



GENERAL PURPOSE INCUBATOR

BIGP-6401 BIGP-6402 BIGP-6403 BIGP-6404 BIGP-6405

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1. Warranty

In normal use conditions, the instrument is guaranteed for a period of 24 months from the date of purchase. The warranty is valid only if the product is original. It does not apply to any product or parts of it that have been damaged due to incorrect installation, improper connections, improper use, accident or abnormal conditions of operation. The manufacturer declines all responsibility for damage caused by failure to follow instructions, lack of maintenance and any unauthorized modification

2. Contents of package

The instrument is delivered complete with the following parts:

- Incubator (main unit)
- 2 stainless steel wire shelves
- 4 brackets for shelves
- Power supply cable
- 2 core of fuse
- User manual

3. Installation requirements and safety tips

3.1 Installation requirements

The incubator should be installed in follow conditions:

1. Dry, clean and stable work table with a flat horizontal surface.
2. Respect minimum spaces around instrument 80 cm.
3. Room temperature between 41°F(5°C) and 104 °F(40°C), and relative humidity maximum of 85%.
4. Power supply socket with earth connection.
5. Power feed between 220-240V - 50-60Hz.

3.2 Instruction for Safety

3.2.1 Danger !

The improper use of this unit may cause property damage and/or personnel injury.

1. The product must be properly electrically grounded (The Hot line or the Neutral line should not be the grounded connection adhere to the product's requirement before using).
2. Please ensure the voltage and frequency of the power supply are compatible with the incubator power requirements prior to use. The fluctuations of the supply voltage shall not exceed 10% of the nominal supply voltage.
3. This unit must use the included electrical cord with a dedicated electrical circuit with a confirmed electrical ground connection.
4. The power switch MUST be in the "OFF" position when power is connected or disconnected from unit.
5. Do not arbitrarily lengthen or shorten the power supply connection wire. Do not modify the power cord

in any way.

6. It is prohibited to put in flammable, explosive, volatile, and corrosive substances for drying and baking.
7. Do not touch the chamber door, the chamber body or the surrounding surface when the set temperature is over 176°F(80°C)!
8. Do not put hands or objects into the air inlet or air outlet.
9. The unit should have routine inspections and should be serviced by a qualified service technician when needed.

3.2.2 Warning !

1. Please use the socket connecting with the ground connection to prevent electric shock. If the socket does not have the ground connection, the earth wire must be installed by the qualified electrician. Be sure not to conduct the ground connection through the gas pipe, water pipe, telephone line or lightning rod! This kind of ground connection may cause electric shock due to the incomplete loops.
2. 304 stainless steel material is not acid resistance, so please pay attention to the corrosion prevention measures. Never place corrosive materials inside the unit to prevent damage
3. Do not tension the power supply cord when plug in.
4. The power cord must be removed from receptacle when any of the following occur: When replacing the fuse;
When the product is waiting for overhaul due to faults; When the product goes out of service for a long time; When the product is being moved;

3.2.3 Caution !

1. The incubator should be located on a strong solid surface.
2. Take care when opening and closing the door to prevent damage to delicate internal components.

