



## **AQ-4000 Series Information & Setup**



**READ ALL MATERIAL  
PRIOR TO OPERATION**

**AQUA PHASE**  
**AQ-4000 Series**  
**Information and Setup Guide**

**Aqua Phase Caution Notices**

**In addition to the warnings and cautions provided throughout this manual, please observe the following:**

- DO:**           **Read this operations manual and follow all instructions.**
- DO NOT:**     Operate the machine without all the filter screens in place.
- DO NOT:**     Climb into the Wash Chamber.
- DO NOT:**     Wash any item with unsealed electrical components.
- DO NOT:**     Perform any type of service operation unless the machine is unplugged.
- DO NOT:**     Use an extension cord between the wall outlet and the machine.
- DO NOT:**     Try to modify the machine in any manner without factory approval.
- DO NOT:**     Operate the machine in high foot traffic areas.
- DO NOT:**     Use garden hoses for the fill and drain hoses.
- DO NOT:**     Operate the machine unless you have been properly trained to run the machine.
- DO:**           **Call your dealer, sales representative, or the factory with any questions, need for more information, or to order supplies for your *Aqua Phase Washer*.**

*Aqua Phase* carries a complete line of supplies and parts and a variety of cleaning, rinse, and disinfectant solutions specifically formulated and chosen to work with your *Aqua Phase* machine. You may order your solutions, supplies, or parts by calling your dealer or *Aqua Phase* at 800-208-9274.

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## Supply List

The following items are required for the operation of your *Aqua Phase* machine:

### **Two ten foot hoses, rated at 150° F or higher, are supplied.**

- These hoses are used for the filling and draining functions of the machine. Do not use standard garden hoses. **25' hoses are available at an additional charge from Aqua Phase.**
- **Note:** The longer the hose, the more time it will take for the fill and the drain operations. It is not recommended to use hoses longer than **50 feet**.

### **A 240 Volt electrical circuit.**

A ground fault circuit interrupter (GFCI) is built-in to the power cord of the machine. Final connection to the facility's power supply must be made by the end user. See page 9 for additional information.

Due to the variety of receptacle and connection types and the variety of local codes and regulations, all electrical connections should be performed by a qualified electrician in accordance with local codes and regulations.

## Important Operating Information

1. *Aqua Phase* will perform best with hot water temperatures between 125° F - 140° F.
  - Do not run water to the machine at temperatures greater than 150° F. When water temperatures are below 120° F, water spotting may occur.
2. The standard *Aqua Phase* machine **does not** heat the water. The appropriate water temperature is achieved from your water supply.
3. The standard *Aqua Phase* AQ-4000 model uses approximately 18 gallons of water per wash cycle. See "**Aqua Phase Wash Sequence Description**" on following pages for description of the wash cycle.
4. **Hose Connections:** Hose connections on the machine are 5/8" national female hose. This size and type of hose connection is identical to garden hose connections. For ease of servicing and relocating of the machine if necessary, it is suggested that the final connection to the machine be achieved via the appropriate type of hose.  
**DO NOT USE GARDEN HOSE.** Only use hose rated for 150° F or more for both the fill and drain hose. Consult your local codes and regulations for proper connection to the machine.
5. **Drain Type:** It is recommended that a standpipe drain be used for the drain hose from the machine, similar to a standpipe drain used for a home washing machine.

