Automatic 8-Strip Tube Capper User Manual

Please read this manual carefully before operating the device. Keep it in a safe place for future reference.

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1. Product Overview

The Automatic 8-Strip Tube Capper is a desktop automated device designed specifically for biological laboratories. It provides rapid, uniform, and secure capping for standard 8-strip PCR tubes or similarly sized tube strips. The device's precision mechanism ensures that each cap is sealed with identical pressure and alignment, effectively preventing issues common with manual capping, such as cross-contamination, sample evaporation, and inconsistent sealing.

Key Features:

- **Efficient Capping:** Seals an entire 8-tube strip in a single operation.
- **Consistent Sealing Force:** Guarantees reliable and uniform seals for all tubes.
- **Simple Operation:** A user-friendly, one-touch process that enhances lab productivity.

IMPORTANT NOTE: This device is designed for CAPPING ONLY. It does NOT have a de-capping function. Do not attempt to use this device for opening or de-capping tubes.

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2. Safety Precautions

WARNING! To ensure operator safety and proper device function, please adhere to the following guidelines:

- **Operating Environment:** Place the device on a stable, dry, and clean lab bench, away from water sources and strong magnetic fields.
- **Power Safety:** Use the provided power adapter and ensure the power source voltage is stable.
- **Personal Safety:** The capping head moves downward during operation. **NEVER** place fingers or any foreign objects into the working area under the capping head to avoid pinch injuries.
- **Proper Handling:** Always wear a lab coat and gloves during operation. Long hair should be tied back.
- **Compatible Consumables:** Use only standard 8-strip tubes and cap strips that are compatible with this device. Using incompatible consumables may damage the device or result in capping failure.
- **Malfunctions:** If the device produces unusual noises, odors, or faults during operation, immediately turn off and disconnect the power supply and contact technical support.
- **Cleaning:** Always disconnect the power supply before cleaning the device.

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3. Component Description

1. **Main Body:** The primary chassis of the device.
2. **Tube Strip Slot:** A precision-molded base at the front of the device for placing the 8-tube strip.
3. **Capping Head:** The mechanical component that moves downward to press and seal the caps.\

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4. Operating Instructions

Step 1: Preparation

1. Check that the **Tube Strip Slot** and **Capping Head** are clean and free of any debris.
2. Prepare your sample-filled 8-tube strips and the corresponding 8-cap strips.

Step 2: Placing the Tubes and Caps

1. Put the 8-tube strip into the **Tube Strip Slot**.
2. Ensure the tube strip is pushed all the way in and sits flush against the base. Improper placement will lead to capping failure or damage.
3. Gently place the 8-cap strip on the position of cap consumables.

Step 3: Executing the Capping Cycle

1. Confirm that the tube strip and cap strip are positioned correctly.
2. Send the capping command via the device interface.
3. Do not move the device or touch the working area during this cycle.

Step 4: Completion and Removal

1. Carefully remove the sealed 8-tube strip from the **Tube Strip Slot**.
2. Visually inspect the strip to confirm all caps are fully and securely sealed.

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5. Maintenance and Care

- **Daily Cleaning:** After use, wipe the device surface and tube slot with a soft, lint-free cloth dampened with 75% ethanol.
- **Prohibitions: NEVER** pour liquid directly onto the device or use corrosive chemical solvents for cleaning.
- **Periodic Inspection:** Routinely check the power cord for damage and ensure all visible screws are secure.
- **Storage:** For long-term storage, unplug the device, cover it with a dust cover, and store it in a dry, well-ventilated area.