4. Product introduction

4.1 Function introduction

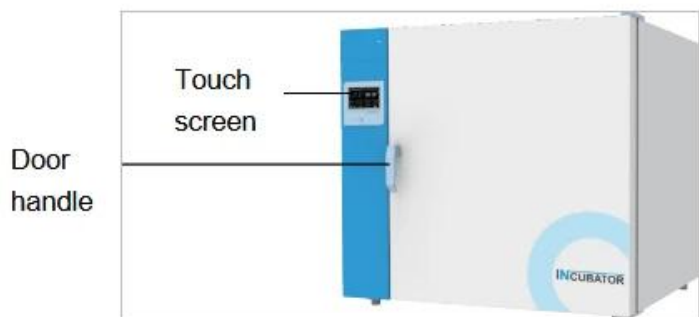


Figure 1

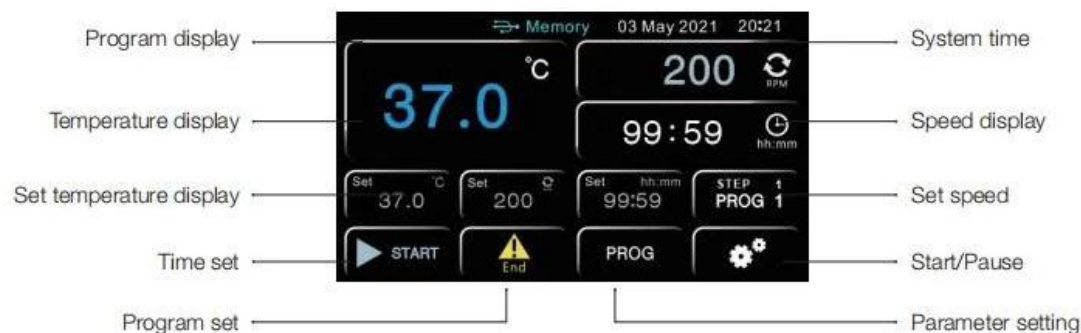


Figure 2

4.2 Specifications

Natural Convection Incubator

Model Parameter	BIGP-6201	BIGP-6202	BIGP-6203	BIGP-6204
Chamber Volume	34L	54L	124L	222L
Temperature Range	Ambient +5~80°C			
Temperature Stability	±0.2°C	±0.2°C	±0.2°C	±0.2°C
Display Resolution	0.1°C	0.1°C	0.1°C	0.1°C
Standard Quantity of Shelves	2	2	2	2
Maximum Quantity of Shelves	5	9	12	16
Shelves loading	20Kg	20Kg	20Kg	20Kg
Net Weight	44	53	79	108
Timer	1~5999mins	1~5999mins	1~5999mins	1~5999mins
Internal Dimension (W*H*D, mm)	320*320*340	400*415*360	520*490*480	650*650*540
External Dimension (W*H*D, mm)	610*580*520	690*640*468	810*755*588	940*910*658
Electrical Requirement	AC220-240V,50-60Hz			
Power Consumption	250W	300W	550W	700W

Table 1

Note: All test data are tested in a 25°C environment.

Forced Air Heating Incubator

Model Parameter	BIGP-6401	BIGP-6402	BIGP-6403	BIGP-6404	BIGP-6405
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Chamber Volume	35L	67L	146L	253L	420L
Temperature Range	Ambient +5~80°C				
Temperature Stability	±0.2°C	±0.2°C	±0.2°C	±0.2°C	±0.2°C
Display Resolution	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
Standard Quantity of Shelves	2	2	2	2	3
Maximum Quantity of Shelves	5	6	10	16	23
Shelves loading	20Kg	20Kg	20Kg	20Kg	20Kg
Net Weight	48	56	82	119	160
Timer	1~5999mins	1~5999mins	1~5999mins	1~5999mins	1~5999mins
Internal Dimension (W*H*D, mm)	320*320*390	400*415*395	520*530*510	650*650*600	1000*800*530
External Dimension (W*H*D, mm)	610*545*550	690*640*560	810*755*685	940*875*750	1285*980*750
Electrical Requirement	AC220-240V,50-60Hz				
Power Consumption	300W	350W	600W	700W	1000W

Table 2

Note: All test data are tested in a 25°C environment.

5. Operation Instructions

5.1 Operation steps

5.1.1 Introduction to the main interface

1. Fixed value mode operation screen



Figure 3

- (1): USB symbol (inserting a USB flash drive will display Memory, indicating that the USB flash drive has been connected).
- (2): Temperature measurement display area.
- (3): Heating symbol.
- (4): Temperature setting area.
- (5): Run/Stop button.
- (6) Note: The speed setting or status display window of the circulating fan inside the box.
- (7): Display of reserved startup time and program cycle times.
- (8): Running time setting.
- (9): Program Content Editing Entrance.
- (10): Parameter setting entrance.
- (11): Entry for selecting the running program number and displaying the current running program group number and program step number.
- (12).Running time display (countdown).
- (13): System date and time display.