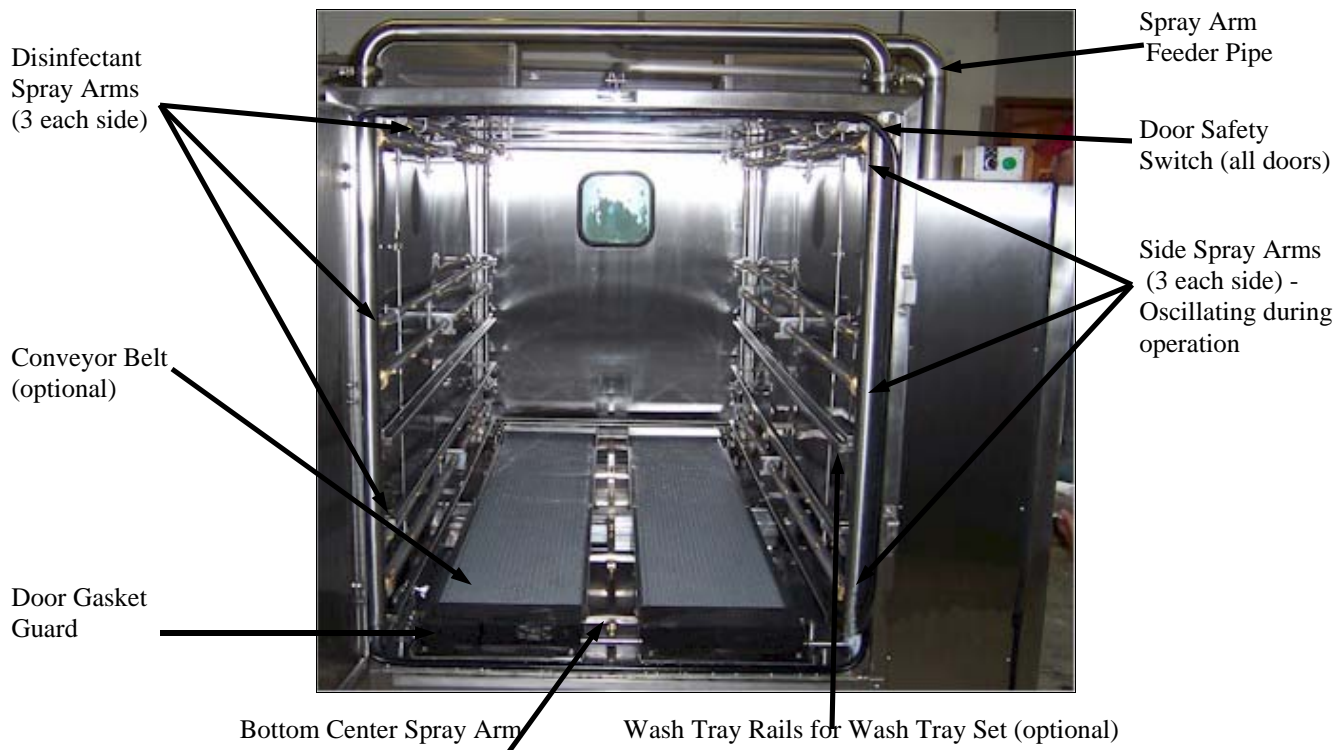
The drain hose should terminate at least 24" above the floor, suggesting that at least a 36" high drain standpipe be installed. In this configuration, the drain hose can be inserted approximately 12" into the drain standpipe. It is recommended that the drain standpipe be a minimum diameter of 2". Consult your local codes and regulations for proper configuration of a drain standpipe.

