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RESKIU WA-160A

RESKIU Smart Food Water Activity Meter WA-160A User Manual

Model: WA-160A

1. INTRODUCTION

This manual provides detailed instructions for the proper use and maintenance of the RESKIU Smart Food Water Activity Meter, Model WA-160A. This device is designed to accurately measure the water activity (aw) in various food products, which is crucial for assessing food quality, stability, and safety. Please read this manual thoroughly before operating the instrument to ensure correct usage and optimal performance.

2. PRODUCT OVERVIEW AND FEATURES

The RESKIU WA-160A Water Activity Meter is a portable and efficient instrument for determining the free water content in food. Its integrated design combines the sensor and display for ease of use.



Figure 2.1: The RESKIU WA-160A Water Activity Meter, displaying a reading of 0.58 aw and 19.6°C, positioned next to various food items.

Key Features:

- **Rapid Measurement:** Measures water activity within 5 minutes, providing quick and accurate results.
- **Integrated Sensor:** Sensor and reading unit are combined into one compact device.
- **Dual Display:** Simultaneously displays water activity (aw) and sample temperature.
- **LCD Digital Display:** Features a 6-digit backlit LCD for clear readings, showing 3-digit humidity (aw) and 3-digit temperature.
- **Lightweight and Portable:** Weighs approximately 100 grams (without batteries), making it easy to carry and use in various locations.
- **Automatic and Manual Shutdown:** Includes both automatic and manual power-off functions to conserve battery life.
- **Undervoltage Alarm:** Provides an indication when battery power is low.

Features



Figure 2.2: Diagram highlighting key features of the WA-160A meter, including integrated sensor, quick detection, dual display, automatic/manual shutdown, and undervoltage alarm.

3. PACKAGE CONTENTS

Upon unpacking, please verify that all items listed below are present and in good condition:

- 1 x RESKIU WA-160A Water Activity Meter
- 1 x Carrying Case
- 3 x Sample Dishes
- 1 x English Instruction Manual (this document)



Figure 3.1: The WA-160A Water Activity Meter, carrying case, and three sample dishes as included in the package.

4. SETUP

4.1 Battery Installation

1. Locate the battery compartment cover on the back of the device.
2. Slide the cover downwards or in the direction indicated by an arrow to open it.
3. Insert two (2) AA batteries (not included) into the compartment, ensuring correct polarity (+/-) as marked.
4. Replace the battery compartment cover, sliding it back into place until it clicks securely.

Power: 1.5v AAA battery*2

(Batteries not included in the package)

