# X-TRONIC<sub>TM</sub>

# MODEL #2200-XTS ULTRASONIC CLEANER



Sweep • Degas • Heating



**Instructions & Tips** 

### PLEASE READ THIS MANUAL BEFORE USING YOUR NEW X-Tronic® Model #2200-XTS "Platinum Edition" Ultrasonic Cleaner

Thank you for purchasing our new **X-Tronic® Model #2200 Platinum Edition** 2.2 Liter Ultrasonic Cleaner. This new model is one of the most Technologically Advanced Ultrasonic Cleaners on the USA Market Today featuring Frequency Sweeping & Degassing Functions.

This manual is provided to ensure safe and effective use of this unit and to maintain this instrument in proper working condition. Be sure to keep this booklet in a handy place near the unit for future reference.

#### CONTENTS

- 1 X-Tronic 2200-XTS *Platinum Edition* 2.2 Liter Stainless Steel Ultrasonic Cleaner
- 1 Stainless Steel Fine Mesh Cleaning Basket
- Stainless Steel Wire Rack for hanging jewelry, rings, small hangable parts, etc.
- 1 Double 400 ml Beaker Holder (Beakers Not Included)
- 1 Stainless Steel Tank Cover

Note: Although this unit is advertised as a 2.2 Liter Ultrasonic Cleaner, this measurement of volume is based on what has become an International Measurement Standard for ultrasonic cleaner sold in all markets. More specific information about this is in the SPECIFICATIONS.

#### **FEATURES**

Piezoelectric Transducer

Digital Display of Time & Temperature

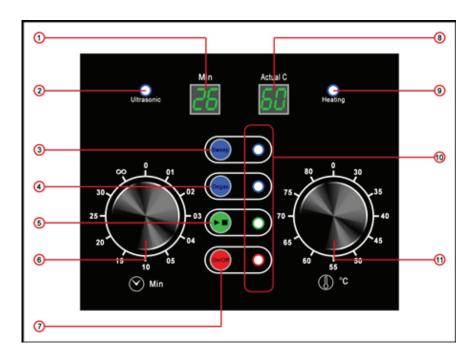
Sweeping Function

**Degassing Function** 

#### **SPECIFICATIONS**

- Model: 2200-XTS
- Size of Unit: 10.375" L x 6.375" W x 7.75" H
- · International Standard Volume Rating: 2.2 Liters
- Actual Volume Filled to Top of Tank: 2.00 Liters
- Volume Filled to 0.50" Over Fill Line: 1.60 Liters
- Size of Cleaning Tank: 9.25" (Tapers down to 8.75") in Length, 5.25" (Tapers down to 4.75") in Width
- Depth of Cleaning Tank: 2.625" in Depth
- Minimum Fill Line: 1.625" From Bottom of Tank Should be filled to no more than 2.375" in Depth
- Cleaning Area Dimensions with S/S Mesh Basket inserted: 8.50" L x 4.75"
   W x 1.50" D
- Steady State Power Consumption: 150 Watts
  - Ultrasonic Power: 50 Watts
- · Operation Frequency: 40kHz
- 110/120V 60Hz

#### CONTROL PANEL FUNCTION DIAGRAM



- 1. LED Timer Readout
- 2. Ultrasonic Indication Lamp(indicates On when lit)
- 3. Sweep Function Key (On/Off) (indicates On when lit)
- 4. Degassing Function Key (On/Off) (indicates On when lit)
- 5. Ultrasonic Function Key (On/Off) (indicates On when lit)
- 6. Cleaning Time Set Knob (5 Minute Increments & Full On (∞))
- 7. Ultrasonic Cleaner Main On/Off Switch (indicates On when lit)
- 8. LED Temperature Display
- 9. Heating Indication Lamp (indicates On when lit)
- 10. Function Keys Indication Lamps (indicates On when lit)
- 11. Heating Temperature Set Knob (0° Celsius to 80° Celsius)

#### SHORT HISTORY & OVERVIEW OF ULTRASONIC CLEANERS

Ultrasonic cleaning was first introduced to commercial/industrial business in the early 1950's and became commonplace as relatively inexpensive home appliances in the 1970's.

Ultrasonic cleaning is a process based on a Cavitation Effect caused by high frequency ultrasonic waves that vibrate millions of tiny bubbles to agitate the liquid in order to clean contamination and dislodge small particles of dust/dirt/oil/etc. from substrates such as metal, plastics, glass, ceramic, etc. It is these tiny bubbles that implode violently that cause this cavitation, which have great impact and provide intense scrubbing action on the surface of the object you want to clean. Additionally, these bubbles are small enough to penetrate even the most microscopic crevices on objects, cleaning them thoroughly and consistently.