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## General Information

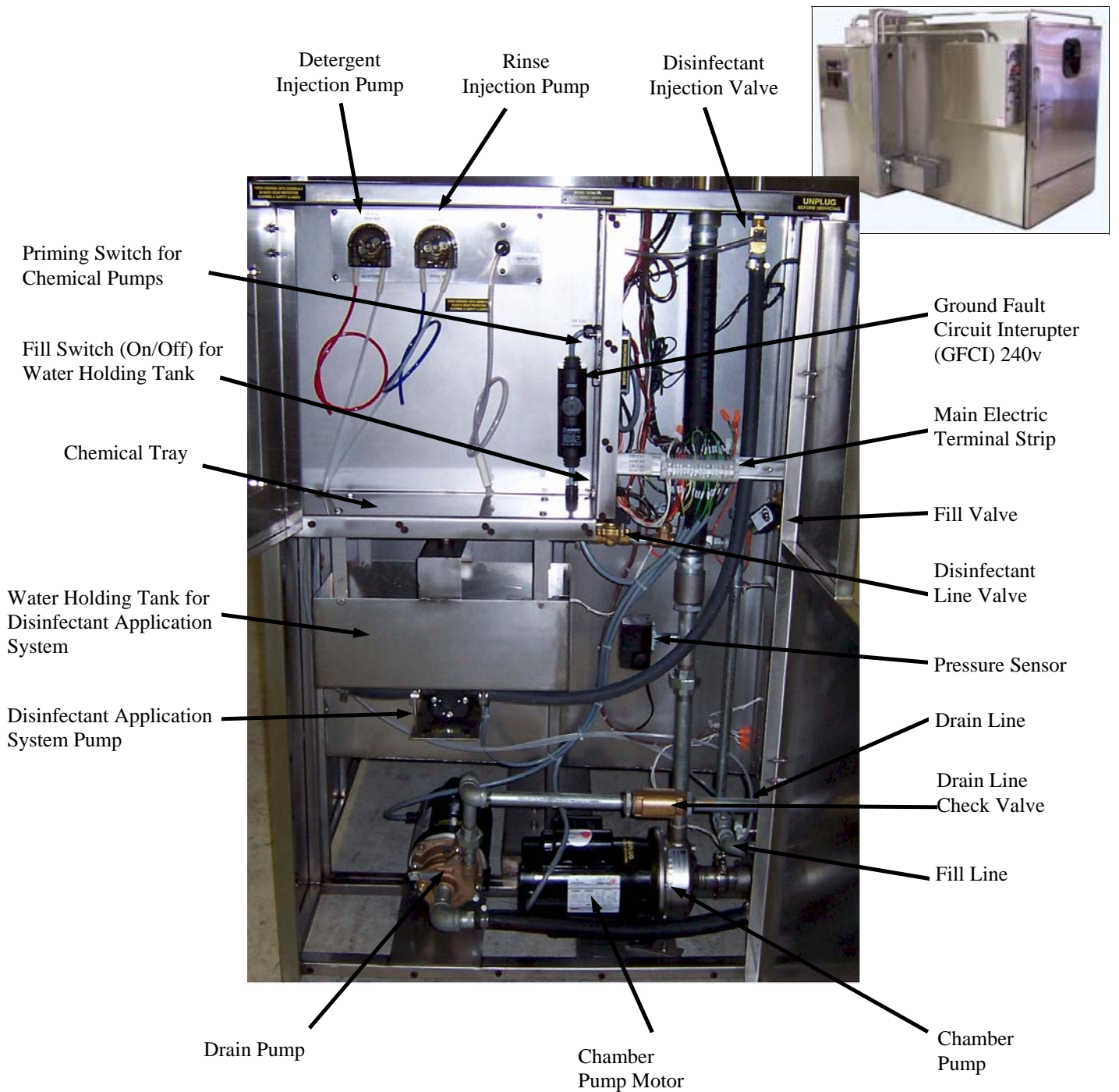


## Main Interior Components



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## Mechanical Components - Including Optional Devices (shown with mechanical cabinet located on left-side of unit)



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## Aqua Phase Basic Set-Up Procedures

If *Aqua Phase* has been transported during freezing weather, allow the machine to warm for 4-6 hours before running.

Read all *Aqua Phase* instructions and operations material.

1. Remove *Aqua Phase* from the pallet.
2. Move *Aqua Phase* to location of operation.
3. Remove items packed inside of the washer chamber for shipping (optional racks, trays, chemical solutions, and hoses will often be packed inside the wash chamber).
4. Connect the fill hose.
  - Hose connections on the machine are 5/8" national female hose. This size and type of hose connection is identical to garden hose connections
  - **DO NOT USE GARDEN HOSE.** Only use hose rated for 150° F or more for both the fill and drain hose.
5. Connect the drain hose.  
**Drain hose must be securely fastened to the drain.** Pump discharge pressure may cause the hose to "whip".



6. After you are certain the fill and the drain connections are secure, slowly turn on your hot water supply.

*(continued on next page)*

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## Aqua Phase Basic Set-Up Procedures (continued)

7. Connect *Aqua Phase* to a standard 240-volt electrical service.
  - Press the reset button located on the GFCI (ground fault circuit interrupter).
  - **Do not** use a power extension cord between your wall outlet and *Aqua Phase*.

Electrical line inlet



Electrical connection J-box,  
located inside mechanical  
cabinet.



All electrical connections should be performed by a qualified electrician in accordance with local codes and regulations.

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## Drain Pump Must Be Primed

### Introduction:

The following detailed instructions are for the priming of the Drain Pump for your machine if it becomes necessary.

Call 800-208-9274 with any questions regarding these instructions.

### **Instructions for priming of Drain Pump:**

The plumbing of the discharge line from the Drain Pump includes a backflow prevention valve. This backflow valve may prevent air from escaping from the pump; thus, preventing water from entering and priming the pump.

