

Ultrasonic Cleaning Machine Operation Manual





WARNING: Read carefully and understand all INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

I. General Introduction

YJ series ultrasonic cleaning machines, introducing foreign advanced technology and equipment, were developed by technologists through many years of researches.

The ultrasonic cleaning machine made by our factory is widely used in fields like hospitals, pharmacies, schools, scientific researches, petroleum, chemical industry, light industry, metallurgy, machines, transportations, national defenses etc. Currently it's an ideal, efficient and accurate cleaning equipment to clean thoroughly the instrument, meter, electronic device, circuit board, silicon dice of a semiconductor, magnetic material, galvanized parts, hardware, optical lens, audio-frequency magnetic head, terylene filtering core, spinneret, latex mold, medical apparatus, glassware, bijouterie, parts of a clock and watch, fine metal, bearing, nozzle, oil pump and parts in manufacturing machine and some shape-complicated parts, especially the deep hole, blind hole and concavo-convex surfaces.

II. Working Principle

The ultra-audio-frequency electric signal produced by the ultrasonic generator in a ultrasonic cleaning machine is conversed to the mechanical vibration with the same frequency through the piezoelectric inverse-transforming effect of the transducer, and then it will radiate forward intensively in the cleaning solution in the form of ultra-audio-frequency longitudinal wave(The ultra-audio frequency longitudinal wave spreads alternatively between zones of negative pressure and positive pressure), producing ten thousands of small bubbles to

explode in turn. It's these small bubbles which form and grow in the zone of negative pressure, and explode instantaneously in the zone of positive pressure, to strike with high pressure the surface, gap, and small local of a cavity to be washed, leading to peeling off of fouling quickly, thus the good cleaning and purifying effect can be reached.

III. Technological specifications:

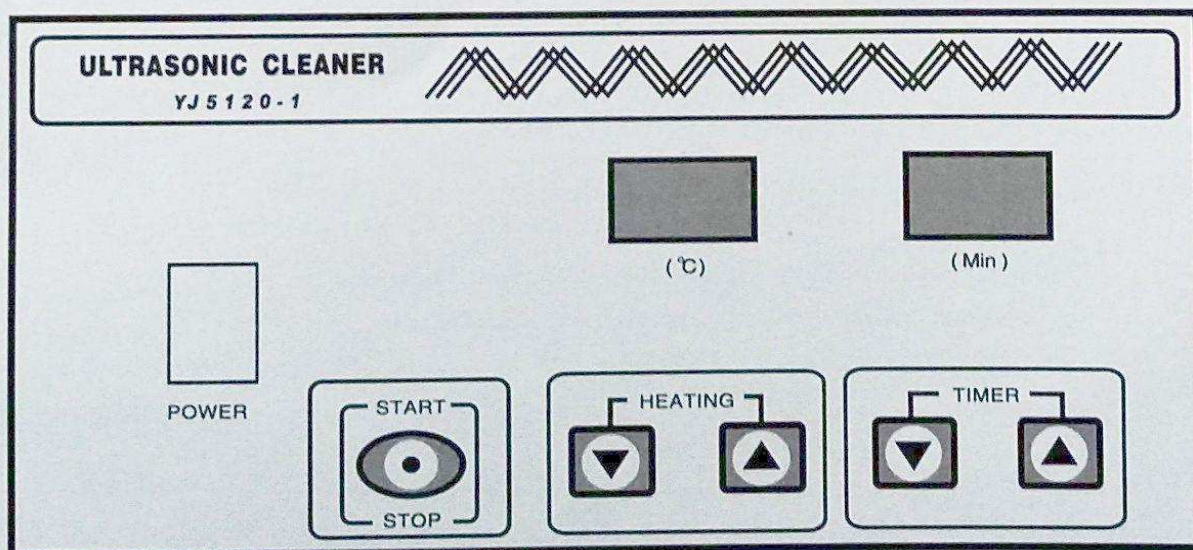
LUT	Model	Size of internal SxWxH (mm)	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Range of temp (°C)	Adjustable Time (min)	Drainage
	5120	240x140x150	5	40	120	0-80	1-99	YES
		500x150x150	10	40	300	0-80	1-99	YES
	✓	240x140x100	3	40	120	0-80	1-99	NO
		240x140x150	5	40	180	0-80	1-99	YES
		300x155x100	4	40	180	0-80	1-99	YES
		300x155x150	6	40	180	0-80	1-99	YES
		300x240x150	10	40	360	0-80	1-99	YES
		300x240x150	10	40	240	0-80	1-99	YES
		300x240x150	10	40	300	0-80	1-99	YES
		300x240x200	14	40	400	0-80	1-99	YES
		500x300x150	22	40	500	0-80	1-99	YES
		500x300x150	22	40	600	0-80	1-99	YES
		500x300x200	30	40	720	0-80	1-99	YES

