

LABSTAC



OPERATION MANUAL

Gel Card Incubator

INC31-24GC

www.labstac.com

Foreword

Thank you for purchasing our Products: Card Incubator , This Manual for users contains function and operation of the Instrument. In order to use the instrument properly, please read this manual carefully before using the Instrument.

Opening Check

Please check the Instrument and Appendix with the packing list when you first open the instrument packing case. If you find there is something wrong with the Instrument and the Appendix, do contact the vendor or the producer.

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01. Introduction

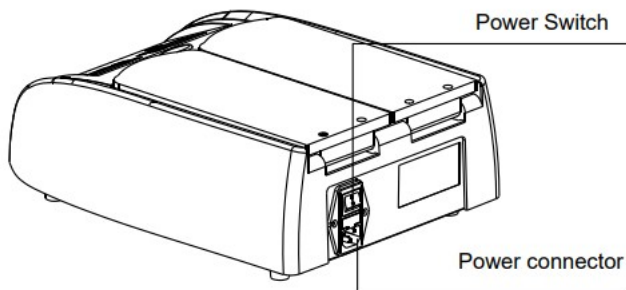
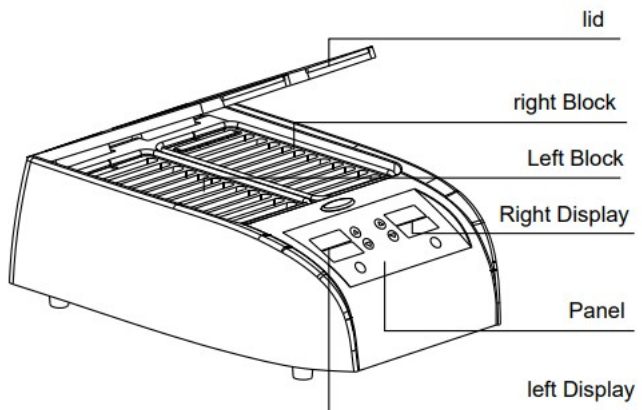
This Incubator designed for workstations in training and research laboratories in the fields of bioscience, medicine and chemistry.

Before starting up this incubator for the first time, please read the rest of this operations manual.

1.1 Delivery package

Card Incubator	1pcs
Power line	1pcs
Operations manual	1pcs

1.2 Structure Description

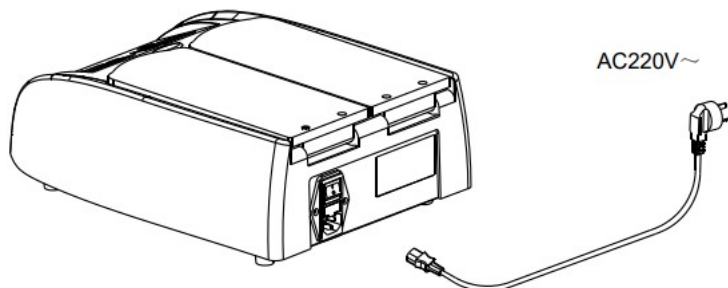




1.3 Installing the device

1.3.1 Place the card incubator onto a level , horizontal surface.

1.3.2 Insert the column connector of the power line to power connector of the device ,and insert another connector of the adapter to mains power supply.



1.3.3 Power on the main switch. The incubator is ready to operate when the display becomes visible.

1.3.4 Put the test card into the block, then close the lid.

02. Technical data

Model	K37-24
Power supply	AC220V \pm 22V 50Hz
Fuse	250V 3A 5X20
Power	200 W
Temperature range	35°C ~ 50°C
Timing range	1sec ~ 99min59sec
Accuracy of the temperature	$\leq \pm 0.5^{\circ}\text{C}$
Display accuracy	0.1°C
Heating time	25°C~37°C \leq 5 min (Ambient Temperature 20°C~30°C)
Temperature uniformity	$\pm 0.5^{\circ}\text{C}$
Temperature stability	$\pm 0.2^{\circ}\text{C}$
Ambient temperature	5°C ~ 30°C
Dimensions (W×D×H)	280mm×380mm×115mm
Weight	6.0 kg



03. Safety precautions



This product is a normal and an indoor Instrument.



