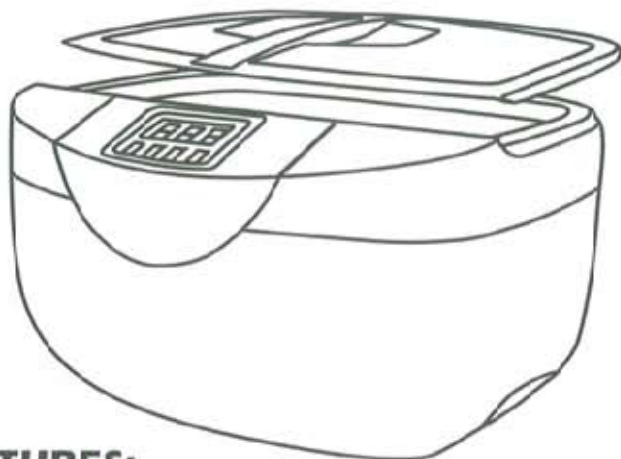


# DIGITAL ULTRASONIC CLEANER

CD-4820

## USER GUIDE



### FEATURES:

- |                                  |   |
|----------------------------------|---|
| <b>1</b> Lengthened tank         | Suitable for long dental equipment and tube;                              |
| <b>2</b> Stronger transducer     | To get better cleaning effect;  |
| <b>3</b> 5 Recycle digital timer | Choose different time to clean;   |
| <b>4</b> Heater                  | Safety and reliable with temperature (65°C) and time (45mins) controller; |
| <b>5</b> Circuit protector       | Protect the circuit to lengthen unit life;                                |
| <b>6</b> Radiator Fan            | To protect every parts in good condition after working a long time;       |
| <b>7</b> Wet-proof PCB           | Good to be used in lab;   |
| <b>8</b> Three separable wires   | Safety and convenient;  |
| <b>9</b> Industry IC             | To be steady in unstable voltage condition;                               |
| <b>10</b> Strong plastic housing | Better water-proof and drop-proof ability than metal.                     |

# INTRODUCTION

## No special solution required, only using plain tap water

Ultrasonic cleaning technology uses water as media, makes high frequency vibration releases billions of small bubbles. These bubbles breaking with power, which dropping dirt from cleaning articles safely and effectively.

## Definition of Main Feature

With 5 circle time setting and heating devise, this machine is our new generation, which has bigger capacity (2600ml), and stronger cleaning power (160w) while still easy to operate as before. Some industrial spare parts being adopted, allows its working in long time frame, and in dampness environment. In this case, the using range has been expanded.

## Read the user guide

Ultrasonic cleaners are very easy to use. Although to get the best from your new purchase, we recommend you read this User Guide before getting down to any serious cleaning. It also contains important safety information as well as practical hints.

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## SAFETY INSTRUCTIONS

**⊘ WARNING-**To reduce the risk of burns, fire or injury to persons



Do not attempt to remove any screws or panels. There are no user serviceable parts inside.



Do not fill the tank with abrasive or corrosive chemicals.



Keep the unit unplugged before filling. Do not fill water exceed "MAX" line of tank.



To avoid electric shock, never touch the power cord or socket with wet hands.



Use the unit in right way as per its user guide. Do not use attachment not recommended by the manufacture.



Never operate this unit if plug or cord is damaged. Please refer to a service center for examination and repair.



The unit would be damaged if work without water.

## SAFETY INSTRUCTIONS

**⚠ DANGER**- To reduce the risk of electrocution:



The unit should never be left unattended when plugged in.



Do not operate the unit next to heat sources such as radiators. Operate on a dry level surface.



Do not touch the unit that has been fallen into water. Unplug it immediately.



Do not swash the unit to avoid electric shock.



## WHAT CAN NOT BE CLEANED

### BIJOUTERIE

Hawksbill, Pearl, emerald,  
Ivory, Coral, Agate.

Maybe the less rigidity of hawksbill or coral will be scrubbed, color changed or brightness lost caused by the rubbing of one object or surface against another.

### PRECIOUS METAL

Soldering metal, electroplating metal, bindings

Be broken off will be happened to the unsolid point of the soldering and binding items by ultrasonic cleaning. The cracked electro plating will be enlarged after cleaning

### WATCH

Watch, Pocket watch  
(Except the waterproof watch under 30m or more)

The water will be in the watch movement of little waterproof function for the ultrasonic strong osmosis occasionally.