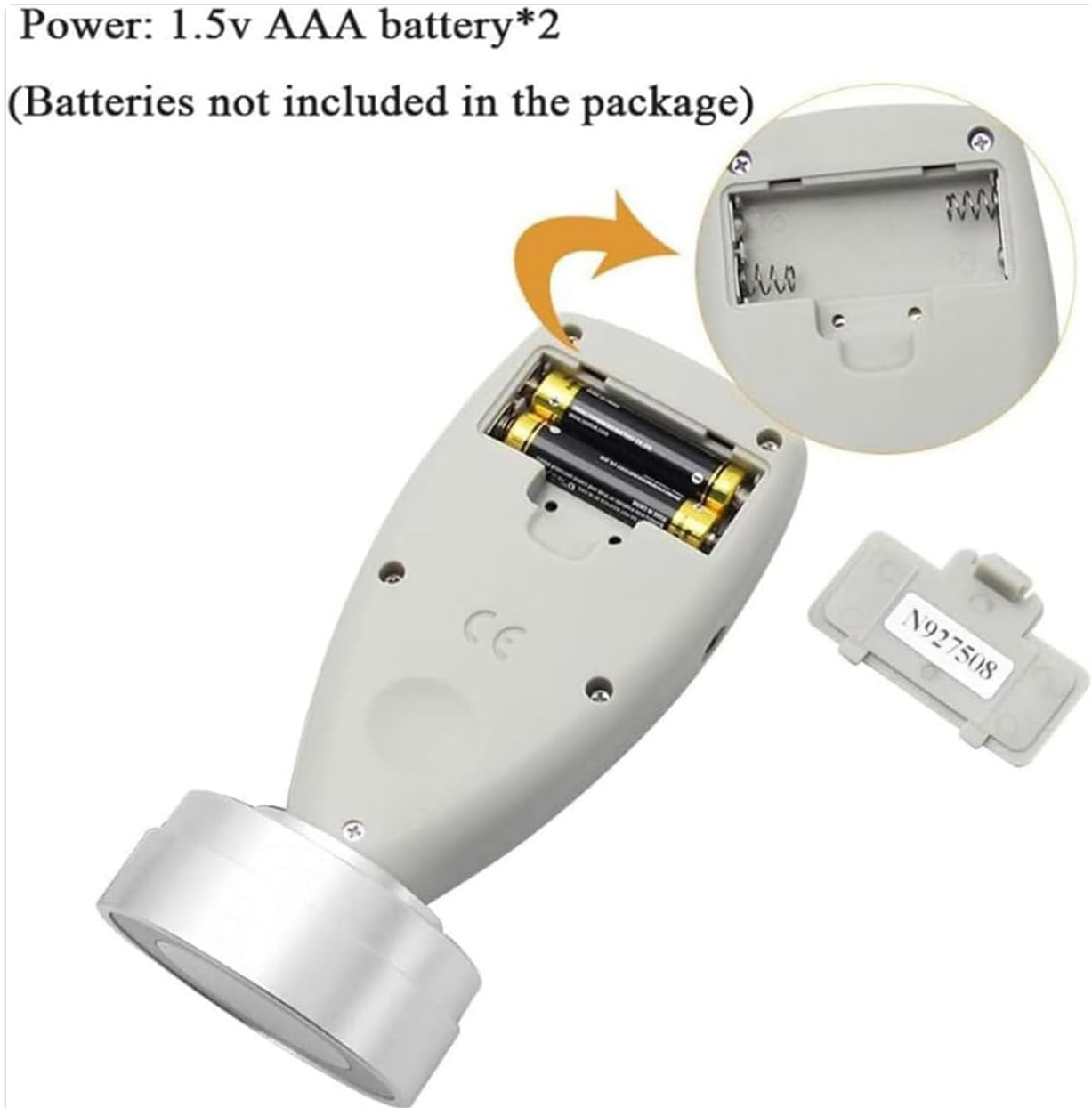


Figure 4.1: Illustration showing the battery compartment of the WA-160A meter with two AA batteries being inserted.

4.2 Initial Power On

After installing the batteries, press the 'POWER' button located on the front of the device to turn it on. The LCD display should illuminate, indicating the device is ready for use.

5. OPERATING INSTRUCTIONS

5.1 Preparing a Sample

1. Ensure the sample dish is clean and dry.
2. Place a representative sample of the food product into one of the provided sample dishes. The sample should fill the dish sufficiently to cover the sensor area when the meter is placed on it, but not overflow.
3. Ensure the sample surface is relatively flat and in good contact with the sensor when the meter is inverted onto the dish.

5.2 Taking a Measurement

1. Turn on the WA-160A meter by pressing the 'POWER' button.
2. Carefully invert the meter and place its sensor head onto the prepared sample dish, ensuring a stable and secure contact.
3. Allow approximately 5 minutes for the measurement to stabilize. The device will display the water activity (aw) and temperature (°C) readings simultaneously.
4. Record the readings once they are stable.
5. After measurement, lift the meter, clean the sensor area if necessary, and remove the sample dish.



Figure 5.1: The WA-160A Water Activity Meter displaying a water activity reading of 0.64 aw and a temperature of 19.9°C, demonstrating its dual display capability.

5.3 Power Off

- **Automatic Shutdown:** The device will automatically power off after a period of inactivity to conserve battery life.
- **Manual Shutdown:** To manually turn off the device, press and hold the 'POWER' button until the display turns off.

6. MAINTENANCE

6.1 Cleaning

- After each use, gently wipe the sensor area with a soft, dry cloth.
- If necessary, use a slightly damp cloth with mild soap to clean the exterior of the device. Avoid using abrasive cleaners or solvents.
- Ensure no liquid enters the device, especially the sensor area or battery compartment.
- Clean the sample dishes thoroughly after each use.

6.2 Storage

- Store the meter in its carrying case when not in use to protect it from dust and physical damage.
- Remove batteries if the device will not be used for an extended period to prevent leakage.
- Store in a cool, dry place, away from direct sunlight and extreme temperatures.

7. TROUBLESHOOTING

If you encounter issues with your WA-160A meter, please refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on.	Batteries are dead or incorrectly installed.	Check battery polarity. Replace with new AA batteries.
Inaccurate or unstable readings.	Sensor is dirty or damaged; sample not properly prepared; environmental conditions unstable.	Clean the sensor. Ensure proper sample contact. Allow device to acclimatize to ambient temperature.
Display is dim or flickering.	Low battery power.	Replace batteries.
No reading after 5 minutes.	Poor contact with sample; device malfunction.	Ensure firm and stable contact with the sample. If problem persists, contact customer support.

8. SPECIFICATIONS

Detailed technical specifications for the RESKIU WA-160A Water Activity Meter:

Application Scenario



Bakery



Supermarket



Dry Goods Store



Spice Shop

Figure 8.1: A table summarizing the technical parameters of the WA-160A Water Activity Meter.

Parameter	Specification
Display	6-digit backlit LCD digital display (3-digit humidity aw, 3-digit temperature)
Measuring Range	0 ~ 1.0 aw
Resolution	±0.01 aw
Accuracy	±0.02 aw
Measurement Speed	5 minutes
Working Conditions - Temperature	0 ~ 50°C
Working Conditions - Humidity	<90% RH (non-condensing)
Power Supply	2 x AA batteries (not included)
Dimensions	135 x 70 x 44 mm
Sensor Type	Non-conductive humidity sensor
Product Weight (without battery)	100 g

Application Scenarios:

The WA-160A is suitable for measuring water activity in a wide range of food products, including:

- Bread, biscuits, and pastries
- Puffed and baked foods
- Snack foods
- Dehydrated foods
- Dried jams (e.g., salads, tomatoes)
- Spices and dry goods

Range : 0-1 law

TEMP display



Figure 8.2: Examples of environments where the water activity meter can be applied, such as bakeries, supermarkets, dry goods stores, and spice shops.

9. SUPPORT

For any questions, technical assistance, or support regarding your RESKIU WA-160A Water Activity Meter, please refer to the contact information provided with your purchase or on the product packaging. We are committed to assisting you with any inquiries.