

BTR-1000 (Brix) Instruction Manual

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1. Safety and Precaution

- 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 doth 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	BTR-1000 (Brix) / Suger(Brix) Refractometer	(
Measurement Units	% (Brix) °C (Temp)		
Measurement Range	Brix(%): 0.0%~28.0% Temp: 0~70°C	,	
Resolution	Brix(%): 0.1% Temp: 0.1°C		
Accuracy	Brix(%): ±0.2% Temp: ±1.0°C		

$\Big]$	Temperature Compensation	ATC (10~60°C)
	Backlight	Automatic Brightness Control (20 seconds)
	Auto shut-Off	After 2 minutes
	Measurement Time	Within 5 seconds
J	Idle Sample volume	Volume 0.5ml

Data Store	Up to 20
Usage Enviroment	10~40°C (50~104°F)
Power Source	1.5V x 2(AAA Alkaline)
Size	58(W)X 36(D) X 122(H)mm
Weight	149 gram (Including Batteries & detachable cover)

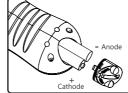
3. Error Messages

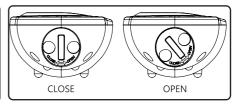
Problem	Error Message	Reason(s) and/or Potential Solution(s)
The meter will not power ON		Change the batteries. Double-check the polarity of the batteries.
Not enough sample placed	A Ir	Make sure at least 0.5ml of a sample is on the sample surface. (refer Section 8.) Re-measure the sample while covering the sensor with hands to create a shade.
Out of Range / Above observable range	HI	Must be used within the specified range limits Calibrate using distilled water (refer Section 9. on the manual)
Out of Range / Below observable range	Lo	Must be used within the specified range limits Calibrate using distilled water (refer Section 9. on the manual)
Low battery	Lob	Change the batteries
Ambient light intensity is too strong		 Re-measure the sample while covering the sensor with hands to create a shade. Wait for the sample's temperature to stabilize
Zero correction failure	Er2	Re-measure the sample while covering the sensor with hands to create a shade. Re-check the quality and quantity of the distilled water
Temperature Error	Er3	Wait for the sample's temperature to stabilize Measure the sample within acceptable temperature range

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



- 1. "Measurement Indicator" Icon
- 2. "Measurement Completion" Icon
- 3. Battery Life Indicator
- 4. Temperature Icon
- 5. Percentage Icon (Brix)
- Store Number Indicator
- 7. "Store" Icon
- 8. "Recall Mode" Icon
- 9. "Zero Correction Mode" Icon
- 10. Measured Value Display
- 11. Bluetooth Icon



- •Press to turn ON the device or to measure the sample.
- •Press for 2 seconds to turn OFF.



•Store and read the measured value

Zero button (P)

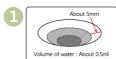
- ZERO correction function.
- •Select through recalls in recall mode.

Start button

Zero button

to show temperature.

7. Using BTR-1000 (Brix)



Put approximately 0.5ml of measuring sample on the prism.



When pressing [START] button, power comes on and the measurement starts instantly.



Please wait while the measurement is being taken place indicated by "Wait" icon.



When "Read" icon is displayed on the screen, the measurement is complete.

8. Calibration



Clean the prism surface and drop 0.5ml of distilled water.



Press [ZERO] button to calibrate.



Wait while the measurement is being taken place indicated by "Wait" icon.



Calibration is completed after "000" sign flashed twice.

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



When "Er2" is displayed on the screen, it means lack of distilled water or the water is not distilled water(tap water should not be used).

9. Temperature Display

The function is to check the temperature after measuring or during zero correction.



Press and hold the [START]+[ZERO] buttons for 2 seconds.



The temperature is displayed on the screen only when the buttons are being pressed.



When buttons are released the display returns to the original screen.

10. Store and Recall measurements

Store Measurements

Once 20 measurements are stored, it overwrites from "01".



Press the [STORE/RECALL] button after measurement reading is complete.



"Store" icon with Store number will be displayed indicating that saving is completed.

Recall/Delete Measurements



In measurement mode, press and HOLD [STORE/RECALL] button for 2 seconds.



"Recall" icon with latest stored value will be displayed.



To clear all saved data, in RECALL mode, press [STORE/RECALL] &[ZERO] button together for 2 seconds.



"CLr" sign will flash on the screen when data initialization was successful.

Press the combination of buttons