inches to the left or right and start again.
LCD display “CAL FAILS”	• Calibration on wall of high density such as a wet painted wall, concrete, etc. • Unit not flat against wall. • Unit was rocked or lifted during calibration.	• Move several inches to the left or tight and start again. • On rough surfaces, place a piece of cardboard on the wall, so that the unit will slide smoothly when scaning. • Always hold ***MeasureTech Plus™*** parallel to stud or joist and move across it.
Indications in too many places.	• Detect other objects besides studs. • Electrical wiring and metal/plastic pipes may be near or touching back surface of wall	• Studs are normally spaced 16 in. (406mm) or 24 in. (610mm) apart and are 1-1/2 in. (38mm) wide, beware of anything closer together or of a different width. • On rough surfaces, place a piece of cardboard on the wall, so that the unit will slide smoothly when scaning.
Inaccurate readings of distance	• Battery runs out of power • Measured distance is <2’ (0.6m) or > 50’ (15m) • Another ultrasonic source is nearby.	• Replace with new battery • Make sure measured distance is within range. • Remove the ultrasonic source and try again.
LCD displays “Err”	• Measured distance is<2’ (0.6m) or > 50’ (15m) • The target is not a good ultrasonic reflector. (e.g. thick carpet, irregular wall paper, etc.) • The unit points to the target obliquely. • Computation is out of the specified range.	• Make sure measured distance is within range. • Place a piece of cardboard in front of target. • Make sure computation is within range. • Hold unit perpendicular to target and start again.

⚠ WARNING: To avoid risk of eye injury, do not stare directly into beam. Never point the beam into anyone’s eyes. Do not permit children to use this device. It is not a toy. To avoid risk of electric shock, **ALWAYS** turn power off when working near electric wires. Avoid nailing, cutting or drilling in walls where electrical or plumbing may be present.