

## ULTRASONIC TABLE TOP WASHER MODEL UC-0907



### ACCESSORIES INCLUDED / OPTIONAL

- ✓ Baskets and racks to fit any part(s)
- ✓ Soap and cleaning solutions
- ✓ Filter elements
- ✓ Auxiliary oil skimmer
- ✓ Filtration unit
- ✓ Heavy duty gloves

- Warranty
- Safety

- Operation
- Service Parts

- Accessory Information
- Registration Form

# INSTRUCTION MANUAL

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## SAFETY REQUIREMENTS

### PLEASE NOTE

All personnel must read this user guide before attempting to install, operate, maintain or service the ISTpure Ultrasonic Cleaning Equipment.

### HAZARDS

- High voltages are present, **ALWAYS** disconnect unit from power source before attempting any maintenance or service procedure.
- Hot water; do not place unprotected hands in tank. Use baskets with tongs or proper rubber gloves to insert or remove parts from tank.
- Read MSDS sheet for cleaning agents recommended for the system. Note the requirements for personal protection listed on the MSDS.
- Make sure equipment is installed in accordance with all electrical codes.
- Never operate this equipment in an ungrounded condition.
- Never attempt to perform maintenance when cleaning solution is hot.
- Never open equipment or attempt service/warranty related repairs without first contacting ISTpure for safe and proper procedures.

### TECHNICAL SPECIFICATIONS

Description	Data
Tank Capacity	1 gal
Overall Dimensions (L x W x H with open lid)	24" x 13" x 18"
Cleaning Tank Dimension (L x W x D)	9" x 7" x 9"
Ultrasonic Power	400 W peak / 200 W average
Heat Power	250 W
Electrical Requirements	110 V / 5 A / 1 $\Phi$
Product No.	<b>365000</b>

### OPTIONAL ACCESSORIES

Full Length Basket	<b>365500</b>
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### SAFE OPERATION

- Do not immerse hands or other body parts in the ultrasonic tank. Cleaning agents and contaminants can cause skin irritation and exposure to high intensity ultrasonic energy should be avoided.
- Do not operate system using volatile, explosive, combustible or acidic liquids (pH less than 7). Unauthorized cleaning agents, not approved by ISTpure, will invalidate warranty and may cause damage to system.
- Do not rest parts on the bottom of tank. A basket that stands off the bottom of the tank is mandatory for all parts; noncompliance will result in severe tank erosion and void the warranty.
- Do not operate the system unless the tank is full of water (minimum liquid level line on back wall of tank, 2" below top of tank wall). Operating at less than full capacity may result in damage and void the warranty.
- Do not open up machine, generator, disassemble any part(s), move or remove any components or electrical devices.
- Do not connect the tank to any other power supply than what is specified on the serial tag of the tank (110V).
- The tank/generator contains high voltages and should be maintained in a clean, dry environment at all times.
- Do not move the cleaning system without draining the tank and disconnecting the unit from the power supply.
- Operating temperatures of the solution requires protective clothing and equipment to protect against the possibility of scalds following accidental spills.
- Make sure that the sound levels experienced in your environment are known, and wear hearing protection if necessary. Ultrasonic energy produced by the system is measurable by sound meters and OSHA sound restrictions may apply.
- Do not leave the ultrasound on or leave parts in the tank longer than necessary. This can result in erosion of the part surface and/or the bottom of the tank.
- Do not allow moisture to build up inside the unit or generator, this can cause electrical shorts and corrosion of the ultrasonic transducers.

## INSTALLATION & INITIAL SETUP

Receiving- Inspect packaging and unit carefully to ensure there has been no damage in shipping. If there is damage, contact the carrier immediately to process a claim.

Place the tank in a well-ventilated area on a flat level surface.

Unit is equipped with a lid that opens to form a drain shelf, attach the bracket to the side of the unit using a 4mm hex wrench and existing screws. Make sure the black rubber pads are facing up and insert metal stick under the bracket to support the shelf.

Check your power supply before connecting unit. The system is designed to operate from a power supply 110 V / 1 phase / 60 Hz / 15 A.

