

# KSB-5200DTN

## Ultrasonic Cleaner Operation Manual



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Human · Passion · Creation

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# Welcome to use our products

This machine is used for cleaning medical instruments as usually, but it also can used for cleaning glasses, jewelry, gold, silver, metal parts and etc. in our daily use.

One part of the product

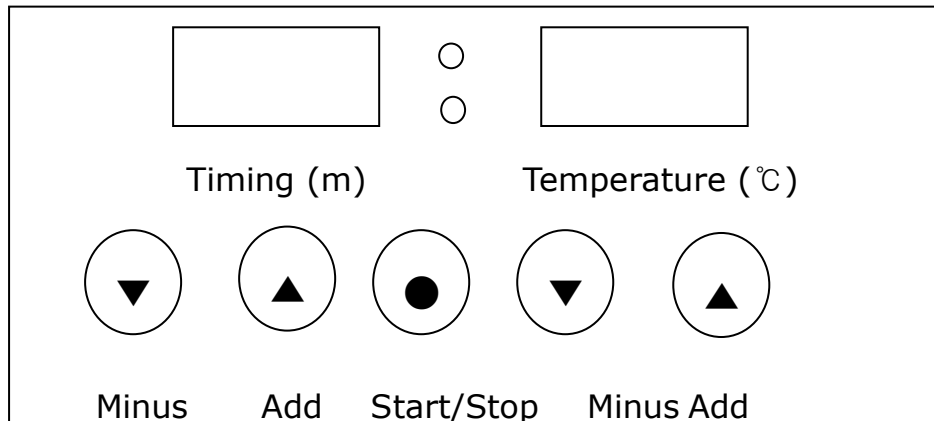
Model	Inner Tank L/W/H (mm)	Frequency (KHZ)	Power (W)	Heating Power (W)	Drainage	LED	Rack
KSB-5200DTN	300•240•150	40	300	320	Yes	Yes	Yes

## Use Method:

1. 3-core receptacle (phase line, zero line and ground line) is used for power of ultrasonic wave washing machine.
2. Add washing solution or water in washing barrel Elevation of solution or water shall be at two third of upper edge of washing barrel. When washing the articles 10cm above net basket, add washing agent according to different washing requirement to strengthen washing effect; washing agent shall not corrode internal barrel and shell of the machine, strong acid and alkali is prohibited to be used as washing agent.
3. Put articles to be washed into washing barrel with basket and set washing time according to dirt of articles to be cleaned, generally 3-30 minutes; for articles difficult to clean, washing time shall be extended appropriately.(It is prohibited to put articles to be cleaned into washing barrel directly).
4. Insert power plug of ultrasonic washing machine into 220V three core receptacle and push power switch(as following operation interface sketch) to set operation time of ultrasonic wave. Push "start/stop" button, and then ultrasonic wave starts to work, solution surface will fluctuate in spider web shape and vibration sound can be heard, which indicates the washing machine enters work status. Push "start/stop" button again to the operation of ultrasonic wave.
5. Heavy articles shall be hung in cleaning solution with hanging tool.

### Timing by using LED Computer:

1. Technical parameters:
  - (1) Time setting scope: 1-99 minute
  - (2) Temperature setting scope: 0—80°C
  - (3) Temperature operation scope: Ambient—80°C
2. Operation methods: display and buttons are as follows:



Turn on the power to set operation time of ultrasonic wave: push button "Add" on the left side to increase number, and push button "Minus" on the left side to decrease number, so as to set operation time of ultrasonic wave. To set temperature, push button "Add" on the right side to increase number and push button "Minus" on the right side to decrease number (when set temperature is higher than that in barrel, heating function will be activated, and heating indicator will be in red; when set temperature is lower than that in barrel, which means that temperature has already reached required value, indicator will be on green). If you want to stop ultrasonic operation, push start/stop button again; if you want to stop heating, push the Minus and add buttons at the same time once.

In the operation status of ultrasonic wave, temperature and time can be set; the user shall push start/stop button to stop the operation of ultrasonic wave, revise time and temperature as your requirement, push start/stop button to start work again. When operation of ultrasonic wave terminates, but temperature time has not reached set value, so that ultrasonic wave stops to work, while heating function will keep running until set time is reached. If the user intends to stop heating function, he only needs to turn off the power.

### Precautions for safety:

1. Before using, please read operational instruction carefully.
2. Before using the washing machine, make sure there's a reliable earthing device.
3. Kindling and firework are prohibited in work site; it is forbidden to place the machine under the direct sunlight.

Note: when alcohol, acetone, gasoline and other volatile and combustible liquids are used, the machine shall be covered and especially caution shall be utilized.

4. Do not make the temperature of washing agent over 60°C, normally; it shall be operated at ambient temperature or at intermediate temperature.
5. Do not start up the machine or set it in heating mode without washing liquid in barrel, to avoid damage of washing machine.
6. When the user intends to stop using the machine for a long time, he shall discharge the washing solution in barrel and clean the machine body entirely.
7. Washing machine shall be used in dry and clean room; using the machine in moisture, polluted place or a place with direct sun is strictly prohibited.

