

# **OPERATOR'S MANUAL**

ADD ONS: ■ CLB-30 ■ CLT-300 ■ CLT-600



For the dealer nearest you, consult our web page at www.wmaze.com

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Part Number	
Serial Number	
Date of Purchase	

The part and serial numbers will be found on a decal attached to the machine. You should record both serial number and date of purchase and keep in a safe place for future reference.

# **INTRODUCTION & IMPORTANT SAFETY INSTRUCTIONS**

Your owner's manual has been prepared to provide you with a simple and understandable guide, for equipment operation and maintenance, based on the latest product information available at the time of printing. To keep your machine in top running condition follow the specific maintenance and troubleshooting procedures given in this manual. When ordering parts please specify model and serial number.

**NOTE:** WATER MAZE reserves the right to make changes at anytime without incurring any obligations.

# **Owner/User Responsibility:**

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

#### SAVE THESE INSTRUCTIONS

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number. Use only identical replacement parts. This machine is to be used only by trained operators.



WARNING: When using this machine basic precautions should always be followed, including the following:

CAUTION: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause

malfunction of the machine and result in death, serious bodily injury and/or property damage.

- 2. Know how to stop this product and bleed pressures quickly. Be thoroughly familiar with the controls.
- Stay alert watch what you are doing.



WARNING: Ground system before connecting to the power supply.

AVERTISSEMENT: Mettre le système à la masse avant de le raccorder à la source d'alimentation. WARNING: Wire the system for correct voltage. See "Electrical" section of this manual and motor nameplate.

AVERTISSEMENT: Raccorder le système au réseau électrique en respectant la tension. Consulter la section « Électricité » du présent manuel et la plaque signalétique du moteur.



WARNING: Meet the National Electrical Code and local codes for all wiring.

AVERTISSEMENT: Respecter le Code national de l'électricité et les codes locaux pour tous les câblages.

WARNING: Follow the wiring instructions in this manual when connecting the system

to the power lines.

AVERTISSEMENT: Suivre les instructions de câblage dans le présent manuel au moment de raccorder le système aux lignes de transport d'électricité.

WARNING: All wiring must be performed by a qualified electrician.

AVERTISSEMENT: Tout le câblage doit être effectué par un électricien qualifi é.

Know the system application, limitations, and potential hazards.

WARNING: Do not use to pump concentrations of flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in explosive atmospheres. Pumps should only be used with liquids compatible with pump component materials. Failure to follow this warning can result in personal injury and/or property damage.

AVERTISSEMENT: Les pompes devraient être utilisées uniquement avec des liquides compatibles avec les matériaux des composants des pompes. Le non-respect des précautions peut mener à des lésions corporelles et/ou des dommages à la propriété.

- 5. WARNING: Risk of electric shock.

  AVERTISSEMENT: Risque de choc électrique

  All wiring should be performed by a qualified electrician.
- 6. Never make adjustments on the machine while it is in operation, except for those prescribed in this manual.

# **IMPORTANT SAFETY INSTRUCTIONS**

- 7. The main power must be brought from the circuit breaker and wired into the electrical box on the CLB. This line must be run through conduit to protect it from damage. A power disconnect should be located next to the machine for maintenance purposes.
- Before servicing the machine, refer to all the MSDS's on the material identified in the wastestream. You must comply with all warnings and wear all protective clothing as stated on the MSDS's.
- Protect all electrical cords from sharp objects, hot surfaces, oil, sunlight, and chemicals. Avoid kinking the cords. Replace or repair damaged or worn cords immediately. All wiring should be run through conduit.
- 10. Inlet water temperature must not exceed 85°F.
- 11. Disconnect the power before servicing this machine. If the power disconnect is out of sight, lock it in the open position and tag it to prevent unexpected application of power.
- 12. The best insurance against an accident is precaution and knowledge of the equipment.
- 13. WATER MAZE is not liable for modifications or use of components not purchased from WATER MAZE.
- 14. Personal Safety:
  - a. Wear safety glasses and other applicable protective clothing at all times when working on this machine.

# Refer to item #6 under Important Safety Information.

- Keep your work area clean, uncluttered and properly lighted. Replace all unused tools and equipment.
- c. Keep visitors at a safe distance from work area.
- d. Make the workshop safe with padlocks and master switches.
- 15. Running the system without water will damage the pumps and will void the warranty.
- 16. Release all pressure within the system before servicing any component.
- 17. Drain all liquids from the component before servicing.
- 18. Check hoses for weak or worn conditions before each use, making certain that all connections are secure.
- 19. Periodically inspect pump and system components. Perform routine maintenance as required.
- 20. Do not touch an operating motor. Modern motors are designed to operate at high temperatures.
- 21. Do not handle a pump or pump motor with wet hands, when standing on a wet or damp surface, or in water.

- 22. The pump motors are equipped with an automatic resetting thermal protector and may restart unexpectedly. Tripping is an indication of motor overloading as a result of operating the pumps at low heads (low discharge restriction), excessively high or low voltage, inadequate wiring, incorrect motor connections, or a defective motor or pump.
- 23. **IMPORTANT NOTE:** The sump pump is not a trash pump and is subject to premature failure unless sump pit baffling or additional protection is provided.
- 24. Keep machine from freezing.
- 25. Do not spray water directly at machine.

WARNING: The Bio-System contains moving parts in the control center and in the pumps. Follow safe practices when performing maintenance and when troubleshooting the Bio-System. Set circuit breakers to the off position when working on electrical equipment. Use proper lockout and tag out procedures when setting the breakers.

AVERTISSEMENT: Le Bio-System contient des pièces mobiles dans le centre de contrôle et dans les pompes. Suivre les pratiques de sécurité au moment d'effectuer des opérations d'entretien et lors de la correction des erreurs. Régler les disjoncteurs en position d'arrêt au moment d'effectuer des opérations d'entretien sur l'équipement électrique. Utiliser des procédures de verrouillage et d'étiquetage appropriées au moment d'enclencher les disjoncteurs.

WARNING: If any cords or electrical wires appear to be frayed, damaged, or in poor condition, proceed with caution and immediately take steps to have the cords repaired or replaced.

AVERTISSEMENT: Si un cordon ou des fils électriques semblent effilochés, endommagés ou en mauvais état, agir avec prudence et prendre immédiatement des mesures afin que les cordons soient réparés ou remplacés.

WARNING: Make sure to take precautions when performing maintenance on the pump in the catch basin. Turn off the power to the pump and make sure electrical cords are well maintained.

AVERTISSEMENT: S'assurer de prendre les précautions nécessaires au moment d'effectuer des opérations d'entretien sur la pompe. Mettre la pompe hors tension et s'assurer que les cordons électriques sont bien entretenus. dans le bassin collecteur.

# **HOW THE BIO-SYSTEM WORKS**

# HOW THE BIO-SYSTEM WORKS

The Bio-System is an industrial grade microbial treatment system, with modular components, that employs naturally occurring microbes to treat waste water with characteristics that include organic compounds (i.e., emulsified oils and hydrocarbons). A typical application may include treatment of wash water generated from equipment washing (i.e., washing golf course maintenance equipment, fork lift repair, truck wash etc.).

As compared to other water treatment technologies, microbial treatment is highly dependent on maintaining a healthy environment for the microbes that perform the job of digesting organic substances and converting them to carbon dioxide and water. Some of these life sustaining considerations are:

- pH of the water (should be between 6.0 and 9.0)
- water temperature (should be above 40°F and below 120°F)
- adequate nutrient & food supply within the water (consult with Water Maze) and
- adequate levels of dissolved oxygen (enough dissolved oxygen to overcome the consumption rate /oxygen demand).

In addition to the above considerations, the effluent water quality from a Bio-System will be subject to the concentration levels of the organic matter in the untreated water and the relative dwell time required for microbial digestion. Based on these factors, waste waters with consistent concentration levels of organic matter will be more predictable in terms of effluent water quality. Conversely, waste waters with fluctuating concentration levels of organic matter may vary in terms of effluent water quality.

**IMPORTANT NOTE:** Subject to the application and desired water quality requirements, processed water from a Bio-System may require additional post-treatment.

**IMPORTANT NOTE:** Recycled water quality is dependent upon many factors, including, but limited to the above considerations and should be tested to assure that the water quality meets the intended reuse.

**IMPORTANT NOTE:** Local regulations may limit what you can do with water that is discharged from the Bio-System or may require specific permits. Check with local authorities if you are unsure about the uses or disposition of the water discharged by the Bio-System. Regulations may also limit the use of a wash pad as a mix and load station.

WARNING: The Bio-System is not designed to produce potable water. Do not use water from Bio-System for drinking or washing humans or animals.

AVERTISSEMENT: Le Bio-System n'est pas conçu pour produire de l'eau potable.

A typical Bio-System may be configured as a Treat & Discharge System, or as a Treat & Recycle System. In either case, a properly configured system may consist of one or more components (See Bio-System Component Identification pages). As in all properly designed water treatment systems, Water Maze highly recommends that appropriate pretreatment technologies be applied to the waste water for the purpose of enhancing the performance of the Bio-System. Some typical pretreatment technologies may include: oil -skimming to remove "free-oils", heavy solids removal; pH control; water temperature control; grass clipping removal; inorganic material removal (i.e., heavy metals); etc. A few pretreatment technologies are contained within this operator's manual (i.e. CLT-300; Hydro-Screen, Debris Dumpster, etc.). For additional pretreatment recommendations for your application, please consult an authorized Water Maze representative.

The CLB-603 model (for recycle applications) typically works as follows:

- The CLB-603 is the primary digester that houses the microbial colony and is the primary control center for the system.
- The in-feed transfer pump (mounted on the CLB-603 platform) draws pretreated water from the pit system or from a pretreatment feed tank (i.e., CLT-300 tank), and fills the 600-gallon digester tank. A control float is supplied with the CLB-603 unit. NOTE: See in-feed pump curve for maximum lift capacity.
- The in-feed pump also acts to circulate water during the off-hours. A pin-type timer allows the operator to control the frequency and duration for circulation.
- Water being circulated will be sourced from inside the top portion of the CLB-603, or from the last above ground tank connected to the CLB-603 digester (e.g., this could be the last of multiple CLT-600 tanks plumbed in series).
- During the timed circulation, an air-actuated directional control valve blocks new (untreated) waste water from entering the CLB-603 digester.
- If the application requires pH adjustment, an optional pH control may be employed as the untreated water is transferred into the CLB-603.
- On a routine basis (once each day) microbes and nutrients (if required) are automatically injected into the CLB-603 tank. This is done to assure that the microbe population (colonized within the bio-film contained inside the CLB tank) is maintained at maximum levels.
- Dissolved oxygen is maintained using a unique delivery system.
- The CLB-603 incorporates a propriety 600-gallon conebottom tank with a 55 degree slope that allows for easy solids removal using an air-actuated timer-controlled purge valve.
- Subject to the application requirements, additional aboveground holding tanks (CLT-600), or auxiliary digesters (CLB-30) may be coupled in series to the CLB-603 digester.

# OPERATING ENVIRONMENT

- Processed water gravity flows into a holding tank (not supplied as part of a CLB-603), which should be sized based on application requirements.
- The processed water holding tank will house control floats that control fresh water make-up, excess water discharge, the recycled water transfer pump, and the ozone circulation pump.
- For polishing the water for recycle purposes, the CLB-603 includes a 4-tube UV ozone generator with injector, circulation pump and timer.
- Upon demand of the operator or via the excess water float control, water contained inside the process water holding tank is delivered through a pressurized manifold system.
- As water returns into the pretreatment system, the process of treatment begins again.

# **CONSUMABLES**

#### **Microbes and Nutrients**

BioStax 1800: Liquid Bacteria Concentrate

Part #8.718-919.0 BioStax, 1800, 8 oz. vials, 2 part mix, part A and B. It is an environmentally friendly, non-toxic and non-pathogenic liquid concentrate. Controls odor, reduces oils and greases, other hydrocarbons, animal fats and vegetable oils. Two 8 oz. bottles pack A & B makes 5 gals.

**BioStax 100:** Hawaiian Blend Liquid Bacteria Concentrate

Part # 8.718-917.0 comes in an 8 oz. bottle and works the same as BioStax 1800 except that it is for use in Hawaii. One 8 oz. bottle makes 5 gallons.

Bio Nutrient: Powder Bacteria Nutrient Source

Part # 8.718-916.0 comes in an 8 oz bottle and easily mixes in water to make 5 gallons. It is introduced into the Bio-System along with the bacteria to enhance the growth and effectiveness of the biology.

The Bio-System is designed to work in a wide variety of operating conditions. In normal operating environments, the Bio-System should perform as specified. In extremely hot or cold environments certain precautions need to be taken.

# Operating Conditions

Air Temperature Range 40° - 120°F
Treatable Waste Water contaminated
with hydrocarbons and
organic material

Water pH 6.0 - 9.0

#### **Cold Weather**

Protect the Bio-System from damage that can occur when freezing water expands. Freezing water may cause pipes leading from the catch basin to your Bio-System tanks to burst. Plus, the microbes in the BioStax 1800 may not survive if they are frozen.

Drain all external pipes if a prolonged hard freeze is expected. Make sure all valves (including the valve controlling the flow of water to the hose connected to the hydro-screen) are open so

water can completely drain from the system. Disconnect the pump in the catch basin (sump) using the camlock and drain the pump and pipes. The pump may be left in or near the sump and doesn't need to be disconnected from the electrical system. In extreme weather conditions also drain the Bio-System, using the drain valves at the bottom of each tank.

In order to restart your Bio-System, you will need to reinoculate your system with BioStax 1800 at start-up. The recommended amount of BioStax 1800 for start-up is five 8 oz. bottle sets, part A & B, for a Bio-System system. Contact *WATER MAZE* for specific instructions to restart your Bio-System.

#### **Hot Weather**

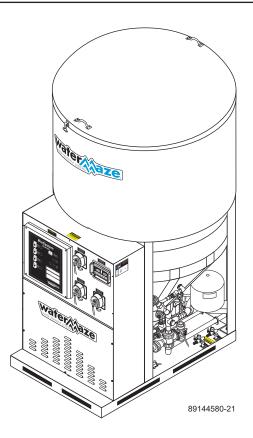
Your Bio-System may encounter minor problems, such as a slight increase in odor, when operating in extremely hot temperatures in excess of 100° F. If odor is a problem, add water to the system on a daily basis by running tap water into the catch basin (sump). The sump pump will automatically add the water to the system.

# **OPERATING TIPS**

Your Bio-System is extremely simple to operate. Simply wash your equipment or vehicles as you would normally.

- In extremely dirty environments, you may want to "pre-clean" your equipment with air or with a brush, removing grass directly to debris dumpster.
- Use hose end sprayers with automatic shutoffs when washing equipment so as to not exceed the peak capacity of your Bio-System.
- Perform the daily, weekly and monthly service as described on the maintenance pages.

# **BIO-SYSTEM COMPONENT IDENTIFICATION**



# **CLB-603**

Recycle: Main Bio-Digester

Fully automated bio-remediation system includes:

Microbe and nutrient injection system

Infeed pump with circulation system

Ozone generator with circulation pump

Aerator provides dissolved oxygen to water for

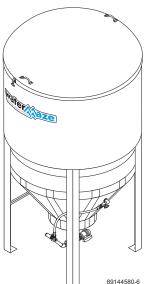
microbe health

Auto purge drain system

Optional pH control system

600 gallon unit volume

NOTE: The Water Maze Bio-System is modular so components can be combined in a variety of combinations. Your system may not include all of the components shown below or on next page.



# CLB-30D

# **Auxiliary Bio-Digester**

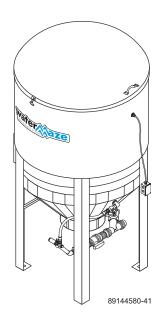
Auxiliary modular unit connects to main bio-digester (either CLB-603 or 600) or it can be added to another tank or system. The CLB-30D, when added to a main bio-digester, allows you to increase the total flow rate as needed. Unit volume is 600 gallons with process capacity site specific.



# **CLT-600**

# Auxiliary Tank: 600 Gallons

600 gallon cone-bottom tank is used as a pre-treatment or post-treatment tank, as needed. Biology is not injected into this tank, but it provides added dwell time for biological processing.

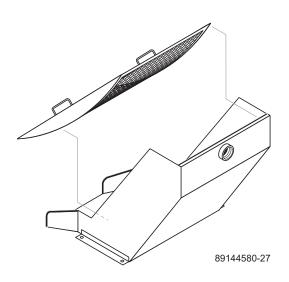


# **CLT-300**

# Auxiliary Tank: 300 Gallons

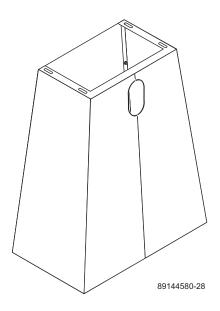
300 gallon cone-bottom tank is used as a pretreatment or post-treatment tank, as needed. Has sockets for a mounting bracket to hold the optional hydro-screen, when needed.

