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BrandTech 4760251

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Model: 4760251

INTRODUCTION

This manual provides essential information for the safe and effective operation, setup, and maintenance of the BrandTech 4760251 Polypropylene Titrette Bottletop Burette with RS232 Interface. This precision instrument is designed for accurate and reliable liquid dispensing and titration directly from a reagent bottle.



Figure 1: BrandTech Titrette Bottletop Burette. This image displays the complete assembly of the burette mounted on a clear reagent bottle, highlighting its digital display, control knobs, and the dispensing tube with its tip.

SAFETY PRECAUTIONS

- Always wear appropriate personal protective equipment (PPE) such as safety glasses and gloves when handling chemicals.
- Ensure the burette is securely attached to the reagent bottle before use to prevent spills.
- Do not use the burette with highly corrosive or incompatible chemicals that may damage polypropylene or other components.
- Refer to the Safety Data Sheet (SDS) for all chemicals used.
- Disconnect the RS232 interface before cleaning or maintenance.

SETUP

1. **Unpacking:** Carefully remove all components from the packaging. Verify that all parts are present.
2. **Bottle Attachment:** Select a suitable reagent bottle with the correct neck size. The Titrette burette is designed

to fit various bottle threads using included adapters. Screw the burette firmly onto the bottle.

3. **Filling Tube:** Ensure the filling tube extends to the bottom of the reagent bottle to allow for complete aspiration of liquid.
4. **Dispensing Tube:** Position the dispensing tube as required for your application.
5. **RS232 Connection:** If using the RS232 interface for data transfer, connect the appropriate cable to the burette and your computer/data logging device. Refer to the separate RS232 interface manual for software and driver installation.
6. **Initial Rinse:** Before first use, rinse the burette thoroughly with the solvent or diluent appropriate for your reagent. Dispense several full volumes to ensure all air bubbles are removed and the system is primed.

OPERATING INSTRUCTIONS

The Titrette burette allows for precise and accurate titration. The 25 mL capacity model is suitable for a wide range of laboratory applications.

1. **Filling:** Turn the control knobs to the "Fill" position. Slowly turn the piston knob to draw liquid from the reagent bottle into the burette cylinder. Ensure no air bubbles are trapped.
2. **Zeroing:** Once filled, turn the control knobs to the "Titrate" position. Dispense a small amount to ensure the tip is free of air bubbles and the meniscus is at the zero mark on the digital display.
3. **Titration:** Slowly turn the piston knob to dispense the liquid. The digital display will show the dispensed volume. For precise titration, dispense drop by drop as you approach the endpoint.
4. **Reading Volume:** Read the dispensed volume directly from the digital display. The RS232 interface can transmit this data to a connected system.
5. **Refilling:** After dispensing, turn the control knobs back to "Fill" to refill the burette for the next titration.

MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your Titrette burette.

- **Cleaning:** After each use, especially when changing reagents, rinse the burette thoroughly with distilled water or an appropriate cleaning solution. Dispense several volumes to ensure all traces of the previous reagent are removed.
- **Disassembly for Cleaning:** For thorough cleaning, the burette can be partially disassembled. Refer to the detailed diagram in the full manufacturer's manual for specific disassembly instructions.
- **Storage:** Store the burette clean and dry. If storing for extended periods, ensure the piston is in a relaxed position.
- **Calibration:** Regular calibration checks are recommended to ensure continued accuracy. Consult a qualified technician or the manufacturer's guidelines for calibration procedures.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Inaccurate Volume Reading	Air bubbles in system; improper priming; calibration required.	Ensure proper priming to remove all air bubbles. Perform a calibration check.
Liquid Leakage	Loose connections; damaged seals/O-rings.	Check all connections for tightness. Inspect and replace worn seals or O-rings.
Digital Display Not Working	Low battery; connection issue with RS232 (if powered via interface).	Check battery status (if applicable). Verify RS232 connection. Consult manufacturer for repair if persistent.
Difficulty Dispensing/Filling	Clogged dispensing tube; piston sticking; incompatible reagent.	Clean the dispensing tube. Ensure the piston moves freely. Verify reagent compatibility with polypropylene.

SPECIFICATIONS

Model Number: 4760251

Capacity: 25 mL

Material: Polypropylene (main body and wetted parts, check manufacturer for full material list)

Interface: RS232

Dimensions (Package): 11.81 x 10.16 x 4.88 inches

Weight (Package): 3 Pounds

Manufacturer: BrandTech

WARRANTY AND SUPPORT

For detailed warranty information and technical support, please refer to the official BrandTech documentation included with your product or visit the BrandTech website. Contact information for customer service can typically be found on the manufacturer's website or product packaging.