

TPC Advanced Technology
17588 E. Rowland St.
City of Industry, CA. 91748

(800)-560-8222

SPECIFICATIONS

Model	R-1510	R-2510	R-5510	R-8510
Input 115VAC 50/60Hz	0.7 AMP 80 Watts	1.1 AMP 130 Watts	2.2AMP 260Watts	4.4AMP 520Watts
Input 230VAC 50/60Hz	0.35 AMP 80 Watts	0.55 AMP 130 Watts	1.1AMP 260Watts	2.2AMP 520Watts
Frequency	45KHz	45KHz	45KHz	45KHz
Overall Dimensions L×W×H	16.3×15×19 6.4”×5.9”×7.5”	25×15×19 9.8”×5.9”×7.5”	31×25×24 12.2”×9.8”×9.5”	51×31×24 20.1”×12.2”×9.5”
Tank Internal Dimensions L×W×D	14×13×10 5.5”×5.1”×3.9”	23×12.5×10 9.1”×4.9”×3.9”	28.5×23×15 11.2”×9.1”×5.9”	48.5×28.5×15 19.1”×11.2”×5.9”
Ship Wt.	2.4Kg 5.3lb	3.9Kg 8.6lb	6.0Kg 13.2lb	12Kg 30lb
Tank Capacity	1.9L 0.5gal	2.8L 0.75gal	9.5L 2.5gal	21L 5.5gal
Timer	60mins Mechanical	60mins Mechanical	60mins Mechanical	60mins Mechanical

OPERATION ENVIRONMENT:

AMBIENT TEMPERATURE : +10 +40

RELATIVE HUMIDITY : 30% □ 75%

ATOMOSPHERIC PRESSURE : 700 hPa □ 1060hPa

TRANSPORTATION AND STORAGE ENVIRONMENT:

AMBIENT TEMPERATURE : □ 10 □ □ +70 □

RELATIVE HUMIDITY RANGE : 10% □ 90%
ATMOSPHERIC PRESSURE : 500 hPa □ 1060hPa

- 1. What Is Ultrasonic Cleaning**
- 2. Warnings**
- 3. Basic Operating Do's And Don'ts**
- 4. Start-Up**
- 5. Positioning the Drain**
- 6. Drain Assembly R-5510 R-8510**
- 7. Cleaning methods**
- 8. Accessories**
- 9. Trouble Shooting**
- 10. Warranty**

Congratulations on your purchase of a TPC Sonikleen Ultrasonic Cleaner. Your machine is part of a complete cleaning procedure, which is thoroughly described in this user manual.

WHAT IS ULTRASONIC CLEANING

Ultrasonic cleaning is a process created by sound waves that are transmitted at frequencies beyond the range of human hearing. These sound waves, that are carried through the solution in the tank, create a unique vibration pattern causing alternating high and low pressures in the liquid. During the low-pressure stage, millions of tiny bubbles form. This process is called CAVITATION, meaning the "formulation of cavities". During the high-pressure stage, the bubbles collapse or "implode", releasing enormous amounts of energy "working in all directions, attacking every surface and invading all recesses and crevices, pulling the debris off of the object being cleaned.

The intense high-frequency power which causes the transducer to radiate and create cavitation is developed by a generator located within your Ultrasonic Cleaning System. The design of circuit of the TPC Ultrasonic Cleaning System ensure the maximum cleaning efficiency and the optimum reliability. Factors such as length of cleaning time may also enhance your cleaning task. A timer is available on the TPC Sonikleen Ultrasonic Cleaner system.

WARNINGS

Before using your TPC CLEANING SYSTEM , please read and understand the following warnings. Failure to follow, may result in personal injury or property damage, and negate the warranty.

- Never operate your TPC CLEANING SYSTEM when hands are wet.
- Never put highly-flammable liquids in tank.
- Never allow liquid level to drop above one inch (25mm) from the bottom of the tank.
- Never run your machine dry. This will cause damage to the machine.
- Make sure the machine is grounded. Do not remove the grounding pin from the line cord.
- Make sure you are using the proper voltage for your machine.
- Keep the control panel clean and dry.
- Keep the area around the machine clean and dry.
- Never immerse your machine in water. To clean unit: unplug, rinse and wipe dry.
- Avoid placing your fingers in the tank when it is in operation. Always use accessories available from TPC.
- Never disassemble your machine. This should only be done by an authorized TPC technicians.
- Avoid operating your machine at extremely high temperatures for extended periods of time.

BASIC OPERATING DO'S AND DON'TS

Do's

- 1 Ensure the line cord provided with your TPC CLEANING SYSTEM is

properly grounded.

- 2 Operate your Ultrasonic Cleaning System with sufficient solution in the tank.
- 3 To prevent solution loss through evaporation and splashing, use the tank cover when the machine is in operation.
- 4 Keep the inside surface of the tank clean and free of sediment.
- 5 Keep ventilating louvers clean and free of obstructions.
- 6 Be sure to unplug the machine before moving it.
- 7 If service is required, consult the TPC technicians.

