



MMD7003

USER'S MANUAL



**DIGITAL and LED
PRECISION
MOISTURE METER**

INTRODUCTION:

Congratulations on your purchase of this Digital and LED Precision Moisture Meter. This unit detects moisture in wood and other building materials such as brick, wall board, sheet rock, cardboard, paper, plaster, concrete, and mortar.

FEATURES:

- Designed to check the moisture level of wood, concrete, and other non-wood material
- Measures from 6% to 40% moisture in wood
- Measures 0% to 100% relative moisture value for concrete and other non-wood material
- Measurements are shown on Red LED bargraph indicator and LCD digital display
- All-In-One meter with build-in test pins
- Optional separate probe, available for remote moisture measurement
- Microprocessor provides high accuracy and advanced features such as MIN/MAX
- Data Hold feature freezes displayed reading
- Heavy duty and compact housing enhance portability and durability
- Built-in low battery indicator

SPECIFICATIONS:

PRINCIPAL: Use the 2 pin electrodes to measure the conductive ability of the species, then it converts to the reading of %
"Moisture of Content"

CIRCUIT: Custom one-chip of microprocessor LSI circuit

DISPLAY: LCD size: 51 mm x 37 mm
Digit size: 16 mm (0.62")

MATERIAL/RANGE:

Material 1: 0 to 100% relative moisture value for concrete and other non-wood material.

Material 2: 6 % to 40 % moisture range on wood.

RESOLUTION: 0.1 %

ACCURACY: $\pm (5 \% \text{ rdg} + 5 \text{ digits})$
@23 $\pm$ 5°C
@Material 1: 13% to 100%
@Material 2: 6% to 40%

PROBE: 2 pins moisture electrode

ELECTRODE PIN LENGTH: 0.44" (11mm)

ELECTRODE PIN TYPE: Integrated, replaceable

OPERATING TEMPERATURE: 32° to 122°F (0° to 50°C)

OPERATING HUMIDITY: 80% Relative Humidity maximum

MEMORY RECALL: Maximum & Minimum readings can be saved and viewed

SAMPLING TIME: Approx. 0.8 seconds

POWER SOURCE: "9V" battery

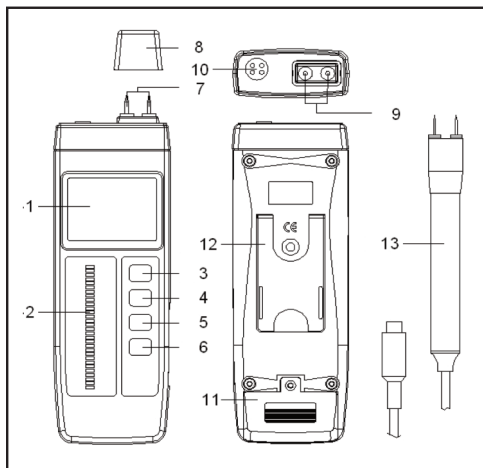
POWER CONSUMPTION: 16mA DC (approx.)

ACCESSORIES INCLUDED: Instruction Manual and 10 pcs. extra of contact pins

OPTIONAL ACCESSORIES: Separate Probe, (Part #MP7003)

DIMENSIONS: 8.4" x 2.7" 1.2" (216.5 x 68.5 x 29.7mm)

WEIGHT: 8.8 oz. (251g)



FRONT PANEL DESCRIPTION

- | | |
|--------------------------------|-------------------------------------|
| 1. Display | 8. Protection cover |
| 2. Red LED bar graph indicator | 9. Lock nut for test pin |
| 3. Power button | 10. Input socket for external probe |
| 4. Hold button | 11. Battery compartment/Cover |
| 5. REC (MAX/MIN) button | 12. Stand |
| 6. Material button | 13. Optional separate probe |
| 7. Test pins | |

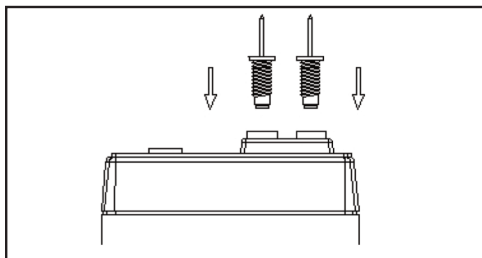
OPERATION

CAUTION: The electrode measurement pins are extremely sharp. Use care when handling this instrument. Cover the pins with the protective cap when the instrument is not in use.

