



**Omegasonics**  
**Pre Wash Cleaning Equipment**

**Operation & Instruction Manual**

**RESTORATION PRO 3600PW**  
**Model OMG-3600PW**

**240 VAC 50/60 Hz**

**Read all instructions thoroughly before operating this equipment**

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# INTRODUCTION



## About the Ultrasonic Cleaning Process

Congratulations! You have purchased an Omegasonics Prewash, used with the Ultrasonic Cleaning system.

But how does the Prewash work?

The Prewash Unit is used in tandem with the Omegasonics Ultrasonic Cleaning Tank. Its purpose is to presoak, soften debris, and emulsify soot prior to placing items into the Ultrasonic Tank for final precision cleaning. An upper and lower spray bar to create a cyclonic action that removes gross contamination.

Omegasonics provides a complete line of quality ultrasonic cleaning washers that have been developed for industries that have historically used technology that is quickly becoming outdated. While other companies use environmentally harmful cleaning solvents, we provide state-of-the-art, labor saving, fast, efficient and environmentally safe alternatives.

# WARNINGS

Failure to read these warnings may cause the unit to fail, personal injury or property damage.

- Equipment should only be operated on a single phase, 240 VAC, 20 Amp **grounded** electrical system. The plug is a Hubbell #2321. A Hubbell #2320, or compatible, receptacle is required.
- For safety reasons, it is not recommended to place the receptacle directly behind the unit. Mount the receptacle on the wall to the upper right of the unit's location.
- Never plug in or operate the unit (heat or pump) without the appropriate liquid level in the tank (the height of the upper spray bar).
- Any detergents or chemicals used in this equipment must be compatible with 300 series stainless steel. Do not use any chemicals that contain any strong acids i.e. hydrochloric, sulfuric or muriatic acid. These chemicals will cause permanent damage to the stainless steel welds.
- Due to the heated liquid in the tank, use baskets, tongs or wires to insert or remove parts from the tank.
- Do not operate the unit with wet hands.
- Use only biodegradable cleaning agents.
- Do not open the internal circuitry of the equipment, disassemble any part or parts, or move or remove any components or electrical devices.
- Never attempt to perform maintenance on the equipment when the unit is energized or when the cleaning solution is hot.
- Disconnect the power source when moving the unit to a new location.
- Avoid splashing water outside the tank.

*Only qualified technically trained personnel should perform any electrical maintenance on this machine.*

