



## WATER ACTIVITY METER

This Water Activity Meter is small in size, light in weight, easy to carry, it is convenient to use and operate. Its ruggedness will allow many years of use if proper operating techniques are followed. Please read the following instructions carefully and always keep this manual within easy reach.

### 1. Product Description

\* The Water Activity, mainly reflects the amount of free water in the state of food balance, the stability of food and the possibility of microbial reproduction, and the chemical, enzyme and physical changes that can cause the change of food quality. It is often used to measure the dryness enduring ability of the microorganisms. By measuring the water activity of food and selecting reasonable packing and storage methods, the use of preservatives can be reduced and the shelf life of food, grain and fruits and vegetables can be judged.

The WA-160A can be used to measure the water activity of foods. No matter when and where you need to measure water activity, WA-160A water activity meter is your unique choice. This is a real portable water activity meter, with

a weight of only 100 grams, lighter than a mobile phone, and a precision of 0.03 aw, easy to measure water activity anytime and anywhere.  
\* Sensors and readings are integrated.  
\* Easy reading, water activity and temperature of the samples displayed together.  
\* It has automatic shutdown, manual shutdown function and undervoltage alarm indication function.  
\* Use "USB data line output" to communicate with PC.  
\* The selection of "Bluetooth data output" is provided.

### 2. Technical Parameters

Display: 6 bit backlight LCD digital display,  
3 bit humidity aw,  
3 bit temperature display  
Range: 0-1.0aw  
Resolution:  $\pm 0.01aw$   
Accuracy:  $\pm 0.03aw$   
Sensor: Non conductive humidity sensor

Sampling Time: Max. 10 minutes  
(Record the response value of the water activity meter every 5 minutes, when the difference between the two adjacent response values is small)

At 0.01Aw, is the measured value.  
Operating condition:

Temp: 0-50°C (32-122°F)  
Humidity: <95%RH  
Power supply: 2x1.5V AAA Um-4  
Battery

Size: 148x65x65mm  
Weight: 235g (Not including batteries)  
Standard Accessories

- \* Main Unit
  - \* Sample Plate
  - \* Carrying Case
  - \* Operation Manual
- Optional Accessories
- \* USB data output
  - \* Bluetooth data output

### 3. Front Panel Descriptions



Fig. 1

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### Fig-1 Information Form

3-1	Display
3-2	Water Activity Value
3-3	Temperature Value
3-4	Data Cable Interface
3-5	Battery cover on the Back
3-6	Power Key
3-7	Sensor

### 4. Measuring Procedure

- 4.1 Press the power key to switch on the power and the gauge enters the auto mode which can automatically test the water activity.
- 4.2 Put the samples into the sample plate, and then cover the sensor of the gauge onto the sample plate. Lay aside for about 5 minutes, when the reading gets stable, the water activity can be obtained.
- 4.3 When the water activity is greater than 0.8 or less than 0.3, the measurement time is within 20 minutes.

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when the water activity is greater than 0.95 or less than 0.1. The measurement time is more than 1 hour (because the measurement must wait until the moisture and air in the measurement room are completely mixed to reach The instrument has a horn sound every five minutes.

4.4 After testing, press and hold the power key for about 3 seconds to turn off the gauge. Clean the sample plate for next use.

### 5. Connecting with a Computer

- 5.1 Install the USB software on your PC, please always click "the continue" button in the installing process.
- 5.2 Connect your gauge to your PC using the optional cable.
- 5.3 Switch on your gauge and ensure the Reading Screen is displayed.
- 5.4 Start the software and follow the instructions included with the software Demo.EXE.


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### 6. READING CORRECTION

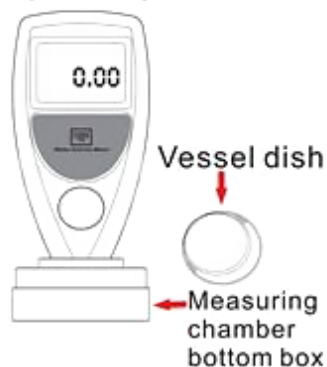
- 6.1 When it is necessary to correct the reading value, press and hold the Power Key for about 7 seconds. Then release the key when the signal "Cor", comes out on the display. There will be a decimal number with two places, which is the correction value.
- 6.2 Then open the battery cover on the back, there are 2 small hole below the battery slot. Use a small hard bar (such as screwdriver) to slightly touch the key inside, the correction value will be increased or decreased. The value increases when touching the right hole, while the value decreases when touching the left hole. Each time the key is touched, the correction value changes by 0.01. The correction value can be set from -0.05 to 0.05.
- 6.3 After the adjustment, press the Power Key to quit.

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## 7. Battery Replacement

- 7.1 When it is necessary to replace the battery, the battery symbol  will appear on the Display.
- 7.2 Slide the Battery Cover ( Fig.1.) away from the instrument and remove the batteries.
- 7.3 Install the batteries (2x1.5vAAA UM-4) correctly into the case.
- 7.4 If the gauge is not to be used for any extended period, remove batteries.

## 8.operation procedure



1. Take out the instrument



2. Open the instrument measuring room



3. Open the container dish and put the test sample into the container dish



4. Put the container dish with sample into the bottom box of the measuring chamber (do not cover the container dish).



5. Start the instrument and combine the measuring chamber



6. Check whether the measuring room has anastomosis. After the anastomosis, the measurement begins