Read the Manual carefully before operation, The expert of wiring equipment can operate this Instrument.



The operator should not open or repair the Instrument by himself, which will result in losing the qualification of repair guarantee or occur accident. If there is some wrong with the Instrument, the company will repair it.



The Instrument should be put in the place of low temperature, little dust, no water and no sun or strong lamp. What's more, the place should be good aeration, no corrosively gas or strong disturbing magnetic field, far away from central heating, camp stove and other hot resource. Don't put the Instrument in wet and dusty place.



Mains switch is on the rear of the device, push "I" to power on the device, and push "O" to power off the device.

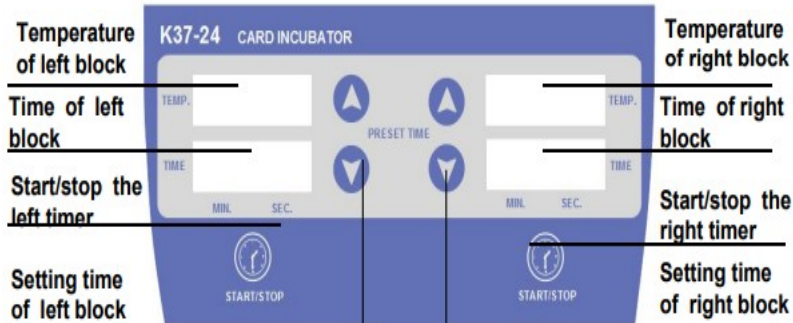


Power off when you finish your work. Pull off the connector plug when there's long time no use of the Instrument and cover it with a cloth or plastic paper to prevent from dust.



04. Operation guide

4.1 Control elements



4.2 Setting the timing time

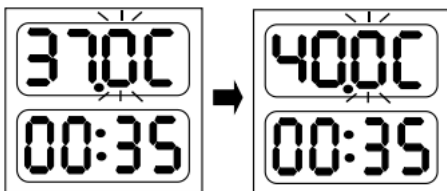
press “▲” or “▼” key at the left ,you can set the timing time from 1sec to 99min59sec for the left block. And you can press “▲” or “▼” key at the right ,set the timing time for the right block too.



When press “▲” or “▼” key, the units digit will flicker, then you can modify the timing time, About 6 seconds, the flicker will disappear, exit setting interface.

4.3 Setting the temperature

The default setting value of the block is 37.0°C,if you need other temperature. For example, you need the temperature of the left block is 40 °C, you can press left “START/STOP” key and left “▲” key simultaneously.



Then the units digit will flicker, you can press “▲” or “▼” key to modify the temperature, About 6 seconds, the flicker will disappear, exit setting interface.



4.4 Switching to the Fahrenheit display

Press “▲” and “▼” key simultaneously, the display switches from Centigrade to Fahrenheit. Also press “▲” and “▼” key simultaneously again, the display switches from Fahrenheit to Centigrade.

4.5 Start and Stop

The instrument start to heat automatically according to the previous set temperature as soon as power on. The default temperature is 37 °C.

the left “START/STOP” key control the left block and the right “START/STOP ” key control the right block.

4.5.1 When the temperature of left block reach 37.0 °C, you can press left “START/STOP” key to start the timing time of the left block. Also, When the temperature of right block reach 37.0 °C, you can press the right “START/STOP” key to start the timing time of the right block

4.5.2 When the timing time of left block reach 0, the buzzer alarm “du. du. du.....” and the display appear “OVER’. The controller hold the temperature too. Press any key to return, and press the “START/ST O P” key to time again.

4.5.3 Press “START/STOP” key for 1 seconds continuously to stop the time .

4.6 Temperature calibration

The temperature of the instrument has been calibrated before it is sold out. But if there is deviation between the actual temperature and the displayed temperature due to some reasons, you can do as follows to correct the error.

