

Stomacher Blender

User Manual



Please read operating manual before installation and operation.

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1. Principle

The original state of microbial samples (including animal tissue, plant tissue, food, cosmetics) may be block, solid, leaf, powder, etc., and they must be made into refined liquid samples in order to benefit microorganisms. analysis and vaccination. The working principle of the instrument is as follows: the original sample (large ones need to be cut into blocks of about 10×10mm), put into a homogenizing bag with some liquid or solvent, and repeatedly slapped on the sample bag by the slap plate of the instrument. Generate pressure, cause vibration, and accelerate mixing, so that the microbial components in the solution are uniformly distributed. It is suitable for the homogeneous treatment of brain, kidney, liver, spleen and other tissues and microorganisms.

Homogenizing bags for storing original sample substances and solvents, made of special materials, aseptically processed, clamped and sealed by cross bars along the upper part of the homogenizer door, which can avoid the overflow of the solution when the slap plate is slapped, the slap plate of the homogenizer keeps slapping on the homogenizing bag, and the pressure generated can crush and mix the samples in the bag. Users can choose reasonable settings according to the sample and solvent conditions to achieve the best homogenization effect. For example: the liver of mice and rats is set to 180 seconds, and the medium speed is sufficient.

2. Application and Features

It is widely used in the homogenization treatment of animal tissues, biological samples, food (such as pig stomach, meat, fish, vegetables, fruits, biscuits, etc.), and cosmetics, especially for the preparation of samples for microbial testing. The operation is simple, convenient and time-consuming. . One-time consumption sterile homogenization bag, with soft homogenization, no pollution, no damage, no heating, no need for sterilization, no need to wash utensils, glass transparent window for easy observation, and possible contact with the sterile homogenization bag Parts are made of high-quality sanitary stainless steel materials to prevent cross-contamination and protect the safety of operators. This product is also suitable for the homogenization of

tumor tissues (such as liver cancer, colon cancer, gastric cancer, breast cancer), which can not only obtain a large number of single cells (up to 2×10^5 within 2 minutes), but also can be adjusted to achieve soft tissue cells. broken.

3. Product description

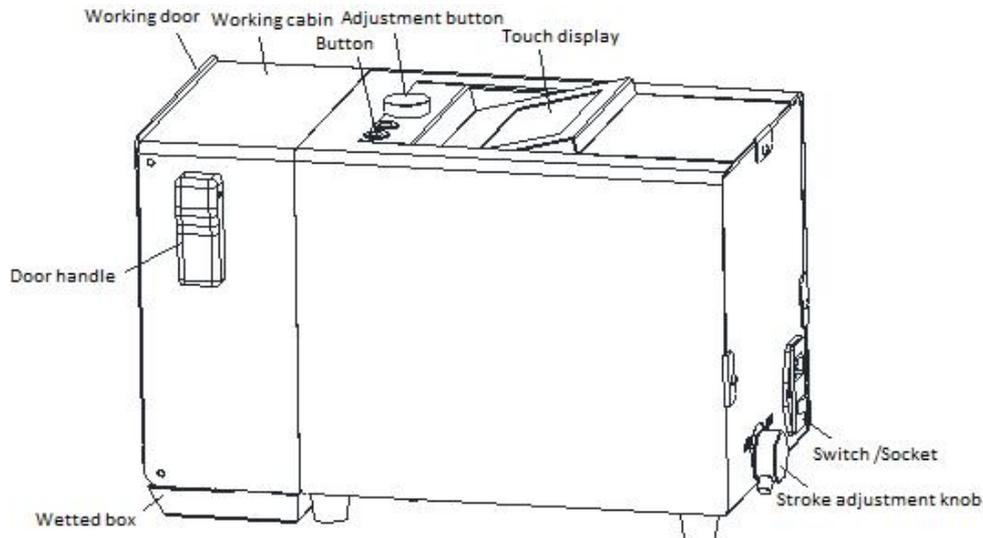
The company's flapping homogenizer series includes three models: DW-04, DW-09, and DW-11. DW-04 is the basic type of flapping homogenizer, the flapping speed is adjustable from 6-9 times/second, and the timing is 30s, 180s, 600s or continuous flapping; DW-09, DW-11 flapping speed is 3-12 Times/second can be adjusted, timed for 8 hours at any time, and 10 sets of parameters can be stored for experiment calling; in order to facilitate more needs of customers, the DW-11 model has the functions of working cabin heating and 265nm ultraviolet light disinfection. The functions and parameters of the three models are as follows:

	Function/ parameter	DW-04	DW-09	DW-11
1	Display	5 inch touch screen	5 inch touch screen	
2	Timing	30s、180s、600s OR ∞	0-8h	
3	Rap speed	6-9 times/sec	3-12 times/sec(step by 0.1 times/sec)	
4	UV disinfection	No	No	UV disinfection
5	Temperature	No	No	RT.-50°C
6	Store parameters	No	10 groups	10 groups
7	Maximum power	150W		300W
8	Liquid leakage alarm	Yes		
9	External stroke adjustment	0-20mm		
10	Effective volume	3-400ML		
11	Slap box	Stainless steel		
12	Dimensions	430 (L) *245 (W) *280 (H)		
13	Power supply	220V/50Hz		

The following instructions take DW-11 as an example to describe the operation content.