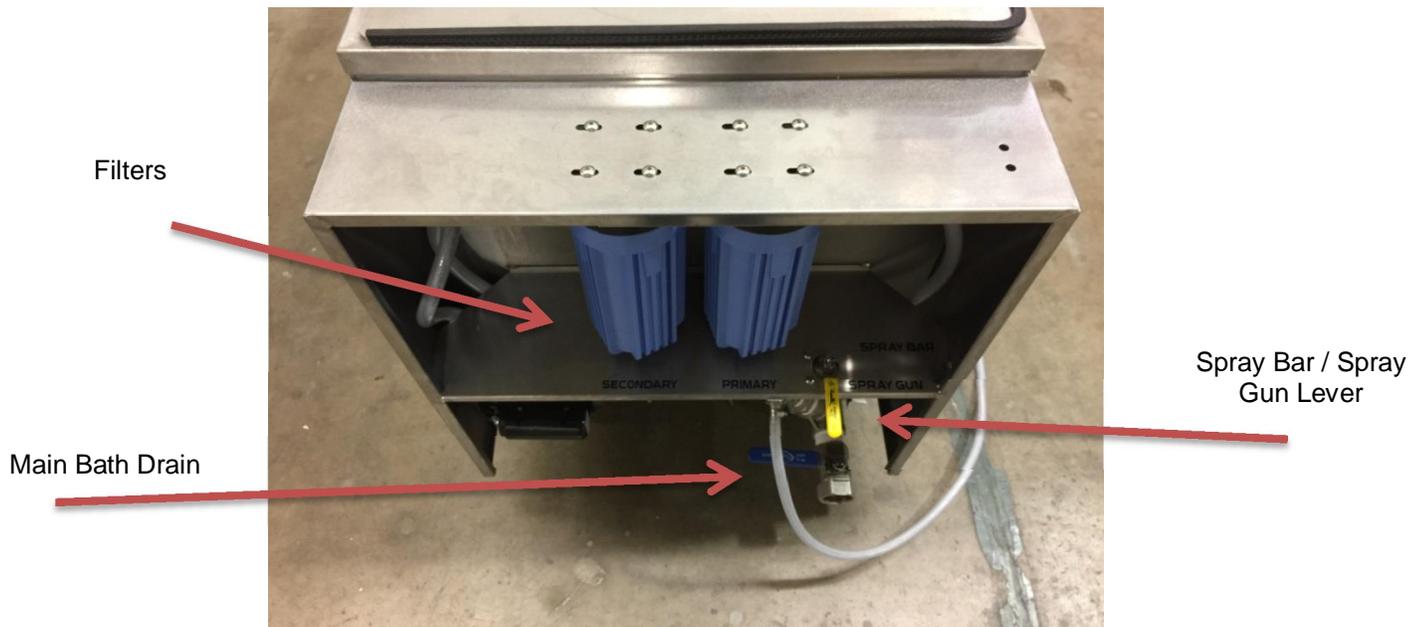
# SET-UP

## Plumbing

- If the prewash unit is set-up in conjunction with the 3600 XW unit, the hot and cold water supply should be located between the units. Units should be at least 10'+apart.
- Having a heated deionized water source at the unit or an adjacent sink is a benefit when rinsing electrical / electronic contents or contents that would show water spots.

## General

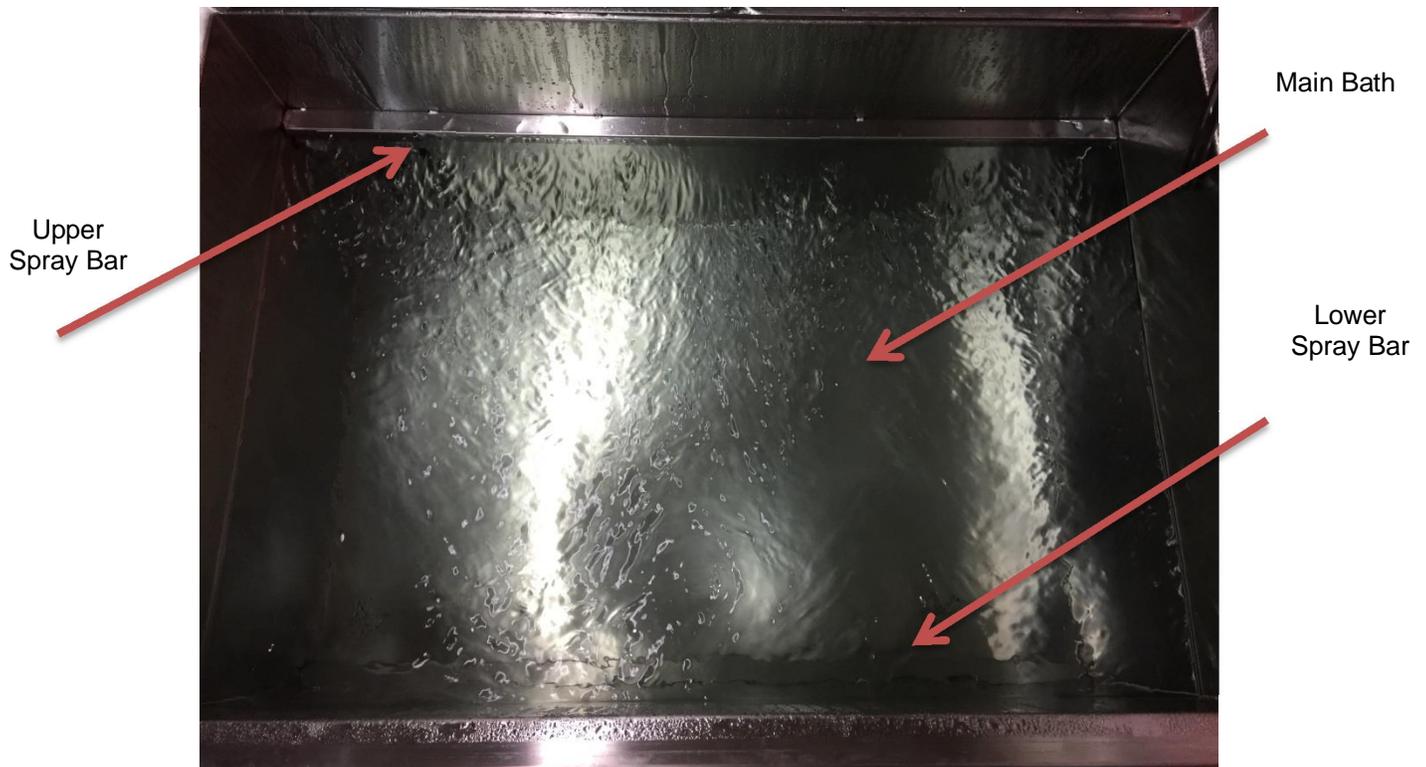
- Place the machine on a level surface and lock all four wheels.
- Be sure the drain valve is completely closed (handle perpendicular to the drain) before filling the machine.



