

REED

Model LA-1010

Stud/Metal/AC
Voltage
Detector



Instruction Manual

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Safety

The following warnings must be followed to avoid injury.

- DO NOT remove warning labels
- DO NOT use optical tools such as a transit to view laser beam as serious eye injury could result
- DO NOT project the laser beam directly into the eyes of others
- DO NOT stare directly at the laser beam
- DO NOT project laser beam onto a reflective surface
- DO NOT operate around children, or allow children to operate
- DO NOT disassemble the laser
- Always turn off the laser when this tool is not in use

IMPORTANT

Read all instructions prior to operating the unit and DO NOT remove any labels from the tool. The unit produces a straight line on the same surface on which the tool is placed. Any reflection of the line on another surface should be considered reference. You should always use caution when nailing, cutting or drilling in walls, ceilings and floors that may contain wiring or pipes near the surface.

CAUTION

Shielded, dead or non-powered wiring will not be detected as live wires.

Always remember that studs or joists are normally spaced 16 inches or 24 inches apart and are 1-1/2 inches in width. To avoid surprises, be aware that anything closer together or of a different width may be an additional a stud, joist or firebreak.

When working near AC electrical wires, always turn off the power.

Note

The unit is designed to detect 110 volts (for USA version) and 230 volts for (European version) AC in live electrical wires. It will also detect the presence of live wires having greater than 230 volts.

Features

- Stud/metal/AC voltage finder with laser line level
- Select normal scan, detect up to 3/4" depth, or deep scan, detection up to 1-1/2" depth
- 180° pivoting laser plane with level and plumb vials
- Thumb dial adjustment feet for leveling the laser
- 20' laser line projection onto work surface with 90° squaring
- LED display with continuous live wire detection
- LCD sensing and mode display with target graphics
- Vertical and horizontal mounting holes
- Easy keypad operation
- Ergonomically designed for comfort and grip
- Auto power off

Specifications

Operating Temperature:	20 to 120°F (-7 to 49°C)
Storage Temperature:	-20 to 150°F (-29 to 66°C)
Laser Diode:	650nm class IIIA
Laser Accuracy:	1/2" at 20ft
Length of Projected Laser Line:	Up to 20ft
Power Supply:	One 9V battery
Weight:	180g
Dimensions:	180 x 67 x 38mm
Optional Accessories:	Soft carrying case (model CA-03)

Operating Instructions

Calibration

Calibrate this unit on a wall before scanning for wood or metal studs.

Note: Before you calibrate be sure to not place this unit directly over a stud, dense material (such as metal), wet areas, or newly painted areas as this will prevent the unit from calibrating properly. If this is done over a wood or metal stud the unit will give no indication when moved away from that area.

1. Hold the unit flat against the wall surface, making firm contact. Press and hold the ON button. All indicators on the LCD are displayed while the unit goes through its' 1 to 3 second calibration cycle. When calibrated, a beep will sound and LCD will indicate, as shown in illustration 1.
2. Press the laser key and hold the ON button; then the laser line will stay on.
3. Keep holding ON button during the stud detection.

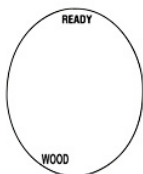


Illustration 1

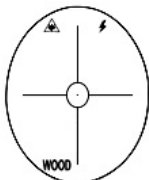


Illustration 2

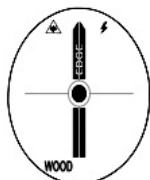


Illustration 3

Detecting Wood Studs

Wood stud detection is set by default when the unit is first turned on.

1. Slide the unit across the surface in a straight line, the closer the unit is to the stud the more bars will be shown (see illustration 2).
2. When the stud edge is detected the wood indicator and the edge bar will be shown (see illustration 3) and the unit will sound a repeating beep.

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3. Use the indicator line to mark the stud edge with a pencil.
4. Continue sliding past the stud, when the indicator turns off and the unit stops beeping, the other edge has been detected.
5. Double-check the stud's location by coming back from the other direction (be sure to make additional markings).
6. The midpoint of the marks indicates the stud center.

Detecting Metal Studs

1. Press the METAL button once and word METAL will show on the LCD screen.
2. Press & keep holding the ON button during the time of stud detection.
3. Repeat the procedures 1-5 as described in detecting wood studs.

Detecting Live Wires

The live wire detection feature is always on and when a live wire is detected, the red live wire LED indicator will show. Static electricity charges that can develop on drywall and other surfaces will spread the voltage detection area many inches to each side of the actual electrical wire. To aid in locating the wire position, scan holding the unit 1/2 inch away from the wall surface or place your other hand on surface approximately 12 inches from sensor.

Adjustment Feet

The adjustment feet allow the leveling of the laser line on the horizontal or vertical surfaces.

Operating Tips

IMPORTANT SAFETY NOTICE

To insure proper detection of live wires ALWAYS hold the unit in the handle area only. Grasp between your fingers and thumb while maintaining contact with your palm.

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Conventional Construction

Doors and windows are commonly constructed with additional studs and headers for added stability. This unit detects the edge of these double studs and solid headers and emits and holds an audio signal as it crosses over them.

Surface Differences

Wallpaper—there will be no difference in the function of the stud sensor on surfaces covered with wallpaper or fabric unless the coverings contain metallic foil or fibers.

Plaster and Lath — unless the plaster and lath is exceptionally thick or has metal mesh in it, there will be no problem with the unit functioning properly.

Ceiling or Textured Surfaces—When dealing with a rough surface such as a sprayed ceiling, place a piece of cardboard under the unit when scanning the surface. Run through the calibration technique described earlier with the piece of cardboard between the stud sensor and the surface. Also, it is particularly important in this application to remember to keep your free hand away from the unit.

If utilizing the procedure of scanning and marking from two sides, the unit will find the stud center with 1/8" accuracy for wood and 1/4" accuracy for metal. When measuring a wood or metal stud, it is recommended that the unit to be used at 33-55% relative humidity.

Battery Replacement

1. Open the battery door on back of unit and connect a 9-volt battery to clip.
2. Place battery back into case and snap battery door on.
3. Be sure to replace the battery immediately with a new 9-volt battery when low battery indicator is on.

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