User Manual

TRIPLETT

MS300

Pinless Moisture Meter

CE

Introduction

Thank you for selecting the Triplett MS300 Pinless Moisture Meter. The MS300 sensor performs non-invasive, relative moisture measurements on wood and building materials such as wallboard, sheet rock, cardboard, plaster, concrete, and mortar. The MS300 also offers auto power off (APO), display lock (hold), and self-calibration features.

The MS300 is ideal for building restoration projects and applications where moisture detection on floors and under carpets is critical. The MS300 is also a handy tool for analyzing the effects of water leakage behind walls and in ceilings.

Measurement Considerations

To measure moisture, the MS300 sensor emits and senses low-power electro-magnetic signals. The displayed reading in percent is an average of the moisture content measured over the entire non-destructive spherical sensor. The maximum depth of penetration is 4.0” (102mm) Moisture that is closer to the surface has a greater effect on the displayed average than the moisture nearer to the maximum depth of penetration.

Placing the sensor on a surface whose thickness is less than the maximum depth of penetration may result in unreliable moisture readings; in these cases, you can stack material on top of the measured surface to increase the thickness.

The MS300 also produces audible tones and ‘moisture droplet’ display icons to indicate moisture level. The audible tone rate and number of droplets increase as the moisture level increases. The MS300 also produces audible tones and ‘moisture droplet’ display icons to indicate moisture level. The audible tone rate and number of droplets increase as the moisture level increases.

Meter Description

1. LCD Display
2. Power button
3. Display Lock/Beeper button
4. Material Select button
5. Sensor (Ball Probe)

Display Description

1. Moisture Drop icons (one for low moisture, two for medium, and three for high)
2. Wood mode
3. Building Material mode
4. Beeper active icon
5. Moisture reading
6. Digital reading in % (relative)
7. Display Lock Mode
8. Battery Status

Operation

Powering the Meter and Self-Calibration

Long press the power button to switch the meter on/off. The meter beeps and displays **ON** as it powers up. If the meter does not switch on, please check the battery. The meter emits audible tones and performs a self-calibration upon start-up. Keep the measurement sensor at least 8 to 10 cm (3 to 4") from hands and objects during calibration. The calibration reading must not exceed 0.5. If so, re-calibrate ensuring that hands or other objects are clear of the sensor. Note: Calibrate the meter whenever moving from one measurement area to another.

Auto Power OFF

The meter will automatically power OFF if the reading stays 0% for 3 minutes. If the meter detects readings, other than 0%, it will not automatically power OFF.

Display Hold Lock

Short press the Display Lock button to freeze the displayed reading. The icon is visible on the display when Display Lock is active. Press again to return to the normal operating mode.

Beeper ON/OFF

The beeper defaults to ON. To switch the beeper OFF, long press the Display Lock/Audible Beeper button. When the beeper is active, the audio display icon will be visible.

Pinless Moisture Measurements

1. Short press the Material Select button () to toggle the Wood and Building Material modes. The displayed icons indicate the selected mode.
2. Position the sensor firmly on a flat surface so that it directly touches the measurement area. The measurement surface area should be larger than the sensor surface area.
3. Observe the displayed relative readings, view the displayed moisture droplet icon(s) (more drops indicate higher moisture levels), and listen for the audible beeping (faster beeping indicates higher moisture; there are eight intensity levels). As discussed in the Measurement Considerations section, the displayed reading is an average of the moisture measured over the entire sensor surface area to the maximum penetration depth. The section Relative Moisture Reading Ranges, below, provides measurement and droplet icon ranges.

Relative Moisture Reading Ranges

		WOOD (%)	BUILDING MATERIAL (%)
TOTAL RANGE >		0.1~99.9	0.1~99.9
	LOW	0.1~9.9	0.1~9.9
		10.0~16.9	10.0~16.9
	MEDIUM	17.0~23.9	17.0~23.9
		24.0~29.9	24.0~29.9
		30.0~39.9	30.0~39.9
	HIGH	40.0~59.9	40.0~59.9
		60.0~69.9	60.0~69.9
		70.0~99.9	70.0~99.9

Maintenance

Battery Replacement

When the battery status icon appears empty or flashing, replace the battery.

1. Remove the rear battery cover by pushing the compartment latch (bottom, back of meter).
2. Replace the 9V battery observing correct polarity.
3. Replace the battery cover securely.
4. Dispose of battery responsibly and within applicable legal regulations.

Never dispose of used batteries or rechargeable batteries in household waste. As consumers, users are legally required to take used batteries to appropriate collection sites, the retail store where the batteries were purchased, or wherever batteries are sold.

Disposal: Do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment.

Care and Cleaning

Store the meter in an environmentally stable, dust-free environment, out of direct sunlight. Remove the battery from the instrument if the meter is to be stored for long periods or if the battery power symbol appears empty (or flashing) on the display.

To clean the meter case, wipe with a damp cloth, do not use solvents or abrasives.

Specifications

Display	LCD with multi-function indicators
Measurement Type	Pinless, non-destructive
Measurement Indication	Digital relative reading in %, moisture drop icons (1, 2, or 3 droplets), audible tone (8 intensity levels) indicating low to high moisture readings
Measurement Ranges:	
Wood: Low: 0.1% to 16.9%; Medium: 17.0% to 39.9%; High: 40.0 to 99.9%	
Building Materials: Low: 0.1% to 16.9%; Medium: 17.0% to 39.9%; High: 40.0 to 99.9%	
Measurement depth	Sensor detects to a depth of 102mm (4.0”)
Resolution	0.1%
Accuracy	Relative readings only
Auto Power OFF	After approx. three (3) minutes with a 0% display reading
Power Supply	One (1) 9V battery, battery consumption: < 40mA
Low Battery indication	< 7.5VDC, approximately
Low Battery APO	< 5.5VDC; APO will occur in 20 seconds, approximately
Operating Conditions	5 ~ 45oC (41 ~ 113oF); 80%RH max.
Storage Conditions	0 ~ 50oC (32 ~ 122oF); 85%RH max.
Dimensions	210 x 65 x 30mm (8.3 x 2.6 x 1.2")
Weight	160g (5.6 oz.) without battery

Warranty

Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase. This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty