

Operation Manual



BBWA-105

Water Bath

Thank you for Choosing Biolab products. Please read the "Operating Instructions" and "Warranty" before operating this unit to assure proper operation.

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01 Summary

BBWA-105 Water Bath is applicable for distillation, concentration, drying and thermostatic heating of medical units, universities and colleges, scientific research units and laboratories of industrial and mining enterprises like chemical printing and dyeing enterprises and pharmaceutical enterprises.

02 Structure features

1. The enclosure of the product is formed and machined by using high-quality steel plate. Static electric spraying process is adopted on the surface, which is sturdy and durable. The inner container is finished by the stainless steel stretching.
2. The liner and upper cover are made of high-quality stainless steel plate, featuring strong corrosion resistance.
3. U-shaped heating pipe is adopted for direct heating in water. The temperature rise is quick and the thermal loss is small.
4. Single-row digital display or intelligent temperature controller boasts simple operation and favorable application effect.

03 Main technical parameters

Model	BBWA-105 2 rows and 4 holes
Supply voltage	200-240V/100-120V
Power(W)	1000
Tem-motion(°C)	±0.5
Tem-range(°C)	RT+5 ~ 100
Senility of Tem Control(°C)	≤±1
Display error(°C)	≤±2.5
Chamber Size (mm)	325x300x150
Products Size (mm)	350x318x210
Packing Size(mm)	420x390x280
N.W.(Kg)	6
G.W.(Kg)	7

04 Working Conditions

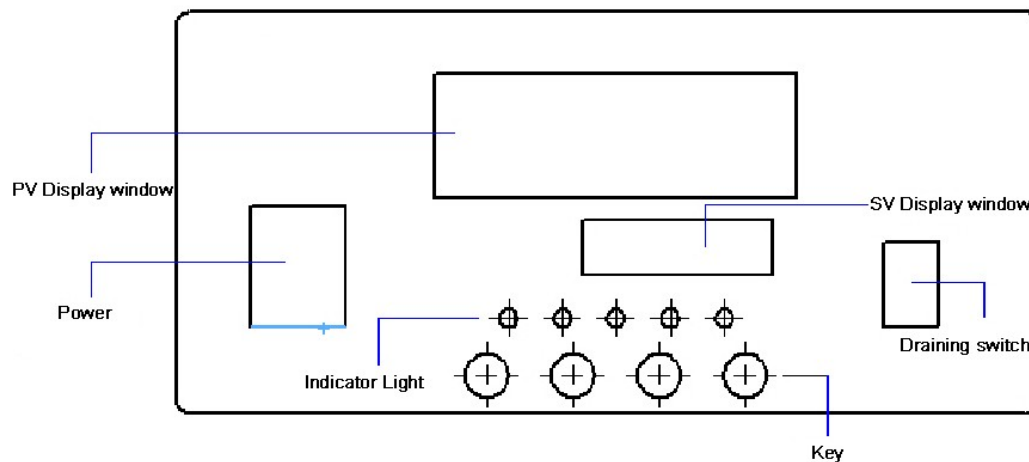
1. Temperature ranges between 5~40°C;
2. Relative humidity less than 85% RH;
3. Power: voltage 220-240v, frequency 50-60Hz;
4. No violent vibration and corrosive gas surround the equipment.

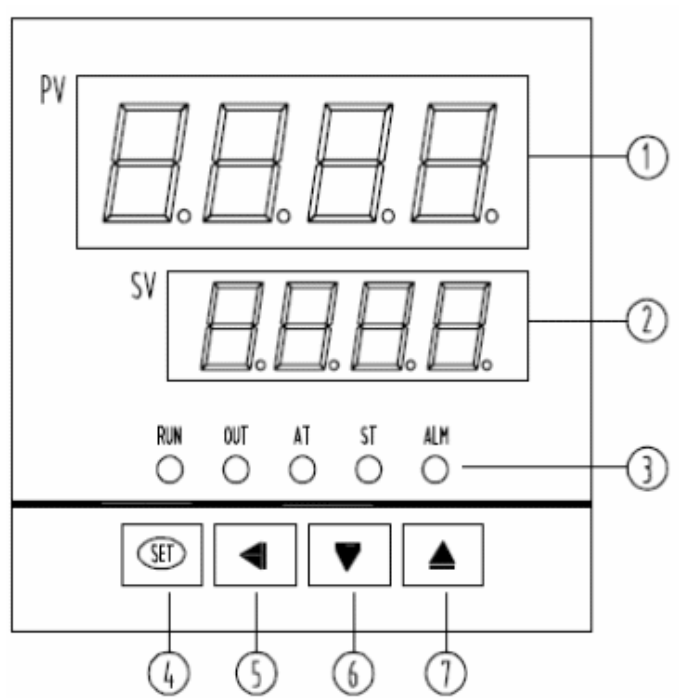
05 Attentions

1. Before use, add water 50mm until the water reaches above the clapboard, then connect to power supply and heat. It is not allowed to heat with insufficient water.
2. During use, do not touch the heating pipe by your hands to avoid being scalded.
3. After use, timely discharge the water, dry it and keep it clean in order to extend the service life.

06 Temperature Controller Operation

1. Meter panel instruction





Display and Key:

①PV: Measure value

②SV: SET VALUE

③LED:

RUN: WORK LIGHT

OUT: HEAT LIGHT

ST:SET TIME LIGHT

ALM: ALARM LIGHT

④SET KEY: SET VALUE

⑤MOV KEY: SET VALUE CHANGE BIT

⑥DOWN KEY: SUB 1

⑦ ADD KEY: ADD_1

2. Parameter:

TABLE 1 COMMON PARA

PAR	NAME	DEF	RANGE	NOTES
SV	SETVAL	X	SV_L~SV_H	
ST	SETTIME	0	0~9999	0:NO ST,UNIT:MIN
AT	AUTO	0	ON/OFF	
MAN	MAN_V	0	0~100	NO_USE

USE_PARA

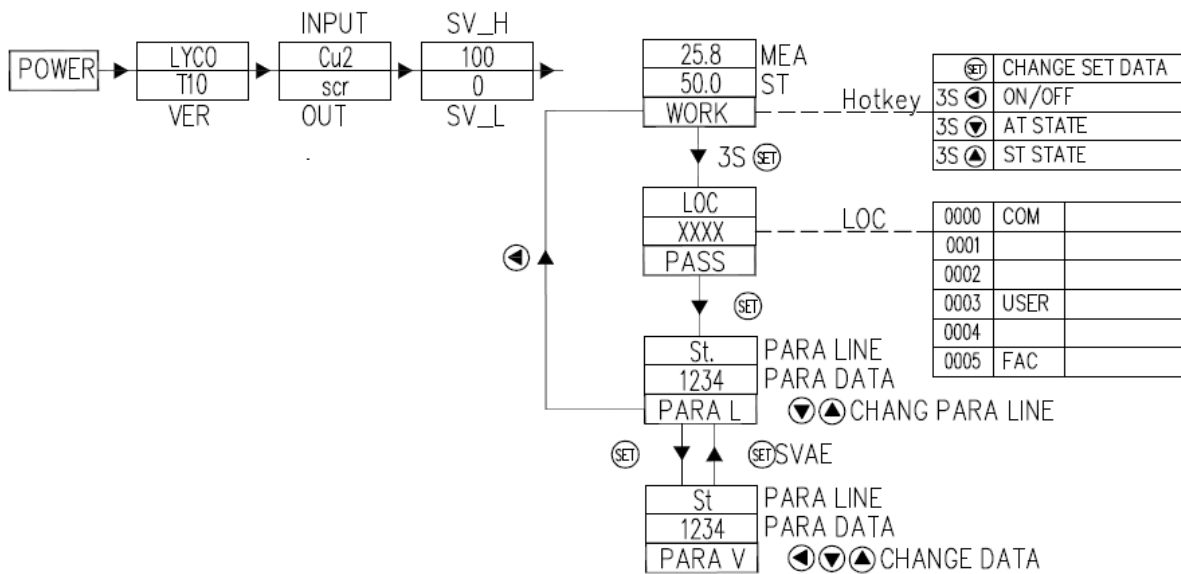
PAR	NAME	DEF	RANGE	NOTES
ET	ST_MOD	0	0~1	0:ST WHEN TEMP NO CHANGE 1:ST AT ONCE
DF	DF	2.0	0~9999	
DP	POINT	1	0~2	
PK	OFF_K	1.0	0~2	
PB	OFF_B	0	-199.9~999.9	
DHAL	ALM_OFF	9999	0~9999	
ADDR	NUM	1	1~32	
BAUD	BAD	0	0~3	NO USE

3. Operation :

1. Put the instrument horizontally.
2. Open the cover and add the pure water or distilled water to the water tank, the water level must be higher than the heating pipe and temperature sensor.
3. Connect the suitable power, open the switch and the electricity supply.

4. The upper row of the instrument shows test temperature and setting temperature is showed in the lower row.
5. Shot pressing the setting key can enter the setting state. Shift, plus and minus keys can adjust the temperature.
6. Press the upper key to set time, when the upper row shows ST and the lower row shows OFF, to press the upper key again then the lower row shows the time. The shift key is used to change the numerical which unit is minute. There are two kinds of timing modes which are timing after temperature constant and timing after setting finished. When the time arrived, heating output stopped. If need to start the operation again, the power switch must be shut and open again.
7. Automatic tuning function · If the test temperature fluctuation, the self-tuning function can adjust. Press the plus & minus key till the indicator light on.

07 Wiring



08 Fault analysis

Failure	Cause	Handling method
No power supply	<ol style="list-style-type: none"> 1. Bad contact between plug and socket 2. The fuse is burnt. 	<ol style="list-style-type: none"> 1. Replace the plug or socket tube. 2. Replace the fuse with same specification.
No temp. rise	<ol style="list-style-type: none"> 1. The temp. Controller is broken 2. The sensor is broken 3. The set temperature is lower than water temperature 4. The heating pipe is burnt 	<ol style="list-style-type: none"> 1. Replace the instrument 2. Replace the sensor 3. Reset the temperature 4. Replace the heating pipe
The big difference between display temp. and actual temp.	<ol style="list-style-type: none"> 1. The temp. controller 2. The temp. sensor is broken. 	<ol style="list-style-type: none"> 1. Replace the temp. controller 2. Replace the temp. sensor.



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