Note: Different devices with different functions have different window functions, which will not be described in detail here. If the fan speed setting window pops up when touched in this window area, it means that the device has the function of manually setting the circulating fan inside the box. The fan speed can be set here, which are high speed (100%), medium speed (75%), and low speed (50%).

5.1.2 Program mode operation screen



Figure 4

5.1.3 Selection of operating mode

1. Ensure that the controller is in a stopped running state.
2. The operation steps are shown in the following figure:



Figure 5

5.1.4 Program Content Editing

1. Ensure that the controller is in a stopped running state.
2. The operation steps are shown in the following figure:



Figure 6

You can choose the program group number to edit the content



Figure 7



Figure 8

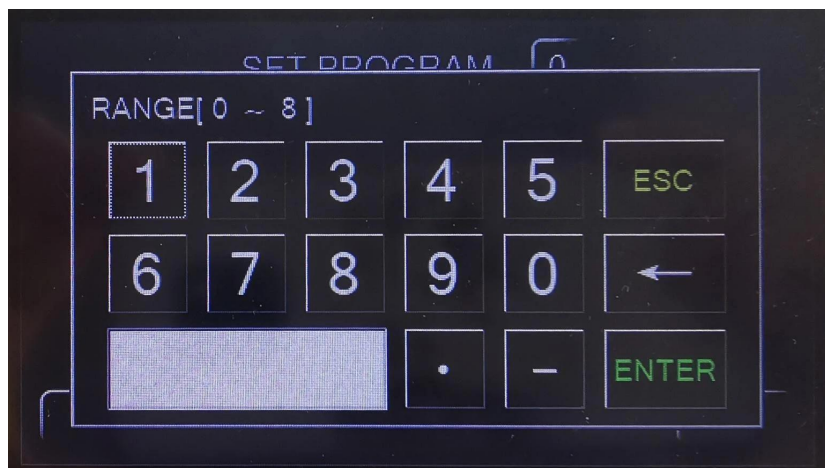


Figure 9



Temperature setting



Time setting



Circulating fan setting

3. Setting the number of program loops



Figure 10

Cy: The number of program loops, 0 represents infinite loops, other numbers represent the corresponding number of loops, such as 1. If the program only runs once, the device will stop.

Dy: Schedule the startup time setting. After setting the time here, return to the main interface and click the run button to start timing. When the time is up, the device will automatically run.

4.View historical data and curves



Figure 11

5. Historical Curve Interface



Figure 12

1. Click on Data Log to enter the historical data interface, click Download to select the desired data time period, and click OK to download.
2. Click on Graph to enter the historical curve interface, ESC returns.

6. Alarm information interface



Figure 13

Click on Alarm log to enter the alarm information interface, click Download to select the required data time period, Click OK to download.



Figure 14

(9)Operation log information interface

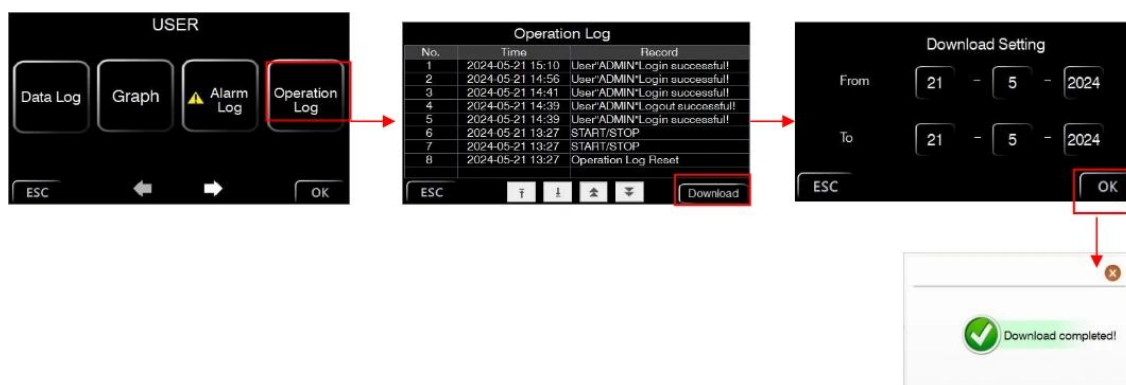


Figure 15

Click on Operation log to enter the operation log interface, click Download to select the required data time period,
Click OK to download.

