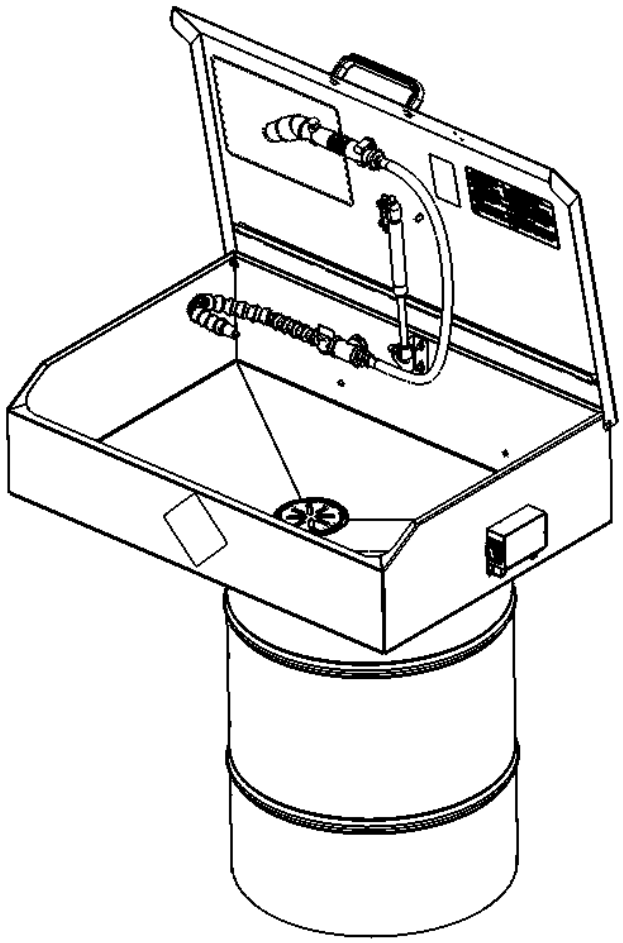


(DRUM AVAILABLE SEPARATELY)

# CM/EM X30

## SINK ON DRUM PARTS WASHER

## INSTRUCTIONS AND OPERATION MANUAL

# TABLE OF CONTENTS

# I. INTRODUCTION

Congratulations on the purchase of your CM/EMX30 heated sink on drum parts washing machine!

This machine is a workhorse of the parts washing industry, providing reliable cleaning performance with rugged construction. This machine provides hands-on cleaning using two forms of washing: the flow-through spigot and the flow-through wash brush. The flow-through brush reduces the amount of time spent manually cleaning parts.

Read the entire manual before attempting to install or operate the CM/EMX30.

Carefully review the SAFETY INSTRUCTIONS AND INFORMATION section and all CAUTION, WARNING, and DANGER information. This information will instruct you on how to use this equipment in a safe manner. Keep this manual along with the material Safety Data Sheets (SDS) for detergents in use. Always have this information in easy reach for the operator and all personnel working on or around the equipment.

Familiarize yourself with the general Maintenance and Troubleshooting of the product. Follow these guidelines to help ensure a long and trouble-free experience. If there are any questions or concerns, please call your local dealer.

The equipment described in this manual is subject to change. The manufacturer reserves the right to change the design at any time as part of normal product improvement. Some improvements may have been made after this manual was printed. For the latest information on your equipment, contact the manufacturer.

| Variant | Cleaning solution | Pump Module | Heater Module | Sealed Heater Pump Module (HPM) | |
|---|---|---|---|---|---|
| Option A | Aqueous or Solvent | YES | NO | NO | |
| Option B | AQUEOUS ONLY | YES | YES | NO | |
| Option C | AQUEOUS ONLY | NO | NO | YES | |

SUPPLIED LOOSE PARTS

Depending on the configuration ordered:
Pump Module (Option A,B)
Heater Module (Option B, AQUEOUS ONLY)
Heater Pump Module (Option C, AQUEOUS ONLY)
Sink and lid assembly
Assembly hardware
Knob with #8-32 x 1/2” threaded stud for mounting switch control box (Option C)
Four knobs with 1/4" threaded insert for mounting Heater and Pump Module

TOOLS REQUIRED FOR ASSEMBLY

Flat/Phillips head screwdriver

ADDITIONAL HARDWARE REQUIRED

30 gallon drum (part number K7322) with industry standard 18” internal diameter
The drum is available separately or as a purchased kit with the parts washer.

# II. SAFETY INSTRUCTIONS AND INFORMATION

## A. GENERAL INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS

1. Read all instructions. Do not attempt to install or use this machine without reading this entire manual. Read and understand all labels, SDS, and this instruction manual before use. Use only as described in this manual. Use only manufacturer's recommended attachments.

2. Read and understand the SDS of all chemicals you are introducing to the solution from washing parts.

3. If you fail to read, understand, and follow all of the procedures in this manual, you may cause or suffer personal injury.

4. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged, until it has been examined by a qualified technician.

5. Do not let a cord hang over the edge of the table, bench, or counter or come into contact with hot manifolds or moving fan blades.

6. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not become a tripping hazard.

7. Always unplug the machines cords from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.

8. This unit can function as a solvent or aqueous parts washer. Solvent is only to be used WITHOUT HEAT. The addition of the heater unit limits the unit to only be used with aqueous solution. Failure to do so could result in fire.

9. The heating module is preset to 122°F (50°C) on Option C and is adjustable to 122°F (50°C) MAX on Option B. The liquid will be extremely hot. There will be high temperature steam and humid air from the machine. Most surfaces will be hot. All parts removed from the machine will be hot. Take precautions and wear thermally protective equipment that is suitable for wet environments. Failure to wear PPE may result in personal injury.

10. For option B: if the thermostat is pushed beyond the 122°F (50°C) mark, the cam will break and the warranty will become void. Additionally, this creates a safety risk for the operator. Exceeding the

heater's limit can result in fluid reaching high temperatures, which are unsafe for exposure. If the fluid exceeds 122°F (50°C) and the cam is broken, the operator will be held responsible.

11. Always wear safety glasses or a full-face shield to protect against chemical splash. While aqueous washers use much safer chemicals, the liquid still contains detergents that can be harmful, the liquid is heated and may cause burns, and the washing and cleaning of parts contaminates the solution and introduces new chemicals to the solution. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.

12. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.

13. Do NOT smoke, eat, or drink in the work area.

14. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline). Do not spray aerosols into or around this machine. Install the equipment in an area away from heat, sparks, and open flame.

15. Do not use compressed air to dry parts. Do not operate this product in a manner that will cause splashing or mist to form.

16. In any emergency, turn off the machine and unplug the power cord from the outlet.

17. Keep cover closed whenever machine is not in use.

18. Do not place parts or equipment on the lid. This is not designed to support heavy weight, and you run the risk of personal injury or damage to the product.

19. Do NOT modify this machine.

20. Disconnect power to the machine before maintenance or servicing of the equipment.

21. Do NOT leave solvent-soaked rags in parts cleaner or in uncovered containers.

22. Do NOT obstruct the cover. It is designed to close automatically in the event of a fire. The safety link and cover closing mechanism must be intact. Do NOT substitute with any other type of cover positioning device. Do NOT leave large objects in the parts cleaner or hang anything on the cover that could prevent the cover from closing in the event of a fire.

## B. SAFETY

### ⚠ DANGER

1. With heat added: This is a HEATED device. This equipment is designed for use only with Aqueous Based Solutions. Do NOT add any other chemicals to the cleaning agent including, but not limited to: mineral spirits, kerosene, fuel oil, gasoline, or chlorinated solutions. The use of any other solutions could potentially cause a hazardous condition including risk of fire or explosion.

2. **NEVER** heat solvents.

3. **NEVER** operate electrical equipment inside of parts cleaner.

4. The heating module and switch box utilize HIGH VOLTAGE 115 VAC 1 Phase electricity. ALWAYS disconnect power to the machine before removal of the electrical panel cover. Obtain the services of a qualified electrician for all electrical work.

5. Make sure the parts cleaner is connected to a properly grounded power source. Check serial plate for power requirements.

⚠ WARNING

6. Avoid contact with eyes or skin. Wear protective eyewear, gloves, and clothing. Operation should be conducted in a manner which prevents splashing or spillage. Any spills should be promptly and properly cleaned up. Soak up all spills with absorbent material. Remove and dispose of all soaked material in accordance with regulatory requirements.
7. This machine uses a spring preloaded lid support assembly. Be in control of lid actuation through its opening and closing motions. NEVER climb onto the machine. Do NOT lean against or on the machine.

⚠ CAUTION

8. Do NOT allow heater to operate unattended for long periods, such as evenings or weekends. Always check and maintain water levels to ensure heating element is fully submerged. It is the responsibility of the operator to check, monitor, and maintain water levels.

## C. FIRE

Fire Extinguisher Type: ABC

Under certain conditions the solvent could burn. For your protection, a fusible link automatically closes the cover of the parts cleaner if a fire occurs in the sink work area. The closed cover contains and smothers the fire inside the metal sink. Do NOT leave large objects in the parts cleaner or hang anything on the cover that could prevent it from closing in the event of a fire. Do NOT replace fusible link with any other device to hold cover up.

1. Use a fire extinguisher suitable for flammable liquids and electrical.

2. Do NOT use water.

3. Do NOT place flammable materials or aerosols on or near equipment.

4. Keep the lid closed when not in use.

5. Be familiar with SDS and fire procedures of all chemicals used on and around the equipment and all chemicals introduced into the solution during the cleaning process.

6. Always keep a fire extinguisher and protective equipment near the equipment and accessible.

7. Contact your local fire department for further details.

In an emergency, disconnect or unplug the electrical supply to the equipment.

## D. FIRST AID (MEDICAL INSTRUCTIONS)

Please note that these First Aid Precautions are for uncontaminated cleaning solutions only. Once the solution has been contaminated with oil, grease, antifreeze, etc., safety precautions should be adjusted according to the type of contaminant and the information presented within their SDS details.

EYES: Contact may cause slight to moderate irritation. For direct contact, flush eyes with water for 10-15 minutes or until the material have been removed. Be sure to remove contact lenses if present and to lift the upper and lower lids during rinsing. If irritation from vapors or mists develops, move the victim into fresh air. Get medical attention if irritation persists.

SKIN: Prolonged or repeated contact tends to remove skin oils, possibly leading to dermatitis. Wash skin with soap and water. Remove contaminated clothing, rinse shoes, and launder clothing before reuse. If irritation or pain develops or persists, seek medical attention.

INHALATION (Breathing): Prolonged exposure to concentrate-mist or vapor may cause mild irritation of nasal passages or throat. Remove to fresh air immediately. Do not leave victim unattended. Get medical attention if irritation persists.

INGESTION (Swallowing): (Uncontaminated cleaning solution) Drink 4 to 8 ounces of water and seek medical attention. DO NOT induce vomiting.

## E. ENVIRONMENTAL

Aqueous solutions become contaminated when used to clean grease, oils, grime, and other chemicals from parts. Used solution must be disposed of properly. Familiarize yourself with the SDS of the contaminants you are introducing from the cleaning process and follow disposal guidelines for these chemicals. Consult your local environmental management agency for additional guidance and other potentially hazardous materials compliance requirements.

Solvents must be disposed of properly. Consult your local environmental management agency for additional guidance and other potentially hazardous materials compliance requirements.

SPILLS: Avoid spilling solution. Spilled solution can create slippery conditions, clean it up immediately. Close off area to traffic. Wear appropriate PPE to prevent eye and skin contact. Consult the SDS for instructions on clean up and disposal.

LEAKS: Contain leaks promptly. Notify local environmental authorities if necessary.

DISPOSAL: Follow SDS guidelines and the guidance and compliance requirements of your local environmental management agency.

# III. CHEMICAL SELECTION

The selection and proper use of detergent is vital to both the cleaning performance and the operating life of the machine. Not all detergents are alike. Select the proper detergent based on the following criteria.

The detergent should have corrosion inhibiting agents to protect against oxidation. Once corrosion starts, it can be hard to stop.

1. The detergent should be strong enough to remove the contaminant (s), but not so strong that it attacks the metal substrate.

2. The detergent should leave only an acceptable amount of residue on the parts. For new parts in particular, a “free rinsing” detergent may be required.

3. The detergent should be formulated for the types of debris you’re removing from parts.

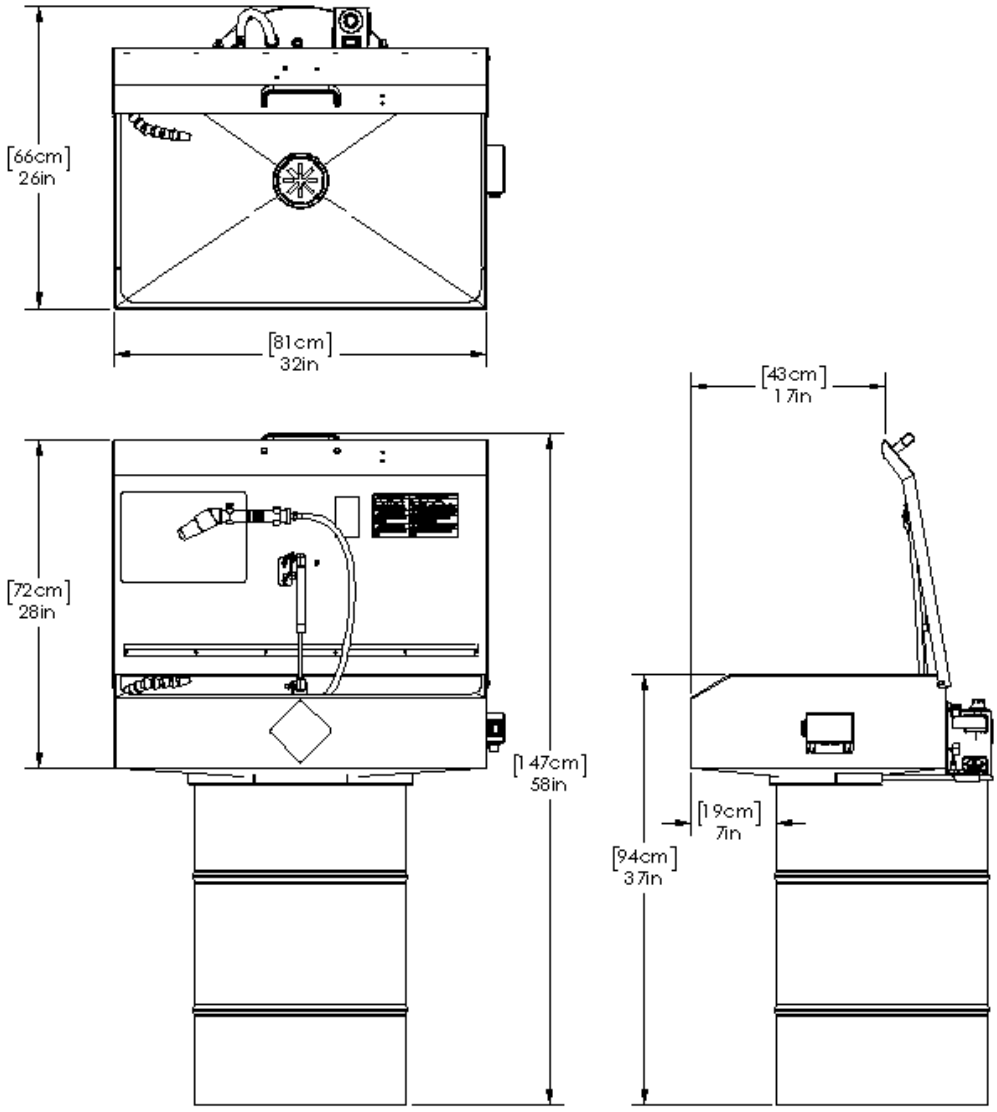
4. The detergent selected should be tailored to the 122°F (50°C) operating temperature of this machine.

