



## INSTRUCTION MANUAL

### MT963 MOISTURE METER



#### 1. INTRODUCTION

The Major Tech MT963 wood and building material moisture meter utilizes a DC resistance probe type, offering versatile functionality with 4 wood-specific and 3 construction material selection modes. Designed for precision, it is extensively applicable across various industries for testing moisture levels in wood, bamboo products, paper articles, all of which are critical in assessing the moisture content within fibrous wood constructions, as well as construction materials like cement and brick.

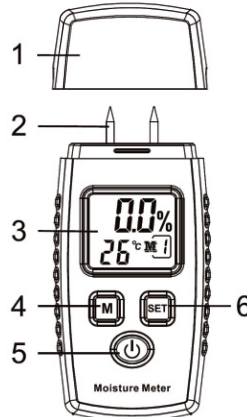
#### 2. FEATURES

- ! 4 wood-specific and 3 construction material settings
- ! Data lock function
- ! Low battery indication
- ! Automatic/manual shutdown
- ! Backlit LCD display

#### 3. INSTRUMENT

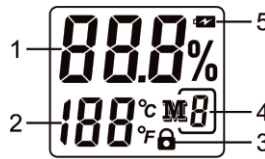
##### LAYOUT

- 1 - Built-in Cap
- 2 - Integral Probe Tips
- 3 - LCD Display
- 4 - Material Mode Button
- 5 - Power/Data HOLD Button
- 6 - Temperature Unit/Backlight Button



##### 3.1. LCD Display

- 1 - Moisture content reading
- 2 - Temperature reading
- 3 - Data HOLD icon
- 4 - Material Mode icon
- 5 - Low battery icon



#### 4. OPERATION

##### 4.1. Power On/Off

Press the "⏻" button to turn on. To turn off, hold down the "⏻" button for 1 second. The MT963 will automatically power off within 5 minutes if the meter is inactive.

##### 4.2. Mode Selection

After powering on, use the "M" button to switch between mode settings. Refer to the "Comparison table of material grade" to select the appropriate mode. If the material being measured is not listed in the comparison table, Mode 3 is recommended for measurement, though potential measurement errors could be experienced. When measuring, ensure both probes are inserted into the test object securely and simultaneously.

##### 4.3. Comparison Table of Material Grade

Wood	Mode	Wood	Mode
Rhodes West Teak	1	African Whitewood	3
Ormosia Hosiei	1	Rosewood	3
Brazil Walnut Tree	1	Elm Tree	3
Walnut Tree	2	Gmelina Chinensis Benth	3
Apitong	2	Hemlock	3
WhitePoplar	2	Dipterocarpus	3
Teak	2	Oak	3
Banya Pine	3	Chinese Red Pine	4
Douglas Fir(Dfir)	3	Coquito	4
Lauan	3	Abies Holophylla Maxim	4
Manchurian Ash	3	Larch	4
European Silver Fir	3	Apitong	4
Maple	3	Birch	4
White ash	3	Basswood	4

Mode	Construction Material
5	Cement Mortar
6	Lime Mortar
7	Brick

##### 4.4. Data Hold

Press the "⏻" button to lock (HOLD) the moisture content reading. The LCD will display "⏻" simultaneously. Press the "⏻" button again to cancel the lock(HOLD) function.

##### 4.5. Temperature Unit Setting

Hold down the "SET" button to toggle between °C and °F for temperature unit settings.

#### 4.6. Backlight

Press the "SET" button to toggle the backlight ON or OFF.

#### 4.7. Determining the Appropriate Mode

If the moisture content of the wood being measured is unknown, follow these steps:  
Begin by measuring a standard moisture sample using each of the 4 wood modes and record the respective readings. Then, place the sample in an oven to establish its actual moisture content and compare this figure with the earlier readings from the 4 modes. Select the mode that closely aligns with the oven-determined moisture content for future measurements. If you are unable to conduct these steps, it is advisable to use mode 3, though potential measurement discrepancies should be taken into account.

#### 4.8. Methods for measuring the moisture content in woods

Various methods are employed to measure the moisture content in wood, including the oven-dry method, electrical method, carbonization method, titration method, and humidity method. In industrial settings, the oven-dry and electrical methods are commonly preferred. The oven-dry method entails calculating the weight difference of a wood sample before and after drying in an oven to determine its moisture content index. This method offers high precision but is time-intensive and typically conducted in laboratory settings. In contrast, the electrical method assesses wood's electrical properties to estimate its moisture content, making it suitable for large-scale production environments.

#### 5. WARNINGS

1. The unit automatically calibrates itself upon powering on. Ensure the probe tips do not make contact with any object during this process.
2. The probe has sharp tips. Avoid pointing it towards people and keep it out of reach of children.
3. Protect the unit and probe from contact with corrosive liquids to prevent any potential damage.
4. Ensure the probe does not come into contact with electrically charged objects to prevent damage.
5. Replace the battery immediately when the low battery icon appears "⚡", as it can impact accuracy.
6. Remove the battery if the unit will not be in use for an extended period.

#### 6. SPECIFICATIONS

Material	Mode	Range	Resolution
Wood	1	6.0%-39%	0.10%
	2	7.0%-48%	
	3	8.5%-55%	
	4	9.5%-65%	
Construction Material	5	0%-7.9%	
	6	0%-8.5%	
	7	0%-15.2%	

Function	Range
Precision	±2%
Length of Probe Tips	9.8mm
Temperature Measurement	0°C to 50°C
Operating Temperature	0°C to 40°C
Operating Humidity	20%RH to 90%RH
Automatic Power Off	5 Minutes
Batteries	2x 1.5V AAA
Weight	44.8g

#### 7. WARRANTY

##### Warranty Coverage

Major Tech warrants its test instruments to be free from defects in materials or workmanship under normal use and service for a period of two (2) years from the date of shipment. This warranty is extended exclusively to the original purchaser, provided the online Product Registration has been completed on either [www.major-tech.com](http://www.major-tech.com) or [www.major-tech.com.au](http://www.major-tech.com.au), depending on which country the product was purchased. This warranty is non-transferable.

##### Exclusions

This warranty does not cover:

- Disposable batteries and fuses
- Damage caused by leaking batteries (damaging the meter and components)
- Normal wear and tear of mechanical components
- Failures caused by use outside the product's specifications
- Any product which, in the opinion of Major Tech, has been misused, contaminated, or damaged due to neglect

#### Check Procedure

Prior to contacting Major Tech or a distributor regarding a warranty claim, please check the following:

- Batteries are installed correctly
- Battery condition – either replace disposable batteries or ensure rechargeable batteries are charged where applicable
- Test leads are inserted in the correct terminals and are fully inserted, no damage to test leads

#### Contact Information

For any warranty claims or inquiries, please contact either Major Tech or the distributor from whom the product was purchased.

#### Specific Declarations

- a. Major Tech disclaims liability for any consequential results arising from the use of this product.
- b. We reserve the right to modify product design and instruction manual content without prior notice.
- c. Disposal of old batteries must comply with local laws and regulations.



## MAJOR TECH (PTY) LTD

#### South Africa

www.major-tech.com

sales@major-tech.com

#### Australia

www.major-tech.com.au

info@major-tech.com.au

