DIGITAL ULTRASONIC CLEANER

CD-4820

USER GUIDE



FEATURES:

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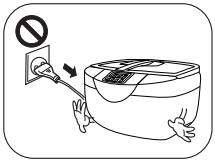
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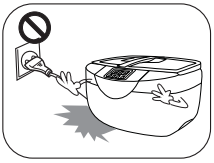
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SAFETY INTRODUCTIONS

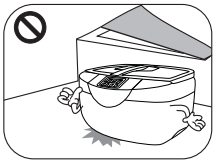
⚠ DANGER- To reduce the risk of electrocution:



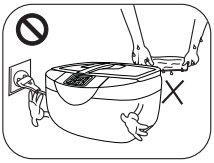
Unplug this unit immediately after using.



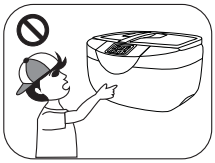
Do not immerse the unit into water or other liquid.



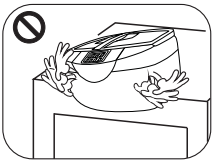
Keep the unit in a safe place to avoid falling into water or other liquid.



Do not use while bathing.



Do not reach for the unit that has fallen into water. Unplug it immediately.

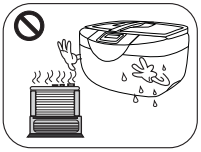


Do not place or store product where it can to or be pulled into a tub or sink.

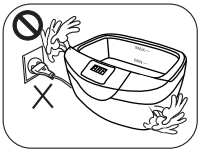
	Do not place or drop into water or other liquid. To avoid damage may caused by high temperature, please shut down the cleaner for no less than 3 minutes and change the used water after three 480s working circles.
	The product may be off or can't be switch off when it is subjected to electromagnetic interference like Fast Transients. If it is occur please follow the instruction described in the manual to set the function again for operation.
⚠	This appliance is not intended for used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliances by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance....
	This appliance has a polarized plug (one blade is wider than the other). As a safety feature, this plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not attempt to defeat this safety feature. (This only available for UL cord and plug)
	Don't use the product if there isn't water in the cleaning tank.

SAFETY INTRODUCTIONS

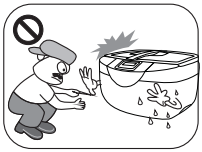
WARNING-To reduce the risk of burn or injury to persons



Keep the unit and the cord away heated surfaces, and place it on the dry and level surface.



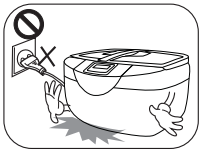
The unit should never be left unattended when plugged in.



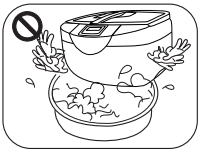
Do not disassemble the unit except for the authorized technician.



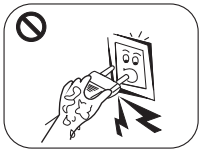
Do not fill the tank with abrasives or corrosive chemicals.



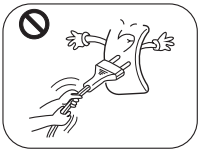
Unplug the unit before filling. Do not exceed the"MAX"mark.



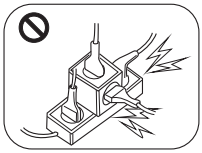
Do not immerse the unit into water to avoid electric shock.



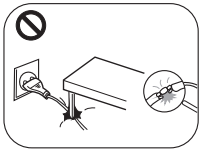
Do not touch the socket with wet hand to avoid electric shock.



Do not use this unit when sleeping or drowsy, and do not use outdoors or operate where aerosol (spray) products are being used or where oxygen is being administered.



Use the unit properly as per its instruction manual. Do not use attachments not recommended by the manufacturer.



Never operate this unit if cord or plug is damaged. If it is not working properly, damaged or has been dropped into water, return the damaged unit to a service centre for examination and repair.

⚠ Never drop or insert any object into any opening or hose.

Never block the air openings of the unit or place it on a soft surface, such as a bed or couch, where the air openings may be blocked. Keep the air openings free of lint, hair, and the like.

SAVE THESE INSTRUCTIONS

⚠ 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, electro plating 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℃ heating devise, the polishing wax on the surface of the in process articles will be cleaned out.



(2). Chemical lab:

cleaning test tube.



(3). Dental clinic:

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.

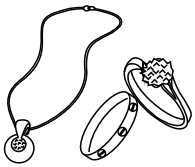
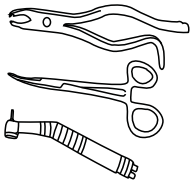
Remark: To oxidative silver or tin tableware , it can't be removed with plain water. Chemical method is used for this problem. The ultrasonic cleaner is just for cleaning dirt or dust. Be kept cleaning and storage well everyday can postpone the oxidative phenomena.

