



RWM-1000 Instruction Manual

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1. Precautions

- 1) Keep the product in a dry and shaded environment.
- 2) Do not use organic solvents to clean the product. (acetone, benzene, thinners for paints, gasoline, etc)
- 3) Remove the sample solution from the Sample surface and wipe with a soft dry cloth after use.
Do not use steel wool and harsh scrub pads to wipe the Sample surface / Prism.
Do not use metal or sharp objects (eg. Spoons, needles) to place a sample on the Sample surface.
- 4) Do not submerge or drench the unit completely in water.
- 5) Dropping the unit or subjecting it to strong impact may cause the unit to malfunction. Do not dismantle or attempt to fix the device. Any unauthorized repair and modification attempts will result in forfeiture of warranty service of the device.

2. Specifications

Model Name	RWM-1000 / Wine Refractometer
Measurement Units	Brix, KMW, Be, Babo, Oe, TAVP, °C (Temp)
Measurement Range	Brix: 0.0%~55.0% KMW: 0.0°~46.4° Be: 0.0°~29.8° Babo: 0.0°~46.4° Oe: 3°~256° TAVP: 0.0%~37.9% Temp: 0~70°C/(32~158°F)
Temperature Compensation	ATC(10~60°C)

Resolution	Brix: 0.1% KMW: 0.1° Be: 0.1° Babo: 0.1° Oe: 1° TAVP: 0.1% Temp: 0.1°C / °F
Accuracy	Brix: ±0.2% Temp: ±1.0°C
Backlight	Automatic Brightness Control (20 seconds)
Auto shut-Off	After 2 minutes
Measurement Time	Within 5 seconds

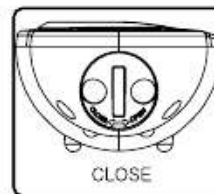
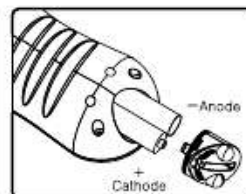
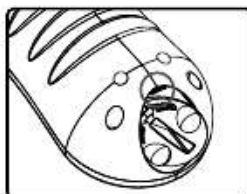
Idle Sample volume	Volume 0.5ml
Usage Environment	10~40°C (50~104°F)
Power Source	1.5V x 2(AAA Alkaline)
Size	58(W)X 36(D) X
Weight	149 gram (Including Batteries and detachable cover)

3. Error Messages

Problem	Error Message	Reason(s) and/or Potential Solution(s)
The meter will not power ON		• Change the batteries. • Double-check the polarity of the batteries.
Not enough sample placed	Air	• Make sure at least 0.5ml of sample is on the sample surface.
Out of Range /	H1	• Sample must be used within the specified range limits • Calibrate using distilled water.
Out of Range / Below observable range	Lo	• Sample must be used within the specified range limits • Calibrate using distilled water.
Low battery	Lob	• Change the batteries
Ambient light intensity is too strong	---	• Re-measure the sample while covering the sensor with hands to create shade. • Wait for the sample's temperature to stabilize
Zero correction failure	Er2	• Re-check the quality and quantity of the distilled water
Temperature Error	Er3	• If Er3 is displaying after stabilizing, contact the product service.

4. Inserting and Replacing Batteries

If " " sign is displayed on the LCD screen, we advise you to replace the batteries. If left unchanged, "Lob" sign will be displayed and measurements cannot be taken.



Please turn it left as the directional sign indicates "OPEN" until the groove (as shown) is aligned in the middle. Pull the groove to reveal the battery slot. To put it back, insert the cover as the groove is aligned in the middle like before and turn it right to close the cover.

5. Function and Parts



► Supplement parts

- 1) Instruction manual.
- 2) Eye Dropper(Spoid): To place sample solution on the sample surface.
- 3) Product warranty

6. Display and Buttons

Display



Buttons

- Start button**
- Press to turn ON the device or to measure the sample.
 - Press for 2 seconds to turn OFF.

- SCALE button**
- Press to Change through 6 different modes.

- Zero button**
- Calibration function.

- Start button + Zero button**
- Press the combination of buttons to show temperature.

7. Using RWM-1000

1. Put approximately 0.5ml of measuring sample on the prism.
Approx. 5mm
Volume of water : Approx. 0.5ml
2. When pressing [START] button, power comes on and the measurement starts instantly.
3. Please wait while the measurement is being taken place indicated by "Wait" icon.
4. When "Read" icon is displayed on the screen, the measurement is complete.

8. Calibration

1. Clean the prism surface and drop 0.5ml of distilled water.
Approx. 5mm
Volume of water : Approx. 0.5ml
2. Press [ZERO] button to calibrate.
3. Wait while the measurement is taking place indicated by "Wait" icon.
4. Calibration is completed after "000" sign flashes twice.

ref. If the measurement of distilled water is zero.
The device does not need a calibration.

9. Temperature Display

The function is to check the temperature after the measurement or during zero calibration.

1. Press and hold the [START]+[ZERO] buttons simultaneously for 2 seconds.
2. The temperature is displayed on the screen only when the buttons are pressed and held.
3. When buttons are released, the display returns to the original screen.

10. Setting Measuring Mode

RWM-1000 has six different measurement modes:
Brix / KMW / Be / Babo / Oe / TAPV.
Please check the mode prior to measurement

1. Press [SCALE] button to toggle six different modes mode.
2. The current mode is always displayed at the bottom of LCD screen.