Atago 3730

Atago 3730 Digital Hand-Held "Pen" Refractometer Pen-Pro Instruction Manual

Model: 3730

1. Introduction

The Atago 3730 Digital Hand-Held "Pen" Refractometer, also known as the Pen-Pro, is designed for precise measurement of Brix/Sucrose levels. This device offers a measurement range of Brix 0.0 to 85.0%, making it suitable for a wide variety of samples. Its ergonomic design allows for comfortable one-handed operation, and its robust construction ensures durability and ease of cleaning.
Key features include:

- Ergonomic design for one-handed operation.
- Automatic Temperature Compensation (ATC) for accurate readings regardless of ambient temperature.
- IP65 protection class for the main unit and IP67 for the prism head, allowing for easy rinsing under running water.
- Revolutionary External Light Interference (ELI) feature for enhanced measurement stability.
- Convenient storage case for protection and portability.

2. Product Overview

Figure 1: Atago 3730 Pen-Pro Digital Refractometer. This image displays the device's elongated, pen-like body, with a prism at one end, a digital display showing "12.1%" in the middle, and a "START" button.

The Atago Pen-Pro refractometer is designed for ease of use and portability. Its pen-like form factor allows for quick and convenient measurements in various settings.

3. Setup

1. **Unpacking:** Carefully remove the refractometer and its accessories from the packaging. Inspect for any damage.
2. **Battery Installation:** Locate the battery compartment (usually at the rear or top of the device). Insert the required batteries, ensuring correct polarity. (*Specific battery type not provided, refer to device markings if available.*)
3. **Initial Cleaning:** Before first use, gently clean the prism surface with a soft, lint-free cloth and distilled water. Ensure no residue remains.
4. **Zero Calibration (if necessary):** For optimal accuracy, perform a zero calibration using distilled water. Apply a few drops of distilled water to the prism, press the START key, and if the reading is not 0.0%, refer to the troubleshooting section or contact support for calibration instructions.

4. Operating Instructions

The Pen-Pro offers two primary methods for taking measurements:

Method 1: Dip and Measure

1. Ensure the prism surface is clean and dry.
2. Dip the tip of the refractometer (prism end) directly into the sample liquid. Ensure the prism is fully immersed.
3. Press the **START** key.
4. The measurement will be displayed on the digital screen within approximately 2 seconds.
5. Remove the refractometer from the sample and clean the prism immediately after use.

Method 2: Apply and Measure

1. Ensure the prism surface is clean and dry.
2. Press the **START** key first.
3. Immediately touch the tip of the refractometer (prism end) into the sample liquid, allowing a few drops to cover the prism surface.
4. The measurement will be displayed on the digital screen within approximately 2 seconds.
5. Clean the prism immediately after use.

Continuous Measurement Feature

The Pen-Pro also supports continuous measurements. While specific activation steps are not detailed, typically this involves holding the START button or a dedicated mode button. Refer to the device's on-screen prompts or a more detailed supplementary guide for continuous measurement mode activation and usage.

5. Maintenance and Care

Proper maintenance ensures the longevity and accuracy of your Atago Pen-Pro refractometer.

- **Cleaning the Prism:** After each measurement, rinse the prism surface thoroughly under running water. The IP67 rating of the prism head allows for this. Use a soft, lint-free cloth to gently wipe off any remaining sample or water droplets. Avoid abrasive materials that could scratch the prism.
- **Cleaning the Body:** The main unit has an IP65 rating. Wipe the body with a damp cloth if necessary. Do not immerse the entire unit in water.
- **Storage:** When not in use, store the refractometer in its convenient storage case in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears on the display to ensure consistent performance.

6. Troubleshooting

Problem	Possible Cause	Solution
Inaccurate or inconsistent readings	• Prism not clean • Insufficient sample volume • Temperature fluctuations • Calibration error	• Clean prism thoroughly with distilled water and a soft cloth. • Ensure prism is fully covered by the sample. • Allow sample and refractometer to equilibrate to ambient temperature. • Perform zero calibration with distilled water.
Display not turning on	• Dead or incorrectly inserted batteries • Device malfunction	• Replace batteries with new ones, ensuring correct polarity. • If problem persists, contact Atago customer support.
"ELI" error or unstable readings	• Excessive external light interference	• Perform measurement in a shaded area or shield the prism from direct light.

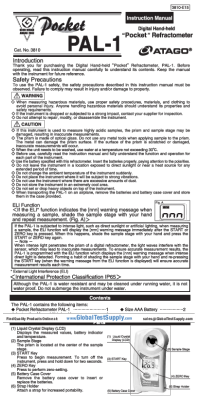
7. Specifications

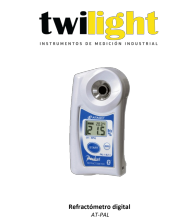
Feature	Detail
Model Number	3730
Measurement Range	Brix 0.0 to 85.0%
Temperature Range	10-100°C (as per product title, likely for ATC)
Automatic Temperature Compensation (ATC)	Yes
Protection Class	IP65 (main unit), IP67 (prism head)
Measurement Time	Approximately 2 seconds
Dimensions (Package)	7.5 x 4.1 x 1.1 inches
Weight (Item)	4 ounces
Manufacturer	Atago

8. Warranty and Support

Information regarding the product warranty and customer support details is typically provided with the product packaging or on the manufacturer's official website. Please refer to these resources for specific warranty terms, registration, and contact information for technical assistance or service.
For further assistance, please contact Atago customer support.

Related Documents - 3730

	ATAGO PAL-1 Digital Hand-held Refractometer Instruction Manual Instruction manual for the ATAGO PAL-1 Digital Hand-held Refractometer, covering its features, operation, maintenance, and specifications. Includes guidance on zero-setting, measurement, cleaning, and battery replacement.
	ATAGO PAL-1 Digital Hand-held Pocket Refractometer Instruction Manual This instruction manual provides detailed guidance on operating the ATAGO PAL-1 digital hand-held pocket refractometer. It covers safety precautions, battery insertion, zero setting, measurement procedures, error messages, maintenance, specifications, and warranty information for accurate Brix measurements.
	ATAGO PAL-34S Digital Hand-held Ethyl Alcohol Refractometer Manual User manual for the ATAGO PAL-34S digital hand-held ethyl alcohol refractometer, covering operation, maintenance, specifications, and warranty.

	[ATAGO PAL-1 Pocket Refractometer User Manual] This manual provides instructions for the ATAGO PAL-1 Pocket Refractometer, covering safety precautions, operation, maintenance, and specifications for accurate Brix measurements.
	[ATAGO MASTER-T Series Refractometer: User Manual and Specifications] Comprehensive guide to the ATAGO MASTER-T Series refractometers, covering quick sampling, Brix scale, maintenance, specifications, and calibration for accurate measurements.
	[ATAGO Salt Meter Guide: 45 Applications and Measurement Techniques] A comprehensive guide from ATAGO detailing 45 applications for salt meters, explaining measurement methods like electrical conductivity and refractometry, and showcasing various ATAGO salt meter models for food and industrial use.