Ultrasonic Cleaner

Instruction Manual

Suitable For:

◇MECHANICAL MODEL

(With knob timer and heater)

◇DIGITAL MODEL

(With digital timer and heater)

◇POWER ADJUSTABLE MODEL

(With timer, heater and adjustable power)

◇SWEEP FREQUENCY MODEL

(With timer,heater,sweep frequency,degas and power adjustable)

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Attention:

1.Please read this instruction manual before using.

2.Keep this manual for reference.

3.Empty tank working is forbidden.

4.Not allowed to use machine is not allowed to work when tank is empty.

5.Heater is forbidden when using flammable liquid(Such as alcohol, solvent cleaner etc.) to clean objects.

APPLICATIONS:

It's widely used in Electronic factory, Car work shops, Industrial mining area, Laboratories, Watch shop, Optical shops, Jewelry shops, Mobile phone repair shops and household use etc...

CAUTIONS:

Thanks for purchase our ultrasonic cleaner, please read the instruction manual carefully before operation to avoid damage to the machine or any danger to personal safety, and please keep it for reference.

*Ensure the power supply is in rated range before power cable is connected, refitting is strictly prohibited! Attention that the control panel will be eroded by organic solution, strong acid and strong alkali.

*Ensure the earth wiring is well connected before starting.

*Ensure the power key or knob is on the “OFF” place before starting.

*Do not operate if the tank is empty or ultrasonic generator will be damaged. If heating is needed, the water level shouldn’t be less than 2/3.

*Please close the lid to reduce noise and pay attention to water and steam in case of burning skin while open the lid.

*Do not relocate the machine when fluid in the tank in case of overflow.

*Suggest using water-soluble liquid for our bench-top ultrasonic cleaners. Strong acid or flammability cleaner is forbidden.

*Do not use the machine in severe environment:
-The place where temperature change fiercely.
-The place where humidity is too high and is easy to produce dew.
-The place where vibration or impact is strong.
-The place where exists corrosive gas or dust.
-The place where water,oil or chemicals splash.
-The place where is filled with explosive and flammable gas.
*Shorten the daily working time. Suggestion is to stop for a few minutes for heat dissipation after working over 10 minutes.

Attention:Heater is forbidden when using flammable liquid(Such as alcohol, solvent cleaner etc.) to clean objects.
Cleaning effect will be much better if using the machine together with proper solvent.

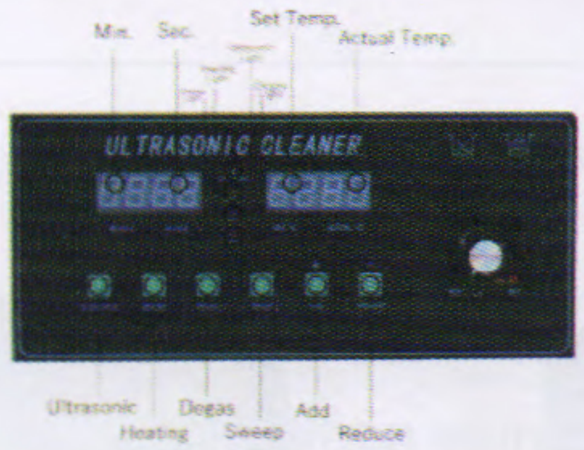
PRODUCTS DRAWING&INDICATION:

MECHANICAL KNOB TIMER WITH HEATER MODELS

DIGITAL TIMER WITH HEATER MODELS

DIGITAL TIMER WITH HEATER / POWER ADJUSTABLE MODELS

DIGITAL TIMER WITH HEATER / POWER ADJUSTABLE MODELS(NEW)



OPERATION PROCEDURE:

*Before starting the equipment, please check the machine to see if there is loosen parts.
*Keep the unit on a stable and flat working platform in dry and cool environment.
*According to the size and quantity of washing objects, add little bit detergent in the tank which can help improve the cleaning effect (**Empty tank working is forbidden**).
*Ensure correct power and switch connect before starting the equipment.