5. Before using a detergent, it is recommended you contact Fountain Industries with a SDS of the detergent for review of the chemical makeup of the detergent. Some detergents may attack certain plastics and rubbers, for example a pump shaft seal, and damage the unit is a very short time frame. The detergent must be reviewed and approved before use, or you risk voiding the warranty of the machine.

IMPORTANT! Detergents are characterized as “generally safe” on all metals. This is not an absolute guarantee. If the parts are critical, it is the customer’s responsibility to perform any and all metallurgical tests.

# IV. PRODUCT SPECIFICATIONS

## A. PRODUCT DIMENSIONS




## B. WEIGHT

Dry Weight: 100 lbs (45kg) (with drum)
Wet Weight: 350 lbs (159 kg) at 30 gal (114 L)
Loaded Weight: 425 lbs (193 kg) with 75 lbs (34 kg) load

## C. LIQUID CAPACITY

Minimum Fill: 15 Gal (57 L)
Maximum Fill: 30 Gal (114 L)

### D. LOAD RATING

Rated Load Capacity: 75 lbs (34 kg) (suitable anywhere in the sink work area)

Machine load stability (incline test based on UL standard based on minimum fill liquid capacity. Lower liquid levels reduce stable load capacity of machine.

Machine is not built nor intended for additional hanging loads, applied forces, greater floor inclinations, or anyone or anything leaning, pushing, or climbing on the machine.

## V. INSTALLATION

There are three variants meaning three options for external power connections. All 120VAC, 1Ph

- Option A: power connection comes from the pump switch module.
- Option B: power connection comes from the heater module (GFCI cable) and the pump switch module is plugged into the heater receptacle
- Option C: the plug from the sealed enclosure is the power connection.

A power cord from heaters are:

- equipped with GFCI protection
- terminated with a standard 5-15P plug end
- cord length is approximately 8 ft

Floor plan layout should include adequate access for maintenance, service, and repair. Vertical clearance should allow full opening and closing of the lid without obstruction. Install your parts washer on a flat, level surface in an area provided with adequate ventilation. Local exhaust ventilation should be used in areas of high vapor concentration. Provisions for determining and maintaining adequate ventilation are the responsibility of the operator.

⚠ WARNING

This machine is NOT intended for outdoor operation.

### A. SHIPPING DAMAGE

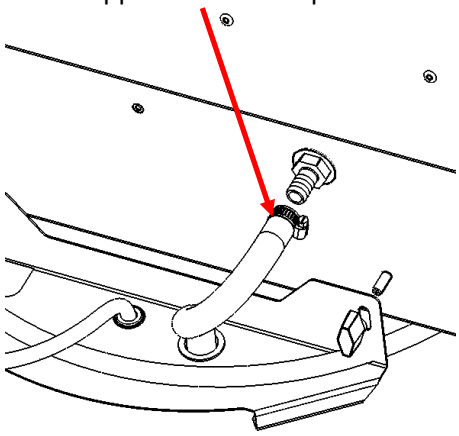
Upon arrival, inspect the packaging and equipment for shipping damage. If any damage is found, notify your carrier immediately, document and save all packaging materials for the carrier's inspector to examine. Failure to promptly report damage could result in denial of your shipping claim.

### B. UNPACKING AND ASSEMBLY

1. If no shipping damage is found, proceed with removal of the parts washer from the carton. Have a 30 gallon drum ready for install of the parts washer. The parts washer can be lifted out of the carton and placed on a flat surface without damage. All necessary hardware is contained within the parts washer.

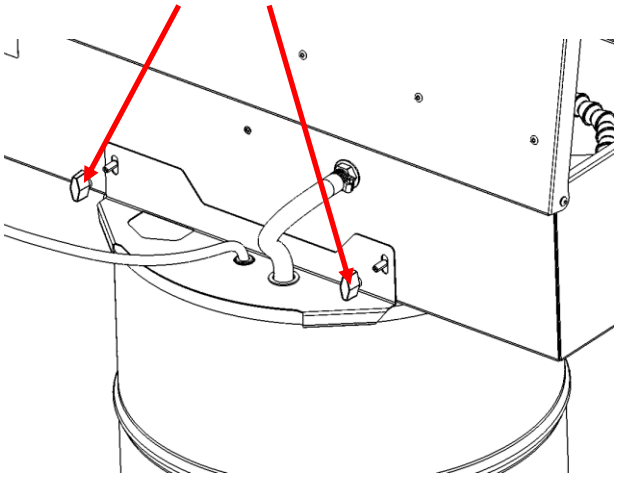
2. Install the parts washer onto a 30 gallon drum. No tools or hardware is needed. The external ring design of our parts washer lets the machine easily on to a drum with no tools. To secure in place, use the Pump Module or Heater Pump Module
3. Lift the lid. Inside the machine are the modules and installation hardware.
4. The installation hardware (typically placed in the drain cup during shipping)
5. Remove the modules from the sink.
6. For Option A,B:
    a. Slide the pump tubing onto the sink barb and secure with the hose clamp with a flat head/Phillips screw driver

Supplied Hose Clamp



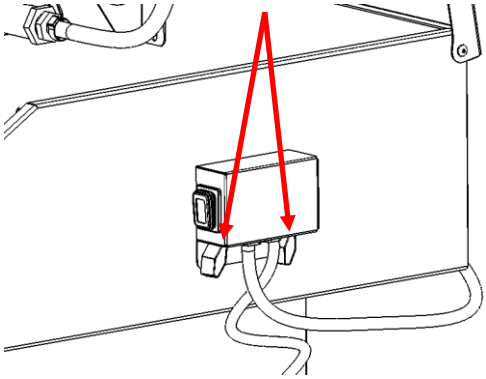
    b. Secure the Pump Module using the two 1/4" thread knobs provided. Screw the plastic knobs onto the 1/4" studs protruding through the slotted holes on the Heater Pump Module. These will be removed later during service/repair.

Supplied Female Threaded Insert Knobs (x2)

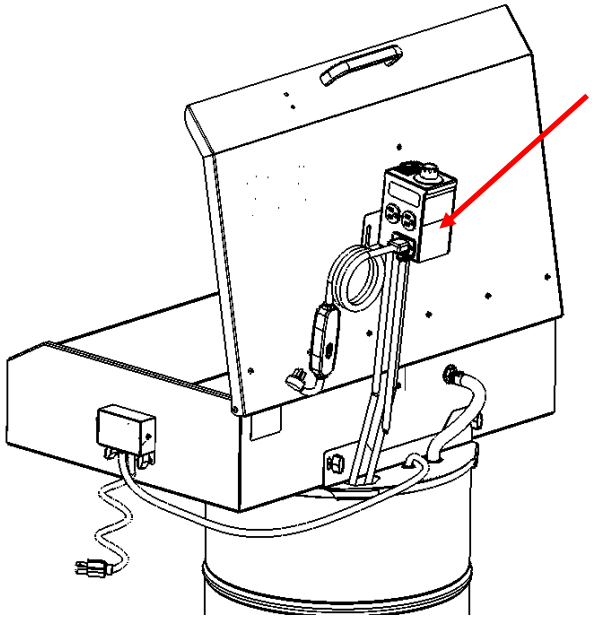


    c. Place the Switch Box into the mounting bracket on the sink. Switch Box to the sink.

Supplied Female Threaded Insert Knobs (x2)



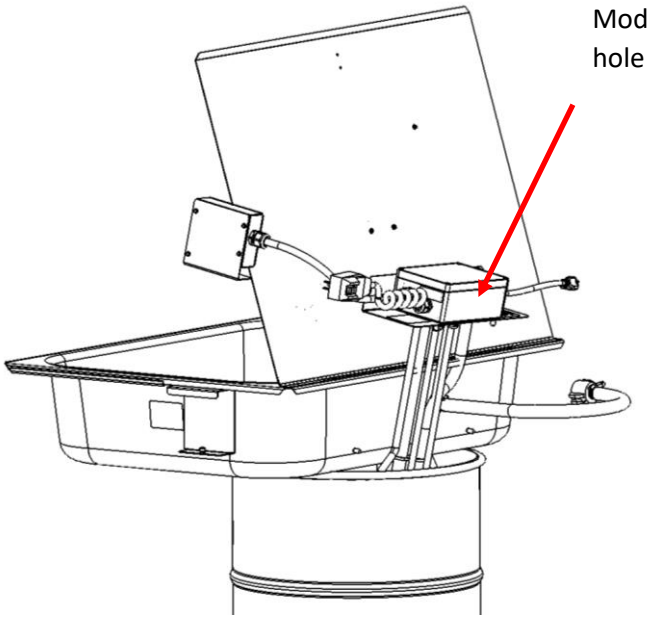
7. For Option B:
    a. Open heater box and slide out heater. Insert into hole on the pump module and use the thumb screw on the pump to secure in place. Plug pump module into receptacle on heater module



Slide Heater Module down through hole behind the sink.

8. For Option C:
    a. Open the box and slide out the Heater Pump Module assembly from the carton. The Module is fully built and simply needs to be slid into the drum through the rear opening.

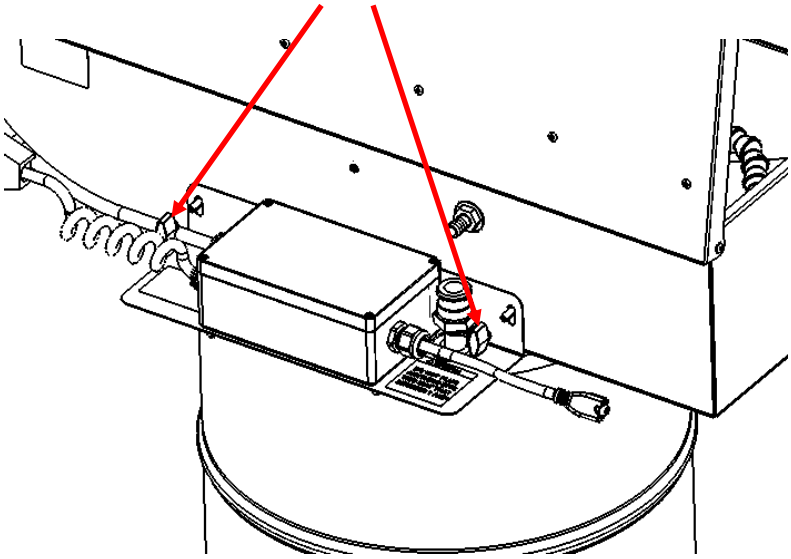
Slide Heater Pump Module down through hole behind the sink.



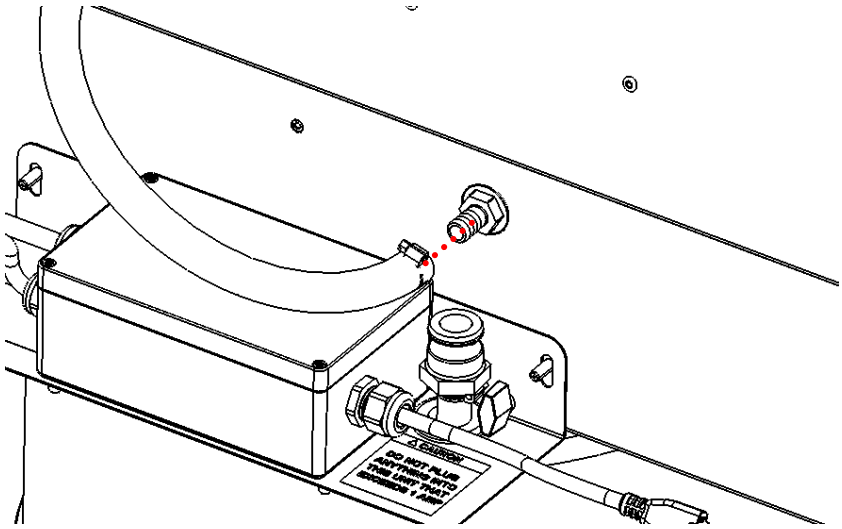
b. In the drain cup, there is a plastic bag of fasteners: one small 8-32 screw and two 1/4” thread knobs. Have the fasteners ready.
c. Secure the Heater Pump Module using the two 1/4" thread knobs provided.

Screw the plastic knobs onto the 1/4" studs protruding through the slotted holes on the Heater Pump Module. These will be removed later during service/repair.

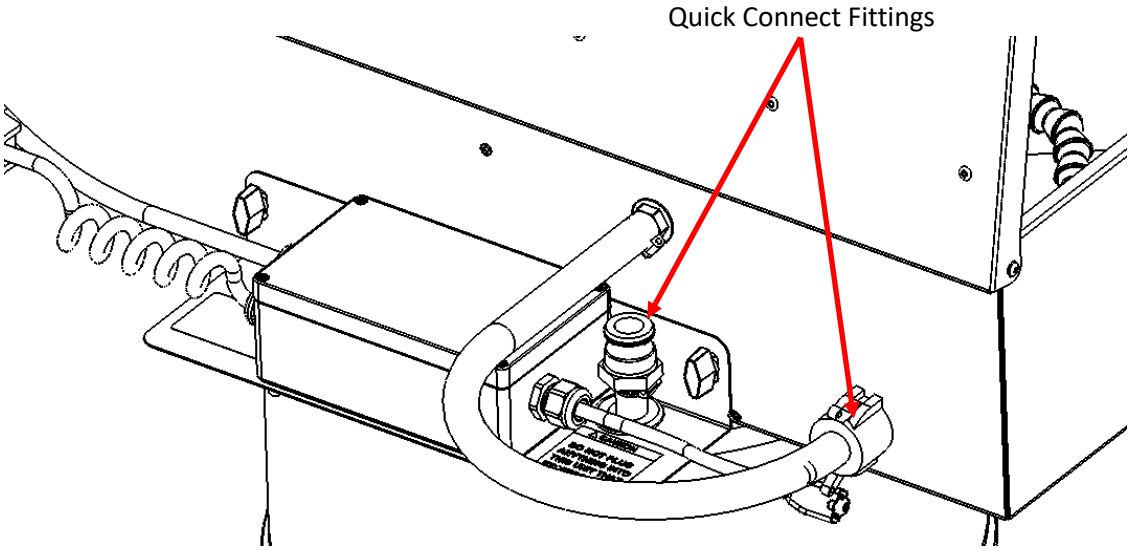
Supplied Female Threaded Insert Knobs (x2)



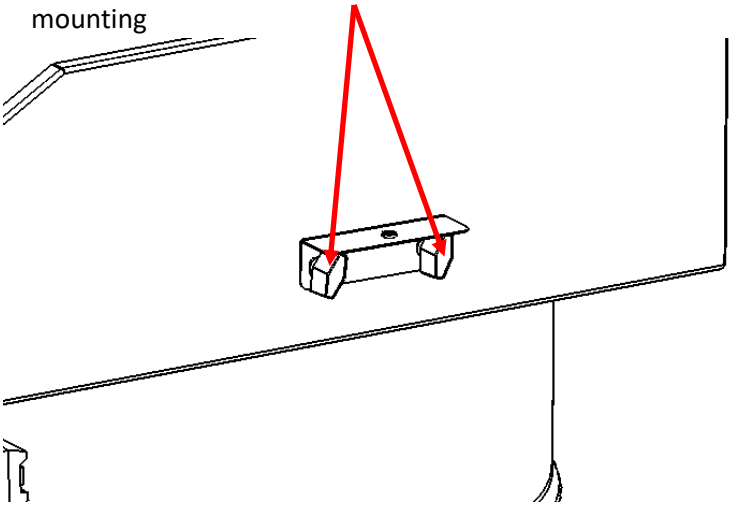
d. Slide the supplied tubing onto the sink barb and secure with the hose clamp with a flat head/Phillips screw driver



