



"Our technology, your solution"

ULTRASONICPOWER
CORPORATION

Console Lift System Manual



Ultrasonic Power Corporation

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Congratulations,

You have just purchased the best ultrasonic cleaning system available to the market today. We here at Ultrasonic Power Corporation take pride in our products and our ability to provide our customers with the best quality service available. Please take some time to familiarize yourself with this manual and all aspects of the system configuration prior to start-up. We know that your Ultrasonic Power Corporation cleaning system will serve you for years to come. Thank you again for selecting Ultrasonic Power Corporation for your cleaning needs.

Sincerely,

The Ultrasonic Power Family

Please read the entire manual. This ultrasonic power cleaning system requires special care for proper operation. This manual gives you the knowledge and skills required to operate the system at its peak performance.

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Warnings

Warning Symbols

Danger



The DANGER symbol means that failure to follow this safety statement WILL result in personal injury or death.

Warning



The WARNING symbol means that failure to follow this safety statement MIGHT result in personal injury or death.

Caution



The WARNING symbol means that failure to follow this safety statement MIGHT result in personal injury or property damage.

High Voltage



The HIGH VOLTAGE symbol means that failure to follow this safety statement MIGHT result in personal injury or death.

SAFETY PRECAUTIONS

The following safety precautions should be observed when operating or servicing this equipment.



WARNING: Utilize this equipment with accordance to the manual and good safety practices. Failure may result in poor equipment performance, personnel injury or death, or equipment damage.



WARNING: Use only water or water-detergent mix in tank. Never use flammable solvents (fire or explosion could result) or carbon tetrachloride (produces toxic fumes).



CAUTION: Never use ultrasonic cleaning console as a sink. Under no circumstances should waste water be poured into it as the water could overflow the drain and damage delicate components.



CAUTION: Incorrect voltage can damage the generator. Do not operate the equipment unless the correct voltage is available. Contact the proper authority about necessary changes at the wall receptacle.



CAUTION: Never operate unit without at least 8 inches of water in the tank. Failure to observe this precaution could damage the heating system.



WARNING: Always disconnect all power to the system prior to performing preventative maintenance within the compartments. Electrical shock can cause serious injury or death.



WARNING: Do not operate this equipment for other than its intended use. The system is intended for cleaning components with water and an aqueous, non-flammable detergent.



WARNING: Extremely high voltages, which can cause death on contact, are present in electrical circuits of the system. Always use the following precautions when working on the equipment.

SAFETY PRECAUTIONS (Continued)



Do not attempt to override safety interlocks.



Never reach across any system which has not been turned off, the plug pulled, and high voltage capacitors discharged.



When servicing live electronic equipment, always work with one hand in your pocket or behind your back, and stand on an insulated pad (e.g., rubber). That way if you get shocked, the current will not pass through your torso.



Do not carry on conversation or permit yourself to be distracted in any manner while servicing live equipment.



Never service live equipment unless someone else is in the same room with you.



Never turn off the main power switch in some remote spot and then service equipment without also pulling plug on line cord.



In the event of shock, artificial respiration should be applied immediately. If possible, by a person trained in administering such treatment.



WARNING: Always discharge all high-voltage capacitors before attempting any servicing. Do not assume that the discharge from a capacitor will not produce a lethal shock. The discharge from a high-capacity, high-voltage capacitor is lethal!

SAFETY PRECAUTIONS (Continued)



WARNING: The transducers can build up a charge, regardless of power being applied, due to the mechanical shock or heat of solution in tank. Therefore, to remove shock hazard, disconnect transducer cable and short the cable to ground before servicing the generator. Use caution when working on the transducer assembly.



CAUTION: Failure to reconnect wires in their original positions when replacing components in the system may lead to failure of the system. Carefully note proper arrangement before removing wires from components to be replaced.



This equipment is intended to be utilized indoors in an ambient temperature of 50°F to 95°F.



The benchtop systems are all protected by splashing water and debris to a rating of IP 23.



This system contains one power cord that is required to be attached to a properly rated three wire fusible disconnect with a grounding connection capable of handling twice the rated current. The wires are colored as follows: black - hot / ungrounded, white - return / grounded, green & yellow - protective earth. The system also contains one drain valve for tank content drainage. The drain can be plumbed into a facility drain or remain unplumbed for added mobility on draining locations.



Approved hearing protection is recommended for use with this system.



Recommend the use of NRTL approved electrical plug for use with this system. Select the appropriate plug for the voltage and current rating of the unit as per the respective national standard. When the plug is installed, make sure the wires are cut so that the protective earth is the last to take the strain. Electrical plugs should be installed only by a certified electrician.

1. Specifications

39 Gallon	
	Standard
Overall Length With Lift	30.92"
Overall Height Lift Raised	60.45"
Lift Max Load	300 Lbs.
Electrical Supply Requirements	230V/240V-1P 50/60 Hz
Unit is equipped with circuit breakers	
Only trained personnel, not the operator, should reset the circuit breakers.	

90 Gallon	
	Standard
Overall Length With Lift	34.71"
Overall Height Lift Raised	68.22"
Lift Max Load	300 Lbs.
Electrical Supply Requirements	230V/240V-1P 50/60 Hz
Unit is equipped with circuit breakers	
Only trained personnel, not the operator, should reset the circuit breakers.	

135 Gallon	
	Standard
Overall Length With Lift	36.70"
Overall Height Lift Raised	74.76"
Lift Max Load	300 Lbs.
Electrical Supply Requirements	230V/240V-1P 50/60 Hz
Unit is equipped with circuit breakers	
Only trained personnel, not the operator, should reset the circuit breakers.	

204 Gallon	
	Standard
Overall Length With Lift	40.65"
Overall Height Lift Raised	74.48"
Lift Max Load	300 Lbs.
Electrical Supply Requirements	230V/240V-1P 50/60 Hz
Unit is equipped with circuit breakers	
Only trained personnel, not the operator, should reset the circuit breakers.	

2. Principles of Operation

2.1 General

The ultrasonic cleaning system lift enables parts to be lowered into the cleaning tank and raised from the tank when the cleaning cycle is completed. This allows the operator a trouble-free loading and unloading of the cleaning system with little to no contact with the hot cleaning solution in the tank.

The lift control box is mounted on the same side as the lift with the control buttons facing the same direction as the main control panel, **See figure 1 page 12**. The location of the control box and lift may change depending upon tank options.

3. Operating Instructions

3.1. General

The following instructions are intended to guide the user on the operation of the lift: (1) instructing operators in techniques designed to ensure optimum equipment performance; and (2) verifying the validity of operator complaints. **See Section 4 - Troubleshooting**, if the system is not operating properly.

3.2. Before Operating this Equipment

1. Ensure that the lift has no visible damage.
2. Check for any foreign objects that could impede the lifts operational movement. If any are found, remove them.
3. Plug the tank power cable into an outlet with appropriate electrical ratings.
4. Verify the total weight of the items that you are going to place on the lift, including any baskets and or fixtures that hold the part. By determining this weight, you can avoid overloading the lift.

See lift rating in section 1 of this manual.

5. The lift needs to be lowered to be able to place the lids on the system.

3.3. Operating the Equipment

1. **Getting Started** – Locate the unit on a solid and level surface.
2. **Prepare System for Power** – If tank is empty make sure the power buttons for the Ultrasonics, Pump and Heat are turned off before turning on the Main Power.
3. **Main Power On** – On the tank, turn **ON** the Main Power switch if not already turned on. The button will be illuminated when the system power is on as seen in image below.

Main Power must be on for lift system to operate.



Figure 1 MAIN POWER BUTTON

4. **Lift controls** – The lift system controls are contained in an enclosure that is mounted on the side of the tank. The power for this is supplied by the **Main Power Button** on the main control panel.

If the Overheat Light is on, the lift controls will NOT FUNCTION until the overtemp resets when the temperature drops below the reset temperature.

5. The steps below describe how the lift system buttons function when raising and lowering product in and out of the wash tank.



Figure 2 LIFT CONTROLS

1. Lift Raise

Momentary press of the **Lift Raise Button** will activate the lift to raise. The lift will automatically stop when it reaches the max raised position. The button remains illuminated when the lift is active.

