

Date O

GEMORO® 2.6 QTH-D

MODEL 2.6QTH-D







- STEP 1 Connect to an electrical outlet or power source with the appropriate voltage 100-120V. Do not turn the unit on when empty or damage may occur!
- STEP 2 Add an appropriate mixture of tap water and either our GemOro Super Concentrate Cleaning Solution or Sparkle Pak PRO pre-measured solution packets to the water in the tank. Make certain the water/solution mixture in the tank is filled to approximately one inch from top edge of the tank and that the solution level remains there. To expedite the degassing process, you may run the Digital Degas feature at this time.
- STEP 3 Place the jewelry to be cleaned in the supplied basket and submerge it in the tank with the water/solution mixture. Do not place items on the bottom of the tank or damage may occur!
- STEP 4 Set the units timer to the desired cleaning time.

SPECIFICATIONS AND ACCESSORIES

Model 2.6QTH-D Stock #1787-D 2.6 Quart (0.65 Gal.), 65 Watt/100-120 Volt Tank Size 264 x 164 x 80mm (L x W x H) Cover and Stainless Steel Basket included.

ELECTRICAL POWER INSTALLATION

Your GemOro Powerful Ultrasonics unit has been factory preset for use with 100-120 volt, 40 Hz cycle operation. Install into an electrical outlet which has a ground default device (GFI) for optimum safety operation. When possible, plug the ultrasonic into a separate dedicated circuit/outlet. Some electrical circuits/outlets will not supply enough power to properly run more than one electrical appliance, especially if large appliances such as steamers, polishers, etc. are being operated at the same time. Reduction of cavitation in your ultrasonic could be the end result of not enough power to your unit.

WATER/SOLUTION MIXTURE USED IN ULTRASONIC TANK

To achieve the best cleaning results, the proper cleaning solution must be added to the water in the tank. We recommend one of the superior specially formulated GemOro ultrasonic cleaning solutions such as the Super Concentrate Cleaning Solution or Sparkle Pak PRO pre-measured cleaning solution packets. WARNING: Do not use flammable (alcohol based solutions, etc.), basic/alkaline (Drano, etc.) or ammonia based solutions (Mr. Clean, etc.) in your ultrasonic. Under any circumstances, NEVER TURN THE UNIT ON WHILE THE TANK IS EMPTY. Place the water/cleaning solution mixture in the tank with the solution filling the tank up to approximately one inch from the top edge of the tank. At this time, to expedite the natural degassing process, you may wish to run the Digital Degas feature. Water that has not been degassed will cause the cavitation (action) of the ultrasonic to appear very slow or flat. More details on degassing can be found on page 5.

HOW TO OPERATE MODEL 2.6QTH-D

- 1. Press the POWER button to turn the unit on.
- 2. Press the HEATER button to turn on the units heater if desired. The blue LED light on the right of the display will indicate the heater has been activated. The unit will quickly heat up to the optimal preset cleaning temperature that has a maximum temperature of 65C or 149F. Once the heater has reached its maximum temperature the red LED light on the right of the display will light up.
- 3. Press the TIMER button repeatedly to scroll through the timed cleaning cycle options (90, 180, 280, 380 or 480 seconds).
- 4. Once you've selected the desired cleaning time, press the ULTRASONIC button to activate the ultrasonic.
- 5. If you wish to expedite the natural degassing process, press the timer button to the desired degassing time of (90, 180, 280, 380 or 480 seconds). Then press the DEGAS button and the unit will cycle on and off as it performs its digital degassing process until the degassing time has ended. Once you've performed the degassing process, follow steps 3 and 4 to use the ultrasonic function.

CLEANING GUIDE

Submerge the jewelry to be cleaned in the tank no less than a 1/2 inch below the solutions surface to obtain optimal cleaning. Be certain not to place jewelry or anything being cleaned on the bottom of the tank, because it may damage the transducers and void the warranty. Be careful not to clean stones that may have many inclusions (example: emeralds), because the ultrasonic waves and heat may crack the stone. Be certain not to clean soft, water porous stones (such as pearls, opals, turquoise, etc.) as they too may be damaged. Be certain not to clean any oil treated stones in any cleaning solution which may contain a degreasing agent, as the solution may revert the stone back to its untreated condition. Typically, items such as gold, silver, platinum, diamonds, rubies, sapphires etc., are safe for ultrasonic cleaning. For more specific information on which stones are suitable for cleaning in an ultrasonic, we suggest you contact a gemologist or GIA (The Gemological Institute of America). Also, please reference the chart on page 13 which indicates the gemstones that may be suitable to be cleaned in an ultrasonic.