# **BIO-SYSTEM COMPONENT IDENTIFICATION**



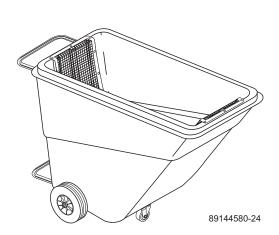
# **Hydro-Screen**

For Screening Leaves, Grass 24" Hydro-Screen effectively screens leaves, grass clippings and other bio-mass prior to reaching bio-digester. Includes removable screen for easy cleaning.



# **Hydro-Screen Stand**

Free standing support for Hydro-Screen. **Must be bolted to washpad using concrete anchors.** 



# **Debris Dumpster**

Utilized to de-water solids (especially in golf course installations as containment for grass clippings cascading from Hydro-Screen).



# **Ozone Generator**

The ozone generator produces ozone generated by special UV lamps, to disinfect water.

# **INSTALLATION INSTRUCTIONS**

# **INSTALLATION INSTRUCTIONS**

The following instructions will provide adequate information to fully install your Water Maze Bio-System. Please follow these instructions step by step to ensure proper installation.

# **Equipment Need for Installation**

Aside from having a general assembly of tools on hand, you will need to supply a few additional items to complete the installation of your system:

Gray PVC medium set glue

Purple primer

Teflon tape

Lubricant (liquid soap)

Pipe fittings

Pipe

#### **Installation Instructions**

## 1. Placing the Bio-System

Place the Bio-System on a level concrete pad similar to what is shown on the Installation Views and the Installation and Piping Diagrams.

**NOTE:** Your system may not require all of the components shown.

# 2. Placing and Connecting Hydro-screen (if applicable)

- a. Mount hydro-screen on tank or stand as shown in Installation Drawing.
- b. Line up the chute from the hydro-screen so it is above the sloped end of the debris dumpster.
- c. Connect the 1-1/2" hose between hydro-screen and sump pump connection.

**NOTE:** The hose may have to be cut to size before it is connected. The hose should reach both connections and make a smooth arch without an excess of slack in the line.

#### 3. Place the Debris Dumpster

- a. Review Installation Drawing.
- b. Place the debris dumpster under the hydro-screen so that debris falls onto slope section of dumpster (see 2b).

#### 4. Placing the Sump Pump (if applicable)

Review Installation Drawing.

- a. Connect PVC tee with gate valve to the 1-1/2" pipe stubbed out of the sump pump. The elbow of the gate valve should be facing down toward the bottom of the catch basin.
- Place pump securely into corner of catch basin.

 c. Connect plumbing of the sump pump to underground piping supplied by customer. See Piping Connection Diagrams.

#### 5. Plumbing the System

Connect equipment with plumbing as shown on the Installation and Piping diagrams. **NOTE:** your system may not require all of the components shown. Plumbing may vary depending on placement of equipment.

#### 6. Wiring the System

**Electrical power is OFF.** Before beginning work refer to Safety Instructions in front portion of manual. Confirm that there is not an electrical power source connected to the control panel. Electrical power will be connected to control panel later in these instructions.

 a. Connect wiring as shown on Electrical Connection Diagram. NOTE: your system may not have all the components shown.

# 7. Connecting Air Supply to the System

- Connect equipment with air lines as shown on the Air Connection Diagram.
- b. Connect air source to pressure regulators. Air source must supply 4 CFM at 60-100 psi.

#### 8. Filling the Tanks Dosing the Bio-System

**NOTE:** Your system may not have all of the components listed below.

- a. CLB-603 (or CLB-600): Fill tank until water begins to flow from 3" overflow pipe. Add one 8 oz. bottle set part A & B of BioStax 1800 and one 8 oz. bottle of BioNutrient.
- b. CLT-300: Add enough water to fill lower cone section.
   No BioStax 1800 or BioNutrient required.
- c. CLB-30: Fill tank until water begins to flow from 3" overflow pipe. Add one 8 oz. bottle set part A & B of BioStax 1800 and one 8 oz. bottle of BioNutrient.
- d. CLT-600: Fill tank until water begins to flow from 3" overflow pipe. Add one 8 oz. bottle set part A & B of BioStax 1800 and one 8 oz. bottle of BioNutrient.
- e. Recycle Holding Tank: Fill tank approximately half full. No BioStax 1800 or BioNutrient required.
- f. **Sump Pit:** Pour one 8 oz. bottle set part A & B of Bio-Stax 1800 and one 8 oz. bottle of BioNutrient into sump

## 9. Microbe and Nutrient Injection

- a. Mix microbes and nutrient in separate five gallon containers supplied.
- b. Install tubing to pumps and connect to injection probes located on side of CLB-603 tank. Refer to attached information for installation and connections.

# INSTALLATION INSTRUCTIONS

#### 10. Set Timers

There are four timers in your control panel enclosure that need to be set. Open control panel door to set timers. Timers are 24 hour and each pin represents half an hour. **NOTE:** Always remove electrical power from control panel prior to opening the door. Rotate each timer until the hour at the center of the dial meets the actual time of day (a.m. or p.m.). After each timer is set for the time of day, proceed to instructions below to set timers to actuate equipment.

# a. Infeed Pump Timer: Pull 1 Pin Separated by 2 Pins (repeat 4 times)

The infeed pump timer provides for water circulation during system non-use hours to aid in circulation of dissolved air and biodigestion by microbes. Circulation of water must be paused for tank dwell time. Pulling one pin separated by two pins (and repeated 4 times) will allow for 30 minutes of water circulation separated by one hour of dwell time. Pulling a pin on this timer will cause the infeed pump to operate automatically when the hand switch is on. <a href="The circulation pump should be set to operate during system non-use hours.">The circulation pump should be set to operate during system non-use hours.</a>

#### b. Ozone Timer: Pull 4 Pins.

The ozone timer controls the amount of time that the ozone pump and ozone generator operate. Pulling a pin on this timer will cause the ozone pump and ozone generator to operate automatically when their hand switches are on. Ozone water is circulated to the recycle holding tank to provide disinfected water. The ozone timer should be set to operate during system non-use hours.

## c. Purge Timer: Pull 1 Pin

The purge timer controls the amount of time that the tank purge valve operates. The purge valve provides for sludge removal from the bottom of the cone tank. Pulling a pin will allow for automatic energizing of the ten second timer which causes the purge drain valve to open. **Set timer to coordinate with daily maintenance schedule.** 

# d. Microbe / Nutrient Timer: Pull 3 Pins

This timer determines the amount of microbes and nutrients that are added to the CLB-603 tank. The microbe / nutrient timer should be set to inject during system non-use hours. Pulling a pin on this timer will cause the Microbe and Nutrient pump to operate automatically when their hand switches are on.

#### 11. Water Panel Connections:

- a. Connect a garden hose from the city water supply to the "Fresh Water Inlet" connection on the water panel. Refer to Water Panel Installation Drawing. Make sure hand valve V5 is open.
- b. Connect a garden hose from "Outlet to Pressure Washer" on water panel to your pressure washer. Make sure hand valve V7 is open.

## **Installation Checklist**

Is all piping connected as shown on the Installation and Piping Diagrams?
Is electrical wiring connected as shown on the Electrical Connection Diagram?
Are air lines connected as shown on the Air Connection Diagram?
Is the voltage correct?
Is the fresh water make-up hose connected?
Is the outlet to pressure washer hose connected?
Is the rainwater overflow connected?

# START-UP

# **START-UP**

- 1. Make sure that all equipment is level.
- Turn on the fresh water inlet hose.
- Fill the sump pit with water and check that the water level does not drop. This would indicate that the sump pump is not sealed.
- 4. Connect Electrical Power to Control Panel: When connecting to the power supply, follow all electrical and safety codes as well as the most recent National Electric Code (NEC) and Occupational Safety and Health Act (OSHA). Ground system before connecting to the power supply. WARNING: All wiring must be performed by a qualified electrician.
- Control Panel Switches:

There are five hand switches located on the front of the control panel. Turn on all five switches. Turning on these switches will allow the entire system to operate in an automatic mode. Normally switches are left on. The following is the functional description of these switches.

#### a. Sump Pump — Hand Switch 1 (HS-1)

The sump pump supplied with this equipment comes equipped with a level switch for high and low sump water level control. Turning on this hand switch will allow the sump pump to operate in an automatic mode. Turning off the HS-1 switch will not allow this pump to operate.

#### b. Infeed Pump — Hand Switch 2 (HS-2)

The infeed pump provides two functions:

- It removes water from a pretreatment tank, a sump or a CLT-300 and is controlled automatically by Float Switch 1 (FS-1). In the "ON" position the infeed pump will turn on at a high level and off at a low level. Turning off this switch will not allow this pump to operate.
- 2. It provides circulation in the CLB-603 tank to aid in bio-digestion by microbes. Circulation flow is done on timer control. Turning off HS-2 will not allow this pump to provide circulation flow to the digester tank.

#### c. Transfer Pump — Hand Switch 3 (HS-3)

The transfer pump removes water from recycle holding tank and provides for water flow to the water panel. In the "on" position this pump will operate automatically on pressure control. Opening the Rinse Water Outlet and Outlet to Pressure Washer valves that are located on the water panel will cause this pump to start. Closing these valves will stop this pump. This pump will not operate if the HS-3 switch is turned off.

#### d. Ozone Pump Hand Switch 4 (HS-4)

The ozone pump removes water from the recycle holding tank, disinfects it and then circulates water back into the holding tank. This pump along with the ozone generator operates automatically on timer control. The ozone generator has a separate on/off switch and this switch must be in the "on" position for the ozone generator to

operate. Neither the ozone pump nor the ozone generator will operate if the HS-4 is turned off.

# e. Nutrient Pump

Turn "ON" the nutrient pump switch that is located on the pump housing. The nutrient pump is on timer control and will not operate if switch is in the "off" position. Feed adjustment must be at lowest setting. Refer to Metering Pump Operation.

## g. Microbe Pump

Turn "On" the microbe pump switch that is located on the pump housing. The microbe pump is on timer control and will not operate if switch is in the "off" position. Feed adjustment must be at lowest setting. Refer to Metering Pump Operation.

#### 6. Ozone Generator

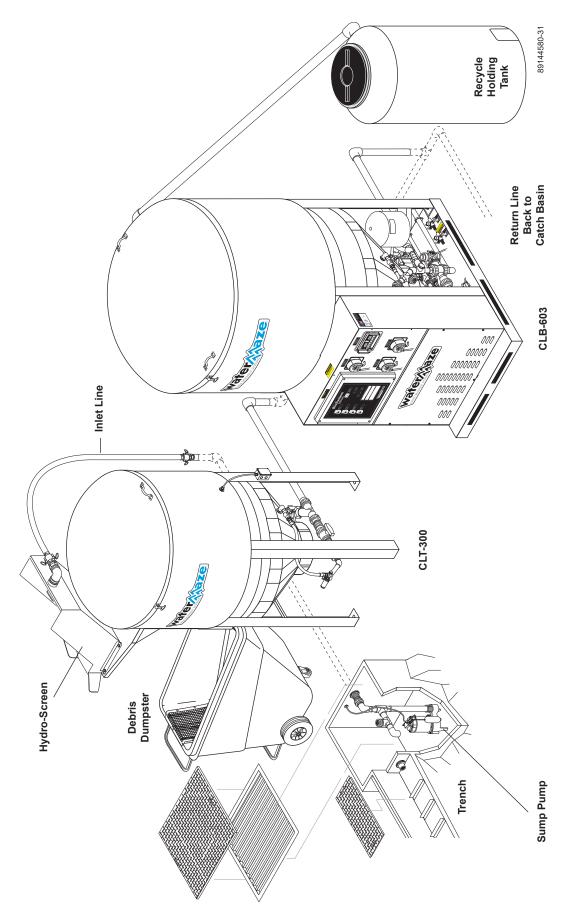
Turn on the power switch located on the ozone generator. The indicator lights on the Ozone Generator will have dim green lights or no lights if the machine is working and bright green lights if the ozone generator has malfunctioned.

# **Setting the Ozone Generator:**

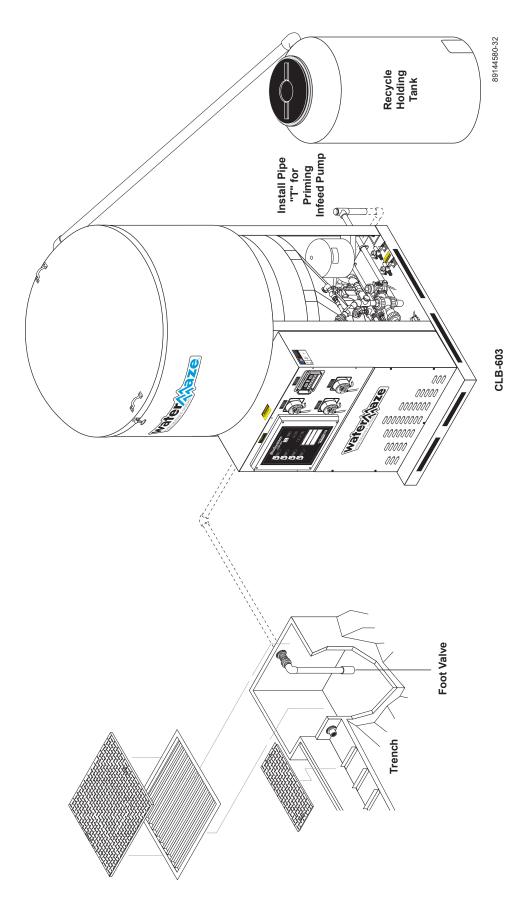
An SCFH (Standard Cubic Feet per Hour) gauge is used to accurately measure the amount of air flowing through the ozone delivery line. In other words, the amount of ozone being injected into the water.

- With the pump running, disconnect the tubing from the ozone check valve and connect the tubing to the bottom fitting on the gauge. This tube is from the ozone generator.
- While holding the gauge vertically, connect the tubing from the ozone injector to the top of the gauge and read the amount indicated on the gauge. NOTE: You are measuring suction so make sure the tubing is attached properly.
- 3. Begin adjusting the metering valve until 40 SCFH is achieved.
- 4. Reconnect the tubing to the ozone check valve.
- Look over the entire machine for leaks. The machine was hydrostatically tested at the factory but may have been damaged in shipment.

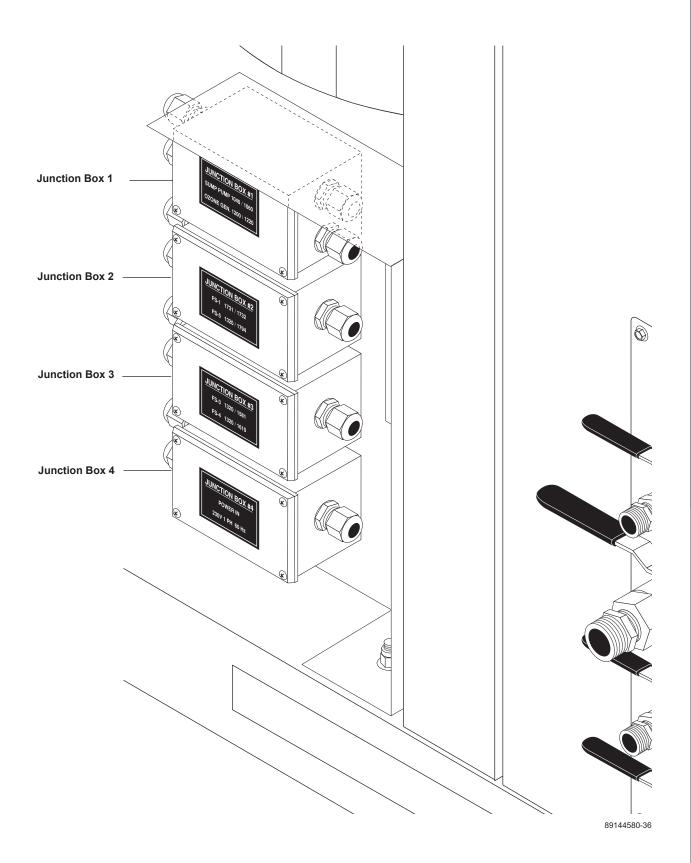
# **CLB-603 INSTALLATION VIEW WITH OPTIONAL CLT-300**