4. Structure function introduction

4.1 structure appearance



(Figure 1)

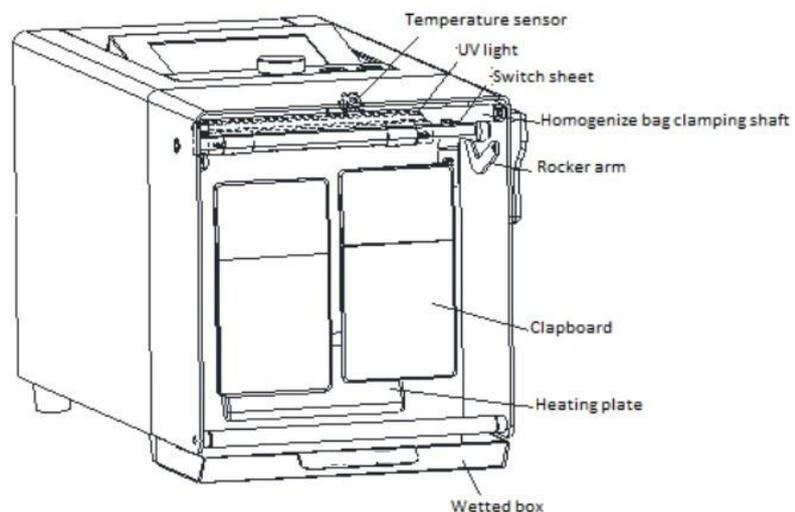
4.2 Adjustment knobs and buttons

Button function: The two buttons have the same function as the corresponding buttons in the lower right corner of the touch screen;

Adjustment button: In the standby interface, the adjustment button is used to switch programs; in the working interface, the knob adjustment knob is used for speed regulation.

4.3 Working cabin

It is a homogeneous sample studio, including a homogeneous bag clamping shaft, a telescopic shaft, a detachable flapper, and a liquid contact ; the DW-11 model also includes a heating plate, an ultraviolet lamp, and a temperature probe.



(Figure 2)

4.4 Clapboard

Repeatedly tap to homogenize the sample. The structure of the slap plate is detachable. When cleaning the working cabin, the slap plate can be removed for cleaning in the cabin.

4.4.1 Remove the slap plate

- 1) Flip up the working compartment door and place it on the upper part of the instrument, as shown in Figure 3;
- 2) Push one slap plate to maximize the distance between the two slap plates;
- 3) Put your thumb in front of the dismantling board, hold the front end of the quick connector up and down between the index and middle fingers at the rear, press the inner spring, and remove the flapping board (Figure 4).



(Figure 3)



(Figure 4)

4.4.2 Install the clapboard

- 1) Flip up the working compartment door and place it on the upper part of the instrument, as shown in Figure 3;
- 2) Push one telescopic shaft to maximize the distance between the two telescopic shafts;
- 3) Put your thumb in front of the slap plate, hold the front end of the quick plug up and down between the index and middle fingers at the back, press the inner spring, the slap plate is vertical (the folded edge is at the top), insert it into the bottom of the telescopic shaft, release the index thumb and middle finger;
- 4) Confirm that the quick plug of the slap plate springs back to the original position, try to pull the slap plate without loosening, and the slap plate is installed.

4.5 Knob for adjusting the stroke

The stroke of the slap can be adjusted according to the size of the sample and the amount of the sample. The method is as follows: Rotate the stroke adjustment knob at the rear of the instrument to increase the distance between the slap plate and the visual window clockwise, and decrease the distance between the slap plate and the visual window counterclockwise (adjust the stroke by 1mm per turn).

If the adjustment is more forceful, you can unscrew the afterburner lever and lengthen the lever arm to reduce the force; after use, you need to retract the extension lever and rotate it for one turn to fix it on the knob to prevent vibration noise during movement.

4.6 Wetted box

Located in the lower part of the working compartment, when the sample drops into the wetted box after the homogeneous bag is broken, the instrument will alarm and stop working, reducing sample waste and avoiding contamination of the desktop.

How to use the wetted box:

Put the liquid contact box on the desktop (Figure 5), the left and right small ears are located inside the working compartment frame (Figure 6), push it to the bottom, and insert the two PIN pins into the PIN needle seat (Figure 7).



