

# Instruction Manual

*The pictures in this manual are for reference only.  
Please refer to the real products.*

ZX-008 SERIES

ZX-T SERIES

ZX-S SERIES

ZX-PLUS SERIES

ZX-ST SERIES

ZX-009,ZX-010T SERIES

ZX-MECHANICAL SERIES

Please keep the instruction manual in case you need to read it.  
All pictures in this manual are renderings, please refer to the actual product received.

## **Application:**

Electronic factory, utensil, hardware, machinery, communication, biological, medical instrument, glasses, Optical, Jewelry, clock, watch, chemical, Textile, auto part, Ships, aviation, mining area, commercial cleaning.

## PREFACE OF USE

Thanks for purchase 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.

Please make sure power supply is in rated range, before plug the machine. Refitting is strictly prohibited! Attention that the control panel will be eroded by organic solution, strong acid and strong alkali.

## THE BASIC PRINCIPLE OF ULTRASONIC CLEANING

The cleaner uses ultrasonic energy (40 kHz) in the form of sound waves to create millions of tiny microscopic bubbles in the solution that even works its way into holes and hidden cavities, loosening dirt on all surfaces that the solution touches. This action called cavitation, occurs thousands of times per second to gently yet thoroughly scrub contamination off the article being cleaned. When you lift the item out of the cleaner, it's microscopically clean.

## NOTES BEFORE USE

- 1 . 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.
- 2 . Ensure the earth wiring is well connected before starting.
- 3 . Ensure the power switch should be placed in the "O" position before starting.
- 4 . 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.
- 5 . Please close the lid to reduce noise and pay attention to water and steam in case of burning skin while open the lid.
- 6 . Do not relocate the machine when fluid in the tank in case of overflow.
- 7 . Please choose the proper sizes or types of baskets according to the object to be cleaned
- 8 . It is recommended to use water-soluble cleaning agent for ultrasonic cleaning machine, and add an appropriate amount of cleaning liquid to the cleaning tank according to the cleaning needs; do not use flammable liquids/ such as alcohol, gasoline, etc., because heating and long-term vibration will cause the liquid to heat up, so beware of fire!
- 9 . Do not use the machine in severe environment :

The place where temperature changes 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;



# PRODUCT DRAWING&INDICATION

## ZX-008 SERIES



- ① Lid
- ② Tank
- ③ SUS Body
- ④ Plug

⑤ Basket

(Accessories such as cleaning baskets are shipped randomly and will change due to different production batches.)

ZX-008:



Time Reset

ZX-008T:

