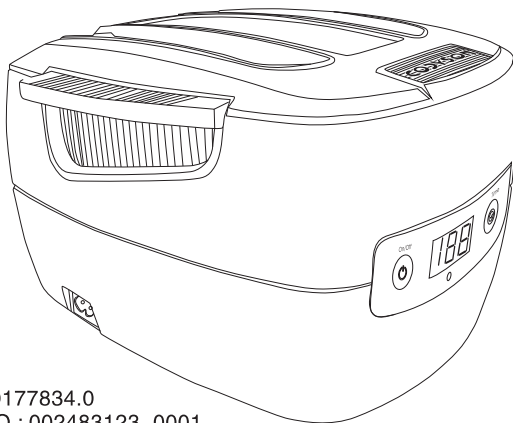


PROFESSIONAL ULTRASONIC CLEANER

CD-4801

USER MANUAL



Patent NO.: 201430177834.0

European Patent NO.: 002483123-0001

FEATURES

- | | |
|---|--|
| 1 Tank capacity | Tank capacity: 1400 ml / 1.5 qt;
Size 16.8 x 13.8 x 6.6 cm / 6.6" x 5.4" x 2.6".
Longest item that can fit is 19.0 cm / 7.5" |
| 2 Control panel with capacitive sensing technology | Durable, reliable, resistant to water and harsh chemicals |
| 3 ϕ35 Industrial ultrasonic transducer | Durable, better cleaning effect |
| 4 Digital timer | 5 timer settings, easy selection of different time |
| 5 Moisture-proofed PCB | Better safety |
| 6 Cooling fan | Better heat dissipation |
| 7 Industrial IC | Better anti-interference |
| 8 Detachable power cord | convenient to use |
| 9 Multiple safety certifications | CETL (USA&Canada), GS+CE (Germany & Europe), PSE (Japan), SAA (Australia) |
| 10 Engineering grade plastics | Housing with 4mm thick wall and tongue in groove joints for better impact and water-proof performances |

INTRODUCTION

Use tap water. Chemical solutions are unnecessary in most cases.

Principles of ultrasonic cleaning:

Millions of tiny air bubbles are generated inside the liquid by high frequency vibration. The air bubbles burst inside the liquid and shake off the debris to achieve the cleaning effect.

- Purified water or distilled water has the same cleaning effect as regular tap water for ultrasonic cleaning. Therefore using tap water is sufficient.
- When cleaning silver or copper items where oxidation has darkened the items, special solutions need to be added to the water to remove the oxidation.



Main Features

- Tank capacity: 1400 ml/1.5 qt. Size: 16.8 x 13.8 x 6.6 cm / 6.6" x 5.4" x 2.6".
Longest item that can fit inside the tank is 19.0 cm / 7.5".
- Use powerful industrial grade Φ 35 ultrasonic transducer with superior clean effect.
- Control panel with capacitive sensing technology. Durable, reliable, resistant to water and harsh chemicals.
- Digital timer, 5 timer settings, easy selection of different time
- Industrial grade IC. Moisture-proofed PCB. Cooling fan. Improved product durability.
- 4 mm wall thickness with tongue and groove joints for better impact and water-proof performances.
- Detachable power cord, convenient to use. Multiple safety certifications.

Read the Manual First

The manual should be carefully reviewed before starting to use the device.
Warnings should be observed carefully. Please follow the manual for operations.


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SAFETY PRECAUTIONS



Keep it away from children!

-  **This appliance can be used by children aged from 8 years and above if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved. Cleaning and user maintenance shall not be made by children unless they are aged from 8 years and above and supervised. Keep the appliance and its cord out of reach of children aged less than 8 years.**
- Please store the ultrasonic cleaner where it is not reachable by children.
- Danger to children! Danger for death through suffocation! Keep the packaging material away from children.
- This appliance shall not be used by children. Keep the appliance and its cord out of reach of children.



To prevent life-threatening electrical shock, please observe the following:



Danger of electrical shock! Do not use while bathing. Never immerse the device or the power cord in water or other liquid.

