

*all in one*

# MOISTURE METER

Model : PMS-713



Your purchase of this MOISTURE METER marks a step forward for you into the field of precision measurement. Although this METER is a complex and delicate instrument, its durable structure will allow many years of use if proper operating techniques are developed. Please read the following instructions carefully and always keep this manual within easy reach.



**OPERATION MANUAL**

## TABLE OF CONTENTS

1. FEATURES.....	1
2. SPECIFICATIONS.....	1
3. FRONT PANEL DESCRIPTION.....	3
3-1 Protection Cover.....	3
3-2 Test Pins.....	3
3-3 Power Button.....	3
3-4 Hold Button.....	3
3-5 Material Button.....	3
3-6 LCD Display.....	3
3-7 Battery Compartment/Cover.....	3
4. MEASURING PROCEDURE.....	4
4-1 Measurement by selecting the different material.....	4
4-2 Data Hold.....	5
5. MAINTENANCE.....	6
5-1 Replacement of Battery.....	6
5-2 Replacement of test pins.....	6
6. OPTIONAL CARRYING CASE.....	7

## 1. FEATURES

- \* Designed to check the moisture level of wood, concrete, and other non-wood material.
- \* 6 % to 40 % moisture range on wood.
- \* 0 to 100% relative moisture value for Concrete and other non-wood material.
- \* All in one, meter build in the test pins.
- \* Data hold function to freeze the desired value on display.
- \* Microprocessor circuit ensures high accuracy and provides special functions and features.
- \* Operates from DC 1.5V ( UM4/AAA ) x 4 PCs batteries.
- \* Built-in low battery indicator.
- \* With the pins' protection cover.
- \* Durable, long-lasting components, enclosed in strong, compact ABS-plastic housing.

## 2. SPECIFICATIONS

Applications	Designed to check the moisture level of wood, concrete and other non-wood material.
Measuring Principal	Used the 2 pins electrode to measure the conductive ability of the species, then converter to the reading of % " Moisture of Content ".
Display	LCD size : 28 mm x 19 mm.

Material/ Range	<i>Material 1 :</i> 0 to 100% relative moisture value for Concrete. and other non-wood material.
	<i>Material 2 :</i> 6 % to 40 % moisture range on wood.
Resolution	0.1 %.
Accuracy	$\pm ( 5 \% + 5 d )$ <i>@ 23 °C <math>\pm</math> 5 °C</i> <i>@ Material 1 : 13 % to 100%</i> <i>@ Material 2 : 6 % to 40%</i>
Circuit	Custom one-chip of microprocessor LSI circuit.
Probe	2 pins moisture electrode.
Data Hold	Freeze the display reading.
Sampling Time	Approx. 0.8 second.
Operating Temperature	0 to 50 °C .
Operating Humidity	Less than 80% R.H.
Power Supply	DC 1.5 V battery ( UM4/AAA ) x 4 PCs,
Power Current	Approx. DC 4 mA
Weight	180 g/ 0.40 LB. @ <i>Battery is included.</i>
Dimension	180 x 40 x 40 mm (7.1" x 1.6" x 1.6")
Accessories Included	Instruction manual..... 1 PC. Extra test pins.....10 PCs.
Optional Accessory	* Soft carrying case with sash ( 210 x 80 x 50 mm ), Model : CA-52A * Test pins ( 10 PCs ), MP-02