Make sure drain valve is closed and then add water and cleaning agent to the tank. The liquid level in the tank should be at the minimum liquid level mark on the backside of the tank (~2" below top of tank wall).

Use only ISTpure approved cleaning agents and make sure you use the proper, recommended concentrations.

Main power switch is located on the back of the unit, turn switch on to send power to the machine.

Set operating temperature using the **Temp Controller** to 160 °F (70 °C) and push green **Heat ON** button.

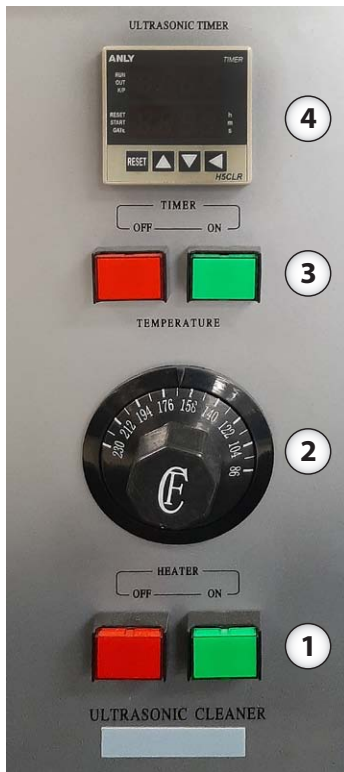
When operating temperature of 160 °F is reached, set the **Ultrasonic Timer** to 15 minutes and push green **Ultrasonic ON** button. This process, known as degassing, will remove air from the bath, which is required for effective cleaning. During this degassing phase, some squeaking sounds may occur, this is normal.

Unit is now ready to clean parts, see NORMAL OPERATION procedures.

Fill out WARRANTY REGISTRATION form, page 10 (serial number plate is located on the side of the unit). Send back completed form to ISTpure to ensure activation of your warranty.

## SYSTEM OPERATION

### TANK CONTROL PANEL



① **HEATER ON/OFF:** These buttons turn heat **ON (green button)/OFF (red button)**.

② **TEMPERATURE CONTROLLER DIAL:** Controls the temperature of the solution - operating temperature should be 140 °F - 160 °F. Factory set @ 160 °F, this setting is thermostatically maintained and should only need to be reset if process or materials being cleaned change.

③ **ULTRASONIC ON/OFF:** These buttons turn temperature **ON (green button)/OFF (red button)**.

④ **ULTRASONIC TIMER:** To change cleaning time, press the ◀ button, and then use the ▲▼ to set time (e.g. 10 minutes = 00:10). Press **RESET** if you want to put back time settings to zero.

### NORMAL OPERATION

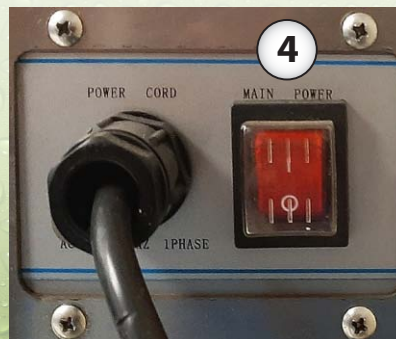
- Push **green HEATER ON** ① button to bring solution to operating temperature.
- Arrange parts in basket & lower basket into solution.
- Push **green ULTRASONIC ON** ③ button.
- Close lid when not loading/unloading parts.
- When **ULTRASONIC TIMER** turns off remove basket and place on drain shelf (lid) to drain. **NOTE: Parts are hot, use proper protective equipment to prevent exposure.**
- Maintain your fluid level, **DO NOT** let water level fall below the liquid level mark (~2" below top of tank); add water as needed to maintain proper level.
- **DO NOT** leave **HEATER** on overnight, when not in use turn **HEATER** off to minimize evaporation.