- **Danger of electrical shock!** Never touch the power plug with wet hands, especially when inserting or removing the plug.
- **Danger of electrical shock!** If the unit has fallen into water during operation, do not touch the unit. Remove the power plug from the socket first.
- **Danger of electrical shock!** Do not spray water or liquid over the device.
- Never operate the device unattended.
- Follow the manual to operate the device.
- Do not use components unapproved by the manufacturer.
- When removing the power cord from the socket, grab the power plug not the cord.
- To protect the power cord from damage, do not cause it to get caught by things such as a cupboard door or a chair leg; do not drag across a hot surface.
- If there is damage to the power plug, cord, housing, or other parts of the device, do not use the device.
- Do not disassemble the device, except by professionals.
- If the unit is damaged, non-operational or has fallen into water, take it to a qualified service provider.
- Remove the power plug from the socket
 - if malfunction occurs
 - before cleaning the device
 - if the device is not going to be used for prolonged period
 - after each use (recommended)
- The installation of an earth leakage circuit breaker with a rated tripping current of no more than 30 mA provides further protection against an electrical shock. The installation should only be carried out by a trained electrician.



To prevent fire hazards, please observe the following:

- Never block the vents on the device. Keep the vents free from lint, hair and other materials.
- Do not place the device on a soft surface, such as a bed or a couch, where the vents could be blocked.
- Observe the other warnings in the previous section.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

SAFETY PRECAUTIONS



Other observations:

- Do not operate the product without filling the tank with water. Running dry will damage the unit.
- Do not plug in the power cord before adding water to the tank. Do not fill the tank above the Max line to avoid overspill.
- Do not use solution containing abrasive substances or strong corrosive chemical solution not recommended by the manufacturer or the supplier.
- Place the device on a dry and flat surface for operation.
- When the device is subjected to severe electromagnetic interference, it may malfunction, stop operating or lose control functions. If this happens, unplug the power cord then reinsert it to restart the device.

IMPORTANT SAFETY INSTRUCTIONS



When using electric appliances, basic precautions should always be followed, including the following :

- Read all the instructions before using the appliance.
- To reduce the risk of injury, close supervision is necessary when an appliance is used near children.
- Only use attachments recommended or sold by the manufacturer.
- Do not use outdoors.
- To disconnect, turn all controls to the off (O) position, then remove plug from outlet. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord. Unplug from outlet when not in use and before servicing or cleaning.
- To reduce the risk of electrical shock, do not put the appliance in water or other liquid. Do not place or store appliance where it can fall or be pulled into a tub or sink.
- All servicing of this product, including transducer replacement, is to be conducted by qualified service personnel.
- Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions or is dropped or damaged in any manner.
Return appliance to the nearest authorized service facility for examination, repair, or electrical or mechanical adjustment.



Items Not Suitable for Ultrasonic Cleaning

Soft Jewelry:

Pearls, emerald, ivory, coral, agate, sea turtle shells, etc

These items are not hard, so scratches may occur during cleaning.

Welded, Plated and Glued Items:

Welded or plated metal items, glued items

Ultrasonic cleaning may enlarge the gaps inside the welded joints, plated coating or glued items and may cause separation.

Watches:

Except diver's watches with depth rating over 50 m (150 ft) .

Because the strong penetration capability of the ultrasonic waves, water may get into the watches if they are not truly waterproof. Use the watch stand supplied as a precaution if not sure.

Others:

Wood; coated glass, ceramic, camera filters with preexisting cracks.

Ultrasonic cleaning may enlarge the cracks pre-existed in the coating on the glasses, ceramic, and glass. If the items have no pre-existing cracks, then it is okay.

APPLICATIONS



Jewelry Stores, Jewelry Makers:

Jewelry stores can use ultrasonic cleaners to expand services. Jewelry such as necklaces, diamond rings, rings, earrings can be cleaned with tap water to recover the shine.

Jewelry makers can use ultrasonic cleaners to remove debris or abrasive powder from work-in-process items

Jewelry made with investment casting often has wax layer in addition to debris. Turning on the heater will raise the water temperature, melt the wax and improve the cleaning.



Optical Stores and Labs:

Optical stores can use ultrasonic cleaners to provide valuable services. Use ultrasonic cleaner and tap water to remove the debris between the rim and the lenses so the eyewear gets professional cleaning and care.



