

ZKH HIT-MM916

ZKH Pinless Moisture Meter HIT-MM916 User Manual

Model: HIT-MM916 | Brand: ZKH

1. INTRODUCTION

Thank you for choosing the ZKH Pinless Moisture Meter HIT-MM916. This device is designed for non-destructive measurement of moisture content in various materials such as wood, drywall, concrete, and other building materials. Its advanced spherical probe allows for deep detection without causing damage to surfaces. This manual provides essential information for the safe and effective operation of your moisture meter.



Image 1.1: ZKH Pinless Moisture Meter HIT-MM916. The meter features a digital display and a spherical probe for non-destructive measurements, shown alongside six AAA batteries.

Key Features:

- **Non-Destructive Measurement:** Spherical probe detects moisture without surface damage.
- **Deep Detection:** Penetrates surfaces up to 20-40mm.
- **Wide Measurement Range:** 0.0-199.9 with 0.1 resolution.
- **One-Touch Operation:** Simple calibration and measurement.
- **Versatile Display:** Shows current, maximum, minimum, and average values.
- **Moisture Alert System:** Notifies when set humidity levels are exceeded.
- **Automatic Power-Off:** Conserves battery life.
- **Backlit Display:** Ensures readability in various lighting conditions.

2. SAFETY INFORMATION

Please read and understand all safety instructions before using the device. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Do not attempt to open or modify the device. There are no user-serviceable parts inside.
- Keep the device away from water and other liquids to prevent electric shock or damage.
- Avoid using the device in environments with extreme temperatures or high humidity.
- Do not use the device near strong electromagnetic fields, which may affect measurement accuracy.
- Ensure the battery compartment is securely closed after battery installation.
- Dispose of batteries according to local regulations. Do not incinerate batteries.
- This device is not a toy. Keep out of reach of children.

3. PRODUCT OVERVIEW AND COMPONENTS

Package Contents:

- 1 x ZKH Pinless Moisture Meter HIT-MM916
- 1 x User Manual
- AAA Batteries (quantity may vary, typically 3-6)

Device Layout:



Image 3.1: Detailed view of the ZKH Pinless Moisture Meter, highlighting its components and controls. The image shows the ball probe, LCD screen, and various buttons with their functions.

1. **Ball Probe:** The sensing part of the meter for non-destructive measurement.
2. **LCD Screen:** Displays measurement readings, settings, and indicators.
3. **CLR/▲ Button:** Increases setting values or selects options.
4. **☀/SET Button:** Enters settings, selects modes, or toggles backlight.
5. **MODE/▼ Button:** Decreases setting values or selects options.
6. **M Button:** Used for measurement and calibration.
7. **Power Button:** Turns the meter on or off.

4. SETUP

4.1 Battery Installation:

The ZKH Pinless Moisture Meter requires AAA batteries for operation. To install or replace batteries:

1. Locate the battery compartment on the back of the device.
2. Use a small screwdriver to open the battery compartment cover.
3. Insert the AAA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover and secure it with the screw.

4.2 Initial Calibration:

For accurate measurements, it is recommended to calibrate the device before first use and periodically thereafter.



Image 4.1: Illustration of the calibration process for the ZKH Pinless Moisture Meter. A hand holds the meter, demonstrating the correct position for calibration and measurement.

1. Press the Power button to turn on the meter.
2. Hold the "M" button for approximately 3 seconds to initiate calibration.
3. The display will indicate calibration is complete, and measurement will begin automatically after 3 seconds.

5. OPERATING INSTRUCTIONS

5.1 Taking a Measurement:

The ZKH Pinless Moisture Meter uses a spherical probe for non-destructive measurements. To take a reading:

1. Ensure the meter is powered on and calibrated.
2. Place the spherical probe flat against the surface of the material you wish to measure. Ensure the probe is perpendicular to the surface.
3. The meter will display the moisture content reading on the LCD screen.
4. For consistent results, avoid moving the meter during measurement.

Measures Depth **20-40mm** for Accurate Moisture Detection



Condition	Graph Display
Present or held reading \leq DRY value	
DRY value $<$ present or held reading \leq DRY value + $(\text{WET value} - \text{DRY value}) / 3$	
DRY value + $(\text{WET value} - \text{DRY value}) / 3 <$ present or held reading \leq DRY value + $(\text{WET value} - \text{DRY value}) \times 2 / 3$	
DRY value + $(\text{WET value} - \text{DRY value}) \times 2 / 3 <$ present or held reading \leq WET value	
WET value $<$ present or held reading	" "
	flashes

Image 5.1: Diagram illustrating the 20-40mm depth detection capability of the ZKH Pinless Moisture Meter. The spherical probe emits signals that penetrate the material to assess moisture levels.