Most all hard, non-absorbent materials (metals, plastics, etc.) that cannot be chemically attacked by the cleaning fluid used in ultrasonic cleaning are suitable for ultrasonic cleaning.

Ultrasonic cleaning is also widely used to remove flux residue from soldered circuit boards.

Note: Ultrasonic cleaning does **NOT** sterilize the objects being cleaned and spores and viruses will remain on the objects after cleaning. In the medical field, sterilization of the object will normally follow the ultrasonic cleaning process.

#### SAFETY INSTRUCTIONS

- We highly suggest that you operate the unit while plugged directly into a grounded outlet with the attached power cord. If you have to use an extension cord, never use an extension cord that is not grounded.
- Do not attempt to remove any screws or panels from the unit. There are no user serviceable parts inside the unit.
- To avoid electric shock, never touch the cord or socket with wet hands.
- · Do not fill the unit while it is plugged in.
- Always fill the unit with water a little above the fill line that is inside the
  cleaning tank. You will see an indentation in the metal on the inside of the
  unit's tank, approximately .75 inch from the top of the tank, and this is the
  minimum fill line.
- Always unplug the unit immediately after use and before emptying.
- To avoid electric shock, NEVER immerse the unit into water or any other kind of liquid.
- NEVER fill the tank with Abrasive or Corrosive Chemicals such as Mineral Spirits, Lacquer Thinner, Xylene, Acetone, etc.
- NEVER leave the unit unattended when plugged in.

#### SWEEPING FUNCTION

Sweep Technology is featured in all of our X-Tronic Ultrasonic Cleaners. An ultrasonic cleaner with a Sweeping Function uses multiple ultrasonic frequencies in one tank no matter how many transducers are built into the unit. In ultrasonic cleaning, sweeping is defined as a purposeful deviation from the center frequency during operation as a function of time. The result of using this function is there will be no dead spots in the cleaning tank and will make for a **much superior** cleaning result of your object.

Ultrasonic cleaners **without** the Sweeping Function use just one single frequency to create the cavitation effect in the unit and this means that there will be dead spots in the cavitation and thus the cleaning of that object will be inferior.

By using the Sweeping Function, every object you put in your tank to be cleaned will have perfect uniform cavitation cleaning that object with no dead spots.

Our recommendation is to use the Sweeping Function every time you ultrasonically clean any object because with Ultrasonic Sweep Cleaning we know you will be much more satisfied with the results.

#### **DEGASSING FUNCTION**

All X-Tronic Ultrasonic Cleaners also feature a Degassing Function.

A degassing process should be undertaken each time fresh cleaning solutions are prepared. You have the option of not degassing fresh ultrasonic cleaning solutions but the penalty is decreased cleaning efficiency and effectiveness.

The Degassing Function pulses the ultrasonic power on and off. During the on phase the bubbles form and coalesce, and during the off phase they rise to the surface and burst. This is why cleaners equipped with a degassing function are more efficient than those not so equipped.

So when you mix a fresh cleaning solution in your tank, we highly recommend that you turn on the Degassing Feature and run it for approximately 5 minutes.

#### PIEZOELECTRIC TRANSDUCERS

All X-Tronic Ultrasonic Cleaners are manufactured with Piezoelectric Transducers which have high efficiency, large amplitude, low heat, and stable output unaffected by variations in load.

The high mechanical quality of Piezoelectric transducers ensures that these sandwich-type ultrasonic transducers offer high electro-acoustical efficiency and low heat generation. The mechanical connection of the Piezoelectric elements assures a large amplitude output.

### PROCEDURE FOR PREPARING YOUR ULTRASONIC CLEANER FOR CLEANING

- 1. Plug the unit into a grounded outlet.
- 2. Fill the tank with water up to (or a little over) the fill mark on the inside of the tank. Do not fill with water more than 1/2 inch from the top rim of the tank.
- 3. Turn On the Ultrasonic Cleaner Main On/Off Switch.
- 4. Select your cleaning temperature by turning the Temperature Dial to the appropriate temperature. Please note that 90% of the time you will be ultrasonic cleaning most objects between 70° Celsius and 80° Celsius.
- 5. Turn the Cleaning Time Set Knob to the Infinity Sign (Full On / ∞) at this time.
- Wait for the water to heat up to the temperature you set. This will show in the LED Temperature Display.
- 7. When the LED Temperature Display shows the actual temperature you set it at, add the ultrasonic cleaning solution (of your choice) to the water. Please note that we do not sell an ultrasonic cleaning solution, but we have always had very good results using Alconox® Products which can be found many places on the web.
- 8. Turn on the Degassing Function for 5 minutes by pushing the Blue Degassing Function Key (#4 above).
- After you have degassed the solution for 5 minutes, then turn the degassing function Off by pushing the Degassing Function Key. You are now ready to ultrasonically clean your object(s).