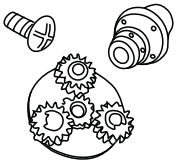
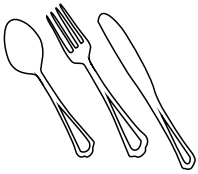
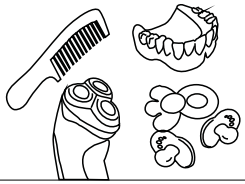


(6). Precision machinery repair:

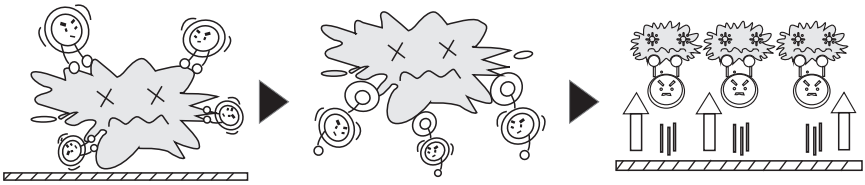
cleaning pneumatic valve, hydraulic directional control valve, overflow valve, fuel injection nozzle, precision gear driving sets and bearings, the excellent cleaning result can achieve, the deepest dirt and grease inside the tiny lacuna can be cleaned out. After refresh the new lubricating grease, just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

SUGGESTED APPLICATIONS

JEWELLERY	GLASSES AND TIMEPIECES	DENTAL EQUIPMENT
		
Necklaces, Rings, Earrings, Bracelets etc.	Glasses, Sun glasses, 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

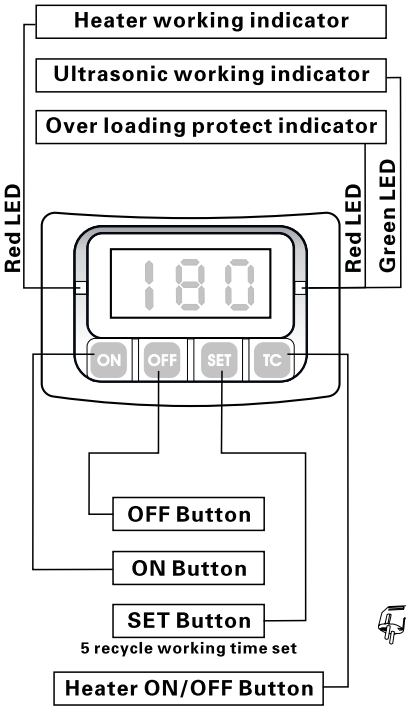


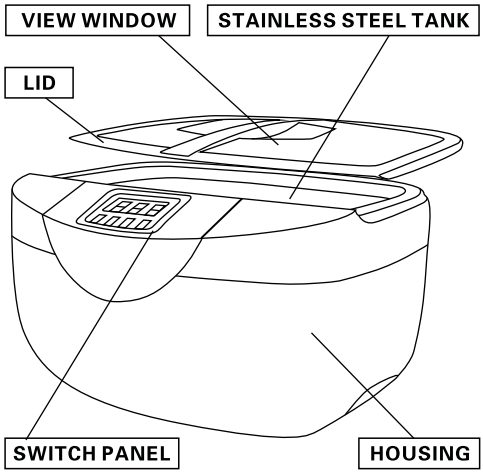
Many tiny bubbles are created when ultrasonic sound is passed through liquid.

Bubble are imploded constantly under the ultrasonic.

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

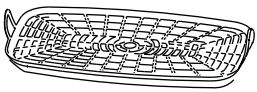
FEATURES AND ACCESSORIES





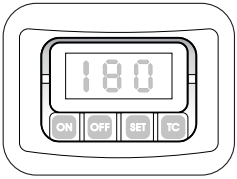


POWER CORD

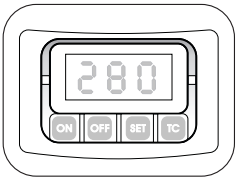


BIG BASKET SHEET

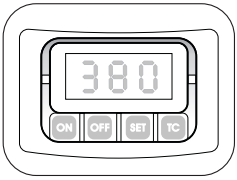
REGARDING 5 DIGITAL TIME CHOOSING



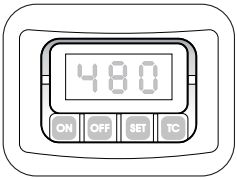
It will automatically display 180S when power at the first time, It is the most common cleaning time. Pressing ON, it begins cleaning. The time displayed is the time left. When the time "*000*" is displayed, the unit will automatically stop.



Pressing SET, there is a new time displayed, every time 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.

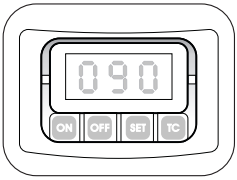


It usually use for the first time cleaning of several products together. Choosing this for shorten the cleaning process.



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 unfirm screw on the product, the original unfirm 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 immerged in the water; the water level should 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 immerged 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℃, 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 280/380/480S, then press "ON" button, the unit start to work.

Note: Using 65℃ 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 ❷).