5.2 Understanding the Display:

The LCD screen provides various indicators and readings:



Image 5.2: A close-up of the meter's high-definition LCD display, showing various indicators such as current measurement, max/min/avg readings, moisture alarm, and battery status.

- **Current Measurement Reading:** The primary moisture value.
- **HOLD ALM SET HI LOW:** Indicators for data hold, alarm settings, and high/low moisture alerts.
- **MAX MIN AVG CM:** Displays maximum, minimum, and average readings.
- **Dry/Wet Indicator:** A graphical bar indicating relative dryness or wetness.
- **Low Battery Indication:** Icon appears when batteries need replacement.

5.3 Moisture Alert System:

The meter can be set to alert you when moisture levels exceed a predefined threshold. Refer to the device's on-screen menu (accessed via the SET button) to configure alarm levels. When the moisture level surpasses the set limit, an audible alarm and/or visual indicator will activate.

5.4 Data Hold Function:

Press the "M" button briefly during measurement to hold the current reading on the display. Press it again to release the hold and resume live measurement.

5.5 Automatic Power-Off:

To conserve battery life, the meter will automatically power off after approximately 3 minutes of inactivity.

5.6 Important Measurement Considerations:

For reliable moisture detection, ensure the measurement area is free from obstructions.



Image 5.3: Visual guide indicating areas to avoid when taking moisture measurements. Do not measure near electrical wires, metal pipes, or other metallic obstructions, as these can interfere with readings.

- Avoid measuring directly over electrical wires, metal pipes, or other metallic objects embedded within the material, as these can interfere with the meter's electromagnetic field and lead to inaccurate readings.
- Ensure the probe makes full contact with the surface for optimal results.

5.7 Applications:

The ZKH Pinless Moisture Meter is suitable for a wide range of materials and applications:

Comprehensive Detection

Suitable for Various Building Materials



Image 5.4: Examples of the ZKH Pinless Moisture Meter in use across different materials and scenarios, including wood, wooden floors, concrete walls, ceramic tiles, ceiling tiles, and caravan interiors.

- Wood and Lumber
- Drywall and Plaster
- Concrete and Mortar
- Cardboard and Flooring
- Ceilings and Subfloors

6. MAINTENANCE

6.1 Cleaning:

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents, as these may damage the casing or display.

6.2 Storage:

When not in use for extended periods, remove the batteries to prevent leakage and store the meter in a cool, dry place, away from direct sunlight and extreme temperatures.

6.3 Battery Replacement:

Replace batteries when the low battery indicator appears on the display. Refer to section 4.1 for battery installation instructions.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No display/Device won't turn on	Dead or incorrectly installed batteries.	Check battery polarity or replace with new batteries.
Inaccurate or inconsistent readings	Not calibrated; measuring near metal objects; poor contact with surface; material density variations.	Perform calibration (Section 4.2). Ensure no metal obstructions. Apply firm, flat contact. Understand that readings can vary slightly based on material composition.
Moisture alarm not working	Alarm settings incorrect; alarm feature disabled.	Check and adjust alarm threshold settings via the SET button.
Display is dim or flickering	Low battery power.	Replace batteries.

8. SPECIFICATIONS

Feature	Specification
Model Number	HIT-MM916
Measurement Type	Pinless, Non-Destructive
Detection Depth	20-40mm
Measurement Range	0.0-199.9
Resolution	0.1
Power Source	AAA Batteries (not included, or included depending on package)
Auto Power-Off	Approx. 3 minutes
Product Dimensions	9.65 x 2.36 x 1.18 inches (24.5 x 6 x 3 cm)

Feature	Specification
Item Weight	6.38 ounces (181 grams)
Color	Black

9. WARRANTY AND SUPPORT

ZKH products are manufactured to high-quality standards. This product is covered by a limited warranty against defects in materials and workmanship. Please refer to the warranty card included with your purchase or contact ZKH customer support for specific warranty terms and conditions.

Customer Support:

For technical assistance, troubleshooting, or warranty claims, please contact ZKH customer support through the retailer where the product was purchased or visit the official ZKH website for contact information.