



ULTRASONIC CLEANER

Instruction Manual



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1. HOW THE ULTRASONIC CLEANER WORKS

The U.S. Solid ultrasonic cleaner uses high-frequency sound waves to create microscopic cavitation bubbles throughout the cleaning solution. When these bubbles collapse, they release energy that helps remove dirt, oil, grease, dust, and other contaminants from submerged items, including hard-to-reach areas.

Cleaning performance depends on the ultrasonic frequency, cleaning time, temperature, cleaning solution, and item placement. Items must be fully immersed and arranged loosely so the solution can circulate freely.

Ultrasonic cleaning does not replace rinsing or drying. Rinse items when necessary and dry them promptly after cleaning.

2. CAUTIONS

- Ensure that the power supply is within the rated range before connecting the power cable. Modification or unauthorized repair is strictly prohibited. Please note that organic solvents, strong acids, and strong alkalis may corrode the control panel.
- Ensure that the grounding wire is properly connected before starting the machine.
- Turn the main power switch to the ON position before operation.
- Do not operate the machine with an empty tank, as this may damage the transducer.
- Close the lid to reduce noise. Be careful of hot water and steam when opening the lid to avoid burns.
- Do not move the machine while there is liquid in the tank, as the liquid may overflow.
- Water-soluble cleaning solutions are recommended for this benchtop ultrasonic cleaner. Strong acids, strong alkalis, and flammable cleaning agents are strictly prohibited. Do not use flammable liquids, such as alcohol, unless specifically approved by the manufacturer. If a solvent-based cleaning solution is used, stop the machine and allow it to cool after each 30-minute cycle.
- Do not operate the machine in the following environments:
 - Areas subject to rapid temperature changes
 - Areas with high humidity or condensation
 - Areas subject to strong vibration or impact
 - Areas containing corrosive gases or dust
 - Areas where water, oil, or chemicals may splash
 - Areas containing explosive or flammable gases
- Do not operate the machine for extended periods with flammable liquids. Use only cleaning solutions approved for ultrasonic cleaners, and follow the solution manufacturer's instructions.

3. TROUBLESHOOTING

NO	Problem	Possible Causes	Solutions	Remarks
1	No ultrasonic output	A. Power supply is not connected B. Fuse is blown C. Cable is short-circuited D. Transducer is short-circuited E. PCB is damaged F. Other causes	A. Check the power connection and turn on the power switch. B. Check the power supply and replace the fuse with one of the same specification. C. Connect the correct cable or replace it with a new cable. D. Contact our after-sales service team. E. Identify and replace the damaged part. F. Contact our after-sales service team.	
2	Timer control failure	A. Timer knob is not working B. Timer has failed	A. Adjust the timer knob screw. B. Replace the timer or digital control panel.	
3	No heating	A. Heater power switch or connection has failed B. Fuse is blown C. Heating element has burned out D. Digital control panel is not working E. Other reasons	A. Check heating plug and connect well, Check outlet line with multimeter: if OK and resistance value is few hundred OHMs. B. Replace the fuse with one of the same specification. C. Replace the heating element if it is open-circuit. D. Check the broken part and replace it. E. Contact our after-sales service team.	Suggestion 50-60°C
4	Temperature control failure	A. Thermostat loosen. B. Thermostat tube broken. C. Digital display of control.	A. Fasten the thermostat header. B. Replace thermostat. C. Check the broken part and replace it.	
5	Poor cleaning performance	A. Ultrasonic power is insufficient B. Liquid level is too high or too low C. Temperature is too high or too low D. Cleaning solution is unsuitable E. Other reasons	A. Turn on the ultrasonic function and adjust the setting. B. Adjust the liquid level to the recommended level. C. Adjust the temperature to the recommended setting. D. Stop and switch off power supply, replace suitable liquid after the previous liquid cool down. E. Contact our after-sales service team.	Suggestion 50-60°C

4. ULTRASONIC CLEANING APPLICATIONS

- These ultrasonic cleaners are made of high-quality stainless steel for excellent corrosion resistance and long service life. They use transducers with advanced bonding technology, high electroacoustic conversion efficiency, and strong ultrasonic output. They are also equipped with automatic constant-temperature heating. Temperature range: 20–80 °C.
- Suitable for cleaning a variety of parts and objects in industries such as precision electronics, eyeglasses and watch parts, optical glass, hardware, jewelry, semiconductor wafers, printer inkjet components, medical instruments, and electroplated parts.

