

# **LBI Series Biochemical Incubator**

## **(User Manual)**



**Drawell International Technology Limited**  
**Chongqing Drawell Instrument Co., Ltd.**  
**Shanghai Drawell Scientific Instrument Co.,Ltd.**

**Chongqing Center** : Suite 2705, Building No.12, Shiyou Road No.1, Yuzhong District,  
Chongqing, China.

**Shanghai Office** : Suite 1117, Lane561 XiuChuan Rd., PuDong New  
Area, Shanghai, China

**Homepage** : [www.drawell.com.cn](http://www.drawell.com.cn)

**Tel** : 0086-023-63268643

**Email** : [sales05@drawell.com.cn](mailto:sales05@drawell.com.cn)

## Contents

I: Application.....	3
II. Technical Specifications.....	3
III: Installation requirements.....	3
IV. Operation Method.....	4
V:Precautions .....	6
VI. Failure handling methods.....	7
VII:Transportation and storage.....	7
VIII:After-sales service.....	7
IX: Packing List.....	8

Thanks for purchasing the equipment, please carefully read the manual before operating.

## I: Application

It's widely used for drying, baking, melting wax and sterilization in factories, mines, universities, scientific research and laboratories.

## II. Technical Specifications

Model	DW-LBI-80	DW-LBI-150	DW-LBI-200	DW-LBI-250	DW-LBI-300	DW-LBI-400
Chamber Volume	80L	150L	200L	250L	300L	400L
Temperature Range	0~60 °C					
Display Resolution	0.1 °C					
Temperature Stability	±1 °C					
Temperature Uniformity	±1 °C					
Timing Range	0~9999min					
Power Rating (W)	180	250	300	350	400	550
Refrigerant	R134a					
Power Supply	220V , 50Hz					
Continuous Operation	Long continuous operation					
Chamber Size(W×D×H)cm	40×37×55	45×42×85	45×45×100	48×49×107	52×50×117	58×54×127
Exterior Size(W×D×H)cm	54×57×107	59×62×137	59×64×152	62×68×159	66×69×169	72×74×179
Package Size (W×D×H)cm	70×73×126	75×78×156	75×80×171	78×84×178	82×85×188	88×90×198
Net/Gross Weight (kg)	50/85	90/120	95/138	103/147	115/157	135/170

**Note:**Performance parameters are tested under non-load conditions: ambient temperature is 20°C, relative humidity is 50% RH.

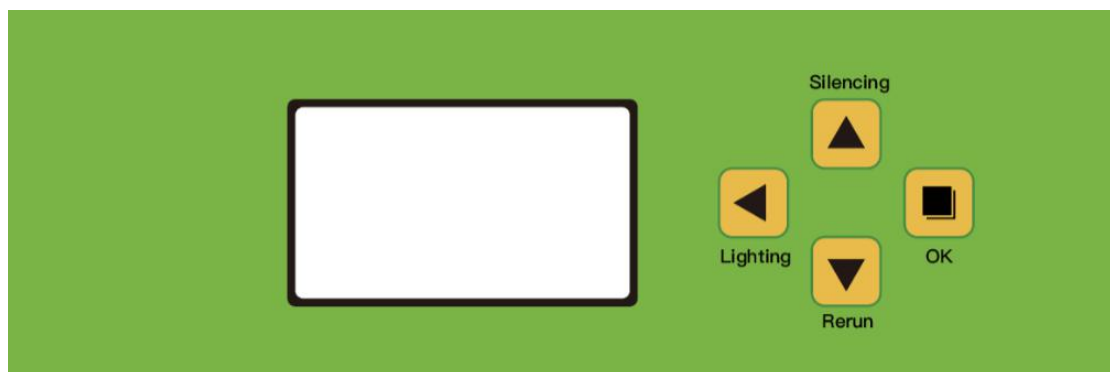
## III. Installation requirements

- 1) The instrument should be placed in a constant temperature environment, and the recommended temperature difference is  $23 \pm 5$  °C;

- 2) The distance between the equipment and the wall must be more than 10cm and the button operation position shall be reserved on the right side.
- 3) Avoid direct sunlight and keep away from heating equipment;
- 4) Place the equipment on the horizontal ground, lock the front caster to make the box flat.
  - 5) Turn on the 220V/50Hz power supply and it should be grounded. The equipment shell should be grounded reliably and placed in a sheltered place from the sun, cool and ventilated.

## IV. Operation Method

### Panel:



### Instrument operation:

- 1) After the meter is powered on, if the last program has not finished running, it will continue to run at the breakpoint of the last program. In the normal state, the upper row will display the measured temperature and the lower row will display the temperature set value or the remaining time (countdown will start when the set temperature is reached). Output state will be displayed on both sides (the icon will display when there is output). If the running program finished, flashing "STOP" will display in the lower row, indicating that it is in the STOP state. Press the "▽" key for 0.5 seconds to restart the meter. There will be a beeping reminder at the end of timing, press the "△" key to eliminate the sound.
- 2) Long press "△" key for 5 seconds in the running state, the lower row alternately displays the temperature setting value and "AT" prompt, that means entering the heating PID self-tuning state. During the self-tuning state, the refrigeration and timing are stopped

and the heating is operated by the position control. When self-tuning finished, the instrument returns to the normal control state. If enters the setting state in the self-tuning process, it will exit from the self-tuning program.