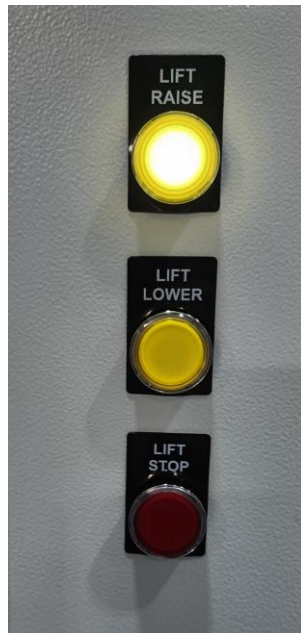


Figure 3 LIFT RAISE ACTIVATED

2. Lift Lower

Momentary press of the **Lift Lower Button** will activate the lift to lower, and the lift will automatically stop when it reaches the max lower position.

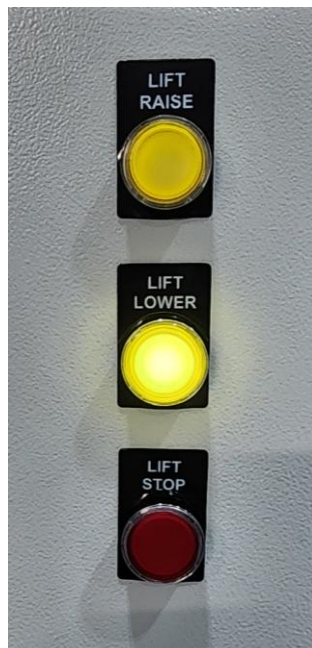


Figure 4 LIFT LOWER ACTIVATED

3. Lift Direction

The direction of travel can be changed by pressing the opposite direction button at any time the lift is moving. The stop button does not need to be pressed to change direction.

4. Lift Stop

The **Lift Stop Button** can be used to stop the lift at any time. To resume lift movement, press the corresponding button to resume in the desired direction.

4. Inspection and Maintenance

4.1. General

The maintenance described in this section should be performed at best intervals determined by the usage of the equipment, unless otherwise indicated. Should a problem occur when operating the unit, **refer to Section 5, Troubleshooting.**

4.2. PERFORMANCE VERIFICATION

1. Check installation requirements against specifications in **Section 1.**

Also:

- a. Inspect overall unit for signs of damage or misaligned parts.
- b. If applicable, make sure leveling feet are adjusted to fit the floor.
- c. If applicable, make sure the castors are locked in place to prevent movement of system during operation.
- d. If applicable, be sure all side panels are in place on the system.

NOTE: All side panels must be installed prior to operation to allow for proper airflow to the system. This also protects the operator from potential shock.

2. Check input voltage at the wall receptacle. The voltage at the wall receptacle must be the same rating for the system for the system to operate properly. Make sure system is grounded properly.



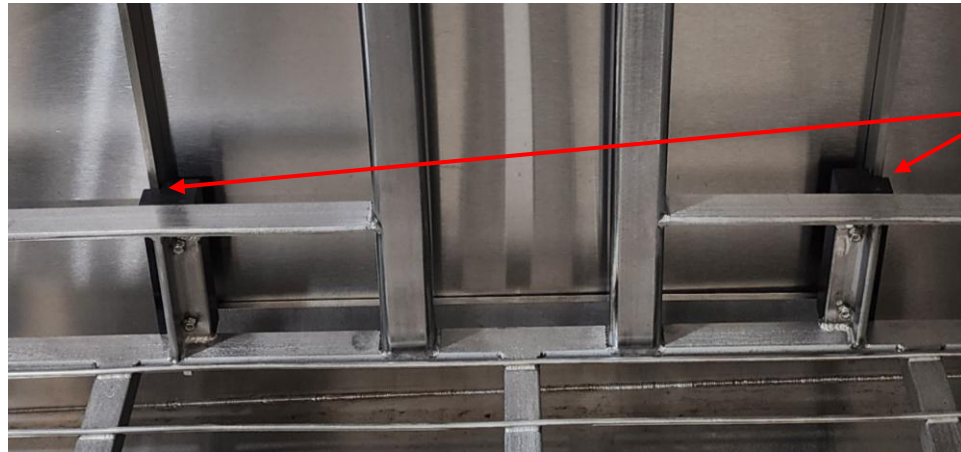
Caution: Incorrect voltage can cause damage. Do not proceed unless the above voltage readings are obtained. Contact the proper authority about necessary changes at the wall receptacle.

3. Press the following switches for each operation to check their operability.
 - a. **Lift Lower** - Press the Lift Lower Button. The lift should start to lower. When lift reaches max lower position, lift should stop, and button will become non illuminated.
 - b. **Lift Raise** - Press the Lift Raise Button. The lift should start to raise. When lift reaches max raised position lift should stop, and button will become non illuminated.
 - c. **Lift Stop** - Press the lift Stop Button with the lift moving in either direction. The lift should stop, and direction button should become non illuminated.
 - d. After testing the stop button, press the desired direction, and the lift will restart in that direction until it reaches the max position in that direction.

4.3. Preventative Maintenance

Recommended maintenance cycle.

1. Check all fasteners monthly to ensure that nothing is coming loose on the lift system.
2. The Black Delrin slide on the lift system located on the lift as shown in image below should be checked for loose fasteners and wear. To access the mounting screws, raise lift to upper position.



Delrin Slide locations. Check for wear at these locations.

Figure 5 Lift Delrin Slide Bars

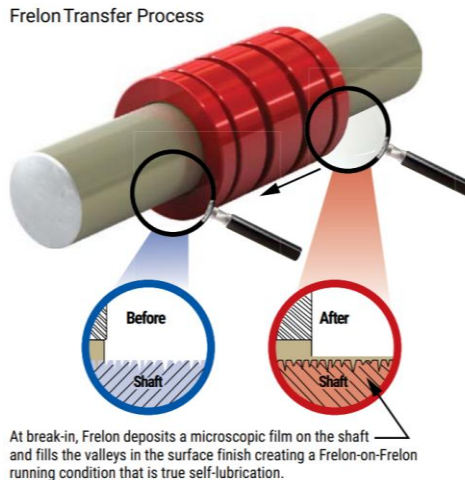
3. The lift system does not require manual lubrication of the linear bearings, as they self-lubricate over time from usage. For more information, please refer to information on page 18 below about bearing lubrication.



WARNING: ALWAYS SET BUILDING ELECTRICAL-SUPPLY DISCONNECT SWITCH AND CLEANER MASTER POWER SWITCH AT "OFF", OR DISCONNECT POWER CORD FROM WALL RECEPTACLE, BEFORE PERFORMING ANY PREVENTATIVE MAINTENANCE FUNCTIONS WITHIN ANY COMPARTMENTS. ELECTRICAL SHOCK CAN CAUSE SERIOUS INJURY.

Bearing lubrication info courtesy of PBC Linear®:

The interaction of the Frelon® material and the shafting creates a natural, microscopic transfer of the Frelon to the running surface. A thin film is deposited on the shaft, and the valleys in the surface finish are filled in with Frelon material during the initial break-in period which takes approximately 50-100 strokes of continuous operation. This transfer creates the self-lubricating condition of Frelon riding on Frelon.

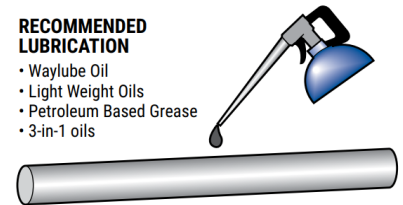


RECOMMENDED LUBRICATION • Waylube Oil • Light Weight Oils • Petroleum Based Grease • 3-in-1 oils.

A minimum of initial lubrication of bearings is strongly recommended.

RECOMMENDED LUBRICATION

- Waylube Oil
- Light Weight Oils
- Petroleum Based Grease
- 3-in-1 oils



NOT RECOMMENDED • WD-40 • PTFE Sprays • Fluorocarbons • Silicon Oils, Grease or Spray. WD40®

is a registered trademark of the WD40 company.

NOT RECOMMENDED

- WD-40
- PTFE Sprays
- Fluorocarbons
- Silicon Oils, Grease or Spray

WD40® is a registered trademark of the WD40 company



Do not repeatedly clean the shafting with alcohol. This will remove the previously transferred material entirely and increase the wear to the bearing liner.