Homes:

Children and baby items: Debris left in small holes and crevices are difficult to clean by regular means. Bacteria and mold can develop at these locations. Ultrasonic cleaners can remove the debris and be combined with disinfection to achieve true cleaning.

Eyewear, watch bands, shavers, razors and other household items: Ultrasonic cleaners can be used to clean the debris between the rim and the lenses on eyewear, between razor blades, and on the metal mesh of shavers to keep the blades sharp.



Shooting Clubs

To reuse brass cartridges: Adding special acid-based solution can make fired brass useable and like new again.

Gun cleaning and care: Cleaning guns after shooting is time consuming. Adding special solution in the water and using ultrasonic cleaners can complete the cleaning better, quicker and easier than traditional methods.



Mobile Phone and Electronics Service Shops

PCB renewal: Non-operational electronics, after falling into water, or non-operational key pads can be cleaned with ultrasonic cleaners and pure alcohol to recover the functions.



Watch Service Shops

Precision parts cleaning: Put small parts in a beaker made of stainless steel or glass filled with lubricant oil, then place the beaker inside the cleaning tank and add water. Ultrasonic waves will penetrate the beaker and act on the parts to make them clean.



Printing Shops

Unblocking dried printer heads or ink cartridges: Large printers and inkjet printers often have dried printer heads or ink cartridges ports. Replacing them with new ones is very costly. Adding acetone or special cleaning solution and using an ultrasonic cleaner with a couple of minutes of cleaning will remove the blockage and make them usable again.




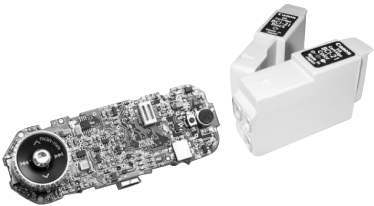

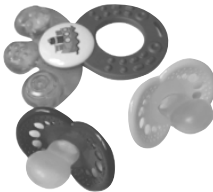
Avoid acetone from contacting the plastic housing to prevent corrosion. Use Indirect Cleaning explained later and a glass or metal container for acetone.



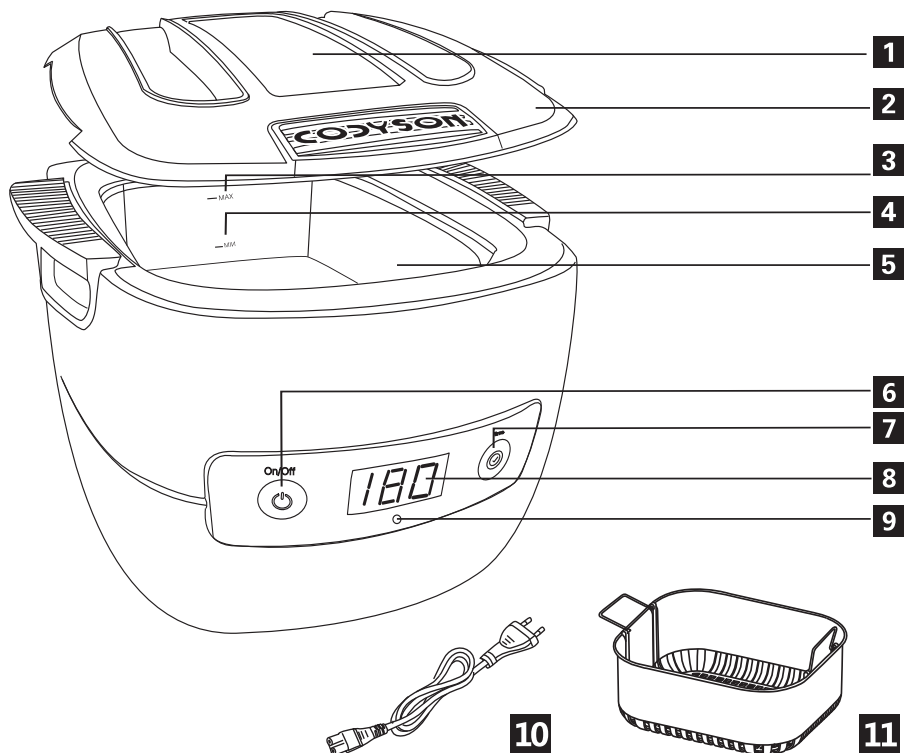
Automotive Shops

To clean precision parts: Add 50 ml (3 tablespoons) of dishwashing liquid in the water, turn the heater on to clean precision parts such as valves, injectors, gears and bearings. Ultrasonic cleaners clean debris in tiny holes and crevices effectively, saving time and effort compared to traditional soaking and brushing methods.