Don'ts

- 1 Do not subject your machine to shock impact.
- 2 Do not operate without sufficient water in the tank.
- 3 Do not operate the cleaning system when hands are wet.
- 4 Do not immerse machine in water or any other liquid.
- 5 Do not use gasoline, benzine or other highly flammable chemicals in your Ultrasonic Cleaning System.
- 6 Do not use acid or blend in your stainless steel tank as pinholes will be created.
- 7 Do not place any objects directly on the bottom of the tank. They may block cavitation, prevent proper cleaning, and cause a build-up of heat in the transducers. A TPC Stainless Steel Accessory Basket is recommended.
- 8 Do not restrict air flow. Good ventilation is required.
- 9 Do not operate your machine in extremely dusty areas. Dust build-up may interfere with the machine's normal operation.
- 10 Avoid placing hands in the machine.

START-UP

- 1 Plug line cord into the AC outlet.
- 2 Pour in the required amount of water. Add the part(s) to be cleaned in your accessory basket. Make sure the part(s) are totally covered by water. If necessary, add more water to bring the level to just above the part(s) being cleaned.
- 3a For machines with a timer.....
To activate your machine, simply set your timer on the front panel to the number of minutes desired for ultrasonic cleaning. These self-timing units will automatically shut themselves off at the end of the pre-set time.

3b For machines with heat.....

On machines equipped with heat, a separate "On-Off" rocker switch is located on the front panel. This switch allows pre-heating of cleaning solution before the ultrasonic operation. The rocker switch is lit when the heater is in operation and must be switched off when not in use.

The heater element is designed to maintain a temperature of 125 -150° (52°- 65°). When you operate both the ultrasonic and heat simultaneously, with the tank covered with the supplied lid for an extended period of time, the solution temperature will rise above this level. At this point, the thermostat will automatically shut the heater element off until the solution drops below maximum heat level. The thermostat will be reactivated as required. During this cycle, the heat indicator light will remain lit. Because of the intense ultrasonic power dissipated in the form of heat, the temperature of the solution may once again rise above the 150° with the ultrasonic operating.

NOTE: The heat rocker switch must always be manually turned off.

POSITIONING THE DRAIN

1. Open bag and remove pre-assembled drain fitting.
2. Loosen nut on elbow. Refer to sketch below.
3. Position machine so that you are facing the stainless steel drain tube.
4. Slide assembly over drain tube.
5. Adjust position of drain tube as desired. (Drain right or left.).
6. Hand-tighten. Nut should be against the rear panel. Do not over-tighten.
7. Feed end of drain tube through pinch clamp.
8. Secure plastic tubing info clip at top of machine.

DRAIN ASSEMBLY R-5510 R-8510

The drain on your ultrasonic cleaning system has been pre-assembled to be positioned towards your left as you face the back of the unit illustration #1 .

If you would like the drain to be positioned towards the right, please follow the instructions below illustration #2 .

INSTRUCTIONS

The drain illustration #1 can be adjusted to reverse hose direction illustration #2 , by holding the valve at point 1 1" wrench and rotating and tightening the elbow 180°

degrees at point 2 3/4" wrench.

CLEANING METHODS

Direct Cleaning Method

This direct method of cleaning is beneficial due to its simplicity and cleaning effectiveness. In this method, the part(s) to be cleaned are placed in your accessory basket. In turn, the basket is then placed directly into the main tank already containing water. Cleaning times may vary depending on the amount and types of contamination on the items. We suggest that a 3-5 minute cycle be initiated and more time added if necessary.

NOTE: For extremely contaminated objects, per-soaking or per- or post-hand brushing may be necessary.

Indirect Cleaning Method

When a cleaning application necessitates a series of different solutions, or when a specialized solution which is not to be placed directly into the stainless tank is to be used, the following procedure is recommended.

If a beaker or beakers are used, place the beaker in a TPC positioning cover using the beaker band to adjust the depth of the suspension so the beaker bottom is slightly below the surface of the solution in the main tank, but off the bottom.

In the Indirect method, the beaker functions as a second ultrasonic cleaning machine when properly used.

ACCESSORIES

STANDARD ACCESSORIES

- 1 □ Cleaning Unit
- 2 □ Pipe With Connector and Clamp
- 3 □ Stainless Tank Cover
- 4 □ User Manual

OPTIONAL ACCESSORIES

- 1 □ Solid Side Basket
- 2 □ Positioning Cover for 600ml Beakers
- 3 □ 600ml Beaker □ Beaker Covers

TROUBLE SHOOTING

1. If unit fails to start...
 - Insure unit is plugged in.

- Insure power switch or timer is on.
- Refer to qualified service personnel.
- 2. If unit does not clean adequately...
 - Do not overload tank.
 - Clean tank, replace with new solution.
 - Use chemical more suitable for application.
- For extremely contaminated objects, per-soaking or per- or post-hand brushing may be necessary.

WARRANTY

TPC hereby warrants that for a period of two (2) year from the date of purchase this instrument shall be free from defects in material and workmanship and will perform satisfactorily under normal use and service. The bonding of the transducer to the tank is warranted for the period of ten (10) years.

The warranty stated herein is the sole warranty applicable to TPC products. TPC expressly disclaims any and all other warranties expressed or implied, including warranties or merchantability or fitness for a particular use. TPC'S liability with prospect to its products expressly limited to the remedies set forth above. The remedies are the buyer's exclusive remedies. TPC shall under no circumstances be liable for incidental or consequential damages.