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› [Cole-Parmer Gravity Convection Drying Oven, 96 L; 120 VAC User Manual](#)

Cole-Parmer 96 L

Cole-Parmer Gravity Convection Drying Oven, 96 L; 120 VAC User Manual

Model: 96 L | Brand: Cole-Parmer

1. INTRODUCTION

This user manual provides essential information for the safe and efficient operation, installation, and maintenance of your Cole-Parmer Gravity Convection Drying Oven, 96 L, 120 VAC. Please read this manual thoroughly before operating the oven to ensure proper usage and to prevent potential hazards or damage to the equipment.

The Cole-Parmer Gravity Convection Drying Oven is designed for applications requiring uniform sample temperature, such as sterilization, powder drying, and high-temperature storage, utilizing natural convection heating.

2. SAFETY INFORMATION

General Safety Precautions:

- Always operate the oven on a stable, level, and heat-resistant surface.
- Ensure adequate ventilation around the oven to prevent heat buildup.
- Do not operate the oven near flammable materials or in explosive atmospheres.
- Wear appropriate personal protective equipment (PPE), such as heat-resistant gloves, when handling hot items or surfaces.
- Never place sealed containers or volatile substances inside the oven.
- Disconnect power before performing any maintenance or cleaning.

Electrical Safety:

- Connect the oven only to a grounded 120 VAC power outlet.
- Do not use extension cords unless absolutely necessary and ensure they are rated for the oven's power requirements.
- Inspect the power cord regularly for damage. Do not use if damaged.

3. PRODUCT OVERVIEW

The Cole-Parmer Gravity Convection Drying Oven is designed for precise temperature control and uniform heating. Key

features include a PID controller, an easy-to-view LCD, and a corrosion-resistant stainless steel interior.

3.1 Key Components

- **PID Controller:** Provides accurate and reliable temperature control up to 392°F (200°C).
- **LCD Display:** Shows time, current temperature, set temperature, running status, and fan status.
- **Silicone Rubber Gasket:** Ensures a tight seal for heat retention and low energy consumption.
- **Stainless Steel Interior:** Corrosion-resistant mirror stainless steel chamber for durability and easy cleaning.
- **Powder-Coated Steel Exterior:** Durable and easy to maintain.
- **Adjustable Shelves:** Multiple shelf positions for flexible sample placement.

3.2 Product Views



Figure 3.2.1: Front view of the oven, showing the blue door and control panel.



Figure 3.2.2: Detailed view of the LCD display and control buttons.



Figure 3.2.3: Rear view showing the power inlet and ventilation.

4. SETUP

Follow these steps to properly set up your drying oven:

1. **Unpacking:** Carefully remove the oven from its packaging. Inspect for any shipping damage. Report any damage to the carrier immediately. Retain all packaging materials for future transport or service.
2. **Placement:**
 - Place the oven on a sturdy, level, non-combustible surface capable of supporting its weight.
 - Ensure there is at least 15 cm (6 inches) of clearance on all sides and the top for proper ventilation.
 - Avoid placing the oven in direct sunlight, near heat sources, or in areas with excessive dust or humidity.
3. **Electrical Connection:**
 - Verify that the local power supply matches the oven's requirements (120 VAC, 60 Hz).
 - Plug the power cord into a grounded electrical outlet.
4. **Shelf Installation:**
 - Open the oven door.
 - Insert the provided shelves into the desired positions within the chamber. Ensure shelves are securely seated.



Figure 4.1: Oven interior showing multiple shelf positions.

5. **Initial Cleaning:** Before first use, wipe the interior chamber with a damp cloth and mild detergent. Rinse with distilled water and dry thoroughly.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

- To power on, press the main power switch located on the front panel. The LCD display will illuminate.
- To power off, press the main power switch again.

5.2 Setting Temperature

1. Press the "SET" button on the PID controller. The set temperature value will flash.
2. Use the "Up" and "Down" arrow buttons to adjust the desired temperature.
3. Press "SET" again to confirm the new temperature. The oven will begin heating to the set point.

5.3 Setting Timer

The oven features a timer function (0 to 99 hours, 59 minutes).

1. Refer to the controller's specific instructions for timer setting, typically involving a dedicated "TIMER" button or a combination with the "SET" button.
2. Adjust hours and minutes using the arrow buttons.
3. Confirm the timer setting. The oven will operate for the set duration and then automatically shut off or signal completion.

5.4 Loading Samples

- Open the oven door.
- Carefully place samples on the shelves, ensuring even distribution and allowing space for air circulation. Do not overload shelves.
- Close the oven door securely to maintain the seal.



Figure 5.4.1: Example of loading samples into the oven.

5.5 Monitoring Operation

- The LCD display provides real-time information on current temperature, set temperature, and remaining time (if timer is active).
- The oven includes an auto-start feature after power loss/return and alarms for temperature deviation and overtemperature set point.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your oven.

- **Cleaning the Interior:**
 - Allow the oven to cool completely and disconnect from power.
 - Remove shelves and clean with a mild, non-abrasive detergent and a damp cloth.
 - Wipe down the interior chamber. Avoid harsh chemicals or abrasive cleaners that could damage the stainless steel.
 - Dry all surfaces thoroughly before reassembling and operating.
- **Cleaning the Exterior:** Wipe the exterior surfaces with a damp cloth and mild detergent.
- **Gasket Inspection:** Periodically inspect the silicone rubber door gasket for cracks, tears, or signs of wear. A

damaged gasket can compromise heat retention. The gasket is designed for easy replacement when needed.