□**Operation Instructions:(Mechanical models)**

◇Start(ULTRASONIC), clockwise rotate to choose the time you required between 0-30 min. When the indicator light is on and make "ZIZIZIZIZIZI" sound, it shows ultrasonic operation work OK.

◇If need heating, start(HEATING) to adjust required temperature, normally 20-60℃ is the best.(Heating is optional upon needs) .

◇To stop cleaning.

①Press OFF once, the ultrasonic stop running, the indicator light will also be off.(**Do not stop the cleaner forcedly**).

②Rotate the heating control knob to "OFF", the indicator light will also be off.

③Then the switch off the unit and disconnect the power.

④Empty out the liquid and clean the tank and the unit with clean cloth for next use.

□**Operation Instructions:(Digital models)**

◇Timer setting:When power is connected, the default setting is "05:00". Press **TEME+** once

will increase time by 1 min. Press **TEME-** once will decrease time by 1 min.(Free choice and digital countdown control).

◇Temperature setting:(Heating is optional upon needs): When power is connected the default setting is"50℃"and actual is room temp., press **TEMP+** once, it will increase temperature by 1℃, press **TEMP-** once, it will decrease temperature by 1℃. If the setting temperature is lower than the actual tank temperature, the operation will stop automatically, when the temperature rises to the setting temperature, the indicating light goes off, when ultrasonic work, two temperature screen shows set temperature and actual temperature has been reached.

◇After set the time and temperature, press ON/OFF once, the equipment will work automatically, press ON/OFF again, the work process will stop, then switch off the unit and disconnect the power supply, empty out the liquid, clean the tank and the unit with clean cloth for next use.

□**Adjusting power:**

◇The function is only available for power adjustable models! Rotate SLOWLY the power knob clock-wise to increase the power from 40% to 100%, and counter-clockwise SLOWLY is to decrease sonic power.

□**Adjusting power (New model):**

◇ Time setting: When you press the "Ultrasonic" switch for a long time, the time value on the time display blinks, adjust the time with the "+" and "-" buttons on the display board, the set number of times and the actual number of times are displayed. Each time you press the "+" key,

the time increases by 1 minute, and each time you press the "-" key, the time decreases by 1 minute, and when the set time comes, the ultrasonic lamp goes out. In the operating state, the actual number of times flashes! It counts down until it becomes "00 00", and ultrasonic operation stops automatically.

◇ Temperature Setting: When you press the "Heating" switch for a long time, the temperature display value blinks, and adjust the temperature with the "+" and "-" buttons on the display board, the set temperature number and the actual temperature number are displayed. Each time you press the "+" key, the temperature rises by 1℃, and each time you press the "-" key, the temperature decreases by 1℃, and when the set temperature is reached, the heating lamp goes out. In the heating state, the actual temperature number flashes!

◇ Sweep: When you press the "Sweep" switch during ultrasonic operation, the ultrasonic power will be washed "cyclically" with "weak" or "strong" automatically.

◇ Degas: Pressing the "Degas" switch during ultrasonic operation, it will automatically wash by cycling between "working 10 seconds" and "stop 6 seconds".

◇ This operation can be used with output adjustable series! By turning the output adjustable knob clockwise, you can adjust the output size from 40% to 100% of the total ultrasonic power according to the scale.

MAINTENANCE:

□Maintenance

*The unit must be opened by authorized specialized person only for maintenance and care of it. Clean the contaminant in the tank frequently.

□Trouble clearing

No.	Problems	Possible causes	Solutions	Remarks
1	No ultrasonic	A.Power supply not connect B.Fuse broken C.Cable short circuit D.Transducer short circuit E.PCB board broken F.Other reasons	A.Check and plug power switch B.Check the fitted power supply and change the same specification fuse C.Connect fitted cable or replace a new D.Inquiry our after service engineer E.Check the broken part and change it F.Inquiry our after service engineer	