### Cleaning liquid for your reference:

Please choose the suitable data for you to get the best cleaning effect as below:

Cleaning item	Scour name	Cleaning liquid thickness
Mechanism parts	1. Industry scour	1. 5-10% or as you need;
Metal parts	2. Industry ultrasonic cleaner scour	2. coal oil, diesel oil 100%
Metal scraps	3. coal oil, diesel oil, alcohol and etc.	3. alcohol and etc. solvent
Metal oxide		20-30%
Rust		
watch chain	Scour	5-10%
Polishing item	Polishing material scour	5-10%
Electrical components	Electrical components scour	5-10%
PCB board		
Optics instruments	Optics instruments scour	5-10%
Optics glass		
Magnet materials	Magnet materials scour	5-10%
Gold & silver	Jewelry scour	5-10%
Jewelry		
Platinum		

**There're many factors influencing washing effect of ultrasonic wave, mainly including:**

1. Ultrasonic power density: the higher power density is, the stronger cavity effect is, the better washing effect will be and the quicker washing speed we can obtain. For articles which are difficult to wash, large power density shall be adopted, and for precision article, small power density is more suitable (normally ultrasonic density of washing machine shall be 1-2W/cm<sup>2</sup>).
2. Ultrasonic wave frequency: the lower the frequency is, the better cavity effect will be, and the higher frequency is, the better the catadioptric effect will be. For simple surface, low frequency shall be adopted, while for complicated surfaces and deep holes, high frequency is suitable (20 KHz, 28 KHz, 40 KHz, 60 KHz, 80 KHz).
3. Cavity effect of ultrasonic wave is best at 40°C ~ 50°C, when temperature continues to rise, dirt is easier to dissolve, and when temperature reaches 70°C ~ 80°C, it will influence operation of ultrasonic wave, so that cleaning effect will be worsen and use life of machine will be impacted.
4. Washing time: the longer the washing time is, the better washing effect will be, except special material.

**Maintenance**

The machine is expensive equipment, which shall be maintained and used by full-time personnel. Moreover, it shall be inspected completely within required period.

- a) Inspect power and output wire, to avoid loose, overheating, moisture and improper contact.
- b) Inspect if cooling air blower of ultrasonic wave power is rotating.
- c) Inspect if there's any leakage in washing barrel, and inspect there's no leakage between washing barrel and water discharge outlet.
- d) Contact the manufacturer immediately if ultrasonic wave vibrator drops or power tube is burnt.
- e) Do not use washing solution of strong acid and alkali, to avoid corrosion of inside barrel of washing machine.

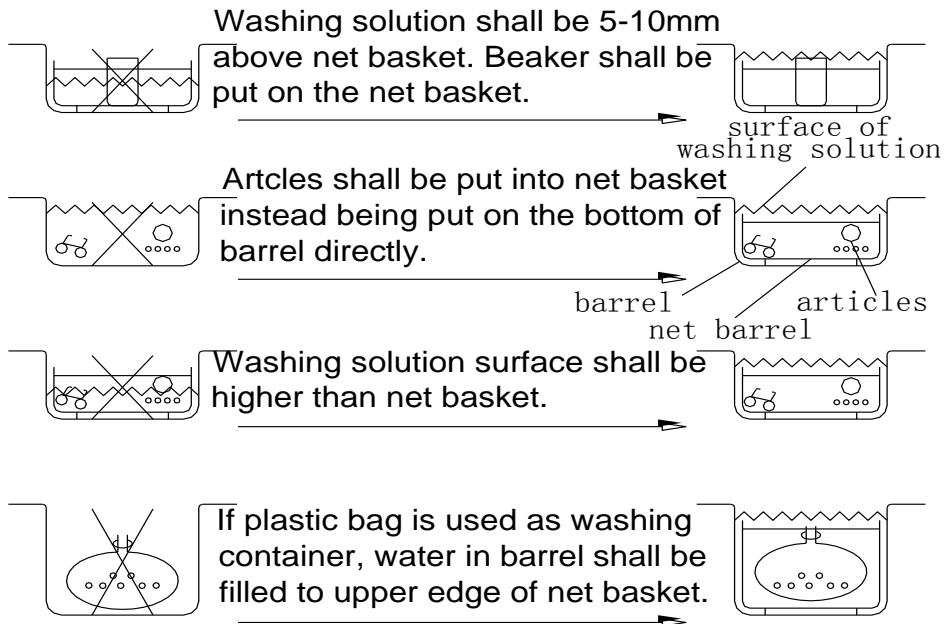
Caution:

1. Please read the operation instruction before operate the machine.
2. Don't put into the tank to clean directly, please put into the basket at firstly.
3. Power supply must with ground cable.
4. Please keep far away from the fire when working, please be very carefully when you using alcohol, acetone, gas and etc. as the cleaning liquid.
5. Advice set the temperature lower than 60°C as usually.
6. Don't operate the machine if there is no water or other cleaning liquid in the tank.
7. When you want to use cauterization liquid to clean something, please fill in a glass tank firstly, then put the glass tank into the ultrasonic cleaner tank. Please never fill in cauterization liquid into the ultrasonic cleaner tank directly.
8. Please keep the tank clean and dry when you do not need the machine for a long time.

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## Read before operation

Improper use method will damage the machine.  
Please read following use method carefully to  
maintain the optimum status of your machine.



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Solution surface of machine of heating model shall be at least 10mm above net basket.

When the user changes the washing solution, put some a littel washing agent to decrease degas time. Alcohol、acetone、gasoline、acid and alkali and other corrosive solution are prohibited to put into the barrel directly.

### ■ Packing list

- |                          |      |
|--------------------------|------|
| 1. Cleaner               | 1set |
| 2. Web basket            | 1pc  |
| 3. Operating instruction | 1pc  |
| 4. Cover                 | 1pc  |