- **Ventilation:** Ensure the ventilation openings at the rear and sides of the oven remain clear of obstructions.

7. TROUBLESHOOTING

This section addresses common issues you might encounter. For problems not listed here, contact Cole-Parmer technical support.

Problem	Possible Cause	Solution
Oven does not power on.	No power supply; power cord disconnected; main power switch off.	Check power connection; ensure main power switch is on; check circuit breaker.
Oven not heating to set temperature.	Incorrect temperature setting; door not fully closed; faulty heating element.	Verify set temperature; ensure door is sealed; contact service if heating element is suspected.
Temperature fluctuations or inaccuracy.	Poor ventilation; damaged temperature sensor; door gasket leak.	Ensure proper clearance around oven; inspect door gasket; contact service for sensor issues.
Alarm sounds.	Temperature deviation; overtemperature set point reached; overcurrent protection activated.	Check temperature settings and actual temperature; identify and resolve the condition triggering the alarm.

8. SPECIFICATIONS

Parameter	Value
Model	96 L Gravity Convection Drying Oven
Brand	Cole-Parmer
Control Type	PID Temperature Controller (Knob)
Display	LCD
Min Temperature	10°C (50°F)
Max Temperature	200°C (392°F)
Temperature Control Accuracy	±0.5°C
Temperature Uniformity	±3.5% at 100°C
Resolution	0.1°C
Rise Time (to 100°C)	15 to 30 minutes
Timer Range	0 to 99 hours, 59 minutes
Power	120 VAC, 60 Hz
Interior Construction	Corrosion-resistant mirror stainless steel
Exterior Construction	Powder-coated steel plate

Parameter	Value
Capacity	96 Liters
Number of Shelf Positions	Multiple Adjustable Positions

9. WARRANTY AND SUPPORT

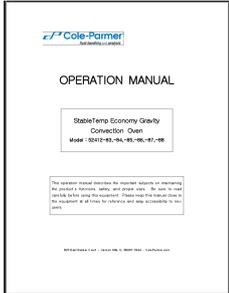
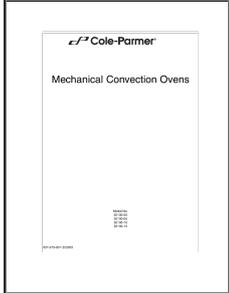
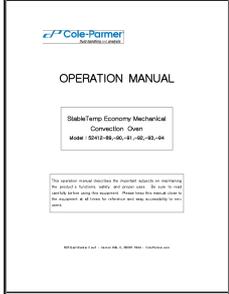
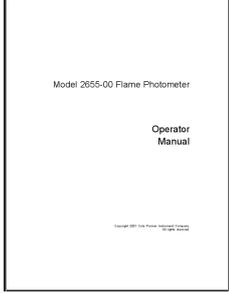
For warranty information, technical assistance, or to order replacement parts, please contact Cole-Parmer customer support. Refer to your purchase documentation for specific warranty terms and contact details.

You can visit the official Cole-Parmer website for additional resources: www.coleparmer.com



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Related Documents - 96 L

	<p>Cole-Parmer StableTemp Economy Gravity Convection Oven Operation Manual</p> <p>Operation manual for the Cole-Parmer StableTemp Economy Gravity Convection Oven, covering safety, installation, operation, controller functions, maintenance, troubleshooting, and specifications for models 52412-83 through 52412-88.</p>
	<p>Cole-Parmer Mechanical Convection Ovens: Model 52100 Series User Manual</p> <p>Comprehensive guide for Cole-Parmer Mechanical Convection Ovens, models 52100-00, 52100-05, 52100-10, and 52100-15. Covers specifications, operation, safety, maintenance, and replacement parts.</p>
	<p>Cole-Parmer StableTemp Economy Mechanical Convection Oven Operation Manual</p> <p>Operation manual for the Cole-Parmer StableTemp Economy Mechanical Convection Oven, covering safety, installation, operation, controller functions, maintenance, troubleshooting, warranty, and specifications for models 52412-89 through 52412-94.</p>
	<p>Cole-Parmer Model 2655-00 Flame Photometer Operator Manual</p> <p>This operator's manual provides comprehensive instructions for setting up, operating, and maintaining the Cole-Parmer Model 2655-00 Flame Photometer, a single-channel instrument for determining Na, K, and Li in laboratory samples.</p>



[Cole-Parmer Dry Block Heater 13204-35: Instructions for Use](#)

Comprehensive instructions for the Cole-Parmer Dry Block Heater model 13204-35, covering safety, operation, maintenance, specifications, and warranty. Designed for use with interchangeable heated modules.



[Cole-Parmer HG-100 CryoStation Operation Manual](#)

Operation manual for the Cole-Parmer HG-100 CryoStation, a liquid nitrogen-cooled device for preserving temperature-sensitive samples and freezing tissues. Includes specifications, operational protocols, safety information, and warranty details.