- Next to the filters, you will find the diverter valve to change from filtration to spray nozzle (Spray Gun / Spray Bar Lever).
- In the spray gun position, water will flow when the trigger is pulled. The spray can be adjusted by opening clockwise for the Stream Spray or counterclockwise for the O Mist Spray.
- Fill the rinse tank with water (*see note at the bottom of this page*) and the proper dilution of soap to just above the upper spray bar. Using hot water will shorten the amount of time required to reach the desired temperature. Check drain assembly to insure that there is no leakage.
- The Model 3600PW tank dimensions are 36"x 24" with a 20" overall working depth. This tank will hold 75 gallons and has a working volume of approximately 60 gallons when the water level is at the midpoint of the spray bar. This liquid volume does not include the liquid in the pump / filter system. Use this volume for calculating the amount of detergent you will use.

***\*Note About Water\****

The quality of your water source can have an important effect on the performance of the equipment. High levels of calcium, magnesium, sulfur and other contaminants in the water source can have a negative effect on the type of cleaning soap used. High levels of calcium and/or magnesium (constitutes hard water) can cause the soap to work less efficiently and less effectively as intended and can also leave a white, flaky residue on the parts once dried. If this white spotting occurs and is not desired, it will be necessary to use soft water, drinking water or distilled water, in the machine. The level of final cleanliness will dictate the water source used in the machine.



- If the machine does not have enough water (at least up to the spray bar), the pump will be damaged and the machine will fail. Once the proper amount of water has reached the low level sensor, just below the spray bar, it will be activated allowing the machine to function properly.
- Plug the power cord into a proper electrical outlet and press green **POWER** button.
- Unlock the lid by pulling the hinge, located on the right side of the lid, towards yourself and close the lid over the tank to maximize insulation efficiency
- Set digital timer and temperature controls.
- The OMG-3600PW utilizes (3) 900 Watt built-in silicone heating elements and is well insulated. The time required to heat the machine initially will vary between two (2) and three (3) hours. The unit heats water at approximately fifteen (15) degrees per hour. After the initial heating period, the temperature will remain constant with very limited electrical draw. It is important that the lid remain closed when not in use to minimize heat loss and evaporation.