It is recommended not to clean the lift systems shafts often – if the shafting is cleaned regularly, increased wear will be seen in the bearings due to removal of the self-lubricant.

5. Troubleshooting

Only trained personnel are allowed into the inside of the machine.

5.1 General

This section contains detailed information for locating and correcting malfunctions. The following steps provide an effective approach to the use of this information in conjunction with other areas of the manual. Check to be sure that the system has the minimum specified level of water in the cleaning tank and that the system has power prior to troubleshooting.

PROBLEM	ITEMS TO CHECK
1. System does not receive power when main power switch is turned to ON position.	a. Unit power cord
	b. Building power supply
	c. Unit's circuit breakers
	d. Loose / disconnected wires
	e. Switches

PROBLEM	ITEMS TO CHECK
2. The Lift does not work.	a. Check unit's main power button to verify it is on
	b. Lift Unit's circuit breakers see figure 6-page 20
	c. Loose / disconnected wires at proximity sensors
	d. Check for foreign object in front of proximity sensors
	e. Check lift motor power wires for loose connections
	f. Check sensor output see figure 9-page 22

If the problem has not been solved using the trouble shooting guide, call the Ultrasonic Power Corporation service department at (815) 235-6020 7:00 AM - 3:30 PM CST Monday - Friday.

5.2. Lift

NOTE: Use the following procedure whenever the lift is not operating properly. Do not attempt to do more than is listed below as it may void the warranty.

1. Remove power from the system.
2. Check circuit breakers in the lift control panel, reset if necessary.

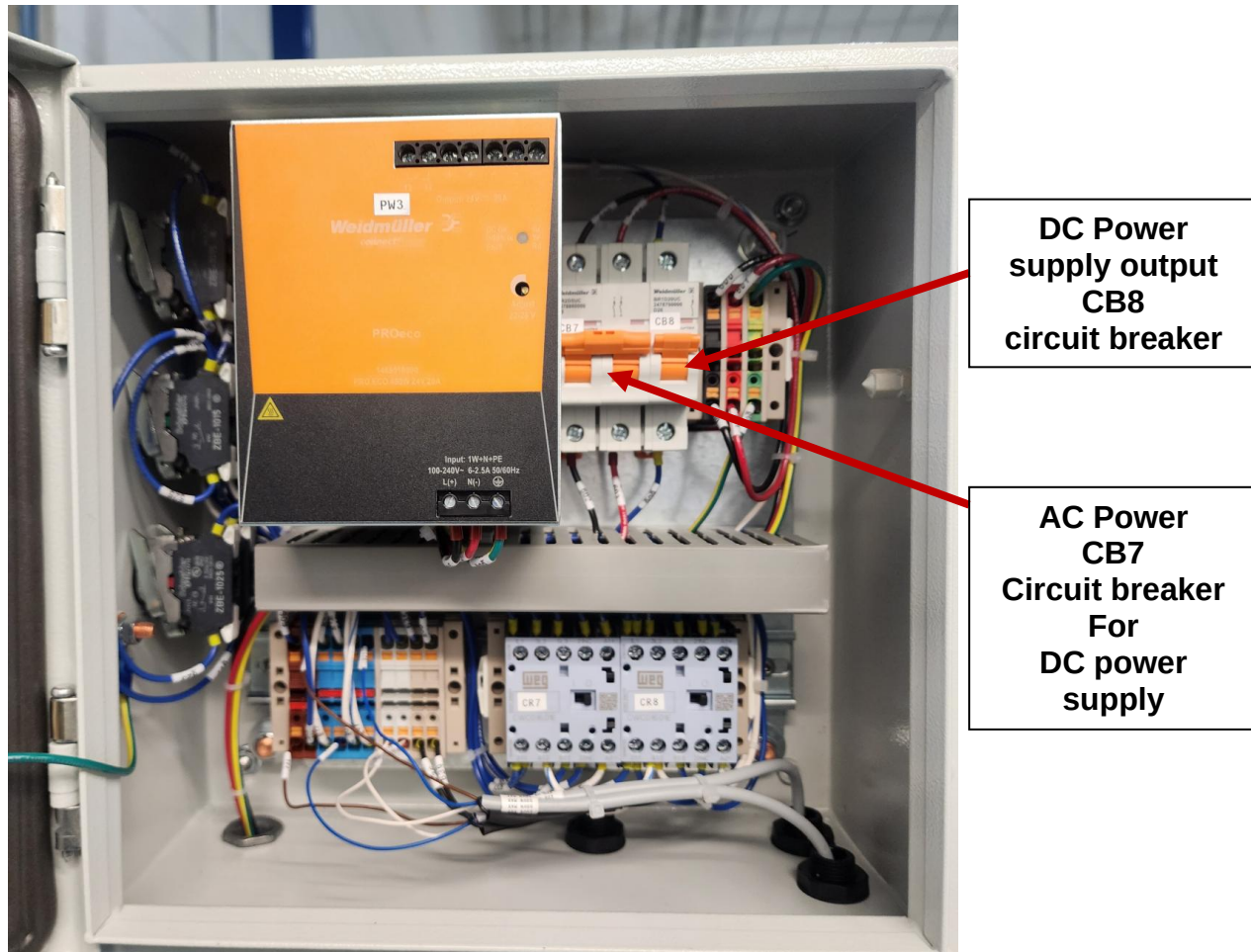
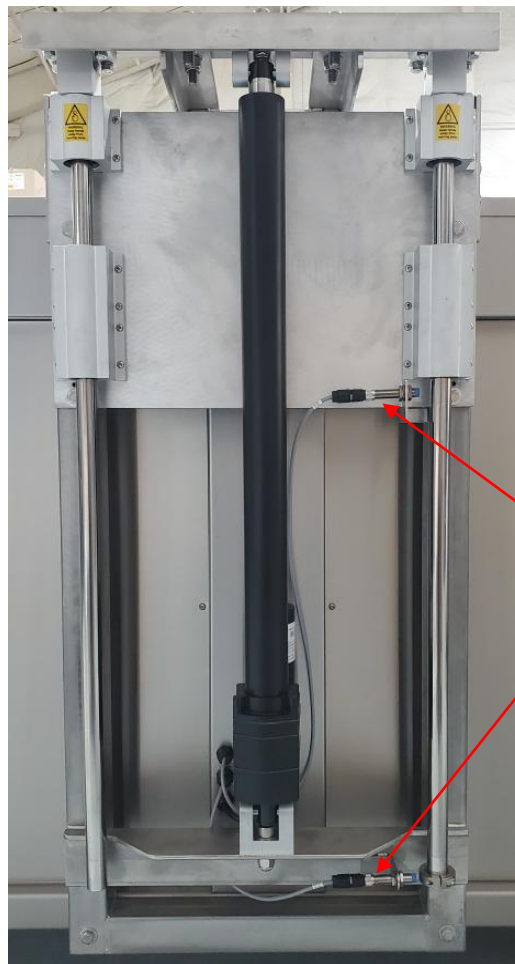


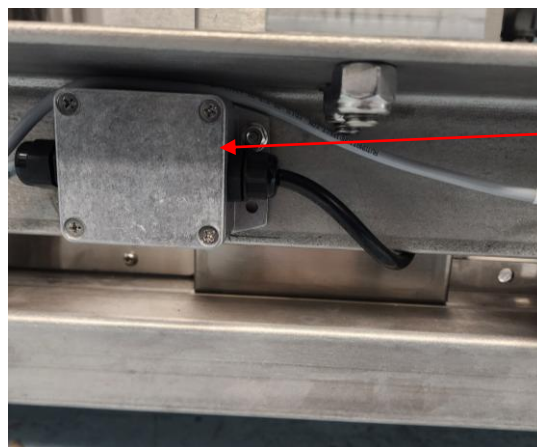
Figure 6 Lift Control Circuit Breakers

3. Check for loose connection of wires at proximity switches and motor junction box.



**Check connection
on these two
proximity switches**

Figure 7 Lift Wire Locations



**Not all units
have this
junction box.
On some
systems, the
wires are spliced
inside of the
unit's skirt.**

Figure 8 Lift Motor Wire Junction Box

4. Check supplied power for correct voltage specifications.
5. Check to see if the lift proximity sensors are working. **You can only verify this by the following:** Verify the sensor light is illuminated on the sensor you are testing then use a multimeter to check if you have +24 VDC at locations shown in the figure below.