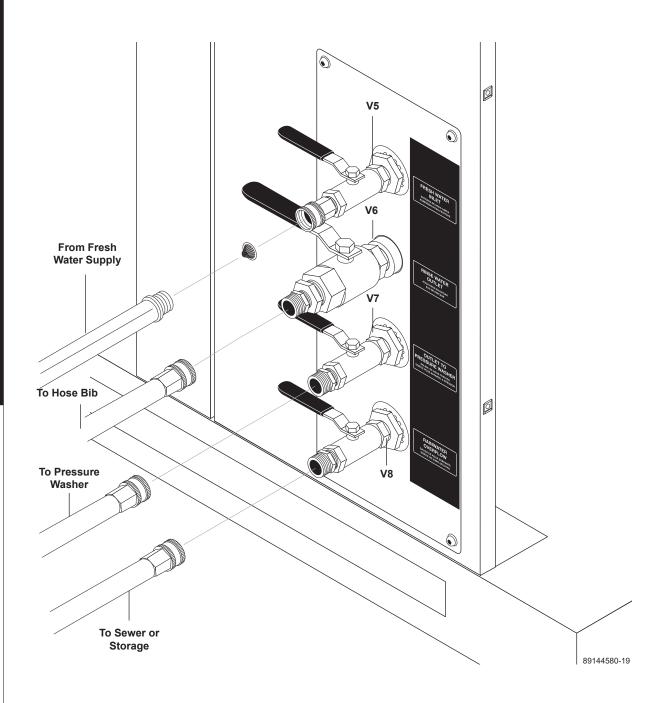
# **CLB-603 INSTALLATION VIEW**



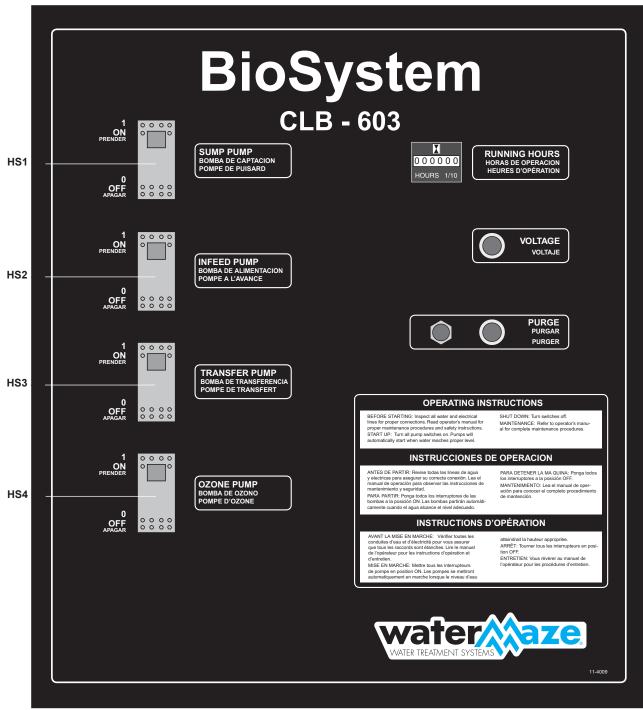
# **CLB ELECTRICAL INSTALLATION VIEW**



# **CLB-603 WATER PANEL INSTALLATION VIEW**

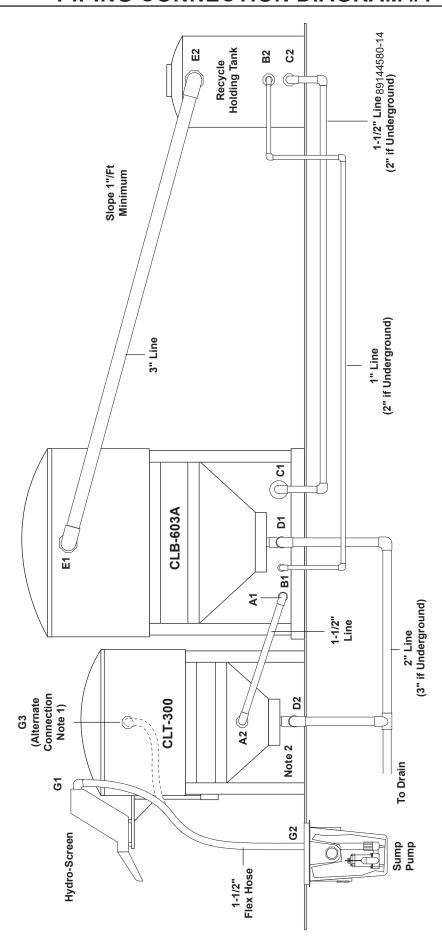


# **CLB-603 CONTROL PANEL**



89144580-45

# **PIPING CONNECTION DIAGRAM #1**



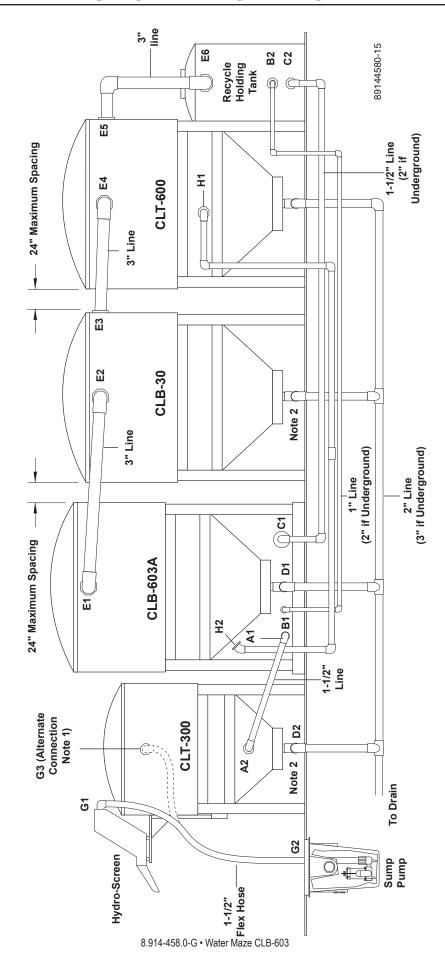
Rear View of Equipment

Notes: 1. Connect G2 to G3 When Hydro-screen Option is Not Supplied

# **PIPING CONNECTION TABLE DIAGRAM #1**

A1 A2	<b>SIZE</b> 1.5" 1.5"	TYPE SLIP NPT	MATERIAL PVC Polypropylene	DESCRIPTION Infeed Pump Inlet Feed Tank Outlet	ACTION  Connect A1 to A2
B1 B2	1" 1"	SLIP NPT	PVC Polypropylene	Ozone Pump Outlet Recycle Holding Tank Outlet	Connect B1 to B2
C1 C2	1.5" 1.5"	SLIP NPT	PVC Polypropylene	Transfer/Ozone Pump inlet Recycle Holding Tank Outlet	Connect C1 to C2
D1 D2	2" 2"	SLIP SLIP	PVC PVC	Tank Bottom Drain Tank Bottom Drain	Connect D1, D2 to Drain Manifold
E1 E2	3" 3"	NPT NPT	Polypropylene Polypropylene	Gravity Flow Outlet Gravity Flow Inlet	Connect E1 to E2
G1 G2	1.5" 1.5"	NPT NPT	Flex Hose Iron	Hydro-Screen Inlet Sump Pump Outlet	Connect G1 to G2

# **PIPING CONNECTION DIAGRAM #2**



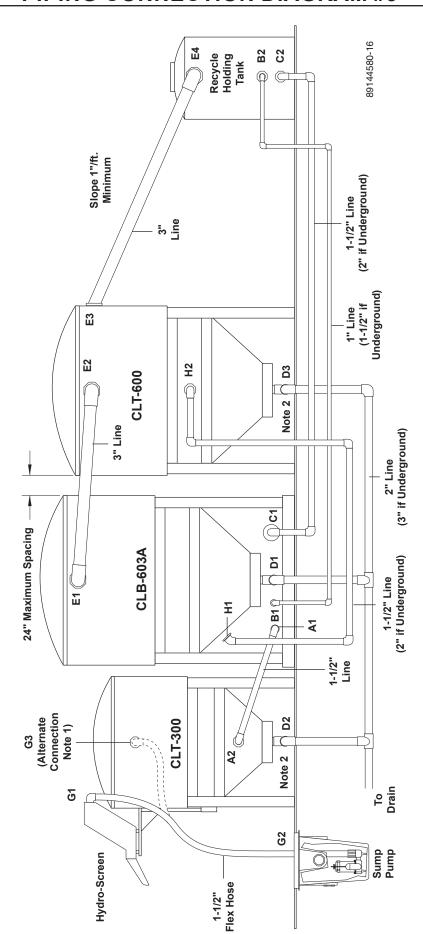
Rear View of Equipment

Notes: 1. Connect G2 to G3 When Hydro-Screen Option is Not Supplied

# **PIPING CONNECTION TABLE DIAGRAM #2**

CONNECTION	SIZE	TYPE	MATERIAL	DESCRIPTION	ACTION
A1	1.5"	SLIP	PVC	Infeed Pump Inlet	Connect A1 to A2
A2	1.5"	NPT	Polypropylene	Feed Tank Supply	Connect A1 to A2
B1	1"	SLIP	PVC	Ozone Pump Outlet	Connect B1 to B2
B2	1"	NPT	Polypropylene	Ozone Pump Inlet	Connect B1 to B2
C1	1.5"	SLIP	PVC	Transfer/Ozone Pump Inlet	Connect C1 to C2
C2	1.5"	NPT	Polypropylene	Holding Tank Outlet	Connect C1 to C2
D1	2"	SLIP	PVC	Tank Bottom Drain	
D2	2"	SLIP	PVC	Tank Bottom Drain	Connect D1, D2, D3 to
D3	2"	SLIP	PVC	Tank Bottom Drain (optional)	Drain Manifold
D4	2"	SLIP	PVC	Tank Bottom Drain (optional)	
E1	3"	NPT	Polypropylene	Gravity Flow Outlet	Connect E1 to E2
E2	3"	NPT	Polypropylene	Gravity Flow Inlet	Connect E1 to E2
E3	3"	NPT	Polypropylene	Gravity Flow Outlet	Connect E3 to E4
E4	3"	NPT	Polypropylene	Gravity Flow Inlet	Connect E3 to E4
E5	3"	NPT	Polypropylene	Gravity Flow Inlet	Connect E3 to E4
E6	3"	NPT	Polypropylene	Gravity Flow Inlet	Connect E3 to E4
G1	1.5"	NPT	Flex Hose	Hydro-screen Inlet	Connect G1 to G2
G2	1.5"	NPT	Iron	Sump Pump Outlet	Connect G1 to G2
H1	1.5"	NPT	PVC	Circulation Inlet (close gate valve)	Connect H1 to H2
H2	1.5"	NPT	Polypropylene	Outlet from Tank	Connect H1 to H2

# **PIPING CONNECTION DIAGRAM #3**



Rear View of Equipment

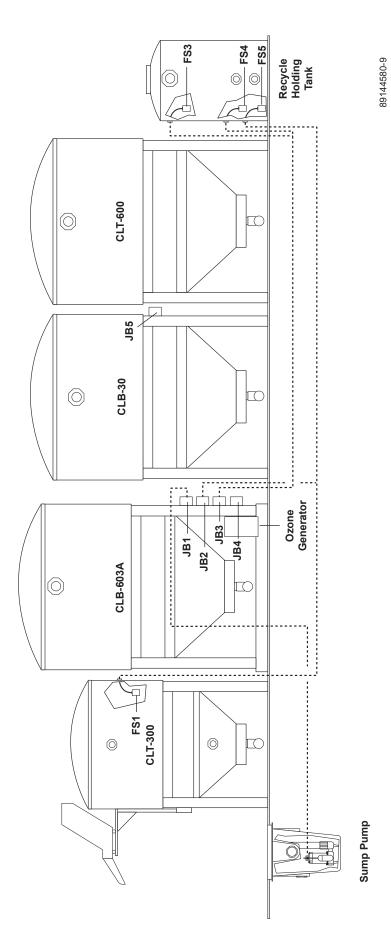
NOTES: 1. Connect G2 to G3 When Hydro-Screen Option is Not Supplied

8.914-458.0-G • Water Maze CLB-603

# **PIPING CONNECTION TABLE DIAGRAM #3**

CONNECTION	SIZE	TYPE	MATERIAL	DESCRIPTION	ACTION
A1	1.5"	SLIP	PVC	Infeed Pump Inlet	Connect A1 to A2
A2	1.5"	NPT	Polypropylene	Feed Tank Outlet	Connect A1 to A2
B1	1"	SLIP	PVC	Ozone Pump Outlet	Connect B1 to B2
B2	1"	NPT	Polypropylene	Ozone Pump Inlet	Connect B1 to B2
C1	1.5"	SLIP	PVC	Transfer/Ozone Pump Inlet	Connect C1 to C2
C2	1.5"	NPT	Polypropylene	Holding Tank Outlet	Connect C1 to C2
D1	2"	SLIP	PVC	Tank Bottom Drain	Connect D1, D2, D3 to
D2	2"	SLIP	PVC	Tank Bottom Drain	Drain Manifold
D3	2"	SLIP	PVC	Tank Bottom Drain (optional)	
E1	3"	NPT	Polypropylene	Gravity Flow Outlet	Connect E1 to E2
E2	3"	NPT	Polypropylene	Gravity Flow Inlet	Connect E1 to E2
E3	3"	NPT	Polypropylene	Gravity Flow Outlet	Connect E3 to E4
E4	3"	NPT	Polypropylene	Gravity Flow Inlet	Connect E3 to E4
G1	1.5"	NPT	Flex Hose	Hydro-Screen Inlet	Connect G1 to G2
G2	1.5"	NPT	Iron	Sump Pump Outlet	Connect G1 to G2
H1	1.5"	NPT	CPVC	Circulation Inlet (close gate valve)	Connect H1 to H2
H2	1.5"	NPT	Polypropylene	Circulation Outlet	Connect H1 to H2

# **ELECTRICAL FIELD CONNECTION CLB-603A**



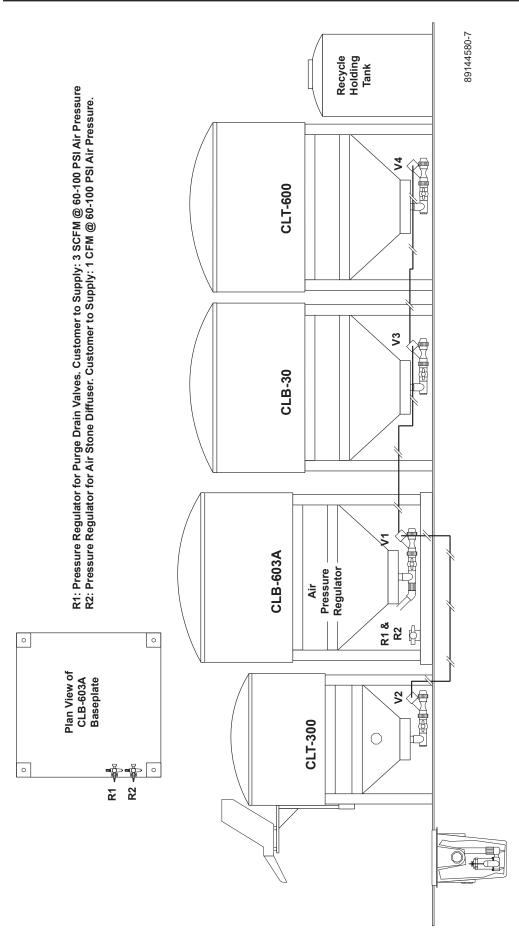
Rear View of Equipment

# **ELECTRICAL FIELD CONNECTION TABLE CLB-603A**

JUNCTION BOX	WIRE NUMBER	CONNECT TO	FUNCTION
JB1	1040	Sump Pump	Sump Pump 1/60/230 Volt
	1060		
JB1	1200	Ozone Generator	Ozone Generator 1/60/230 Volt
	1220		
JB2	1731	FS1	Infeed Pump Control, NO (Black Float Switch)
	1732		
JB2	1320	FS5	Transfer Pump Permissive, NO
	1794		(Black Float Switch)
JB3	1320	FS3	Rain Water Overflow Solenoid, NO
	1581		(Black Float Switch)
JB3	1320	FS4	Fresh Water Makeup Solenoid NC
	1610		(Gray Float Switch)
JB4	102L1	Power Source	Electrical Power to CLB603
	102L2		1/60/230 Volt, 15A

NOTE: Installations may not include all of the above components

# **AIR CONNECTION DIAGRAM**



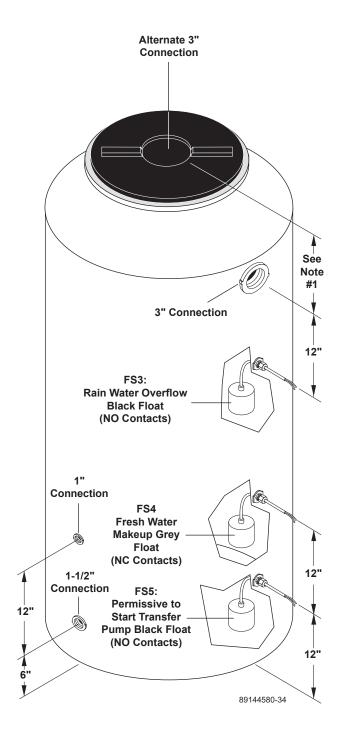
# Rear View of Equipment

The Model CLB-603A is equipped with an air pilot actuator mounted on the purge valve designated as V1 (shown above) Valves V2, V3 and V4 must be connected to V1 as shown.

