



Refractometer

K 3640



INRODUCTION

This is a modern refractometer with high precision. Its is accurate and easy to handle. Fluids concentrations that can be checked include:

- Glycol mixture (Propylene and ethylene)
- Windsheld washer fluid (Ethanol and Isopropanol)
- Battery acide (sulfuric acid)

SAFETY AND PRECAUTION

Carefully read these instructions before starting to use the refractometer

- 1 Wear eye and skin protection. If acid come inte contact with eyes, rinse with plenty of water.
- 2 Be aware that all of the fluids described above are poisonous to consume.
- 3 Never leave containers with hazardous fluids open and unattended.

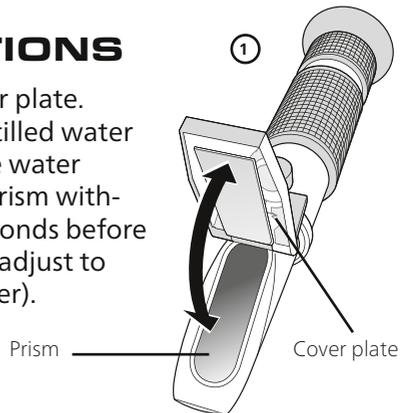
PRODUCT SPECIFICATION

Includes: Refractometer, pipette, screw driver. This refractometer has ATC (Automatic Temperature Calibration)

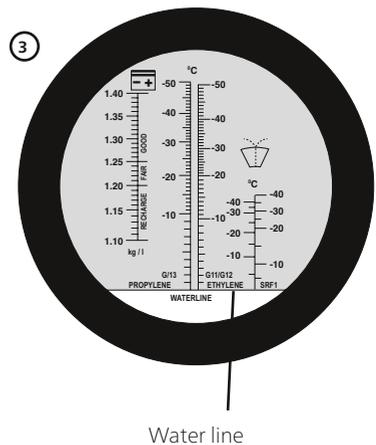
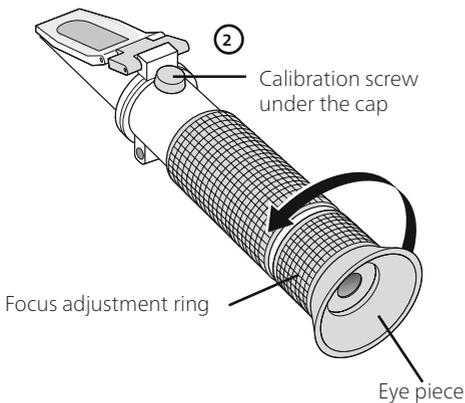
Measuring scales	Resolution
Propylene glycol: -50–0°C	5°C
Ethylene glycol: -50–0°C	5°C
Windsheld washer fluid: -40–0°	10°C
Battery acid: 1.10–1.40 kg/l	0,01 kg/l

OPERATION INSTRUCTIONS

- 1 **Calibration check** (Pict 1). Open the cover plate. Using the pipette, place 2-3 drops of distilled water on the prism. Close the cover plate so the water spreads across the entire surface of the prism without air bubbles or dry spots. Allow 30 seconds before going to step 2 (this allow the sample to adjust to ambient temperature of the refractometer).



- 2 Hold prism in the direction of light source and look into the eyepiece (pict 2). A circular field with graduants down the center will be visible (pict 3). You may have to adjust the focus of the eyepiece to clearly see the graduations. The upper portion of the field should be blue, while the lower portion under the "waterline" should be white. Make sure the fluid and ambient room has the correct temperature, 20 °C. If the temperatur deviates more than 5°C, we recommend recalibrating to maintain accuracy. If no adjustment is needed, contunue to step 4.
- 3 **Calibration.** Prepare the prism with distilled water as described in step 1. Look into the eyepiece and turn the calibration screw (pict 2) , using the included screwdriver until the boundary between the upper blue field and the lower white field meet exactly on the "waterline" (pict.3)
- 4 **Sample testing.** Now place a few drops of the sample to be tested onto the prism, close the cover plate and check reading. Take the reading where the blue and white background meet on the graduated scale. The scale provdies a direct reading of the concentration.





MAINTENANCE

- Accurate measurement depends on careful calibration. The prism and sample must be at the same temperature for the result to be accurate.
- Do not immerse the instrument in water or expose for damp working conditions.
- Do not measure abrasive or corrosive chemicals with this instrument. They can damage the prism coating.
- Clean the instrument between each measurement using a soft, damp cloth. Failure to clean the prism will lead to inaccurate results and damage the prism's coating.
- This is an optical instrument which requires careful handling and storage. Failure to do so can result in damage to the optical components and its basic structure.
- Handled with care, this tool will provide years of reliable service.

PARTS LIST

Stock No.	Description
K 3641	Pipette
K 3642	Cover plate with hinge

K 3640

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