RDINSCOS MT69

RDINSCOS MT69 2-in-1 Pen & Pinless Moisture Meter User Manual

Model: MT69

1. INTRODUCTION

This manual provides detailed instructions for the operation and maintenance of your RDINSCOS MT69 2-in-1 Pen & Pinless Moisture Meter. This device is designed for accurate measurement of moisture content in various materials, including wood and building materials, utilizing both non-destructive spherical sensing and precise pin-type measurement.
Please read this manual thoroughly before using the device to ensure safe and correct operation.

2. SAFETY INFORMATION

- Always handle the device with care.
- When using the pin probe, exercise caution as the pins are sharp and can cause injury. Keep out of reach of children.
- Do not attempt to measure live electrical circuits with the pin probe.
- Avoid exposing the device to extreme temperatures, high humidity, or direct sunlight.
- Do not immerse the device in water or other liquids.
- Do not open the device casing or attempt repairs. Refer all servicing to qualified personnel.
- Ensure the device is fully charged before use to avoid inaccurate readings.

3. PRODUCT OVERVIEW

The RDINSCOS MT69 is a versatile moisture meter featuring two primary measurement methods: a non-destructive spherical sensor and a precise pin-type probe. It includes a large LCD display for clear readings and an intelligent alarm system.

Figure 3.1: RDINSCOS MT69 2-in-1 Moisture Meter with its spherical sensor and detachable pin probe.

3.1. Components

- **Main Unit:** Handheld device with LCD display and control buttons.

- **Spherical Sensor:** Integrated non-destructive sensor for surface measurements.

- **Pin Probe:** Detachable probe with two sharp pins for precise penetration measurements.

- **USB Charging Cable:** For recharging the internal battery.

- **Replacement Pins:** One pair of spare pins for the pin probe.

- **Mini Key:** For replacing the pin probe pins.

3.2. Display and Controls

The device features a 2.9-inch LCD with a switchable backlight for clear readability. Key indicators include:

- Moisture reading (percentage or relative value).

- Material type indicator (WOOD/BLD).

- Battery level indicator.

- Alarm status (visual LED, acoustic).

- HOLD function indicator.

- Auto Power Off (APO) indicator.

Control buttons include Power, Mode/SET, Hold, Mute, and Backlight.

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4.1. Charging the Battery

The device is equipped with a rechargeable 1200 mAh Lithium Polymer battery. Before first use, or when the battery indicator shows low power, charge the device using the provided USB charging cable.

1. Connect the USB charging cable to the device's charging port.
2. Connect the other end of the USB cable to a standard USB power adapter (not included) or a computer's USB port.
3. The battery indicator on the LCD will show charging status.
4. Once fully charged, disconnect the cable.

4.2. Attaching the Pin Probe (Optional)

If you intend to use the pin measurement mode, attach the pin probe to the main unit.

1. Remove the protective cap from the pin probe.
2. Carefully align the connector of the pin probe with the corresponding port on the main unit.
3. Push firmly until it clicks into place.

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5.1. Power On/Off

- To power on: Press and hold the **Power** button (⬜) for approximately 2 seconds.
- To power off: Press and hold the **Power** button again for approximately 2 seconds. The device also features an Auto Power Off (APO) function after 10 minutes of inactivity.

5.2. Mode Selection (Pinless vs. Pin)

The MT69 offers two measurement modes. Use the **Mode/SET** button to switch between them.

5.3. Pinless Measurement (Spherical Sensor)

This mode is ideal for quick, non-destructive scanning of surfaces to identify potential moisture areas. It provides relative values.

1. Ensure the device is in pinless mode (indicated on the LCD).

2. Place the spherical sensor flat against the surface of the material you wish to test.

3. Move the device slowly across the surface. The display will show relative moisture values from 0 to 100.

4. The measurement depth for this mode is approximately 20-40 mm.

5. The device will automatically calibrate when placed on a dry surface.

Figure 5.2: Demonstrating non-destructive scanning with the spherical sensor on a wall surface.

