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## Povlen MT510-Y

# Povlen Pinless Moisture Meter

MODEL: MT510-Y USER MANUAL

## Introduction

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The Povlen Pinless Moisture Meter MT510-Y is a digital, non-invasive device designed to accurately detect moisture content in various materials such as wood, drywall, masonry, and concrete. Utilizing advanced sensor technology, this meter provides quick and reliable readings without causing damage to the surface of the material being tested. It features a clear LCD color display, multiple measurement modes, and audible/visual alarms for ease of use in diverse applications.



Image: The Povlen Pinless Moisture Meter MT510-Y, shown with its digital display and control buttons, alongside three AAA batteries.

## Key Features

- **Accurate and Fast Measurement:** Employs advanced sensor technology and a smart chip for precise and rapid moisture detection using high-frequency waves. Includes a HOLD function for recording readings.
- **Non-Invasive Design:** Measures moisture without pins, protecting surfaces from damage, ideal for finished wood and delicate materials.
- **Visual and Audible Alerts:** Features a large LCD color display with an analog bar. The device emits an audible beep and the display turns red if moisture levels exceed preset thresholds.
- **Multiple Measurement Modes:** Offers four distinct modes: SOFTWOOD, HARDWOOD, WALL, and MASONRY, suitable for a wide range of materials including various wood types, concrete, cement, and plaster.

- **Hidden Moisture Detection:** Designed to quickly identify moisture in walls and surfaces, assisting in early detection of potential mold risks.
- **Automatic Shut-off:** Conserves battery life by automatically powering off after a period of inactivity.
- **Low Battery Indicator:** Provides a visual alert when battery power is low.



Image: A close-up view of the meter's internal components, illustrating the upgraded sensor chip responsible for high precision, stability, reliability, and fast measurement speed.

## Package Contents

- 1 x Povlen Pinless Moisture Meter MT510-Y
- 3 x 1.5V AAA Batteries
- 1 x User Manual (this document)

## Specifications

Feature	Detail
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Model Number	MT510-Y
Item Weight	5.6 ounces
Product Dimensions	6.81 x 2.87 x 1.06 inches
Batteries	3 AAA batteries (included)
Color	Black Orange
Style	Pinless Moisture Meter
Material	ABS
Power Source	Battery Powered
Measurement Accuracy	±4%
Display Style	LCD Screen Display
Switch Style	Push button
Special Features	Upgraded Sensor Chip, Pinless and Non-invasive Measuring, LCD Color Display, 4 Scanning Modes, Lock Moisture Reading
Usage	Moisture meter for wood, building, masonry, and drywall detection

## Setup

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### 1. Battery Installation

1. Locate the battery compartment cover on the back of the device.
2. Slide or unclip the cover to open the compartment.
3. Insert three (3) 1.5V AAA batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
4. Replace the battery compartment cover securely.

### 2. Powering On/Off

- To power on the device, press the **Power button** (usually marked with a  symbol) located on the front panel.
- The device will automatically power off after approximately 5 minutes of inactivity to conserve battery life.
- To manually power off, press and hold the **Power button** until the display turns off.

## Operating Instructions

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### 1. General Measurement

1. Ensure the device is powered on.
2. Place the back of the meter (the sensor area) flat against the surface of the material you wish to measure. Ensure full contact for accurate readings.

3. The moisture reading will be displayed on the LCD screen.

## Perfect Non-Invasive Testing

Pinless and non-invasive measurements will not cause damage to the surface of the measured object.



Image: A visual comparison demonstrating the non-invasive measurement method of the Povlen meter on a wood surface, contrasting it with a pin-type meter that leaves holes.

## 2. Mode Selection

The meter offers four measurement modes. Press the **MODE** button to cycle through them:

- **SOFTWOOD Mode:** For various types of softwood.
- **HARDWOOD Mode:** For various types of hardwood.
- **WALL Mode:** For plaster, concrete, and similar wall materials.
- **MASONRY Mode:** For brick, stone, and other masonry materials.

# 4 in 1 Multi-function Scanning



## Wall Mode:

Floor; Brick wall; Stone wall...



## Masonry Mode:

Soil wall; Lime wall; Ementwall; Foofo..



## Softwood Mode:

Cherry, Beech, Spruce, -larch, Birch, Walnut, Lauan, Fir, Cork, Cedar..



## Hardwood Mode:

Oak, Cherry, Teak, Walnut, Afrormosia, Rubber Tree, Maple, Padauk, Imbuia, kokrodua, White Poplar, Tola, Ash, Elm...

Image: Four panels illustrating the meter's application in Wall, Masonry, Softwood, and Hardwood modes, showing different moisture readings for each material.

### 3. Softwood Density Adjustment

In **SOFTWOOD** Mode, you can adjust the density grade for more accurate readings based on the specific wood type. Press the **DEN/SET** button to cycle through the 9 available density grades. Refer to the 'Softwood Density Grades' table below for guidance.

### 4. Hold Function

To lock the current moisture reading on the display, press the **HOLD** button. This is useful for taking readings in hard-to-reach areas. Press the button again to release the hold and resume live readings.

### 5. Visual and Audible Alarm

The meter provides both visual and audible alerts if the detected moisture level exceeds a predefined threshold for the selected material mode. The analog bar on the LCD will turn red, and an audible beep will sound, indicating high moisture content.