Screen of Counting Down



Working Light

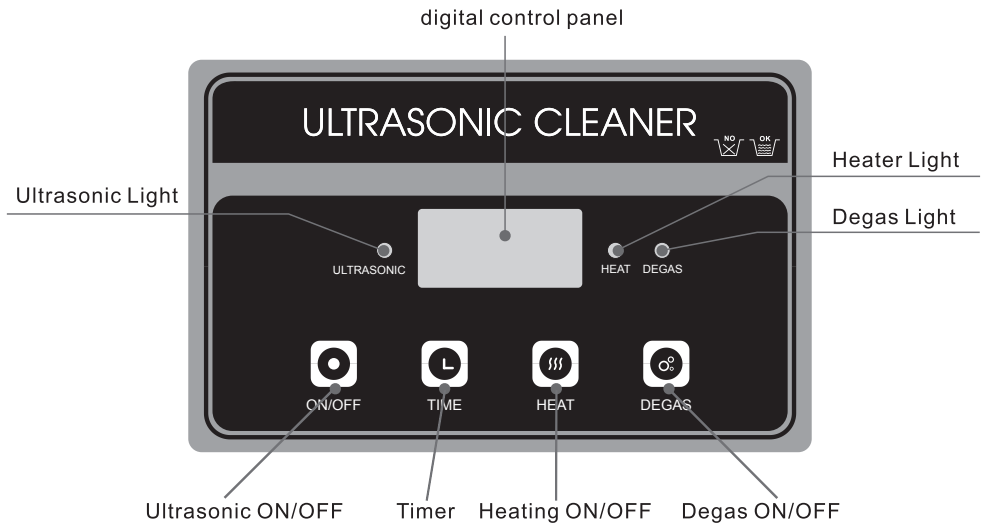
Power Light

18 Time Settings

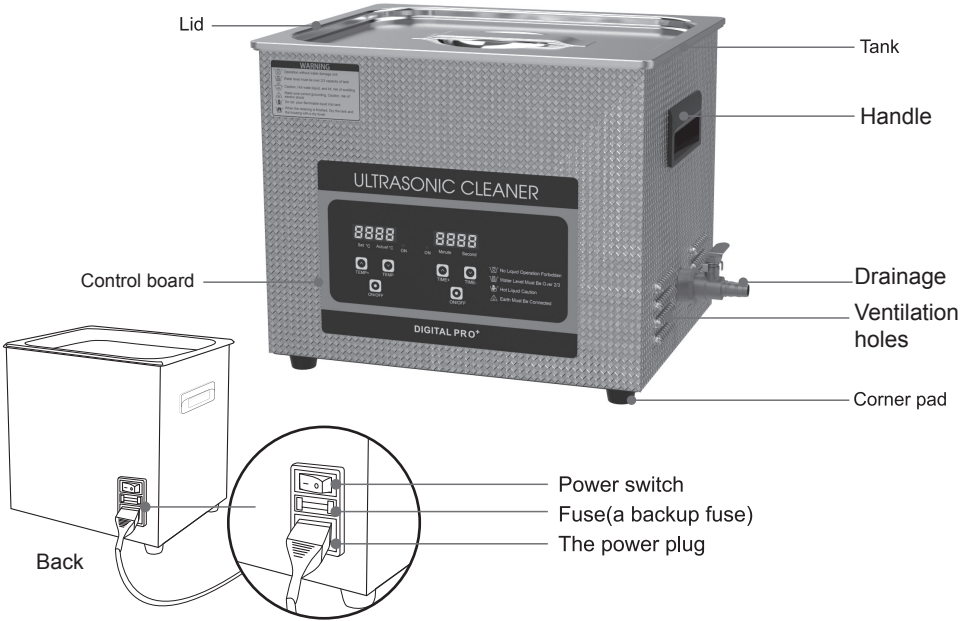
ON/Pause

Degas

ZX-009,ZX-010T SERIES



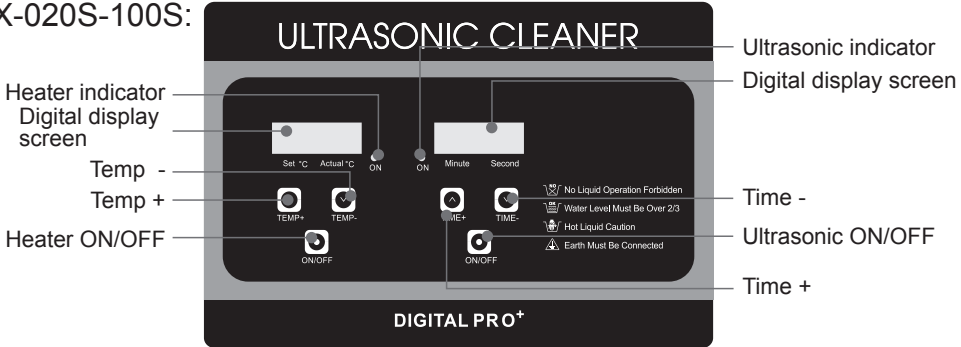