Figure 9 DC Power Supply Voltage Check

**+24 VDC Power
Test point.
Insert tester
probe here.**

**-0VDC Power
Test point.
Insert tester
probe here.**

**Proximity Sensor Test.
Left is Up Max.
Right is Down Max.
Insert tester probe here.
Should have +24 VDC when
sensor indicator light is on.**

6. Check the proximity sensors to make sure there are no foreign objects blocking the sensors. If there is nothing blocking the sensor, and the proximity sensor trigger is not in front of the sensor, the indicator lights should be on. See image below for location of indicator and trigger.



Figure 10 Lift Raised Stop Sensor

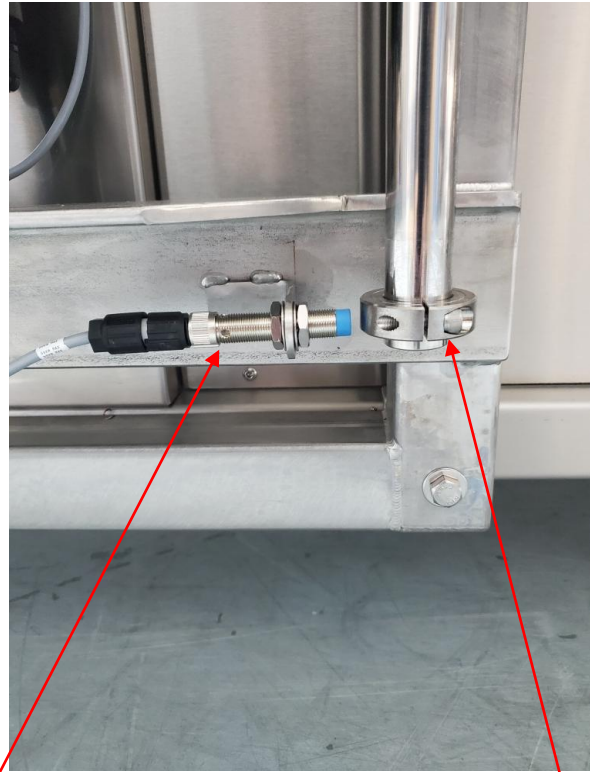


Figure 11 Lift Lowered Stop Sensor

Location of proximity sensor indicator light. Indicator light is on when there is nothing in front of sensor.

Proximity sensors trigger. **Do not move this ring doing so will cause the lift controls to malfunction.**

7. If lift does not work, contact Ultrasonic Power Corporation service department for repair or replacement.

6. Component Repair and Replacement

Only trained personnel are allowed into the inside of the machine.

6.1. GENERAL

This section includes instructions for the adjustment, disassembly, repair and replacement of selected components. Illustrations showing the various parts and assemblies referred to in this Section are in Section 7. **If ever unsure during this process, contact your Ultrasonic Power Corporation representative.**



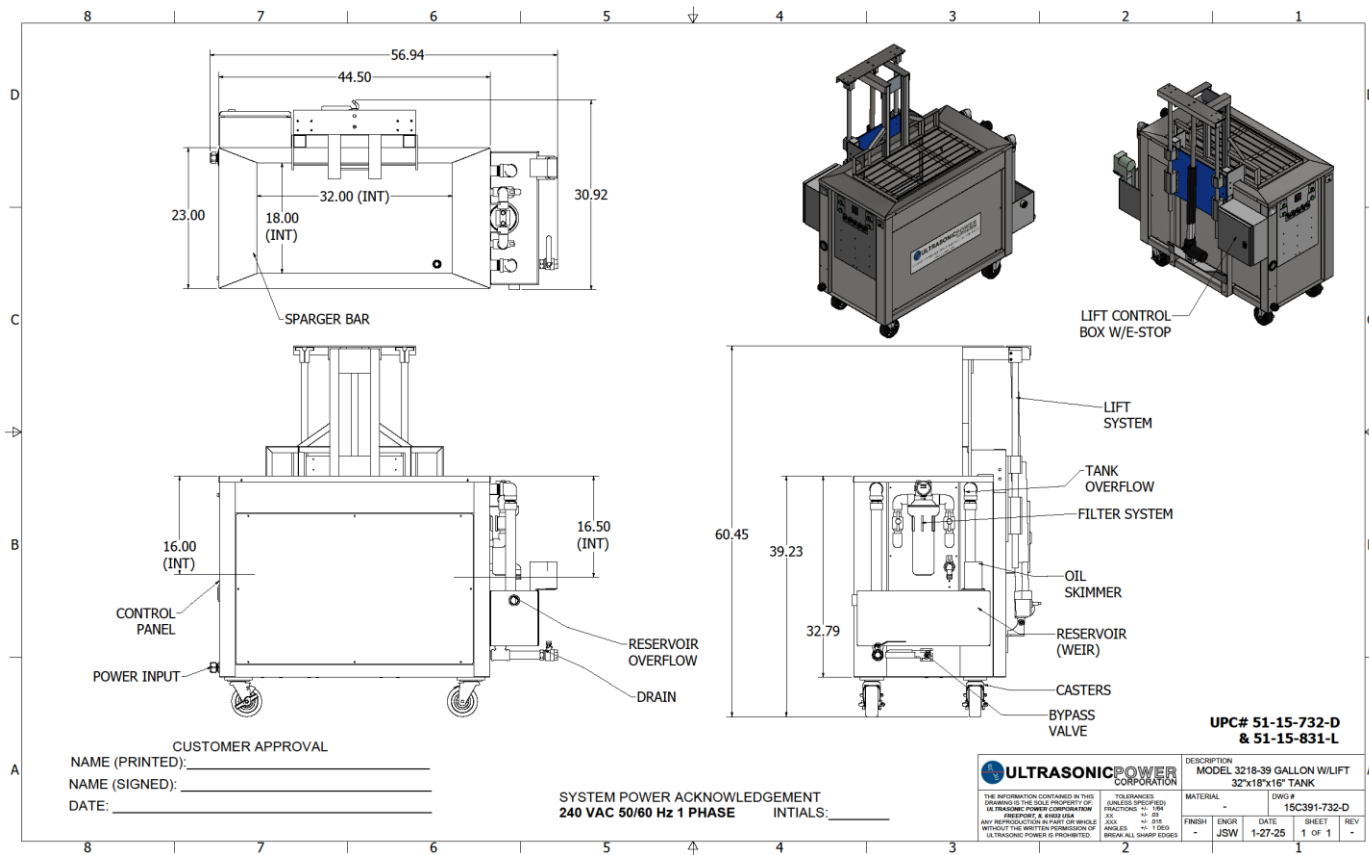
WARNING: EXTREMELY HIGH VOLTAGES, WHICH CAN CAUSE DEATH ON CONTACT, ARE PRESENT IN ELECTRICAL CIRCUITS OF THE ULTRASONIC SYSTEM. ALWAYS USE THE FOLLOWING PRECAUTIONS WHEN WORKING ON THE EQUIPMENT:

- 1. NEVER REACH ACROSS A SYSTEM WHICH HAS NOT BEEN TURNED OFF, THE PLUG PULLED AND THE HIGH-VOLTAGE CAPACITORS DISCHARGED.**
- 2. WHEN SERVICING LIVE ELECTRONIC EQUIPMENT, ALWAYS WORK WITH ONE HAND IN YOUR POCKET OR BEHIND YOUR BACK AND STAND ON AN INSULATED PAD (e.g. RUBBER). THAT WAY, IF YOU DO GET SHOCKED, THE CURRENT WILL NOT PASS THROUGH YOUR BODY.**
- 3. DON'T CARRY ON CONVERSATION OR PERMIT YOURSELF TO BE DISTRACTED IN ANY MANNER WHILE SERVICING LIVE EQUIPMENT.**
- 4. NEVER SERVICE LIVE EQUIPMENT UNLESS SOMEONE IS IN THE SAME ROOM WITH YOU.**
- 5. NEVER TURN OFF THE MAIN POWER SWITCH IN SOME REMOTE SPOT AND THE SERVICE EQUIPMENT WITHOUT ALSO PULLING PLUG ON LINE CORD.**
- 6. IN THE EVENT OF SHOCK, ARTIFICIAL RESPIRATION SHOULD BE APPLIED IMMEDIATELY. IF POSSIBLE, BY A PERSON TRAINED IN ADMINISTERING SUCH TREATMENT.**