### OTHERS

Wood, Glass, contact lens,  
ceramic, camera colored filter.

Maybe rift of ceramic, wooden items, or laminated glasses will be enlarged by ultrasonic cleaning. (It won't be happened for the item in perfect condition).

## USE EXTENT



### (1). Jewelry manufacturer and gem store:

cleaning in-process and finishing necklaces, finger rings, earrings etc. With machine's 65 °C heating device, the polishing wax on the surface of the inprocess articles will be cleaned out.



### (2). Chemical lab:

cleaning test tube.



### (3). Dental clinique:

Cleaning dental drill, dental forceps during their sanitizing.



### (4). Family:

Cleaning nursing bottles, rubber nipples and baby tools effectively. And better and faster than other mini ultrasonic cleaner.



### (5). Restaurant:

Cleaning and maintaining high-quality engraved tableware like handle of knives, forks as well as the filter of the coffee machine, incredible cleaning effect can get.



**Remark:** To oxidative silver or tin tableware, it can't be removed with plain water. Chemical method is used for this problem. The ultrasonic cleaner is just for cleaning dirt or dust.




Be kept cleaning and storage well everyday can postpone the oxidative phenomena.






#### (6). Precision machinery repair:

cleaning pneumatic valve, hydraulic directional control valve, overflow valve, fuel injection nozzle, precision gear driving sets and bearings, the excellent cleaning result can achieve, the deepest dirt and grease inside the tiny lacuna can be cleaned out. After refresh the new lubricating grease, just like giving the new life to these parts.

## SUGGESTED APPLICATIONS

JEWELLERY	GLASSES AND TIMEPIECES	DENTALEQUIPMENT
		
Necklaces, Rings, Earrings, Bracelets etc.	Glasses, Sunglasses, Waterproof watches, Watch chains etc.	Dental forceps, Dental drill etc.

METAL PARTS	TABLEWARE	COMMODITIES
		
Bearing, Gears, Hardware, Oil nozzle etc.	Metal tableware Fork, Knife, Spoon etc.	Electric shaver heads. Dentures, Combs, Infantile articles etc.

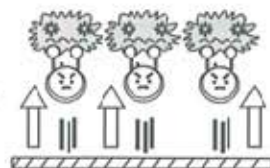
## DIRT ELIMINATION PROCESSES



Many tiny bubbles are created when ultrasonic sound is passed through liquid.

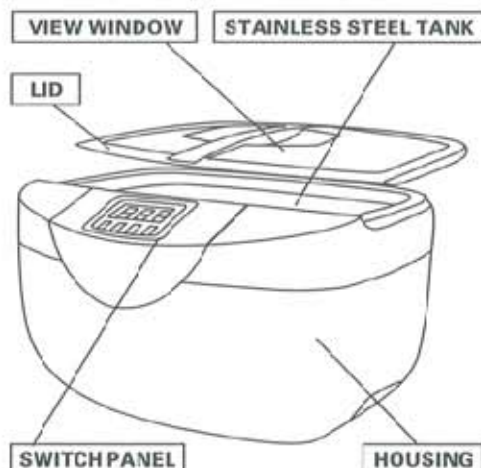
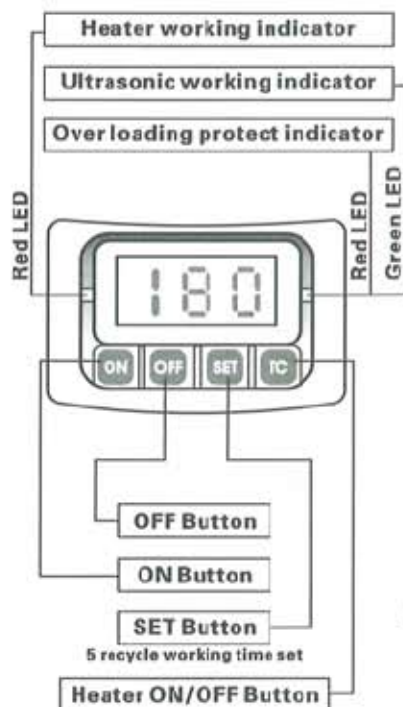


Bubble are imploded constantly under the ultrasonic.

