Sugar Tester (Brix Refractometer)

(EV175)

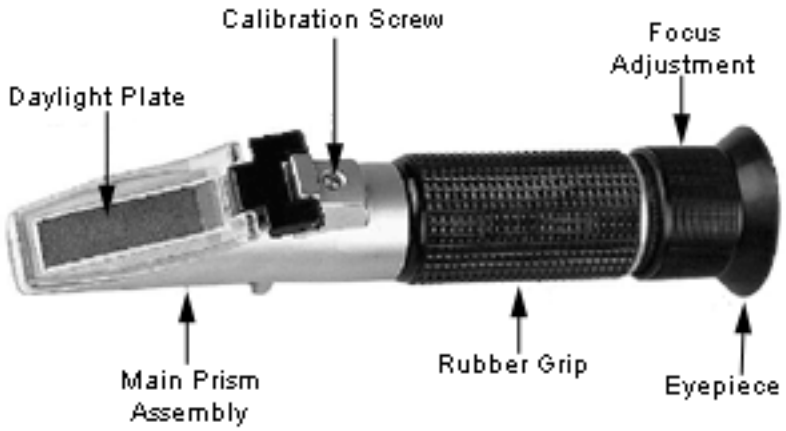
The following instructions were provided by the manufacturer.

This refractometer can be used to judge when fruits are at their peak for harvesting, or it can be used to select plants based on sugar content for propagation or harvesting programs.

Technical Data

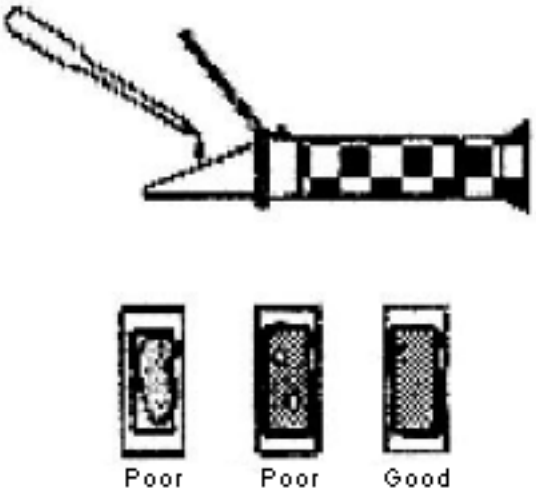
Style	Model	Brix Range	Minimum Division	Accuracy
Brix	RHW-25	0-40%	0.20%	+0.2%

Parts Diagram



Step 1.

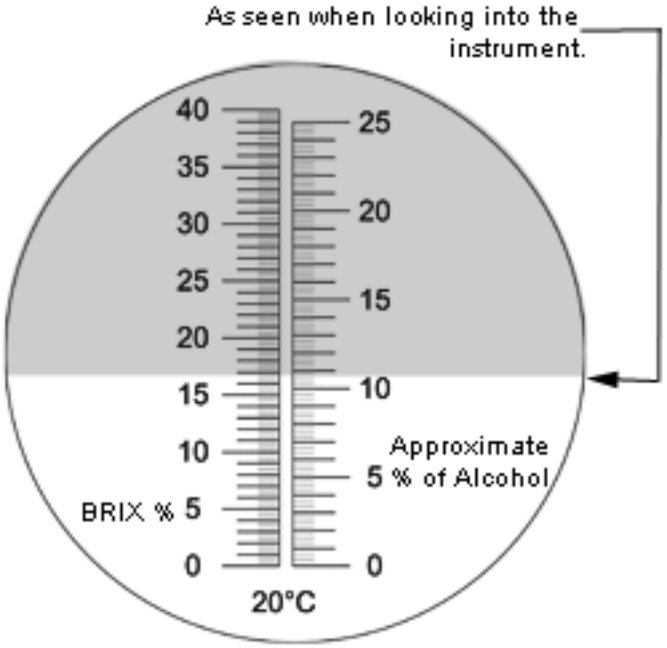
Open daylight plate and place two to three drops of distilled water on the main prism. Close the daylight plate so the water spreads across the entire surface of the prism without air bubbles or dry spots. Allow the sample to adjust to the temperature for approximately 30 seconds on the prism before going to step #2. (This allows the sample to adjust to the ambient temperature of the refractometer.)



Step 2.

Hold daylight plate in the direction of a light source and look into the eyepiece. You will see a circular field with graduations down the center. (You may have to focus the eyepiece to clearly see the graduations.) The upper portion of the field should be blue, while the lower portion should be white.

Step 3.



Look into the eyepiece and turn the calibration screw until the boundary between the upper blue field and the lower white field meet exactly on the zero scale, such as shown in the image. That is the end of the calibration process. Make sure the ambient room temperature is correct for the solution you are using (20° C/68°F). When the working temperature of the room or environment (not the sample) changes by more than 5°F, we recommend recalibrating to maintain accuracy.

Step 4.

Place a few drops of the sample to be tested onto the main prism, close the daylight plate and check reading. Take the reading where the boundary line of blue and white crosses the graduated scale. The scale will provide a direct reading of the concentration.

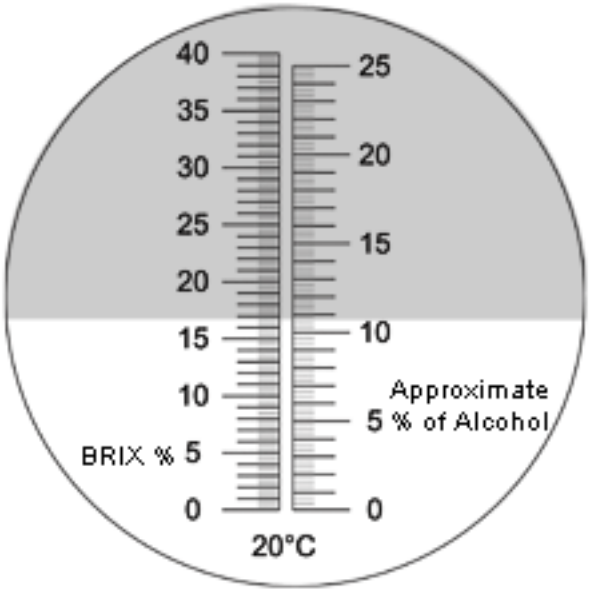
Calibrate to "0"

Maintenance

1. Accurate measurement depends on careful calibration. The prism and sample must be at the same temperature for accurate results.
2. Do not expose the instrument to damp working conditions, and do not immerse the

instrument in water.

3. Do not measure abrasive or corrosive chemicals with this instrument. They can damage the prism's coating.
4. Clean the instrument between each measurement using a soft, damp cloth. Failure to clean the prism on a regular basis will lead to inaccurate results and damage to the prism's coating.
5. This is an optical instrument. It requires careful handling and storage. Failure to do so can result in damage to the optical components and its basic structure. With care, this instrument will provide years of reliable service.



Reading of Sample