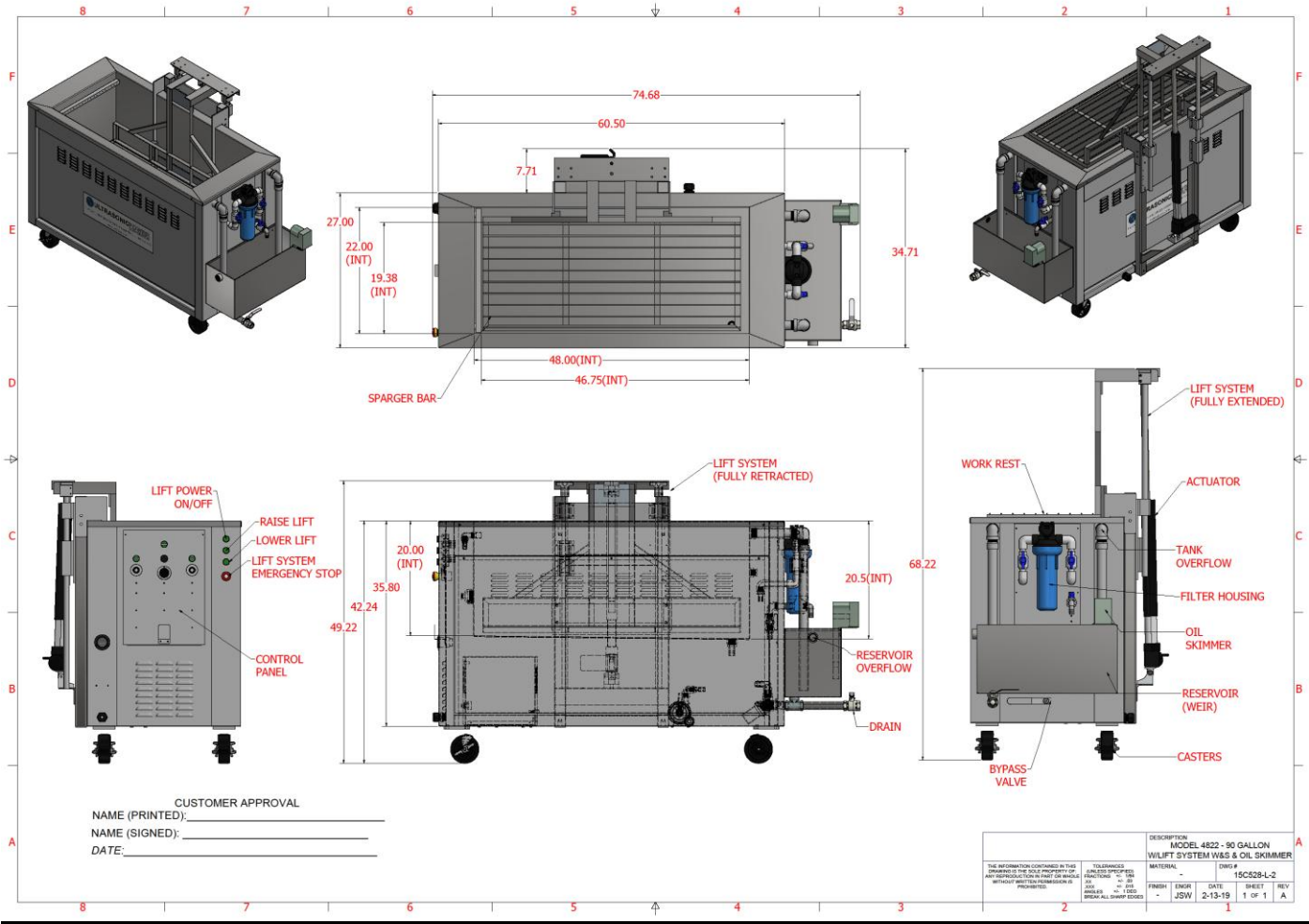
NOTE: If damage is visible at any of these steps, contact Ultrasonic Power Corporation service department for repair or replacement.