Industry	Parts and Materials Cleaned	Typical Contaminants
Semi-conductor	Integrated circuit, power tube ,silicon wafer, diode, lead frame, capillary, tray, etc.	Hard deposits, etching oil, polishing wax, dust particles, etc.
Electrical & Electronic Equipment	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, head, photo die mask, etc.	Finger print, powder, cutting oil, stamping oil, iron filings, polishing materials, walnut powder, polishing wax, resin, dust, etc.
Precision machine	Bearings, sewing-machine parts, typewriters, textile machines, optical mechanical device, gas valve, watches and cameras, metal filter.	Machine cutting oil, iron filings, polishing powder, fingerprints, oil, grease, dirt, etc
Optical device	Glasses, lens, prism, optical lens, filter lens, glass device, film, optical fiber, etc.	Plastic resin, paraffin, fingerprints, etc.
Hardware & Machinery Parts	Bearing, gear, ball, metal shaft parts, tools, adjustable valve and cylinder parts, burner, compressors, hydraulic press, gun and ultracentrifuge, city water faucet, etc	Cutting oil, iron filings, grease, polishing powder ,fingerprints and so on.
Medical instrument	Medical instrument, denture, etc.	Iron filings. Polishing powder, oil, stamping oil, dirt, etc.
Electroplating	Galvanized parts, mold, stamping parts, etc.	Polishing scrap iron, oil, black iron shell, rust, oxidation shell, scrap iron, polishing powder, stamping oil, dirt, etc.
Automotive Parts	Piston ring, carburetor, flow meter housing, compressor shell, electrical components, etc.	Iron filings, polishing powder, oil, stamping oil, dirt etc.
Chemical fiber	Chemical-fiber nozzle filters and protectors, etc.	Chemical colloid, glue, and other solid material. dust, etc.

5. INSTALLATION AND FIRST USE

Before first use, inspect the cleaner and accessories for visible damage. Do not operate the unit if the tank, power cord, plug, or control panel is damaged.

Place the cleaner on a stable, level, water-resistant surface.

Keep ventilation openings clear and leave space around the unit.

Keep the cleaner away from direct sunlight, heat, moisture, and corrosive or flammable materials.

Use a properly grounded outlet and do not stretch or pinch the power cord.

First-use procedure: Confirm the power switch is OFF and the power supply matches the product label. Install the basket, fill the tank with a suitable solution between the MIN and MAX marks, and place items loosely in the basket. Close the lid and select the settings before starting.

Test the solution and settings on a small or less-visible area first, especially for delicate, plated, coated, painted, or polished items.

6. MECHANICAL MODEL (TIMER & HEATER): PRODUCT OVERVIEW



1. Lid
2. Tank
3. Stainless steel body
4. Power cord
5. Stainless steel basket

6.1 PRODUCT SPECIFICATIONS

Model	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Tank Size (L × W × H, mm)	Unit Size (L × W × H, mm)	Temperature (°C)	Time (min)
USS-UC0100 1	3.2	40	120	150	240x135x100	265x165x230	20–80	0–30
USS-UC0100 2	6.5	40	180	300	300x150x150	325x175x270	20–80	0–30
USS-UC0100 3	10	40	240	300	300x240x150	325x265x275	20–80	0–30
USS-UC0100 4	15	40	360	450	330x300x150	355x325x275	20–80	0–30
USS-UC0100 5	22	40	480	600	500x300x150	530x330x280	20–80	0–30
USS-UC0100 6	30	40	600	600	500x300x200	530x330x330	20–80	0–30

6.2 MECHANICAL MODEL (TIMER & HEATER): OPERATING INSTRUCTIONS

Check the machine

Plug in the machine, then turn on the power switch on the rear panel.