The temperature veracity will be within $\pm 0.5^{\circ}\text{C}$ after the temperature adjustment.

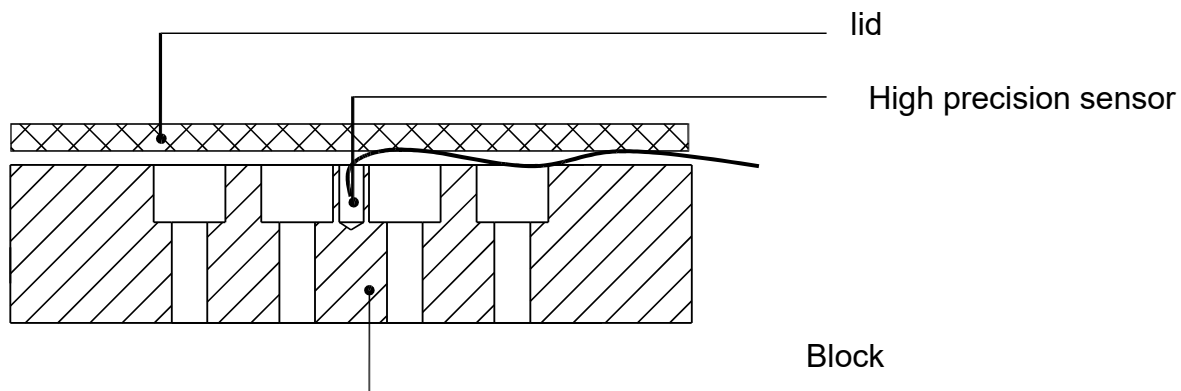
The circumstances temperature should be lower than 35°C

Adjustment methods as follows:

4.6.1 Put a high precision sensor into the 2.0mm hole in the middle of the left block , and put another high precision sensor in right block (Make sure the precision of the sensor should be within 0.1°C). It is very important that the sensor must touch the hole of the block fully, maybe need add silicone heat sink compound in the hole. And must close the lid too. Seeing from Fig a.



Note! The temperature can be corrected only after the instrument reaches the set temperature for 20 minutes to ensure the precise of the temperature.



4.6.2 Press left “START/STOP ” key and right “START/STOP” simultaneously, the display come in the calibration interface. The practical temperature shows 37.0, if the block do not reach 37.0 C, it will rise to 37.0 at once. When the practical temperature reach 37.0, the units digit will flicker ceaselessly. The left display and the right display come in calibration interface at the same time.

4.6.3 After 20 minutes, if the actual temperature of high precision sensor in left block is 36.2°C, then press left “▲”or “▼”key to amend the left display value to 36.2.

Left display

4.6.4 If the actual temperature of high precision sensor in right block is 36.4°C, then press right “▲”or “▼”key to amend the right display value to 36.4.

Right display

4.6.5 Then press left “START/STOP” key to confirm, it exit the calibration interface. You also can press right “START/STOP” key to confirm.

After Temperature calibration, the temperature displayed is the same with the practical temperature of block.


Note! During Temperature calibration, press left “START/STOP” and right


“START/STOP” key simultaneously to cancel the calibration. The system keeps the former calibration.

So don't press left “START/STOP” and right “START/STOP” key simultaneously unless need calibrate the temperature!




05. Maintenance and cleaning

 The well in the block should be cleaned by the cloth stained with alcohol to assure good heat translation between the block and the test tube and no pollution. If there are smutches on the Instrument, clean them with cloth.

 Power off when cleaning the Instrument.
When cleaning the well, don't drop the cleaning liquid in the well. Corrosive cleaning liquid is strongly prohibited.

