

ULTRASONIC RECORD CLEANER DIY with adjustable power, variable frequency and advanced cleaning functions



Our ultrasonic record cleaning device is based on professional medical ultrasonic device and ready-made components available in DIY stores, and is designed for vinyl record lovers who are not satisfied with mechanical cleaners .

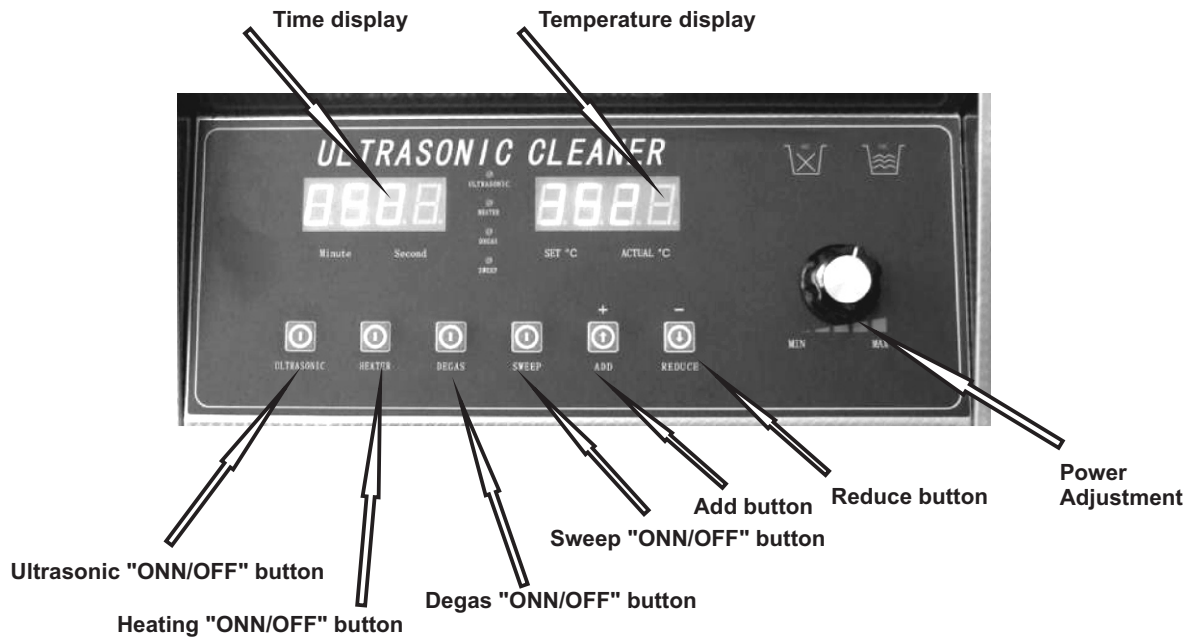
Ultrasonic cleaning uses cavitation bubbles induced by high frequency pressure (sound) waves to agitate a liquid solution. The agitation produces large forces on contaminants adhering to substrates such as metals, plastics, glass, rubber, and ceramics. This action also penetrates into blind holes, cracks, and recesses. The intention is to thoroughly remove all traces of contamination tightly adhering to or embedded in solid surfaces. Water or solvents can be used, depending on the type of contamination and the workpiece. Contaminants can include dust, dirt, oil, pigments, rust, grease, algae, fungus, bacteria, limescale, polishing compounds, flux agents, fingerprints, soot wax and mould release agents, and biological soiling including blood. Ultrasonic cleaning can be used for a wide range of workpiece shapes, sizes, and materials, and does not require the part to be disassembled prior to cleaning. Objects must not be allowed to rest on the bottom of the cleaning device during the cleaning process, because that will prevent cavitation on the part of the object not in contact with the liquid.

Vinyl records are very sensitive to contamination and mechanical damage, which causes unwanted noises and crackles during playing. Record condition deteriorates with improper storage and handling, leading to reduced listening quality. Mechanical damage (“scratches” and “scuffs”) is difficult to fix. However, the most common cause of noise is dirt.