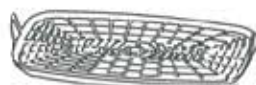


The dirt splits into tinys and separate from the item to create cleaning result

## FEATURES AND ACCESSORIES



POWER CORD



BIG BASKET SHEET

## REGARDING 5 DIGITAL TIME CHOOSING



It will automatically display 180S when power at the first time, It is the most common cleaning time. Pressing ON, it begins cleaning. The time displayed is the time left. When the time '0000' is displayed, the unit will automatically stop.



Pressing SET, there is a new time displayed, everytime press SET, it will change to the next time display. It usually use for the first time cleaning of the product, the dirt staying on the product is long, so it needs more time to clean.



It usually use for the first time cleaning of several products together. Choosing this for shorten the cleaning process.



It usually use for cleaning the greasy valve, greasy gear, greasy bearing and such as these metal parts, when choosing this time, using the heater together. This function can soften the oils to increase the cleaning result.



*Long time cleaning may cause the original unfirmed screw on the product, the original unfirmed inlaid product become loosen.*



There still has dirt likes smoke come out when it closes to finish the 180s cleaning. Using this step.

This step is usually taken after finishing the above steps, but the water in tank is dirty, replacing with clean water and then cleaning another 90s to keep clean of the product's surface.



# FOUR DIFFERENT WAYS OF CLEANING

## GENERAL CLEANING

### Only using normal tap water



Put the item to be cleaned on the mesh screening, then fill the water. Ensure the item is immersed in the water; the water level should be above the "MIN-" marking, but does not exceed the "MAX-" marking. Put the plug and press the "ON" button.

**Note:** On the cleaning, the dirt appeared from the item, just looks like "smoking", meanwhile, the clean water changed to be dirty. When there is no "Smoking" appeared, the item is clean now, no need to clean more times. (Usually in 180s is enough). If the water is dirty, change the dirty water with clean water, go on cleaning another item.

## Turn on the heater, enhance cleaning:

Used to clean the polishing wax on the surface of semi finished rings, necklace etc.



Put the item on the mesh screening, and then put the mesh screening into the stainless steel tank. Keep the item is immersed in the water, ensure the water is above "MIN-" marking but does not exceed the "MAX-" marking.

Press the "TC" button, the heater is working, around 40 minutes later, the temperature of the water is about 65°C, the heater will auto shut off.



*If need reduce the time of heating, can put in some warm water, but can't put in boiled water.*

Press "SET" button, choose one circle from 230/380/480S, then press "CN" button, the unit start to work.

**Note:** Using 65°C warm water, it can melt the polishing wax on the surface of the item, it also can soft the oiled dirt, therefore, can enhance cleaning.

## Put a little liquid wash soap to enhance cleaning:

Used to clean the knife, fork, spoon which with too much oiled dirt. (If with less oiled dirt, can according to ② ).



Put the item on the mesh screening, and then put the mesh screening into the stainless steel tank. Keep the item is immersed in the water, ensure the water is above "MIN-" marking but does not exceed the "MAX-" marking.



*When cleaning the table wares, the table wares should keep level. If the table wares overlap together, while cleaning the items, attrition can be happened, the table wares will lose gloss as the scrap.*

If the item with too much oiled dirt, can use 1 spoons liquid soap (about 4 ml).

Press "SET" button, choose one circle from 280/380/480S, then press "ON" button, the unit start to work.



*As using liquid soap, so need to wash the item again with clean water, or using clean water go on cleaning 90S, in order to clear away the liquid soap.*

**Note:** The liquid soap is neutral liquid and very normal for home using, it is "soft" chemical liquid. Using a little in ultrasonic cleaning, can soft the oiled dirt, to make the oiled dirt can't condense again on the surface of the item, to enhance result of cleaning.

## Strengthened cleaning for cleaning oiled dirty parts

Using to clean pneumatic valve, hydraulic directional control valve, fuel injection precision gear driving sets and bearings which with too much oiled dirt. This cleaning way also means ②+③



put the item on the mesh screening, and then put the mesh screening into the stainless steel tank. Keep the item is immersed in the water, ensure the water is above "MIN-" marking but does not exceed the "MAX-" marking.

Press the "TC" button, the heater is working, around 40 minutes later, the temperature of the water is about 65°C, the heater will auto shut off. Then put 1 spoons liquid soap (about 4ml), press "SET" button, choose 480S time circle, then press "ON" button, the unit start to work.

**Note:** After cleaning, the water always changed to be "black", push away the dirty water, and wipe the stainless steel tank, using clean tap water, then cleaning again using normal way, until can't see the "smoking" dirt, it means cleaning is finished.

