

## **Operation Manual for Hand-held Refractometer**

**II.Operation Manual** 

## Step 1.

Open daylight plate, and place 2~3 drops of distilled water or standard solution on the 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 on the prism for approximately 30 seconds before going to step 2. (THIS ALLOW 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. (The pictures showed here and showed here and showed in step 3 and step 4 are only as reference. The right specific scale is listed in the product.)

## Step 3.

Using distilled water or standard solution as a sample, 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 showed in the picture. That is the end of calibration. Make sure ambient temperature is comets for the solution you are using (20°C for our solution that is 68°F). When working temperature of the environment (not the sample) changes by more than 5°F, we recommend recalibrating to maintain accuracy and reproducibility.

If the instrument is equipped with Automatic Temperature Compensation system, the ambient working temperature of the room must be 20°C(68°F) whenever the instrument is recalibrated. Once calibrated, shifts in ambient temperature within the acceptable range (10°C~30°C) should not effect accuracy.



Do step 1. Using the specimen of liquids which will be measured as the substitution of distilled water or standard solution. Then do step 2. And step 3.. When do step 3 again, you can take the reading where the boundary line of blue and white cross the graduated scale. The will provide a direct reading of the Brix concentretion.