# Digital Temperature

## Knowing Your Temperature Controller



- PV: This upper display indicates the actual Process Value (or current temperature) of the bath and cannot be changed manually.
- SV: The lower display indicates the Set Value or desired bath temperature. This Set Value is adjustable.
- ALM 1: If this light is on, it means that the machine is currently heating. It will shut off once the desired temperature has been reached.
- OUT: If this light is on, it means that the bath temperature is out of the preset range of 50\_F - 160\_F. There is a 5\_hysteresis which means that the heating mechanism (and the OUT light) will go on/off based on a 5\_variance. This serves as a buffer to protect the life of the motor contactor.
- AT, ALM 2: Omegasonics use only.
- Return Key

## Operation

- The temperature controller is factory set at 110\_F.
- To change the Set Value, lightly press the up arrow key to increase or lightly press the down arrow key to decrease the value. Pressing and holding down either arrow key will change the displayed value rapidly.
- Upon changing the Set Value, this lower display will flicker indicating the new value is not set. To make this value permanent, press the RETURN Key .
- Experience shows that the optimum cleaning temperature for most applications is 120\_F - 160\_F.
- When ready to activate the heat, turn the selector switch marked **HEAT** to the **ON** position.

*If increased or decreased security is desired, please contact technical support at Omegasonics to receive instructions.*

## Filtration System

- In many applications the use of a pump and filtration system will extend the useful life of the cleaning chemistry.
- The spray bar pushes the water surface, skimming off floating oil and debris that is loosened by the prewash cleaning.
- The filtration system will then remove the contaminants, pass the water through the dual filters (primary, + secondary) and spray the filtered water back into the wash tank through the spray bars.
- The pump and heat circuits can be operated simultaneously.
- How often you use the pump is dependent on what is being cleaned and the state of the water (i.e. if the items are oily, then the pump should be run after each cleaning cycle).
- To activate the filtration system, turn the selector switch marked **PUMP** to the **ON** position.

# GENERAL CLEANING PROCEDURES

- Be careful not to overload the system and/or the baskets.
- Many times you can achieve better results by cleaning two smaller loads rather than one large load.
- When lowering the items into the tank via baskets or tongs, be sure to arrange the items so they are not touching the bottom of the tank. They should be suspended at least ½+above the tank bottom. This can be achieved with the use of a tank rack.
- Items should not be stacked too densely.
- The volume of parts to be cleaned should not exceed thirty percent (30%) of the total tank volume.
- Prewash times will vary depending on the temperature of the solution, the number of parts to be cleaned, the amount of contamination and the amount and type of cleaning agent used. Generally, (3) to five (5) minutes is sufficient.
- If items are heavily contaminated, the spray gun can be used to directly spray off excess contamination. In order to activate the spray gun, turn the lever (located beneath the filter canisters) 90\_.
- After completion of the prewash process, remove the items via basket and transfer to the ultrasonic machine.
- If parts must be handled, wear gloves when touching surfaces to protect against heated items

## Fire Restoration

- For restoration applications, operating the filtration system constantly is the recommended usage.
- For specific cleaning methods relating to fire restoration and mold remediation, please refer to the Omegasonics Restoration Workbook.

# EQUIPMENT MAINTENANCE

## General

- Keep the bath free of oils, grease and any foreign materials.
- Skim off oil and grease residue periodically, if necessary.
- Cleaning agents should be changed periodically depending on usage.

## Draining Tank

- Turn equipment off and unplug the power cord.
- Wait at least twenty (20) minutes after the heat circuit is turned off before emptying the tank. Permanent damage to the heater elements will occur if the tank is drained too soon after the heaters are turned off.
- Drain the contaminated cleaning solution from the tank using the valve.
- Rinse the inside of the tank with clean water.
- Buff the inside of the tank with a clean, soft cloth. Do not use steel wool cleaning pads as they are too abrasive and will scratch the tank surface.
- Rinse the tank again.
- If the tank will not be used for a long period of time, wipe the inside and the outside of the tank dry with a dry, clean, soft cloth.
- Close the lid on the cleaning tank. The lid should remain closed when the equipment is not in use to keep dust and debris from accumulating.
- This tank cleaning procedure should be performed every time the bath is changed. Always thoroughly inspect drain areas for leaks.