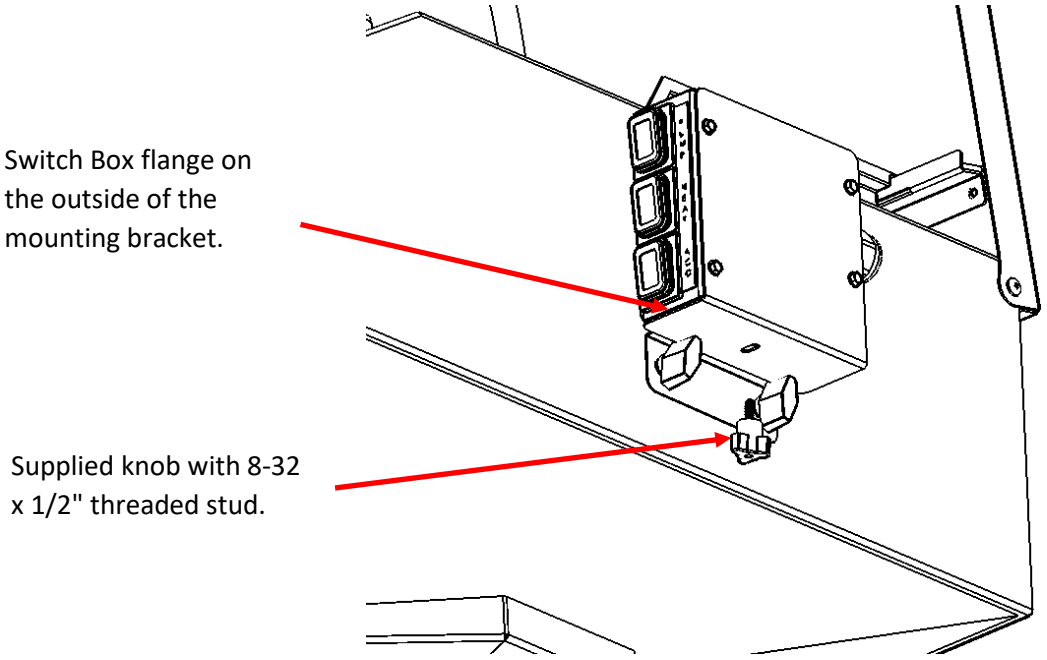
e. Connect the two hose quick-connect fittings together and pull the two latches to the locked position.




f. Use the provided ¼” thumb screws to mount the provided bracket upright for control box mounting



g. Place the Switch Box into the mounting bracket on the sink. Use the supplied knob with 8-32 x 1/2" threaded stud to secure the Switch Box to the sink.




⚠ CAUTION

Only moving the machine when completely empty. If the machine does need to be relocated, drain the tank completely prior to moving.

IMPORTANT! Inspect machine for loose nuts and bolts prior to operation. Inspect electrical wiring terminals, wire nuts, and screw connections to verify all wiring is secure.

## C. LOCATION

CONSIDERATIONS:

1. Make sure the location is level and smooth
2. The floor construction is appropriate for supporting the weight and applied pressure of the machine.
3. Plan space around the machine to allow access for maintenance, service, and repair.
4. Plan space above the machine to allow the lid to fully open and close without interference. Refer to the open lid height in the above dimensions.
5. The machine can create steam. Make sure this steam will have no adverse effects on the surrounding area.
6. The process of removing wet parts from the machine will inevitably result in some water or solution spilling on the floor. Consider traction mats around the machine and avoid placing the machine next to a walkway.

## D. ELECTRICAL SPECIFICATIONS

Heater Pump Module:

Voltage: 115 VAC
Phase: 1 PH
Frequency: 50/60 Hz

Amperage: 10 A
Plug: NEMA 5-15P with GFCI

Accessory Outlet:
Voltage: 115 VAC
Phase: 1 PH
Electrical Amp Rating: 1A Maximum (Same circuit as pump/heating element)
Receptacle: NEMA 5-15R
Intended Use: Light kit accessory (part 64543)

## E. ELECTRICAL POWER CONNECTION

The CM/EMX30 comes fully wired with one 8 ft (2.4 m) power cord for electrical connections. The power cord supplied has a NEMA 5-15 plug end (115V 1PH). This plug end is also equipped with a GFCI protection device. The voltage, phase, and current draw of the machine are listed above and on the serial number plates. The wiring diagram is listed below in this manual.

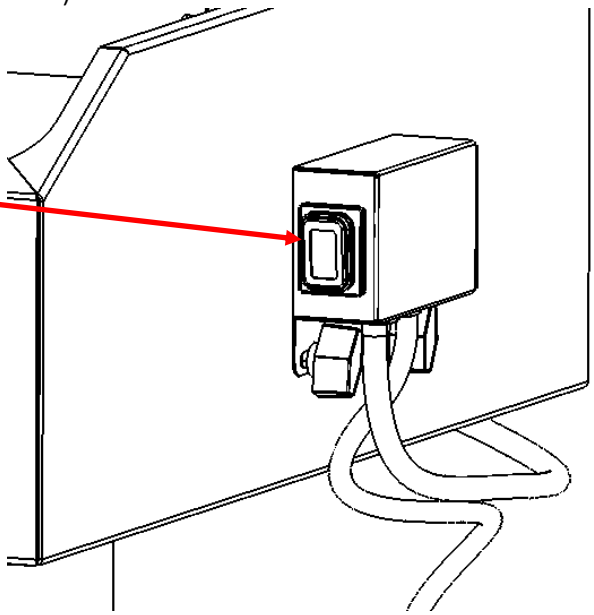
IMPORTANT! Always seek the service of a qualified electrician for all electrical work.
IMPORTANT! Shipping and handling may have loosened one or more wire connections. An electrician should inspect all screw connections and terminal connections before connecting power.

## F. PLUMBING CONNECTIONS

The CM/EMX30 sink on drum style machine is entirely self-contained. There are no external plumbing connections to the machine. The 30 gallon drum used with the machine will contain all liquid when not in use. The sink is not configured to retain water and will drain only back down into the drum.

# VI. MACHINE CONTROLS

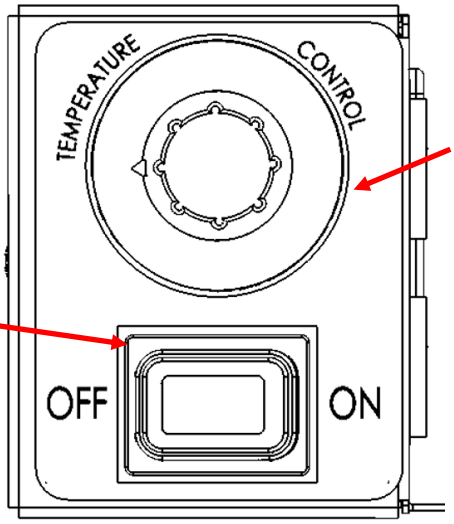
## A. MAIN SWITCH BOX (OPTION A)



Pump Control

- Turns On/Off the pump for fluid circulation
- Illuminated light when On

## B. HEATER BOX (OPTION B)



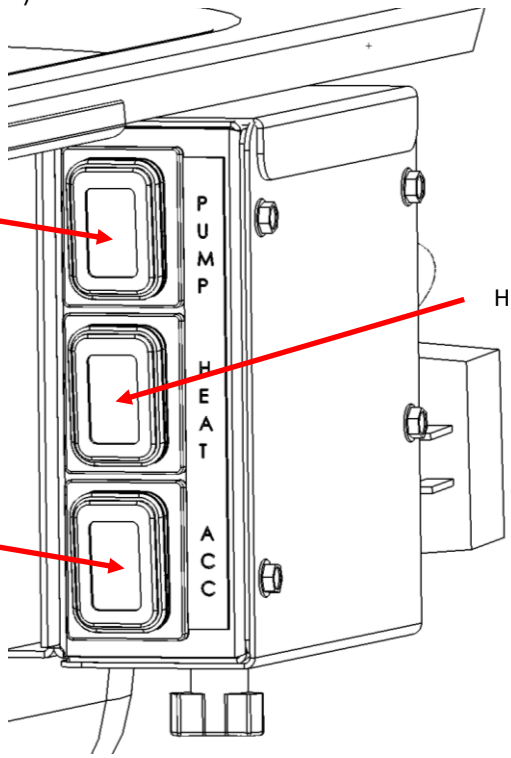

Thermostat Control

- Control Temperature of heating
- Limit set at 122°F (50°C) Maximum.

Heating Control

- Turns On/Off the heating element
- Illuminated light when On
- 1000W heating output
- Takes approximately 6 hours to heat 30 gallons from 70°F (21°C) to 122°F (50°C)

## C. MAIN SWITCH BOX (OPTION C)




Pump Control

- Turns On/Off the pump for fluid circulation
- Illuminated light when On

Heating Control

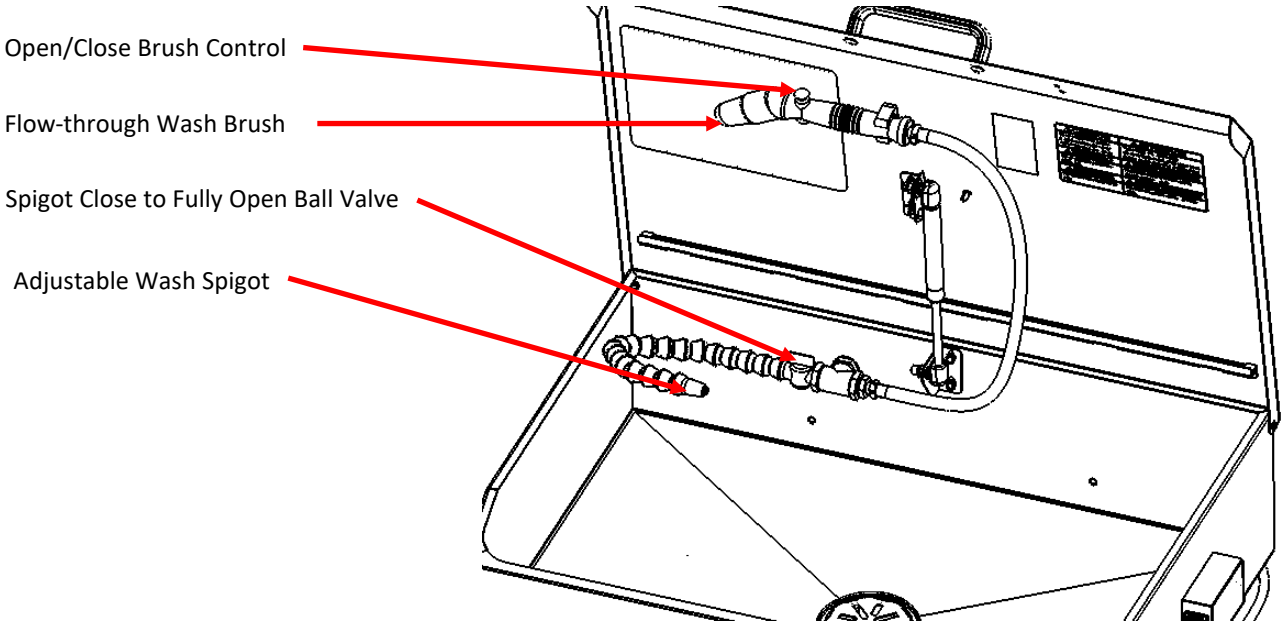
- Turns On/Off the heating element
- Illuminated light when On
- 1000W heating output
- Takes approximately 5 hours to heat 30 gallons from 70°F (21°C) to 122°F (50°C)

Accessory Control

- Turns On/Off power supply to the accessory receptacle cord on the Heater Pump Module
- Illuminated light when On
- Only connect 1A maximum to the accessory receptacle.

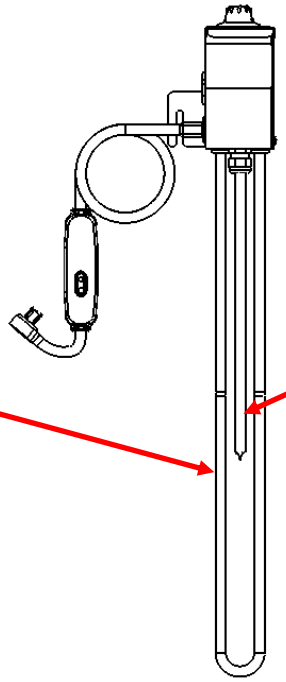
## D. WASH CONTROLS

The machine is equipped with two washing features with independent flow controls. The machine has an adjustable wash spigot. The wash spigot has a ball valve to adjust flow control from Off to fully Open. The machine also has a wash brush with center liquid flow-through. The flow-through brush has a push button valve that is Closed when not in use and can be pressed to Open.



## E. HEATER (OPTION B)

IMPORTANT! This unit is equipped with an over-temperature protection. It is a safety feature to prevent thermal runaway. This protection is a internal feature on the thermostat will trip if the temperature rises enough above the set temperature. This is to prevent a run-away heating event by shutting off power to the heating element. This is automatically reset Note, the Heater Module is still electrically live and other features continue to function. In the case the thermostat fails, replace with part number 12-11049

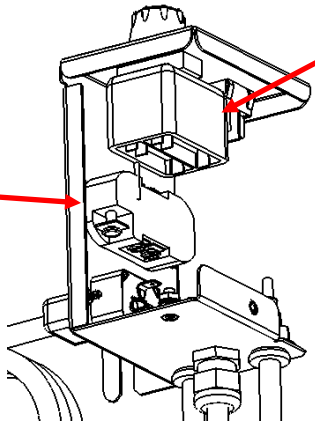


Heating Element

- 1000W output
- Low watt density

Thermostat Thermowell

- Waterproof, chemically protected housing



Receptacle

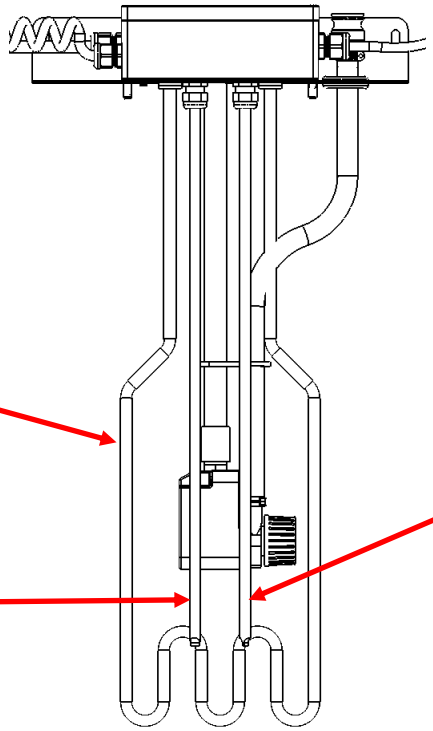
- For Pump module plug in
- 1A maximum for accessory

Thermostat

- Adjustable 50°F (10°C) to 122°F (50°C)
- Automatic maintenance of liquid temperature

## F. HEATER (OPTION C)

IMPORTANT! This machine is equipped with an over-temperature protection. It is a safety feature to prevent thermal runaway. This protection is a thermal fuse which will blow if the primary thermostat fails in a closed connection and causes a run-away heating event. This thermal fuse will blow and shut off power to the heating element. Note, the Heater Pump Module is still electrically live and other features continue to function. In the case of a fuse blow, replace both the fuse (06176) and the thermostat (62286).