The discharge line also includes a plumbing union located between the Drain Pump and the backflow prevention valve. The union has wrench flats that allow you to disconnect the discharge line.

To prime the Drain Pump:

- Fill the wash reservoir until the water level in the reservoir is about half full.
- Loosen the union on the Drain Pump discharge line until water begins to bubble out of the union connection.
- Retighten the union.



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**Please contact Aqua Phase directly if you have any questions regarding your Aqua Phase Washer.**



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## Aqua Phase Operating Procedures

1. **Load the item** to be washed into wash chamber and close the front door.
  - For *Aqua Phase* units equipped with the Conveyor Transfer System:
    - Place the entire item into the wash chamber.
    - Operate the conveyor "Forward/Reverse" switch on the control panel to move the item further into or out of the wash chamber for easy loading, positioning, and unloading.
2. **Select the "Wash Time"** (3, 5, or 7 minutes) on the control panel if your *Aqua Phase* is equipped with variable wash times. Choose the length of wash time based on the condition of the item to be washed.
3. **Set the "Run/Drain" switch** on the control panel to "Run".
4. **Select the wash mode** ("Clean & Disinfect", "Clean Only," or "Disinfect Only") on the control panel if your Aqua Phase is equipped with the Disinfectant Application System.
5. **Push the "START" button** on the control panel.

## Aqua Phase Wash Sequence Description

1. After pressing the "START" button, the computer will check to see if there is water in the water reservoir. If the reservoir is not full of water, *Aqua Phase* will automatically fill to the appropriate level. The reservoir holds approximately 18 gallons.
2. When the reservoir is full, the pump will start and begin the wash cycle spraying the item being washed. Detergent is automatically injected shortly after the wash cycle begins.
3. The machine will now be in the wash phase and will continue for the wash time selected - 3, 5, or 7 minutes.
4. When the wash phase is complete, the dirty wash water will be pumped out of the machine to the drain.
5. *Aqua Phase* will automatically refill to the appropriate level with fresh water.
6. After the reservoir is filled with water, the pump will start and the machine will begin its final rinse phase. The rinse agent is automatically injected shortly after the rinse phase begins. The rinse cycle will last for approximately 45 seconds.
7. The disinfectant application cycle will begin if selected and if installed on your machine.
8. When all the lights are off, the wash sequence is complete.

During normal automatic operation, the rinse water remains in the machine and will be the wash water for the next item placed in the chamber. If you choose, you may drain the rinse water prior to beginning the next wash cycle. To drain the machine manually:

- Set the "RUN/DRAIN" switch to "DRAIN".
- Push the "START" button. The machine will drain the water.
- Prior to beginning the next wash cycle, set the "RUN/DRAIN" switch to "RUN".
- When the next wash cycle begins, the machine will automatically fill with fresh water for the wash phase.

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## Daily Operating Procedures

### Recommended Start-up Procedures:

1. Inspect water supply hose connections - check to make certain fill and drain hoses are properly connected to *Aqua Phase*.
2. Reservoir Screen - check to make certain reservoir screen is clean and in place (reservoir screen is located in the water reservoir cabinet next to the mechanical cabinet outside the wash chamber).
3. Water Reservoir - check to make certain that the water reservoir is free of debris.
4. Rear Filter Screen (if present, newer models do not have a rear filter screen) - check rear filter screen and clean if necessary.
5. Chemical Solutions - check chemical supply levels.
6. Power Supply - plug in *Aqua Phase* and press the reset button located on the GFCI (ground fault circuit interrupter).
7. Water Supply - turn on water supply.