## MAINTENANCE

- **Preventive** – There is a minimum of preventive maintenance required. The overall environment around the tank and generator needs to be kept clean, dry and dust free.
- **Daily** – Check water level, add water as necessary to maintain level approx. 2" from top.
- **Routine** – Oil and surface contaminants need to be removed on a regular basis using an oil-only absorbent pad or rag and the solution should be replaced regularly to avoid a drop in cleaning performance that will result from too many contaminants in the solution.
- **NOTE: Consult your ISTpure representative for recommended schedule for solution change based on your application.**

## EQUIPMENT CLEANING

- Push all control buttons **OFF**.
- Turn off **MAIN POWER SWITCH** (4) on back of machine.
- **UNPLUG UNIT FROM POWER SUPPLY.**
- Wait a minimum of 15 minutes before draining contaminated solution from the tank (this enables heating element to cool and prevent damage)
- Drain tank using the drain valve, **NOTE: Solution is hot and contaminated, protective clothing and equipment should be used to prevent any exposure.**
- Rinse the inside of the tank with clean, clear water.
- Wipe down the inside of tank with a clean, soft cloth. Do not use any abrasive pads or cleaners. These kinds of cleaners can scratch the tank surface and void warranty.
- Wipe work and outside surfaces with a dry, clean, soft cloth.
- When discarding contaminated solution follow all local, state and federal environmental and regulatory requirements.
- Follow installation instructions listed earlier for refilling and start up procedures



## MAXIMIZING ULTRASONIC PERFORMANCE

### ○ TEMPERATURE

Temperature has a dramatic effect on the cleaning performance and time needed to clean a part. The recommended temperature range is 140 °F to 160 °F (70 °C). Temperatures below or above can decrease the ultrasonic action. Consideration needs to be given to the cleaning agent used when determining the proper temperature. NOTE: Always check the MSDS for the cleaning agent and note its boiling point or flash point. Operation near or above the boiling point/flash point is hazardous and can cause noxious fumes.

### ○ CLEANING AGENT

Cleaning agents can enhance or decrease the performance of the ultrasonic action and speed of cleaning. Always use ISTpures recommended cleaning agents at their proper concentrations.

### ○ DEGASSING

Liquids containing air and dissolved gases can interfere with the formation of cavitation bubbles necessary for ultrasonic cleaning. Follow the installation section to ensure liquid is ready for cleaning.

### ○ PART EXPOSURE

In order for a surface to be cleaned, it must be exposed to the liquid. This requires proper placement of the parts in the parts basket. Do not overload baskets with small parts that prevent the middle layers from getting proper exposure to the liquid. Also, improper placement of parts with blind holes or cavities can result in air pockets, where no cleaning action occurs. In general, clean large numbers of parts a few at a time using shorter cleaning cycles.

### ○ CONTAMINATED SOLUTION

As contaminants build up in the solution the ultrasonic performance drops. The cavitation bubbles waste their energy imploding on the contaminants and not on the part surface. It is important that you change the solution on a regular basis.

### ○ PARTS MATERIALS AND CONTAMINATION

Certain materials absorb ultrasonic energy, generally these are soft materials like rubber, fabric, gaskets and heavy grease. Ultrasonics is extremely effective with a hard surface to impact against. Therefore, parts contaminated with heavy amounts of grease or soft materials should be pre-cleaned prior to exposure to the ultrasonic tank

## SERVICE & WARRANTY PROCEDURES

**NOTE: DO NOT OPEN EQUIPMENT OR ATTEMPT ANY SERVICE OR WARRANTY RELATED WORK BEFORE CALLING ISTpure @ 1 877 624-8202**

Our service tech will help troubleshoot any problem and instruct user on the safe and proper procedures for repairs.

## SUPPLIES AND SPARE PARTS

**For ordering supplies, accessories, or spare parts:**

**Visit our website: [istsurface.com](http://istsurface.com)**

**Call to place your order: 1 877 629-8202 or email: [info@istsurface.com](mailto:info@istsurface.com)**



## ISTPURE LIMITED WARRANTY

IST warrants all equipment led in this manual which is manufactured by IST and bearing its name, to be free from defects in material and workmanship on the date of sale by an authorized IST distributor to the original purchaser for use. Notwithstanding any special, extended or limited warranty published by IST will, for a period of TWELVE (12) months from the date of sale, repair or replace any part of the equipment determined by IST to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with IST's written recommendations.