Heating Element

- 1000W output
- Low watt density

Fuse Thermowell

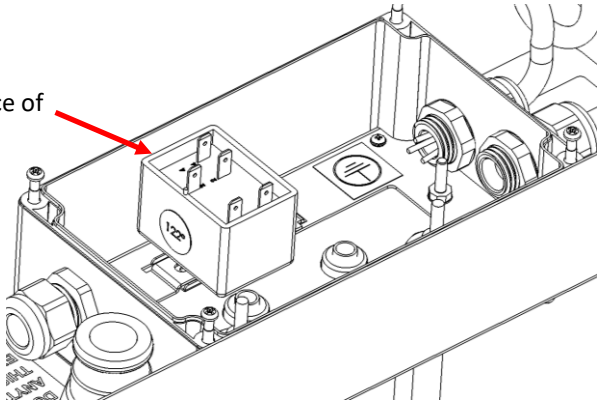
- 212°F (50°C) overtemp protection

Thermostat Thermowell

- Waterproof, chemically protected housing

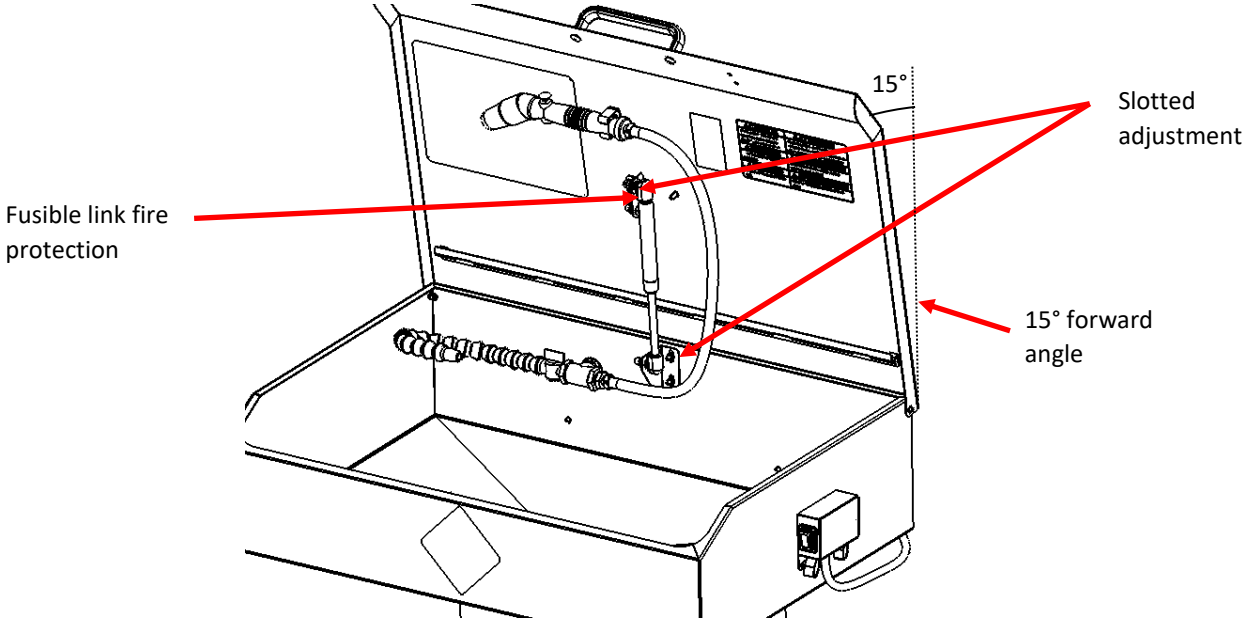
Thermostat

- 122°F (100°C) preset
- Automatic maintenance of liquid temperature



## G. LID

The lid is equipped with lift springs with integrated fusible link fire protection. The lift springs have a slotted bracket for lid open angle adjustment. Typically lid angle in the raised position is approximately 15 degrees forward from vertical. The lid should NEVER be installed to sit completely vertical or towards the rear. In case of fire, the lid shall be capable of falling forward and close fully. Do NOT modify or defeat lid spring function.

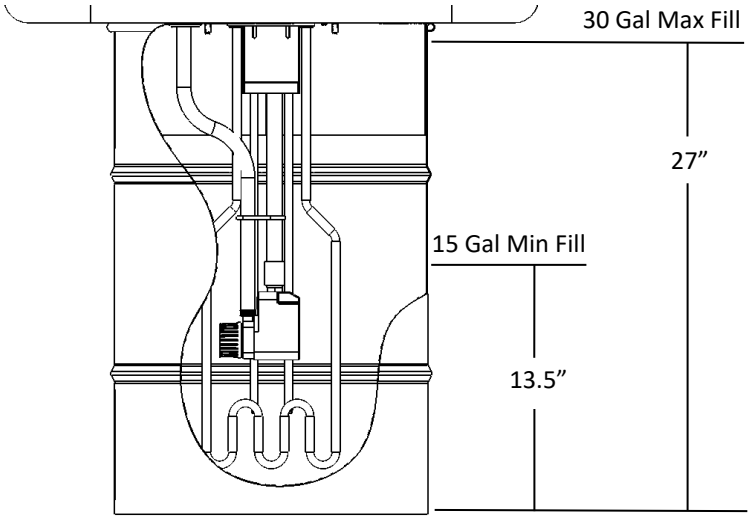


# VII. SETUP

Upon completion of installation and reviewing the electrical requirements, your machine should be ready for its initial liquid fill and connection to the electrical outlet.

## A. LIQUID FILL

This machine uses a drum to hold the liquid. The drum used is a standard 30 gallon size with an 18" inside diameter. Minimum fill is 15 gallons (half full). Maximum is 30 gal which is about 1.5" from the top of the drum.




## B. DETERGENT MIX RATIOS (FOR AQUEOUS ONLY)

Detergents are available in three versions

- Premixed
- Concentrated
- Powder

Premixed detergents come mixed at the correct ratio of deterrent and water. No additional actions are performed. You fill the drum at a 1 to 1 ratio or 30 gallons of premixed detergent into a 30 gallon drum.

Concentrated detergents are shipped with a reduced amount of water. This reduces shipping costs, but it requires you to mix back in the right amount of water. Mixture ratios can vary significantly from brand and model of deterrent to even the intended use and concentration level preferred. 2:1 to 10:1 are common ratios.

Example:

A detergent has a recommended mix ratio of 4:1.
This means the detergent manufacturer is recommending 4 parts water + 1 part detergent.
If we go by gallon, it's 4 gallons of water plus 1 gallon of detergent for 5 gallons total.

4 gal water + 1 gal detergent = 5 gal solution

We have 30 gallons to fill, so we will need 6 times that amount. Multiply both by 6.

24 gal water + 6 gal detergent = 30 gal solution

Now we have our full 30 gallons in the drum at the correct 4:1 mix ratio.

The last type is powder. This functions a lot like mix ratio, but instead of having a concentrated liquid detergent, it's now more concentrated into a powder with no water. The quantity required may be presented in volume or in weight. The label might recommend 16 ounces of powder or 2 pound of powder per 10 gallons of liquid. The high concentration displaces very little liquid, so a full drum will be 29.7 gallons of water plus 42 oz of powder (about 0.3 gallons physically). You can apply the powder to 25 gallons and then top off the drum up to 30 gallons in the end.

## C. ELECTRICAL CONNECTION

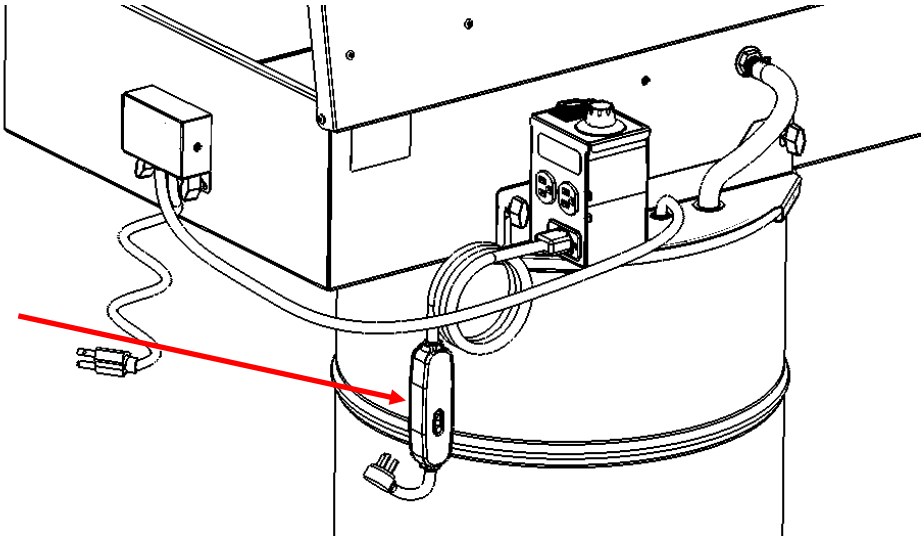
This machine is equipped with a power cord and plug end from the factory. The plug end is a NEMA 5-15P, same as a standard household outlet. The receptacle and supply circuit should be capable of providing a minimum of 15A and 115VAC to the machine reliably.

IMPORTANT! The machine is equipped with Ground Fault Circuit Interrupter (GFCI) on the power cord. Upon first use, any time the cord is unplugged, or if there is a loss of supply power, the GFCI must be Reset in order to enable power to the machine. The GFCI has a Manual Reset that much be pressed by the operator after every power loss. This includes attempting to use the machine with an automatic on/off timer.

IMPORTANT! The GFCI is a sensitive device. It can be affected by variations in the supply power to the machine. For example locations with brown outs or a circuit with a large motor starting could drop the voltage enough to trip the GFCI protection. This machine may require a dedicated circuit as well as a voltage reliable circuit to run without interruption.

Power Cord

- 115VAC 15A rated
- Built in GFCI operator protection with Automatic user reset.
- NEMA 5-15P plug type
- Approximately 8 ft length



# VIII. OPERATION

⚠ CAUTION

This device is preset at 122°F (50°C) (Option C) which can cause severe burns or death. The liquid, machine, and parts will all be HOT. Use appropriate PPE and safe procedures to prevent harm to self or others using or are around the machine. The machine can produce steam and splash and any long-term exposure to high heat can be dangerous or fatal. Use caution at these temperatures and assume all machine contact points, liquid, and parts being removed are HOT.

IMPORTANT! Any person operating this machine shall first read and understand this instruction manual fully. Pay careful consideration to SAFETY, MACHINE CONTROLS, OPERATION, and TROUBLESHOOTING. An operator should have good understanding of the machine, be familiar with all chemicals used, familiarity with the necessary safety equipment and PPE, and have the knowledge to adjust and troubleshoot the machine.

## A. INSPECTION AND PREPARATION

INSPECTION

1. Before starting the machine in the morning, walk around and inspect for damage or leaks.
2. Open the lid and check liquid level. Top off with water and detergent at the correct mix ratio as needed.
3. Inspect the sink and drum for wear or damage. Inspect the lid function.
4. Verify there has been no modification or alteration to the machine which could introduce risk of harm.
5. Verify there is no Lockout/Tagout or other notifications indicating the machine is damaged and/or dangerous to use.

PREPARATION

1. Prior to use, FOR AQUEOUS ONLY turn heater switch to 'On' at the beginning of each work day and allow the solution temperature to rise to operating temperature. Heat up time is approximately 5 hours.
2. Perform a quick check of the switch functions and light accessory if equipped. Run the pump briefly to verify liquid flow through the wash brush. All operating functions should work as intended.

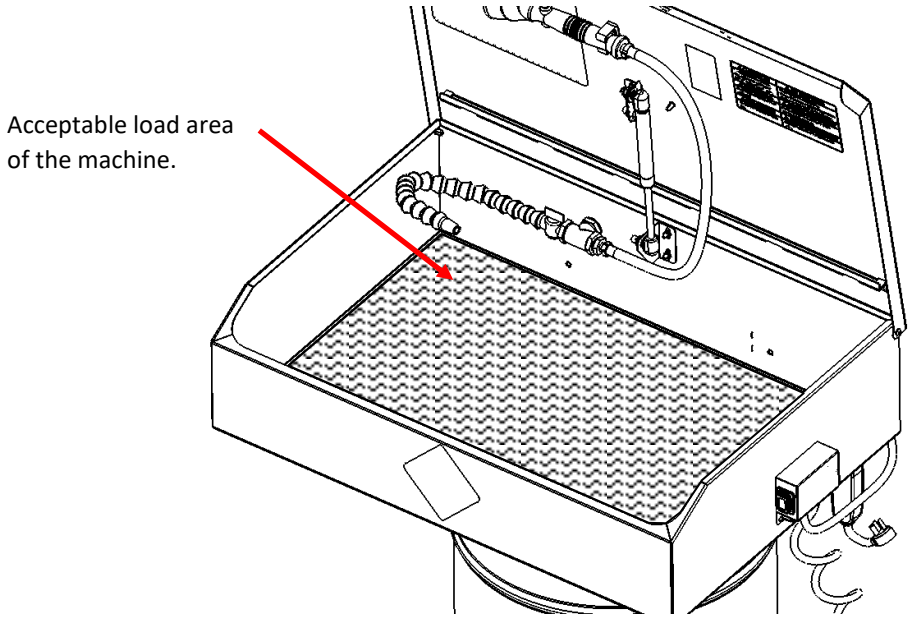
IMPORTANT! Detergent cleaning performance is proportional to liquid temperature. Allow the solution to heat completely to provide improved cleaning performance. This may require the unit to remain heated overnight during the work week or investment in a 7-day timer. ALWAYS check and maintain water levels DAILY if heating remains On. Turn Off heating during weekends and periods of non-use.

IMPORTANT! It recommended that your machine's solvent is monitored on a weekly basis. Once your solvent is no longer cleaning to your satisfaction, it is time to change it. This may occur on a weekly, monthly, or semi-annual basis and is very dependent upon use. It is recommended to keep a maintenance schedule to track the intervals of time in-between solution changes. Solution should be discarded in accordance with local regulations.

## B. LOADING

⚠ DANGER

The maximum loading capacity of this machine is 75 lbs. (34 kg) This rating is a distributed load rating. This weight must remain inside the sink base area to safely adhere to the 75 lbs. (34kg) capacity rating. Machine load stability is based on minimum fill liquid capacity. A lower liquid level reduces the stable load capacity of the machine. The machine is not built nor intended for additional hanging loads, applied forces, floor inclination greater than 10°, or anyone or anything leaning, pushing, or climbing on the machine.




1. Carefully place parts onto the sink. Position heavy parts towards the center and load across the sink evenly. The finished parts distribution shall be balanced and centered.

2. When loading small and numerous parts, always distribute the weight evenly across the lift tray.
3. Very small parts may need to be contained within their own basket or mesh container to prevent them from falling into the drain cup.
4. If a very large and heavy part must be lowered onto the sink unevenly, make sure the first contact point of the part is located center in the sink. Then continue to lower the part and adjust position until the part is centered when completely lowered.

## C. MANUAL PARTS WASHING

IMPORTANT! Refer to the Machine Controls section for operation.

1. Turn the Pump Switch to the On position enable pump and liquid flow.
2. The spigot is equipped with a ball valve to control flow through the spigot. Adjust valve to desired flow level.

The flow-through brush has a push button for On/Off function. This control can be actuated at any time you desire liquid flow through the brush during cleaning.

Both the spigot and flow-through brush can be On at the same time.
Both the spigot and flow-through brush can be Off at the same time.

NOTE! The pump will not be damaged from being On while the spigot and flow-through brush are closed as long as there is sufficient liquid level in the drum. The pump will circulate water near the impeller and remain unharmed.

## D. UNLOADING

⚠ CAUTION

For Option B,C Parts will be HOT after washing is complete and will be at or near the set operating temperature of the machine. Always wear proper protective equipment when handling washed parts. Expect high heat, steam, liquid contact, and possible splash.

1. Verify no obstructions around as you handle parts.
2. Carefully remove parts. Pay careful attention to loading balance as you remove parts.

⚠ CAUTION

Parts may be slippery and difficult to hold when wet. When removing parts, drip from parts may wet the floor and may create hazardous walking conditions.