Open the lid and fill the tank with tap water. Operating the machine without water may damage it. Place the items to be cleaned in the water and fully immerse them, but do not fill the tank above the MAX line.



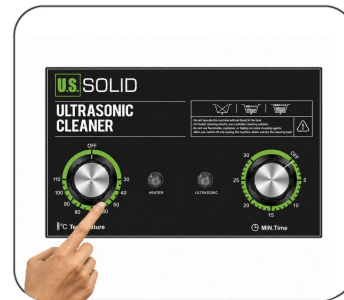
Time setting

Turn the timer knob clockwise to select a time between 0 and 30 minutes. When the ultrasonic indicator turns on, the ultrasonic function is operating. Do not turn the timer knob counterclockwise.



Heater setting

Turn the temperature control knob to set the desired temperature. A setting of 40–60 °C is recommended when heating is needed. When the actual temperature is below the set temperature, heating starts automatically and the heating indicator turns on. The heating indicator turns off when the set temperature is reached.



Finish operation

After operation, unplug the machine before cleaning the tank. Make sure that no liquid remains in the tank before long-term storage.



7. DIGITAL MODEL (TIMER, HEATER & DEGAS): PRODUCT OVERVIEW



1. Lid
2. Tank
3. Stainless steel body
4. Power cord
5. Stainless steel basket

7.1 PRODUCT SPECIFICATIONS

Model	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Tank Size (L × W × H, mm)	Unit Size (L × W × H, mm)	Temperature (°C)	Time (min)
USS-UC01007	3.2	40	120	150	240x135x100	265x165x230	20–80	0–30
USS-UC01008	6.5	40	180	300	300x150x150	325x175x270	20–80	0–30
USS-UC01009	10	40	240	300	300x240x150	325x265x275	20–80	0–30
USS-UC01010	15	40	360	450	330x300x150	355x325x275	20–80	0–30
USS-UC01011	22	40	480	600	500x300x150	530x330x280	20–80	0–30
USS-UC01012	30	40	600	600	500x300x200	530x330x330	20–80	0–30

7.2 DIGITAL MODEL (TIMER, HEATER & DEGAS): OPERATING INSTRUCTIONS

Check the Machine

Plug in the machine and turn on the rear power switch.

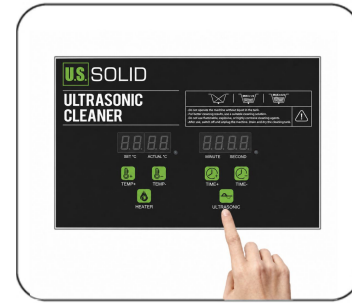


Open the lid and fill the tank with tap water. Fully immerse the items without exceeding the MAX line. Never operate the cleaner without water.



Time Setting

The default time is 05:00. Press TIME+ or TIME– to increase or decrease the time by 1 minute. Press ON/OFF to start cleaning. The machine stops automatically when the timer reaches 00:00.



Temperature

The display shows the set and actual solution temperatures. Press TEMP+ or TEMP– to adjust the set temperature by 1°C. Press ON/OFF to start heating. The heating indicator turns off when the set temperature is reached.



Degas

While the machine is idle, press ULTRASONIC three times within 3 seconds to activate degassing. The machine runs for 6 seconds and pauses for 3 seconds repeatedly until the timer expires.



Finish Operation

After use, turn off and unplug the machine. Empty and clean the tank, and ensure it is completely dry before long-term storage.



Contact

Feel free to visit our website: ussolid.com

You can email us at service@ussolid.com