This warranty does not cover, and IST shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-IST component parts. Nor shall IST be liable for malfunction, damage or wear caused by the incompatibility with IST equipment with structures, accessories, equipment or materials not supplied by IST, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by IST.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized IST distributor for verification of the claimed defect. If the claimed defect is verified, IST will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser, transportation prepaid. If the inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

IST's sole obligation and the buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought forward within one (1) year of the date of sale.

IST MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY IST. These items sold, but not manufactured by IST (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. IST will provide the purchaser with reasonable assistance in making any claim for breach of these warranties.

### **LIMITATION OF LIABILITY**

In no event will IST be liable for indirect, incidental, special or consequential damages resulting from IST supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of IST, or otherwise.

Report all accidents or "near misses" which involve IST products to :  
- Technical Assistance

The following items are not covered under the IST warranty policy :  
- Parts or chassis replacement due to normal wears.

Report all accidents or negligence involving IST products to our Service Department :

**1 877 629-8202**

**WARRANTY REGISTRATION**

ISTpure would like to thank you for your recent purchase of our product line. Please complete the card below and either mail or fax it to our office so that we may start the warranty of your product and keep you up to date on the EPA regulations by fax. Again, thank you for your purchase and if you have any suggestions or comments, please feel free to contact our office.

COMPANY NAME : [ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ]

ADDRESS : [ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ]

CITY : [ | | | | | | | | | | | | | | | | | ]      STATE/PROV. : [ | | | | | | | | | | | | | | | | ]

COUNTRY : [ | | | | | | | | | | | | | | | ]      POSTAL/ZIP CODE : [ | | | | ] [ | | | | ]

CONTACT : [ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ]

TEL. NUMBER: [ | | | ] [ | | | ] - [ | | | | ]      FAX NUMBER: [ | | | ] [ | | | ] - [ | | | | ]

PURCHASE FROM: [ | | | | | | | | | | | | | | | | | | | | | | | | | | | | ]

DATE OF PURCHASE:    [ | | ]    [ | | ]    [ | | | | ]

Month      Day              Year

SERIAL NUMBER: [ | | | ] - [ | | | | ] - [ | | | | | ]      MODEL NUMBER: [ **3** | **6** | **5** | **0** | **0** | **0** ]

TYPE OF FLUID USED: [ | | | | | | | | | | | | | | | | | | | | | | | | | | | | ]

Which factors most influenced your decision to purchase this ISTpure unit?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SUGGESTIONS ABOUT THE EQUIPMENT:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**IMPORTANT! Please complete and return within 30 days after purchase to activate the warranty.**

PLEASE SEND THE COMPLETED FORM VIA EMAIL OR FAX TO :  
 INFO@ISTSURFACE.COM

WARRANTY INFORMATION / TECHNICAL ASSISTANCE

ISTpure is a registered trademark of :



For more information, prices or technical assistance,  
contact your local IST distributor or call / fax our  
Consumer Information Numbers :

**TEL.: 1 877 629-8202 & 450 963-4400**

Or visit us at :  
**[istsurface.com](http://istsurface.com)**

## ABOUT THE COMPANY

### WHO WE ARE

IST is a leading manufacturer of equipment for the surface treatment industry and the solvent recycling industry. Our extensive line of equipment includes batch units and automated machines designed to achieve the highest manufacturing standards.

### MISSION

IST works tightly with their customers to transform industrial processes to improve their quality, productivity, and environmental footprint.

### OUR SERVICES

- Custom Design & Fabrication
- Installation & Startup
- Preventative Maintenance Program
- Private Labels
- Testing Lab
- 24/7 Technical Support

### INDUSTRIES WE SERVE

- Aerospace & Aviation
- Aluminium Smelters
- Automotive
- Construction & Civil Engineering
- Flexography (labelling) & Lithography
- Foundry & Forge
- General Manufacturing
- Military
- Power & Energy
- Rail & Mass Transit
- Shipyards
- Wood finishing