3. When done, adjust the spigot ball valve to the Closed position and secure the wash brush in its clip holder. Verify there are no obstructions around the perimeter of the sink, then close the lid when not in use to minimize evaporation loss of the solution.

## E. SHUT OFF

When the machine is not in use, turn all controls to Off.

- Pump, Heater, and Accessory switches should be in the down Off position.

- None of the switches should be illuminated.
- Verify no parts have been left inside the sink.
- Close the lid or verify the lid is fully closed.
- The power cord may remain plugged into the supply receptacle. If the machine is not to be used or will be left unattended for an extended period, it is advisable to also unplug the power cord. Remember, upon next use, the GFCI Reset button must be pressed after plugging I the power cord.

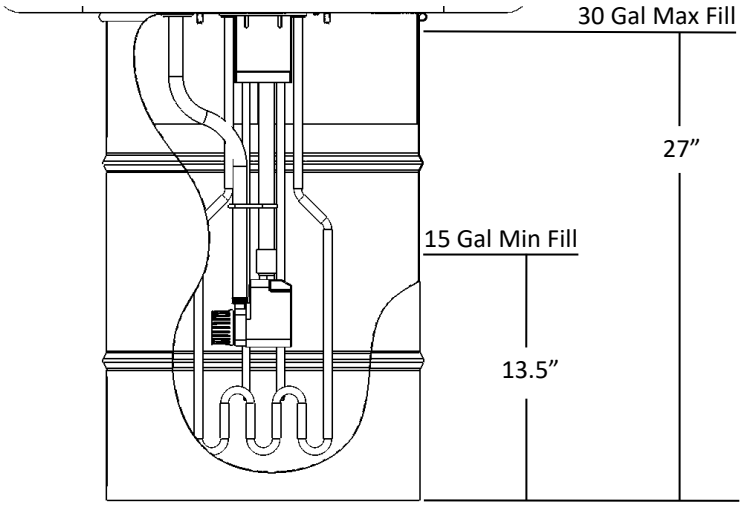
# IX. MAINTENANCE

Following a proper maintenance schedule is crucial for machine performance and life. Neglect can cause poor operation or damage to components. Below shows various maintenance and maintenance access items. The needs of your machine and liquid solution will be unique to your operating environment. Track and adapt maintenance intervals to suit your specific needs. Proper and consistent maintenance is key in maintaining a healthy, high performing machine.

## A. LIQUID

⚠ CAUTION

Monitor and maintain at least minimum liquid level. Never run liquid levels below minimum. Lower levels reduce the stability of the machine. Low levels could run the pump dry and damage the shaft seal and require pump replacement. Low levels could expose the heating element and potentially damage the heating element and require a heating element replacement.




IMPORTANT! The detergent solution has a limited capacity for trapping debris and will reduce effectiveness over time. Larger debris will settle out of the solution and accumulate in the bottom of the drum, often referred to as sludge. It is important to develop a cleaning schedule for the liquid based on your level of use. This includes draining the drum fully, cleaning out any sludge in the bottom, and refilling the drum with new water and detergent at the correct mix ratio. How often this is required depends on the level of use and the volume of debris introduced into the solution. A well-maintained solution will clean better.

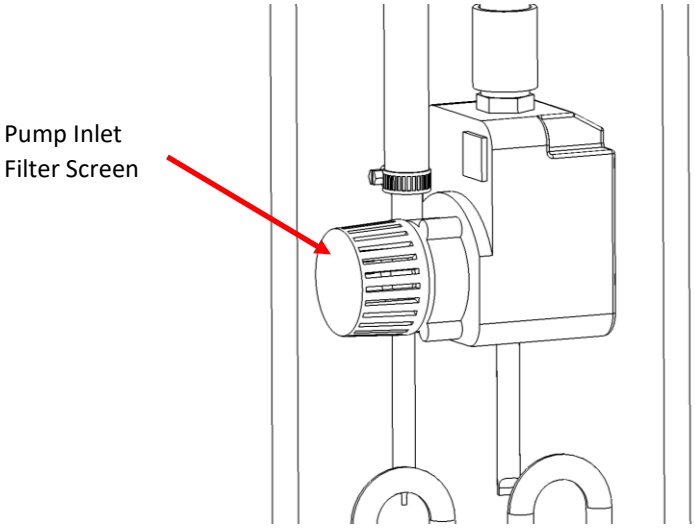
## B. FILTERS

This parts washer has two supplied filtering devices that help manage debris collection and general fluid cleanliness.

PUMP INLET FILTER

The pump is equipped with a inlet filter screen to keep large particulates out of the pump impeller. Periodically inspect the inlet screen for debris build up. If you experience flow reduction or no flow, this is one area to inspect for blockage.

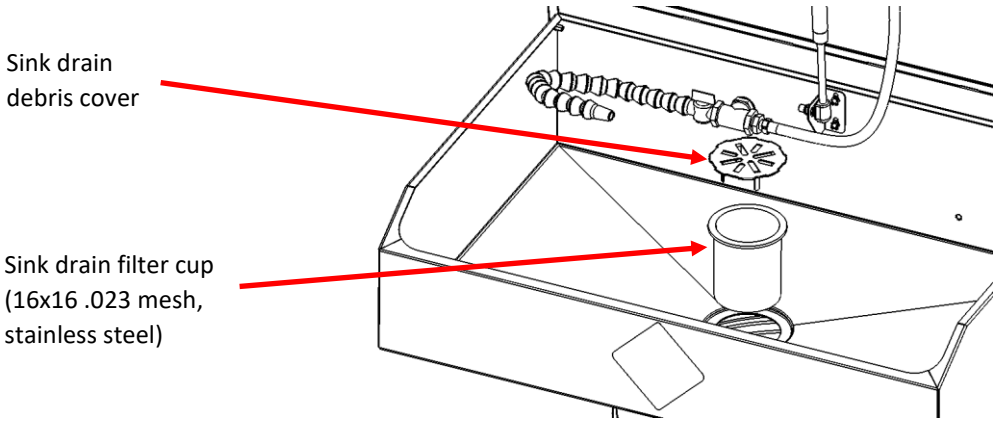
IMPORTANT! If there is a flow reduction, the impeller should also be inspected. The inlet filter can be removed from the pump, and the impeller can be inspected for debris and rotation without restrictions.




SINK DRAIN FILTER & SCREEN

The sink drain ultilizes a debris cover and a fine mess filter collection cup. The mesh filter is removable and can easily be cleaned and rinsed. This mesh has an opening size of approximately .04” x .04” (1mm x 1mm).

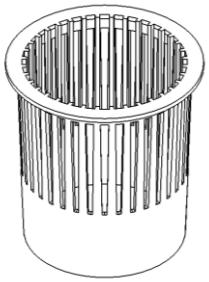
Alternate configurations are available as accessories if an alternate filtering method is preferred.



AVAILABLE ACCESSORIES:

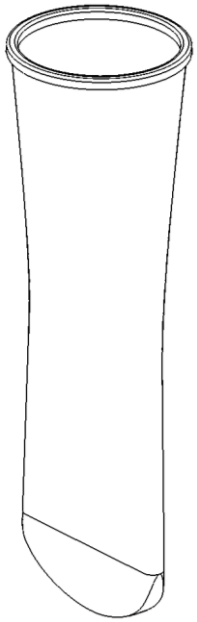
Part Number: K6430

Sink drain filter cup
Slotted 2”x.125”, 50mmx3mm
Acetal plastic, black
Well suited for higher flow/pass-through if required.



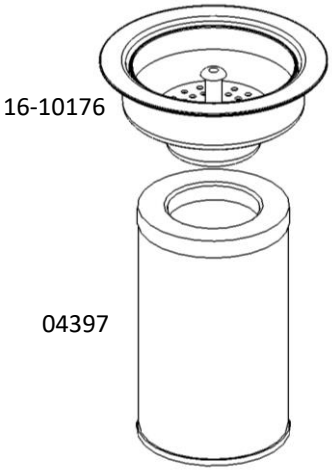
Part Number: 16-10234

Sink drain filter sock
Slotted 4”x.14”, 100mmx355mm
PP plastic, 10 micron
Well suited for very fine particulate filtering.
(consumeable)



Part Number: 16-10176
Part Number: 04397

Sink drain cup with center strainer
Mesh filter 16x16 .023 Stainless Steel
Drain cup can be closed for part soaking.
Mesh filter can be added to retain filter (optional)




NOTE! The 10 micron filter drain sock part 16-10234 can not be cleaned. Once the sock is filled or becomes too restrictive for drainage flow, it needs to be replaced with a new filter sock. The other filters are mesh/slotted screens that can be cleaned and reused. However, they do not trap nearly the same level of particulates from the solution.

## A. RECOMMENDED SCHEDULE

DAILY

1. Check the liquid level and top off with water and detergent (aqueous) or solvent (option A only) at the recommended ratio defined by the detergent manufacturer. Adjust the detergent concentration as needed.
2. Inspect machine for damage and wear. Do NOT use machine if damage is observed and apply appropriate lock-out/tag-out procedures.

WEEKLY

1. Check the pump intake strainer for debris. Remove and clean as needed.

2. Check the drain filter and remove any accumulated debris. Chean mesh screening if needed.
3. If necessary, remove sludge from the bottom of the tank.

MONTHLY

1. SLUDGE REMOVAL

IMPORTANT! Removing oil and sludge regularly can greatly promote the life of the cleaning solution. Sludge sits on the bottom and cannot be seen. Clean out the tank within the first week of operation to get an idea of how fast sludge will form for your specific parts cleaning operation. Depending on the application, some businesses have to clean-out sludge at least weekly, while others can wait months.

I. Disconnect the electrical power to the machine prior to maintenance.
II. Remove the two thumb screws securing the Heater Pump Module to the sink and remove the one thumb screw holding the Switch Box to the sink.
III. Pull Heater Pump Module assembly out of the drum and set it aside.
IV. Lift the sink straight up and out of the drum and set it aside.
V. Scrape out any sludge from the bottom of the tank. Waste sludge should be contained and handled according to the laws and regulations of the region.

2. Check the water change-out schedule and replace with fresh solution if necessary.
3. Inspect all tubing for leaks or weaknesses and replace as necessary.

## C. SOLUTION MAINTENANCE

Solution and machine maintenance is crucial to the performance of this machine. We recommend that the solution is monitored on a weekly basis and records are kept. This will provide a "baseline" of "clean" readings, and will help determine when to add detergent, and when the wash solution should be changed (before cleaning performance deteriorates). This preventative maintenance will save your company time, effort, and money. Below is a sample maintenance report that is used to great extent to maintain the solutions.

## D. SAMPLE MAINTENANCE SCHEDULE

Model: _____ Current Detergent: _____

Month: _____ Date Loaded: ____/____/_____

| DATE | 8/8/24 | 8/15/24 | 8/22/24 | 8/29/24 |
|---|---|---|---|---|
| Tested By | | | | |
| pH | | | | |
| Conductivity | | | | |
| ppm | | | | |
| % Detergent | | | | |

A pH/conductivity meter, and an alkalinity titration kit are readily available and easy to use tools that will help monitor the status of the bath. Contact the detergent supplier regarding easy ways to test detergent concentration.

The chart can be modified to include any relevant data that is necessary to run the machine. (Some items on this chart may not apply to all machines.) The chart should also include a section labeled “Comments”. Any maintenance performed on the machine, or the solution (e.g., changing the solution, adding detergent) can be recorded in this section, including the name of the involved personnel and the date.

# X. SERVICE

IMPORTANT! All service technicians shall read and familiarize themselves with this instruction manual. The service technician should follow all safety procedures and be familiar with machine operation, maintenance, and troubleshooting.

Record and maintain contact information of your local dealer and service representative.

All work should be performed by a trained technician.

Electrical troubleshooting and repair should be performed by a certified electrician. Contact your dealer for a local representative. If no recommended personnel are available, any industrial electrician local to your area can service this product. Replacement parts list and wiring schematics are listed later in this manual.

# XI. TROUBLESHOOTING

This troubleshooting section consists of two parts. The first part covers nuisance behaviors and observations that do not require electrical experience. The second part is a handy flow diagram that helps you step through the logic of troubleshooting what might be wrong and what part may need replacing. Anything beyond this troubleshooting requires electrical experience and minimally proficiency with a multi-meter (DMM) and electrical experience. However, this troubleshooting should allow you to identify the component that needs repair/replacing.

## A. NON-REPAIR NUISANCES

The non-repair nuisance behaviors are common faults with the module that are caused by environmental circumstances. The module is in good working order and does not need repair, but external factors have caused intermittent problems.

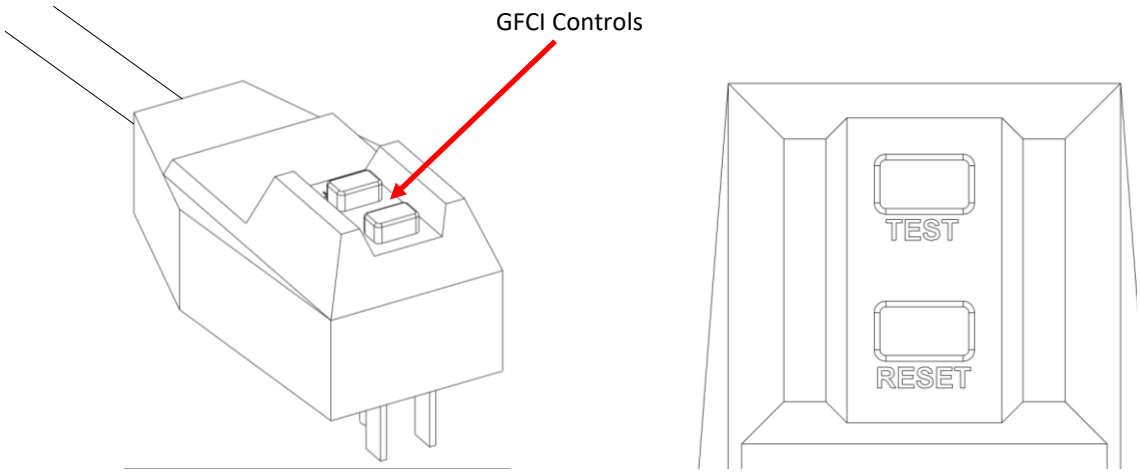
There are 2 key nuisance behaviors:

1. GFCI Nuisance Trip
2. Little to No Liquid Flow

1) <u>GFCI Nuisance Trip</u>
   The GFCI senses energy leaks and protects the operator from dangerous shock. The GFCI has key requirements to work properly including adequate and stable voltage.

Corrective Action:

a) With all switches on the Switch Box in the OFF position, plug the power cord into the outlet, press “RESET” button on the GFCI plug. The GFCI should reset.
b) Turn on one of the module features to see if power has been restored (the switch light should illuminate and corresponding feature should begin working).
c) If there is still no power,
    i) ensure building supply breaker isn’t tripped
    ii) if there’s another GFCI (outlet or main supply breaker), verify that has not also tripped and press “RESET” on them
    iii) verify there is adequate voltage being supplied
    iv) test a different outlet
d) Determine If current location is stable (may apply to outlet or building). Is the location susceptible to brown-outs or other voltage fluctuations? Is a location available that can provide adequate and consistent voltage?




Press “TEST” to artificially disconnect power through GFCI (tests GFCI function).
Press “RESET” to reconnect power through GFCI plug.

Know your GFCI

a) The GFCI must be reset every time the cord is plugged in.
b) The GFCI must be reset after every power loss.
c) The GFCI requires a minimum voltage to operate (around 100V) and will not work if voltage is too low.
d) The GFCI is sensitive to voltage fluctuations, spikes or drops in voltage in the supplied power.

e) GFCIs should not be used together (plug, outlet, main breaker) as they can sometimes interfere with each other and cause nuisance tripping. In many cases they do work fine together, but there can be a chance of nuisance tripping.