SAMPLE APPLICATIONS

Jewelry	Personal Items
	
<p>Necklaces, rings, earrings, bracelets, etc.</p>	<p>Eyeglasses, sunglasses, shaver heads, watch bands, diver's watches, dentures, etc.</p>
Precision Parts	PCB, Inkjet Cartridges
	
<p>Bearings, gears, valves, fuel injectors, etc.</p>	<p>PCBs from mobile phones and MP4, ink cartridges, etc.</p>
Brass, Gun Parts	Children and Baby Items
	
<p>Reusable brass, gun parts, etc.</p>	<p>Toys, baby items, etc.</p>

PRODUCT STRUCTURE AND ACCESSORIES



1 VIEWING WINDOW

2 LID

3 "MAX" MARK

4 "MIN" MARK

5 STAINLESS STEEL TANK

6 "ON"/"OFF" BUTTON

7 TIMER BUTTON

8 DIGITAL DISPLAY

9 INDICATOR LIGHT

10 POWER CORD

11 PLASTIC BASKET

CONTROL PANEL AND OPERATIONS

1. Indicator Light - Working Status

Red - Normal working status.

2. On/Off button - On/Off Switch for the Unit

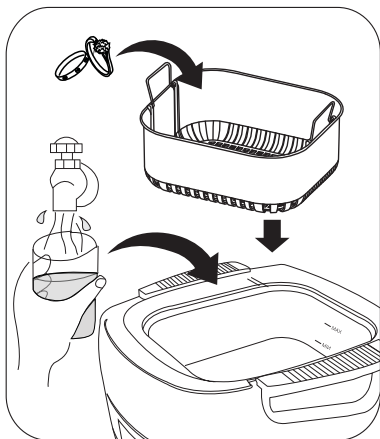
After powering on, the LED displays **180** which is the default time and the unit is ready with normal working status.

Press On/Off button once and the cleaning starts. The cleaning stops when the timer counts down to **000**. If the unit needs to be stopped before the timer runs up, press On/Off button.

3. **000** Digital LED display of working time. It counts down after work being started.

4. **Time Button** — Timer set button. When the unit is electrified, **000** is displayed automatically. It is the most common used working cycle. Every time press Time button, these optional working cycles from **180S→280S→380S→480S→90S**

CLEANING METHODS



Only tap water is needed.

Suitable Locations: jewelry stores, optical stores, chemical labs, dental clinics, homes.

Cleaning Method:

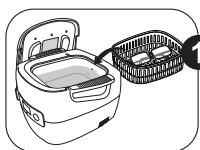
1. Add water to the cleaning tank to the level between "MIN" and "MAX" lines and above the area to be cleaned.
2. Put the items to be cleaned inside the basket or directly in the cleaning tank.
3. Press SET button to set the timer 90 to 480 Seconds. Press On/Off button to start cleaning.

Notes on using the basket:

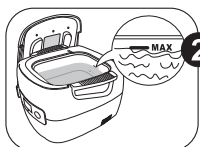
1. The basket reduces the friction between the items and the tank but it absorbs about 30% of ultrasonic energy and reduces the cleaning effect.
2. When the items are relatively large and with greasy debris, they can be put in the tank directly.

During cleaning, debris will come off the items like "smoke". Water will become murky. Cleaning is done when smoke is no longer visible. Replace the water to wash other items.

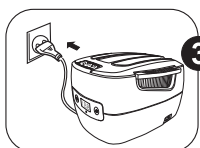
OPERATION GUIDELINES



1 Open the cover, place the object to be cleaned inside the basket then in the stainless steel tank.



2 Fill the tank with tap water.
The liquid must cover the object that is to be cleaned, but must not exceed "MAX" line.



3 Close the cover and plug in the power cord.
- 180 appears in the display window.
- This is the default time and is good for normal cleaning.