Put the item on the mesh screening, and then put the mesh screening into the stainless steel tank. Keep the item is immerged 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 ❷+❸



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

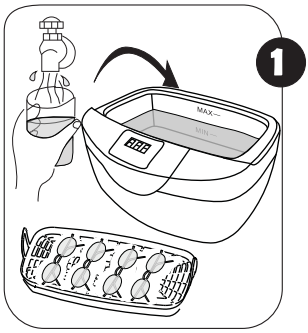
Press the "TC" button, the heater is working, around 40 minutes later, the temperature of the water is about 65℃, the heater will auto shut off. Then put 1 spoons liquid soap (about 4ml), press "SET" button, choose 480S time circle, then press"ON" button, the unit start to work.

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.)

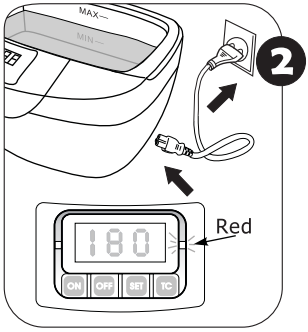
OPERATION INSTRUCTIONS



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.*

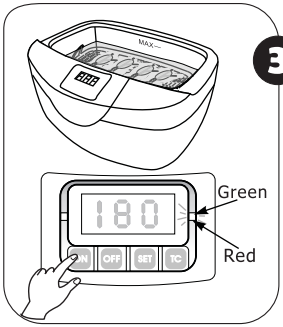
Add the water in the stainless steel tank, the water should over the surface of the product but within the range of MIN mark and MAX mark.



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 →

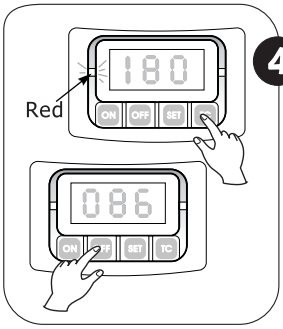


Press "ON" button to start cleaning while the right green indication light is on.

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

When the timer counts down "000", the unit will automatically stop. If required you can stop / pause the cleaning process at any time by pressing the OFF button, pressing the ON button again will resume the cleaning and the countdown will continue. When cleaning has finished, you can repeat the process by pressing ON button again.

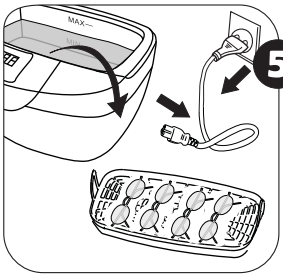
⚠ *This machine has a circuit protecting it when over heat. When the right red indication light is on, it means this circuit works. If pressing ON, the time left will be displayed but there is no ultrasonic wave. The machine needs to stop working for 15 minutes, then pressing ON and the right green light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



Using the HEATER function.
Pressing the TC button starts the built in heater. The red LED on the left of the control panel will illuminate. The water will heat to a maximum of 65 degrees C. Please refer to the ❷ point of four different ways of cleaning for details.

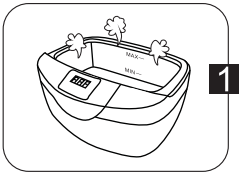
If required, you can stop / pause the cleaning process at any time by pressing the OFF button, pressing ON again will resume the cleaning and the countdown will continue. The program can be reset at any time by pressing the SET button.

The ceramic heater used in this unit has the advantages of having small size, high heat and longevity. To avoid damages to the heater, do not add cold water when the heater is hot otherwise ceramic may break due to large temperature differences.
Avoid the following misuses of the heater:
1.Drain dirty water out then add cold clean water when the heater is on.
2.Turn on the heater when the tank is empty. Heater can be damaged if it is run for more than 15 seconds without water in the tank.
Always turn off the heater before adding cold water. Make sure there is enough water in the tank before turning on the heater.



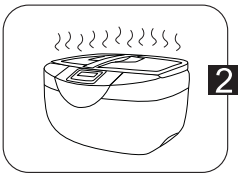
When cleaning is finished, unplug it and open the lid, then take out the item. At last, pour away the water from stainless steel tank and wipe it up.

USER MAINTENANCE

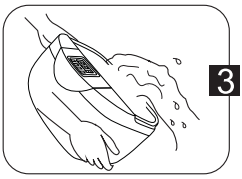


This machine has taken several measurements to protect the circuit, but if working without water (over 20 seconds) will short the life of the machine.

⚠ *Damage will be occurred if works without water.*

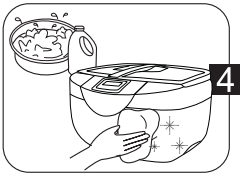


This machine has a circuit protecting it when over heat. Stop 15 minutes if working for 3 working cycles continuously to prolong the life of the machine is recommended.



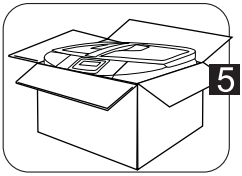
Unplug and empty the unit after using.

⚠ *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	
	AC 100V~ 50/60 Hz	
Consumption Power	AC 220~240V~ 170W	
	AC 100~120V~ 160W	
	AC 100V~ 130W	
Ultrasonic frequency	35,000Hz	
Material of tank	Stainless steel SUS304	
Material of plastic housing	ABS 757	
Tank size (L X W X H)	250 x 150 x 80 mm	
	9.84 x 5.90 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	