Do not submerge non-waterproof watches in any ultrasonic, as damage to the watch may occur. If you choose to submerge a waterproof watch in an ultrasonic, always make sure the watches stem is fully inserted and tightened all of the way in. Also, be aware that if the gasket in the watch case is faulty, you may inadvertently damage the watch due to exposure to moisture. However, to be safer, it may better to carefully submerge only the metal watchband into the tank for a brief cleaning while being certain not to submerge the head of the watch at any time. At your own risk, before attempting this, again always be certain the watches stem is fully inserted and/or tightened all of the way in.

TYPICAL DEGASSING PERIOD FOR SOLUTION

Water that has not been degassed will result in the cavitation (action) of the ultrasonic appearing very slow or flat. Degassing is the natural process of removing gasses from any tank solution being affected by ultrasonic sound waves. Running the DEGAS function will speed up the natural process of degassing. Depending on the solution you are mixing with the water in your unit, the natural degassing time may vary from less than five (5) to as much as fifteen (15) minutes depending upon factors such as temperature and soap content. The rule of thumb is that the thicker and slimier the solution is, the less time the degassing process will take. Degassing occurs whenever you first use your ultrasonic with fresh water/solution and will recur each time you add to or change your water or solution. By pressing the DEGAS button, you will speed up the degassing time to only a few minutes.

HELPFUL SUGGESTIONS AND PRECAUTIONS - PLEASE FOLLOW CLOSELY TO AVOID LOSS OF WARRANTY COVERAGE!

- Change your solution regularly.
- Clean tank regularly.
- Cover your tank to avoid evaporation and lower noise levels.
- Use one of the superior GemOro ultrasonic cleaning solutions mixed with water for optimal cleaning.
- Operate with the proper level of water/solution mixture in the tank.
- Allow adequate time for the degassing process.
- Never put your fingers into an active, running ultrasonic tank, as repeated exposure to ultrasonic sound waves may be harmful, as well as a heated ultrasonic may burn you!
- When emptying and cleaning tank, always first unplug from the electrical outlet.
- Be certain not to allow jewelry or other items to rest on the bottom of the tank.
- Be certain not to allow the water/solution in the tank to drop below two inches from the bottom.
- Be certain not to place flammable, acidic or ammoniated liquids in the tank, as they may ignite and/or cause damage to you or others. Further, it may cause damage to your ultrasonic which will void the warranty.
- Do not install plug into an ungrounded electrical outlet.
- Never operate the ultrasonic without water/solution in the tank.
- For any problems or questions, please consult your supplier.

WHY DOES THE ULTRASONIC GET SO HOT?

Occasionally users of ultrasonic cleaners become concerned due to the fact that the temperature of their ultrasonic cleaning solution within the tank becomes too hot. This is typically only experienced by high volume trade shops, jewelry repair shops and jewelry manufacturers who utilize the heated ultrasonic throughout the day. The principle of ultrasonic cleaning is to cavitate a liquid medium (typically water & ultrasonic cleaning solution/soap – solution) and is done so by the tremendous shock waves caused by millions of microscopic vacuum cavities imploding within the solution inside of the tank. These vacuum cavities build to tremendous pressures and temperatures (above 10,000 degrees Fahrenheit) and are instantaneously released into the solution upon implosion – the release of this energy causes the solution temperature to elevate. By simply turning the ultrasonic cleaner ON and OFF will cause the solution temperatures in the tank to fluctuate - rising from the cavitational energy and falling from evaporative losses when the ultrasonic cleaner is OFF. The longer an ultrasonic cleaner is ON – the hotter the solution will become and the more intense the cavitation is – the faster the solution temperature will rise. In addition, when the heater is also left ON, the heat even further intensifies. There are several variables that affect the rate of temperature increase such as length of cleaning cycles, the batch load size of each cycle, the rate of heat loss and the length of time between cleaning cycles. Additionally, the performance of the ultrasonic cleaner itself plays a huge part in the rate of temperature increase – cavitation density and power levels. Caution should always be used when operating an ultrasonic cleaner, as the solution does become hot, and can cause injury to hands, etc. – to protect from possible injury, gloves must always be worn.