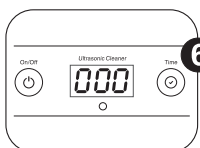


4 Select desired time setting by pressing Time button:
[180S → 280S → 380S → 480S → 90S]



5 Press "On/Off" button to start the cleaning process.
The red LED light lights up and the timer starts to count down to zero.

Note: You'll hear buzzing sound which is normal.



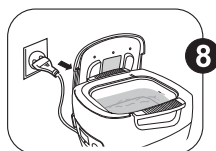
6 When the timer counts down to zero, the cleaning process stops automatically and the display shows 000.



7 If you need to end the process ahead of time, press On/Off button.
If you need to repeat the cycle or to increase the time, press Time button to select desired time then press On/Off button again to restart it.

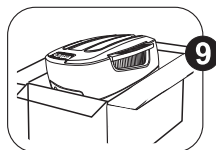


Important! Long cycle time will cause heat to build up inside the unit and water temperature to rise. Do not use the unit for more than 20 minutes continuously. Take a 10-minute break in between to prolong the life of the unit.



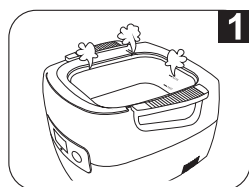
When cleaning is done, open the cover, remove the items. Empty the tank by pouring out the water in the direction shown with arrow on the unit. Avoid pouring it over the front where the control panel is located. Wipe the tank clean and remove the power plug.

Note: To avoid residue building up, always empty the tank and wipe it clean. We recommend using fresh water each time.



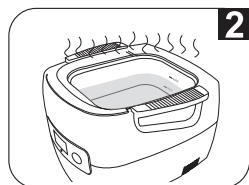
Store the unit in a cool and dry place.

CARE AND MAINTENANCE



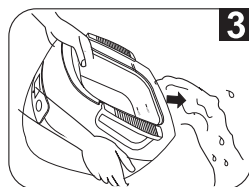
Do not turn on the unit without water in the tank.

Even though the unit is designed with multiple protections, if it is turned on for over 30 seconds without water in the tank, it may damage the unit or severely reduce the life of the unit.



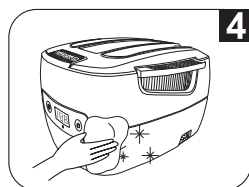
Do not run the unit for extended time or continuously.

Do not run the unit continuously for over 20 minutes. Stop for about 10 minutes in between to prolong the life of the unit.



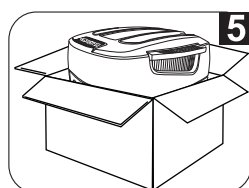
Do not keep water in the cleaning tank for a long time.

After cleaning is completed, unplug the power cord then pour the water out through the pouring recess. Avoid getting the water inside the housing through the vents and causing damage.



Do not spray water over the housing.

Use a towel to wipe the tank and the housing.



Do not expose the unit under direct sun shine for long.

Keep the unit in a dry, cool and ventilated area.

SPECIFICATIONS

Description	Professional Ultrasonic Cleaner	
Model	CD-4801	
Tank Capacity	1400 ml 1.5 quart (US)	Max.1100 ml / 1.2 quart (US)
		Min.450 ml / 0.5 quart (US)
Tank Size	16.8x13.8x6.6 cm / 6.6"x5.4"x2.6"	
Longest Item Fits inside Tank	19.0 cm / 7.5"	
Power Supply	52 W (AC 100 V, 50/60 Hz)	
	60 W (AC 100-120 V, 50/60 Hz)	
	60 W (AC 220-240 V, 50/60 Hz)	
Digital Timer Settings	⌈180S→280S→380S→480S→90S⌋	
Ultrasonic Frequency	42,000 Hz	
Tank Material	Stainless Steel SUS304	
Housing Material	ABS	
Net Weight	2.25 kg / 5.0 lb	
Gross Weight	2.70 kg / 6.0 lb	
Unit Size	24.3 x16.4 x22.8 cm / 9.6" x 6.5" x 9.0"	
Inner Carton Size	29.2 x 26.0 x 19.6 cm / 11.5" x 10.2" x 7.7"	
Qty per Master Carton	4 pcs	
Master Carton Size	53.0 x 30.5 x 41.0 cm / 21.0" x 12.0" x 16.1"	