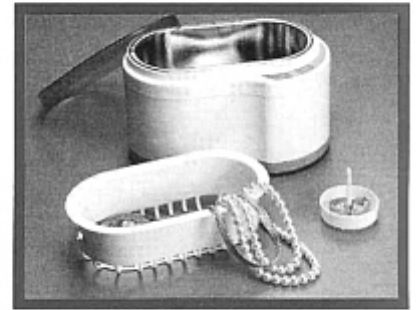


# Ultrasonic Cleaner

Ultrasonic cleaning is a fast, safe way of cleaning that's been used by doctors, veterinarians, jewelers, dentists and industry for years. And now, with the IKOHE ultrasonic cleaner, you can take advantage of ultrasonic cleaning for many hard-to-clean small items at home.



## How it works:

The ultrasonic cleaner uses ultrasonic energy in the form of sound waves to create literally millions of tiny, microscopic bubbles in the solution. These bubbles expand and collapse rapidly. As they collapse, they create a mechanical "scrubbing" action that works its way into holes and as well as hidden cavities, loosening dirt on all surfaces that the solution touches. This action (called cavitation) occurs thousands of times per second, every second, to scrub dirt off the object being cleaned.

## Set Up and Instructions

### Set Up:

1. Be sure the ultrasonic cleaner is unplugged before you proceed. Always unplug the unit before you fill or empty the tank.
2. Fill the tank to at least the minimum liquid level in the tank.
3. The ultrasonic cleaner, should be plugged into a 110/120 volt outlet, except in countries where 220volt is required.  
Note: In the USA do not use 220 volt.
4. Turn on the cleaner and allow it to run for 2-3minutes to degas.

### Cleaning Instructions:

1. Objects to be cleaned should be in the basket provided. Do not place items directly on the tank bottom.
2. Place the basket into the solution. In thirty seconds to two minutes, depending on the amount and type of soil to be removed, the cleaning accomplished. The cleaner will automatically turn off after five minutes. You can shut the unit off during the cleaning cycle, by pressing the OFF switch. Cleaning time can be extended beyond the five minutes, for particularly difficult cleaning jobs just by pressing the ON switch again.
3. Rinse under warm tap water after being removed from the cleaner.
4. Dry and lubricate the necessary parts.

### Safety:

1. Cleaning items for the first time, and when cleaning delicate or valuable items, always experiment with one piece before proceeding with the rest. For example, extremely old jewelry, may be held in its setting only by accumulated dirt, which will be scrubbed away by the Ultrasonic Cleaner.
2. When cleaning inexpensive or costume jewelry, be cautious the powerful cleaning action for the Ultrasonic Cleaner, can loosen settings held in place only by cement.
3. When cleaning an item containing working parts, each part should be cleaned individually. Then the parts should be oiled immediately after cleaning.
4. Always use a cleaning solution that is recommended by the manufacturer for the items you are cleaning.
5. Only use cleaning chemicals and solutions compatible with the Ultrasonic Cleaner's stainless steel tank.
6. Follow precautions and recommendations, recommended by manufacturer of the cleaning solutions.
7. Provide adequate ventilation and avoid contact with solutions.
8. To avoid possible discomfort, do not put hands or fingers into the tank when the Ultrasonic Cleaner is in operation.
9. Solvents or flammable liquids should not be used in the Ultrasonic Cleaner.
10. Ultrasonic Cleaner should not be operated without liquid in the tank.
11. IT IS NORMAL FOR YOUR CLEANER TO BECOME WARM AFTER 10-15 MINUTES OF CONTINUOUS OPERATION.

# Choosing & Use of Cleaning Solutions

Each manufacturer includes directions describing the best way to use their cleaning solutions on their package or bottle. Follow the manufacturer's directions.

Cleaning solutions must be degassed before they can reach their peak efficiency. When the air and gases expel from the solution, this is called degassing. Once the Ultrasonic Cleaner is turned on, the degassing process normally takes only a minute or two. You can speed up the process by adding warm water (120-140°F) in recommended proportions, to the cleaning solution. Always use warm water it cleans better than cold water, and should be used for almost all cleaning. Always check cleaning solutions on a regular basis. Cleaning solutions should also be checked regularly, as they can become spent, just as dishwasher does, when their cleaning ability is exhausted. The solutions will also become too dirty to work effectively. Soil may be re-deposited on the surface as fast as it is removed if you use solutions that are saturated with oil. Soil in and on the cleaners tank bottom will also interfere with the ultrasonic action of the cleaner thus reducing the cleaning efficiency. Inspect and replace the spent solution with fresh cleaner regularly.

## Cleaning Solutions

**The two basic types of cleaning solutions:** Aqueous: one which is soap and water and the second which is Solvents: such as mineral spirits. Your Mini Ultrasonic Cleaner is designed to operate with aqueous solutions only. Flammable solutions or solvent should never be used in the Mini Ultrasonic Cleaner.

Among aqueous cleaning solutions there are any number of acidic and alkaline formulas for almost every type of cleaning job (or application) and the ultrasonic cleaner's stainless steel tank will not be harmed by most of them.

However, some strong acids and powerful caustics attack even stainless steel, and ultrasonics will accelerate their harmful action.

The appearance of rough and pitted surfaces on the walls of the tank is a sign that is happening. Discontinue the use of this cleaning solution at once.

When used on hard materials such as glass, stones, ceramics, metals and hard plastics you'll find it extremely effective because of the nature of ultrasonic cleaning. Cleaning soft or porous materials such as rubber, cloth, fiber products or Styrofoam, it is relatively ineffective.

A great number of different soils, can be removed from hard materials when using the Ultrasonic Cleaner, including oils, grease, cement, grass, rust, tarnish, food, dirt...and even soldering fluxes. This Ultrasonic Cleaner can be used for laboratory cleaning to, protein residues, remove blood, and other contaminant's from instruments.

\* Ultrasonics may cause discoloration or cracking, if Pearls, opals, and other soft stones are cleaned ultrasonically.

## Limited Warranty

When used in accordance with manufacturer's instructions and under normal use the Ultrasonic Cleaner IKOHE UL-009, is guaranteed to be free of defects in material and workmanship for 12 months after date of purchase. IKOHE will repair or replace free of charge, at its sole discretion, within the 12 month period, F.O.B. 19 Industrial Avenue, Mahwah, NJ 07430, USA, on all parts defective because of material or workmanship, not including labor costs for removing or installing parts.

IKOHE liability, whether based on warranty, negligence or other cause, arising out of and/or incidental to sale, use or operation of the cleaners or any part thereof, shall not in any case exceed the cost of repair or replacement shall be the exclusive remedy of the purchaser, and of the defective equipment, and such repair or replacement in no case shall IKOHE be responsible for any and/or consequential damages including without limitation, any and/or all consequential damages arising out of commercial losses.