**ZX-S SERIES**



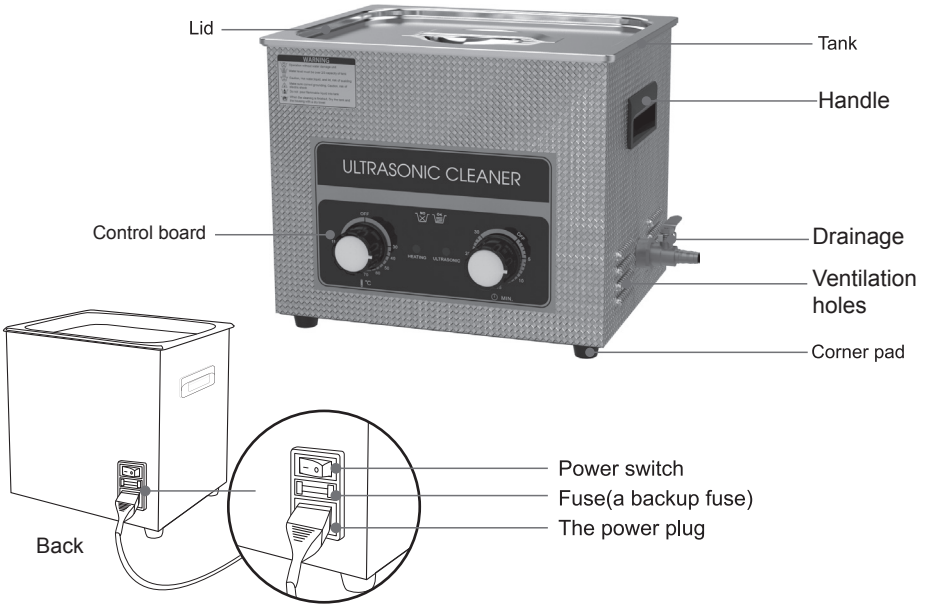
**ZX-009S-010S:**



**ZX-020S-100S:**



**ZX-MECHANICAL SERIES**



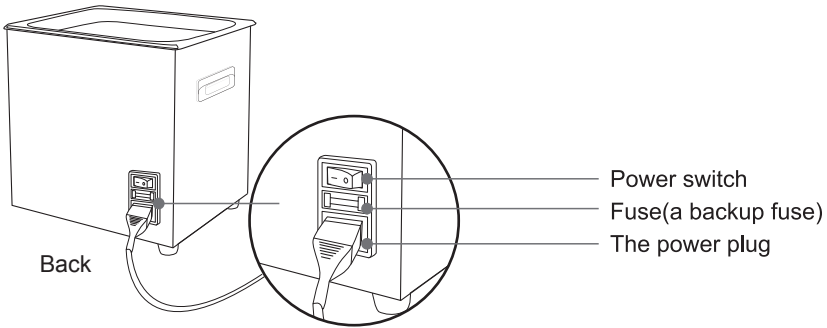
**ZX-010:**



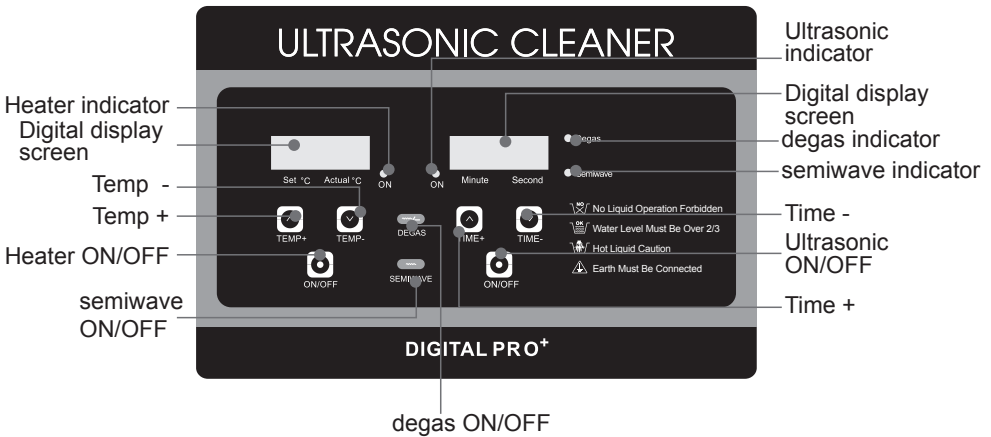
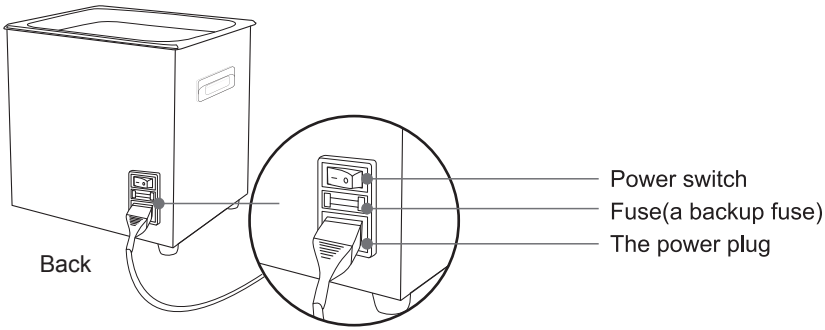
**ZX-020-100:**