(Figure 5)



(Figure 6)



(Figure 7)

5. Steps

5.1 Operation interface

5.1.1 Power on

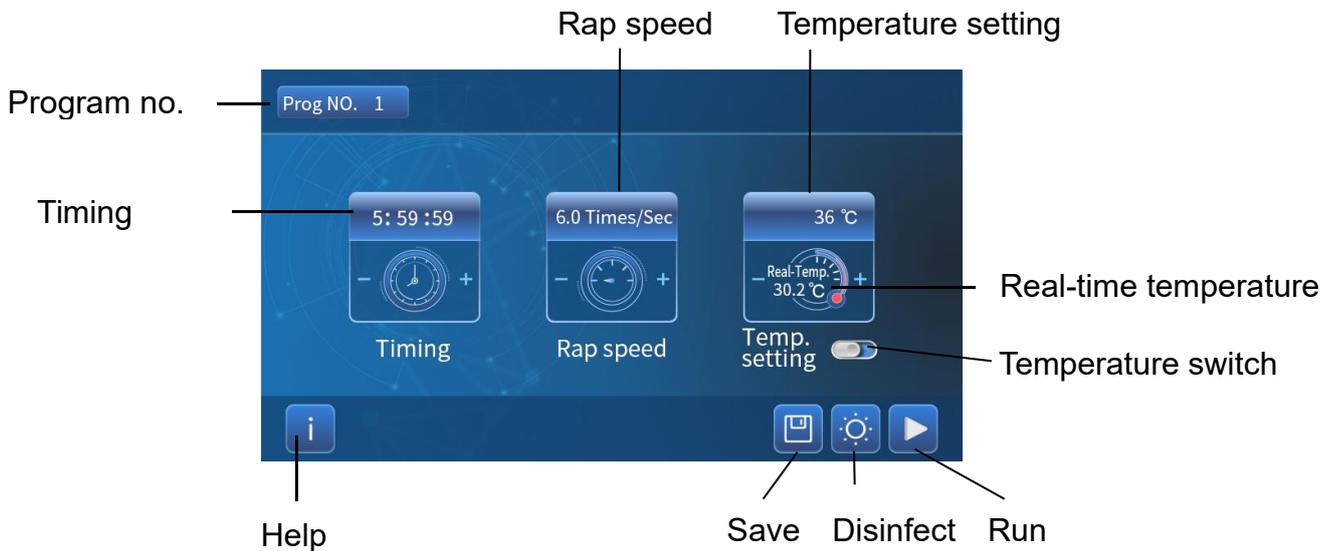
Insert the power supply (AC220V, 50Hz), turn on the power supply, the device

starts and enters the startup interface



(Boot interface)

After 2S, it will automatically jump to the standby interface.



(Standby interface)

Prog NO. 1 : Click the button of program number to change the stored programs in sequence, or turn the knob to switch programs.

Save : Save, press "+" and "-" on the interface to change the duration of the beat, the rate of beat, and the target temperature. After setting, press to save the parameters to the corresponding program number.

Disinfect : Disinfect, Press the disinfection button to enter the disinfection interface for 5 minutes of regular disinfection, and the corresponding mechanical button has the same function.

Run : Run, Press the run key to enter the corresponding slap running interface, and the

corresponding mechanical key has the same function.



: Temperature switch, The switch color blue is the temperature control open state, and the working cabin starts to heat to the target temperature; the switch color red is the temperature detection closed state, and the heating in the cabin stops.

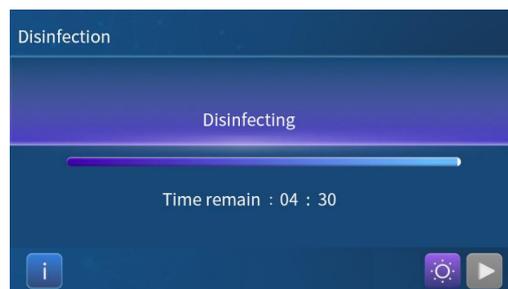


: Help, Press the help key to enter the help interface.

5.1.2 Disinfect

In the standby state with the door closed, press  to enter the disinfection interface, perform regular disinfection for 5 minutes, press  again to stop disinfection, and press  to return to the standby interface.

Note: Ultraviolet rays are harmful to the human body and sample activity. Please take out the sample and close the door during disinfection.



(UV disinfection interface)

5.1.3 Rap

When the door is closed and standby, press  to enter the corresponding program number running interface, the slap duration shows the remaining time, the slap speed shows the current slap speed, the temperature control target temperature is turned on, the target temperature is displayed above the icon, and the real-time temperature in the cabin is displayed in the middle of the icon. .