*When discharging bath and waste, follow all environmental and regulatory requirements. A reputable and licensed waste transportation firm should perform removal of all waste materials. Omegasonics is not liable for improper handling of waste materials.*

## Changing Filters

### Disposable

- Prior to changing the filters, the water level in the tank must be no higher than the level of the spray bar.
- Filters should be changed periodically depending on the usage of the equipment and the contaminants being removed. If water is not flowing more than a trickle from the spray bar holes, it is time to replace your filters.
- Individually unscrew counterclockwise the two (2) large blue filter cartridge holders. The cartridges will be full of water.
- Pour the water out of the cartridges and remove the filters. Be careful not to lose the rubber O-ring gasket located on the inside of the filter cartridge. Absence of this gasket will cause the filter(s) to leak.
- Replace with new filter(s) and re-install the cartridges.
- The 20 Micron Polycarbonate Filter is the primary filter and is located on the right side of the filtration unit.
- The 10 Micron Polycarbonate Filter is the secondary filter and is located on the left side of the filtration system.

### Reusable Stainless Steel

- Clean the outside of the filters in a sink.
- Place each filter into individual Ziplock bags.
- Fill each bag with hot water and add soap from the bath.
- Seal bag and place into ultrasonic tank and operate the ultrasound for 15 minutes.
- Dump the fluid from the bag into the sink, NOT the ultrasonic tank.
- Repeat the process until no dirt is extracted from the filters.
- Replace the filters into the blue canisters.

*\*\*Note: Constant usage will cause filters to be changed out more often than the complimentary ultrasonic tank.\*\**

## LIMITED WARRANTY

Omegasonics warrants the OMG-3600PW prewash cleaner for a period of two (2) years from the date of delivery, when used in accordance with the manufacturer's instructions. During the warranty period, Omegasonics will repair or replace free of charge at an authorized repair service center all parts that are defective because of material or workmanship. Freight charges to an authorized service centers are the responsibility of the user.

This warranty does not include damage or product failure, which results from cavitation erosion, misuse, abuse or transportation damage. This warranty is limited to the original purchaser and is not transferable. Total liability for any reason whatsoever, shall not in any case exceed the cost of repair or replacement of the defective part. In no case shall Omegasonics be responsible for any incidental or consequential damages.

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**M-OMG3600PW-0517**

# TROUBLE SHOOTING

Isolate the exact issues(s) you are experiencing by following the following procedure.

1. Turn off Heat
2. Turn off Pump
3. Leave Green Power push button pressed in and illuminated.
4. Turn on Pump . Does it operate?
5. Turn off Pump
6. Turn on Heat . Does it operate?
7. Turn off Heat

## **Control panel has lights, but there is no Heat or Pump action.**

1. Is the water level to the middle height of the upper spray bar?
2. If NO - fill water to the appropriate level.
3. If YES- check the float located under the upper spray bar, towards the back of machine.
4. If the float is stuck in the down position, toggle it up.
5. Preventative maintenance is to clean the pivot point where the float connects to the body.
6. If the float is up and water is in the tank to the middle of the spray bar.
  - a. Unplug the machine from the facility power supply.
  - b. Remove upper panel located on the right end of the machine.
  - c. Look for the ice cube relay located at the left end of the back panel.
  - d. Flip the window up (window has a red button) . this bypasses the float. You will see an orange flag visible in the upper right window.
  - e. The machine will be operational, but will have no low water level protection.
  - f. Replace the defective float switch.
7. Machines manufactured prior to 2013, will not have this relay option.
  - a. Locate the looped wire terminating into a two pin connector.
  - b. Unplug the two connectors that the looped wire is threaded through.
  - c. Plug the looped wire into the open mating connector.
  - d. The machine will be operational, but will have no low water level protection.
  - e. Replace the defective float switch.
8. If either instruction 6 or 7 does not solve the issue, replace ice cube relay.
9. Contact Omegasonics to order a replacement ice cube relay.

