

LARIDEN lab oven

LARIDEN 45L Digital Lab Oven (1000W, 110V) Instruction Manual

Model: lab oven

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your LARIDEN 45L Digital Lab Oven. Please read these instructions carefully before use and retain them for future reference. This constant temperature blast drying oven is designed for various applications including drying, baking, melting wax, and heat treatment in industrial, scientific research, medical, and educational environments.



Image: The LARIDEN 45L Digital Lab Oven, showcasing its key features such as uniform heating, ease of operation, large capacity,

intelligent temperature controller, good material, low noise, extensive external connection, and observation window.

2. SETUP AND INSTALLATION

Upon receiving your lab oven, carefully unpack all components. Ensure no parts are missing or damaged. Place the oven on a stable, level surface with adequate clearance for ventilation around all sides. Connect the power cord to a grounded 110V outlet. The oven includes two adjustable trays for flexible internal configuration.



Image: The interior of the LARIDEN 45L Lab Oven, illustrating its 12-gallon capacity and two adjustable, double-tier trays capable of holding up to 33 lbs each. This design allows for efficient drying of multiple items simultaneously.

Detailed Design



Large Window

Easy Observation

Foot Pads

Maintaining Stability



Drainage Hole

Removing Moisture

Sealant

Excellent Sealing



Heat Dissipation Holes

Exhausting Hot Air

Image: A breakdown of the oven's detailed design, highlighting features such as a large observation window, stable foot pads, a drainage hole for moisture removal, effective sealant for insulation, and heat dissipation holes for exhausting hot air.

3. OPERATING INSTRUCTIONS

3.1 Power On/Off

To power on the oven, press the green 'Power' button located on the control panel. The digital display will illuminate. To power off, press the 'Power' button again.

3.2 Temperature and Time Setting

The oven features an intelligent PID temperature controller. Use the buttons below the digital display to set the desired temperature and timing. The digital display shows both the current temperature (PV) and the set temperature (SV).

Easy Operation



Image: A detailed view of the oven's control panel, labeling the 'Off' and 'On' power buttons, the 'Fanswitch/Gear' knob, and the digital display with 'SET', 'SHIFT', '-', and '+' buttons for easy temperature and time adjustments. The display shows Current Temp/Figure (PV) and Target Temp/Figure (SV).

3.3 Fan Operation

The oven includes an independent fan switch for forced air circulation, promoting faster and more uniform drying. Use the 'Fanswitch' knob to select fan speed settings (I, II, III) or turn it off. Natural convection is also available when the fan is off.

Uniform Heating

Please note that the laboratory storage bottles are excluded.

 Natural Convection

 Drying

 Separate Fan Switch

 Heating

 RT+18°F-572°F

 Reheating



Image: The interior of the LARIDEN Lab Oven demonstrating uniform heating through natural convection and the option of a separate fan switch. The image highlights its suitability for drying, heating, and reheating, with a temperature range from room temperature +18°F up to 572°F.

3.4 Over-Temperature Alarm and Correction

The intelligent temperature controller features an over-temperature alarm indication, temperature deviation correction, and temperature self-tuning control to maintain precise and safe operating conditions.

Intelligent Temp Controller



Image: A diagram illustrating the functions of the intelligent PID controller, including timing, over-temperature alarm, deviation correction, and self-tuning control, ensuring precise temperature management.

3.5 Video Guide

Video: An official product video demonstrating the features and operation of the LARIDEN 1000W 110V Constant Temperature Blast Drying Oven, including opening the door, adjusting shelves, and operating the control panel.

4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your lab oven.

- **Cleaning:** Disconnect the power before cleaning. Wipe the exterior with a damp cloth. For the interior, remove trays and clean with a mild detergent. Ensure all surfaces are dry before re-connecting power.
- **Inspection:** Periodically check the door seal for any damage or wear that could affect temperature retention. Inspect the power cord for fraying or damage.
- **Ventilation:** Ensure the heat dissipation holes are clear of obstructions to allow proper airflow.

5. TROUBLESHOOTING

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

- **Oven does not power on:** Check if the power cord is securely plugged into a functional outlet. Verify the power switch is in the 'On' position.
- **Temperature not reaching set point:** Ensure the door is properly closed and sealed. Check for any obstructions to the fan if forced air is being used. Verify the set temperature is within the oven's operating range.
- **Uneven heating:** Ensure items inside are not overcrowding the chamber, which can restrict airflow. Verify the fan is operating correctly if uniform heating is desired.
- **Alarm sounds:** Refer to the digital display for alarm codes. An over-temperature alarm indicates the internal temperature has exceeded safe limits. Power off the oven, allow it to cool, and then restart. If the issue persists, contact support.

6. SPECIFICATIONS

Detailed technical specifications for the LARIDEN 45L Digital Lab Oven.

Feature	Specification
Brand	LARIDEN
Model Name	lab oven
Power	1000W
Voltage	110V
Capacity	45 Liters (12 Gallons)
Temperature Range	RT+18°F to 572°F (RT+10°C to 300°C)
Temperature Resolution	0.1°C / 0.18°F
Temperature Fluctuation	±1°C / ±1.8°F
Control Type	Button Control (Digital PID)
Number of Shelves	2 (Adjustable)
Tray Maximum Loading	15kg / 33 lbs per tray
Product Dimensions (L x W x H)	46.5 x 65 x 49.5 cm / 18.3 x 25.6 x 19.48 inches
Inner Chamber Dimensions (L x W x H)	34 x 34 x 35 cm / 13.38 x 13.38 x 13.78 inches
Door Material Type	Stainless Steel
Special Feature	Timer

Specifications



Image: A visual representation of the oven's specifications, including external dimensions (46.5cm/18.3in, 65cm/25.6in, 49.5cm/19.48in) and internal tray dimensions (34cm/13.38in, 35cm/13.78in, 32.5cm/12.8in, 33.5cm/13.18in).

7. WARRANTY AND SUPPORT

Warranty information is typically provided with your product packaging. For specific warranty details or technical support, please refer to the documentation included with your purchase or contact LARIDEN customer service. Keep your purchase receipt for warranty claims.