Note: Automatic purge valves V2, V3 and V4 are optional and may not have been supplied.

NOTE

# RECYCLE HOLDING TANK INSTALLATION



#### **NOTE #1:**

Locate 3" bulkhead at highest point on recycle holding tank while maintaining a 1"/ft. slope on inlet pipe from Bio-System

# **METERING PUMPS**

# Variable Speed Peristaltic Pump TECHNICAL INFORMATION

#### Materials:

Squeeze Tubing Special synthetic rubber

Strainer and

Injection Point Fitting PVC

Feed Rate:1-7 or 8-45 GPDTubing Size:1-7 or 8-45 GPDDimensions:Height = 5"

Width = 4" Depth = 4 1/4"

# **Standard Accessories Provided with Pump:**

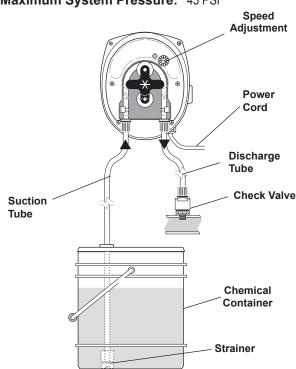
Squeeze Tubing

- · Check Valve Assembly
- · Strainer with Weight
- · Bulkhead Fitting with Elbow

# **Electrical Rating:**

- 20-265 VAC
- 7 W
- 50/60 Hz

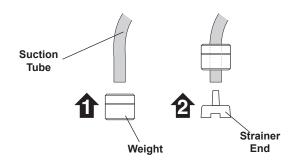
Maximum System Pressure: 45 PSI



#### Installation

 Suction Tubing: Take the 5 ft. length of 1/4" O.D. tubing included, measure and cut the lengths needed to run from pump head to the chemical tank. Cut the tubing ends square. 2. **Connect Suction Tubing To Pump:** Remove compression fitting. Feed tube through fitting. Push end of the tube on fitting. Tighten fitting firmly.

**NOTE**: To soften the end of the tubing, immerse it in hot water.



 Connect Suction Tubing To Strainer: Install strainer so it's off the bottom of the chemical container. Cut the suction tubing to the length needed. Put weight on tubing. Push strainer end into tubing.

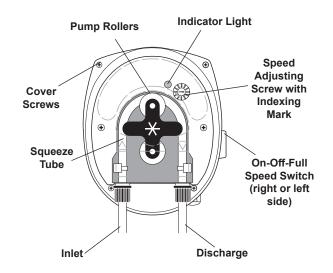
# METERING PUMP OPERATION

If not already done, put the end of the suction tubing into the chemical container, near the bottom.

Move the "ON-OFF" switch to ON.

**Prime:** To prime the pump and lines push the 3-way switch to full speed.

**Feed Adjustment:** (ONLY A QUALIFIED *WATER MAZE* SERVICE TECHNICIAN SHOULD MAKE THIS ADJUSTMENT.) The feed adjustment is under the cover plate. Remove the plate and turn the adjusting screws clockwise to increase feed or counterclockwise to decrease feed.



# **METERING PUMP MAINTENANCE**

<u>DANGER:</u> DO NOT ATTEMPT TO FEED CHEMICALS WITHOUT CONSULTING YOUR CHEMICAL FEEDER DEALER OR CHEMICAL SUPPLIER.

<u>DANGER:</u> NE PAS TENTER D'ALIMENTER DES PRODUITS CHIMIQUES SANS D'ABORD CONSULTER LE CONCESSIONNAIRE D'ALIMENTATION EN PRODUITS CHIMIQUES OU LE FOURNISSEUR DE PRODUITS CHIMIQUES.



CAUTION: Wear protective gloves, goggles, and other adequate protection for the chemical hazard.

ATTENTION: Porter des gants de protection, des lunettes étanches et d'autres protections adéquates pour les risques chimiques.

Before replacing the pump head, remove chemical from tubing as follows:

- 1. Remove strainer from chemical tank.
- 2. Run pump until all chemical is removed from the tubing.

**FILLING THE CHEMICAL TANK:** To avoid running out, of chemical, follow a regular schedule of monitoring chemical supply. Also inspect and clean the strainer by flushing with a compatible liquid, as needed.

**TUBING INSPECTION:** Inspect all tubing regularly and replace it if it is deteriorating.

## **REPLACING PUMP HEAD TUBING:**

- 1. Remove compression fittings from the tubing at the pump head.
- 2. Pull the suction and discharge tubing from the pump head.
- 3. Remove the front cover of the pump.
- 4. Rotate the pump rollers to a vertical position.
- 5. Lift the inlet fitting out of the housing.
- 6. Pull tube out while rotating the rollers clockwise.
- Remove the outlet fitting.
- 8. Install the inlet fitting for the new tube assembly.

CAUTION: DO NOT LOSE THE BEARING FROM THE CENTER HOLE IN THE BACK COVER.

ATTENTION: NE PAS DESSERRER LE PALIER DE TROU CENTRAL DANS LA PLAQUE DU COUVERCLE.

- 9. Press the tube into place in front of a roller while rotating the roller assembly clockwise.
- 10. Install the outlet fitting.
- 11. Reconnect the suction and discharge lines.
- 12. Install front cover.

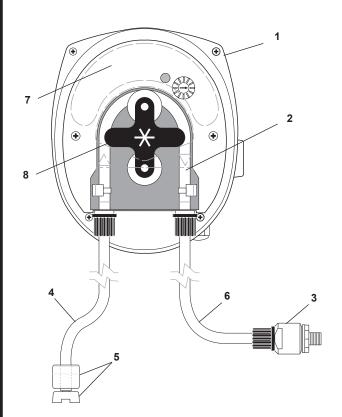
CAUTION: Clear or transparent plastic tubing should be replaced at least every three months if exposed to the sun. Replace tubing yearly if feeder is installed indoors.

ATTENTION: Un tube en plastique clair ou transparent devrait être remplacé au moins tous les trois mois s'il est exposé au soleil. Remplacer le tube une fois par année si le dispositif d'alimentation est installé à l'intérieur.

**INSPECT FOR LEAKAGE:** Inspect the chemical system daily for any signs of leakage. If leaking occurs at tubing connections, tighten fitting compression nut finger tight. If leakage continues, remove pressure from the system. Disconnect the tubing, trim ends square and reconnect.

**INSPECT FOR BLOCKED FLOW:** Precipitates or other chemical reactions cause injection points to clog. If the type of chemical being fed eliminates the use of flushing solution, the injection point must be inspected at regular intervals. Strainers must be kept clean with periodic back-flushing.

# **METERING PUMP AND PARTS LIST**



ITEM	PART NO.	DESCRIPTION	QTY
1	8.749-855.0	Pump, Peristaltic, PR-7,	
		8-45 gpd	1
	8.749-856.0	Pump, Peristaltic, PRS-1,	
		1-7 gpd	
2	8.749-862.0	Tube, Squeeze, Santoprene,	
		PR-7, * 8-45 gpd	1
	8.749-864.0	Tube, Squeeze, Santoprene,	
		PRS-1, * 1-7 gpd	
3	8.749-860.0	Check Valve, PVC	1
4	8.749-857.0	Tubing, 1/4", PE, Black	AR
5	8.749-863.0	Strainer, w/Welght	1
6	8.711-737.0	Tubing, 1/8", ID, Norprene	AR
7	8.751-801.0	Faceplate, PRS-1/ PR-7	1
8	8.751-375.0	Roller Assembly, P	11
	8-751-376.0	Roller Assembly, PRS-1	1

<sup>\*</sup> Alternative tubing materials are available

# PRESSURE SWITCH AND PRESSURE TANK OPERATION



WARNING: Live electrical contacts are exposed, so disconnect power first and have work performed by a qualified electrician.

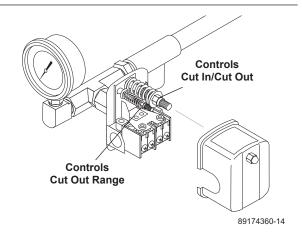
AVERTISSEMENT: Les contacts électriques sous tension sont exposés, il faut donc d'abord débrancher l'alimentation élec-

trique et confi er le travail à un électricien qualifi é.

Remove cover of the pump pressure control switch to allow access to the two nuts used to adjust the pump operating pressure. The pressure switch on Water Maze equipment is set at the factory and should not have to be adjusted at start-up, but will need to be verified at start up and maintained regularly at least monthly.

- The nut on the larger spring in the pump pressure switch, adjusts the pump cut in (cut on) and pump cut out (cut off) pressures simultaneously.
- The nut atop the smaller spring in the pump pressure switch only controls the cut out range and is used to narrow or widen the gap between the pump cut in and cut out pressures.
- 3. To cycle the pump less frequently, the gap should be as wide as possible while still allowing the pump to shut off quickly when all outlets are closed. Adjust the smaller spring to widen the gap between pump in and out (on and off). 40-45 PSI (CLP, Rec2-20) or 30 PSI (EC1-300A) is desirable. Adjusting the larger spring should not be necessary.
- When making pressure switch adjustments, make sure all pump outlets are off or closed, except for the one outlet valve used to relieve and build pressure while making pressure switch adjustments.

# PRESSURE TANK OPERATION





WARNING! When the tank has been in service and a change to a higher pre-charge pressure is necessary because of a required change in the pressure switch setting, failure to follow instructions below can cause a rupture or explosion and could cause serious or fatal personal injury and/or property damage.

AVERTISSEMENT: Après avoir effectué l'entretien du réservoir, il est nécessaire de passer à une pression de précharge supérieure en raison d'un changement requis du paramètre du pressostat; le non-respect des directives ci-dessous peut causer une rupture ou une explosion, et pourrait causer des lésions corporelles graves ou fatales et/ou des dommages à la propriété.

- Do not adjust or add pressure if there has been a loss of air.
- Do not adjust the pre-charge pressure if there is visible exterior corrosion.
- Do not adjust the pre-charge pressure if there has been a reduction of the pump cycle time or the pre-charge pressure compared to its initial setting. A reduction in pump cycle time can result from loss of tank corrosion and any re-pressurization or additional pressure could result in rupture or explosion.
- Pressure tank pressure is factory set but will have to be checked regularly (at least monthly). Use an air pressure (tire) gauge. Before checking air pressure on the pressure tank, purge all water out of the tank by turning the pump on and pumping all water out of the pressure tank.
- Our transfer pump water systems use a water pressure tank and water pump with these two pressure operation ranges:

Cut in (start pumping): 20 PSI

Cut out (stop pumping): 30 PSI (EC1-300A)

Cut out (stop pumping): 40-45 PSI (CLP, REC2-20)

- Typical factory set air pressure on bladder-type residential water pressure tanks are shipped from the factory with a standard pre-charge of:
  - 18 psig for models WX-101 and WX-102
  - 18 psig for models WX-103 and WX-203
  - 18 psig for models WX-205 and WX-350
- 3. Set the well tank air pressure to 2 PSI below the pump pressure switch cut-in pressure. This is usually 18 PSI.

# **OZONE GENERATOR**

# Ozone...Nature's Purification Agent:

Ozone is produced in nature or artificially by man. In the earth's atmosphere, ozone is formed when oxygen is exposed to ultraviolet light or an electrical charge as during thunderstorms. Ozone's primary function in nature is to purify the air we breathe and screen us from harmful rays of the sun. In a similar fashion, the CLB system uses ozone to disinfect water because ozone has a number of characteristics that make it ideal for water treatment.

#### Ozone's Characteristics:

Ozone is well suited for water treatment, and it's unique characteristics are described below:

- Ozone works up to 3,000 times faster than chlorine to kill bacteria and destroy harmful microorganisms.
- Ozone is a more powerful oxidizing agent than chlorine and bromine, having a better ability to remove water contamination.
- Ozone will not form harmful by-products, like THM's (a problem in drinking water), or chloramines, (by-products of chlorine that are responsible for odors, skin irritations and burning eyes.)
- Ozone will not alter the water's pH, reducing pH fluctuations.
- Ozone coagulates small particles in water so clarity is dramatically improved.
- Ozone acts as a deodorizer removing unpleasant odors from water.

# **How the CLB Ozone System Works:**

Because ozone is unstable, it cannot be packaged and used at a later date. For this reason, ozone is always produced where it is utilized

Point-of-use ozone generation is simple. This powerful disinfectant is produced from ambient air surrounding the generator using special ultraviolet lamps located inside the system's cabinet. To generate the ozone, air movement is created through the use of an air compressor or water venturi. As air passes over these unique lamps, the oxygen contained in the air is converted. The resulting ozone gas is subsequently introduced to the water in the inlet pipeline, where oxidation and disinfection immediately take place.

#### Ozone Generator Maintenance:

CAUTION: Never look at the unshielded ozone lamp while operating the machine. This lamp can cause severe eye and skin damage. The indicator light will be a dim green or not lit at all when operating properly. The light glows a bright green when there is a failure. See product description for location of the indicator light.

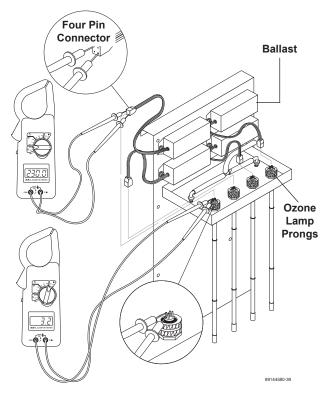
ATTENTION: Ne jamais regarder la lampe d'ozone non protégée pendant l'utilisation de la machine. Cette lampe peut causer de graves dommages aux yeux et à la peau. Le voyant lumineux sera vert (faible) ou éteint lorsque l'appareil fonctionne correctement. Le voyant passe à un vert vibrant lorsqu'une défaillance est présente. Consulter la description du produit pour l'emplacement du témoin lumineux.

**Testing the Lamp: (**See Ozone Generator Testing Illus.)

To test the ozone lamp, use a voltmeter set on ohms. First remove the ozone cover and unplug the lamp plug from the ozone lamp. **NOTE:** There are two filaments - an upper and a lower - inside the lamp. Place one of the voltmeter leads on one of the lamp prongs and, with the other lead, touch all of the three remaining prongs. If continuity is not achieved on both upper and lower filaments, replace the ozone lamp (Part #6-0534).

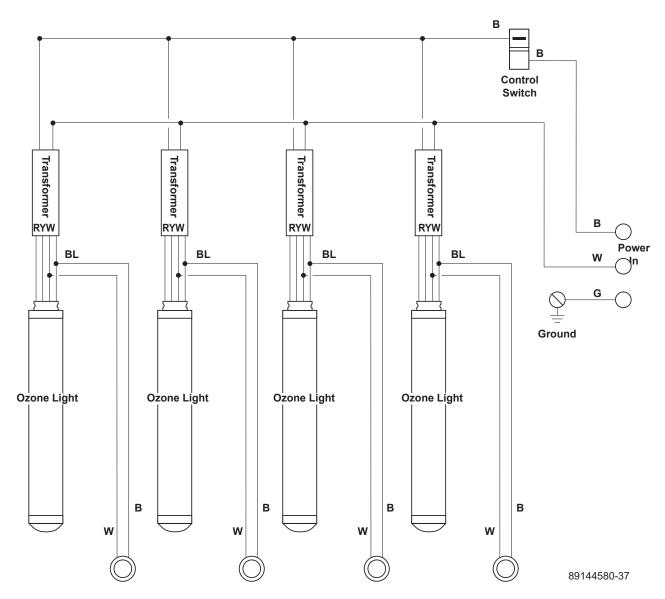
To test the power pack, use a voltmeter set on the correct voltage (240V). Place one of the voltmeter leads into the lamp plug where the white wire goes into it and plug the other voltmeter lead into the lamp plug where the blue wire goes into it. If no voltage is present replace the ozone ballast (Part #6-05232 - 240V). When ordering an ozone ballast, you also need the 4-pin connector (Part #6-05233).

# **OZONE GENERATOR TESTING**



Replacing the lamp: (See Ozone Generator Breakdown)

# **OZONE GENERATOR FOUR TUBE**



**Indicating Lights** 

NOTE:

**Green Indicating Light Operation** 

**Bright Continuous Light Indicates UV Light of Ballast Defective** 

**Dim Continuous Light Indicates Proper Operation** 

**LEGEND**:

B = Black W = White

R = Red G = Green

Y = Yellow

BL = Blue

# **OZONE GENERATOR**

Lamp replacements are available from your Water Maze Dealer should they need to be replaced. Simply turn off the power to the CLB at the breaker, remove the screws on the power pack cover and remove the cover. Disconnect the plug on the end of the ozone lamp. Now, loosen the lamp holder locking ring from around the end of the lamp by turning it counterclockwise and remove it. Remove the lamp by grabbing the rubber bushing around the end of the lamp and pulling it straight out. Remove the rubber bushing from the lamp and install it on your new lamp, making sure the outer edge of the bushing is flush with the outer edge of the silver end cap on the lamp. Now, slide the lamp back into the reaction chamber. The lamp holder may now be reinstalled and tightened. Reinstall the plug onto the lamp and replace the power pack cover. CAUTION: Keep the lamp free of fingerprints and dust particles by only handling the metal end caps on the lamp. You can clean the lamp with rubbing alcohol and a soft cloth. A dirty lamp will not allow maximum ozone output.

