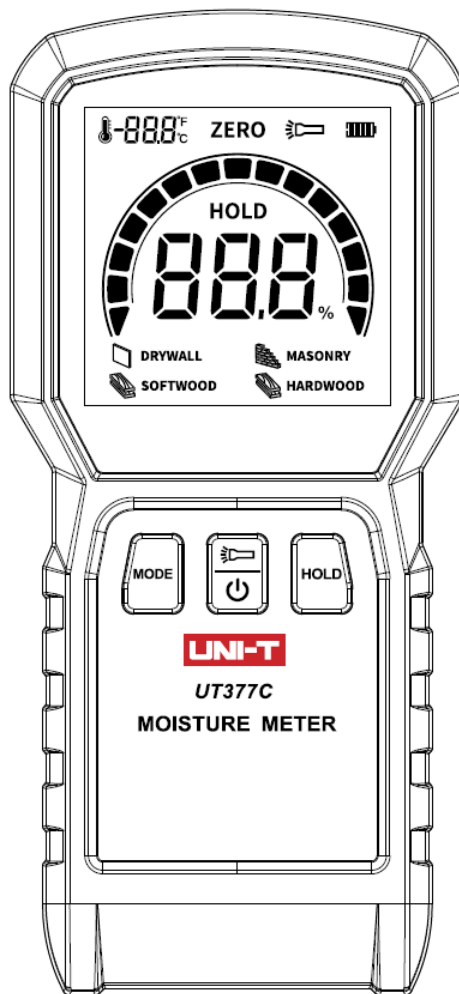# UT377C
Pinless Moisture Meter
User Manual

PREFACE

Thank you for purchasing the new UT377C pinless moisture meter . In order to use this product safely and correctly, please read this manual thoroughly, especially the Safety Instructions part.

After reading this manual, it is recommended to keep the manual at an easily accessible place, preferably close to the device, for future reference.

LIMITED WARRANTY AND LIABILITY

UNI-T guarantees that the product is free from any defect in material and workmanship within one year from the purchase date. This warranty does not apply to damages caused by accident, negligence, misuse, modification, contamination and improper handling. The dealer shall not be entitled to give any other warranty on behalf of UNI-T. If you need warranty service within the warranty period, please contact your seller directly.

This warranty is the only compensation you can obtain. UNI-T will not be responsible for any special, indirect, incidental or subsequent damage or loss caused by any reason or speculation. As some areas or countries do not allow limitations on implied warranties and incidental or subsequent damage, the above limitation of liability and stipulation may not apply to you.

About

Due to different batches, the materials and details of actual products may be slightly different from the graphic information, please refer to the actual product received. Experimental data provided in the page is from internal laboratory of UNI-T, but it should not be a reference for customer to place orders. Any questions, please contact the customer service, thanks!

Content

1. Introduction

UT377C is a Moisture Meter measured in contact or induction way, testing the moisture content without damaging the wood and building materials, with features of high accuracy, reliable performance, undamaged measurement, and etc. It is widely used in the industries of manufacturing, wood processing, architectural decoration, scientific research, quality control, and etc.

Features:

1) Undamaged measurement on the surface of wood and building materials.
2) Fast measurement without drying and humidification for the wood or building materials.
3) With high-accuracy sensor, features of high accuracy, wear resistance, and stability.
4) The wood grain direction has no effect on the moisture content measurement.
5) The grip has little effect on the moisture content measurement.
6) Measurement depth is up to 30mm.
7) Three lights in green, yellow and red.
8) Audible alarm.
9) Flashlight.
10) Color screen LCD & More visual measurement.

2. Configurations

Take the meter out from the package to check if the device or any components are missing or damaged：

|	
1. Pinless Moisture Meter	1pc
2. User Manual	1pc
3. Cloth Bag	1pc
4. AAA Alkaline Battery	3pcs

3. Safety

Please read the Safety carefully and follow these steps.