(Running interface)

Stop Pause



(Pause interface)

Stop Pause

: Pause, press during operation, tap to pause, enter  the pause interface.

: Run, press  during the pause to continue the slap operation.

: Stop the program and return to the standby interface; press  in the pause or running state to stop the current program and return to the standby interface.

5.2 Steps

- 1) Put the sample to be processed into a sterile homogeneous bag, discharge the gas in the bag, and seal the homogeneous bag;
- 2) Rotate the door switch clockwise to open the door, lay the mouth of the sterile homogeneous bag flat on the door (the lower edge of the homogeneous bag is not lower than the lower edge of the slap plate), turn the door switch counterclockwise, and close the door;
- 3) Select an existing program or reset the parameters to run the program;
- 4) When the timer expires, the program stops automatically, the door of the homogenizer is opened, the sample is taken out, and the operation is completed.

6. Notes

1. Before the machine is running, please check whether there are foreign objects in the homogenizing box to avoid malfunction and damage to the homogenizing bag during work.
2. Hard lumps, bone-like and ice-like substances should not be used, so as not to damage the homogeneous bag.
3. The power plug must be firmly inserted. If it is loose, re-plug the power supply and restart after 3 minutes.
4. Please do not open the door of the homogenizer during slap operation. If you need to stop, you can press / to pause or stop. Please pay attention to the drop of the homogenizer bag when opening the door.
5. Do not put your hand in from the bottom when the instrument is running, so as not to twist your fingers.
6. When cleaning the interior, it is necessary to cut off the power supply, and at the same time, it is necessary to prevent the heating plate from being cold and scalding the fingers.
7. After the liquid leakage alarm, it is necessary to clean up the liquid in the liquid

contact box, so as to avoid the continuous alarm and fail to work normally.

8. The instrument and the homogeneous bag should be stored in a cool place away from direct sunlight to avoid aging.
9. After the instrument is used, cut off the power supply and unplug it.

7. Instrument maintenance

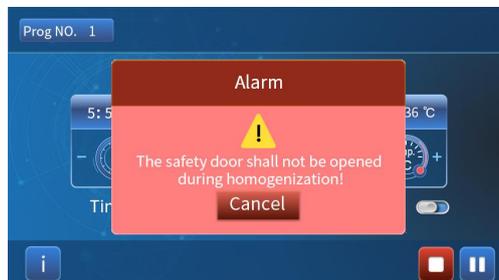
After operation, use a clean rag to wipe the instrument shell, inner box and clipboard;

After the homogeneous bag is damaged, wipe the inner box and slap plate with a clean rag to prevent contamination.

Note: When cleaning, cut off the power supply, and pay attention to the fact that the heating plate is not cold enough to burn your fingers.

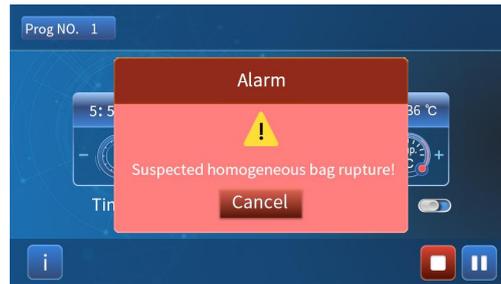
8. Instrument failure and troubleshooting

1. After turning on the power, there is no display on the display, you should check whether the power supply is connected normally and whether the fuse is in good condition.
2. The sound of the instrument is abnormal, check whether the connecting bolts and the slap plate are loose. After long-term work, if the lubricating rod and sleeve are dry, clean up and add new grease in time.
3. If the following alarms occur, it is necessary to clear the alarms before continuing the operation.
 - 1) Door not closed alarm



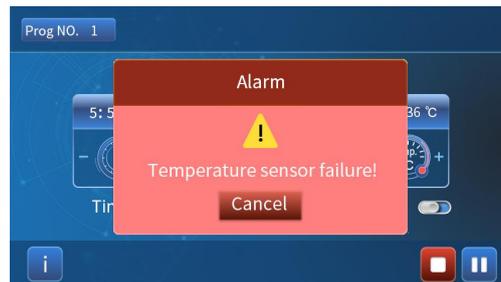
(Do not close alarm interface)

- 2) Liquid leakage alarm



(Homogeneous bag rupture and leakage alarm interface)

3) Temperature sensor abnormal alarm



(Temperature sensor abnormal interface)

9. Packing List

Host	1set
Power cable	1pc
Sterile homogenizing bags	100pcs (2 bags)
Sample holder	1pc
Homogeneous bag clip	4pcs(1 bag)
Fuses 3A	2pcs
Slap cover	2pcs
Water tray	1pc
Manual	1pc

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