2) Little to No Liquid Flow

Liquid flow problems can be frustrating. The inlet can get plugged with debris, the impeller can be jammed by a piece of debris, or liquid level can get so low it falls below the pump intake height.

Corrective Action:

a) Inspect pump inlet strainer for debris and clear any present.
b) Remove the inlet strainer by taking a flathead screwdriver and popping to screen off one of the two tabs holding it in place. Look for any debris stuck in the impeller. You should be able to freely spin the impeller without resistance. If greater access is required, the entire volute on the front of the pump can be removed by unscrewing the 3 Philips head screws.
c) Verify pump runs when pump switch is turned ON. There should be light noise and vibration, and the impeller should be freely spinning. Do not run pump dry for prolonged periods.
d) Refill the unit to the proper Max Fill level and suggest regular inspection of liquid level prior to each use.

Know your Pump

a) The pump is high flow but low pressure with only a few psi of pushing power. Flow is highly sensitive to any form of blockage of the inlet or any blockage upstream in the tubing, inline filter if equipped, and spigot nozzle or flow through wash brush.
b) The inlet strainer is removable to allow access for internal impeller inspection and cleaning.

## B. TROUBLESHOOTING FAULTY COMPONENTS FOR REPAIR

This section describes the process for troubleshooting and identifying a faulty part for repair. The troubleshooting process is a logical step-by-step approach covering 5 key fault areas. Once the faulty part is identified, replacement parts can be ordered, and the repair process can begin.

The 5 Fault Areas:

1. The Module Does Not Have Power
2. No Liquid Flow
3. No Heat (Aqueous only)
4. No Outlet Power
5. Fails Only When Wet

“Advanced Wiring and Switch Testing Required”:

In some cases, more advanced troubleshooting is required. “Advanced” work implies the use of electricity, exposed and live electrical components and connections, and additional tools. This is considered high level troubleshooting and repair work and should only be performed by trained electricians and service personnel. The individual working on the unit should be skilled, familiar, and comfortable with electricity, electrical components, and have the tools required to perform the task. While this isn’t necessary, at times that skilled tradesman may need to perform the work when live electricity is present as part of the troubleshooting task.

Flow Diagrams:

This section will make use of several flow diagrams for troubleshooting. To use, start at the main problem, example “The Module Does Not Have Power.” Then simply follow the arrows and answer the Yes/No questions until you reach an end-point. This end-point will tell you the likely bad part. Once that likely part is identified, part ordering and repair can begin.

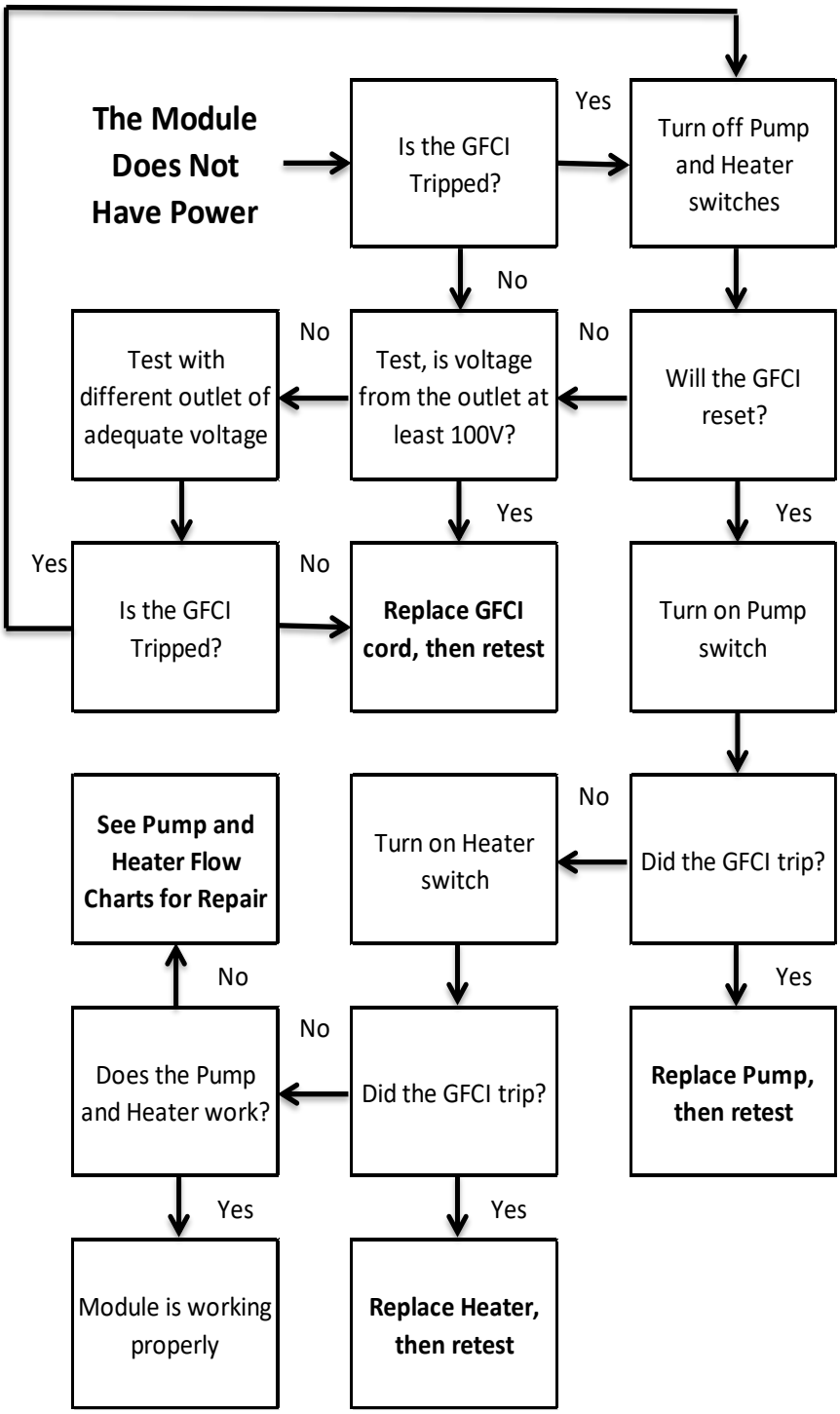
Note:

In some cases, additional information may need to be collected. For example, the GFCI used with these modules requires a minimum voltage to work. If the building voltage is too low, the GFCI will not work. You may be required to find out if the building power is at least 100V. This may require an electrician or maintenance person measure and verify the voltage coming from the outlet.

The Module Does Not Have Power

In some cases, nothing works. The module just seems dead. There can be many reasons why, and it's important to look at both the building supply power as well as the module. GFCIs are sensitive devices that can be influenced by building power. The GFCI also senses problems due to degradation of components, so it also trips when parts go bad. This flow diagram helps identify which part is bad.

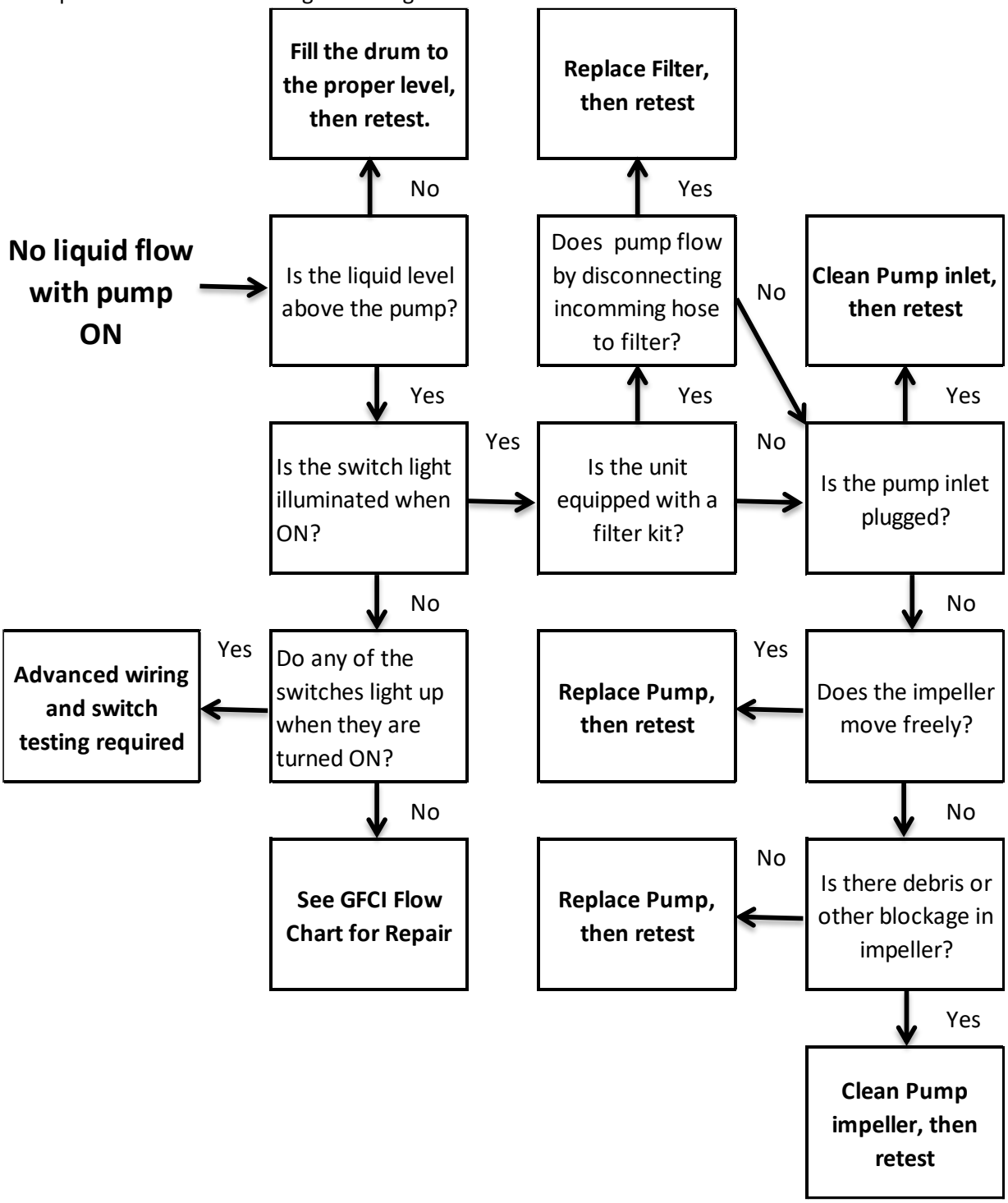
No Power Troubleshooting Flow Diagram:



There is No Liquid Flow

Liquid flow problems can be frustrating for customers. The problem can be caused by many factors including poor maintenance, use of incorrect chemicals that attack pump and hose materials, or just old age and wear after many hours of use. Most pump failures cause GFCI tripping problems (see fault type (1)). The remainder tend to be a byproduct of poor maintenance and cleaning.

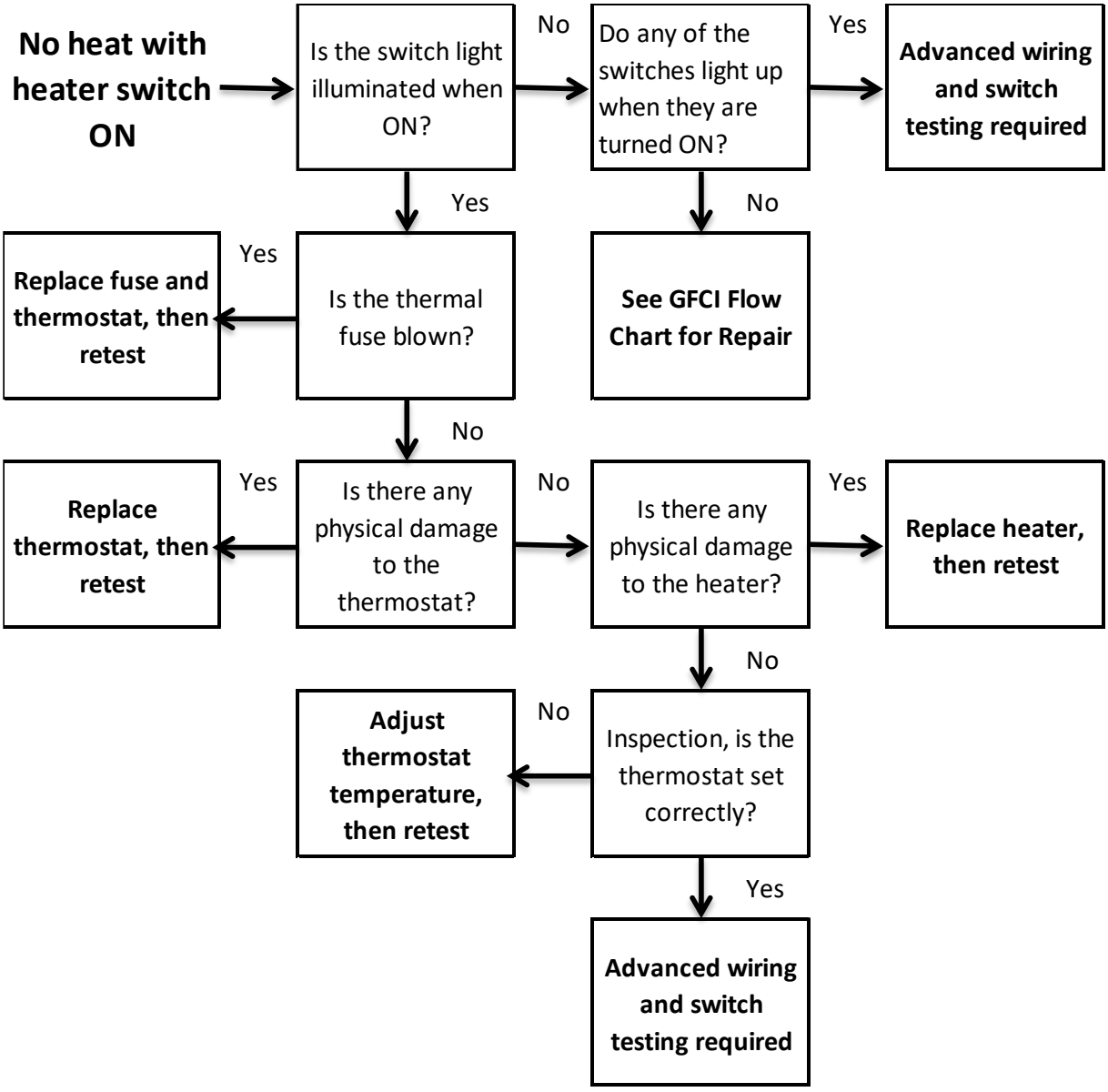
No Liquid Flow Troubleshooting Flow Diagram:



No Heat (Aqueous Only)

A lack of heat can be tricky because it often is a system of several parts, and we rely on these parts to be configured correctly and undamaged. A lack of heat isn't always a heater problem. It can be a thermostat problem or an electrical problem. The heater and thermostat have very high reliability, often lasting a decade or more, so failure is rare. More often it's nuisance problems like tripping the over temp on the thermostat. It's important to step through the diagram and rule out the nuisance problems before replacing a costly heater or thermostat.

