Water Activity Meter AMT158

User Manual

AMTAST USA INC

!!! *Caution:*

1. Meter not waterproof, be careful not to let any liquid enter the probe and meter inside, it will damage the sensor!
2. When putting in or taking out the samples always press the base with one hand to prevent the sample being tested from spilling out. Because the base has strong magnetic to fix with meter sensor.
3. For high accurate test, the measurement time can be extended especially for too high or too low AW value sample (Standard measurement time is 5 minutes).
4. The USB port only for model AMT158S which can connect with PC, model AMT158 no this function, don't remove the dust cover.

Applications & Features:

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 AMT158 can be used to measure the water activity of foods. No matter when and where you need to measure water activity, AMT158 water activity meter is your unique choice. This is a real portable water activity meter, with light weight, and a precision of 0.02 aw, easy to measure water activity anytime and anywhere.

Specifications:

1. Range: 0~1.0aw
2. Resolution: ±0.01aw
3. Accuracy: ±0.02aw
4. Sensor: Non conductive humidity sensor
5. Sampling Time: 5 Minutes
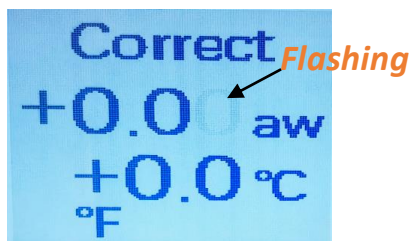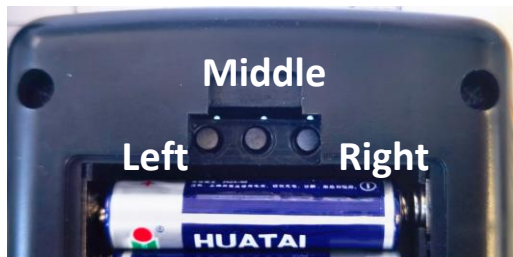6. Operation Conditions: Temperature: 0~50ºC; Humidity: <95%RH

7. Power Supply: 2x1.5V AAA Size (UM-4) Battery (not included)

8. Dimensions: 145x77x30mm

9. Weight: (Not Including Batteries): 275g

10. Auto backlight function, backlight below the POWER key (small hole), if cover it backlight always on.

11. Standard Accessories: Meter; Sample Plate; Carrying Case; Manual.

Measurement:

1. Put the sample into the sample plate up to at least 2/3, press the base by one hand and cover the sensor of the meter onto the sample plate. Lay aside for about 5~15 minutes (*no need turn meter on*).

2. Press the power key to switch on the meter and it will enter the automatic measurement mode. Waiting for about 5 minutes, when the reading gets stable, the water activity can be obtained. Meter will display AW value and temperature.

3. After testing, press the power key to turn off the meter. Hold the base by one hand and pull out the sample.

4. Clean the sample plate for next use.

Calibration and Temperature Unit Change:

1. Make sure meter, calibration solution, room all in same temperature.

2. The standard calibration solution is NaCl with AW value 0.753 at 25°C (77°F).

3. Operate it according to above measurement steps, waiting for the reading stable.

4. If reading not same as the calibration solution, remove the battery cover, then you can see 3 black buttons, long press the middle button by a small flat tool or finger, then meter will display Correct, and aw value last digit flash, press left button to increase or press right button to reduce the digit.

5. Press middle button again, the temperature last digit will flash, press left button or right button can calibrate the temperature.

6. Press middle button again, the temperature unit ºC or ºF will flash, press left or right button can change it.

7. Press middle button again to save the setting and quit out.

Left **Middle** **Right**

HUATAI

Correct *Flashing*
+0.0 aw
+0.0 °C
°F

Maintenance and service:

1. Use high quality alkaline batteries; poor quality batteries may leak and damage the meter.
2. We provide one year quality limited guarantee but user's wrong operation, damage, broken not cover. Please contact the local distributor or us for service.