#### PROCEDURE TO ULTRASONICALLY CLEAN YOUR OBJECT

- Turn the unit Off for 1 Second and back on to reset the Temperature & Time to 0.
- Turn the Time Set Knob to the desired amount of minutes you would like for cleaning your object(s). Note that most all objects will be thoroughly cleaned in 15 to 30 minutes.
- Turn the Temperature Knob back to your first selected temperature or whatever temperature you are going to clean your object(s) at. Note that this will show the temperature in the Temperature Display as you have already heated up the solution.
- If desired, turn On the Sweep Function (highly recommended) for the entire cleaning time.
  - Note during cleaning; DO NOT use the Degassing Function as it is not needed during cleaning. This is why the programming in the ultrasonic unit will NOT let the Sweeping Function and the Degassing Function to work/run at the same time.
- 5. Set the Cleaning Basket or Wire Rack into the tank.
- 6. Put the objects into the basket or hang from the wire rack to clean them.
- 7. After the unit has run for the allotted time you set, it will automatically shut off. When this happens, all Function Key Indication Lamps (LED's) will shut off but the bottom Main On/Off Switch Lamp. You can now shut the unit completely Off by pushing the On/Off Switch and unplugging the unit.

#### SPECIAL INSTRUCTIONS

When you are cleaning objects that have air pockets in them, you may wish to rotate the object you are cleaning a couple of times (under the water/cleaning solution) to get these air pockets out before ultrasonic cleaning them.

Do not put any object directly on the bottom of the tank to be cleaned – always use the cleaning basket, wire rack or place it in a beaker filled with water/cleaning solution while the beaker is being held in place by the beaker holder.

We do NOT recommend placing the lid on the unit during the cleaning process as it is not needed during the cleaning process.

## GENERAL SAFETY RULES - SAVE THESE INSTRUCTIONS! Refer to them often and use them to instruct others on the proper use of this product.

READ AND FULLY UNDERSTAND ALL INSTRUCTIONS AND WARNINGS PRIOR TO USING THIS UNIT. FAILURE TO COMPLY WITH PROCEDURES AND SAFE GUARDS MAY RESULT IN SERIOUS INJURY OR PROPERTY DAMAGE. YOUR PERSONAL SAFETY IS YOUR RESPONSIBILITY! THIS UNIT WILL NOT WORK PROPERLY IF ASSEMBLED OR USED INCORRECTLY!

- KEEP AWAY FROM CHILDREN AND PETS THIS IS NOT A TOY! NEVER LEAVE RUNNING UNIT UNATTENDED. Always monitor the unit while in use and never leave the unit plugged in around an unmonitored child/pet. Teach your children the proper respect for all electrical appliances. YOU ARE RESPONSIBLE FOR THE SAFETY OF ANY CHILDREN IN THE VICINITY OF THIS UNIT WHEN IT IS AND/OR IS NOT IN USE! ADULT/ PARENTAL SUPERVISON IS REQUIRED AT ALL TIMES!
- 2. CHECK FOR DAMAGED PARTS PRIOR TO USE. Check that all parts are operating properly and perform their intended functions. Check for any conditions that may affect the unit's operations. DO NOT use if the power cord is damaged or frayed, or if at any time the power cord becomes damaged or frayed or if the unit does not seem to be functioning as it normally has for you in the past.
- 3. ALWAYS DISCONNECT THIS UNIT FROM THE POWER SOURCE BEFORE SERVICING, CHANGING ACCESSORIES OR CLEANING THE UNIT. UNPLUG THE UNIT WHEN NOT IN USE. DO NOT PLUG INTO AN ALREADY DAMAGED ELECTRICAL OUTLET.
- MAKE SURE THE POWER SOURCE/POWER BUTTON IS IN THE OFF POSITION PRIOR TO UNPLUGGING FROM OR PLUGGING INTO AN OUTLET.
- 5. DO NOT USE SHARP UTENSILES INSIDE ANY PART OF THE UNIT. EXAMPLE: FORKS, KNIVES, PICKS, TONGS, ETC. DO NOT MODIFY THE UNIT.
- 6. THE MANUFACTURER AND SELLER OF THIS UNIT DO NOT ASSUME ANY RESPONSIBLITY IN THE CASE OF IMPROPER USE OF THIS PRODUCT OR IMPROPER MONITORING WHEN IN USE. Improper use of this product voids all guarantees/warranties.
- 7. Electrical repair or any other type of major service must be done by X-Tronic International, Inc. Proof of purchase must be provided by consumer prior to any repair/service acceptance. The seller will use only factory original parts and accessories. Modification of the electrical or any other major component of this unit by the consumer voids all guarantess/ warranties.