# ZX-PLUS SERIES

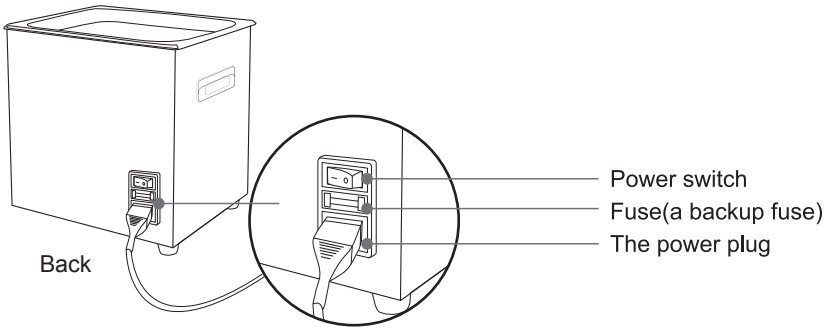


# ZX-T SERIES





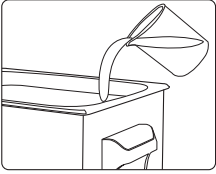
# ZX-ST SERIES



# OPERATION STEPS

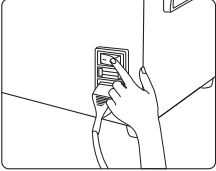
## ◆ Before Operating Your Cleaner

### 1. Add cleaning liquid



Add an appropriate amount of cleaning liquid to the cleaning tank as required for cleaning, and ensure that the liquid level is not lower than 2/3 of the height of the inner tank when the heating is turned on; Do not use flammable liquids/such as alcohol, gasoline, etc., because heating and long-term vibration will cause The liquid heats up, beware of fire! It is strictly forbidden to use strong acid and alkali corrosive liquid to avoid chemical reaction and corrosion of the inner tank!

### 2. Open power



Plug the cleaner into a grounded outlet. Turn on the power switch at the tank back, then machine is power on. ("O" is closed, and "-" is open) PLUS Series: Turn on the power , in the LOGO breathing light standby state, wake up by any operation

## ◆ Start ultrasonic cleaning



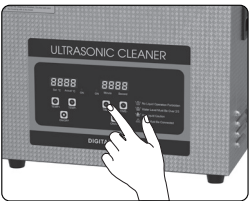
### ZX-008,ZX-008T SERIES

Press TIMER to choose the amount of time you wish the items to be cleaned. There are 18 times for option 90s,120s,150s,180s,210s,240s,270s,300s,330s,360s,540s,720s,900s,18M,21M,24M,27M,30M.



### ZX-009,ZX-010T SERIES

Set the working time, 7 setting times can be chosen: 60s, 180s, 300s, 600s, 900s,30-mins, 60-mins. Touch "ON/OFF" button after set the time well, ultrasonic light will be on and machine starts to work until the default time is over. Touch "ON/OFF" again if need to pause when working.



### ZX-S SERIES/ZX-PLUS SERIES/ZX-T SERIES/ZX-ST SERIES

For the first Boot, time display show setting time at random, press touch time key + one time, "the setting time" on the display increase by 1 minute correspondingly, Touch time - Key to decrease time setting by 1 minute. Touch ON/OFF switch after set the time well, ultrasonic indicator turns red and machine starts working based on specified the parameters, meanwhile timer begin to count down and stop working until time shows "00:00", automatically.



### ZX-MECHANICAL SERIES

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

## ◆ Heat



### ZX-MECHANICAL SERIES

If need heating, start (HEATING) to adjust required temperature, normally 40~60°C is the best. (Heating is optional upon needs).



### ZX-009, ZX-010T SERIES

Heater light will be on when touch "HEAT"; heater will be automatically off when temperature up to 65°C. Touch the button again if need pause.



### ZX-S SERIES/ZX-PLUS SERIES/ZX-T SERIES/ZX-ST SERIES

The temperature is randomly displayed at the first boot, and the temperature can be set. Each time the temperature + key is pressed, the temperature increases by 1°C, and each time the temperature - key is pressed, the temperature decreases by 1°C. After setting the temperature, press the ON/OFF button and the machine starts to heat up. When the temperature reaches the set temperature, the heating indicator light goes out.

## ◆ Adjust the power



### ZX-ST SERIES

Turn the AC power adjustment knob clockwise and adjust the power according to the scale.

## ◆ Additional functions



### ZX-PLUS SERIES

**PLUS:** Touch the "PLUS" button during machine cleaning to increase the power (this will not affect the performance of the machine) for cleaning stubborn stains.



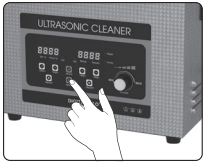
### ZX-T SERIES/ZX-008T/ZX-ST SERIES/ZX-009, ZX-010T SERIES

**DEGAS:** Press "DEGAS" button, the machine will work for 9 seconds and stop for 6 seconds.



### ZX-T SERIES

**SEMIWAVE:** Touch "SEMIWAVE" to turn on half-wave mode, and the ultrasonic power is halved. For cleaning delicate objects.