# ULTRAVIOLET LIGHT COMPLIANCE

# **Ultraviolet Light Safety Requirements**

The device used in this product is a Class 1 certified ozone generator product. Operating this product outside specifications or altering its original design may result in hazardous radiation exposure, and may be considered an act of modifying or new manufacturing of a laser product under U.S. regulations contained in 21CFR Chapter 1, subchapter J.



CAUTION: Avoid exposure to direct or strongly refl ected germicidal ultraviolet rays.

DO NOT STARE INTO BEAM.

ATTENTION: Éviter l'exposition aux rayons ultraviolets germicides fortement réfl échis.

NE PAS REGARDER DIRECTEMENT LE FAIS-CEAU.

DANGER: Ultraviolet radiation. Disconnect Power Before Replacing Lamp.

ATTENTION: Radiation ultraviolette. Débrancher l'alimentation avant de remplacer la lampe.

DANGER: Connect only to a circuit that is protected by Ground Fault Circuit Interrupt (GFCI).

DANGER: Raccorder uniquement à un circuit qui

est protégé par un disjoncteur différentiel de fuite à la terre (DDFT).

# Instructions for Disposing of Your UV Light Tube

- Do not break a UV light tube. Keep all tubes whole if possible. If a UV light tube is accidentally broken, wear gloves while picking up the pieces, and carefully dispose of them in a trash bag. Wipe the area with a wet wipe, and put the wet wipe in the same trash bag. Place the trash bag with broken pieces inside another trash bag. Mark the bag with a sign labeled, "Broken Mercury Light Bulb".
- Remove the UV light tube from the Ozone Generator. Place the used tube in the trash bag, and place that bag inside another trash bag. Seal the openings and then tape a slip of paper on the outer bag labeled, "Mercury Light Bulb."
- Take the used and /or broken mercury tube to your nearest recycling bin for mercury light bulbs or take this tube to a state-approved recycling center.

# **SPECIFICATIONS:**

Energy Required 220V: 210VAC MIN., 230V MAX.,

.450AMP/Ballast

Power Consumption: 20 Watts Average Lamp Life: 9,000 Hours

# **CENTRIFUGAL PUMP**

Your centrifugal pump has been quality-built and engineered to give you efficient, dependable service. It is equipped with union connectors to make installation and future service easier.

The advanced design uses a single speed motor which reduces operation and maintenance to simple, common-sense procedures.

# **PUMP OPERATION**

(Ozone, Infeed, or Transfer)



WARNING: Do not touch pumps, pump motors, water or discharge piping when the pumps are connected to electrical power. Do not handle a pump or pump motor with wet hands or when standing on a wet or damp surface or in water. Never touch a pump or discharge piping when a unit is

operating or fails to operate. Always disconnect the pump cord (power) before handling.

AVERTISSEMENT : Ne touchez pas les pompes, les moteurs de pompe, les conduites d'eau ou de

# **OPTIONAL pH DIGITAL CONTROLLER - MODEL 240**

refoulement lorsque les pompes sont connectées à l'alimentation électrique. Ne manipulez pas une pompe ou un moteur de pompe avec les mains mouillées ou lorsque vous vous tenez sur une surface mouillée ou humide ou dans l'eau. Ne touchez jamais une pompe ou une tuyauterie de refoulement lorsqu'une unité fonctionne ou ne fonctionne pas. Débranchez toujours le cordon de la pompe (alimentation) avant toute manipulation.

- The shaft seal depends on water for lubrication. Do not operate the pump unless there is water. Dry running (pump not pumping water) will cause seal damage and eventual pump failure.
- 2. The motor is equipped with an automatic reset thermal protector. This means if the temperature in the motor should rise unduly, the switch will cut off all power before damage can be done to the motor. When the motor has cooled sufficiently, the switch will reset automatically and restart the motor. If the protector trips repeatedly (cycling on protector) the pump should be removed and checked as to the cause of the difficulty. Low voltage, long extension cords, clogged impeller, very low head or lift, etc., could cause cycling. Cycling of the protector will cause eventual motor burnout.

# **PUMP MAINTENANCE**

# (Sump Pump)



WARNING: Before attempting to service, disconnect power from unit. Do not handle the pump with wet hands or when standing on a wet or damp surface or in water. Failure to follow precautions can result in personal injury and /or property damage.

AVERTISSEMENT: Ce produit et les accessoires peuvent contenir un produit chimique reconnu dans l'État de la Californie comme pouvant causer le cancer, des anomalies congénitales et d'autres problèmes liés à la reproduction. Pour en savoir plus sur ce règlement. Le non-respect des précautions peut mener à des lésions corporelles et/ou des dommages à la propriété.

**NOTE:** Only qualified electricians or servicemen should attempt to repair this unit. Improper repair and/or assembly can cause an electrical shock hazard.

- 1. Bearings in this unit are pre-lubricated. No additional lubrication is necessary.
- Cleaning Occasionally clean the sump pit and pump if dirt or foreign matter accumulate. Small stones, gravel, sand, dirt, silt, etc. can clog and damage the pump and pump seal, eventually causing pump failure.

- Disassembly of the motor prior to expiration of the warranty will void the warranty. It may also cause internal leakage and damage to the unit. If repairs are required, return the pump to a local service station.
- 4. If the motor has been disassembled or the switch chamber opened after the warranty expiration date, the O-rings and gaskets must be replaced. Care must be taken to assure that the seals, the switch cover and air tube gaskets do not leak.
- The pump should be checked for proper operation weekly or monthly by watching the operation of the pump. If anything has changed since the pump was new, the pump should be examined, and repaired if necessary.

# Operation

The pH of the water stream is controlled automatically by the digital controller. The controller receives input from the pH sensor on the pH level of the digester tank. The level of pH being sensed, and the requested level programmed in the controller will determine if output from the controller is sent to the feed pumps. If pH adjust is needed, the output will turn the corresponding feed pump on. This will inject the required pH until the programmed level is reached and feed pump will stop.

# Start-Up

Turn switch on right side of controller to the "ON" position.

## **Feed Mode**

The feed mode for the sanitizer of pH can be set to "OFF", manual or Automatic. Set to Automatic. To select the desired feed mode, press [pH] until the corresponding LED indicator light is illuminated. There is a short delay before activation. **Note:** Holding the switch for more than 5 seconds resets the setpoint and calibration for [pH] to original factory values.

# pH Calibration

To calibrate the pH, use a reliable, fresh test kit (Phenol Red). Note the value of the pH and compare it to the display value.

To change the pH calibration:

- press [CALIBRATION],
- Press [pH]: the display flashes,
- Use the [UP] and [DOWN] arrows to adjust the pH value,
- Press the [CALIBRATION] again to save the new value.

## pH Control Setpoint

The pH setpoint is preset at 7.0. To change the pH control setpoint:

- Press [SETPOINT],
- Press [pH]: the display flashes,
- Use the [UP] and [DOWN] arrows to adjust the pH value,
- Press [SETPOINT] again to save the new value.

# **OPTIONAL pH DIGITAL CONTROLLER - MODEL 240**

# **Out-of-Range Alarms**

The out-of-range alarms is factory set at 6.0 to 9.0 for pH. If the pH limits are exceeded, the red LED alarm flashes and the pH feeder continues.

To change an alarm limit:

- Press [LOW LIMIT] or [HIGH LIMIT],
- Use the [UP] and [down] arrows to adjust the value,
- press [LOW LIMIT] or [HIGH LIMIT] again.

CAUTION: Increasing the out-of-range limits may cause overfeeding of chemicals.

ATTENTION: L'augmentation des limites hors de portée pourrait entraîner la suralimentation en produits chimiques.

# **pH SENSOR MAINTENANCE**

The controller is virtually maintenance free. The enclosure and front panel can be cleaned with a soft cloth moistened with a mild soap and water solution or a glass cleaner. Do not use abrasives or harsh chemicals.

# **Sensor Testing**

To test the sensors on line, carefully add a small amount of white vinegar or dilute acid solution in a clean jar and insert sensor. After a few minutes the pH reading should go DOWN.

If you get no response or a sluggish response, clean or replace the sensors as soon as possible.

# **Sensor Cleaning**



The sensor tips must be kept clean and free from chemical deposits and contamination to function properly. After saturation in the waste stream, the sensors may need to be cleaned on a weekly or monthly basis depending on the water quality and other facility-specific characteristics. Slow response and inconsistent readings are indications that the sensors are in need of cleaning.

To clean a sensor, carefully remove it from the compression fitting or holding bracket. Clean the tip of the sensor with a mild liquid detergent (Joy®, etc) solution. Rinse with fresh water and soak the sensor in a mild acid solution for five minutes. Rinse with fresh water and reinstall the sensor.

# **Sensor Replacement**

For preventative maintenance it is also recommended to replace the sensors on an annual basis or as performance diminishes.

# **Sensor Storage**

Extended exposure to atmospheric conditions will cause the sensor tips to dry out. Always remove and properly store the sensors if they are to be winterized or inactive.

Store the sensors with the original cap provided, making sure that each cap is filled with clean water. If the storage containers have been misplaced, store the sensors individually in small glass or plastic containers with clean water covering the sensor tips.

#### **TROUBLESHOOTING - PH SENSOR**

All controllers are manufactured to the highest quality standards and thoroughly tested before leaving the factory. State-of-the-art designs and fabrication technology should ensure years for trouble-free operation.

PROBLEM	SOLUTION
NO LIGHTS ARE ON WITH	Check for power going to controller.
POWER ON	Check for a damaged power connector.
	Check internal fuse (1A slow blow) marked F3 on control board.
ILLOGICAL pH VALUE DISPLAY	The sensor cable connections may be reversed. Verify that the sensor cables are properly connected to their respective BNC connectors on the controller unit.
pH FEEDER DOES NOT ACTIVATE	Verify that the acid/base feed jumper JP14 on the control board is properly set.
ACTIVATE	Make sure the AUTO feed light for pH is on.
	Check the pH relay fuse (5A slow blow) marked F2 on control board
pH REQUIRES FREQUENT CALIBRATION	Clean or replace the sensor as outlined in the maintenance section.
INCONSISTANT OR SLOW pH READINGS	Verify that the sensor cables are properly connected to their respective BNC connectors and the controller unit.
READINGS	Clean or replace the sensor as outlined in the maintenance section.
	Replace the sensors if needed.
CHEMICAL FEEDER RUNS	Make sure the AUTO feed mode is selected.
CONTINUOUSLY	Verify that the chemical feeders are properly connected to their respective connectors or controller unit.

# TROUBLESHOOTING - INFEED, OZONE AND TRANSFER PUMP

PROBLEM	POSSIBLE CAUSE	SOLUTION
INFEED PUMP DOES NOT OPERATE	Low level in CLT-300 tank	Check level in CLT-300 tank. Pump will not operate at low water level.
OFENATE	LS1 has improper electrical connection to JB#2	Connect LS1 to connections located in junction box #2.
	Control panel pump switch is in the OFF position	Confirm that control panel pump switch is in the ON position.
OZONE PUMP DOES NOT OPERATE	Ozone timer is not set properly	Refer to instructions on setting ozone pump timer.
OPERATE	Recycle holding tank has low water level	Low water level will not allow the ozone pump to operate. Raise level in recycle holding tank.
	Control panel pump switch is in the OFF position	Confirm that control panel pump switch is in the ON position.
TRANSFER PUMP DOES NOT OPERATE	Recycle holding tank has low water level	Low water level will not allow the transfer pump to operate. Raise level in recycle holding tank.
	Water panel hand valve (V4 or V5) open but pump does not start, or hand valve is closed but pump does not stop	Pressure switch (PSI) is out of adjustment. Readjust.
	Control panel pump switch is in the OFF position	Confirm that control panel pump switch is in the ON position.

# **TROUBLESHOOTING - PUMP**

PROBLEM	POSSIBLE CAUSE	SOLUTION
PUMP DOES	Circuit breaker shut "OFF"	Turn "ON" circuit breaker.
NOT TURN ON	Accumulation of trash on float	Clean float.
	Float obstruction	Check float path and provide clearance.
	Defective switch	Have pump serviced by authorized service center.
	Defective motor	Have pump serviced by authorized service center.
	Low line voltage	If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company.
PUMP WILL	Float obstruction	Check float and float rod path. Provide clearance.
NOT SHUT OFF	Pump is air locked (Transfer and Infeed Pump)	Shut power off for approximately 1 minute, then restart. Repeat several times to clear air from pump.
	Defective float switch	Disconnect switch, check with ohmmeter.
PUMP RUNS BUT	Lift too high for pump	Check rating table.
DOES NOT DISCHARGE	Inlet to impeller plugged	Pull pump and clean.
LIQUID	Low line voltage	If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company.
	Clogged impeller	Remove housing, unclog.
	Faulty motor protector	Replace pump.
PUMP DOES NOT DELIVER RATED	Low voltage, speed too slow	Check for proper supply voltage to make certain it corresponds to nameplate voltage.
CAPACITY	Impeller or discharge pipe is clogged	Pull pump and clean. Check pipe for scale or corrosion.
	Impeller wear due to abrasives	Replace worn impeller.
PUMP CYCLES CONTINUALLY	Low line voltage	If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company.
	Worn or defective pump parts or plugged impeller	Replace worn parts or entire pump. Clean parts if required.
	Pump air locked	Turn pump "ON" and "OFF" several times. Fill hose manually with water.

# TROUBLESHOOTING - PUMP MOTOR

PROBLEM	POSSIBLE CAUSE	SOLUTION
MOTOR WILL NOT RUN	Disconnect switch is "OFF"	Be sure switch is on.
	Breaker is tripped	Reset breaker.
	Starting switch is defective	Replace starting switch.
	Wires at motor are loose, disconnected or wired incorrectly	Refer to instructions on wiring. Check and tighten all wiring.
	Pressure switch contacts are dirty (Transfer Pump)	Clean by sliding piece of plain paper (or crocus cloth) between contacts.
MOTOR RUNS HOT AND	Motor is wired incorrectly	Refer to instructions on wiring.
OVERLOAD KICKS OFF	Voltage is too low	Check with power company. Install heavier wiring if wire size is too small. See wiring instructions.
	Defective float switch	Disconnect switch, check with ohmmeter.
MOTOR RUNS BUT NO WATER	Pump in a new installation did not pick up prime through:	
IS DELIVERED	a. Improper priming	a. Re-prime (3 or 4 times may be needed) by stopping and starting motor several times.
	b. Air leaks	b. Check all connections on suction line.
	Pump has lost its prime through:	
	a. Air leaks	Check all connections on suction line, air volume control, jet and shaft seal.
	b. Water level below suction of pump	b. Lower suction line into water and re-prime.
	Check valve is stuck in closed position	Replace check valve.
	Pipes are frozen	Thaw pipes. Bury pipes below frost line. Heat pipes below frost line. Heat pit or pump house.

# TROUBLESHOOTING - WATER SOLENOID

PROBLEM	POSSIBLE CAUSE	SOLUTION
VALVE LEAKS WHEN "OFF"	Dirt or debris on diaphragm seat	Clean diaphragm seat.
	Solenoid not fully closed after manual operation	Turn solenoid clockwise to fully seated position.
	Solenoid O-ring damaged or twisted	Turn off water, inspect O-ring. Reseat if twisted, replace if damaged.
	Diaphragm damaged	Turn off water, remove bonnet screws and inspect diaphragm for nicks or damage <b>NOTE:</b> Diaphragm has one bleed hole molded into it. Replace, if necessary, with diaphragm kit.
	Dirt interfering with solenoid operation	Turn off water, remove solenoid and flush seating surface in bonnet and at bottom of solenoid with water.
	Solenoid damaged	Turn off water supply and replace solenoid.
WATER WON'T	Valve in manual "ON" position	Turn solenoid clockwise to "OFF" position.
SHUT OFF	Diaphragm bleed hole blocked	Use Manual Flush Mode. Turn water supply "OFF" and immediately back "ON" to clear blockage. If still blocked, turn off water and inspect diaphragm looking for blockage.
	Damaged solenoid	Turn off water supply and replace solenoid.
LOW OR INADEQUATE	Gate valve not fully open	Open gate valve fully.
FLOW CONDITION	Pipeline blockage	Clear pipeline.
VALVE WON'T	No power to solenoid	Make sure solenoid has power.
TURN ON ELECTRICALLY	Low voltage	Make sure there is 120 volts.
	No water pressure	Make sure water pressure is available to valve. Turn off water, without cutting wires, unscrew and swap solenoids between valves. Turn on water and test again. If problem stems from the solenoid, replace solenoid.