## **The Pump is not operational.**

1. Turn on the Pump and listen for the sound of the motor spinning.

2. Note: Pump motor is located on the right end of the machine behind the removable panel..
3. Put your hand near the back of the pump motor and feel for any air flow.
4. If you feel air flow, or feel motor vibration or hear the motor humming, follow steps a-f.
  - a. Unscrew each blue canister and remove the filters completely.
  - b. Place the filters in a sink or away from the machine and keep track of orientation.
  - c. Note: Make sure to not lose black O-ring from blue canister or leaks will occur.
  - d. Screw blue canisters back on.
  - e. Turn on Pump and wait several minutes to see if water moves through spray bar.
  - f. If you have water flow, the filters are clogged and must be replaced.
5. If you are using stainless steel reusable filters, follow 5a - 5g.
  - a. Clean outside of filters in a sink.
  - b. Place each filter into individual Ziplock bags.
  - c. Fill each bag with hot water and add soap.
  - d. Seal bag and place into ultrasonic tank and operate ultrasound for 15 minutes.
  - e. Dump the fluid from the bag into a sink . not into the ultrasonic tank.
  - f. Repeat this process until no dirt is extracted from the filters.
  - g. Replace filters into the blue canisters.
6. If you do not have water flow without filters and the motor is operational, follow 6a - 6c.
  - a. Drain tank.
  - b. Remove the panel from the right end of the machine.
  - c. Remove the pump head volute from motor.
  - d. Inspect the impellor and shaft to see where the damage is.
  - e. Replacing the Pump Head less Motor is the likely solution.

**No lights on the control panel.**

1. Is the Power push button pushed in?
2. Is there power to the facility outlet?
3. Turn off Power and unplug the machine.
4. Remove upper panel located on the right end of the machine.
5. Is the circuit breaker energized (UP-Red) or (DOWN-Green)?
6. If the circuit breaker is tripped, re-set the circuit breaker.
7. Plug in machine.
8. Follow the steps above in %isolate the exact issue+.
9. Machines manufactured after January 2015 have panel fuses and may be burnt. If either of the fuse holder red lights are lit, the 5 amp fuse(s) must be replaced.

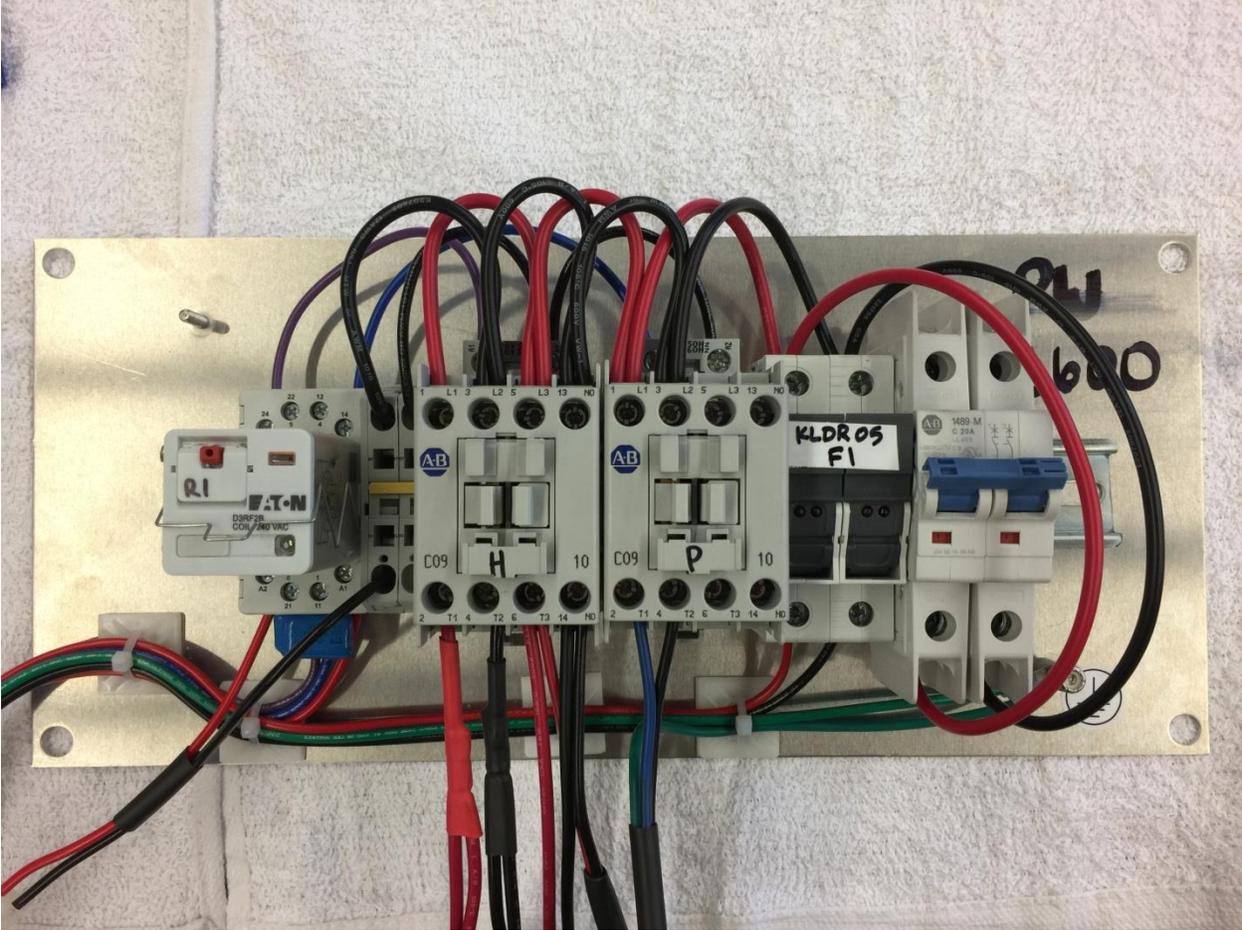
**Heat is causing the circuit breaker to trip.**