## ZX-ST SERIES

**SWEEP:** Press the "Sweep" key, the machine will enter into the sweeping working state, and the sweeping light will be on. is passed during the cleaning process, the ultrasonic frequency Sweepingback and forth within the scope of action, driving the cleaning fluid to form a fine backflow, so thatthe dirt on the workpiece is quickly removed from the workpiece while being peeled off by ultrasonicwaves.surface to improve cleaning efficiency.

### ◆ Power OFF



Presss the ultrasonic "ON/OFF" button, the ultrasonic stops and the light is off. Presss the heater "ON/OFF" button, the heating stops and the light is off. And then cut off the power, empty out the liquid, clean the tank and the unit with cloth for next use.

## PRODUCT NUMBER

Notice:

1. The size is measured by hand, please refer to the actual product.
2. The dimensions marked in this manual do not include the dimensions of the drain valve.

### >>>>> ZX-008 SERIES / ZX-009,ZX-010T SERIES <<<<<<

Model	Frequency (KHz)	Capacity (L)	Tank size(mm)	Unit size(mm)	Heating power (W)	Ultrasonic power (W)	Time(M)	Temperature(°C)
ZX-008	40	0.8	150x85x65	178x110x130	/	35	18 period	/
ZX-008T	40	0.8	150x85x65	178x110x130	/	35	18 period	/
ZX-009	40	1.3	150x135x65	175x160x175	100	60	7 period	Automatic heating to 65 degrees
ZX-010T	40	2	150x135x100	175x160x210	100	60	7 period	Automatic heating to 65 degrees

### >>>>> ZX-S SERIES <<<<<<

Model	Frequency (KHz)	Capacity (L)	Tank size(mm)	Unit size(mm)	Heating power (W)	Ultrasonic power (W)	Time(M)	Temperature(°C)
ZX-009S	40	1.3	150x135x65	175x160x175	100	60	0~30	room temp~80
ZX-010S	40	2	150x135x100	175x160x210	100	60	0~30	room temp~80
ZX-020S	40	3.2	240x135x100	265x165x220	100	120	0~30	room temp~80
ZX-030S	40	4.5	300x150x100	325x180x225	200	180	0~30	room temp~80
ZX-031S	40	6.5	300x150x150	325x180x280	200	180	0~30	room temp~80
ZX-040S	40	10	300x240x150	325x265x280	200	240	0~30	room temp~80
ZX-060S	40	15	330x300x150	360x325x285	300	360	0~30	room temp~80
ZX-080S	40	22	500x300x150	530x325x285	500	480	0~30	room temp~80
ZX-100S	40	30	500x300x200	530x325x325	500	600	0~30	room temp~80

> > > > > **ZX-PLUS SERIES** < < < < <

Model	Frequency (KHz)	Capacity (L)	Tank size(mm)	Unit size(mm)	Heating power(W)	Ultrasonic power(W)	PLUS-Ultrasonic power(W)	Time(M)	Temperature(°C)
ZX-020PLUS	40	3.2	240x135x100	265x165x220	100	120	180	0~99	room temp~80
ZX-030PLUS	40	4.5	300x150x100	325x180x225	200	180	300	0~99	room temp~80
ZX-031PLUS	40	6.5	300x150x150	325x180x280	200	180	300	0~99	room temp~80
ZX-040PLUS	40	10	300x240x150	325x265x280	200	240	480	0~99	room temp~80
ZX-060PLUS	40	15	330x300x150	360x325x285	300	360	600	0~99	room temp~80
ZX-080PLUS	40	22	500x300x150	530x325x285	500	480	840	0~99	room temp~80
ZX-100PLUS	40	30	500x300x200	530x325x325	500	600	1080	0~99	room temp~80

> > > > > **ZX-T SERIES** < < < < <

Model	Frequency (KHz)	Capacity (L)	Tank size(mm)	Unit size(mm)	Heating power (W)	Ultrasonic power (W)	Time(M)	Temperature(°C)
ZX-020T	40	3.2	240x135x100	265x165x220	100	60/120	0~30	room temp~80
ZX-030T	40	4.5	300x150x100	325x180x225	200	90/180	0~30	room temp~80
ZX-031T	40	6.5	300x150x150	325x180x280	200	90/180	0~30	room temp~80
ZX-040T	40	10	300x240x150	325x265x280	200	120/240	0~30	room temp~80
ZX-060T	40	15	330x300x150	360x325x285	300	180/360	0~30	room temp~80
ZX-080T	40	22	500x300x150	530x325x285	500	240/480	0~30	room temp~80
ZX-100T	40	30	500x300x200	530x325x325	500	300/600	0~30	room temp~80

