

Refractometer Instruction Manual

PRECAUTIONS

Never submerge the unit, and do not let liquid seep into the unit's body. Clean the refractometer after each use with a soft cotton cloth. Do not scratch surface of the prism. Store in a dry, clean, and non-corrosive environment. Avoid strong impacts.

OPERATING PROCEDURE

1. With the Daylight Plate open, clean the Prism with a soft cloth to avoid scratching the surface.
2. Aim the refractometer toward a light source and rotate the Eyepiece to obtain the clearest focus.
3. Zero Point Calibration:
 - A. Open the Daylight Plate.
 - B. Apply a few drops of the of distilled water onto the Prism platform.
 - C. Close the Daylight Plate.
 - D. Turn the Calibration Screw until the dark and light boundary line coincides with the bottom line of the scale.
4. Carefully dry the prism platform and Daylight Plate.
5. Place a few drops of the test solution on the prism and close the Daylight Plate so the solution spreads evenly on the prism.
6. Aim the front of the refractometer towards the light source and focus the eye piece on the boundary line.
7. The boundary line indicates the value of the test sample at 20°C.
8. After use, clean the prism with distilled water and a cloth to remove any residue.

Note: The temperature of the zero point calibration should be at the same temperature as the test solution. For variations in temperature the zero point should be adjusted once every 30 minutes.



Specifications:

Model	Type	Range	Resolution	Accuracy
300070	Salinity	0-28% Salinity	0.2% Salinity	±0.2%
300071	Brix & Salinity	0-28% Brix	0.2% Brix	±0.2%
		0-32% Salinity	0.2% Salinity	±0.2%
300072	Salinity	0-100‰ ppt	1% ppt	±1%
		1.000-1.070 sg	0.001 sg	±0.001 sg
300073	Brix	0-32% Brix	0.2% Brix	±0.2%
300074	Brix	28-62% Brix	0.2% Brix	±0.2%
300075	Brix	0-80% Brix	1% Brix	±1%
300076	Clinical	0-12 g/dl SP	0.2g/dl	±0.2
		1.000-1.050 SG	0.0005sg	±0.005
		1.330 - 1.360 nD	0.0005nD	±0.0005
300077	Automotive	-60°F-32°F Ethylene	10°F	±10°F
		-50°F-32°F Propylene	10°F	±10°F
		1.15-1.30sg Battery	0.01sg	±0.01sg
300078	Beer	0-20% Brix	0.2% Brix	0.2%
		1.000-1.085 Wort	0.001sg Wort	0.001sg
300079	Honey	58-90% Brix	1% Brix	±1%
		38-43 Be'	0.5 Be'	±0.5 Be'
		10-33% Water	1% Water	±1% Water
300080	Wine/Grape	0 - 25 vol%; 0-170° OE	0.2% vol 1° Oe	±0.2% vol ±1° Oe

WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for a period of **one (1) year** from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover probes, batteries, battery leakage, or damage resulting from accident, tampering, misuse, or abuse of the product. Opening the refractometer to expose its internals will void the warranty.

To obtain warranty service, contact SPER SCIENTIFIC at (480) 948-4448 or support@sperdirect.com.

Register your product online at <https://www.sperwarranty.com/register> within 10 days of purchase.