



Drying Oven **LM0D-A103**

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1. Safety Measures

- To avoid electrical dangers, ensure the drying oven's outside shell is correctly grounded.
- If the device will not be used for a long time, unplug it and turn off the power supply after use.
- Do not put anything flammable, volatile, or explosive within the drying oven chamber because it is not explosion-proof.
- Any combustible or explosive products should not be kept on or close to the oven.
- The drying oven should be placed away from heat sources and direct sunshine in a well-ventilated location.
- To ensure optimum ventilation and avoid overheating, keep enough space around the oven.
- To maintain a consistent temperature and stop heat loss, make sure the oven door is completely closed while it is operating.
- To ensure uniform airflow and effective hot air circulation, leave enough space between samples and avoid blocking the chamber's air vents.
- To avoid burns, wear gloves that can withstand heat when handling things inside the heated chamber.
- Avoid opening the door too often while the machine is operating, as this could lead to temperature changes and impair drying efficiency.
- Clean the internal chamber regularly to avoid debris accumulation that could obstruct heat transfer.
- Only trained professionals should do repairs or servicing on the oven; do not alter or tamper with its parts.
- The oven may sustain internal component damage if it is used in corrosive or humid conditions.

Drying Oven LMOD-A103

2. Introduction

Drying Oven LMOD-A103 is a compact microcontroller system comes with an excellent capacity of 105 L. It is an efficient device where operating ambient temperature of the device ranges from 50°C to 200 °C. Features a digital display shows operational parameters. Designed with double glass window offers real-time monitoring of process.

3. Features

- Offers large capacity of 105 L with high stability
- Microprocessor-based PID controller
- Excellent circulation system with low-noise fans and suitable air ducts
- Protection features includes auto alarm function for high temperature
- Designed with stainless steel for efficient cleaning and maintaining, chamber corners are semi-circle
- An electronic running timer with a digital display
- Double layered glass window offers real-time monitoring of process
- Automatic alarm after operation is complete
- User-friendly interface that simplifies the process
- Robust and stable design makes it more convenient for users to operate

4. Specifications

Model No.	LMOD-A103
Volume	105 L
Temperature Range	50 °C to 200 °C
Temperature Resolution	0.1 °C
Temperature Fluctuation	±1 °C
Timer	0 to 999 min
Voltage	110 V 60 Hz / 220 V 50 Hz
Power	1500 W
Working Size	550 × 370 × 520 mm
Dimension (L × W × H)	825 × 660 × 690 mm
Package Dimension (L × W × H)	920 × 730 × 820 mm
Net Weight	58 kg
Gross Weight	78 kg

5. Applications

Drying Oven is used for drying, baking, wax melting, sterilization and cutting in industrial and mining enterprises, medicine and health and scientific research units.

6. Structure Introduction

The instrument boasts a durable exterior shell made from fine steel plate, while the interior working chamber is constructed of stainless steel or coated with high-temperature resistant silver lacquer for optimal thermal performance. Each chamber contains two to four adjustable shelves for versatility.

For insulation, ultrafine glass wool is utilized, ensuring energy efficiency, while a double-layer glass observation box provides visibility without significant heat loss. A high-temperature resistant silicone rubber gasket or asbestos cord secures the seal between the working chamber and the observation box door.

Control functions are conveniently located at the front, including a power switch and an intuitive temperature controller. The heating system features a fan, an electric heater, and a duct system designed for even heat distribution. Upon activation, the fan circulates heated air throughout the chamber, ensuring a consistent temperature.

The microcomputer-controlled temperature system offers precise regulation with progressive heating to prevent overshoot. It includes self-regulation, accuracy in temperature settings, and a protection device with an alert function for optimal operation.