7. Diagrams and Drawings

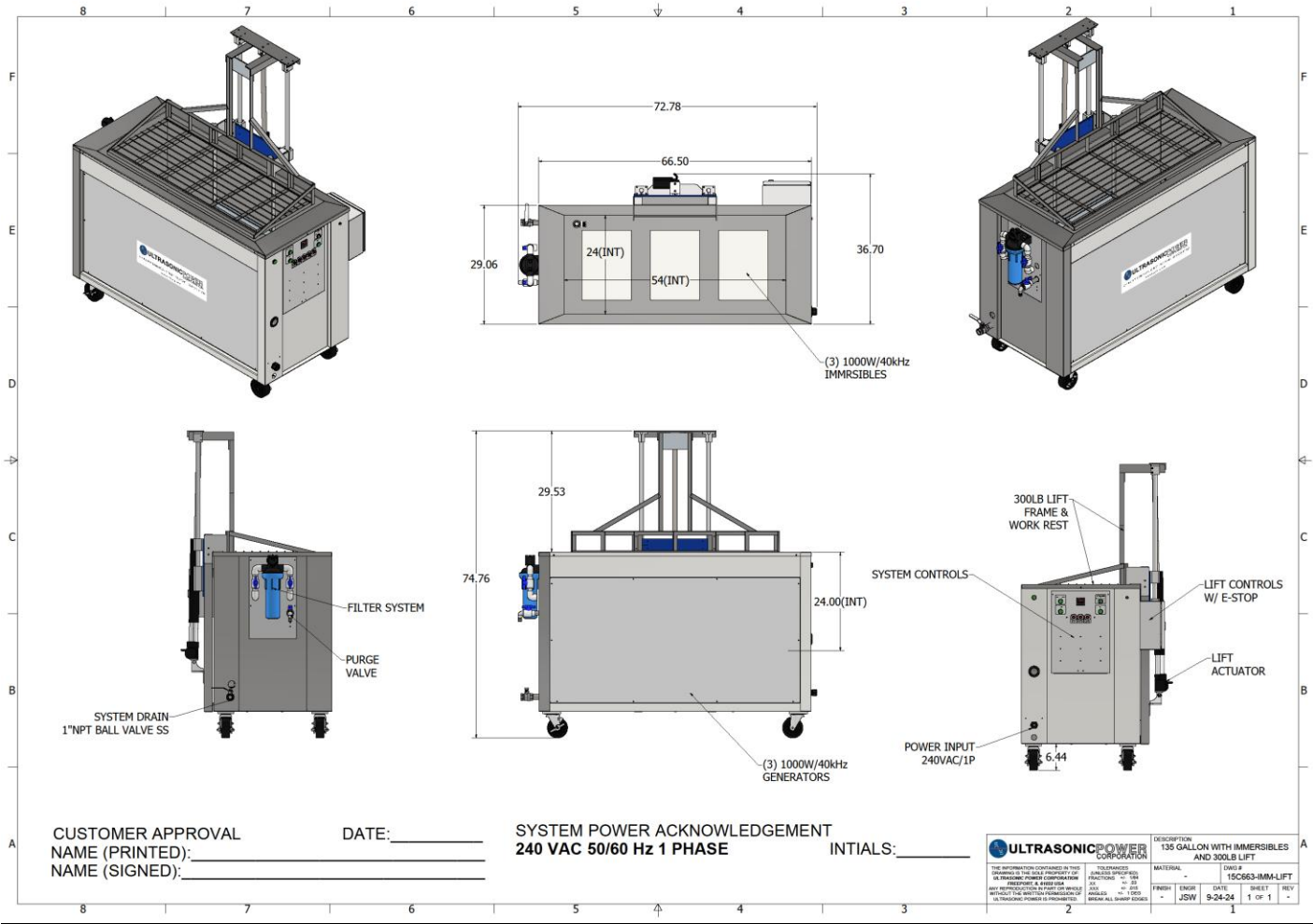
7.1. 39 Gallon Drawing



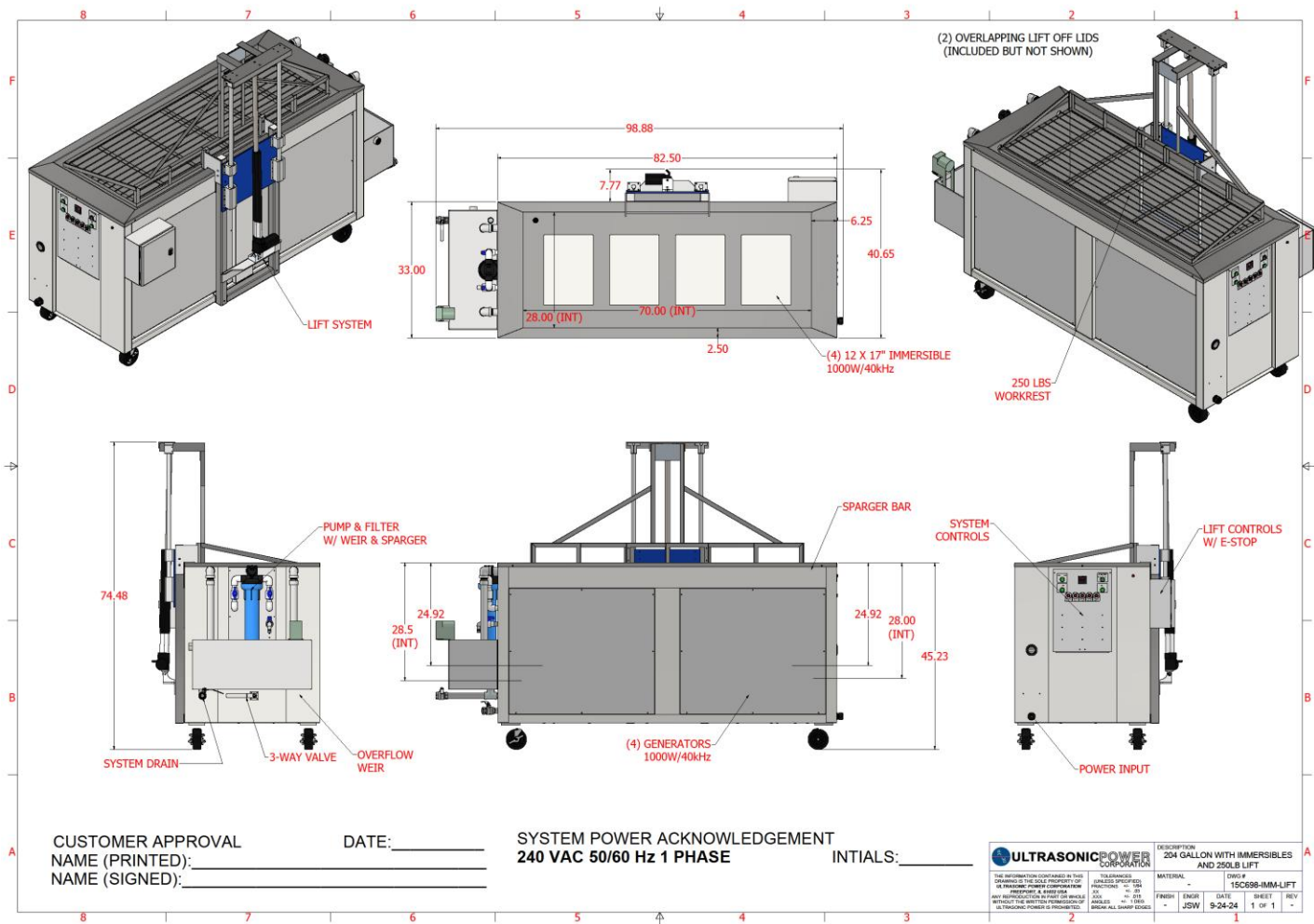
7.2. 90 Gallon Drawing



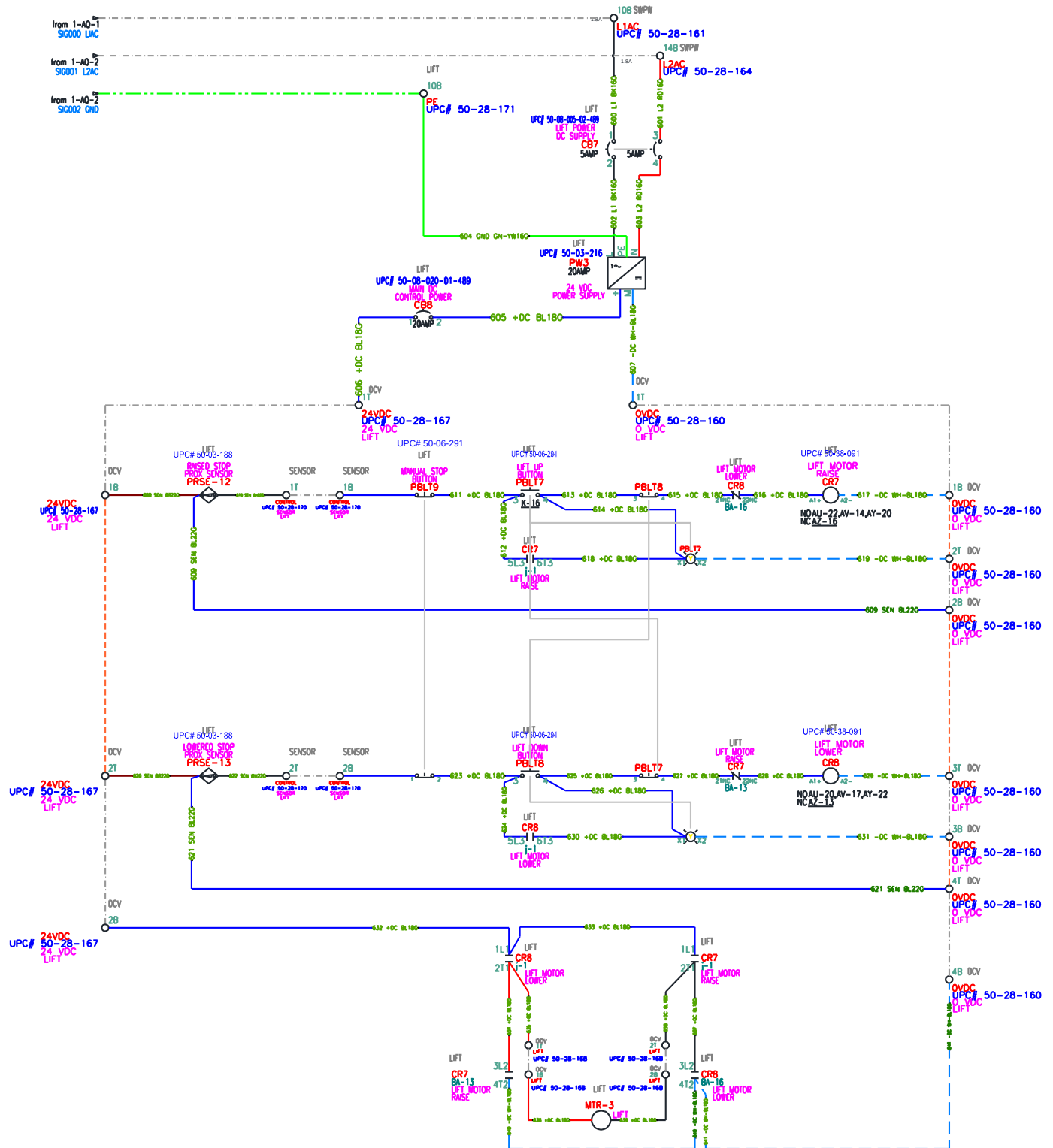
7.3. 135 Gallon Drawing



7.4. 204 gallon drawing



Lift System Schematic



8. Warranty

THE TEN-FIVE-TWO WARRANTY (the "Warranty")

Ultrasonic Power Corporation ("UPC"), as Manufacturer, warrants all products manufactured by UPC ("Products") meet UPC's production and quality assurance specifications before being released for distribution. Accordingly, UPC warrants that from the date of shipment from UPC's facility:

- a) The bond for the VIBRA-BAR® Transducer to the radiating surface shall be free from defects in material and workmanship and is guaranteed not to crack, depolarize or detach from the radiating surface for ten (10) years;
- b) all ultrasonic generators shall be free from defects in material and workmanship for five (5) years;
- c) all transducer components shall be free from defects in material and workmanship for two (2) years; and
- d) all other components, electrical and mechanical, used in manufacturing by UPC not otherwise identified above, such as industrial-grade stainless steel tanks, shall be free from defects in material and workmanship for a period of two (2) years.