Water Activity of Common Food Products (Reference only)

1. Fresh meat and fish: 0.99;   2. Beef jerky: <0.80
3. Liverwurst: 0.96   4. Caviar: 0.92
5. Salami: 0.82   6. Soy sauce: 0.80
7. Peanut butter: 0.70   8. Dried fruits: 0.60~0.65
9. Biscuits, chocolate: <0.60   10. Sausages, syrups: 0.87~0.91
11. Raw vegetables (ex: carrots, cauliflower, peppers): 0.99
12. Raw fruits (ex: apples, oranges, grapes): 0.98
13. Cooked meat, bread: 0.91~0.98
14. Moist cakes (ex: carrot cake): 0.90~0.95
15. Flours, rice, beans, peas: 0.80~0.87
16. Jams, marmalades, jellies: 0.75~0.80
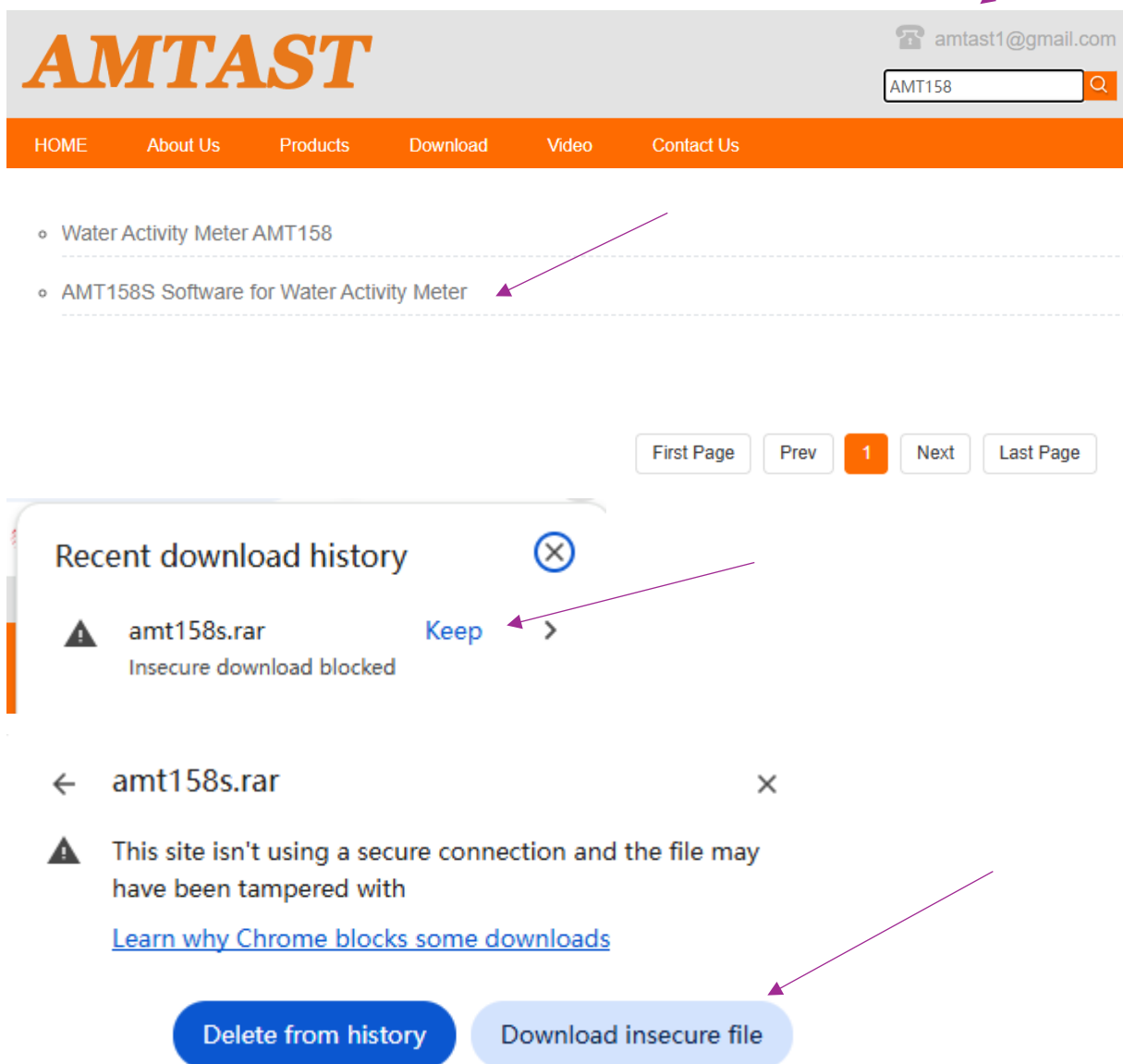17. Dried spices, milk powder: 0.20~0.60