1. Likely cause is a shorted heat blanket.
2. Remove the front (if applicable) and back lower access panels.
3. Inspect the heat blanket(s) . they should be an orange/ pinkish color.
4. If the heat blankets are black or charcoal white, they must be replaced.
5. Call Omegasonics to order new heat blanket(s).

**Pump is causing the circuit breaker to trip.**

1. Likely cause is a faulty or shorted motor.
2. Call Omegasonics to order a new pump.

**NOTE: Always inspect the back panel wires for burnt or loose wires. Burnt wires are typically caused by a loosened connection and must be replaced.**



Float Sensor  
Ice Cube Relay

Heat  
Contactor

Pump

Fuse for  
Front Panel

Circuit  
Breaker

# PARTS LIST

- Pump - *Pump-MD5.5*
- Float Sensor . *Float Sensor*
- Digital Temperature Controller . *Digital Temp*
- 2 Position Selector (%Heat+and %Pump+) . *Switch-2 Position Selector*
- Power Button . *Push Button*
- Motor Contactor (2) . *Contactor-240*
- Heat Blanket (3) . *Heat Blanket-900/240V*
- Ice Cube Relay - *Relay-240*

# RESTORATION CLEANING AGENTS - OMEGASONICS

Omegasonics carries a full line of cleaning agents. Each cleaning agent has a unique cleaning specialty and use. Some of the products are as follows.

- **Omega Smoke** . Removes soot, smoke odors, dirt, and grime due to fire damage. Can be used on ceramics, glass, metals, plastics, rubber, and water resistant cloth. Ideal for disaster restoration clean up. Can be used on flood loss disasters.
- **Omega Deodorizer** . Removes smoke odors from all materials. Highly dilutable with water. Odor counteractant that does not contain a fragrance.
- **Omega DeScaler** - A unique product formulated to remove rust, corrosion, heat scale and mineral deposits from a variety of metals. Excellent when used in an ultrasonic tank to remove rust from metal components exposed to extreme moisture and water. Effectively used to remove mineral deposits from heat exchangers
- **Omega Aqua Clean LPH** . A reduced pH solution designed to clean electronic and electrical components. Also effective at removing solder flux residue. It is safe on all surfaces that can be cleaned in water and any surfaces that may be damaged in a high pH solution.
- **Omega Rust Protectant** . Rust protectant serves as microfilm rust inhibitor. Prevents brown and surface rust. Leaves surfaces ready for painting, plating, and coating. Good for carbon steel, aluminum, brass, and copper.

Note: Dilution rates are determined by how heavy soot contamination is. Restoration Workbook provides correct ratios.