This warranty does not guarantee forward compatibility for any UPC Products sold. The UPC Ten-Five-Two Warranty extends to the first Purchaser (or Customer if the first Purchaser is a distributor) only, and is not otherwise transferable without the prior written consent of UPC.

THIRD PARTY COMPONENT WARRANTY

Concerning any products and components not manufactured by UPC ("Third Party Products"), but used in the manufacture of the final UPC Product, UPC agrees to transfer all warranties given by the manufacturer of the Third Party Products (each a "Third Party Warranty" and collectively the "Third Party Warranties") directly to the first Purchaser (or Customer if the first Purchaser is a distributor) so long as the Third Party Warranty is transferable. Purchaser (or Customer if the first Purchaser is a distributor) shall be entitled to such benefits as UPC would otherwise receive under any Third Party Warranty, provided such benefits are transferable. UPC shall have no liability to Purchaser (or Customer if the first Purchaser is a distributor) in the event the manufacturer of said Third Party Product(s) fails to honor any such Third Party Warranty or to meet any liability which may arise by reason of any defect in such Third Party Product. UPC HEREBY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, FOR FITNESS OF PARTICULAR PURPOSE, OR OTHERWISE, FOR ALL THIRD PARTY PRODUCTS.

SOLE REMEDY

UPC's sole liability for any breach of the Warranty will be to replace or repair, in UPC's sole discretion, any Product or item covered by this Warranty which is determined by UPC, upon examination, to be defective in workmanship or material within the applicable warranty period, provided that such Product or item has been properly installed, maintained, lubricated and serviced within the limits of normal usage as specified by UPC and properly used under recommended operating conditions. SUCH REPAIR OR REPLACEMENT SHALL BE THE EXCLUSIVE REMEDY AVAILABLE UNDER THIS WARRANTY.

LIMITATIONS PERIOD

Any action for breach of this Warranty or other action related to UPC's sale of the Products must be commenced within thirty (30) days after the occurrence that forms the basis for the first Purchaser's (or Customer if the first Purchaser is a distributor) Warranty claim.

EXCLUSIONS OF WARRANTY COVERAGE

This Warranty shall not apply to:

- a) cavitation erosion of tank and immersible transducer surfaces, which is a normal occurrence and develops over time in the operation of ultrasonic cleaning equipment;
- b) any Product or component incorrectly installed by Customer contrary to instructions from UPC
- c) any Product or component which has been: i) incorrectly operated or misused, (ex., operating the equipment dry, dropping heavy objects into the cleaning tank, incorrect voltage connections); ii) altered; or iii) modified;
- d) expendable items such as fuses, bulbs, or similar parts incorporated in a Product having a useful life inherently shorter than twelve (12) months;
- e) damage from intentional acts, fire, acts of God (hurricanes, tornados, floods) loss, theft, cosmetic wear not affecting functionality, and modifications by anyone other than an authorized UPC representative;
- f) modification or repair of any Product by any party other than UPC or a UPC authorized representative will invalidate the Warranty;
- g) use of cleaning reagents in or on the Product not approved/supported by UPC will invalidate the Warranty; and
- h) connecting product to non-UPC designed and manufactured equipment (example: non-compatible

- competitor equipment).
- i) Any generator in which the tamper proof seal is removed or broken.

WARRANTY DISCLAIMERS

THE WARRANTIES PROVIDED HEREIN ARE THE EXCLUSIVE WARRANTIES AND ARE EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. EXCEPT AS PROVIDED HEREIN, UPC DISCLAIMS ANY LIABILITY, ARISING FROM CONTRACT, TORT OR OTHERWISE, FOR ANY LOSS OR DAMAGE INCLUDING DIRECT, INDIRECT, SPECIAL, INCIDENTAL, AND CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, COST OF COVER, INCIDENTAL DAMAGES AND PERSONAL INJURY, WHATEVER THE UNDERLYING CAUSE AND INCLUDING THIRD PARTY CLAIMS.

Any and all production or performance specifications supplied by UPC are strictly estimates based upon UPC's analysis of the material or parts to be processed, interpretation of tolerance and accuracy requirements, assumptions of facilities available and operator skill. NO SUCH PRODUCTION OR PERFORMANCE ESTIMATE SHALL CONSTITUTE A WARRANTY OR GUARANTEE OF PRODUCTION OR PERFORMANCE RESULTS.

ADDITIONAL TERMS

- a) The agents, dealers and employees of UPC are not authorized to make modifications to this Warranty, or to make additional warranties binding on UPC including, but not limited to additional warranties for Products, accessories or components. Additional statements, whether oral or written, do not constitute warranties and should not be relied upon unless made in writing and signed by an officer of UPC with authority to do so.
- b) Regardless of any other agreement between the first Purchaser (or Customer if the first Purchaser is a distributor) and UPC, this Warranty will be governed and controlled in all respects by the laws of the State of Illinois, USA, including interpretation, enforceability, validity and construction, without regard to any conflict of law provisions. The sole proper venue for the resolution of any disputes arising hereunder shall be the State or Federal Courts located in the County of Winnebago, State of Illinois.
- c) This Warranty constitutes the entire understanding between the parties with respect to the subject matter discussed herein and supersedes any prior discussions, negotiations, agreements and understandings between the parties.
- d) No assignment of this Warranty or of any right or obligation under this Warranty will be made by the first Purchaser (or Customer if the first Purchaser is a distributor) without the prior written consent of UPC. Any assignment or transfer of this Warranty without such prior written consent will invalidate this Warranty. Failure to provide proof of purchase to UPC upon request will invalidate this Warranty.

SHIPPING REQUIREMENTS

Upon notifying UPC of a warranty-related claim, UPC will, if appropriate, provide a Return Material Authorization number (RMA) for the return of the Product and/or Accessories. If supplied to the first Purchaser (or Customer if the first Purchaser is a distributor), the first Purchaser (or Customer if the first Purchaser is a distributor) will complete the RMA and return it to UPC along with the Product or accessory. Transportation and insurance will be paid by the first Purchaser (or Customer if the first Purchaser is a distributor) for the return of Product and all accessories. UPC is not responsible for any loss or damage, which may occur in transit. UPC will ship the repaired or replaced Product(s) and/or accessories to the first Purchaser's (or Customer if the first Purchaser is a distributor) place of business using a transportation method of its choosing or through consultation with the first Purchaser (or Customer if the first Purchaser is a distributor). All Products and accessories must be shipped in their original shipping containers or other solid and durable shipping container. Failure to return the Product or accessories to UPC or to follow these procedures will invalidate this Warranty.

BUSINESS INFORMATION AND RETURN ADDRESS

All product returns for Warranty service and concerns, regarding this Warranty or otherwise, must have a Return Material Authorization (RMA) number. Please ship pre-paid to:

Ultrasonic Power Corporation
Attn: RMA Coordinator
239 East Stephenson Street
Freeport, Illinois 61032, USA
+1 815 235 6020

9. Return of Equipment Policy

Replacement/Repair Policy and Pricing Schedule

It is the intention of Ultrasonic Power Corporation (UPC) to deliver fair, accurate, cost-effective and timely service associated with warranty and non-warranty product assistance to Original Equipment Manufacturers (OEM), End-user and Reseller Customers within the guidelines of this Policy. All warranty repair costs that fall within the scope of a UPC Warranty Policy will be covered, in full, according to the applicable UPC Warranty Policy. All non-warranty and customer damage repairs will be quoted according to inspection criteria and pricing schedule for the associated Product.