THINGS TO KNOW IN ORDER TO ADDRESS THE CONCERNED CLEANING TECHNICIAN WHEN THEY ASK -"WHY IS THE ULTRASONIC CLEANER GETTING SO HOT?"

- Energy causes substances to rise in heat.
- Higher energy levels cause accelerated rise in temperature.
- Cavitation is energy.
- The principle of ultrasonic cleaning is to cavitate a liquid.
- Using an ultrasonic cleaner will cause the solution temperature to rise.
- An ultrasonic cleaner with high levels of cavitation will cause the solution temperature to rise at a faster rate than low level cavitation ultrasonics.
- GemOro ultrasonic cleaning systems yield highpowered, high density cavitation through its proprietary ultrasonic technology.
- Gloves should be worn to prevent injury.

ONE YEAR LIMITED REPLACEMENT WARRANTY IMPORTANT NOTICE - PREMATURE TANK EROSION & COMPONENT FAILURE

Your complete ultrasonic is warranted for one year from the date of purchase (as shown on the Warranty Registration Form and your suppliers sales receipt) from defects in manufacturing and workmanship when used in accordance with the GemOro Powerful Ultrasonics operating instructions. In the event your ultrasonic fails to perform to its specifications, please contact your supplier or GemOro (the factory)

and make prompt arrangements for it to be returned for service. It is always wise to save your original shipping container for transporting your ultrasonic safely, but if it is not available, please be certain to properly pack to protect your ultrasonic during shipping. If upon examination of the ultrasonic by the factory, the factory determines that the ultrasonic has been damaged due to misuse, this warranty is void. (Please be aware that there are certain telltale signs of abuse which will automatically void the warranty. Some user abuse signs are: Holes in the tank, bluing of the metal and specific odors associated with acid and ammonia exposure. Burn marks on the tank are signs that an inadequate amount of water has been used in the tank. Pitting or marks on the tank bottom are indications of items being placed on the tank bottom. Otherwise, at the factory's sole discretion, assuming the ultrasonic is not replaced, this warranty is limited to only the cost of any parts, materials, and labor required while repairing the unit. In the rare case of an "out-of-box failure," immediately contact your supplier, as the unit may be returned for replacement.

All units are pre-tested to help insure your receipt of a top quality ultrasonic. Pre-testing requires filling the ultrasonic with solution and turning the heater on. This action may leave a slightly visible ring or stain where the water level reached or where any water has touched as well as a discoloration on the bottom of the tank from testing the heater. This ring may show up on your unit anytime your water level gets below its normal full level. This ring or stain in many instances may be cleaned with many regular household cleaners or WD40, but can never be completely removed.

Cavitation - Inertial cavitation occurs in the presence of an acoustic field. Microscopic gas bubbles which are generally present in a liquid will be forced to oscillate due to an applied acoustic field. If the acoustic intensity is sufficiently high, the bubbles will first grow in size and then rapidly collapse or implode at which point the gas within dissipates into the surrounding liquid via a rather violent mechanism, which releases a significant amount of energy in the form of an acoustic shock-wave and as visible light. At the point of total collapse, the temperature of the vapor within the bubble may be several thousand degrees Kelvin and the pressure several hundred atmospheres. Ultrasonic cleaning baths efficiently utilize the inertial cavitation of microscopic gas bubbles for the cleaning of dirt from materials such as jewelry, medical instruments, etc. When the cavitation bubbles collapse or implode they focus liquid energy into very small volumes. Thereby, they create spots of high temperature and emit shock waves which are the source of the noise typically heard with ultrasonic cleaners. Although the collapse of the