### Recommended Shut-down procedures:

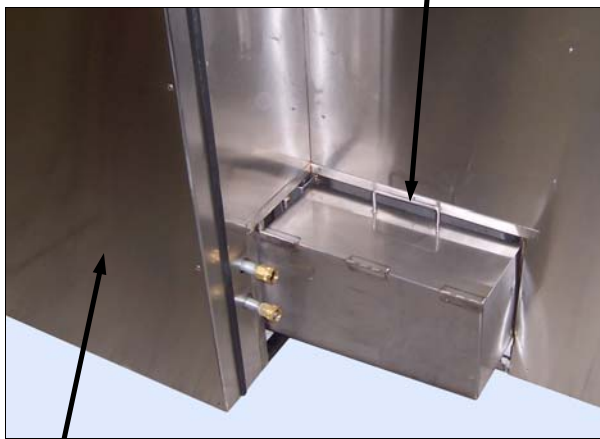
1. Drain *Aqua Phase*.
  - Set the "RUN/DRAIN" switch to "DRAIN". Press "START" button.
2. Water Supply - turn off water supply.
3. Power Supply - unplug *Aqua Phase*.
4. Reservoir Screen - clean reservoir screen (reservoir screen is located in the water reservoir cabinet next to the mechanical cabinet outside the wash chamber).
5. Water Reservoir - check to make certain that the water reservoir is free of debris.
6. Rear Filter Screen (if present, newer models do not have a rear filter screen) - check rear filter screen and clean if necessary.
7. Chemical Solutions - check chemical supply levels.

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## Filter Screen

The Reservoir Filter Screen should be cleaned daily as part of routine start-up and shut-down maintenance procedures. The screen should be inspected during daily operations, and it must be cleaned if the low pressure message is displayed on the control panel face.

Reservoir Tank Cabinet  
(lid closed)



Mechanical Cabinet

Reservoir Tank Cabinet  
(lid open)



Filter Screen  
(removable)

### Reservoir Filter Screen

The Filter Screen is located inside the reservoir tank.

If the Filter Screen is clogged so that not enough water can get through to the wash chamber, the “LOW PRESSURE” message will be displayed on the control panel to notify you to clean the filter.

If the Filter Screen becomes clogged and prevents water from getting to the pump, the machine will make a “growling” noise in addition to the “LOW PRESSURE” display.

The Filter Screen is located inside the Reservoir Tank Cabinet next to the mechanical cabinet. With proper safety protection, reach into the reservoir, grab the screen, slide the screen back and lift out for cleaning. **REPLACE THE SCREEN IMMEDIATELY AFTER CLEANING.**

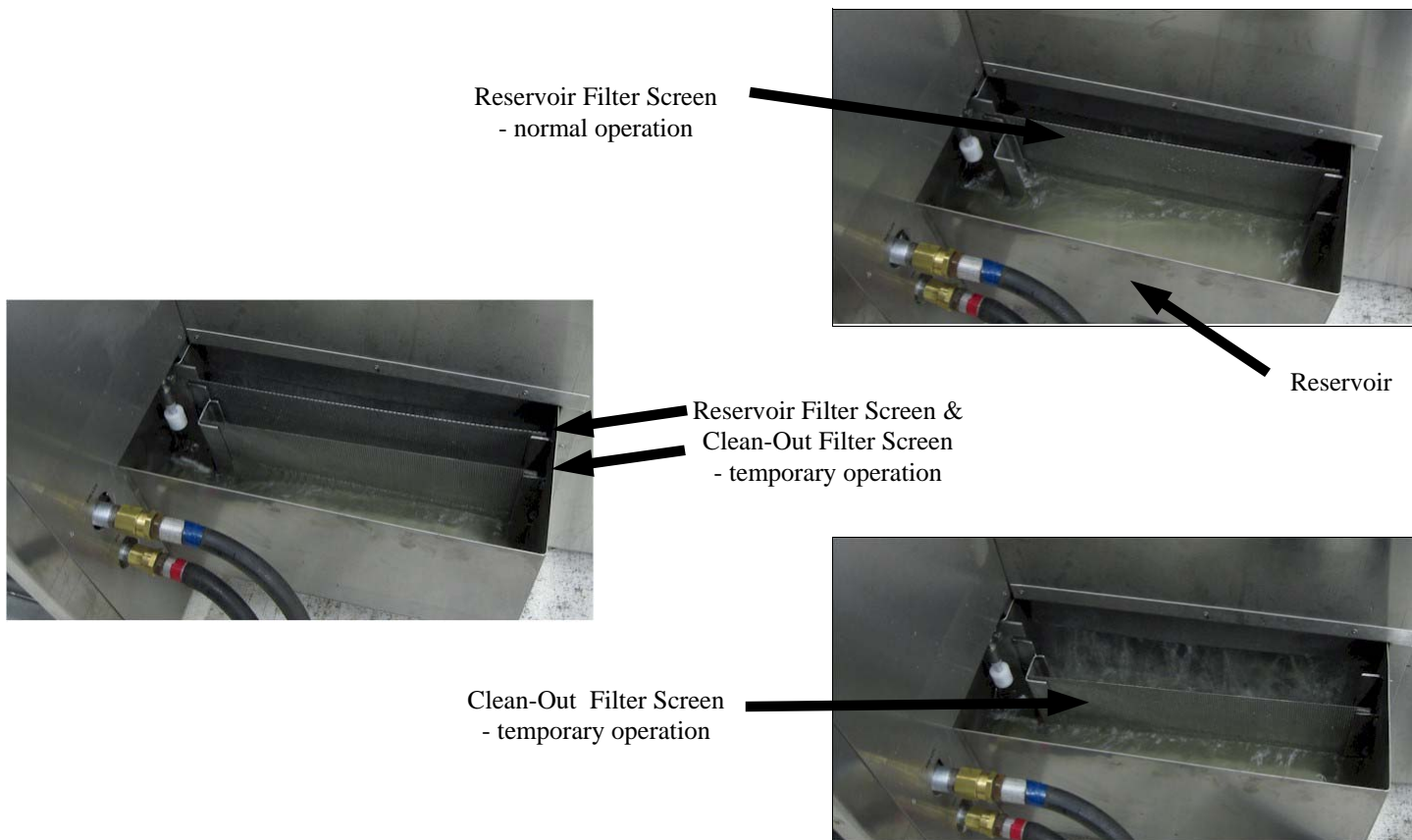
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## Clean-Out Filter Screen and Reservoir Filter Screen