# TROUBLESHOOTING - WATER SEALS

PROBLEM	POSSIBLE CAUSE	SOLUTION
CRACKED OR BROKEN STATIONARY SEAT (CERAMIC)	Seal ran dry and heated up. When liquid reached seal faces it was cooler, causing thermal cracks	Check to insure seal chamber is full of liquid before starting pump. On high temperature application insure proper flushing at seal faces.
CARBON WASHER SCORED AND GROOVED	Dirty system	Have system cleaned and flushed. Consider use of Tungsten Carbide or Silicon Carbide Rings.
CARBON WASHER WORN UNEVENLY	Seal improperly installed	Check installation instructions for proper assembly.
BUNA DIAPHRAGM HARD BRITTLE. RAPID CARBON WEAR.	Air leak on suction side of pump	Check cover gasket, hand knobs, hose, clamps, etc. Replace or tighten as necessary.
DIAPHRAGM SOFT AND STICKY; APPEARS TO BE DISSOLVING.	Bellows not compatible with material being pumped	Consult dealer for recommendation advising of pumpage and temperature.

#### **CLB MAINTENANCE**

#### **DAILY MAINTENANCE**

To keep your Bio-System in peak performance you need to perform minimal daily maintenance. This service is best performed each morning before using the wash area..

- Check and clean catch basin and trench.
- Empty the debris dumpster.
- Wash down front and back of hydro-screen, preferably with a pressure washer.

#### **WEEKLY MAINTENANCE**

- Check that purge drain valves work properly.
- Check that timers are set properly.

#### **MONTHLY MAINTENANCE**

Monthly maintenance for the Bio-System and replenishment of BioStax 1800 is required. Schedule a regular day and time each month to perform the maintenance. Record your maintenance in the monthly log to provide a record in the event of an inspection.

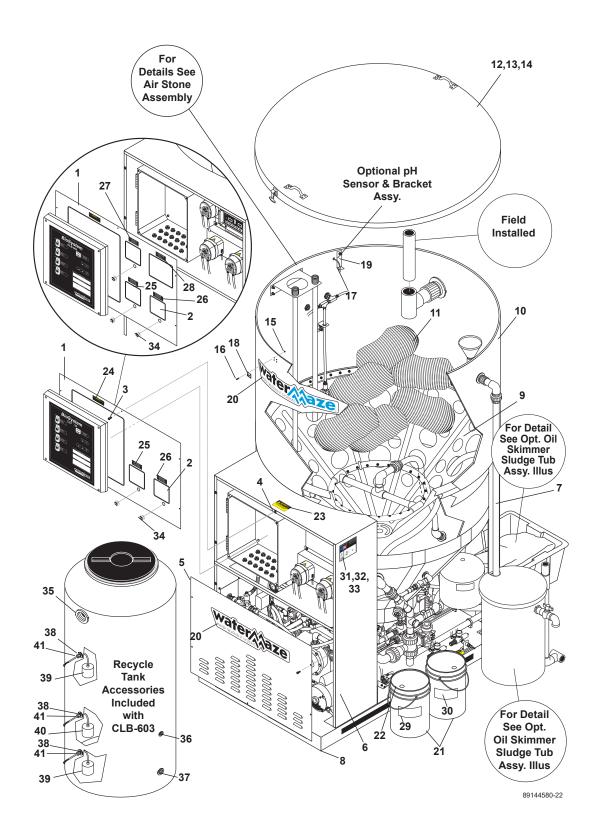
- Replenish BioStax 1800.
- Replenish BioNutrient.
- Check the automatic microbe dispenser pump and make sure the tubing is not cracked or worn. Replace tubing if required (every 6-12 months). Clean screen in tubing going in microbe bucket.
- Visually inspect external hoses and fittings.
- Confirm pressure switch setting on transfer pump.

# **CLB MAINTENANCE**

	DAILY	WEEKLY		BI-YEARLY
Check pits for water level (Overflow/dry).	х			
Check for voltage to machine and that control panel switches are on.	х			
Check all plumbing for leaks.	Х			
Check inlet flow meter for proper flow. Clean meter if needed.	Х			
Check that inlet and discharge manifold hoses and valves are in proper position.	х			
Check ozone generator bulb. Bright light-replace. Dim light good.	х			
Clean and test pH probe if applicable*.		Х		
Suction pits of sludge and debris.*			Х	
Check and clean sump pump of dirt and debris.*		İ	Х	
Clean floats in sump if accumulating dirt or grease. *			Х	
Check float wires for cuts or frays.			Х	
Check and clean chemical injectors.			Х	
Check tubing on pH controller for splits or cracking.		İ	Х	
Check standard cubic feet per hour (SCFM) on ozone generator.			Х	
Check surge tank pressure.				Х
Check transfer pump switch settings.			Х	
Open drain valve to purge solids.	Х			
Empty debris dumpster	Х			
Pressure wash front and back of debris dumpster.	Х			
Clean trench	Х			
Check timers for proper settings		х		
Replenish BioStax 1800 and BioNutrient if applicable*			Х	

<sup>\*</sup> Note: this is a guide. Depending on your wash load these items may have to be done more or less often.

#### **CLB-603 COMPONENT ASSEMBLY EXPLODED VIEW**



## **CLB-603 COMPONENT ASSEMBLY PARTS LIST**

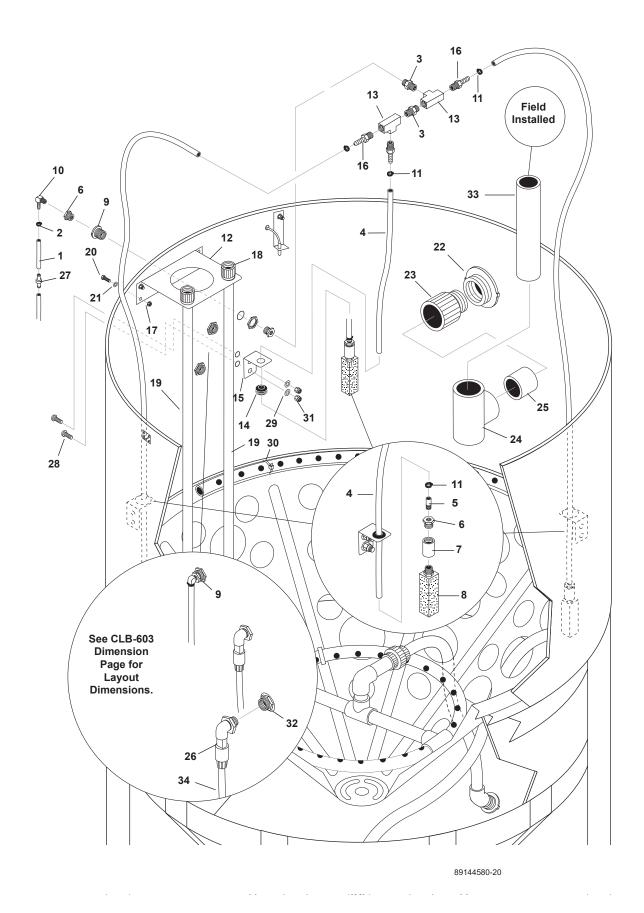
TEM	PART NO.	DESCRIPTION	QTY
1	8.913-151.0	Panel, Front Top, w/Cutout for pH	
	Controller (Option	•	1
	8.913-163.0	Panel, Front Top w/o Cutout for pH Controller	1
2	9.802-071.0	Trim, Black 10.33 ft (option) 14.33 ft	
3	9.802-765.0	Screw, 1/4" x 1/2" BH SOC CS	12
4	9.802-793.0	Nut, Cage, 1/4" x 16 Ga	11
5	8.913-148.0	Front Panel, Bottom, Mild Steel	1
6	8.913-147.0	Control Panel, Mild Steel	1
7	8.913-155.0	Tank Stand 600, Mild Steel	1
8	8.913-146.0	Base Plate	1
9	8.902-236.0	Cone, 3/16 w/Holes	1
10	8.719-177.0	Tank, 600 Gal w/Lid	1
11	8.706-676.0	Plastic, Eofill 36 lb	
40	8.707-435.0	Bag, Pre-sewn	6
12	9.802-696.0	Nut, 10/32 Keps, SS	8
13	9.802-699.0	Screw, 10/32" x 3/4", Slot Pan	8
14	8.706-648.0	Handle, Sandpot Lid	3
15	8.718-854.0	Nut, 6/32, Keps	12
16	9.802-747.0	Screw, 6/32, Keps	12
17	8.716-905.0	Sensor, PH (Option)	1
18	8.706-568.0	Handle, Rubber w/Keeper	3
19	8.913-085.0	Bracket, PH (option)	12
20	8.900-841.0	Label, Water Maze	2
21	8.711-943.0	Bucket, 6-1/2 Gal	2
22	8.711-944.0	Lid, 6-1/2 Gal	2
23	8.900-522.0	Label, Warning, No Stand	1
24	9.800-016.0	Label, Warning, Electrical	1
25	8.901-222.0	Label, Microbe Pump	1
26	8.901-223.0	Label, Nutrient Pump	2
27	8.901-224.0	Label, pH Controller	1
28	8.901-225.0	Label, pH Pump	1
29	9.841-665.0	Label, Biostax 1800	1
30	8.900-615.0	Label, Bio-Nutrient	1
31	9.800-013.0	Label, Assembled, USA, Intended for Indoor use	1
32	9.800-034.0	Label, Clear Lexan	1
33		Label, ETL	1
34	9.802-064.0	Grommet, Rubber Nozzle (option)	2

#### ▲ Not Shown

# RECYCLE TANK ACCESSORIES

ITEN	I PART NO.	DESCRIPTION	QTY
35	8.706-483.0	Bulkhead, 3" Ft x Ft, Polypro	1
36	8.706-484.0	Bulkhead, 1" Ft x Ft, Polypro	1
37	8.706-490.0	Bulkhead, 1-1/2" Ft x Ft, Polypro	1
38	8.750-743.0	Bulkhead, 1/2" NPT Polypro	3
39	8.716-142.0	Float Switch, Black, NO	2
40	8.716-143.0	Float Switch, Gray, NC	1
41	9.802-514.0	Strain Relief, LG Tite	3

# **CLB-603 AIR STONE ASSEMBLY EXPLODED VIEW**



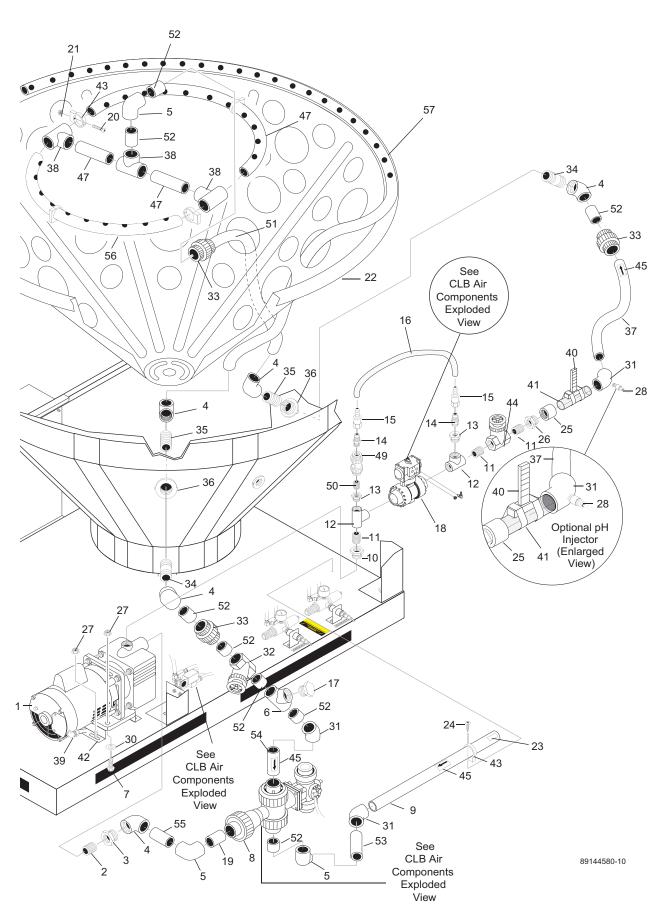
# **CLB-603 AIR STONE ASSEMBLY EXPLODED VIEW PARTS LIST**

ΓΕΝ	I PART NO.	DESCRIPTION	QTY
1	8.711-733.0	Tubing, 3/8" x 1/2, Vinyl	10 ft
2	8.709-069.0	Clamp, Screw #4	3
3	8.706-780.0	Nipple, 1/4" Hex	2
4	9.802-254.0	Hose, 1/4" Push-on	16 in
5	8.706-878.0	Nipple, 1/4" Pipe x 1/8" Pipe	3
6	8.706-407.0	Bushing, 1/2 x 1/4 MT x FT	3
7	8.706-393.0	Coupling, 1/2" SCH 80	1
8	8.712-417.0	Diffuser Stone, Fine Pore, 1/2" NPT	3
9	8.750-743.0	Bulkhead, 1/2" Polypro	3
10	8.707-016.0	Elbow, 1/4 NPT x 3/8, Push-On, 90°	1
11	6.390-126.0	Clamp, Hose	6
12	8.913-157.0	Bracket, Aerator	1
13	8.706-841.0	Tee, 1/4" Female, Pipe	2
14	9.802-064.0	Grommet, Rubber	3
15	8.919-140.0	Bracket, Air Stone	3
16	8.706-941.0	Hose Barb, 1/4" x 1/4" MPT	3
17	9.802-788.0	Nut, 3/8, Whiz Loc	8
18	8.706-409.0	Adapter, 1" MT x SLIP, PVC	2
19	8.706-366.0	Pipe, PVC 80, 1" x 48"	2
20	9.802-721.0	Bolt, 3/8 x 1", HH, NC, SS	8
21	9.802-808.0	Washer, 3/8", Flat, SS	8
22	8.706-483.0	Bulkhead, 3", FT x FT, Polypro	1
23	8.706-454.0	Adapter, 3", Slip x MT, PVC 40	1
24	8.706-437.0	Tee, 3" x Slip x Slip x Slip, PVC 40	1
25	8.706-368.0	Pipe, 3", PVC 40	4 in
26	8.749-860.0	Check Valve, PVC (w/pH Controlller)	1

ITEN	I PART NO.	DESCRIPTION	QTY
27	8.707-355.0	Valve, 3/8, Tubing, Check MPC P/N	1
28	8.718-619.0	Bolt, 5/16" x 3/4"" NC, GR 5 SS	6
29	9.802-805.0	Washer, 5/16" Flat, SAE, SS	6
30	9.802-511.0	Cable Tie, 11"	2
31	9.802-777.0	Nut, 5/16" ESNA, NC, SS	6
32	8.749-861.0	Bulkhead, 3/8 PVC, w/Elbow, (w/pH Controller)	1
33	8.706-368.0	Pipe, 3", PVC 40 (Customer Installed)	22 in
34	8.749-857.0	Tubing, PE, 1/4, BLK, 1/4" x 7 ft	2