### 3. FRONT PANEL DESCRIPTION

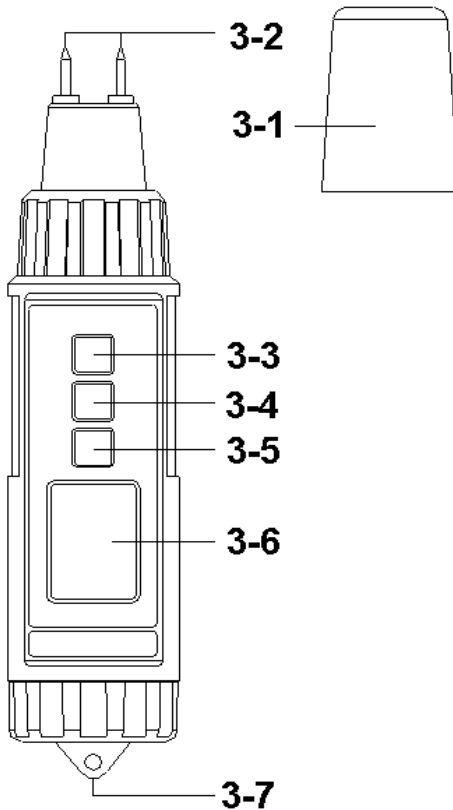


Fig. 1

- 3-1 Protection Cover
- 3-2 Test Pins
- 3-3 Power Button
- 3-4 Hold Button
- 3-5 Material Button
- 3-6 LCD Display
- 3-7 Battery Compartment/Cover

## 4. MEASURING PROCEDURE

### ***4-1 Measurement by selecting the different material***

1) Turn on the meter by pressing the " Power Button " ( 3-3, Fig. 1 ) momentarily.

*\* Press the " Power Button " ( 3-3, Fig. 1 ) momentarily again will turn off the meter.*

2) Remove the " Protection cover " ( 3-1, Fig. 1 ) away from the top head of the meter.

3) Press the " Material button " ( 3-5, Fig. 1 ) to select the desired testing material.

#### ***Material 1 :***

*\* 0 to 100% relative moisture value for Concrete. and other non-wood material.*

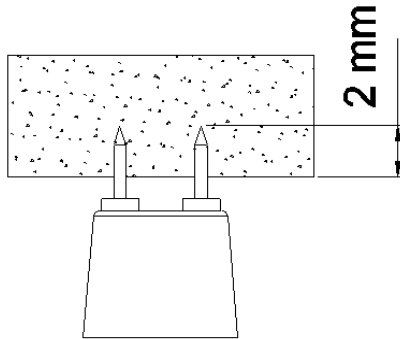
*\* The right bottom display show " 1 "*

#### ***Material 2 :***

*\* 6 % to 40 % moisture range on wood.*

*\* The right bottom display show " 2 "*

- 3) It is recommended that the test pins are inserted to a minimum depth of 2 mm into the material under test. If a depth of 2 mm can not be obtained, then insert the test pins to their maximum achievable depth.



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

***Consideration :***


***If the sample under test has a high moisture content it may take a few minutes to obtain a stable reading.***

***4-2 Data Hold***

- \* During the measurement, press the " Hold Button " ( 3-4, Fig. 1 ) momentarily to hold the measured value. The LCD will show a " HOLD " symbol.
- \* Press the " Hold Button " once again to release the data hold function.

## 5. MAINTENANCE

### ***5-1 Replacement of Battery***

- \* Replace the batteries when the left corner of the LCD displays the low battery icon "  ", using 4 fresh 1.5 V ( UM4, AAA ) batteries.
- \* To change the batteries, open ( rotate clockwise direction ) the " Battery Cover " ( 3-7, Fig. 1 ).
- \* Make sure the " Battery cover " (3-7, Fig 1) is secured after changing the batteries.

### ***5-2 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.

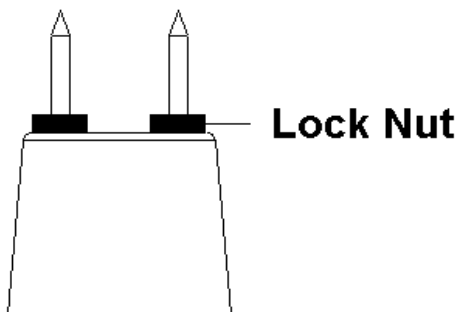


Fig. 3



## 6. OPTIONAL CARRYING CASE



Soft carrying case with sash.

Size : 210 x 80 x 50 mm

Model : CA-52A