2	Time control failure	A.Timer knob out of control B.Timer failure C.Other reasons	A.Loosen or tighten the screw B.Replace timer or digital panel C.Inquiry our after service engineer	
3	No heating	A.Heater power switch bad linkage B.Fuse burn out C.Heating pad burn out D.Digital display board out of control E.Other reasons	A.Check heating plug and connect well,check outlet line with multimeter: if OK and resistance value is few hundred OHMs B.Change the same specification fuse C.Replace the bad heating pad if open circuit D.Check the broken part and change it E.Inquiry our after service engineer	Suggestion 20-60℃
4	Temperature control failure	A.Thermostat loosen B.Thermostat tube broken C.Digital display out of control D.Other reasons	A.Fasten the thermostat header B.Replace thermostat C.Check the broken part and change it D.Inquiry our after service engineer	

5	Not well cleaning	A.Not strong ultrasonic cleaning B.Too high too low liquid surface C.Too high too low temperature D.Not suitable cleaning liquid E.Other reasons	A.Connect ultrasonic button and adjust B.Adjust liquid into the best surface C.Adjust temperature into the most fitted D.Stop and switch off power supply, replace suitable liquid after the previous liquid cool down E.Inquiry our after service engineer	Suggestion 20-60℃
6	Electric leakage	A.Customer side not grounded B.Machine not grounded	A.To ensure grounded B.Check if machine earth wire loosen	

APPLICATION:

*Cleaning Application:

PCB, Jewelry, Electronic components, Car parts, Hardware, Metal tools, Computer parts, Laboratory instruments, Clock&Watch's bands, Eyeglasses, Contact lens, DVD&VCD&Records, Golf, Table-ware, Printer inkjet, Seal, Comb and Coins etc ....

Industry	The cleaning products and materials	Clear Dirt
Semi-conductor	Integrated circuit,power tube,silicon wafer,diode,lead frame,capillary,tray etc...	Hards, etching oil,stamping oil,polishing wax,dust particles etc...
Electrical& electronic machine	Tube parts,cathode ray tube,printed circuit board,quartz parts,electronic components ,telephone switching equipment,speaker components,power meter,LCD glass, core iron parts,computer floppy disk,video parts,hoop parts,head,photo die mask etc...	Finger print, powder,cutting oil,stamping oil,iron filings,polishing materials,walnut powder,polishing wax,resin dust etc...
Precision machine	Bearing,sewing machine parts,typewriter,textile machine,optical machine device,gas valve,watches,cameras,metal filter elements etc...	Machine cutting oil,iron filings,polishing powder,finger print,oil,grease,dirt etc...

Optical device	Glasses,lens,prism,optical lens,filter lens,glass device,film,optical fiber etc...	Plastic,resin,paraffin,finger printing etc...
Hardware& machinery parts	Bearing,gear,ball,metal shaft parts,tools, adjustable valve and cylinder parts,burner,compressors,hydraulic press,gun and ultracentrifuge,city water faucet etc...	Cutting oil,iron filings,grease,polishing powder,finger printing and so on.
Medical instrument	Medical instrument,denture etc...	Iron filings,polishing powder oil,stamping oil,dirt etc...
Electroplate	Galvanized parts,mold,stamping parts etc..	Polishing scrap iron,oil,black iron shell,rust,oxidation shell,scrap iron,polishing power,stamping oil,dirt etc...
Car parts	Piston ring,carburetor,flow meter housing,compressor shell,electrical components etc...	Iron filings,polishing powder,oil,stamping oil,dirt etc..
Chemical fiber	Chemical or artificial fiber nozzle filter protector chemical fiber texture etc...	Chemical colloid,glue,other solid material,dust etc...

SPECIFICATIONS:

MECHANIC/DIGITAL(A) MODELS(With Heater)

Model	Tank Capacity(L)	Full Tank Capacity(L)	Transducer	Time (Min)	Tepmerature (℃)	Ultrasonic Power (W)	Frequency (kHz)	Heating Power (W)	Tank Size (mm)	Unit Size (mm)
PS-08(A)	1.3L	1.0L	1	1-30 Min	Normal(20-60)℃	60	40kHz	50	150*135*65	175*160*175
PS-10(A)	2.0L	1.6L	1			80		50	150*135*100	175*165*205
PS-20(A)	3.0L	2.9L	2			120		100	240*135*100	265*165*225
PS-30(A)	6.0L	6.0L	3			180		200	300*150*150	325*175*270
PS-40(A)	10.0L	9.5L	4			240		250	300*240*150	330*270*270
PS-50(A)	14.0L	12.5L	4			300		400	300*240*200	330*265*320
PS-60(A)	15.0L	13.5L	6			360		400	330*300*150	355*325*270
PS-70(A)	19.0L	18.0L	6			420		600	330*300*200	355*325*320
PS-80(A)	22.0L	21.5L	8			480		600	488*288*150	520*325*275
PS-100(A)	30.0L	28.0L	10			600		800	488*288*200	520*325*325