bubbles is a relatively low energy event, it is highly localized and can and does erode metals such as stainless steel over time. The pitting seen in ultrasonic tanks caused by the collapse of bubbles produces great wear on the stainless steel tanks in ultrasonics as well as ultrasonic components and can dramatically shorten the lifetime an ultrasonic cleaner, especially its tank. Because of this reality, every ultrasonic tank will eventually fail due to erosion and depending on the ultrasonics usage the lifespan of the ultrasonic and tank will vary from ultrasonic to ultrasonic. Ultrasonic systems that are operated excessively simply reach the end of their lifetime sooner than those that are not. In addition to the cavitational erosion - the elevated bath temperatures from heavy or prolonged operation contributes dramatically in assisting with the speed in which erosion will naturally occurs in this type environment. Further, with the understanding that acidic or caustic chemicals (as described and expressly warned against further in this document) will directly damage the tank causing guick erosion while voiding the ultrasonics warranty, it should be recognized that many buffing compounds like rouge contain abrasives which will also over time speed up the erosion process of the stainless steel tank as well. With this in mind and to slow down the process of erosion as a result of abrasives in the solution, it is highly recommended that users change their dirty cleaning solution frequently. It is also recommended that users regularly clean and rinse out the ultrasonics stainless steel tank with tap water

WARRANTY

Congratulations on your purchase of the GemOro 2.6QTH-D ultrasonic! Your GemOro 2.6QTH-D ultrasonic features a ONE YEAR LIMITED REPLACEMENT WARRANTY. Please go online to www.sykessler.com/ warranty to fill out your units WARRANTY REGISTRATION FORM or alternatively, print a copy of the online WARRANTY REGISTRATION FORM and mail it back to the address below this paragraph (postage prepaid) along with a copy of the invoice (bill of sale) to register your units warranty. The ONE YEAR LIMITED REPLACEMENT WARRANTY begins on the Warranty Commencement Date and expires one year thereafter (the "One Year Warranty Period"). During the One Year Warranty Period, the GemOro 2.6QTH-D Ultrasonic is warranted against defects in materials and workmanship under normal and intended use. No warranty, of any kind or character, exists after the expiration of the One Year Warranty Period. If a defect exists, at its sole option, GemOro will (1) repair the product at no charge, using new or refurbished replacement parts, (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts

and is at least functionally equivalent to the original product, (3) in the event the GemOro 2.6QTH-D Ultrasonic is no longer available or has been discontinued and warranty coverage is applicable, at the factory's sole discretion, a substantially equivalent ultrasonic cleaner may be substituted in place of the defective GemOro 2.6QTH-D ultrasonic or (4) refund the purchase price of the product. When a product orpart is exchanged, any replacement item becomes your property and the replaced item becomes GemOro's property. If and when a refund is given, your product becomes GemOro's property. The purchaser shall incur the cost for postage, insurance and handling for all warranty and non-warranty repairs and/or replacements. Warranty repairs and/or replacements will be shipped FOB Destination to the location of the customer's choosing if located within the Continental United States (U.S.). Should the customer require the repair and/ or replacement unit(s) to be shipped outside the Continental U.S., the customer will be required to pay any related shipping charges and any related taxes/duties for the respective destination country.

IMPORTANT! - GemOro Powerful Ultrasonics warranty coverage applies to defects in manufacturing and workmanship only. Because the factory cannot control the operation of the ultrasonics, premature failure due to, amongst things such as heavy or prolonged operation, therefore are not covered under its warranty. There are no user serviceable parts in the 2.6QTH-D. The warranty will be void if the user attempts to open and repair the ultrasonic.

Note: If you have any questions concerning the operation of your ultrasonic, its warranty or would like to purchase a new ultrasonic, please contact your supplier or for any technical questions contact the GemOro at 214.351.0380 or 800.527.0719, FAX 214.351.1903 or 800.832.9871 or EMAIL gemoroservice@sykessler.com. To view the complete line of GemOro Powerful Ultrasonics, please visit our website at www.gemoroproducts.com or contact us and on our dealers behalf request that we mail you a copy of our catalog.

The Following List of Chemicals Can Attack the Stainless Steel Tank and/or the Drain of Your GemOro Powerful Ultrasonics Unit:

Acetic Acid (70 + degrees F) Acetol Chloride Acetol Bromide Methyl Alcohol Aluminum Chloride Aluminum Fluoride Anhydrous Ammonia (70 + degrees F)Aniline Hydrochloride Antimony Antimony Trichloride Benzene Bromine Calcium Hydroxide (50% + strength)Carbon Disulphide Carbon Tetrachloride Chioracetic Acid Chloric Acid Chlorinated Water Chromic Acid (70 + degrees F) Citric Acid (70 + degrees F) Copper Chloride Ethers Ethyl Bromide Ethyl Chloride Ethylene Dichloride Ferric Chloride