IV. Operation methods

1. Check the grounding wire of the ultrasonic cleaning machine and power line is in good condition (electricity leaking exists or not).
2. The cleaning solution can be put into the cleaning slot. When cleaning, level of the solution can't be below one third of the height of the cleaning slot, above two thirds of the cleaning slot. You should add different detergents according to different cleaning requirements, thus to increase cleaning efficiency. All detergents should not fret the inferior slot and the body of the cleaning machine.
3. Insert the plug of the ultrasonic cleaning machine into the power socket of

220V-240VAC 50/60 Hz ☒ , 110VAC 60Hz ☐ , rotate the switch of the timing controller and the indicator will be on. When the surface of the solution fluctuates like a spider web with noise, it means that the cleaning machine is working.

4. According to the cleaning requirement, set the cleaning temperature.
5. Put things to be washed into the mental frame, and set the cleaning time according to the real situation of fouling accumulation. Normally the time can be set between 3-30 minutes, and the time can be prolonged for things which are especially difficult to be cleaned.
6. For heavy articles, suspend it through a hanger in the cleaning solution to increase the cleaning effect, heighten the cleaning quality.
7. Take the article to be washed out; rewash or rinse with the ultrasonic machine.
8. If you don't use the machine for a long time, you should drain the cleaning solution in the slot out, and clean the body of the machine.





V. Temperature-controlling timing on the LED

1. Set the ultrasonic cleaning time(99 minutes);
2. Press “increase” or “deduce” to set needed cleaning time;
3. Set the temperature(0 ~80°C);
4. Press “increase” or “deduce” to set the temperature the of needed cleaning solution;
5. Press “STAR/STOP” key to start the machine to work.

VI.Warnings

1. Please read this operation manual carefully before using the machine;
2. The reliable grounding device must be equipped before you use the cleaning machine;
3. No kindling material or naked burning fire on the working spot;
4. Take care to use a cover when using a volatile or combustible solution such

as spirits of wine, acetone and gasoline.

5. Don't let the temperature of cleaning solution reach 80°C. Generally the temperature should be normal or moderate;
6. Never start the machine and heat when there is no cleaning solution in the slot, for fear that the cleaning machine is damaged without load.
7. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless the have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
8. Children should be supervised to ensure that they do not play with the appliance.

VII. Service and maintenance

This machine is very valuable, so a special man should be assigned to be responsible for operation, service and maintenance. Thorough checking to the machine should be done periodically.

- a) Check the looseness, overheating, dampness and the contact of every connection of the power and the output line;
- b) Check the mesh enclosure of the power cooling fan, and please remove the dust on it;
- c) Check the leakage of the sealing of the supporting plate;
- d) Please contact the supplier if the ultrasonic oscillator falls off or the power tube is burned.

VIII. Packing list

Cleaning machine	1
Operation manual	1
Q.C. Pass	1
Basket	1
Power line	1

* The technology and specifications can be altered by us without notice.