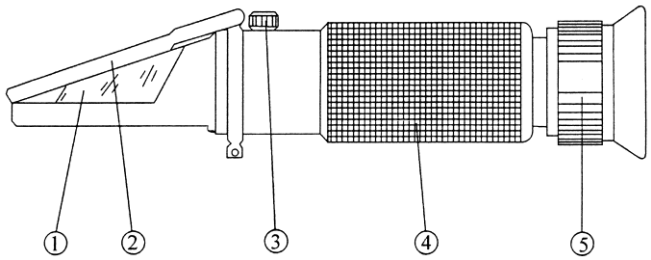
HAND-HELD REFRACTOMETER
Operation Manual

NAME OF COMPONENTS

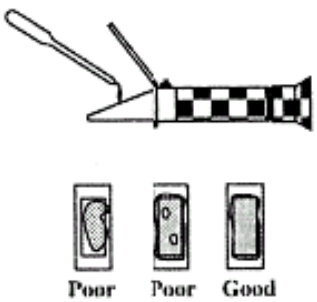


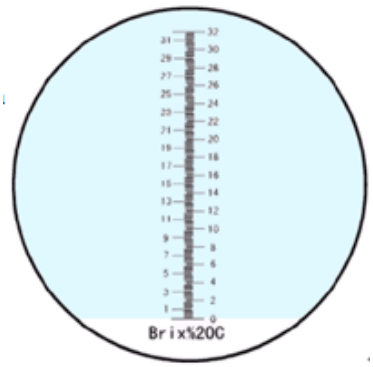
1.Prism 2.Cover plate 3.calibration screw 4.Rubber tube 5.Eyepiece

METHOD OF OPERATION

1.Prepare: Aim the front end of the refractometer in the direction of a bright light, and adjust the adjusting ring of diopter(5) until the reticle can be seen clearly.

2. Calibration：





Calibrate to "0"

****Calibration A:** About the Normal Handheld Refractometer.The calibration just use for measure from 0%. open the cover plate(2), drop one or two drops of distilled water on the prism surface, closed cover plate, press it lightly, then adjust the correct screw (3) to make the light/blue boundary concide with null line.

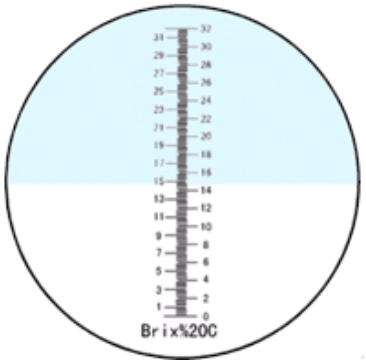
****Calibration B:** About the Honey refractometer (Model: H-120ATC and Model: H-123ATC) and Brix58~92% (Model: H-123ATC). Drop one drop of standard solution on the bright surface of the reference block. Open the cover plate(2),stick the reference block on the surface of the prism, and press it lightly with your hand, so that it can not slide down. Rotate and adjust the calibration screw(3) to make the light/blue boundary coincide with reference line is Brix 78.8%. And the Honey water refractometer (Model: H-112ATC) is calibration reference line to 19.6%.

****Calibration C:** About the Brix28~62% (Model: H-112ATC). Drop one or two drops of saturated sodium chloride solution on the prism surface, closed cover plate, press it lightly, then adjust the correct screw (3) to make the light/blue boundary concide with null line. Adjust to 29.9% at 15oC, adjust to

29.6% at 20oC, adjust to 29.2% at 25oC

3.Measurement:Open the cover plate(2),clean the surface of prism with a piece of soft cotton flannel, Drop 1~2 drops of the solution to be measured. Close the cover plate, and press it lightly, then read the corresponding scale of light and dark boundary. The reading is the numerical value of the measure liquid.

4.After measurement, clean the surface of prism and cover plate with moist gauze, and it should be stored carefully.



Reading of Sample

ATTENTION AND MAINTENANCE

1.Adjustment for the null liquid and specimen should be in the same temperature. Once the temperature move greatly, the null point should be adjusted once per 30 minutes.

2.After usage, do not use water to wash the instrument, so as to avoid water entering the inside of the instrument.

3.This is a precision optical instrument. Handle it gently and take good care of it. Do not touch or scratch the optical surface. Please keep it in a dry, clean and non-corrosiveness environment, to prevent the surface from turning mouldy and foggy. Please avoid strong shock during transportation.

4.If the consumers use the instrument in accordance with the mentioned method of usage, the optical performance should not be changed.

TEMPERATURE COMPENSATION

The reference of temperature is 20°C. In operation, the temperature should be made according to the correcting table .

ATC is mounted with Automatic Temperature Compensation, it has the extra function, it enable user concentrate on measurements without worrying the temperature. Compensation range is 0~30°C.

ACCESSORY

1.Cleaning cloth

2. Pipette

3.Screwdriver

4. Manual of operation