Ferrous Chloride Fluorine Freon Hydrobromic Acid Hydrochloric Acid Hydrocyanic Acid Hydrofluoric Acid Hydrofluosilicic Acid lodine Ketones Lactic Acid (70 + degrees F) Magnesium Chloride Mercuric Chloride Muristic Acid Oleic Acid Oxalic Acid (70 + degrees F) Phosphoric Acid (70 + degrees F) Silver Bromide Silver Chloride Sodium Hypochloride (5% +) Stannic Chloride Stannous Chloride Sulphur Chloride Sulphur Monochloride Sulphuric Acid Sulphurous Acid **Trichloracetic Acid** Zinc Chloride (70 + degrees F)

IMPORTANT! Do not use any of these chemicals in your ultrasonic or the warranty will be void! Please be advised that pin holes, rust, bluing of the metal and cracks appearing in this ultrasonic tank or housing are caused from the use of hazardous chemicals such as acid, Drano, etc. Any ultrasonic tank returned for repair with these symptoms will not be repaired under warranty coverage. IMPORTANT - READ BEFORE CLEANING ANY TYPE OF JEWELRY Prior to using the 2.6QTH-D, always confirm if the jewelry in question may be cleaned in an ultrasonic cleaner. While some general guidelines are noted below for what may or may not be cleaned in an ultrasonic, the guidelines are not represented as being complete and are not meant to be used as your final determination as to whether or not the jewelry in question is suitable for being cleaned by the 2.6QTH-D. Before cleaning any piece of jewelry or gemstone, you should consult with a professional to correctly identify the item you desire to clean and confirm that it is suitable to be cleaned in an ultrasonic cleaner. GemOro disclaims, to the maximum extent permissible, (a) any responsibility for damage to jewelry or any other item, and (b) any responsibility for direct, special, incidental or consequential damages under any legal theory. For more information on jewelry care and cleaning, or assistance with finding gualified professionals with whom you may consult regarding the potential cleaning of your jewelry, visit the following jewelry industry websites:

American Gem Society (AGS) Guide to Fine Jewelry Care www.ags.org

Gemological Institute of America (GIA) www.gia.edu/

Jewelers of America (JA) www.jewelers.org/

Never place items to be cleaned directly on the bottom of the ultrasonic tank. To do so will void the warranty. Rather, to prevent damage to the tank, its transducer or the item being cleaned, always suspend items in the ultrasonic tank or use the provided baskets or tweezers that are designed for the task.

Always inspect the setting for loose stones prior to cleaning. Stones that are insecurely set may fall out when cleaned in an ultrasonic or by a steam cleaner. Prior to cleaning, carefully touch the stone with a small probe (like a toothpick); the stone should not shift or wiggle. If a stone falls out as a result of being cleaned in an ultrasonic or by a steam cleaner, please be aware that the stone would have eventually fallen out anyway. Most consider it better to have a stone fall out in a reasonably controlled environment as opposed to at random while wearing it.

THE FOLLOWING TYPES OF JEWELRY SHOULD ONLY BE CLEANED BY A KNOWLEDGEABLE PROFESSIONAL:

- · Antique jewelry
- · Enamel jewelry
- · Paste jewelry (which is common with costume jewelry)
- · Costume jewelry
- · Jewelry containing stones that have been set with glue
- · Jewelry containing micro-pave set stones

PRELIMINARY GUIDELINE FOR GEMSTONE CLEANING			
GEMSTONE	TOUGHNESS	STEAM	ULTRASONIC
Alexandrite	excellent	usually	usually
Amazonite	poor	never	never
Amber	poor	never	never
Amethyst	good	risky	usually
Aquamarine	good	usually	usually
Citrine	good	risky	usually
Coral	fair	risky	risky
Diamond	good	usually	usually
Emerald	poor	never	never
Garnet	fair	never	usually
lolite	fair	risky	risky
Lapis Lazuli	fair	never	risky
Opal	fair	never	never
Pearl	good	never	never
Peridot	fair	never	risky
Ruby	excellent	usually	usually
Sapphire	excellent	usually	usually
Spinel	good	usually	usually
Tanzanite	fair	never	never
Topaz	poor	never	never
Tourmaline	fair	risky	risky
Turquoise	fair	never	never
Variscite	fair	never	never
Zircon	fair	risky	risky