1) Avoid any metals existing below the probe during the measurement.
2) Do not press the meter hard or drag it to avoid the sensor surface wear.
3) Do not use anything sharp to scratch the sensor to avoid any sensor surface damage.
4) Keep the sensor in clean condition to avoid dust and oil pollution.
5) Do not store or use the meter in high temperature, high humidity, flammable, explosive or strong electromagnetic environment.
6) Do not dismantle or assemble randomly to avoid damage.
7) Replace the battery in time when the low battery⬜showed, and take the battery out if it is not used for a long time.
8) The battery is the standard AAA Alkaline Battery, which cannot be charged.
9) Maintenance: Please use soft cloth and neutral detergent to clean the case. Do not use abrasives or solvent.
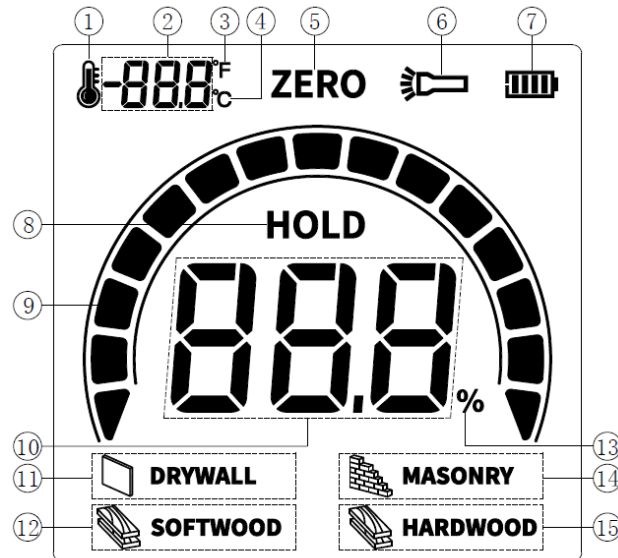
4. Functions

4.1. Structure
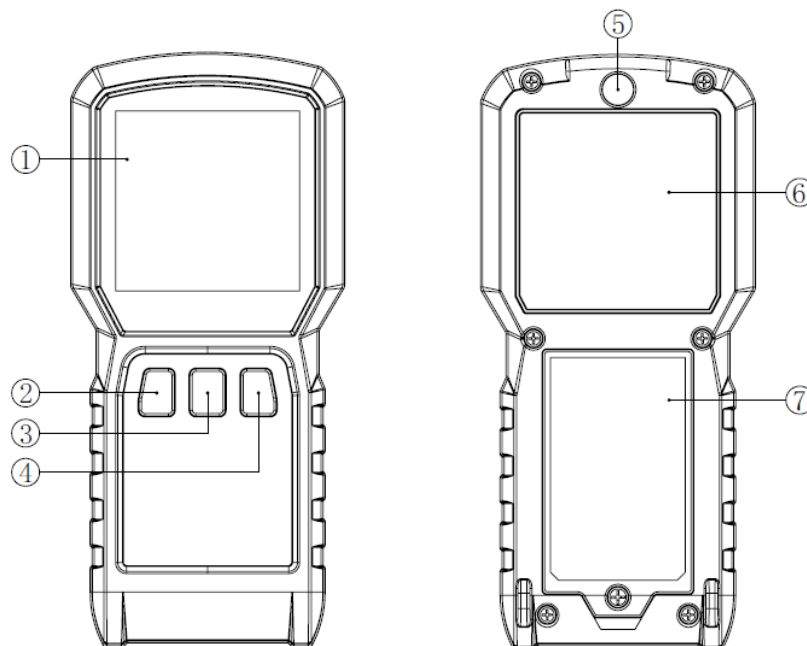
1. LCD	2. MODE Button
3. POWER Button	4. HOLD Button

5. LED Light   6. Sensor
7. Battery Holder

4.2. Display

1) Temperature Display

2) Temperature Value

3) Fahrenheit (℉)

4) Centigrade (℃)

5) Moisture Content Zero

6) LED Light

7) Battery Status

8) HOLD Indication

9) Simulation Bar

10) Moisture Content Value

11) DRYWALL Indication

12) SOFTWOOD Indication

13) Moisture Content Unit (％)

14) MASONRY Indication

15) HARDWOOD Indication

4.3. Buttons

Buttons	*Short Press*	*Long Press*
MODE	Mode Switch	Zero Reset
POWER	Flashlight ON/OFF	Power On/Off
HOLD	Data Hold	Temperature Unit Switch

5. Operations

5.1. Power On/Off

1) Power On: Long press POWER button until the screen on.
2) Power Off: Long press POWER button until the "OFF" showed on the screen.

5.2. Measurement

1. Check the type of measured target, Softwood, Hardwood, Drywall or Masonry, then short press MODE button to select.
2. Place the sensor (back side of the device) on the measured target, measuring the moisture content.

Notes：
➢ Place the sensor (back side of the device) on the measured target to keep good touch with each other for high accuracy. Meanwhile, measure the target as per the following handhold way, only using fingers to hold the device, with palm away from the device to avoid the reading error.

➢ Make sure the surface of measured target is free of dust and dirt during the measurement.

➢ Repeatedly measure the target to get the average value of moisture content due to its uneven moisture distribution.

➢ Avoid nails or others sharp during the measurement of when the device is slid on the surface of measured target checking the moisture content quickly.

➢ At least 25mm is gapped below the measured target. Make sure your hands are not below the device during the measurement.

➢ The measured target should be in the range of sensor area for accurate reading of moisture content due to the size of sensor (50mm*50mm).

➢ Wipe the extra moisture existed on the surface of measured target and dry the surface for a few minutes before the measurement.

➢ Do not measure the target with open defect or in any irregular position.