DIGITAL ULTRASONIC POWER ADJUSTABLE MODELS

Model	Tank Capacity(L)	Full Tank Capacity(L)	Transducer	Time (Min)	Tepmerature (℃)	Ultrasonic Power (W)	Frequency (kHz)	Heating Power (W)	Tank Size (mm)	Unit Size (mm)
PS-20AL	3.0L	2.9L	2	1-30 Min	Normal(20-60)℃	50~120	40kHz	100	240*135*100	265*165*225
PS-30AL	6.0L	6.0L	3			70~180		200	300*150*150	325*175*270
PS-40AL	10.0L	9.5L	4			100~240		250	300*240*150	330*270*270
PS-50AL	14.0L	12.5L	4			120~300		400	300*240*200	330*265*320
PS-60AL	15.0L	13.5L	6			150~360		400	330*300*150	355*325*270
PS-70AL	19.0L	18.0L	6			120~420		600	330*300*200	355*325*320
PS-80AL	22.0L	21.5L	8			200~480		600	488*288*150	520*325*275
PS-100AL	30.0L	28.0L	10			240~600		800	488*288*200	520*325*325

DIGITAL ULTRASONIC POWER ADJUSTABLE MODELS(NEW)

Model	Tank Capacity(L)	Full Tank Capacity(L)	Transducer	Time (Min)	Tepmerature (℃)	Ultrasonic Power (W)	Frequency (kHz)	Heating Power (W)	Tank Size (mm)	Unit Size (mm)
JPS-23A	3.0L	2.9L	2	1-99 Min	Normal(20-60)℃	48~120	40kHz	100	240*135*100	265*162*265
JPS-36A	6.0L	6.0L	3			72~180		200	300*150*150	325*175*285
JPS-410A	10.0L	9.5L	4			96~240		200	300*240*150	328*265*335
JPS-514A	14.0L	12.5L	4			96~240		200	300*240*200	328*265*385
JPS-615A	15.0L	13.5L	6			144~360		300	330*300*150	355*325*335
JPS-719A	19.0L	18.0L	6			144~360		300	330*300*200	355*325*385
JPS-822A	22.0L	21.5L	8			192~480		600	488*288*150	530*325*340
JPS-1030A	30.0L	28.0L	10			240~600		600	488*288*200	530*325*380

REPLACING THE FUSE:

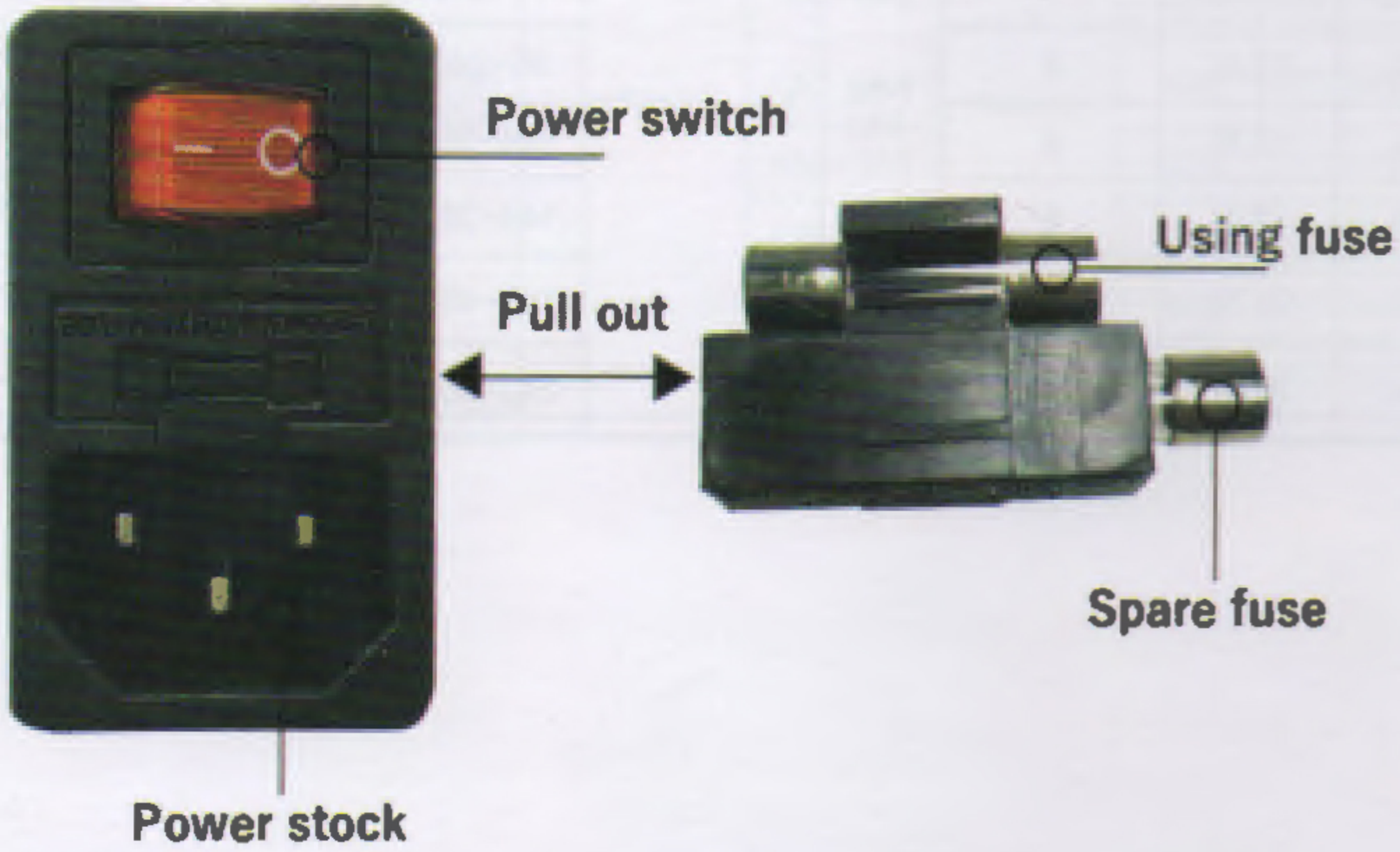
How to replace the fuse:

You can find the power switch on the rear side of the products.

1.Use a tweezers (or something sharp) to take out the spare fuse from the fuse box.

2.Find out there are two fuses, one is in the groove(Spare fuse).

3.Replace the old one with the new fuse.



About the Heating Problems:

The best cleaning temperature of this digital ultrasonic cleaner is between 20-60℃ /68-140° F, so it's okay not to use the heating function in summer. To protect the electronic components of the machine, please do not set the heating power too high despite a lower heating rate. And the heating function just plays a supplementary role in the cleaning process since the ultrasonic wave will produce heat and continuously raise the temperature. So please use the ultrasonic wave and heating function together to achieve a better heating effect. Moreover, the heating rate is relevant to room temperature and water temperature, for example, the heating rate will become much lower on a freezing winter day when the

use it in winter or late autumn when the room temperature is very low.

About the Ultrasonic Noise Problem:

The noise is related to the working principle of the digital ultrasonic cleaner. During the cleaning process, the transducer (vibrating head) keeps shaking the tank to generate cavitation with the liquid in the tank. The stainless steel tank thus makes a noise with the continuous mechanic vibration, so does the liquid when the cavitation is generated and the items are being washed. Therefore, there must be noises when the ultrasonic cleaner is working, the higher the power, the bigger the noise. But adding some cleanout fluid in the water can help to reduce the noise.