GemOro Super Concentrated Cleaning Solution

To obtain the best general cleaning results out of your ultrasonic, we have the solution: GemOro Ultrasonic Cleaning Solution! Economical to use, it dilutes 40 to 1 for light cleaning, 20 to 1 for heavy cleaning. Our solution is recommended for removing dirt, grease, buffing compounds, rouge, tripoli and oxides. Also used for cleaning instruments, burs, metal parts, gold and fine jewelry. GemOro Super Concentrated Cleaning Solution is great for ultrasonics, glass and general cleaning. Non-ammoniated, no color additives, super concentrated, biodegradable, non-toxic and nonflammable. Instructions for use are imprinted on each bottle in both English and Spanish.

1-Quart Bottle Each quart makes up to 40 quarts Item #0901 1-Gallon Bottle Each gallon makes up to 40 gallons Item #0902

GemOro Sparkle Pak PRO®

FOR BOTH 2 AND 3 QUART PROFESSIONAL ULTRASONICS Each packet contains the precise amount of the most effective, super concentrated cleaner on the planet, and it is guaranteed to make your jewels sparkle like none other! Professional strength, specially formulated jewelry cleaning solution specifically developed for both the jeweler and

jewelry cleaning solution specifically developed for both the jeweler and craftsman. All you do is fill your 2 or 3 quart ultrasonic tank with water, then take a convenient Sparkle Pak PRO packet and empty the contents in the water. No measuring. No mixing. No mess. No waste.

Endorsed by the leading professionals for removing dirt, grease, grime and even jewelers buffing compounds, rouge, Tripoli and oxides from fine jewelry. Perfect for cleaning diamonds, most gemstones, precious

metals and more. It is non-ammoniated, non-toxic and non-flammable. Plus, the genius packaging design is so compact, it is economical to ship and requires only minimal storage space.

Box of 24 Item #0925

GemOro Sparkle Wand

ON-THE-GO JEWELRY CLEANER

Remove cap, twist end to wet brush with specially formulated jewelry cleaning solution. Rub brush on diamonds and jewelry. Rinse off and dry. Instantly cleans and maintains the like-new sparkle of your diamonds, rubies, emeralds, sapphires, plus restores the luster of

gold, silver and platinum like magic. Safe for ALL jewelry.

ltem #0912







Sharkle Wand

8" Plastic Coated Stainless Steel Tweezers

Our 8" plastic coated stainless steel tweezers are a practical tool for holding jewelry in an ultrasonic tank or under a steamer for short periods of time without burning your fingers. The plastic coating also provides insulation protection to keep the jewelry from being scratched by the tweezers. Item #1736

Diamond Saver Basket

Our special handheld stainless steel basket with springloaded, heat resistant, insulated handle is the ideal tool for use with ultrasonics and steamers for holding rings, ear studs, charms, small items and more without the fear of dropping the item or losing a stone from its setting! Item #5702

GemOro UltraSpa™

ULTIMATE JEWELRY CLEANING SYSTEM PERSONAL COMBINATION ULTRASONIC AND STEAM CLEANER

- Perfect size approximate 1-pint tank capacity ultrasonic cleaner and approximate 1-pint tank capacity steam cleaner
- Includes: Ultrasonic basket, transparent cover, steam residue mat, measuring fill cup, jewelry holding tweezers, and steamer basket that stores in a rear compartment
- Designed in the USA for safety ETL Listed
- 1 Year limited replacement warranty

Item #0377

Gemoro BrilliantSpa® BLACK DIAMOND

DELUXE PERSONAL JEWELRY STEAM CLEANER

- Professionally cleans diamonds, gold, silver and platinum jewelry
- Perfect size approximate 1-pint tank capacity steam cleaner
- Includes jewelry holding tweezers, basket, steam residue mat and water funnel with measuring fill cup
- Built for safety ETL Listed
- One Year limited replacement warranty

Slate Item #0375 Black Item #0362







10455 Olympic Drive, Dallas, Texas 75220 USA Tel 800.527.0719 or 214.351.0380 Fax 800.832.9871 or 214.351.1903 www.gemoroproducts.com sales@gemoroproducts.com support@gemoroproducts.com