REED INSTRUMENTS R9500 / R9600 / R9700 Refractometer

Instruction Manual

Introduction

Thank you for purchasing your REED Refractometer. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

Product Quality

This product has been manufactured in an ISO 9001 facility and has been calibrated during the manufacturing process to meet stated product specifications.

Safety

- Never attempt to repair or modify your instrument. Dismantling your product, other than for the purpose of replacing batteries, may cause damage that will not be covered under the manufacturer's warranty. Servicing should only be provided by an authorized service center.
- Store your product in a clean, dry place.
- Do not immerse in or clean under running water.
- Do not drop or subject to shock or excessive force as it may result in damage to the mirror tube &/or optical components.
- Do not scratch the prism surface.
- Do not attempt to measure corrosive chemicals as it will damage the instrument.
- The prism must be cleaned thoroughly with a soft, clean damp cloth after each use - failure to do so will result in inaccurate readings and possible long term damage.

When using the REED R9700 – use extreme care when opening the radiator cap – do not remove while engine is running or if engine is warm. Do not let battery fluid come into contact with skin or eyes which may cause personal injury.

IT IS STRONGLY RECOMMENED TO WEAR SAFETY GLASSES AND GLOVES WHEN OBTAINING SAMPLES OF ENGINE COOLANT OR BATTERY FLUID.

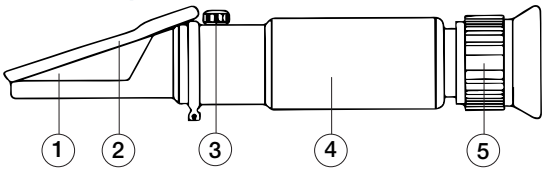
Features

- Measure the concentration
- Easy to operate with simple to read scales
- Requires only 2 or 3 drops of sample
- Prism and lens with a simple focus adjustment provides repeatable results
- Automatic Temperature Compensation (ATC)

Included

- Refractometer
- Cover Plate
- Calibration Screwdriver
- Cleaning Cloth
- Solution/Sample Applicator
- Hard Carrying Case

Instrument Description



1. Prism
2. Cover Plate
3. Calibration Screw
4. Mirror Tube
5. Eyepiece with Focusing Ring

Operating Instructions

Initial Calibration

1. Open the Cover Plate and clean the surface of the Prism with the included Cleaning Cloth.
2. Apply 2-3 drops of distilled water onto the prism surface, close the cover plate and press lightly ensuring that the distilled water spreads evenly; eliminating air bubbles while allowing it to rest for approx. 30 seconds.
3. Aim the front end of the refractometer towards the direction of a bright light and adjust the Eyepiece until the reticle is clearly visible.
4. If the boundary line does not intersect at the lowest end of your corresponding scale, turn the scale calibration screw until adjusted.
5. Wipe the water off the Prism and Cover Plate with a moist cotton cloth and store the calibration adjustment plate.

NOTE: While under normal operating conditions, the calibration only needs to be verified periodically.

Measuring Procedure

1. Open the Cover Plate and clean the surface of the Prism with the included Cleaning Cloth.
2. Apply 2- 3 drops of the liquid sample onto the prism surface, close the Cover Plate and press lightly ensuring that the sample spreads evenly; eliminating air bubbles while allowing it to rest for approx. 30 seconds.
3. Aim the front end of the refractometer towards the direction of a bright light and adjust the Eyepiece until the reticle is clearly visible.
4. Read the measurement value corresponding to your scale where the boundary line intersects the scale.
5. After testing, wipe the sample off the Prism and Cover Plate with a moist cotton cloth. Allow to air dry before storing away.

Accessories and Replacement Parts

- **RPDPA1** Replacement Refractometer Lens Cover

Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by phone at 1-877-849-2127 or by email at info@reedinstruments.com to discuss the claim and determine the appropriate steps to process the warranty.

Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at 1-877-849-2127 or by email at info@reedinstruments.com.

Please visit **www.REEDInstruments.com** for the most up-to-date manuals, datasheets, product guides and software.

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Specifications

Model	R9500	R9600	R9700
Measuring Range	0 to 32% (BRIX)	0 to 28% (Salinity)	-50 to 0°C
Minimum Scale	0.2%	0.2%	5°C
Resolution	0.2%	0.2%	1°C
Accuracy	±0.2%	±0.2%	1°C
Automatic Temperature Compensation	10 to 30°C	10 to 30°C	10 to 30°C
Dimensions	6.5 x 1 x 1.5" (170 x 30 x 40 mm)	6.5 x 1 x 1.5" (170 x 30 x 40 mm)	6.5 x 1 x 1.5" (170 x 30 x 40 mm)
Weight	7oz (200g)	7oz (200g)	7oz (200g)