Amtast USA Inc

438 Skyline Dr. E Lakeland FL. 33809 USA
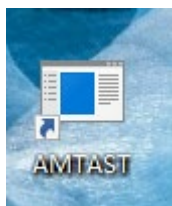E-Mail: amtast1@gmail.com   URL: www.amtast.com
If need service please email us, we will try to reply to you ASAP.
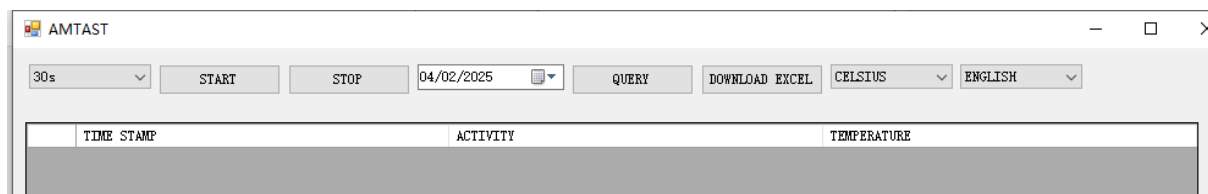
AMT158S Water Activity Meter Software Manual

1. This software only work for Win 10, Win 11

2. Download the software from www.amtast.com, search "AMT158" then you can find follows, it is exe file, if your browser not allowed to download it, please set it or change new browser.
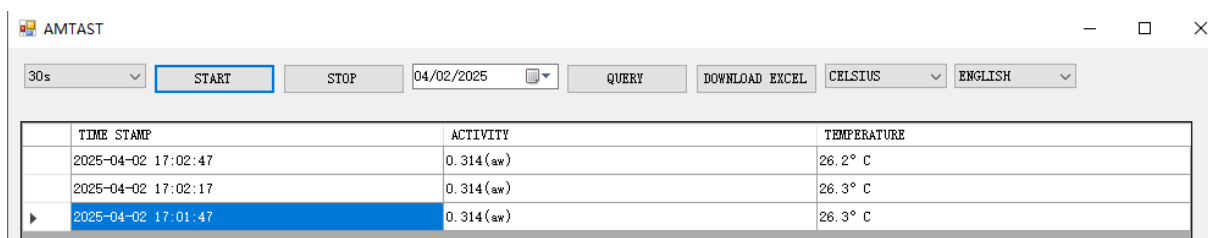

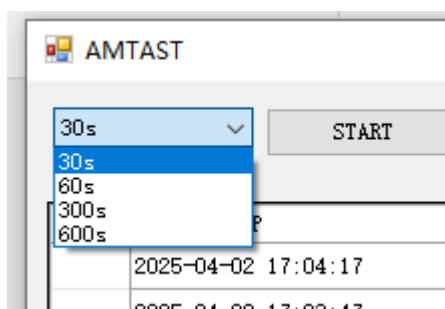3. Install the exe file in your computer, then you can see the icon AMTAST in the desktop.

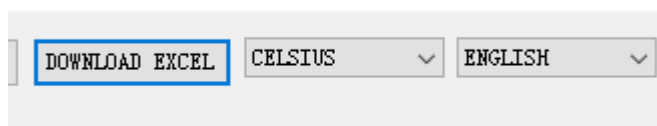4. Click it, software display as follows:

5. Use the cable to connect with PC, turn meter on, then click START, meter

will connect with PC and display as follows:

You can set the 30s, 60s, 300s, 600s per record.

6. Download data with Excel format to PC

More information please contact us by email amtast1@gmail.com