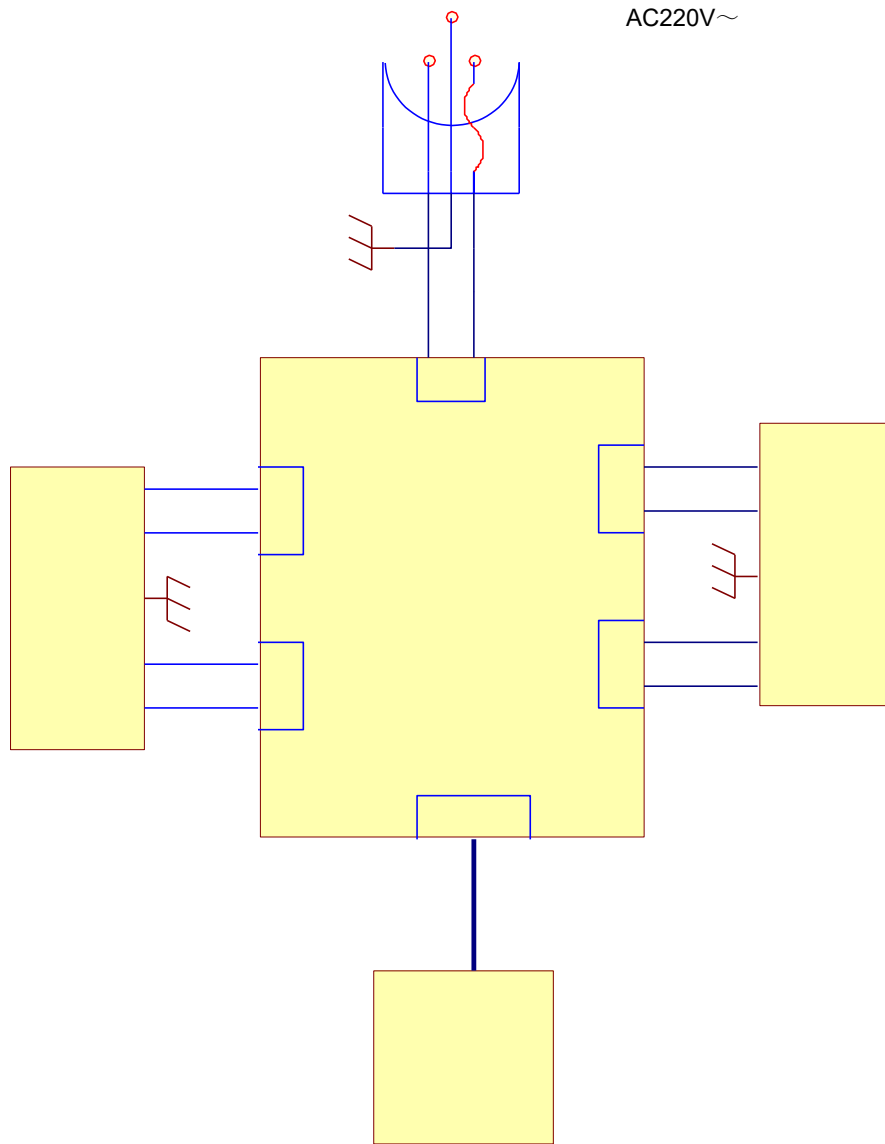


06. Troubleshooting

Error	Cause	Solution
No display	No main power connection. Power failure.	Plug in mains cable on both sides. Check the mains fuse
“oPEn” in the display with the alarm of “du...”	Broken sensor or loose contact of the module	Contact service.
“Shor” in the display with the alarm of “du...”	The sensor is short	Contact service.
“hhhh” in the display with the alarm of “du...”	The temperature of the block over than 60 °C	Contact service.
“  ” in the display with the alarm of “du...”	temperature fluctuation is more than 1 °C	Contact service.
No heating of the block	Heater failure	Contact service.
Press invalid	Keyboard failure	Contact service.



Annex 1 Wiring Diagram for Incubator





Packing List

No.	Item	Type	QTY
1	Incubator	K37-24	1
2	Power line	250V 6A	1
3	Operations manual		1



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Email: contact@labstac.com

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