Visit our website before returning any product. www.upcorp.com

A Return Material Authorization (RMA) number must be assigned prior to returning any product.

Contact RMA Coordinator at +1 815 235 6020 : Monday – Friday 7:00 AM to 5:00 PM Central Time (UST -6)

Warranty

Repairs will be covered in accordance with the applicable UPC Warranty Policy. All warranty repairs are subject to an initial inspection and approval by an authorized UPC repair representative to determine if the requested repairs are covered by an applicable UPC Warranty Policy. If a repair is NOT covered under warranty, UPC will issue a quote for the cost of the repairs needed and will provide a stated reason for the non-warranty coverage determination. As indicated in each UPC Warranty Policy, all warranties are void if the warranty “tamper seal” is broken or Products or Accessories has been modified and/or repaired by anyone other than a UPC repair representative.

Non-Warranty and Customer Damage

Work by UPC will be performed in accordance with the UPC policy for the repair of equipment. Payment confirmation pursuant to the quote provided by UPC must be received prior to any repair being made. The initial diagnostic fee charged covers all testing, diagnosis, parts, and labor to determine the cause of the defect and the repair necessary to restore full functionality of the returned equipment. Returned equipment that is determined “beyond repair” due to non-UPC causes (customer, accident, weather, etc.) will not be repaired. There will be no refund of the diagnostic fee for equipment determined to be beyond repair.

Property Loss and Beyond Repair

A determination will be made upon receipt of product to determine whether or not the product can be repaired. In the event a product is determined to be “beyond repair”, UPC will notify the customer with a stated reason for the “beyond repair” determination. UPC reserves the right, at its sole discretion, to offer replacement equipment, parts, etc., in exchange for any product that is deemed “beyond repair”. Pricing will be determined based on the repair pricing schedule; **forfeiture to UPC of the original product is required if replacement is offered and agreed to by the customer.**

Testing/Evaluation Fees

Diagnostic Fees will apply to all products returned to UPC for repair or replacement. A fee is assessed to cover expense of testing, inspecting, evaluating and the costs for non-UPC or non-product related issues. If a Warranty Replacement or Warranty Repair is required by the applicable UPC Warranty Policy, this diagnostic fee is waived. If a non-warranty replacement or non-warranty repair is required, the diagnostic fee is accounted for in the Pricing Schedule.

Shipping Expenses/Abandoned Product/Failure to Authorize Repair in Timely Manner

Shipping expenses are the responsibility of the customer. UPC recommends a shipping method which provides for tracking of returned product and also includes insurance against shipping damage and/or property loss. UPC will not

be responsible for damaged and/or lost product prior to receipt by UPC at UPC's facility. Return shipping (only) to the Customer will be paid by UPC and will be sent via standard ground shipping upon completion of a warranty or replacement/warranty repair. Additional expenses including international shipping and related customs paperwork, overnight and special shipping methods requested by the customer will be charged to customer.

All refused and/or unpaid repairs are the responsibility of the customer and will be subject to the UPC 60 day "Must Claim" Policy. All products not claimed after 15 calendar days following repair will be subject to a storage fee beginning on the 16th workday. The fee will be US\$50 per day. After 90 calendar days, the product will be considered abandoned and UPC will take possession of abandoned property with intent to recover its costs for repair and storage. Once UPC has taken possession of said abandoned property, UPC shall be entitled to sell the abandoned property and retain all funds received from said sale. Funds received shall be applied to the customer's outstanding balance.

Packaging

Generator shipments to UPC must be shipped in their original shipping containers or other solid and durable shipping containers of comparable size and composition. DO NOT use Styrofoam peanuts or shredded paper for packaging material as this may cause damage to the electronic or mechanical components. Failure to comply with these packaging requirements may invalidate the Warranty. **Assure RMA # is prominently displayed on the outside of the shipping package. Packages without RMA # on the outside will be refused.**

Cleaning Fee May be Assessed:

Important: UPC does not have environmental permits or the facilities to address cleaning materials/contaminants remaining in the cleaning systems/tanks/containers. Prior to returning equipment to UPC, de-contamination of equipment must be completed. UPC reserves the right to refuse acceptance of equipment. A \$95/hour "Cleaning Fee" will be assessed for the cleaning of equipment that is considered by UPC to be excessively dirty/unclean.

OEM Warranty Replacement / Repair Policy

All service requests from customers of OEMs must originate their service request through the OEM. It is the OEM's responsibility to obtain a valid UPC RMA number on behalf of their respective customer. **No equipment from an OEM's customer will be accepted at the UPC dock without a UPC issued RMA number. An RMA number must be requested from UPC by the OEM. UPC will not provide RMA numbers to an OEM's customer/end users.**

Safety, Health and Environment Notice

To inform and protect UPC personnel, applicable Safety Data Sheet (SDS) from the customer/end user must be sent with returned equipment. Tanks, immersibles or other equipment will be held in an isolated area until applicable SDS are received and reviewed. UPC reserves the right to refuse product based upon failure to provide a SDS or based upon the information contained therein. Servicing may be denied and/or delayed without applicable SDS.

Business Information and Return Information

As indicated above, all product returns for service must have an RMA number prior to shipment to UPC. Product without an RMA number will be refused. Please ship, with shipment costs pre-paid to:

Ultrasonic Power Corporation
Attn: RMA Coordinator
239 East Stephenson Street
Freeport, Illinois 61032, USA
+1 800-575-0168
+1 815 235 6020

Reshipment or Relocation

When relocating or reshipping the system, ensure that the power has been disconnected and that the liquid has been entirely drained from the system prior to movement. Wipe down the system to remove all excess liquid. Wrap up the power cable to avoid presenting a tripping hazard. Disengage castor locks (if applicable). If system has console legs, lift machine up to move (DO NOT drag the machine).

Standard Pricing Schedule

Repair Rates (250W/500W Generators)		Comments
Warranty Repair	\$0.00	UPC Warranty Applies
Test/Evaluation Fee	\$105.00	Waived with warranty replacement due to defect
NON-Warranty	\$425.00	Expired warranty, equipment malfunction, customer damage

Repair Rates (750W/1000W generators)		Comments
Warranty Repair	\$0.00	UPC Warranty Applies
Test/Evaluation Fee	\$145.00	Waived with warranty replacement due to defect
NON-Warranty	\$600.00	Expired warranty, equipment malfunction, customer damage

Repair Rates for Immersible Transducers		Comments
Warranty Repair	\$0.00	UPC Warranty Applies
Test/Evaluation Fee	\$150.00	Waived with warranty replacement due to defect
NON-Warranty	Quote	Expired warranty, equipment malfunction, customer damage

Repair Rates for Bench Top Systems		Comments
Warranty Repair	\$0.00	UPC Warranty Applies
Test/Evaluation Fee	\$175.00	Waived with warranty replacement due to defect
NON-Warranty	Quote	Expired warranty, equipment malfunction, customer damage

Repair Rates for Console Systems		Comments
Warranty Repair	\$0.00	UPC Warranty Applies
Test/Evaluation Fee	\$300.00	Waived with warranty replacement due to defect
NON-Warranty	Quote	Expired warranty, equipment malfunction, customer damage

Cleaning Fee	\$95/hour	Additional Cleaning Fee to be assessed based on judgment of RMA Coordinator
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From:

RMA #

Ship To: Ultrasonic Power Corporation
239 East Stephenson Street
Freeport, IL 61032

Attention: RMA Coordinator

=====cut here=====

FRAGILE
ELECTRONIC
EQUIPMENT



"Our technology, your solution"
ULTRASONICPOWER
CORPORATION

Parts List

Replacement Parts	Part Numbers
Push Button Assembly - Yellow	
Yellow push button	50-06-294
Contact block N/O	50-06-269
Contact block N/C	50-06-271
Retaining Clip	50-06-267
LED Block	50-06-272
Red push button	50-06-291
Contact block N/C	50-06-270
Power Supply	
24 VDC power supply	50-03-216
Proximity Sensors N/C	50-03-188



"Our technology, your solution"
ULTRASONICPOWER
 CORPORATION

Please contact Ultrasonic Power Corporation for other system parts not
Listed or any question regarding your ultrasonic cleaning system.

815-235-6020 or 1-800-575-0168

