



# Operating Instructions for 395 Coolant Refractometer

Your refractometer is designed to give an accurate reading regarding the freezing point of Propylene or Ethylene Glycol antifreeze as well as the condition of automobile batteries. It is a precision instrument and care should be taken to avoid shock due to impact and other severe handling.

Before using for the first time and periodically thereafter, the refractometer should be calibrated as follows:

1. Locate the small vial of distilled water included with your refractometer.
2. Lift the plastic cover plate off the glass prism on the refractometer and place a drop of distilled water onto the glass. Put the plastic cover plate back down onto the glass and press very gently.
3. Look into the refractometer and aim it at a light source so that light enters the glass prism. Adjust the ring at the eyepiece so as to focus the scales. A shadow will form a line across the scales. For distilled water the lines should be at the bottom of the scales and read straight across at 32°F and 0°C. If the shadow is not on this line, the refractometer should be adjusted.
4. If adjustment is necessary, remove the small rubber cap covering the adjustment screw. This is located just above the hinge for the plastic cover plate. While looking into the eyepiece, use the included screwdriver to slowly turn the adjusting screw until the shadow lined up at 32°F and 0°C. When this is complete, replace the rubber cap onto the adjusting screw and clean the distilled water from the glass with the included cloth.

To use your refractometer, place a drop of coolant or battery fluid onto the glass prism in the same way you used the distilled water for calibration. The unit has two coolant scales, one for Ethylene glycol and one for Propylene glycol. Be sure to reference the correct scale for the fluid you are checking. The coolant scale simply indicates the freezing temperature of the coolant being tested. The battery fluid scale shows the specific gravity in numbers as well as "Recharge / Fair / Good".

Be sure to clean the glass prism after each use to avoid false readings. Use the cloth included, or a clean soft lint-free cloth such as an eyeglass cloth. It must be thoroughly cleaned after each use to avoid inaccuracy in subsequent readings. Wipe to clean. Do not immerse in water or solvents.

Be sure to store the refractometer in the included case to avoid accidental damage.

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