

Operation Manual
Nahita Paddle Blender
Code ZHB002



1. Working principle and application

The original state of microbial samples may be block, paste, powder, etc., all of which must be made into fine liquid samples to facilitate microbial analysis and inoculation. The working principle of this instrument is as follows: the original sample (large sample shall be cut into a block of about 10×10 mm), put into a homogenizing bag with some liquid or solvent, and hammer it repeatedly on the homogenizing bag with the hammer plate of this instrument, generating pressure, causing oscillation and accelerating mixing, so as to achieve the uniform distribution of microbial components in the solution. This instrument is suitable for the homogenization treatment of brain, kidney, liver, spleen and other tissues and microorganisms. It is widely used in the fields of food industry, medicine, toxicology, pharma, cosmetics and environmental analysis.

Using of sterile homogeneous sample bags, made of special materials, allow aseptic processing (non-sterile bag users should perform sterilization to ensure sterility). Through the blender along the rail for the clamping of the seal on the door can avoid the overflow of bag content. The homogenization speed can be programmed 3~12 times per second and the homogenization time can be set as 1 second ~100 hours. Users can make reasonable choices according to the sample and solvent conditions to achieve the best homogenization effect. For example, the liver of mice and rats was set regularly for 3 minutes at a moderate speed of 6~10 times per second.

2. Features

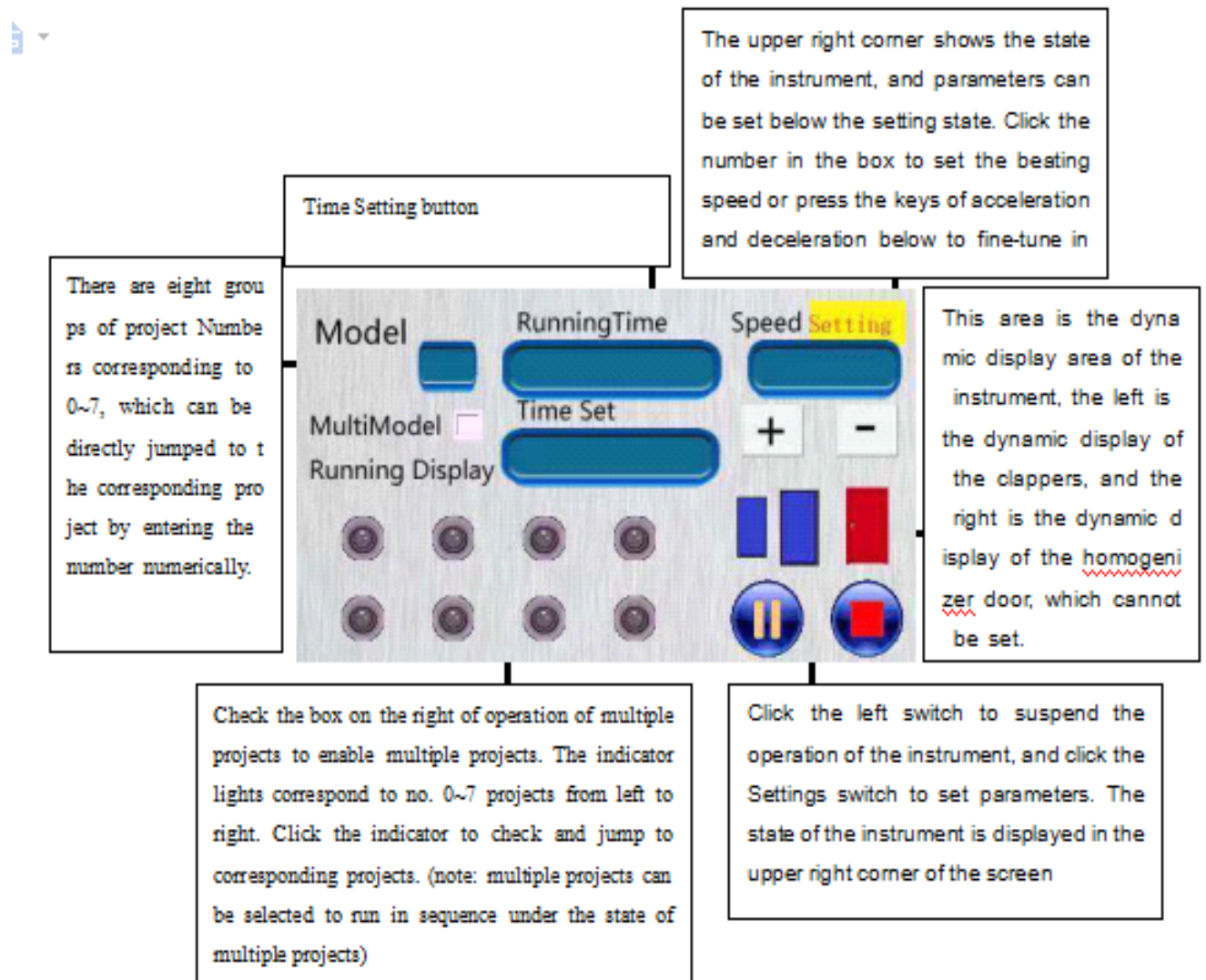
This instrument makes the process of extracting bacteria, cell tissue and other substances from solid samples very simple. You only need to add the samples and diluents to the special sterile sample bag, and then put them into the blender. After the door is closed, the simple setting will automatically start beating homogenization and complete the sample processing. The device

effectively separates particles contained within and on the surface of solid samples and ensures that samples mixed in sterile bags are sufficiently representative. Disposable sterile homogenization bags can be used to eliminate tedious cleaning after work and can effectively prevent cross-contamination and protect the safety of operators. There are 8 operating modes, programmable with different combinations of speed and time. It is possible to run several or all operating modes consecutively.