Ultrasonic cleaners are often used by professionals, including vinyl record retailers, to revitalize older records because they cannot be effectively cleaned with mechanical cleaners. These devices are expensive (\$3,000 to \$4,000), and thus tend not to be used at home.

We offer you a simplified and very effective device. It does not have fluid filtration, drying, and other expensive features. Instead, it has a simple design that is affordable for enthusiasts who appreciate that cleanliness is essential for good sounding music.

General information and settings



1. When received the device, slight shake it, confirm if there any sound in the chassis, make sure any loose parts;
2. Put the device in a dry, well-ventilated place, make sure the machine is level;
3. Power plug is properly connected: Make sure that the power supply a reliable grounding wire !

Adjusting time:

Digital and Regulating power: When power on, the left digital screen display "0500" Represents the default setting is 5 minutes and 00 seconds, press switch at least 3 seconds to setting the cleaning time, Release the hand when the display window blinks, then press "+" or "-", time will be increase by one minutes or reduce by one minutes; After setting time, Flash automatically saved after 15 seconds to exit. Press "ULTRASONIC", When timer count down to 00:00, the ultrasonic stop working.
Note: The device with memory function and acquiesce in the last time of the setting.

Adjusting temperature:

Digital and Regulating power: The right digital screen display "50" and actual temperature "XX", represents the default setting temperature is 50 degrees. Press Switch at least 3 seconds to setting heating temperature, Release the hand when the display window blinks, then press "+" or "-", after setting temperature, Flash automatically saved after 15 seconds to exit, press "HEATER", start heating, The actual temperature will continue to blink during heating.

Degas function, press "DEGAS", the device will work in degas mode and will intermittent work. Press "DEGAS" again, degas will stop working.

Sweep frequency function, press "SWEEP", activate sweep frequency function, with different frequency of repeated cycle of work. Press "SWEEP" again, sweep will stop working.

Adjusting ultrasonic power (Regulating power):

The power adjustment knob is on the right, Clockwise increases power, Reduce power counterclockwise; ultrasonic power 10%~100%, adjust the power should be slow and steady operation, after the power setting, do not adjust the ultrasonic power while working, to prevent damage to the machine.

Auto-OFF(Digital):

The machine automatically shuts down after 10 minutes when it is powered up and does not work. The next time you work more than simply turn off main power supply for 5 seconds and then open it. Shut down after finishing work:

After the cleaning process is finished, Turn off heating, unplug the power cord, Finally, Pour the fluid out the tank . Clean and wipe the tank.

NOTE: Do not pour fluid out until it's cooling, Hot water will hurt you and damage the machine itself.

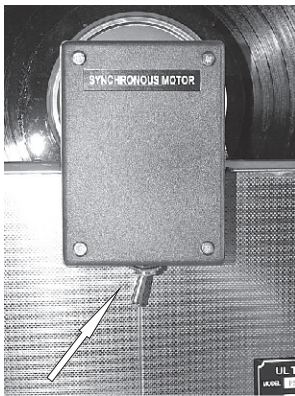
NOTE: If the machine starts to spark, smoke, smell of burnt electrics or displays any other fault the operator must immediately stop the machine, isolate the electrical supply and contact the supplier. Continued use is dangerous.

Operation of the cleaner

The device is designed for wet cleaning of 12" vinyl long-playing records. Spacer discs are needed for washing singles (7") - these are not supplied, but you can use normal 7" vinyl adapter for singles.

The cleaner is an independent construction based on medical ultrasonic cleaner and using low-cost components, based on years of experience in cleaning and revitalizing old and damaged vinyl records. It is perfectly suited for the hobbyist, but also can be use by professionals.

The cleaner has an automatic drive, adjustable power and heating.



switch drive



To begin cleaning, put the metal axle into a wooden board, slide a spacer onto the metal axle, then put a record on, before adding the next spacer, until 6 records are loaded. Then secure the metal clamp with the black markers on the outside. Place into a front axle holder, put the brass tube on axle, secure with screws and place onto motor axle. You can clean of course only one record, but up to 6, no more.