Your AQ-4000 includes a Clean-Out Filter Screen. The Clean-Out Filter Screen is smaller than the normal Reservoir Filter Screen. At times, you may want to clean the Reservoir Filter Screen while your washer is filled with water. Proper use of the Clean-Out Filter Screen will minimize debris from entering the water pumps.

You may insert the smaller Clean-Out Filter Screen into the reservoir box before removing the normal Reservoir Filter Screen for cleaning. Once the normal Reservoir Filter Screen is cleaned, reinsert it into the water reservoir and remove the Clean-Out Filter Screen.

Your unit is designed to operate with only one of the filter screens in place at a time. If you operate your unit with both screens for an extended period of time, the water flow to your main water pump may be restricted and you may notice a “growling” sound from air entering the pump. Simply remove one of the screens to stop the “growling”.



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## Control Panel Switches and Functions



Switch	Options/Function
“STOP” Button	When pressed, will stop all <b>Aqua Phase</b> wash functions
“START” Button	Must be pressed to start any <b>Aqua Phase</b> wash function
WASH TIME Selector Switch	Allows you to select the length of wash: “3 MIN” = Three minute wash cycle “5 MIN” = Five minute wash cycle “7 MIN” = Seven minute wash cycle
“RUN/DRAIN” Selector Switch	<p>“<b>RUN</b>”: Set to “<b>RUN</b>” to wash an item.</p> <p>“<b>DRAIN</b>”: Set to “<b>DRAIN</b>” to drain the water in the machine. The water should be drained when you are done washing for the day or if you relocate the machine. In order for the “<b>DRAIN</b>” function to work, the Wash Mode switch must be set to “<b>CLEAN &amp; DISINFECT</b>” or “<b>CLEAN ONLY</b>”.</p>
WASH MODE Selector Switch	<p>“<b>CLEAN &amp; DISINFECT</b>”: When this mode is selected, <i>Aqua Phase</i> will perform a complete wash and rinse for the time specified on the WASH TIME Selector Switch. It will then automatically apply disinfectant solution.</p> <p>“<b>CLEAN ONLY</b>”: When this mode is selected, <i>Aqua Phase</i> will perform a complete wash and rinse cycle for the length of time specified on the WASH TIME Selector Switch. It will not apply disinfectant.</p> <p>“<b>DISINFECT ONLY</b>”: When this mode is selected, <i>Aqua Phase</i> will apply disinfectant solution only. It will not wash or rinse.</p>

## Important Operating Information

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## Typical Controls and Electronic Layout