7. Operations

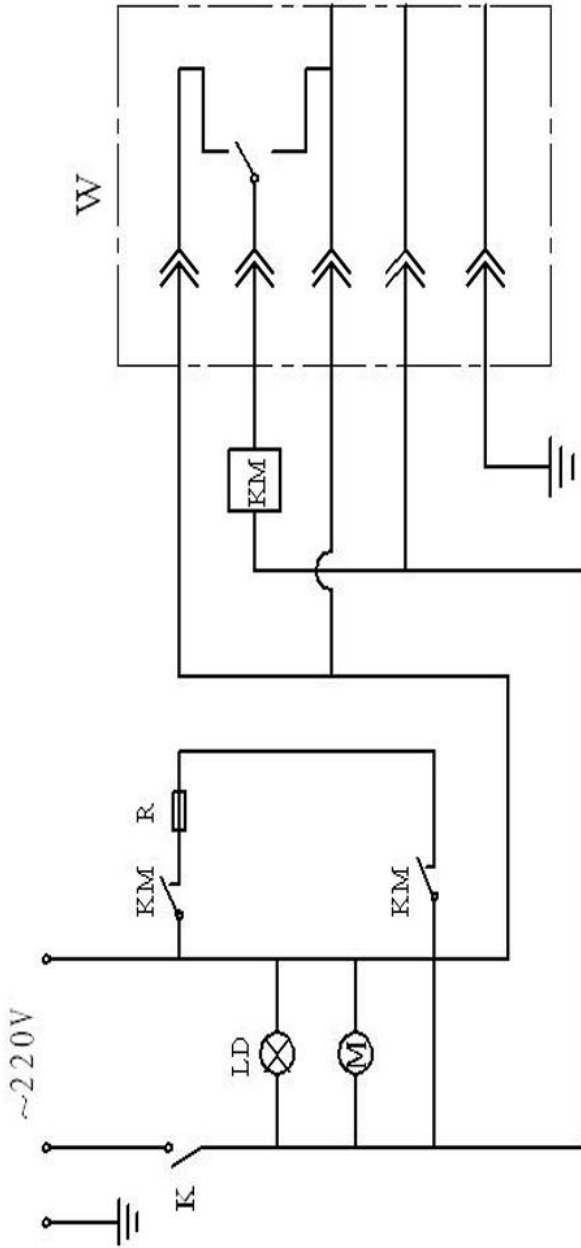
- 1) After moving the drying materials into the working chamber and shutting the box door, plug in the power source.
- 2) After setting the temperature and adjusting the temperature controller, the heat indicator illuminates, indicating that the instrument has begun to heat up. The specific procedure is as follows:

After setting the power switch to "ON" for around 7 seconds, the temperature controller's upper section shows the box's actual temperature, while the lower section is used to set the temperature. Press ▲, the first line displays **SP**. press▲ or ▼, which can make the second line display your required temperature; press again, the first line displays **ST** (press ▲ or ▼, which makes the second line display your required time. When ST is 0, the instrument cancels the timing function; when ST is not 0, the instrument has a timing function. Press ▲ once again, return to the standard model, and then the temperature controller finishes setting, the instrument can work. Typically, the temperature controller will reach a constant temperature after 90 minutes of heating the instrument.
- 3) The working chamber can quickly reach a stable temperature state by setting it a second time when your desired working temperature is lower. This will lessen or even eliminate the occurrence of temperature overshoot.
- 4) Depending on the needs of the various objects, select a different drying time.
- 5) Select "OFF" on the power switch once the drying process is complete, but do not open the door to take anything out right away. To avoid getting burned, you can open the box's door to reduce the temperature.

8. Troubleshooting

Phenomena	Reason	Treatment
No electricity	Not connecting the power supply well or wire breaks	Check and reconnect the power supply wire.
	The fuse is broken	Replace the fuse.
No warming up in the box	The set temperature is too low	Adjust the set temperature
	The heater is not functioning correctly	Replace the heater
	The temperature controller is abnormal	Replace the temperature controller
	The fan is not working	Replace the fan
There is a magnitude error between the setting temperature and the actual temperature in the box	The temperature sensor is abnormal	Replace the temperature sensor
	The temperature controller is not properly adjusted	Adjust the temperature controller
Over-temperature Alarm abnormal	The set temperature is low	Adjust the set temperature
	The temperature controller is abnormal	Replace the temperature controller

9. Circuit Diagram



Labmate Scientific Inc

Email: info@labmate.com | Website: www.labmate.com