Fill container with washing liquid consisting of:

Isopropyl Alcohol 96% - 1 litre (available in electronics stores)

Take care because the isopropyl is very poisonous; you need ventilation!

Demineralized water - 4,5 litres

Mirasol liquid (TETENAL) or Ilfotol (Ilford) - 10 mls.

(or you can use a few drops of natural dishwashing liquid)

For best result is very important to use liquid with such a composition.

After dipping the records into the liquid, fill the tank with demineralised water up to a level below the edge of the record labels. Insert the power plug into the socket and turn on the switch on the back. Set 5 minutes on time display, then press start button and motor switch. Washing starts. You will hear the "sizzling" voice, that means the cleaner running properly. If your records are medium soiled, you do not need to use heater.

But if you like to intensify the action of ultrasound, warm up the liquid up to 40^o Celsius.

In the case of extremely dirty record it is recommended to set temperature on 40^o, wait for warming up and do "prewash" without using motor:

Set axis with records the black marker "1" up (on first spacer), set 5 minutes and start washing.

After automatic switch off, turn the records through 90 degrees and repeat the operations for each quarter of the record surface so that each is subjected to washing for 5 minutes.

After that do the "normal" washing.

Time of washing is very individual process, and depends on the condition of the vinyl record.

Sometimes, in the case of heavily polluted record you must repeat operation for 2 or 3 times.

Spacers, when well fitted, protect labels enough.

Advanced cleaning function

Degass

After switching on this mode, ultrasonic generators operate intermittently. This will remove the air, including carbon dioxide from the liquid. As a result, more cavitation bubbles are produced, which increases the washing efficiency by more than 30%.

Sweep

After switching on this mode, ultrasonic generators will start to operate in different frequencies. The alternating frequency change results in the optimal distribution of ultrasonic waves, and faster removal of impurities from the vinyl surface.

Do not operate the cleaner without liquid because this may damage the device.

Do not run the cleaner for more than 30 minutes in total for a single session.

Take at least a 20 minute break to let the ultrasonic device rest.

After washing, remove the set and put the whole on a towel or cloth and allow to dry, or use vacuum cleaner or vacuum adapter (available on www.audiorevita.pl/accesories)

After drying (about 30 minutes), put the axle into a wooden board, unscrew the set and wipe the edges of the records with a soft cloth. Then insert each newly cleaned disc into a new inner sleeve.

Be careful when using a screwdriver. It is the possibility of hurt your vinyl.

Safetycautions:

- Keep it away from children !

- Take normal voltages of the power source to energize the machine.
- Never operate the device without any liquid in the tank.
- Never operate the machine more than 30 minutes of running
- Put the machine equilibratory, keep it surroundings clearly, wipe and dry out the cleaning solutions spoiled out from the tank of any, and avoid the machine to be collided by hard object.
- Never overfill the tank more than up to record label.
- Never immerse the machine or power cord in water or other liquid.
- DO NOT touch the power plug with wet hands, especially when inserting or removing the plug.
- DO NOT disassemble the machine, except by professionals.
- UNPLUG the power source whilefilling or emptying the tank
- DO NOT spray water or liquid over the device and control panel.
- DO NOT operate the machine without proper groundig.
- DO NOT place the machine on a soft surface, where the vents could be blocked
- Always turn the heater off after using as leaving it on can cause the fluid to evaporate and damage the internal components.
- In case of failure/emergency, disconnect the mains supply by removing the plug from mains socket.

Technical:

Adjustable power 50-180W
Power supply 230V ~ 50/60Hz
Ultrasonic frequency ~ 40KHz
Degass function
Sweep function
Engine speed - 2,5 r/min.

The kit consists of: ultrasonic cleaner, power lead, drive system, axle with spacers and metal clamps, axle base, and the manual.

The cleaning fluid is not included.

Power supply 230 V. For United States and other countries with 110 V you need a power converter (110V – 230V) available on Ebay.

Important ! Converter must give 500W output power or more

Dimensions

32,5 cm x 17,5 cm x 28,5 cm