

LABDEX



PCR Cabinet LX101PCR

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1. Safety Measures

- **Ensure Power Source Safety During Equipment Handling:**
Always disconnect the power source before moving or maintaining equipment.
- **Verify Compatibility of Power Source:**
Check that the power source meets the required specifications before use.
- **Grounding:**
Ensure proper grounding of the power source to prevent electrical hazards.
- **Storage Environment Safety:**
Store clean, packed work in a room with a controlled temperature (under 80 degrees), free from corrosive air, and with good ventilation. This prevents the degradation of materials due to environmental factors and ensures safe conditions for handling.
- **Prevent Damage from Improper Handling:**
Prohibit stacking items upside down or in piles. This helps prevent items from falling or becoming damaged, which can pose safety risks during handling.
- **Safe Transport Practices:**
Handle equipment with care during transportation and avoid subjecting it to heavy pressure or exposure to rain. This prevents damage to equipment and reduces the risk of accidents during transport.

2. Introduction

PCR Cabinet LX101PCR is designed to protect against contamination with a UV sterilization system and with the provision of HEPA-filtered laminar flow which inhibits cross-contamination of the samples. The irradiating UV lamp only can be switched on when the front window is closed, ensuring operator safety sterilized working environment. Side glass windows maximize light and visibility inside the cabinet, providing a bright and open working environment.

3. Features

- HEPA filter efficiency 99.999% at 0.3µm
- Interlock function
- Two waterproof sockets
- Shelf with IV bar
- Cold-rolled steel with anti-bacteria powder coated main body
- Anti-corrosive 304 stainless steel worktable

4. Specifications

Model no.	LX101PCR
External Size (W x D x H)	1000 x 705 x 1770 mm
Internal Size (W x D x H)	900 x 595 x 560 mm
Work Surface Height	750 mm
Main body material	Cold rolled steel with anti-bacterial powder coating.
Worktable material	304 stainless steel
Front and side window material	Anti-UV
Front and side window opening	5 mm
Front and side window orientation	Manual
Max Opening	320 mm
Pre-Filter	Polyester fiber, Washable
HEPA Filter	99.999% efficiency at 0.3µm
Airflow Velocity	0.3-0.5m/s, speed adjustable
Noise	≤65dB
UV lamp	20W x 2
UV lamp emission	253.7 nanometers, with a UV timer
Illumination Lamp	40W x 1
Illumination	≥ 1000 Lux
Shelf with IV bar	Stainless steel, 502 x 150 x 50 mm (W x D x H)
Caster	Universal caster with leveling feet
Consumption	300 W
Waterproof Socket	Two, total load ≤ 500 W
Power Supply	AC 220V ±10%, 50/60Hz; 110V ±10%,60Hz
Standard Accessories	UV lamp, fluorescent lamp, Base stand, Waterproof socket X 2, Shelf with IV bar
Gross Weight	150 Kg
Package Size (W x D x H)	1150 x 930 x 1370 mm

5. Applications

Used for amplification and manipulation of DNA or RNA etc.

6. Installation

- 1) The installation location significantly affects the performance and lifespan of the device. Therefore, it should be installed in a clean room with a plastic or water mill stone floor and varnished walls.
- 2) The device should steady emplacement to reduce the vibration and the noise when it works.
- 3) Airflow affects greatly the clean result. So, workers should take strict precautions against various outside high-speed currents of air, such as doors, windows, fans, the draught of sending air, compressed, etc. Which would interfere with the operation area.
- 4) The power source has a special switch. After the power source carries on with the requisition, kindly check the wind velocity of the operation experiments which should be over 0.3 m/s. Otherwise, check again.
- 5) After installation, kindly sweep the place and clean the platform.

7. Operations

- 1) Connect power source (220V±10%, 50/60Hz; 110V±10%, 60Hz)
- 2) Press **POWER** and the indicator is light, and the keyboard is unlocked and can be used, press **POWER** again, the indicator goes out, and the keyboard is locked and can't be used.
- 3) Press **LIGHT**, the indicator is light, and the lamp lights. Again, press **LIGHT**, indicator, and lamp put out.
- 4) Press **UV** when the glass door is closed, and the indicator and UV lamp are light; press **UV** again, and the indicator and UV lamp are put out.
- 5) After the UV lamp lights up, the acquiescent time for disinfecting is 30 minutes. Press **Λ** once to add one minute; press **V** once to cut down one minute. Pressing **Λ** for more than two seconds, the displayed number will continue increasing; pressing **V** for more than two seconds, the displayed number will continue decreasing. When stops pressing, the time displayed then is the disinfecting time set for the system. The set time should be 1~99 minutes.
- 6) Press **FAN**, the indicator is light, and the breeze machine starts running. Press **FAN** again, the indicator is put out and the breeze machine stops running.

8. Maintenance

- 1) Correct maintenance, management, and use are the key link to keeping the cleanness of the operating zone.
- 2) Strict regulations must be built up, and the tool, material usage, and visitors must be strictly controlled.
- 3) Keep all sections of the platform clean. Advance 10 ~ 20 minutes before using, and notice the following:
 - a. Worker must wear a clean smock, hat that is made of long fiber to wash easily.
 - b. Use the ball-point pen and tracing paper to write, which don't easily suction dust.
 - c. Forbid to do significant actions that deliver dust, such as: scratching the head, taking a step quickly, etc.
 - d. Workers of the microorganism and medicine industry must wear the mouth-muffle, forbidding using the steam to disinfect.
 - e. Don't put things on the platform. If the article should be placed to both ends as far as possible.
 - f. During operation head and hands should be put on the produce leeway side. With the special demands, workers should wear rubber gloves or nail sets.
 - g. Zero parts, materials, and tools (etc.) should be packed into a clean container.
- 4) Deposit appropriately the product, tool, material (etc) after the work, and then stop the bench.
- 5) Periodically carry on the function examination, such as the air velocity and cleanliness in the operation area. If discover the problem, kindly check immediately.
- 6) If the filter isn't satisfied with the usage of the request, kindly take it out, wash away the dirt with detergent (soap or 10% lye), and pack it into again the frame body usage after drying in the air. If it adheres to flush greasy dirt or damages, kindly replace it.
- 7) After flushing or replacing the filter, kindly consider replacing the efficient filter, if air flow doesn't increase.
- 8) The replacement must be operated by professional personnel.
- 9) The intensity of the UV lamp should be tested periodically according to the **LX101PCR** specifications, with quarterly testing recommended. If the lamp does not meet the required standards, replace it promptly.

9. Troubleshooting

No.	Malfunction	Check part	Measure to carry out
1	Lightening doesn't work	Power source	Check whether the power connection and fuse are in good condition
		Lamp corner	Ensure the lamp socket is securely tightened.
		Light	Replace the light bulb
2	The light bicker or becomes red	Light	Replace the light bulb
3	Buttons don't work	Controlling	Check whether the power connection and the fuse are in good condition
			Check whether the button is in good condition.
			Check wire connection
4	The motor doesn't work	Power	The power was disconnected, fuse damaged
		Motor	If something is wrong with the motor, exchange it.

10. Accessories

Standard Accessories

S.no	Accessory name	Quantity
1	UV lamp	1
2	Fluorescent lamp	1
3	Base lamp	1
4	Waterproof socket	2
5	Shelf with IV bar	1

Optional Accessories

Accessory no	Specifications
1	Electric height adjustable base stand