➢ Drywall and Masonry measurement of device is to get the relative value, which can quickly compares different moisture content of building materials to locate the high/low moisture area. The moisture location also can be judged by the moisture content requirements, to see if the place reaches to the acceptable moisture content. The reading range of two modes is within 0~99.9%.

➢ Please stack the measured target before the measurement when its thickness is <6mm, because the minimum thickness measured is 6mm.

➢ The device enters the power-saving mode in 30s and the LCD backlight turns dark when there is no action on the device or it stops measuring. Short press button or continue to measure, the LCD backlight returning to the original status.

5.3. Zero Reset

Reset to zero if the moisture content is >0.0% showed in LCD when pick up the device. See following steps:

1) Pick up the device and let it in the air to keep the sensor away from the measured target.

2) Long press ⬚ button, showing "ZERO" in the LCD, resetting to zero.

3) "ZERO" indication will be disappeared in 2s, finishing the operation.

5.4. Simulation Bar & Audible Alarm

1) Simulation Bar Color

Modes	Green	Yellow	Red
Drywall	0~20%	20~60%	>60%
Masonry	0~16%	16~52%	>52%
Softwood	4~14%	14~24%	>24%
Hardwood	4~12%	12~20%	>20%

Notes:
- For furniture, the moisture content is 5%~6% in the low relative moisture area, 10%~11% is acceptable in the high relative moisture area.
- For indoor wood, the moisture content is 6% in the low moisture area, 12% in the high moisture area.
- For outdoor wood, the moisture content is 10%~15%, which depends on the local moisture condition.
- More than 18%~20% moisture content of wood can be provided for the termites and wood-boring insects living. Meanwhile, high moisture content is also supported for the mycoses and biological growth.
- When the moisture content of wood is over 28%, it reaches to the fiber saturation point.

Audible Alarm:
a) Buzzer alarms when the moisture value is >24% in the wood test.
b) Buzzer alarms when the relative value is >60% in the building materials test.

6. Specifications

6.1. Technical Specification

Functions	Types	Test Range	Resolution	Value Error	Descriptions
Wood & Building Materials Measurement	Softwood	4~32%	0.1%	±4%	1. The value error is defined for poplar.
	Hardwood	4~32%	0.1%		
	Drywall	0~99.9%	0.1%	Unspecified	2. The accuracy is undefined because of the relative value of building materials.
	Masonry	0~99.9%	0.1%		

Temperature Measurement	℃/℉	-20~70℃	0.1℃	Unspecified	
Sensor Size	50*50mm				
Minimum Target Size	50*50mm				
Target Thickness Range	6~30mm				
Screen Display	EBTN Color Screen				
Simulation Bar Indication	√				Green, Yellow, Red
Audible Alarm Indication	√				
Flashlight	√				
Auto Power Off	√				
Measurement Modes	Softwood, Hardwood, Drywall, Masonry				
Auto Power Off	Auto power off in 5 minutes				
Under Voltage Indication	Under voltage indicated when 2.0V±0.2V				Low battery "⬜" is flashing.
Power Supply	1.5V AAA*2 = 3V Alkaline battery				
Current Consumption	Power Off: ≤ 5uA Working: ≤ 85mA				With the standard 3.0V to measure: 1. Flashlight off, Beeper off: ≤85mA. 2. Flashlight off, Beeper on: ≤100mA. 3. Flashlight on, Beeper on: ≤180mA.
Work Environment	0～40℃ ≤80%RH				
Storage Environment	-20～60℃ ≤75%RH				

6.2.   General Specification

1) Update Rate: 0.5s.
2) Sensor Type: Magnetic Induction and Eddy Current compounded.
3) Impact Resistance: 2m drop-proof
4) Battery: 1.5V AAA Alkaline battery*2
5) Dimension: 152.0×70.0×31.5mm
6) Weight: 194.0g (Battery included)

6.3.   Battery Installation & Replacement

Replace the battery as per the following showed:
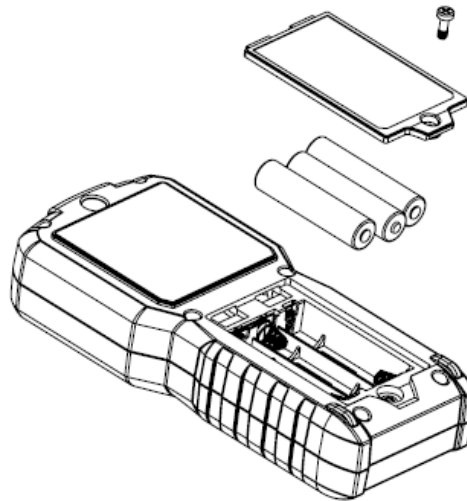
* The contents of this manual are subject to change without prior notice.

* Please go to the official Uni-T website *https://www.uni-trend.com* to get more details, thanks！