▲ Not Shown

# **CLB-603 INFEED PUMP ASSY EXPLODED VIEW**

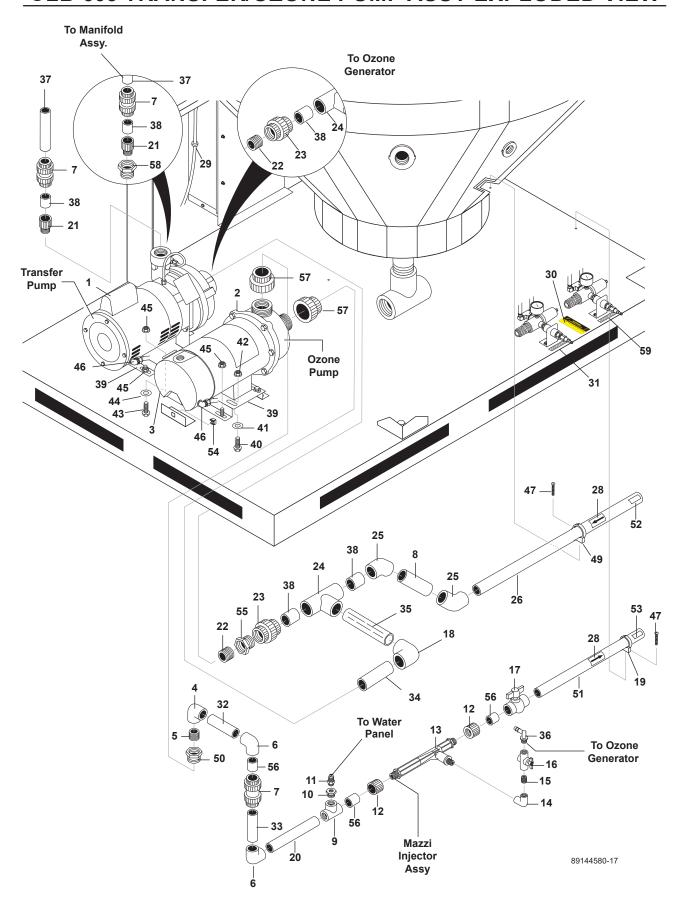


# **CLB-603 INFEED PUMP ASSY EXPLODED VIEW PARTS LIST**

ITEM	PART NO.	DESCRIPTION	QTY
1	8.715-387.0	Pump, Amt 1/2 HP, 115/230V 1 PH, 2852-95 Curve C	1
2	8.706-461.0	Nipple, 1-1/4" Close, PVC 80	1
3	8.706-415.0	Bushing, 1.5" MT x 1.25" FT, PVC 80	1
4	8.706-372.0	Elbow, 1-1/2" S x T, PVC 80 90°	5
5	8.706-374.0	Elbow, 1-1/2" S x S, PVC 80 90°	3
6	8.706-428.0	Tee, 1-1/2" S x S x T	1
7	8.718-659.0	Bolt, 3/8 "x 1-1/4 NCH HSS	2
8	8.749-845.0	Valve, 3 Way Diverter w/Actuator	1
9	8.706-367.0	Pipe, 1.5" PVC 80 19.5 in	
10	8.706-405.0	Bushing, 1-1/4" x 1" MT x FT, PVC 80	1
11	8.706-439.0	Nipple, 1" PVC 80, Close	3
12	8.706-429.0	Tee, 1" FT x FT x FT, PVC 80	2
13	8.706-928.0	Bushing, 1" x 1/2" Black Poly Reducer	2
14	8.706-876.0	Nipple, 1/2" JIC x 1/2" MPT SS	2
15	8.707-005.0	Swivel, 1/2" JIC FEM Push-on SS	2
16	9.802-259.0	Hose, 1/2" Push-on	24 in
17	8.706-394.0	Plug 1-1/2" PVC 80	1
18	8.756-649.0	Valve, Ball, 1", Pneu Act, No Sol	1
19	8.706-367.0	Pipe 1.5 PVC 80 3.5 in	
20	9.802-699.0	Screw 10/32" x 3/4" Slot Pan	4
21	9.802-696.0	Nut 10/32" Keps SS	4
22	8.902-236.0	Cone, 3/16 w/Holes	1
23	8.900-458.0	Label Inlet	1
24	9.802-799.0	Screw, #14 x 1" Tek Head	1
25	8.706-448.0	Adapter, 1.5 x 1.5 Ft x Slip	1
26	8.706-404.0	Bushing, 11/2" x 1" MT x FT, PVC 80	1
27	9.802-788.0	Nut 3/8 " Whiz Loc SS	6
28	8.749-860.0	Check Valve (w/optional pH Pump)	1
29	8.749-857.0	Tubing PE (option) Black 1/4"	7 ft.
30	9.802-808.0	Washer 3/8" Flat SS	2
31	8.706-379.0	Elbow, 1-1/2" SLIP x SLIP,	

		PVC 80, 45°	3
ITEM	PART NO.	DESCRIPTION	QTY
32	8.707-344.0	Valve, PVC 1.5" SLIP x SLIP, Gate	1
33	8.706-469.0	Union, 1-1/2" SLIP x SLIP, PVC 80	3
34	8.706-468.0	Nipple 1.5" x 3" PVC 80	2
35	8.706-424.0	Nipple, 1.5" x Close, PVC 80	2
36	8.706-490.0	Bulkhead, 1-1/2" Polypro	2
37	8.711-815.0	Hose, 1-1/2" Gray Conduit	22 in
38	8.706-426.0	Tee, 1.5" S x S x S, PVC 80	3
39	9.802-517.0	Connector 1/2" LT 90° Black	1
40	8.712-136.0	Gauge, Flowmeter 1.5	1
41	8.706-360.0	Pipe 1.5 PVC Clear	8.5 in
42	8.913-161.0	Pump Plate	1
43	8.706-421.0	Hanger, 1-1/2" Pipe	5
44	8.707-343.0	Valve, 1" Gate, NPT	1
45	8.900-474.0	Label, Flow Arrow	3
46	8.711-815.0	Hose, 1-1/2" Gray,	32 in
47	8.706-367.0	Pipe, 1.5" PVC, (1.5" x 8")	2
48	8.706-455.0	Nipple 1" x 2" PVC 80	2
49	8.707-298.0	Valve, Ball Check 1/2" PVC	1
50	8.706-467.0	Nipple, 1/2" PVC 80, Close	1
51	8.711-815.0	Hose, 1-1/2" Gray Conduit	30 in
52	8.706-367.0	Pipe, 1.5" PVC 80 (1"x 2.5")	8
53	8.706-367.0	Pipe, 1.5" PVC 80	8 in
54	8.711-815.0	Hose 1 -1/2 Gray Conduit	6 in
55	8.706-367.0	Pipe, 1.5" PVC 80	4.5 in
56	8.711-815.0	Hose, 1-1/2" Gray, Conduit	32 in
57	8.711-815.0	Hose, 1-1/2" Gray, Conduit 108 in	

#### **CLB-603 TRANSFER/OZONE PUMP ASSY EXPLODED VIEW**

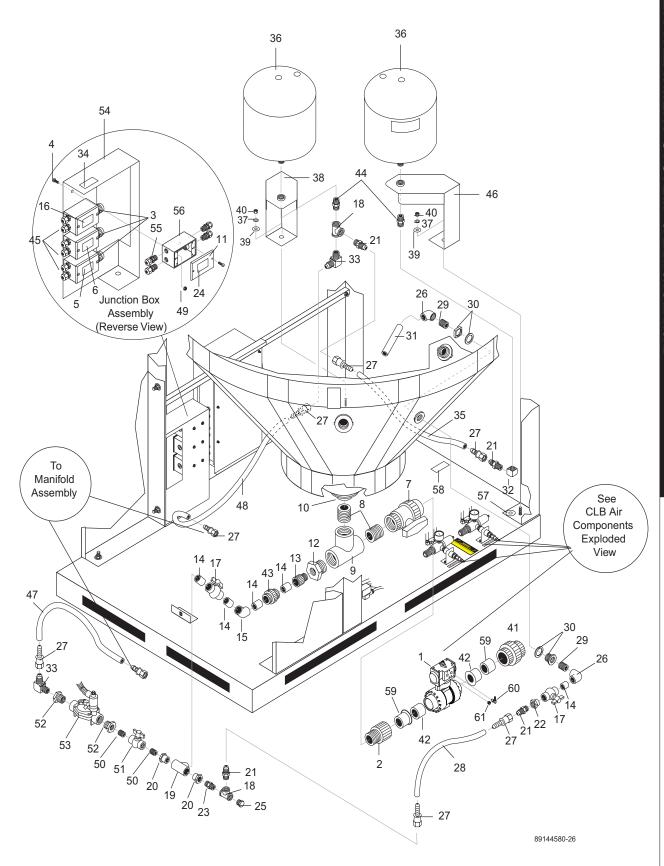


#### **CLB-603 TRANSFER/OZONE PUMP ASSY EXPLODED VIEW PARTS LIST**

ITEN	IPART NO.	DESCRIPTION	QTY
1	8.755-986.0	PUMP, SCOT 11, 3/4HP 230V 1PH 4.88DIA	1
	8.715-402.0	Pump, Scot 2 HP, 208/230 Volt 1 PH (Optional)	1
2	8.726-024.0	Pump, 3/4 HP, Wet End	1
3	8.726-026.0	Motor, 3/4 HP, 230V	1
4	8.706-378.0	Elbow, 1" SLIP x FIPT, PVC 80, 90°	1
5	8.706-439.0	Nipple, 1", PVC 80 Close	1
6	8.706-373.0	Elbow, 1" S x S, PVC 80, 90°	2
7	8.707-300.0	Valve, 1" PVC Ball Check	2
8	8.706-367.0	Pipe, 1-1/2" PVC 80	4.5 in
9	8.706-430.0	Tee, 1" S x S x S, PVC 80	1
10	8.706-447.0	Adapter, 1" x 3/4" S x FIPT PVC 80	1
11	8.706-899.0	Nipple, 3/4" JIC x 3/4" Pipe	1
12	8.706-444.0	Adapter, Female, 1" SLIP x FT PVC 80	2
13	8.709-431.0	Injector, Ozone w/o Chk Valve	1
14	8.706-370.0	Elbow, 1/2" FIPT x FIPT, PVC 80, 90°	1
15	8.706-587.0	Nipple, 1/2" x 1/4"	1
16	8.707-321.0	Valve, Ozone Meter, 1/4" 5310.002 Plastic	1
17	8.707-359.0	Valve, 1" S 80 PVC, S x S	1
18	8.706-374.0	Elbow, 1-1/2" S x S, PVC 80, 90°	1
19	8.706-423.0	Hanger, Pipe, 1" Click #32	1
20	8.706-366.0	Pipe, 1" PVC 80	7.5 in
21	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	1
22	8.706-461.0	Nipple, 1-1/4" x Close PVC 80	1
	8.706-424.0	Nipple, 1.5" x Close PVC 80 (2 HP Option)	1
23	8.706-470.0	Union, 1-1/2" Slip x Thread PVC 80	1
24	8.706-426.0	Tee, 1.5" S x S x S, PVC 80	1
25	8.706-379.0	Elbow, 1-1/2" SLIP x SLIP PVC 80, 45°	2

ITEM	PART NO.	DESCRIPTION	QTY
26	8.706-367.0	Pipe, 1.5" PVC	26 in
27	8.905-717.0	Ozone Generator 230V 1 PH	1
28	8.900-474.0	Label, Flow Arrow	2
29	8.707-355.0	Ozone Check Valve	1
30	8.900-210.0	Label, Warning	1
31	8.901-115.0	Label, Air Valves Pressure Regulator	1
32	8.706-366.0	Pipe, 1" PVC 80	7 in
33	8.706-366.0	Pipe, 1" PVC 80 4	.5 in
34	8.706-367.0	Pipe, 1.5" PVC 80	4 in
35	8.706-360.0	Pipe, 1.5" PVC 80 Clear	8.5 in
36	8.706-588.0	Connector, 3/8" x 1/4" Male Elbow	1
37	8.711-812.0	Hose 1" Gray Conduit	10 in
38	8.706-367.0	Pipe, 1.5" PVC 80 1-1/2 x 2-1/2 Spacer	3
39	8.913-161.0	Pump Plate	2
40	8.718-619.0	Bolt 5/16" x 3/4" NCGR, SS	4
41	9.802-805.0	5/16" Washer Flat SS	4
42	8.718-887.0	5/16" Whiz Loc	4
43	8.718-659.0	Bolt 3/8" x 1-1/4" NCHHSS	2
44	9.802-808.0	Washer 3/8" SS	2
45	9.802-788.0	Nut 3/8" Whiz Loc SS	10
46	9.802-517.0	Connector 1/2" LT 90° Black	2
47	9.802-799.0	Screw #14 x 1" Tek Head	2
48	8.706-424.0	Nipple, 1-1/2" Close, PVC 80	
49	8.906-421.0	Hanger 1-1/2" Pipe	1
50	8.706-398.0	Bushing 1" FIPT x 1-1/2" PVC 80	1
51	8.706-366.0	Pipe 1" PVC 80	13 in
52	8.900-458.0	Label Inlet	1
53	8.900-459.0	Label Outlet	1
54	9.802-794.0	Nut Cage 1/4" x 12 Ga	1
55	8.706-415.0	Bushing 1.5 MT x 1.25 PVC 80 (Not used with 2 HP Option)	1
56	8.706-366.0	Pipe 1" PVC 80 Spacer 1" x 2"	1
57	8.750-270.0	Fitting, Compression, 1-1/2" Slip	2
58	8.706-405.0	Bushing, 1-1/4" MT x 1" FT PVC, Sch 80 (2 HP Option)	1
59	8.901-116.0	Label, Air Stone Diffuser Pressure Regulator	1

## **CLB-603 DRAIN SURGE TANK EXPLODED VIEW**

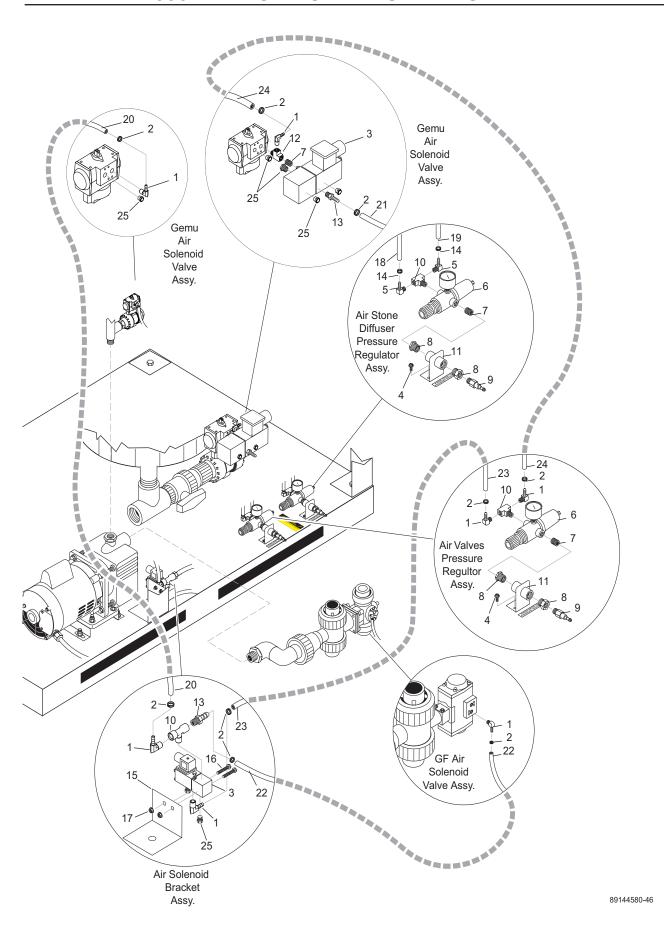


## **CLB-603 DRAIN SURGE TANK EXPLODED VIEW PARTS LIST**

EN	I PART NO.	DESCRIPTION	QTY
1	8.756-648.0	Valve, Ball, 1-1/2", Pneu Act, No Sol	1
2	8.706-451.0	Adapter, 2" Slip x MT, PVC 80	1
3	8.716-547.0	Connector, 1/2" Straight	3
4	8.718-760.0	Screw, 10/32 x 5/8", Phil, SS	8
5	8.932-941.0	Label, WaterMaze, CLB-603	
Ü	0.002 011.0	# 4, Junction Box	1
6	8.724-756.0	Label, WaterMaze, CLB-603 # 3, Junction Box	1
7	8.707-349.0	Valve, 2" Single Union Ball	1
8	8.706-466.0	Nipple, 2" Close, PVC 80	2
9	8.706-436.0	Tee, 2", FT x FT x FT, PVC 80	1
10	8.706-479.0	Bulkhead, 2" NPT, Polypro	1
11	9.802-483.0	Cover, Metal, 2" x 4", Weather Proof	4
12	8.706-418.0	Bushing Reducer, 2 x 1, PVC 80 MPT x FPT	1
13	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	1
14	8.706-366.0	Pipe, 1" PVC 80, 1" x 2" Spacer	5
15	8.706-371.0	Elbow, 1" SxS, PVC 80 45°	1
16	8.724-755.0 Junction Box	Label, WaterMaze, CLB-603, #2,	
17	8.707-359.0	Valve, 1" PVC S x S	2
18	8.706-846.0	Tee, 3/4" FIPT, Brass	2
19	8.706-430.0	Tee, 1" S x S, PVC 80	1
20	8.706-447.0	Adapter, 1" x 3/4" S x FIPT, PVC 80	2
21	8.706-899.0	Nipple, 3/4" JIC x 3/4" Pipe	4
22	8.706-447.0	Adapter, 1", 3/4" S x FIPT PVC 80	1
23	8.706-800.0	Nipple, 3/4" Hex, Brass	1
24	8.724-754.0 Junction Box	Label, WaterMaze, CLB-603, #1,	
25	8.706-869.0	Plug, 3/4" Hex Head	1
26	8.706-378.0	Elbow, 1" SLIP x FIPT, PVC 80 90°	2
27	9.802-152.0	Swivel, 3/4" SAE Fem. Push-on	8
28	9.802-261.0	Hose, 3/4", Push-on	36 iı
29	8.706-439.0	Nipple, 1" PVC 80, Close	2
30	8.706-484.0	Bulkhead, 1" Polypro	1
31	8.706-366.0	Pipe, 1", PVC 80	12 iı

