

4-in-1 Multi Function Detector

#50215 Instruction Manual

4-IN-1 Multi Function Detector

SONIN INC.

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English

INTRODUCTION

Thank you for choosing a SONIN 4-IN-1 Multi Function Detector. Your detector is recommended for INDOOR use only. To ensure proper use of this product and to obtain optimum performance, be sure to read this manual carefully before use.

INTRODUCTION

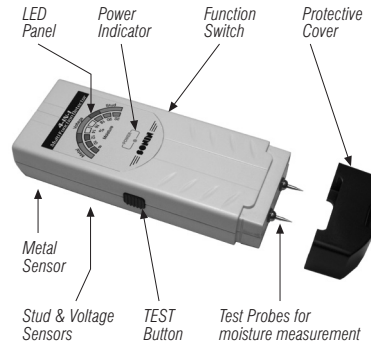
The Sonin 4-IN-1 Multi Function Detector is a microprocessor based instrument. The functions include moisture measurement for hard or soft wood, plaster, carpet and more to determine the extent of moisture. Detects and locates studs, live AC voltage and metal behind walls.

PRODUCT FEATURES

- Measure moisture levels present in wood, sheetrock, carpet & more from 8 to 22%.
- Detects and locates studs, voltage and metal from behind walls.
- Automatic calibration to ensure the accuracy for the measuring object.
- Fast, accurate and easy to read LED display with buzzer sound.
- Low Battery warning.

Important Note: *The sensitivity of Stud, Voltage and Metal detection in this product is designed for use on dry interior walls only (wood or plaster board); it is not suitable for use with concrete.*

DESCRIPTION OF PRODUCT



BATTERY INSTALLATION

1. Open the battery compartment door on the rear of unit.
2. Install a fresh 9V alkaline battery and push the clip firmly in place.
3. Put battery back into the battery compartment then close the battery door.

DETECTING MOISTURE

1. Set the function switch to [Moisture] mode.
2. Remove the protective cover on the end of unit. [Caution: probes are sharp and could cause injury if mishandled – do not attempt to plug probes into electrical outlets].
3. Insert the test probes about 1/8" into the target object (such as wood or plasterboard) to be tested.
4. Then, press and hold the [TEST] button, the green [POWER] indicator will light up and the LED display will show the measuring result between 8-22%.

WARNING AND SAFETY NOTICE:

DO NOT plug the moisture test probes into any electrical receptacle. The test probes are for moisture measurement as indicated above only.

Helpful Hints:

1. If only the [POWER] indicator lights up when taking a moisture reading, this indicates that the moisture level is lower than 8%. If the result is in the green area (8-12%) means that is safe, in yellow (14-16%) it may need attention, in red (18-22% or over) you may need to take action.
2. You can use your hand, wet cloth or any conductive material to touch the test probes to check the detector before use.
3. It may affect the reading if the measuring surface is covered by paint, waterproof coating or any insulating materials etc.

IMPORTANT: Abnormally high readings may be caused by surface salts on newly plastered walls or by contact with metal or steel reinforcing bars, etc. behind a particular surface. (Note: the moisture measurement is based on the impedance of an object, any conductive body or metallic materials will affect the measurement result).

DETECTING STUDS

1. Set the function switch to [Stud] mode.
2. Hold the detector on the surface (wall) where you want to locate a stud.
3. Press and hold the [TEST] button. The green [POWER] indicator and the [Stud] indicator light up for one second and the unit will click. This indicates the detector is ready for use.
4. While holding down the [TEST] button, move the detector, fabric side down, slowly across the surface in a straight line. When a stud is detected, the [Stud] indicator will light up and a "beep" sounds.
5. Slowly move the detector in same direction until over the stud, and then move back again to find out the center line of stud.

Helpful Hints:

1. Repeat 2-3 times from different positions to ensure the result is correct.
2. The detector may not respond when you start detection at a stud, if so, you can move to another position then try again.
3. When using the Sonin 4-IN-1 Multi Function Detector to locate a wood or metal stud, it is recommended to be used at 30-60% relative humidity.
4. You can also use the metal detection to locate metal studs.

IMPORTANT: The detection may fail or indicate a wrong result in the following cases:

1. Relative humidity is greater than 80% or the surface is too wet.
2. The maximum depth is greater than 2" (50mm).
3. Some metals or high density objects disturb the detection, such as pipes, cables or screws etc.

DETECTING VOLTAGE

1. Set the function switch to [Voltage] mode.
2. Press and hold the [TEST] button away from the wall or any electrical equipments, the green [POWER] indicator and the [Voltage] indicator will light up for one second and the unit will click. This indicates that the detector is ready for use.
3. Hold the detector, fabric side on the surface (wall, receptacle, or switch, etc.) where you want to locate live AC wire.
4. While holding down the [TEST] button, slowly move the detector across the surface, the [Voltage] indicator will light up and the unit will beep when in proximity of a live wire.

WARNING AND SAFETY NOTICE:

Shielded, dead or non-powered wires or live wires in metal conduits or casings, thick or concrete walls, will not be detected. To avoid electric shock and damage of wires, remember always turn off the AC power and be careful when working near electrical wiring.

Some factors could affect your readings, such as the maximum measuring range (depth), the thickness of wall, the wall's material and conditions, and the interferential environment etc, causing incorrect results or scanned position for wire. Therefore, you should always be careful and turn off the AC power before drilling, nailing or cutting in walls, ceilings and floors.

DO NOT plug the moisture test probes into any electrical receptacle. The test probes are for moisture measurement only.

DETECTING METAL

1. Set the function switch to [Metal] mode.
2. Press and hold the [TEST] button away from any metallic objects, the green [POWER] indicator and the [Metal] indicator will light up and the unit will click. This indicates that the detector is ready for use.
3. While holding down the [TEST] button, slowly move the detector, fabric side down, across the surface where you want to locate metal pipes or studs.
4. The [Metal] indicator will light up and the unit will beep once it locates metal behind the wall.

Note: The metal detection is only to detect metal behind walls, ceilings and floors within 2" (50 mm); it is not suitable for locating steel reinforcing bar inside concrete walls.

LOW BATTERY WARNING

The POWER indicator will light up in green when you press the [TEST] button in any mode. **If the color changes to red, replace the battery.**

TECHNICAL SPECIFICATIONS

Operating Voltage:	9V battery (Alkaline recommended)
Current Consumption:	less than 50mA
Battery Low Warning:	7.2V
Operating Temperature:	32 ~ 104°F (0°C ~ 40°C)
Operating Humidity:	Relative humidity not larger than 80%
Storage Temperature:	-14 to 140°F (-10 to 60°C)
Measuring range of moisture:	8 – 22%
Maximum depth for Stud sensing:	3/4" (20 mm)
Maximum depth for Voltage sensing:	2" (50 mm)
Maximum depth for Metal sensing:	2" (50 mm)
Measuring range for Voltage detection:	100 – 240 VAC, 50/60Hz
Dimensions:	2-3/8 x 6-3/8 x 1-1/8" (60 x 162 x 28 mm)
Weight:	5 oz (140 gm) without battery

ADDITIONAL INFORMATION

For additional information, or help using any Sonin product, call Sonin Customer Service at **800-223-7511** or email info@sonin.com

To qualify for Warranty repair or replacement within one year of your purchase, you will need to keep a copy of your original sales receipt. Call our Warranty Department at **800-223-7511** or email techsupport@sonin.com for more information.