

Instructions for Model E385



Introduction

The E385 ultrasonic unit with ESMA cleaning solutions will effectively handle your cleaning needs. The all-solid state unit is housed in a stainless steel cabinet.

The unit features self-tuning with a device for load optimization, potting transducers, modular circuit board, built-in tank drain with CPVC ball valve. The unit has a built-in fan for cooling the electronics and an RFI filter to eliminate high-frequency noise feedback. This E385 unit is designed and built to give you years of reliable service, high power, and fast, effective cleaning.

E385 can be combined with model E486 (10 Qt. Ultrasonic Rinser) and with model E1086 (Betman Dryer) for a complete system where parts are ultrasonically cleaned, rinsed, and dried. Cabinets for these three models are of identical size and can be permanently fixed together with a supplied joining strip.

Installation

Place unit on bench, preferably close to a sink. **DO NOT PLACE THE UNIT ON A TOWEL, PAPER, OR LOOSE FABRICS** (the cooling fan draws from the bottom of the unit and these objects will be pulled up against inlet, slowing the air flow and resulting in overheating of electronics). Fill tank with approximately 6" of liquid. **NEVER OPERATE UNIT WITHOUT LIQUID IN TANK.**

The unit must be electrically grounded. Connect to a three-way grounded outlet. If you have a 2-wire service, an adapter with an external ground wire is necessary. Connect the green grounding wire of the adapter to the screw, which holds the electric outlet plate cover to the socket. The unit is rated at 550W, 120VAC and is fused at back of unit 10A.

DO NOT OPERATE UNIT WITHOUT PROPER GROUNDING.



Celebrating 40 years of excellence in manufacturing ultrasonic cleaning equipment, electropolishing equipment and associated chemistries.

Operation

The basic principle of operation is the enhancement and acceleration of the chemical cleaning through cavitation created by ultrasonic waves.

Parts to be cleaned are placed in rack (basket) and rack is positioned into the ultrasonic tank. Never place parts directly on bottom of tank (tank could eventually be perforated).

Timer – A 15 minute mechanical timer is installed in the unit. Simply set the timer to the desired time to activate the ultrasonic cavitation.

Heater – The unit is equipped with 200 watts of heat for the bath. The heat switch is located at the lower left corner and will activate the heaters when turned ON. This switch is indicated by a red light. The temperature is controlled at approximately 130°F by an internal thermodisc. Allow ¾ Hour for heat up from room temperature.

Never try to remove tank from cabinet. The tank is sealed into the cabinet in order to prevent any liquid from penetrating inside and damaging the electronics.

Maintenance

Periodically, the ultrasonic cleaning solution in the tank must be changed:

- Unplug unit from 115VAC outlet.
- Drain liquid into a container or sink by opening the valve at the rear of unit.
- After tank is empty, flush out tank and drain it.
- Wipe tank clean and dry.
- Close drain valve and add fresh solution.

The cabinet is made of stainless steel. Clean with a commercially available cleaner for stainless kitchen appliances.

Modular Circuit Board

The model E385 is equipped with a modular circuit board that is easily replaced if a problem occurs. If the ultrasonic action in the tank stops, (and most of it is due to failures occurring in the circuit board) call us and a replacement circuit board will be shipped immediately. This way the need for shipping the unit back for repairs is eliminated, and the disruption is minimal.

The circuit board is replaced as follows:

Esma, Inc.

P. O. BOX 734 * SOUTH HOLLAND, IL 60473 * (800)-276-2466 * FAX (708)331-8919



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- Unplug unit from 115VAC outlet and drain liquid from tank.
- Remove screws, which hold back panel to cabinet and lay back panel down.
- Loosen and remove the four wires connecting the circuit board to the terminal connector.
- Circuit board can be removed from back panel by removing four holding nuts.
- Fasten new circuit board to back panel with four nuts. Make sure circuit board is properly spaced from back panel.
- Connect and tighten the four wires to terminal connector by matching colored wires to corresponding color on the terminal block inside the unit.
- Make sure wires from circuit board do not touch fan blades.
- Close back panel (first insert two screws in bottom of panel, then screw tighten cabinet insides).

In case of any questions or problems contact the manufacturer. Call 1-800-276-2466.

WARRANTY: One year unconditional warranty. Two years on circuit boards. Lifetime on tank weld seams.

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