MEASURING PROCEDURE:

The electrode pins must be inserted before the meter can be used. To insert or replace the pins refer to the instructions below:

- Remove the protective cap at the top of the unit
- To remove the pins, loosen the locknut at the base of the electrode pins
- Install the new pins and tighten the locknuts
- Replace the protective cap



OPERATION:

- Remove the protective cap away from the test pins
- Press the POWER button to turn the unit on
- Press the "Material" button to select the desired testing material

Material 1: 0 to 100% relative moisture value for concrete and other non-wood material. A '1' will display on the bottom right.

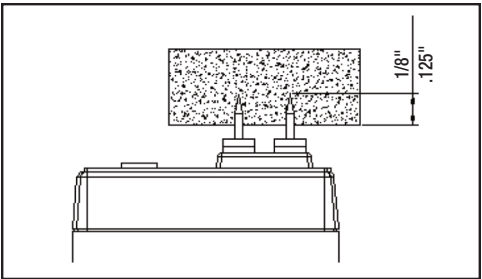
Material 2: 6% to 40% moisture range for wood. A '2' will display on the bottom right.

It is recommended that the test pins are to be inserted to a minimum depth of 1/8" (.125") into the material under test. If a depth of 1/8" (.125") can not be obtained, then insert the test pins to their maximum achievable depth.

Display will show the moisture contents in "% moisture content" directly.

Consideration: If the sample test has high moisture content, it may take a few minutes to obtain a stable reading.

Replace the protective cap when finished.



OTHER FUNCTIONS:

DATA HOLD:

During measurement, push the “HOLD” button. It will hold the display values and the LCD will show the “D.H” symbol.

To cancel the Data Hold function, press the “HOLD” button again.

DATA RECORD:

This function records the minimum and maximum readings. Press the “REC” button once to start the Data Record function. The “REC” will be displayed.

With the “REC” symbol on the display:

Press the “REC” button once and the “REC MAX.” symbol along with the maximum value will appear in the display. To delete the maximum value, press the “HOLD” button once. The display will show “REC” and execute the memory function continuously.

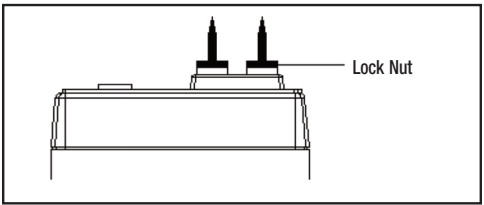
Press the “REC” button again, the “REC MIN” symbol along with the minimum value will appear on the display. To delete the minimum value, just press the “HOLD” button once, then the display will show the “REC” symbol only and execute the memory function continuously.

To exit the memory record function, press the “REC” button for at least 2 seconds. The display will revert to the current reading.

OPTIONAL SEPARATE PROBE:

If intending to use the separate probe to take the moisture measurement, just prepare the separate probe and connect the probe plug into the “Input Socket”.

Optional Extendable Probe (MP7003).



MAINTENANCE:

Replacing battery: A low battery is indicated by “LBT” symbol in the left corner of the display. To replace the battery, remove the battery cover with a small screwdriver or coin and replace with a new “9V” battery. Put the battery cover back in place and secure with a screwdriver or coin.

Replacement of test pins: To replace test pins on the probe, first loosen the lock nut at the base of the pin, slide pin out and replace with new pin.

NOTES

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Specialty Tools & Instruments™

GENERAL TOOLS & INSTRUMENTS™

80 White Street

New York, NY 10013-3567

PHONE (212) 431-6100

FAX (212) 431-6499

TOLL FREE (800) 697-8665

e-mail: sales@generaltools.com

www.generaltools.com

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Specifications subject to change without notice

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