3) In the running or stop state, shortly press the “OK” key to enter the temperature setting state, the upper row displays “SP”, the lower row displays the setting temperature, then press the “OK” key again, the upper row displays the “ST” and the lower row displays the setting time.










4) Long press “OK” key for 5 seconds to enter the setting state of other parameters. The upper row will display the prompt and the lower row will display the parameter values (see the attached table for details of each parameter). After setting the parameter, long press “OK” key for 5 seconds to exit the setting state. In each setting state, you can quickly modify each parameter by pressing the  $\Delta$  key,  $\nabla$  key and the  $\triangleleft$  key. After modification, must press “OK” key to confirm, otherwise it is invalid.

**Parameter specifications:**

Symbol	Value	Description	Factory set value
SP	SPL~SPH	Temp. setting value	random
ST	0~9999 min	Time setting value	random
Long press the OK key			
Lck	0~9999	LOCK	—
SC	-20.0~+20.0	Correction for measured value	—
Lck is**** ( the password can be obtained from the manufacturer )			
P	0.1~20.0	Output proportional	—
I	1~400	Integral Time	—
d	0~100	Derivative time	—
CT	60~600	Compressor start delay	—
COOL	SPL~50.0	Upper temperature limit for compressor normally open	0℃
AL	1.0~5.0	Upper deviation alarm	—
PT	1~60 min	Print interval	—

Addr	0~32	Local communication address	—
SPL	LRV ~SPH	Low limit of temperature setting	—
SPH	SPL~ URV	High limit of temperature setting	—

## V. Precautions

-  When no lighting is needed in the chamber, please turn off the light so as not to affect the temperature of the upper layer. Turn off the power supply before changing the light tube.
-  Handle with care. The angle between the instrument and the ground shall not be less than 45°.
-  There is a water outlet pipe behind the equipment. When the inside temperature is low, a small amount of water will be discharged. Please use a pipe to connect to the container or sewer.
-  Do not use acid or alkali and other corrosive articles to wipe the surface. The inside chamber can be cleaned regularly with dry cloth.
-  When the set temperature is lower than the room temperature, the over temperature alarm will be generated if the door opening time is too long, which is not a fault.
-  When change the fuse tube, please cut off the power supply **and replace the one** with the same model and specification.
-  Fans are installed in the operation room. Don't put fingers or any objects into the cover. Please cut off the power supply before maintenance.
-  Please turn off the power switch when stop using.
-  Please do not put inflammable, explosive or toxic, strong acid and strong alkali

articles in the working chamber of the instrument!

## VI: Failure handling methods :

Problems	Causes	Solution
No power supply	Socket without power	Change socket
	Not plugged or wire broken	Plug well or connect wire well
	Fuse is open	Change fuse
	Power switch not on	Switch on.
The temperature does not rise or fall	Setting temperature is wrong	Adjust setting temperature
	The temperature controller is broken	Change the temperature controller
	The cable is loose	Tighten the cable.
	Timing setting is incorrect	Reset or cancel timing
Big deviation of temperature	Temperature sensor is broken	Change temperature sensor
	Fan is broken	Change the fan
	The meter is not corrected	Correct the meter

**Note:** Maintenance operations shall be carried out by qualified personnel. Please turn off the power supply before repairing.

## VII. Transportation and storage

- 1) Handle with care. Do not transport upside down.
- 2) Store the instrument in a room with relative humidity no more than 80%, no corrosive gas and good ventilation.

---

## VIII: After-sales service

The warranty for the drying oven is 12 months from delivery (except for the heating elements). If damaged due to non-human factors or can not work normally during warranty period, our company is responsible for free repair or replacement of product parts. Beyond the warranty, we try our best to provide convenience for users.

## IX: Packing List

Item	Name	Category	Qty.	Remark
1	Biochemical incubator	Machine	1 Set	
2	User Manual	Document	1 Copy	
3	Fuse	Spare parts	1pc	
4	This packing list	Document	1 pc	

We reserve the right to change the data in the manual without prior notice. The company has the final interpretation right.





## **Drawell International Technology Limited**

### **Chongqing Drawell Instrument CO.,Ltd**

Add: Suite 2705, Building No.12, Shiyou Road No.1, Yuzhong District,  
Chongqing, China

Tel: 0086-023-63268643

### **Shanghai Drawell Scientific Instrument Co.,Ltd**

Add : Suite 1117, Lane561 XiuChuan Rd., PuDong New Area, Shanghai, China

Web : [www.drawell.com.cn](http://www.drawell.com.cn)

Email : [sales05@drawell.com.cn](mailto:sales05@drawell.com.cn)