Explain: 1. This controller has 8 sets of programs, each with 8 steps, and only requires setting a stable target temperature value and the required stabilization time. For example, using the second program, set the temperature to 100 °C for 2 hours with a fan speed of 75%, and set the temperature to 150 °C for 4 hours with a fan speed of 100%. The settings are shown in the following figure:



Figure 16

2. This controller is a universal controller. If you find that there is no fan speed setting column in the program editing, it means that you have purchased a device that does not have the function of adjusting the circulating fan speed.
3. To run in program mode, it is necessary to have the correct program content and the required number of program loops in order to effectively meet your experimental requirements.

5.1.5 Fixed value mode operation

1. Select program number as 0.
2. The operation is shown in the following figure:



Figure 17

5.1.6 Appointment startup settings

1. Ensure that the controller is in a stopped running state.
2. Ensure that the system time is set correctly.
3. Step 3 of the program content editing: Setting the number of program loops.
4. After setting the delay time, return to the main interface, click the run button, and the main interface will display as follows.



Figure 18

Explanation: 1. Delay=1 means that the device starts running after a delay of 1 minute.

2. After the scheduled operation is completed, the scheduled startup delay time is reset to 0. If you want to schedule the startup operation again, you need to execute the settings again.

- 6.Clean and maintenance
- Proper maintenance and cleaning of the instrument guarantee its good conditions.
 - The inner chamber of the instrument is made of stainless steel, so it can be cleaned with any detergent provided it is not aggressive and / or corrosive.
 - You should clean the inside and outside surfaces with a standard all-purpose cleaner sprayed on a soft cloth.
 - Before proceeding with any cleaning or decontamination, the user must ensure that the method used does not damage the instrument.

IMPORTANT

If the instrument must be returned for service, it is necessary to provide for proper cleaning and possible decontamination by pathogens of the same.

It is also recommended to put the instrument in its original packaging to send it in for repairs and if it is missed it is necessary to provide to pack it properly in order to the transport.

Any damage caused from the incorrect shipping will not be covered by warranty.

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7. Troubleshooting

Symptoms	Possible causes	Remedies
No power after startup (pilot lamp is not on)	Power socket is not energized or plug is in poor contact.	Make it repaired.
	Chamber power line broken or plug is not inserted properly.	Make it repaired or inserted again.
	Power switch is broken (or is not turned on)	Make it fixed by the professional personnel.
	Fuse blown	If the fuse still burned out after the replacement and energization, you need to check if the switch, heater or temperature controller are short-circuited or leaked (insulation resistance of 0) and restart after repairing.
The temperature displayed abnormal on the screen	Sensor is out of order or wiring is broken (knocked off)	Pt100 is repaired or replaced.
No temperature rise	Check if timing is set up and time is up.	Refer to the operation of timing function.
	The controller does not work (without output)	When OUT light doesn't shine or 3061 is broken, replace it.
	Setting temperature is lower than the internal temperature	Open the door until the internal temperature is lower than the setting temperature.
Temperature control is inaccurate (static difference is large)	The difference between room temperature and set temperature is less than 5 degrees Celsius.	Minimum temperature under control :Ambient+5°C
Noise abnormal (BOF series)	The fan is broken or lack of lubricating oil	Replace fan or add lubricating oil
	Friction on rear air duct plate	Repair or add washer

Table 3



Biolab Scientific Ltd.

Trillium Executive Center, East Tower, 675 Cochrane Dr, Markham, Ontario L3R 0B8, Canada
Email: info@biolabscientific.com | Website: www.biolabscientific.com