3. Main technical parameters

1. Capacity: 3-400 mL
2. Timer: 1 second ~100 hours
3. Paddle speed: 3~12 times/second
4. Adjustable flapping distance: 0~50mm (the black plastic knob on the back of the instrument can adjust the squeezing force of the flapping plate according to the amount of samples, and it is not recommended to adjust it too close to the front, generally it can be intuitively seen that the sample is obviously squeezed when flapping).
5. Overall dimension: 420×230×330mm
6. Operating environment temperature: 0~35°C
7. Net weight: 19kg
8. Power supply - Power: 220V/50Hz – 200 W
9. Size of sterile homogeneous bag: 17×30cm
10. Display mode: 4.3-inch touch screen display
11. End alarm function: yes

4. Description of buttons



5. Operating Steps and Setting

Place the homogenizer on the table smoothly near the power supply.

1. Connect the power cord to the socket at the back of the machine and plug it into the external output socket. Turn on the power switch.
2. There is a black plastic knob in the middle position of the bottom of the instrument. When the sample quantity is large, the distance between the clapping plate and the sample can be adjusted counterclockwise (rotate to the left), while when the sample quantity is small, it can be adjusted clockwise

(rotate to the right).

3. Check and confirm whether the groove along the bottom of the blender door is buckled onto the bar at the bottom of the blender box and turn the door handle to open the door to the maximum; the screen shows icon "open door". Place homogeneous bag under basic parallel to the border under the hammer plate plane (when the sample is less than 100 ml, homogeneous bag under border best is higher than the panting plate plane 1-2 cm, in order to prevent the homogeneous bag burst). The edge of homogeneous mouth should be above the door cover, the mouth does not wrinkle. Turn the door handle; the screen shows icon "closed door". At this point, the door and upper rail squeeze and clamp the homogeneous bag, making it sealed.

4. According to the need to homogenize the sample select speed and time; each button will have sound prompt. The screen on the yellow box displays "Setting". Click on one project, click "Speed" box, set flapping frequency, and then click "Time Set", set time according to the requirements of the samples within a box. After setting, click the "Run/Pause" key. At this time, the box on the upper right of the screen will display the running state. The dynamic display of the screen clapper is on and the instrument starts to work. Reach the set time, "di" sound, machine stop working. Press the "Run/Pause" button again to run again. If in multi-project mode, the screen will automatically display the parameters of the next group after sound after running a single group of programs and run this group of parameters until the checked program is finished. In the running process, there is a door opening action, the screen shows the door opening and enter the pause state. After closing the door, press "Run/Pause" again to start working.

5. Hold the upper edge of the homogenizing bag with the left hand, open the blender door with the right hand, take out the homogenizing bag, and finish the work once. If the sample is contaminated, use special tools to extract homogenizing bag.

6. If you need to suspend or terminate the operation during the working period of the device, press the "Run/Pause" button and the hammering board will stop working immediately.

7. For safety reasons when the blender door is opened in the middle of operation, the instrument will automatically stop working and the liquid crystal screen will display the current state to prevent finger injury.

6. Notes

(1) The power plug must be inserted tightly in place, which may affect the computer controller and cause the crash. If the crash occurs, please turn off the power switch at the back side and restart after 3 minutes of shutdown.

(2) Do not open the blender door when hammering the plate, so as to avoid overflow of sample liquid. Press the "Run/Pause" button and the device will automatically stop running. When the door is closed, press "Run/Pause" and the device will automatically complete the rest of the work.

(3) If the instrument is not in use for a long time, the power should be cut off and the plug unplugged.

(4) The bottom of blender door to prevent the accidental rupture of blender bag, easy to clean overflow, the bottom design is empty, can be placed to catch water dish, so do not use the hand from the bottom of the operation of the instrument, so as not to wring fingers.

(5) Before running the machine, please check whether there is any foreign matter in the blender box, so as to avoid failure and damage of homogenizing bag during operation.

(6) Hard, bone and ice materials should not be used to avoid damage to homogeneous bags.

(7) The equipment and blender bag should be kept away from direct sunlight,

especially the homogenizing bag should be stored in a place without sunlight or ultraviolet radiation to avoid aging.

(8) When the amount is small and the speed needs to be accelerated, when the homogenized fiber is tough, the back knob can be used to adjust the distance between the batting plate and the window to achieve better homogenization effect.

7. Cleaning

Wipe the shell of the instrument and the hammering board inside the homogenizing box with a clean cloth, especially after the homogenizing bag is damaged, the power supply must be cut off when carrying out this work.

8. Homogenizer maintenance

(1) When the instrument does not operate under the condition that the box door is closed tightly, check whether the power supply is normally connected and whether the fuse is intact if there is no display on the LCD screen.

(2) Abnormal operation sound of the instrument, check whether the connecting bolts, springs or slapping plates are loose. After a long period of work, if the machine inside the spring, nylon sleeve lubrication dry to clean and add new grease (generally 3-6 months).

9. Packing list

| | |
|-------------------------|-----|
| Host | 1 |
| The power line | 1 |
| Sterile homogeneous bag | 100 |
| Fuses 3A | 2 |

Door handle 1

Manual 1