



Laboratory Equipment Manufacturer  
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## DIGITAL INDUSTRIAL-GRADE ULTRASONIC CLEANER

2300

# USER MANUAL



**PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATION**

### FEATURES

2.0 thickness stainless steel tank.

Use for 24 hours continuous working .

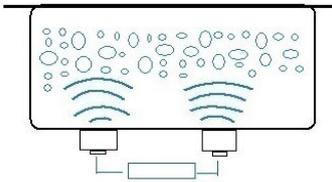
Cooling fan

Moisture-proofed PCB

Industrial grade IC & ultrasonic transducer

Thank you for purchasing the ultrasonic cleaner. Please take the time to read these operating instructions before use and retain them for future reference. Failure to follow these instructions may lead to serious personal injury and damage to property.

## ULTRASONIC PRINCIPLE



Ultrasonic cleaning is based on the cavitation effect caused by high frequency ultrasonic wave vibration signal in the fluid. Microscopic bubbles are formed, and they implode violently causing the cavitation which creates an intense scrubbing action on the surface of the item being cleaned. The bubbles are small enough to penetrate microscopic crevices, cleaning them thoroughly and consistently.

Ultrasonic cleaning is extremely effective at removing dirt and grime which would normally require tedious manual cleaning by hand. It has been used to clean a wide variety of instruments and mechanical parts such as carburetors, returning them to almost "like new" condition without damage to delicate parts.

## PREPARATION:

1. Carefully unpack the cleaner and remove all traces of packing materials from it. Visually inspect the cleaner for any parts that may have become loose or damaged during transit.

### Contents:

- a: Main machine
- b: Sound proof lid.
- c: Power lead
- d: Outlet filter
- e: Mesh basket
- f: Manual

2. Place the cleaner on a flat, clean surface where the cooling fans will receive adequate ventilation and ensure all controls are set to off. Also ensure the drain tap is in the closed position.
3. Ensure the power lead is securely plugged into the cleaner and that no part of the lead is likely to come into contact with moisture.

4. Carefully fill at least 1/2 of the tank with a solvent solution. For demanding cleaning we recommend a small amount of washing up liquid, this will help increase the cleaning performance. The cleaner is now ready for use.

 **Attention**

- a) While the machine is working normally, ultrasonic and tank gives a well-proportioned sound, and no shudder on the surface of the water, yet there is spray made by the tiny bubbles. If there are discontinuous surges, please add or release a little of washing solution in the tank, stopping the surges is better for the objects cleaning.
- b) On the condition of making sure the cleaning object is cleaned, please run the machine discontinuously as far as possible(not more than 30min.),for long-time running will cause temperature increment of the case .

## **SAFETY PRECAUTIONS**



**This unit's voltage is :**

**Keep it away from children !**

This device is not intended to use by individuals with restricted physical sensory or mental capacities or those with lack of experience or knowledge, include children, unless they are supervised by an individual who is responsible for their safety or have received training in operating the device .

**Please read the following very carefully as failure to comply may invalidate your guarantee**



- 1) DO NOT run the cleaner continuously for more than one hour at a time, as doing so can damage the internal components.
- 2) DO NOT operate the unit without fluid in the tank. Always ensure the fluid is no higher than the max mark, Always ensure there is a minimum depth of 7cm.
- 3) DO NOT drop any item into the tank as this may cause damage to the transducer. Always place the items gently into the tank and use the basket whenever possible.

4) The more items that you place in your cleaning bath the less efficient it will clean.

It is not advised to overlap items. Always allow plenty of clear space between the items.

5) Do keep the lid on during use. This will prevent splashes and reduce evaporation of the fluid.

6) Never immerse the machine or power cord in water or other liquid.

7) DO NOT touch the power plug with wet hands, especially when inserting or removing the plug.

8) DO NOT touch the unit if the machine has fallen into water during operation. Remove the power plug from the socket first.

9) DO NOT disassemble the machine, except by professionals.

10) UNPLUG the power source while filling or emptying the tank.

11) DO NOT spray water or liquid over the device and the control panel

12) DO NOT operate the cleaner without proper grounding.

13) DO NOT place the device on a soft surface, where the vents could be blocked.

14) Always turn the heater off after using as leaving it on can cause the fluid to evaporate and damage the internal components.

15) Upon completion of the cleaning cycle, turn the heater button off and isolate the machine from the electrical supply.

16) Take care when adding or removing items from the cleaning tank as the fluid is likely to be hot and displaced fluid can damage the internal components. Any displaced fluid must be dried up immediately.

17) In the event of failure/emergency, disconnect the mains supply by removing the plug from the mains socket.

## **APPLICATIONS**

This list is almost endless. Provided the product is non porous and can normally be immersed in water almost anything can be thoroughly cleaned. Here are some examples:

- Jewellery especially gold, silver & platinum
- Watchstraps
- Coins and other collectibles
- PCB Boards etc
- Engine/Model parts
- Toothbrushes & Dentures
- Electrical components
- Make-up cases
- Diesel injection pumps
- Printer heads and toner cartridges
- Motorcycle radiators
- Vehicle differentials
- Milking parlour equipment
- Golf clubs & grips & golf balls
- Horse bits & stirrups & horse brasses
- Tattoo needles
- Surgical equipment
- Motorcycle engine crank cases
- Engine cylinder heads
- Turbochargers
- Bicycle derailleurs
- Knives, bayonets and other militaria
- Gun and gun components

Ultrasonic cleaning is not recommended for the following gemstones: Opal, Pearl, Emerald, Tanzanite, Malachite, Turquoise, Lapis and Coral.

## **OPERATION**

### **1. START UP ULTRASONIC FUNCTION:**

1. Fill stainless steel tank with water
2. Plug the cleaner into grounded outlet;
3. Turn the switch to "ON" for start long time working.

During cleaning, you can hear the "ZIZI" voice, it means the cleaner is working.

### **2. START UP FUNCTIONS:**

1. Set temperature from 30-110<sup>0</sup>C: Transfer the temperature as you need, the temperature of 40-60 <sup>0</sup>C is appropriate.
2. Ultrasonic power can be adjustable from 0-100%: Rotate the button to adjust the power, the power will display on the control panel.

### **3. STOP ULTRASONIC PROCESS:**

1. Turn off the temperature.
2. Turn the master switch to "OFF", the cleaner will stops working, indicator light turn off. And then disconnect the power supply.
2. Empty the tank and clean both the outside and inside of the cleaner with clean and dry cloth for next use.

## **DIFFERENT WAYS OF CLEANING**

**GENNRAL CLEANING**—use only tap water. Use warm temperature about 50°C.

**ENHANCED CLEANING**—add few drops of standard washing up liquid, liquid soap, or detergent into water, other non-acidic cleaning agents can also be used.

**EXTENSIVE CLEANING**—removing tarnish, carbon & rust from non-plated metals, it is recommended to use specialist cleaning solution in associated using ultrasonic cleaner.

## SPECIFICATIONS

Model	2300A	2300B
Tank capacity	36L	
Power Supply	AC 100-120V 60Hz / AC 220-240V 50Hz	
Frequency	28KHz	40KHz
Heating power	800W	
Ultrasonic Power	720W	
Tank Size	500x290x250mm( L x W x H )	
Overall Size	570x360x450mm( L x W x H )	
Time	0-20Mins	
Heating	30-110 <sup>0</sup> C	
Net weight	30kg	

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