Labconco 7948040

Labconco FreeZone Stoppering Tray Dryer User Manual

Model: 7948040

Introduction

The Labconco FreeZone Stoppering Tray Dryer is an essential accessory designed to integrate with FreeZone 6, 12, or 18 Liter Freeze Dry Systems. This unit facilitates the drying and stoppering of samples under vacuum, ensuring optimal preservation and processing. It features a robust design with precise temperature and vacuum control, making it suitable for sensitive laboratory applications.



Image: Labconco FreeZone Stoppering Tray Dryer, showing the main unit with the control panel on the left and the drying chamber with shelves and vials visible through the acrylic door on the right. The unit is mounted on a stand.

Safety Information

Always adhere to standard laboratory safety procedures when operating this equipment. Read all instructions before use.

- Ensure the unit is connected to a properly grounded power supply (220/240 volts, 60 Hz).
- A vacuum pump with a displacement of 144 lpm or larger is required and must be properly connected.
- Do not block ventilation openings on the unit.
- Avoid direct contact with heated or cooled surfaces within the chamber.
- In case of alarm (red LED indicator), consult the troubleshooting section or contact support.

Setup and Installation

1. **Placement:** Position the dryer on a stable, level surface, ensuring adequate clearance for ventilation.
2. **Power Connection:** Connect the unit to a 220/240 volts, 60 Hz power outlet.
3. **Vacuum Pump Connection:** Attach a compatible vacuum pump (144 lpm or larger displacement) to the 3" diameter outlet. Ensure all connections are secure and leak-free.
4. **FreeZone System Connection:** Connect the dryer to a FreeZone 6, 12, or 18 Liter Freeze Dry System using the provided interconnect cable and RS232 port.
5. **Initial Check:** Before loading samples, perform a dry run to ensure all systems (refrigeration, heating, vacuum) are functioning correctly.

Operating Instructions

The FreeZone Stoppering Tray Dryer offers precise control over drying and stoppering processes.

Loading Samples

- Open the 3/4" thick acrylic door.
- Place serum bottles or vials onto the three shelves, each measuring 1.6" x 12". Ensure even distribution.
- Close the acrylic door securely.

Programming and Control

- **Power On:** Activate the power switch on the control panel.
- **LCD Display:** Monitor system and probe temperatures (in °C or °F), vacuum levels (in mBar, Pa, or Torr), and program segment on the LCD.
- **Temperature Control:** Use the microprocessor-controlled temperature ramp and hold programming to set temperatures from -40°C to +40°C. The 1000-watt electric heater and 1 HP CFC-free refrigeration system circulate fluid medium through the shelves for precise temperature management.
- **Program Storage:** The unit can store up to five programs, allowing for repetition of identical protocols.
- **Stoppering Control:** Once drying is complete, activate the stoppering control knob. This raises the shelves via an expanding diaphragm, stoppering the containers under vacuum.
- **Vacuum Release:** Use the vacuum release valve control knob to release vacuum after stoppering.
- **Backfill Port:** Utilize the 1/8" OD backfill port for inert gas backfilling if required.

Maintenance

Regular maintenance ensures the longevity and optimal performance of your tray dryer.

- **Cleaning:** Clean the brushed stainless steel and epoxy-coated steel exterior with a mild, non-abrasive cleaner. The acrylic door should be cleaned with a soft cloth and a cleaner specifically designed for acrylic to prevent scratching.
- **Shelf Inspection:** Periodically inspect the shelves for any residue or damage. Clean as necessary.
- **Vacuum System:** Regularly check vacuum lines and connections for leaks. Ensure the vacuum pump is maintained according to its manufacturer's instructions.
- **Probe Calibration:** If temperature readings appear inaccurate, consider professional calibration of the temperature probes.

Troubleshooting

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
Red LED Alarm Indicator On	System error, temperature out of range, or vacuum issue.	Check LCD for specific error codes or messages. Verify power, vacuum pump operation, and temperature settings.
Unit Not Reaching Desired Temperature	Refrigeration/heating issue, fluid circulation problem, or probe malfunction.	Ensure proper power supply. Check for obstructions in fluid lines. Contact service if problem persists.
Vacuum Not Holding	Leak in system, faulty vacuum pump, or improperly sealed door.	Inspect all connections, door seal, and vacuum pump. Ensure vacuum release valve is closed.
Stoppering Mechanism Not Activating	Control knob not fully engaged, diaphragm issue, or system error.	Ensure stoppering control knob is turned correctly. Check for any physical obstructions.

Specifications

Feature	Detail
Model Number	7948040
Compatibility	FreeZone 6, 12, or 18 Liter Freeze Dry Systems
Shelves	3 shelves, each 1.6" x 12"
Exterior Material	Brushed stainless steel and epoxy-coated steel
Door Material	3/4" thick acrylic
Temperature Range	-40°C to +40°C
Refrigeration System	1 HP CFC-free
Heater	1000-watt electric heater
Vacuum Outlet	3" diameter for connection to FreeZone System
Required Vacuum Pump	144 lpm displacement or larger
Display	LCD for temperature (°C/°F), vacuum (mBar/Pa/Torr), program segment
Programming	Microprocessor-controlled temperature ramp and hold, memory for 5 programs
Ports	Rear-mounted RS232 port, 1/8" OD backfill port
Power Requirements	220/240 volts, 60 Hz
Package Dimensions	32" (L) x 27" (W) x 24" (H)
Country of Origin	United States

Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the official Labconco website or contact

your authorized Labconco distributor. Ensure you have your model number (7948040) and serial number ready when contacting support.

This manual is intended for informational purposes only. Labconco reserves the right to make changes in design, specifications, and/or equipment at any time without notice.

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