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› AMTAST RHS-28ATC 0-28% Salinity Refractometer Instruction Manual

AMTAST RHS-28ATC

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Model: RHS-28ATC

INTRODUCTION

This manual provides detailed instructions for the proper use and maintenance of your AMTAST RHS-28ATC 0-28% Salinity Refractometer. This precision instrument is designed for measuring the salt content in various liquids, offering quick and accurate readings. Its robust copper construction and Automatic Temperature Compensation (ATC) ensure reliable performance across diverse applications.



Image: The AMTAST RHS-28ATC Salinity Refractometer, a hand-held device with a blue grip and silver body, designed for measuring salinity.

PRODUCT OVERVIEW AND FEATURES

The AMTAST RHS-28ATC Salinity Refractometer is engineered for durability and accuracy. Key features include:

- **Premium Copper Construction:** Unlike models made from aluminum, this refractometer features high-quality copper, ensuring superior durability and long-term reliability.
- **Precise Salinity Measurement:** Offers a salinity range of 0-28% with a minimum scale interval of 0.2% and an accuracy of $\pm 0.2\%$.
- **Automatic Temperature Compensation (ATC):** Ensures accurate readings regardless of ambient temperature fluctuations, eliminating the need for manual temperature adjustments.
- **High-Precision Prism:** Provides clear and sharp readings.
- **Non-Slip Grip:** Designed for secure and comfortable handling during use.

Detail Display



Image: A detailed display of the refractometer highlighting its components: ATC Technology, high-precision prism, high-grade copper construction, and non-slip grip.

WHAT'S IN THE BOX

Upon opening your product package, please verify that all the following items are present:

- AMTAST RHS-28ATC Salinity Refractometer
- Eyeshade
- Suction tube (pipette)
- Screwdriver (for calibration)
- Carry case

SETUP

Before first use, ensure the refractometer is clean and calibrated.

1. **Unpack:** Carefully remove all components from the carry case.
2. **Inspect:** Check the refractometer for any visible damage.
3. **Clean:** Gently wipe the prism and cover plate with a soft, lint-free cloth.
4. **Calibration:**
 - Open the cover plate.
 - Place 1-2 drops of distilled water onto the main prism.
 - Close the cover plate gently, ensuring the water spreads evenly without air bubbles.
 - Point the refractometer towards a light source and look through the eyepiece.
 - Turn the calibration screw (usually located near the eyepiece) with the provided screwdriver until the blue/white boundary line aligns precisely with the '0' mark on the scale.
 - Wipe the prism and cover plate dry with a soft cloth. The device is now calibrated.

OPERATING INSTRUCTIONS

Follow these steps for accurate salinity measurement:

1. **Step 1: Prepare the Prism**

Open the cover plate and clean the surface of the main prism with a soft, lint-free cloth. Ensure it is dry.

2. **Step 2: Apply Sample**

Using the suction tube (pipette), place 1-2 drops of the solution you wish to test onto the main prism.

3. **Step 3: Close Cover Plate**

Gently close the cover plate, pressing it down lightly. This will spread the sample evenly across the prism surface without air bubbles.

4. **Step 4: Read the Value**

Point the front end of the refractometer towards a light source (e.g., daylight or a lamp). Look through the eyepiece. The scale will show a clear blue/white boundary line. Read the value where this line intersects the salinity scale. This is your measurement.

Easy to Use

4-step simple operation

STEP 01



Open the cover plate and clean the prism surface

STEP 02



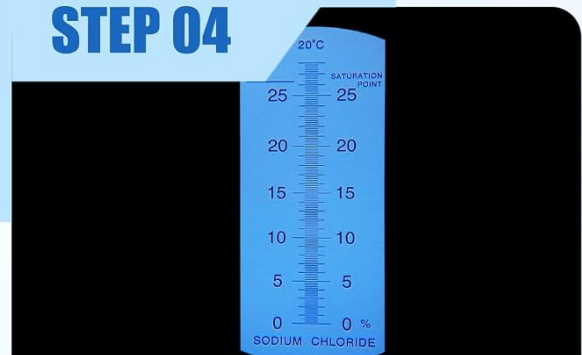
Place 1-2 drops of solution onto prism

STEP 03



Close cover plate, press lightly

STEP 04



Read value at light/dark border line

Image: A visual guide demonstrating the four simple steps for operating the refractometer: opening the cover, applying the solution, closing the cover, and reading the value.

Applications: This refractometer is suitable for various applications, including measuring salinity in brine, food, industrial processes, seawater, and fish tank saltwater.

Quickly and Easily

Ideal for brine, food, industry and seawater, fish tank saltwater measuring etc.



Image: Examples of the refractometer's versatile applications, including aquariums, industrial water testing, food preparation (e.g., pickling), and environmental water analysis.

MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your refractometer.

- **Cleaning:** After each use, clean the prism and cover plate immediately with a soft, damp cloth. Dry thoroughly with a lint-free cloth. Do not rinse the entire instrument under water.
- **Storage:** Store the refractometer in its protective carry case in a dry, cool, and dust-free environment. Avoid direct sunlight and extreme temperatures.
- **Handling:** Handle the instrument with care. Avoid dropping it or subjecting it to strong impacts.
- **Calibration Check:** Periodically check the calibration using distilled water to ensure continued accuracy. Recalibrate if necessary.

TROUBLESHOOTING

If you encounter issues with your refractometer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Inaccurate readings	Improper calibration, dirty prism, insufficient sample, air bubbles in sample.	Recalibrate with distilled water. Clean prism thoroughly. Ensure 1-2 drops of sample are used and spread evenly without bubbles.
Blurry or unclear scale	Eyepiece out of focus, insufficient light, dirty eyepiece.	Adjust the eyepiece by rotating it until the scale is sharp. Ensure adequate light source. Clean the eyepiece lens.
Blue/white boundary line not visible	No sample, prism not clean, insufficient light.	Apply sample correctly. Clean prism. Use a brighter light source.

SPECIFICATIONS

Technical specifications for the AMTAST RHS-28ATC Salinity Refractometer:

- **Salinity Range:** 0-28%
- **Minimum Scale Interval:** 0.2%
- **Accuracy:** $\pm 0.2\%$
- **Automatic Temperature Compensation (ATC):** Yes
- **Material:** Copper body
- **Item Model Number:** RHS-28ATC
- **Package Dimensions:** 8.19 x 3.31 x 2.13 inches
- **Item Weight:** 14.1 ounces

Parameter Description



Salinity Range: 0–28%
Minimum Scale Interval: 0.2%
Accuracy: $\pm 0.2\%$

Image: A visual representation of the refractometer's key parameters, including its salinity range, minimum scale interval, and accuracy.

WARRANTY AND SUPPORT

For warranty information or technical support, please contact AMTAST directly through their official channels. Retain your purchase receipt as proof of purchase for any warranty claims.

You can visit the [AMTAST Store on Amazon](#) for more information or to contact customer service.

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Name

Anonymous

Email

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question