### How to use mesh screening

- Using mesh screening can avoid the attrition between the item and stainless steel tank, it also can reduce the attrition between items.
- When put the item and mesh screening into the tank, the unit also can clean the mesh screening, therefore, the mesh screening can absorb 15% ultrasonic energy. (Plastic basket can absorb 20% ultrasonic energy.)

## OPERATION INSTRUCTIONS

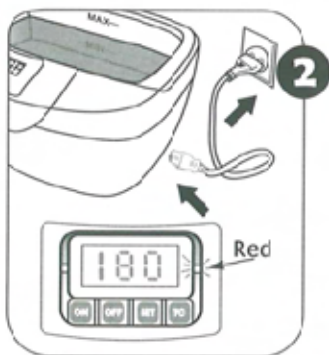


**Open the lid**, putting the products in the shift in line and then putting the shift in the tank.



*To avoid the scratch and friction of the products, do not lap them over.*

**Add the water in the stainless steel tank**, the water should over the surface of the product but within the range of MIN mark and MAX mark.



Inserting one side of the detachable plug and cord into the body of the machine, the other to the socket. (See picture).

180s will be displayed when the power is on. Press ON, it begins cleaning. 180s is the most common working cycle. During cleaning, the time displayed on the screen is the time left.

Pressing "SET", you can choose 5 optional working cycle: →180S→280S→380S→480S→90S→



Press "ON" button to start cleaning while the right green indication light is on.



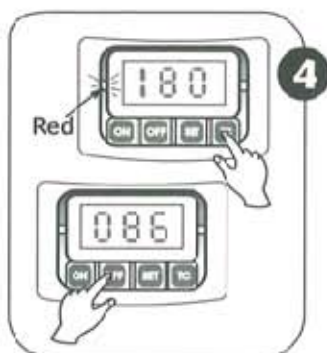
*During cleaning, you can hear the "BUZZ" voice, it means the unit is working.*

When reach the time of "000", the unit will auto stop, while the green light will turn off.

If another cleaning is needed, just repeat the above steps.



*This machine has a circuit protecting it when over heat. When the right red indication light is on, it means this circuit works. If pressing ON, the time left will be displayed but there is no ultrasonic wave. The machine needs to stop working for 15 minutes, then pressing ON and the right green light is on, the machine can work normally.*



Pressing "TC" to start the heat function, while the left red indication light is on. It means it begins heating. Please refer to the ② point of four different ways of cleaning for details.

During cleaning, if you want to stop, just press "OFF" button. Press "ON" button again, the unit will implement the remainder program to continue the cleaning. The displayed time is the time left.

Furthermore, you can press "SET" button to reset the working cycle.



When finished cleaning, unplug it and open the lid, then take out the item. At last, pour the water from stainless steel tank and wipe it up.



## USER MAINTENANCE



This machine has taken several measurements to protect the circuit, but if working without water (over 20 seconds) will short the life of the machine.



*Damage will be occurred if works without water.*



This machine has a circuit protecting it when over heat. Stop 15 minutes if working for 3 working cycles continuously to prolong the life of the machine is recommended.



Unplug and empty the unit after using.



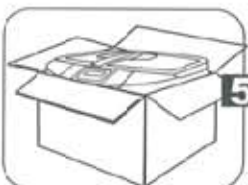
*Do not keep water in the tank for a long time.*



Wipe the tank and unit with dry towel.



*Do not wash the complete unit with water to avoid the risk of shock.*



Keep in cool and dry place.



## SPECIFICATION

Description	Digital Ultrasonic Cleaner	
Item No.:	CD-4820	
Rating voltage & frequency	AC 220~240V~ 50/60 Hz	
	AC 100~120V~ 50/60 Hz	
Consumption Power	AC 220~240V~ 170W	
	AC 100~120V~ 160W	
Ultrasonic frequency	42,000 Hz	
Material of tank	Stainless steel SUS304	
Material of plastic housing	ABS 757	
Tank size (L X W X H)	264 x 164 x 80 mm	
	10.40 x 6.46 x 3.15 in.	
Tank capacity	2500 ml (5.29 pt)	(MAX-) 2100ml 4.44pt
		(MIN-) 600ml 1.27pt
5 Recycle digital timer	180s→280s→380s→480s→90s	
Color box size	340 x 255 x 225 mm	
Net weight (N.W.)	2.5 Kg	
Gross weight (G.W.)	3.0 Kg	