5.4. Pin Measurement

Use this mode for accurate percentage moisture readings by penetrating the material with the pins.

1. Ensure the pin probe is attached and the device is in pin mode (indicated on the LCD, showing % values).

2. Carefully push the pins into the material to be tested. Ensure both pins fully penetrate the surface.

3. The display will show the moisture content as a percentage.

4. Measurement ranges: Wood (5-52%), Building Materials (BLD) (2-30%).

Figure 5.3: Illustration of measurement depth for the spherical sensor and pin probe application on wood and brick materials.

5.5. Alarm System

The MT69 features an intelligent alarm system to alert you to high moisture levels.

- **Visual Alarm:** A three-color LED indicator (green, blue, red) provides a quick visual assessment of moisture levels.

- **Acoustic Alarm:** An audible beep will sound when moisture levels exceed a set threshold.

- **Adjustable Limits:** In spherical sensor mode, alarm limits can be adjusted via the **Mode/SET** button. This feature is not available in pin mode.

- **Mute Function:** Press the **Mute** button to silence the acoustic alarm for noise-sensitive environments.

Figure 5.4: The device's visual and acoustic alarm system in action, indicating moisture detection.

5.6. HOLD Function

Press the **HOLD** button to freeze the current reading on the display. Press it again to release the hold and resume live measurements.

5.7. Self-Test Function

The device includes a self-test function for quality assurance. Refer to the on-screen prompts or specific instructions in the quick start guide for activation.

5.8. Important Measurement Considerations

When using the spherical sensor, ensure there is no metal within approximately 5 cm of the area being tested, as metal can interfere with readings.

Figure 5.5: Guidance on avoiding metal objects during spherical sensor measurements for accurate results.

6. MAINTENANCE

6.1. Cleaning

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the device is powered off before cleaning.

6.2. Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Recharge the device when the low battery indicator appears. If storing for an extended period, charge the battery to approximately 50% and recharge every few months.

6.3. Replacing Pin Probe Pins

The pin probe pins are replaceable. If the pins become dull or damaged, use the provided mini key to unscrew and remove the old pins, then carefully screw in the new replacement pins.

6.4. Storage

Store the device in a cool, dry place, away from direct sunlight and extreme temperatures. Keep the protective cap on the pin probe when not in use.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low battery.	Charge the battery using the USB cable.
Inaccurate readings in pinless mode.	Metal objects near the measurement area.	Ensure no metal is within 5 cm of the spherical sensor.
Pin probe readings are inconsistent.	Pins are dull or damaged; pins not fully inserted.	Replace pins if necessary. Ensure pins fully penetrate the material.
Acoustic alarm not sounding.	Mute function is active.	Press the **Mute** button to deactivate.
Display is dim or unreadable.	Backlight is off; low battery.	Press the **Backlight** button. Charge the battery.

8. SPECIFICATIONS

Feature	Specification
Model Number	MT69
Measurement Modes	2-in-1 (Spherical Sensor & Pin Probe)
Spherical Probe Inductive Depth	20-40 mm
Spherical Probe Range	REL 0-100 (Relative Values)
Pin Probe Wood Moisture Range	5-52%
Pin Probe Building Material (BLD) Range	2-30%
Measurement Accuracy	±2.5%
Display	2.9-inch LCD with Backlight
Battery	1200 mAh Lithium Polymer (Rechargeable)
Auto Power Off (APO)	10 minutes of inactivity
Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	Max 70% RH

Feature	Specification
Included Components	Moisture meter x1, user manual x1, measuring needle x1, replacement needles (1 pair), mini key x1, USB charging cable x1
Item Weight	490 g
Manufacturer	SHENZHEN REDDRAGON INSTRUMENTS CO.,LTD

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the contact details provided with your purchase documentation or visit the official RDINSCOS website. Please have your model number (MT69) and purchase date available when contacting support.