Image: A composite image detailing the meter's non-invasive detection, how to set alert ranges, the automatic shut-down feature, and the function of the HOLD button to lock readings.

## 6. Measurement Depth

The Povlen Pinless Moisture Meter can detect moisture up to a depth of 20mm (0.75 inches) into the material, allowing for detection of hidden moisture behind surfaces.



Image: A cross-section diagram showing the meter detecting moisture through a wall, indicating moisture percentages at

different depths down to 20mm.

## 7. Moisture Reference Ranges

The following table provides general reference ranges for moisture levels in different materials:

Moisture Level	Wall	Masonry	Soft Wood	Hard Wood
Dry	<8%	<17%	<13%	<12%
Mid	8%-11.9%	17%-19.9%	13%-17.9%	12%-15.9%
Wet	≥12%	≥20%	≥18%	≥16%

Image: A table displaying the categorized moisture levels (Dry, Mid, Wet) with corresponding percentage ranges for Wall, Masonry, Softwood, and Hardwood materials.

## 8. Softwood Density Grades

When in SOFTWOOD mode, select the appropriate density grade for your wood type using the **DEN/SET** button:

Grade	Wood Types
Grade 1	Linden, Cottonwood, Cypress, Redwood, White Pine, Sugar Pine, Radiation Wood, Hard Firmiana, Okoume
Grade 2	Pine, Fir, Cedar, Alder, Aspen, Birch, Cherry Tree, Hemlock, Philippine Mahogany, African Mahogany, Khaya, Poplar, Spruce, Manchurian Walnut
Grade 3	Ramin, Iroko, Black Walnut, Shadlock, Eucalyptus Saligna, Maple, Colorwood, Larch, Elm, Manchurian Ash, Chinese Ash
Grade 4	Rubber Tree, Beech, Red Oak
Grade 5	Fabe Oak, Merbau
Grade 6	Keruing, Jatoba, Olive Tree, Chicken Wing Wood, Quercus, Scarlet Eucalyptus Saligna, Australian Mahogany, Hickory
Grade 7	Keruing, Jatoba, Olive
Grade 8	Cumaru
Grade 9	Ipe

Image: A table listing nine density grades for softwood, each with examples of corresponding wood types to aid in accurate meter calibration.

## Maintenance

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.

- **Storage:** Store the meter in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries to prevent leakage.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display to ensure accurate readings.
- **Avoid Moisture:** While designed to measure moisture, the device itself is not waterproof. Avoid exposing it to excessive moisture or submerging it in liquids.

## Troubleshooting

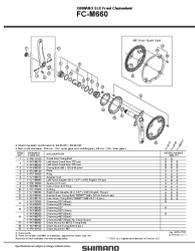
- **Device does not power on:** Check if batteries are installed correctly and are not depleted. Replace batteries if necessary.
- **Inaccurate readings:** Ensure the sensor area is in full contact with the material. Verify that the correct measurement mode (e.g., SOFTWOOD, HARDWOOD, WALL, MASONRY) is selected for the material being tested. For softwood, ensure the correct density grade is set.
- **Display is blank or flickering:** Low battery could be the cause. Replace batteries. If the issue persists, contact customer support.
- **No audible alarm:** Check if the alarm function is enabled (if applicable) or if the moisture level is below the alarm threshold.

## Warranty and Support

For warranty information or technical support, please refer to the product packaging or contact Povlen customer service through the retailer where the product was purchased. Keep your purchase receipt as proof of purchase.

## Related Documents - MT510-Y

	<p><a href="#">Charlton Home Bookshelf Assembly Instructions</a></p> <p>Detailed assembly instructions for the Charlton Home bookshelf, including parts list, hardware, tools required, step-by-step guidance, and safety warnings.</p>
	<p><a href="#">Dynamat Trunk Kit for 2020-2024 Tesla Model Y - Installation Guide</a></p> <p>Official installation guide for the Dynamat Trunk Kit (Part # XTS Y1 T) designed for 2020-2024 Tesla Model Y vehicles. Learn how to apply sound dampening material for improved acoustics.</p>
	<p><a href="#">Charlton Home® Entertainment Center &amp; Bookshelf Assembly Instructions</a></p> <p>Comprehensive assembly guide for the Charlton Home® Entertainment Center and Bookshelf. This manual provides detailed step-by-step instructions, a complete parts list, and safety warnings for proper installation. Compatible with multiple models in the series.</p>



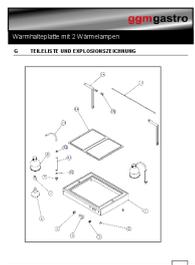
[Shimano SLX FC-M660 Front Chainwheel Parts List and Diagram](#)

Detailed parts list and diagram for the Shimano SLX FC-M660 front chainwheel, including component descriptions, Shimano codes, and interchangeability information.



[GGM Gastro SPOGE9N Rotating and Non-Rotating Gas Pizza Oven Spare Parts List](#)

Detailed spare parts list and exploded drawing for the GGM Gastro SPOGE9N rotating and non-rotating gas pizza oven. Includes part names and product codes.



[GGM Gastro Warming Plate with 2 Heat Lamps Parts List and Exploded View](#)

Detailed parts list and exploded view diagram for the GGM Gastro warming plate with 2 heat lamps (Model WPE2). Includes product codes for each component.