> > > > > > **ZX-MECHANICAL SERIES** < < < < <

Model	Frequency (KHz)	Capacity (L)	Tank size(mm)	Unit size(mm)	Heating power (W)	Ultrasonic power (W)	Time(M)	Temperature(°C)
ZX-010	40	2	150x135x100	175x160x210	100	60	0~30	room temp~80
ZX-020	40	3.2	240x135x100	265x165x220	100	120	0~30	room temp~80
ZX-030	40	4.5	300x150x100	325x180x225	200	180	0~30	room temp~80
ZX-031	40	6.5	300x150x150	325x180x280	200	180	0~30	room temp~80
ZX-040	40	10	300x240x150	325x265x280	200	240	0~30	room temp~80
ZX-060	40	15	330x300x150	360x325x285	300	360	0~30	room temp~80
ZX-080	40	22	500x300x150	530x325x285	500	480	0~30	room temp~80
ZX-100	40	30	500x300x200	530x325x325	500	600	0~30	room temp~80

> > > > > > **ZX-ST SERIES** < < < < < <

Model	Frequency (KHz)	Capacity (L)	Tank size(mm)	Unit size(mm)	Heating power (W)	Ultrasonic power (W)	Time(M)	Temperature(°C)
ZX-040ST	40	10	300x240x150	325x265x280	200	0~240	0~99	room temp~80
ZX-060ST	40	15	330x300x150	360x325x285	300	0~360	0~99	room temp~80
ZX-080ST	40	22	500x300x150	530x325x285	500	0~480	0~99	room temp~80
ZX-100ST	40	30	500x300x200	530x325x325	500	0~600	0~99	room temp~80

(The above dimensions are all measured by hand, please refer to the actual product)

## APPLICATION

The full range of standard ultrasonic cleaning machines are made of high-quality stainless steel plate, which is corrosion-resistant and has a long service life. It adopts high-quality ultrasonic transducers and advanced bonding technology, with high electro-acoustic conversion efficiency and strong ultrasonic power output. Equipped with automatic constant temperature heating device, heating range: room temperature ~ 80 °C. Skymen ultrasonic cleaners are widely used in precision electronics, paints, filtration systems, watches, glass, metals, jewelry, medical equipment and other industries.

Industry	The cleaning products materials	Cleardirt
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	Fingerprint, 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 mechanical device, gas valve, watches, cameras, metal filter element, 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, copier pressors, 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 powder, 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, and other solid material, dust, etc

# MAINTENANCE

## ◆ Maintenance

Regularly use high-pressure wind blown away dust for electrical parts Clean the tank at least once a week

## ◆ Troubleshooting

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 failure B.other reasons	A.Replace timer or digital control panel B.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.Incorrect temperature setting F.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.The set temperature must be 3°C higher than the actual temperature before heating can be turned on. Please reset the temperature. F.Inquiry our after service engineer	Suggestion 50-60°C
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.too high too low liquid surface B.too high too low temperature C.Not suitable cleaning liquid D.Other reasons	A.Adjust liquid into the best surface B.Adjust temperature into the most fitted C.Stop and switch off power supply,replace suitable liquid after the previous liquid cool down D.Inquiry our after service engineer	Suggestion 50-60°C
6	Electricleakage	A.The equipment ground wire is not connected well. B.The internal live line or neutral line of the equipment falls off	A.Check whether the internal ground wire and power cable grounding of the device are connected. B.Check if the internal live wire or neutral wire of the machine is fall off.	
7	Scrap	Not repairable or discarded	According to the state related laws and designated units for discarded medical equipment	
8	Other problems		Inquiry our after service engineer	



## WARNINGS



Donot operate when tank is empty



Donot use flammable solution



Please use the ground wire correctly



Caution pollution when disposal this product.

# MAINTENANCE CARD

Ultrasonic cleaner			
EX factory date:			
Machine number:			
Work voltage			
Work current			
Rated power			
Maintenance care records			
	Maintenance care solution	replacement part	contact person
01			
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
Please contact supplier if trouble cannot be removed !			