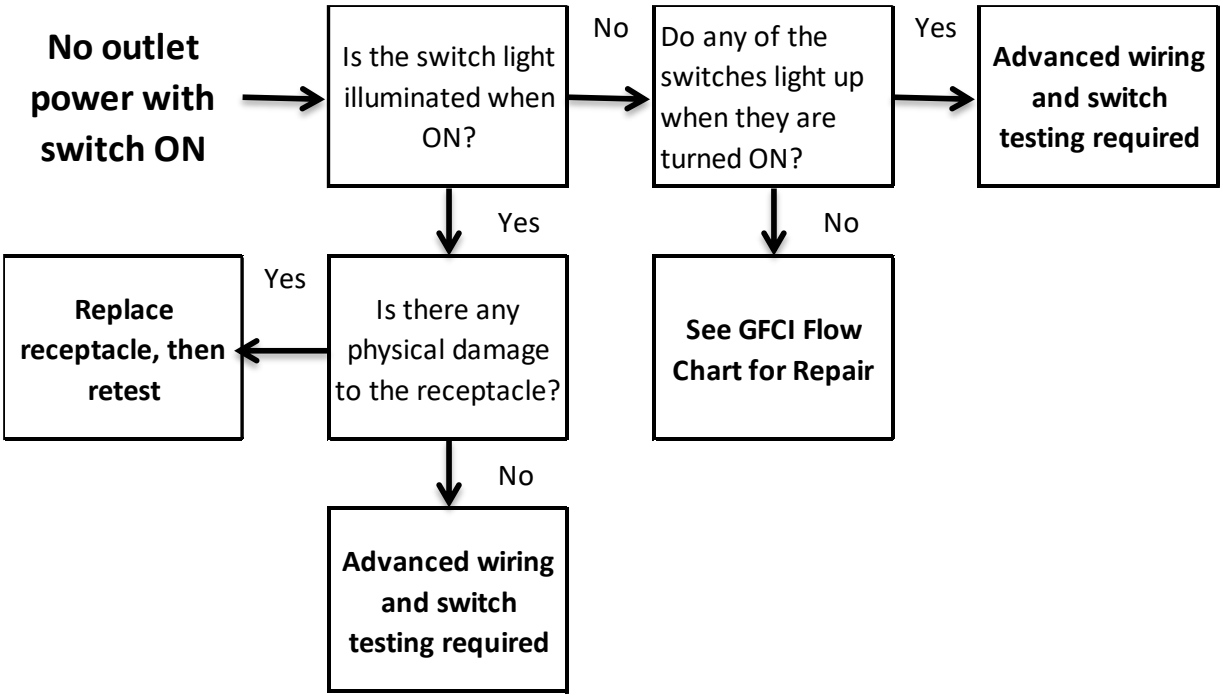
No Heat Troubleshooting Flow Diagram:



No Outlet Power

The main use of the outlet is the overhead light accessory. However, operators can plug in a variety of other devices. Sometimes these devices are not appropriate for the outlet. Sometimes internal connections corrode or get damaged.

No Outlet Power Troubleshooting Flow Diagram:




Fails Only When Wet

In many cases, part failure means electrical problems. Electrical problems mean GFCI tripping. The pump and heater are parts submerged in water and chemical, and failure of a pump shaft seal or protective coating or insulation on the heater can mean water gets where it shouldn't and shorts out the part.

A key issue that occurs is once we remove the water, the part can dry out and begin working again without fault. We can test and pass dry even though the part is bad. This can create a faulty pass, and the bad module seems good until it's next use.

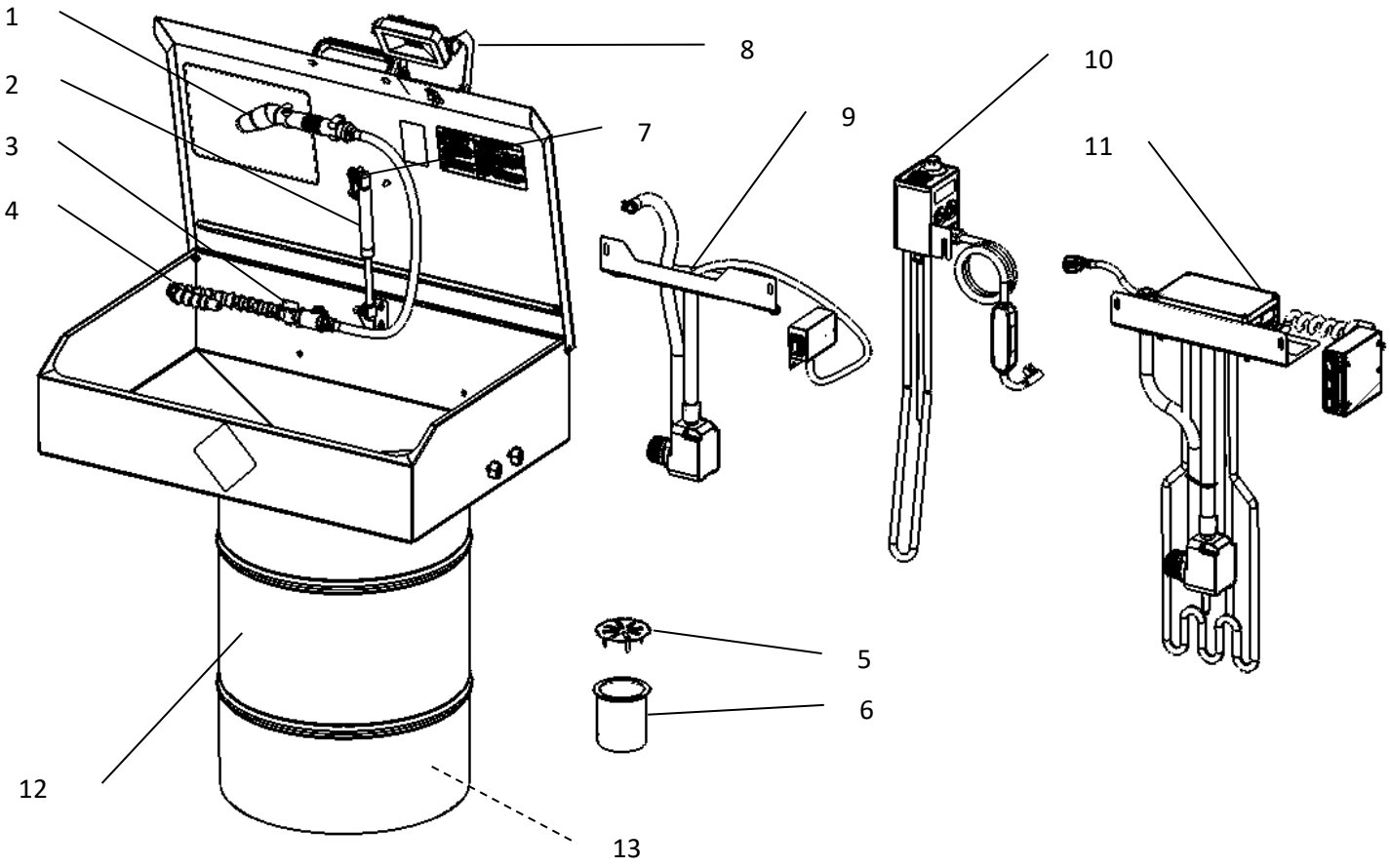
It's critical to test the module wet to make sure there are no problems with the pump or heater.

Wet Test:

1) Place the pump and heater of the module into the drum. You want the pump submerged and the heater at least 4" submerged so the "hot" section of the heater is fully under water. Leave all switches in the OFF position
2) Let the module sit for 30 minutes, preferably 1 hour if available.
3) Connect power, reset the GFCI, and then individually test the heater and pump to see if one or the other will trip the GFCI. If one trips the GFCI when turned on, replace that part. If both work without fault, the pump and heater are in good working condition, no replacement necessary.

# XII. MACHINE PARTS LIST

## A. MAIN ASSEMBLY PARTS OVERVIEW

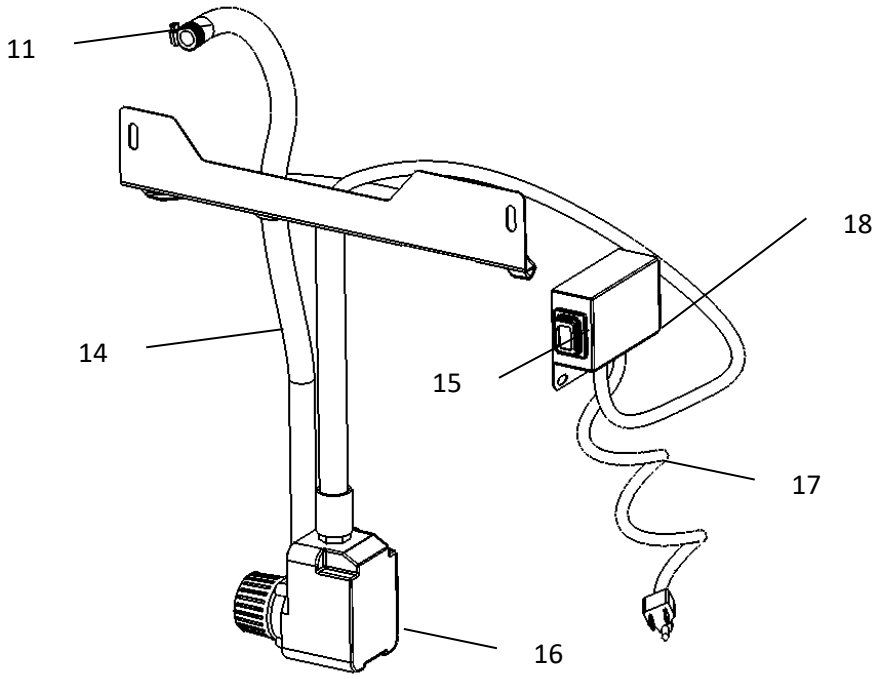



Parts List:

| ITEM # | PART NUMBER | DESCRIPTION | Standard/Optional Accessory |
|---|---|---|---|
| 1 | 01067 | Brush, Wash Flow-Through w/ PB | Standard |
| 2 | 04318 | Gas Door Spring | Standard |
| 3 | 13-10164-02 | Ball Valve, Loc-Line | Standard |
| 4 | 13-10164-01 | Nozzle, Loc-Line | Standard |
| 5 | K8136 | Strainer, Drain SS | Standard |
| 6 | K8135 | Filter, Drain Cup Mesh Screen SS | Standard |
| 7 | 01178 | Fuseable Link | Standard |
| 8 | 64543 | Light Kit, LED 120V | Optional Accessory |
| 9 | 65669 | Pump Module 120V | Option A,B |
| 10 | 65674 | Heater Module 120V | Option B |
| 11 | 65622 | Heater Pump Module 120V | Option C |
| 12 | K7322 | Drum, 30 Gal Steel | Optional Accessory |
| 13 | 62973 | Liner, Drum 16/30 Gal 2mil LDPE | Optional Accessory |

Contact the manufacturer if you are seeking parts that are not listed above.

## B. PUMP MODULE OVERVIEW (OPTION A,B)

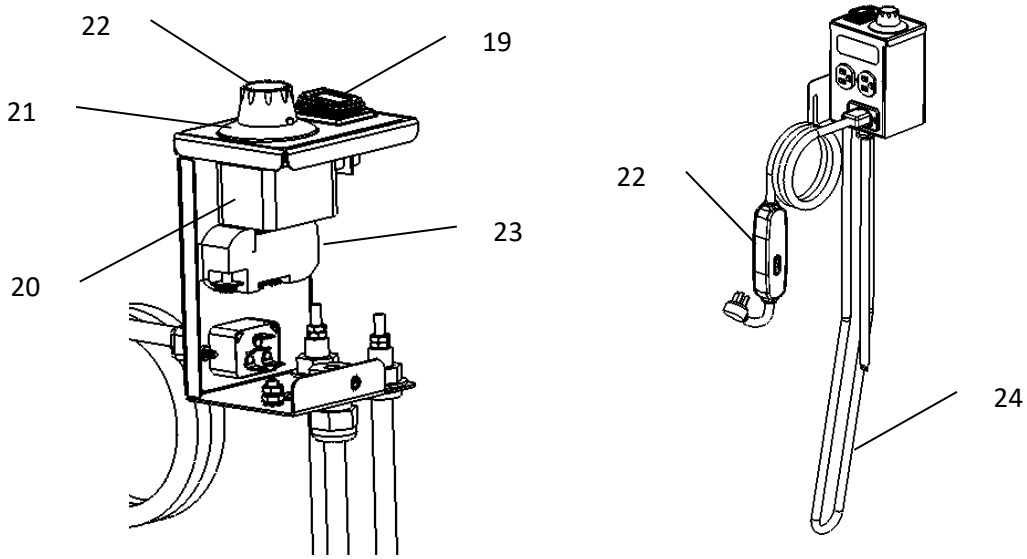



Parts List:

| ITEM # | PART NUMBER | DESCRIPTION |
|---|---|---|
| 14 | 13-10161 | Hose, 1/2" I.D. (2 feet required) |
| 15 | 62262 | Switch, Rocker 120V Illuminated |
| 16 | 04727 | Pump, 210 GPM 120V |
| 17 | K8612 | Power Cord |
| 18 | 65672 | Switch Box, SS |

Contact the manufacturer if you are seeking parts that are not listed above.

## C. HEATER MODULE OVERVIEW (OPTION, B)

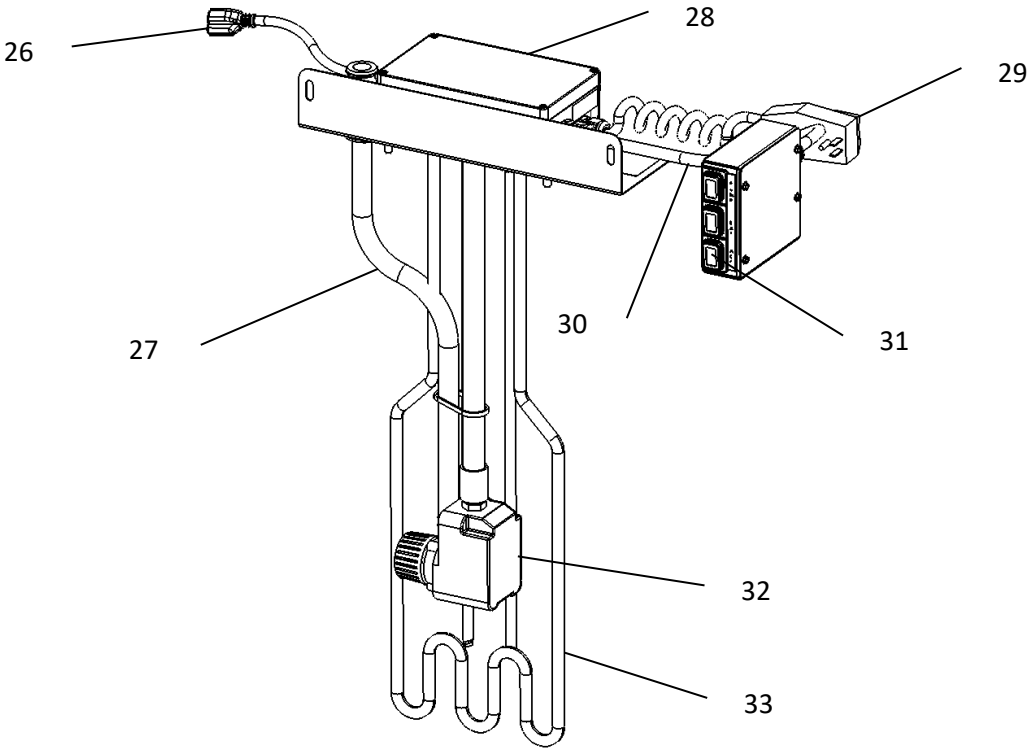



Parts List:

| ITEM # | PART NUMBER | DESCRIPTION |
|---|---|---|
| 19 | 62262 | Switch, Rocker 120V Illuminated |
| 20 | 12-11049 | Thermostat |
| 21 | 12-11050 | Temperature Gauge |
| 22 | 12-11051 | Knob |
| 23 | 8022 | Receptacle |
| 24 | 05636 | Heater Element, 1000W 120V |
| 25 | 06236 | Temperature Limiter Cam (not shown) |

Contact the manufacturer if you are seeking parts that are not listed above.