- 8. DO NOT PULL THE POWER CORD TO UNPLUG. Unplug by the plug end. DO NOT use extension cords with this appliance.
- Be sure the main unit is stable during use. All four feet should be secure
  on a level surface. Do not move the unit when it is powered on. DO
  NOT OPERATE ON FLAMMABLE SURFACES SUCH AS CARPET, A
  TOWEL, OR OTHER FLAMMABLE PRODUCTS. DO NOT USE NEAR
  POTENTIALLY COMBUSTIBLE PRODUCTS/MATERIALS.
- 10. DO NOT OPERATE OUTDOORS OR NEAR ANY FLAMMABLE OR COMBUSTIBLE MATERIALS. INDOOR USE ONLY! DO NOT USE DURING ELECTRICAL STORMS.
- 11. To prevent electric shock DO NOT IMMERSE THE MAIN UNIT IN WATER OR LIQUID. Serious injury from electric shock could result. DO NOT operate near running water or in areas where condensation can collect.
- 12. Turn unit off and disconnect from the power source before cleaning the components of this machine. READ ALL DIRECTIONS FIRST on how to clean this unit before attempting to clean it. To clean the main unit turn power off unplug unit from the power source wipe with a damp washcloth. Clean all parts immediately after use. Thoroughly dry all parts! Even the slightest amount of moisture remaining on parts can cause electric shock or fire. After cleaning, make sure the unit and all parts are completely dry before reconnecting to the power source.
- 13. DO NOT OPERATE on a hot stove top. DO NOT ALLOW THE POWER CORD TO DRAPE OVER THE UNIT OR ANY HOT SURFACE.
- 14. Certain parts have share edges use caution when handling these parts. Certain parts can scratch household surfaces. Proper care of these parts is required to prevent damage to other surfaces or to your person. You are responsible for how you handle these parts and this product.
- 15. DO NOT USE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.
- 16.IT IS IMPORTANT TO MONITOR THIS PRODUCT WHILE IN USE.

  NEVER LEAVE THIS UNIT UNATTENDED WHEN PLUGGED INTO AN
  OUTLET OR IN THE ON POSITION. READ AND FULLY UNDERSTAND
  ALL INSTRUCTIONS AND WARNINGS PRIOR TO USING THIS UNIT.

### X-TRONIC INTERNATIONAL, INC. 3-YEAR WARRANTY

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All X-Tronic Products come with 3-Year Guarantee, valid only in the 48 Contiguous United States. If you purchase this product and ship it to a destination outside of the 48 Contiguous United States this warranty becomes null and void. This Guarantee covers the main unit itself. Consumable parts such as soldering tips, heating elements, nozzles, etc. are not covered by this warranty.

The first 30 Days are covered by a Money Back or Replacement Guarantee from the date of the receipt of the product. If your product becomes damaged in shipment or is found to be defective in any way during this period, we will replace or issue a complete refund for your product upon return. We will pay all shipping involved during this first 30-day period.

The remainder of the 3 Years (after the first 30 days) is covered by a FREE REPAIR Guarantee (parts and labor included). If anything becomes defective during this period we will fix the issue and provide a full service inspection to your product, shipping (to & from) will be paid by the buyer. Please email us at Info@XTronicUSA.com to set up a service request.

#### Returns of New/Unused Products

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If you have Buyer's Remorse and decide that you do not want the product, it must be returned NEW & UNUSED in the original box and you will pay the return shipping. PLEASE NOTE: There will be a 10% Restocking Fee and original Shipping Costs (if applicable) will not be refunded. **Used product cannot be returned.** 

#### **How To Register Your Warranty**

Go to www.XTronicUSA.com. Click on "Register Your Warranty" tab and fill out the form. This is a fully secure website. Your information will never be sold or misused in any way. This registration site is strictly for order verification that will be used to speed up the process should you ever need to use your Warranty for service.

X-Tronic International, Inc. 2159 Magnum Circle, Lincoln, NE 68522 844-861-4762

Info@XTronicUSA.com • www.XTronicUSA.com

## QUESTIONS, PROBLEMS OR COMPLIMENTS?

Thank You for purchasing this X-Tronic International Product! We are grateful for your business!

All of our X-Tronic International Products are inspected then sealed with our NEW Product Seal prior to shipment. Our goal is to ensure Quality, Completeness, and Satisfaction for your order.

For Any Questions, Problems, or Compliments please call or email us.



Our Business Hours are: Monday - Thursday: 8am - 4pm CST Friday: 8am - Noon CST

If you would like to shop for other X-Tronic International Products
Please visit our website
www XTronicUSA com