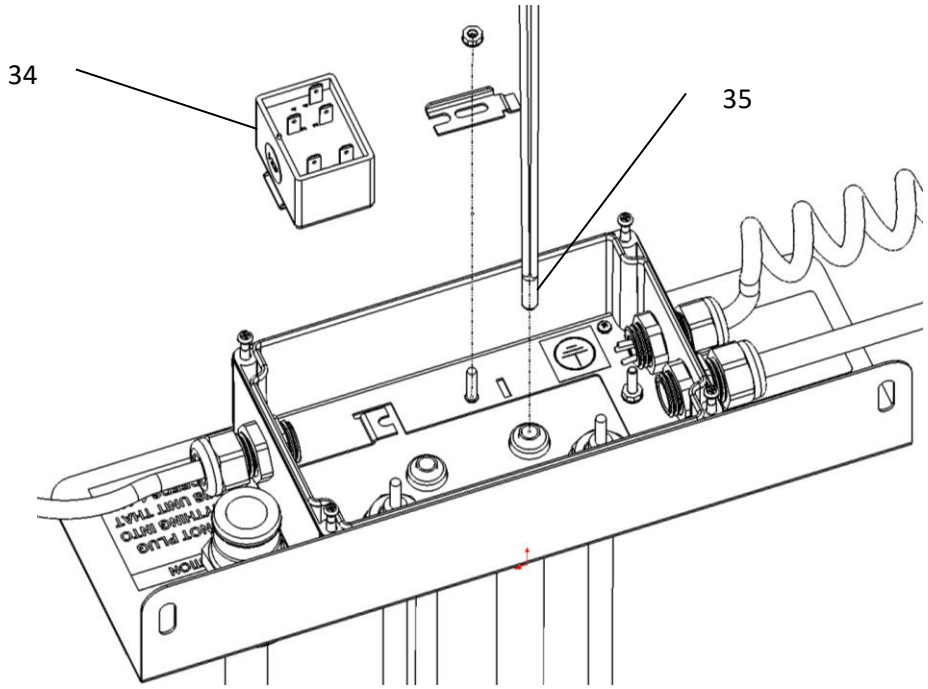
## D. HEATER PUMP MODULE OVERVIEW




Parts List:

| ITEM # | PART NUMBER | DESCRIPTION |
|---|---|---|
| 26 | 06175 | Cord Assembly, Accessory 5-15R |
| 27 | 13-10161 | Hose, 1/2" I.D. (2 feet required) |
| 28 | 06173 | Box, Electrical Poly |
| 29 | 05083 | Power Cord, 14Ft w/ GFCI |
| 30 | 06174 | Cord Assy, Main EM230H |
| 31 | 62262 | Switch, Rocker 120V Illuminated |
| 32 | 04727 | Pump, 210 GPM 120V |
| 33 | 12-11505 | Heating Element, 1000W 120V |

Contact the manufacturer if you are seeking parts that are not listed above.



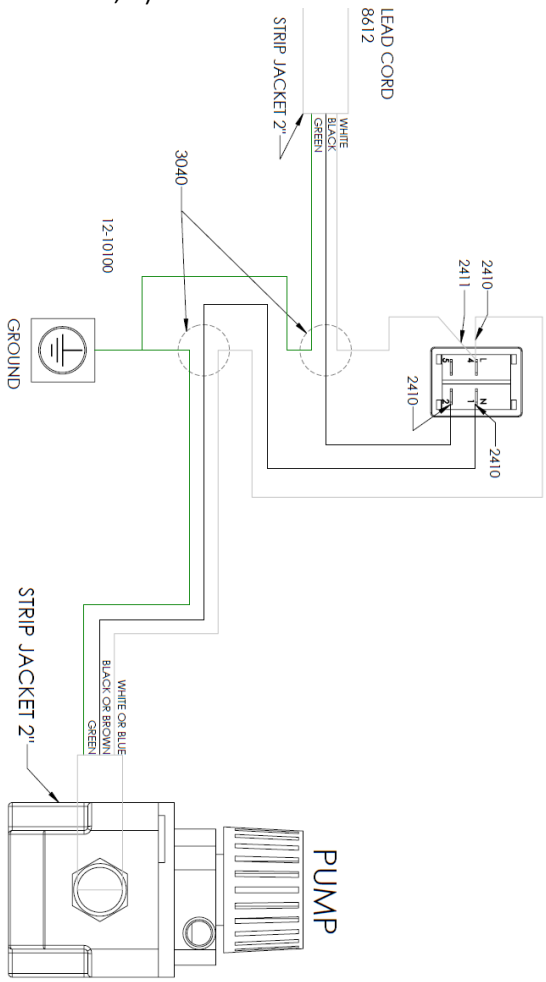

Parts List:

| ITEM # | PART NUMBER | DESCRIPTION |
|---|---|---|
| 34 | 62286 | Thermostat, Mechanical 122°F |
| 35 | 06176 | Fuse, Thermal 100°C |

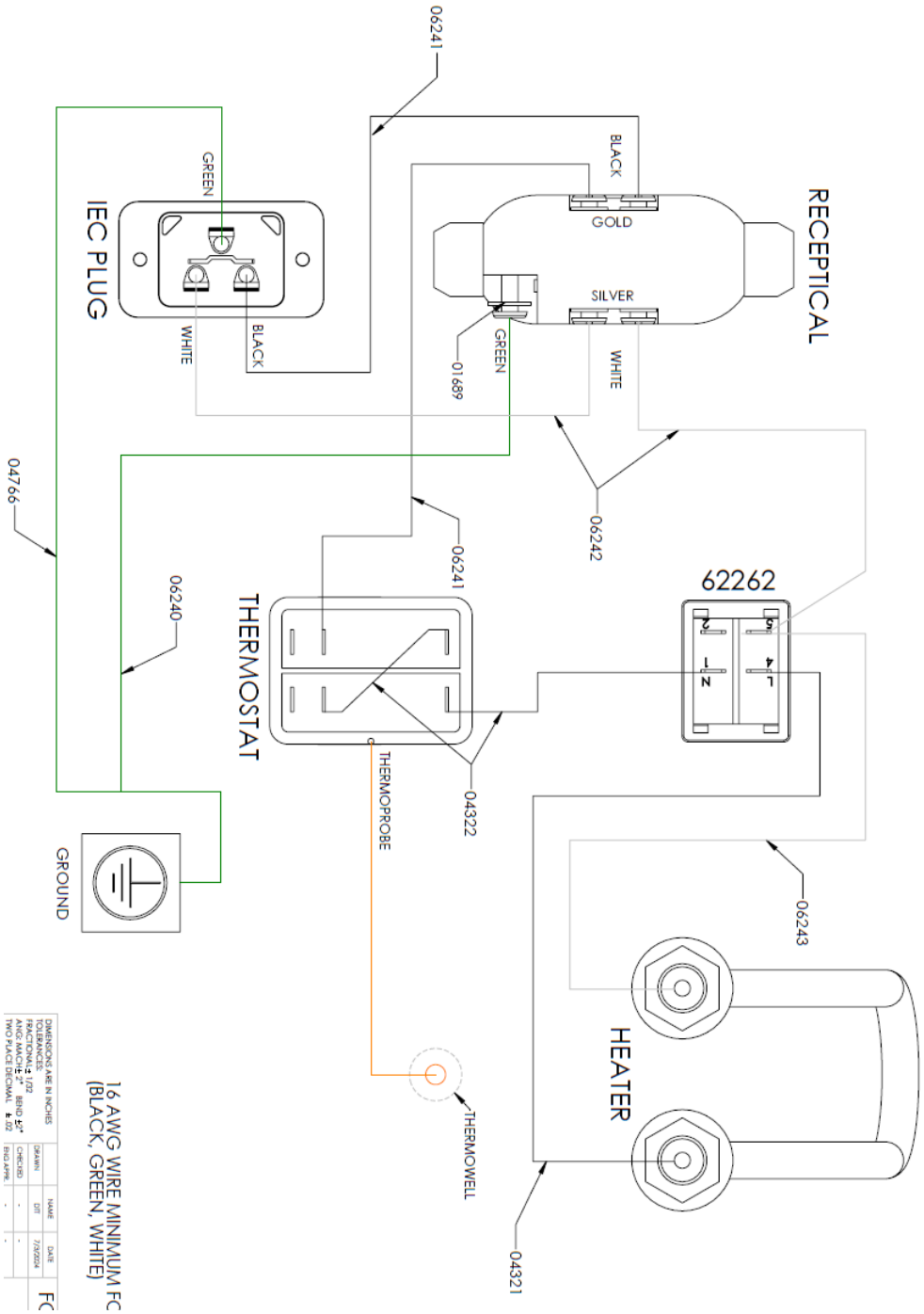
Contact the manufacturer if you are seeking parts that are not listed above.

# XIII. WIRING INFORMATION

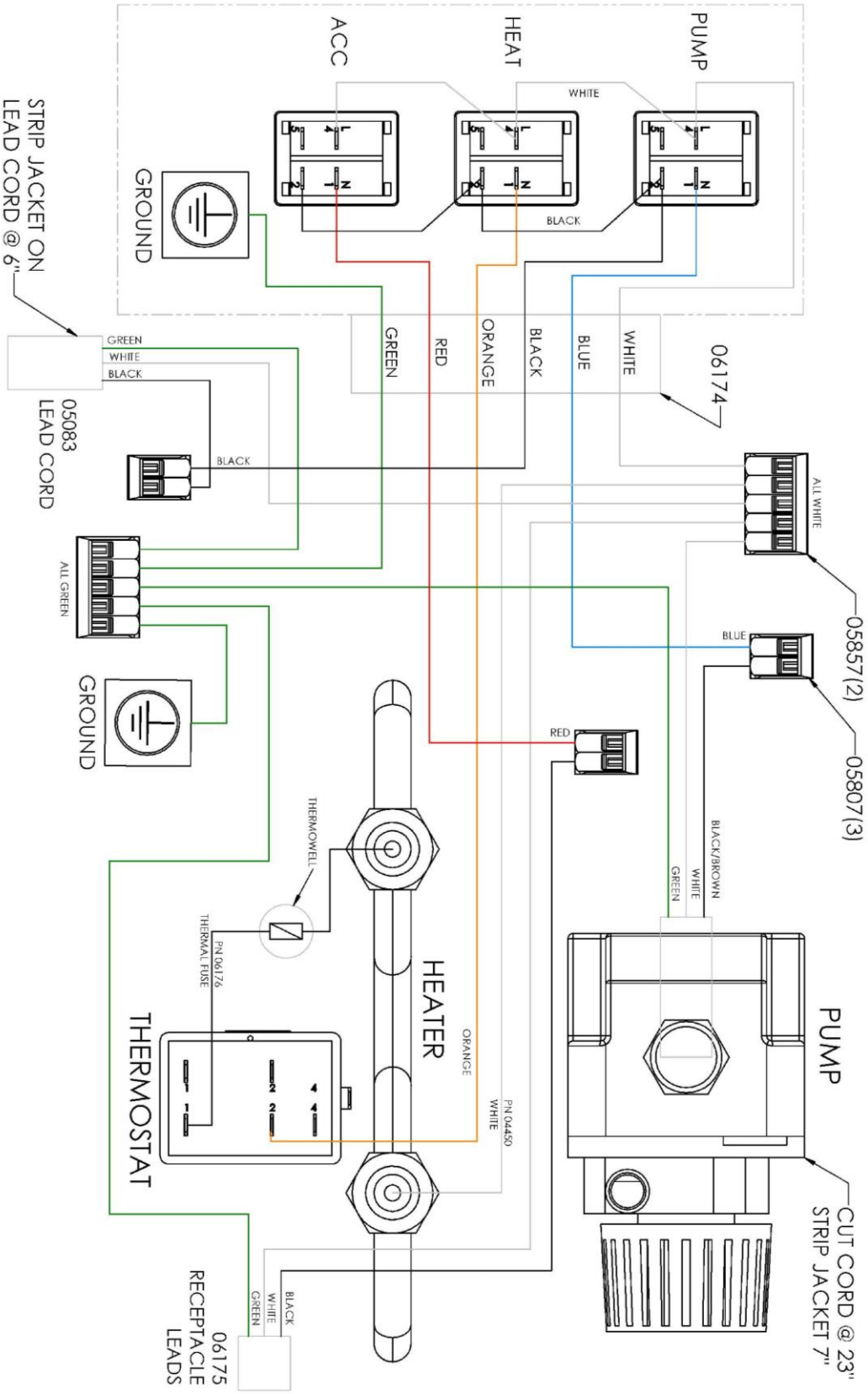
## A. PUMP MODULE (OPTION A,B)



## B. HEATER MODULE (OPTION B)



C. HEATER PUMP MODULE (OPTION C



# XIV. WARRANTY

**LIMITED WARRANTY AND LIMITATION OF REMEDIES AND DISCLAIMER**.

(1)Fountain Industries, LLC "Fountain" warrants the Equipment to be free from defects in material and manufacture and to conform to specifications for the Equipment at the time of shipment. This warranty is applicable only if the Equipment is installed, operated and maintained in accordance with factory recommendations and procedures, including, but not limited to, the use of Fountain's approved solutions or accessories. If any Equipment fails to conform to the specifications or samples or any defect in material or manufacture appears within twelve (12) months from the date of initial purchase by end user Fountain's entire liability, and Customer's or end user's exclusive remedy, shall be, to either repair or replace such defective Equipment, at Fountain's option, within a reasonable time after written notification thereof and return of the defective Equipment to Fountain.

(2) THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, ANY IMPLIED WARRANTY ARISING OUT OF COURSE OF DEALING OR OF PERFORMANCE, CUSTOM OR USAGE OF TRADE EXCEPT OF TITLE AND AGAINST PATENT INFRINGEMENT.

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FOUNTAIN'S LIABILITY ON ANY CLAIM OF ANY KIND (INCLUDING NEGLIGENCE) FOR ANY LOSS OR DAMAGE ARISING OUT OF OR RESULTING FROM THIS AGREEMENT, OR FROM THE PROFORMANCE OR BREACH THEREOF, OR FROM THE EQUIPMENT FURNISHED HEREUNDER SHALL IN NO CASE EXCEED THE PRICE OF THE SPECIFIC EQUIPMENT WHICH GIVES RISE TO THE CLAIM. ALL SUCH LIABILITY SHALL TERMINATE UPON THE EXPIRATION OF THE WARRANTY PERIOD AS STATED HEREIN.

These limitations apply regardless of whether such damages are sought based on breach of contract, negligence, strict liability in tort or any other legal theory.

(4) Any action for breach of warranty or any other obligation under these Terms and Conditions must be commenced within one (1) year from the purported date of breach.

(5) Each limitation on liability or remedy set forth in these Terms and Conditions is independent of any other limitation or if they are otherwise held to be unenforceable, that shall not affect the validity of any other such limitation or remedy.

Fountain assumes no liability for any claims for injury or damages to persons or property arising from any chemical manufactured by Customers or by any third party vendors for use in any Fountain's equipment.

Terms or conditions contained in any Customer purchase order or similar document that in any manner purport to alter, modify, change, or suspend these terms shall be deemed excluded from such purchase order and expressly waived by the Customer.

This limited warranty does not cover or include any consumable/wearable products, such as filters or brushes, associated with such equipment.

Fountain assumes no liability for any unauthorized modifications carried out to the equipment not strictly recommended by the factory procedures or recommendations.

This limited warranty is not transferable, and does not cover any general equipment maintenance, demonstration, installation, routine servicing, calibration or customization of any equipment.

No person is authorized to alter or extend this limited warranty unless made in writing and signed by an authorized officer of Fountain.

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