32	8.706-823.0	Elbow, 3/4" Female 90°	1
	1 PART NO.	DESCRIPTION	QTY
33	9.803-557.0	Elbow, 3/4" SAE x 3/4"	<u> </u>
		90° Brass	2
34	8.940-186.0	Label, Float, Switch,	
		Junction Box	1
35	9.802-261.0	Hose, 3/4" Push-on	30 in
36	8.719-176.0	Tank, 10 Gal Pre-pressurized, Blue	2
37	8.719-021.0	Washer, 1/2, Lock	5
38	8.913-160.0	Bracket, Pressure Tank	1
39	8.718-997.0	Washer, 5/8, Flat	5
40	8.718-893.0	Nut, 1/2", SS, 304, Hex, NC	5
41	8.706-476.0	Union, 2", FSX FT, PVC 80	1
42	8.706-367.0	Pipe, 1.5", PVC 1.5 x 2-3/4	2
43	8.706-597.0	Union, 1", S x S, PVC 80	1
44	8.706-800.0	Nipple, 3/4", Hex, Brass	2
45	8.716-324.0	Box, Junction, 4 Hole, 1/2"	3
46	8.913-156.0	Assy, Bracket, Pressure Tank, MS, CLB-603	1
47	9.802-261.0	Hose, 3/4", Push-on	24 in
48	9.802-261.0	Hose, 3/4", Push-on	53 in
49	9.802-696.0	Nut, 10/32", ST, Keps	8
50	8.706-369.0	Nipple, 3/4" PVC 80, Close	2
51	8.707-339.0	Valve, Ball, 3/4" PVC	1
52	8.706-412.0	Bushing, 1 x 3/4" MT x FT, PVC	2
53	8.716-700.0	Solenoid Valve, 120V HIT	1
54	8.913-162.0	Bracket, Electrical	1
55	9.802-514.0	Strain Relief, LQ Tite, 1/2"	10
56	8.716-323.0	Box, Junction 5 Hole, 1/2"	1
57	9.802-099.0	Washer, Snubbing (shims)	2
58	8.900-462.0	Label, Drain	1
59	8.706-413.0	Bushing, 2' X 1 1/2' Slip, PVC 80	2
60	8.706-958.0	Hose Barb, 1/4" Barb x 1/4" MPT, 90 DGR	1
61	8.756-650.0	Muffler, Exhaust, 1/4" NPT, Brass	1

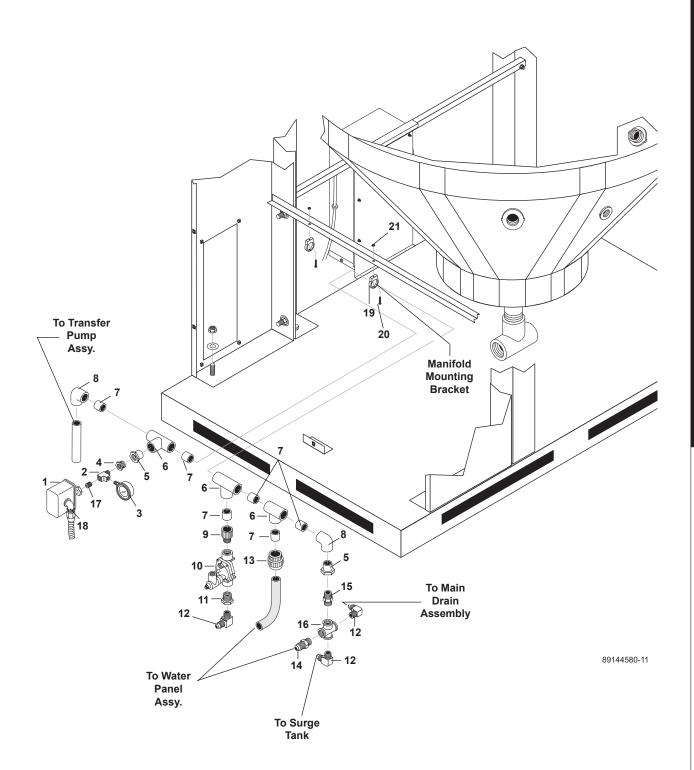
#### **CLB-603 AIR COMPONENTS EXPLODED VIEW**



## **CLB-603 AIR COMPONENTS PARTS LIST**

ΓΕΝ	I PART NO.	DESCRIPTION	QTY
1	8.706-958.0	Hose Barb 1/4" Barb x 1/4" Pipe 90°	7
2	6.390.126.0	Clamp Hose	9
3	8.756-654.0	Valve, Solenoid, Air, 120V, SV16	2
4	9.802-799.0	Screw 1/4" x 1" TEK BLK	4
5	8.707-016.0	Elbow 1/4" NPT x 3/8" Push-on	2
6	8.707-331.0	Regulator, Air w/Fitter 1/4" Gauge	2
7	8.706-777.0	Nipple, 1/4" Close	3
8	8.706-915.0	Bushing, 1/2"x 1/4" Brass	4
9	8.707-177.0	Nipple 1/4" Male Air	2
10	8.706-854.0	Tee 1/4" Branch Male	3
11	9.802-961.0	Hose Connection Bracket	2
12	8.706-858.0	Tee 1/4" Streel	1
13	8.706-941.0	Hose Barb, 1/4" MT x 1/4" Hose	2
14	8.709-069.0	Clamp Screw #4	2
15	8.913-164.0	Bracket, Air Solenoid	1
16	8.718-755.0	Screw, 8/32" X 1-1/2", SS PHIL PH	2
17	8.718-868.0	Nut, 8-32 ESNA, SS	2
18	8.711-733.0	Tubing 3/8" Vinyl	120 in
19	8.711-733.0	Tubing 3/8" Vinyl	12 in
20	9.802-254.0	Hose 1/4" Push-on	9 in
21	9.802-254.0	Hose 1/4" Push-on	12 in
22	9.802-254.0	Hose 1/4" Push-on	19 in
23	9.802-254.0	Hose 1/4" Push-on	31 in
24	9.802-254.0	Hose 1/4" Push-on	34 in
25	8.756-650.0	Muffler, Exhaust, 1/4" NPT, Brass	8

## **CLB-603 MANIFOLD ASSEMBLY EXPLODED VIEW**

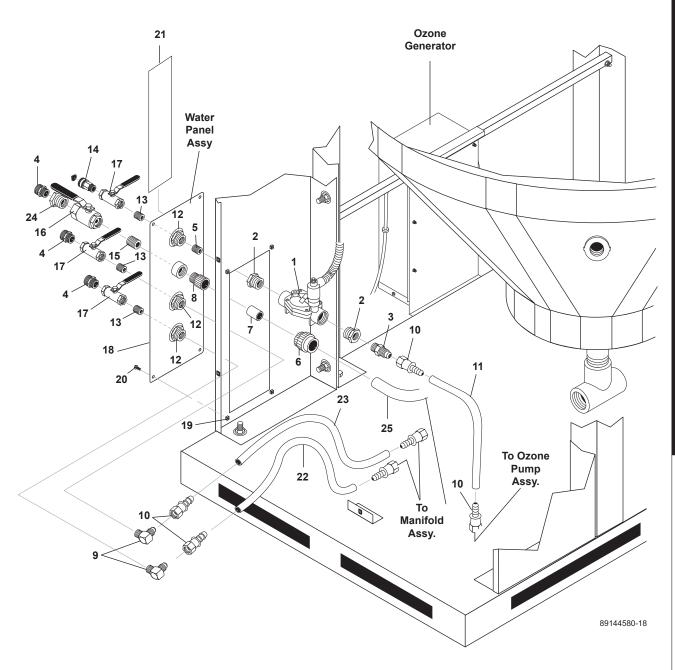


# **CLB 603 MANIFOLD ASSEMBLY EXPLODED VIEW PARTS LIST**

ITEM	PART NO.	DESCRIPTION	QTY
1	8.716-154.0	Switch, Pres Sq. D N/C	1
2	8.706-858.0	Tee, 1/4" Street	1
3	8.712-154.0	Gauge, Pressure 0-100	1
4	8.706-923.0	Bushing, 3/4" x 1/4" Pipe	1
5	8.706-447.0	Adapter, 1", 3/4" S x FIPT,	
		PVC 80	2
6	8.706-430.0	Tee, 1" S x S, PVC 80	3
7	8.706-366.0	Pipe, 1" PVC 80 (1"x 2")	6
8	8.706-373.0	Elbow, 1" S x S, PVC 80, 90°	2
9	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	1
10	8.716700.0	Solenoid, Valve 120V	1

ITEM	PART NO.	DESCRIPTION	QTY
11	8.706-412.0	Bushing, 1" x 3/4" MT x FT, PVC 80	1
12	9.803-557.0	Elbow, 3/4" SAE x 3/4" 90° Brass	3
13	8.706-597.0	Union, 1", S x S, PVC 80	1
14	8.706-899.0	Nipple, 3/4" JIC x 3/4" Pipe	1
15	8.706-800.0	Nipple, 3/4" HEX, Brass	1
16	8.706-852.0	Cross, 3/4" Female Pipe	1
17	8.706-777.0	Nipple, 1/4" Brass	1
18	8.716-547.0	Connector, 1/2" Straight	1
19	8.706-422.0	Hanger Pipe, 1 1/4"	2
20	9.802-699.0	Screw 10-32" Slot Pan	2
21	9.802-696.0	Nut 10/32" Keps	2

## **CLB-603 WATER PANEL EXPLODED VIEW**

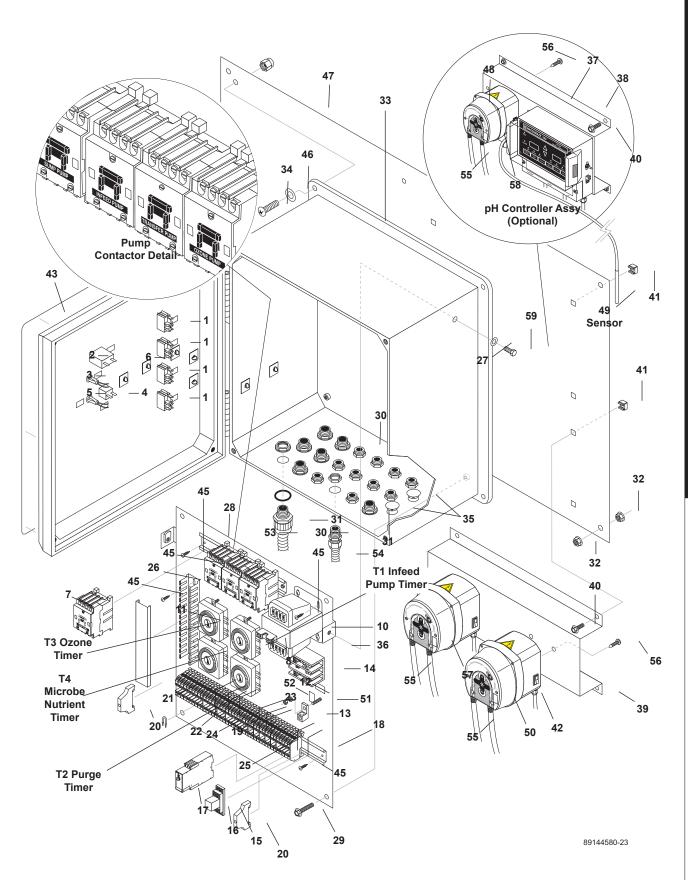


## **CLB-603 WATER PANEL EXPLODED VIEW PARTS LIST**

ITEN	PART NO.	DESCRIPTION	QTY
1	8.716-700.0	Solenoid Valve 120V, HIT 310-100-1	1
2	8.706-412.0	Bushing, 1" x 3/4" MT x FT, PVC 80	2
3	8.706-899.0	Nipple, 3/4" JIC x 3/4" Pipe	1
4	8.706-968.0	Garden Hose Fitting	3
5	8.706-881.0	Nipple 3/4" pipe 1/2 Pipe	1
6	8.706-597.0	Union, 1" S x S, PVC 80	1
7	8.706-366.0	Pipe, 1" PVC 80 1" x 2" Spacer	1
8	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	1
9	9.802-132.0	Elbow, 3/4" JIC x 1/2", 90°	2
10	9.802-152.0	Swivel, 3/4" SAE Fem, Push-on	6
11	9.802-261.0	Hose, 3/4" Push-on	43 in

ITEN	I PART NO.	DESCRIPTION	QTY
12	8.707-000.0	Connector, 1/2" Anchor	3
13	8.706-790.0	Nipple, 1/2" Close	4
14	9.802-146.0	Swivel, 1/2" MP x 3/4" GHF w/Strainer	1
15	8.706-801.0	Nipple, 1" Close, Brass	1
16	8.707-233.0	Valve, 1" Ball, Brass	1
17	8.707-211.0	Valve, 1/2" 8201 Brass Ball, 400 PSI	3
18	8.913-153.0	Water Panel	1
19	9.802-794.0	Nut Cage, 1/4" x 16 GA	4
20	9.802-765.0	Screw, 1/4-20 X 1/2", BH Black	4
21	8.901-227.0	Label, Water Maze	1
22	9.802-261.0	Hose, 3/4", Push-on	20 in
23	9.802-261.0	Hose, 3/4", Push-on	30 in
24	8.706-926.0	Bushing, 1" x 1/2", Pipe, Brass	1
25	8.711-812.0	Hose 1" Gray Conduit	26 in

#### **CLB-603 CONTROL PANEL EXPLODED VIEW**



# CLB-603 CONTROL PANEL EXPLODED VIEW PARTS LIST

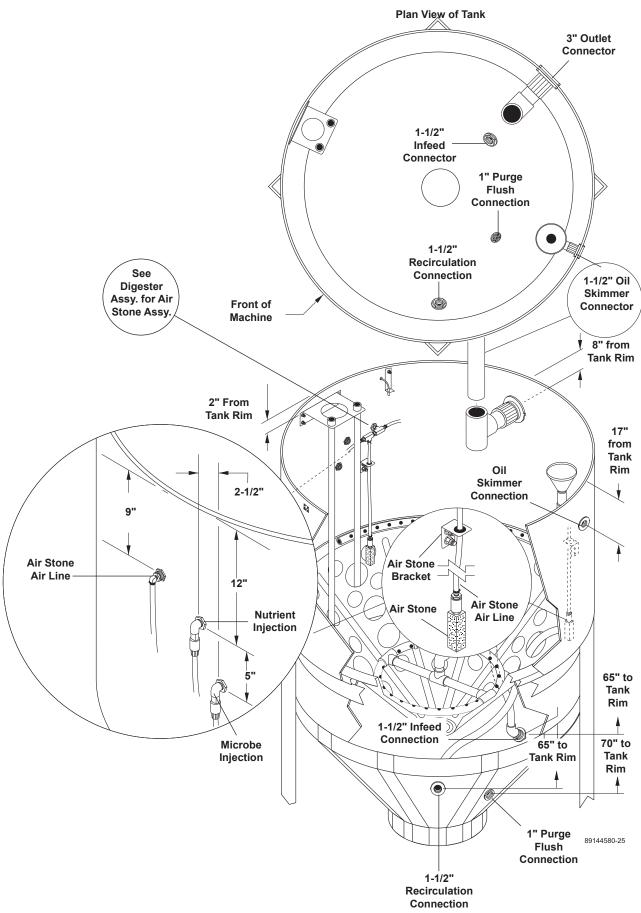
TEN	I PART NO.	DESCRIPTION	QTY
1	9.802-451.0	Switch, Rocker, Carling w/Green Lens	4
2	9.802-283.0	Hour Meter	1
3	9.802-455.0	Light, Indicator, Green 125V	1
4	8.716-091.0	Switch, Momentary Push, 100S Use w/2-3020	1
5	8.716-409.0	Light, Blue 125V	1
6	8.716-533.0	Clamp, Tie Wrap, Adhesive	21
7	8.724-264.0	Contactor, 120V	4
8	9.803-977.0	Fuse, 2.5 Amp, FNM 2-1/2	1
9	8.901-229.0	▲ Label, Contactor	1
10	8.716-898.0	Transformer, .150KVA, 230/115V w/Fuse Block	1
11	8.716-253.0	Timer, 24 Hour Pin, 120V 20A	4
12	9.800-040.0	Label, Ground	1
13	8.716-460.0	Terminal, Grounding Lug, LAMA6-14-Q	1
14	8.716-120.0 8.716-121.0	Block, Power Distr Adder GO63130 w/o WLL Block, Power Distr 1 Pol	1
		GO63131	1
15	9.802-467.0	Base, Relay, SH2B-05, IDEC	1
16	9.802-468.0	Relay, 120V, RH2B-UL-AC120	1
17	8.751-306.0	Timer, Multi-Function, 24V-120/240V	1
18	9.802-457.0	Din Rail, 35mm 15.5 in.	
19	8.716-402.0	Bridge, Entrelec 16897307	21
20	9.804-595.0	End Bracket, Entrelec 103-002-26	2
21	8.716-396.0	Terminal Block, Entrelec 115-116-07 M4/6	33
22	8.716-399.0	End Cover, Entrelec, Gray 11836816 P-On	9
23	8.716-399.0	End Cover, Entrelec 11836816 P-ON	1
24	8.716-398.0	Terminal Block, Blue, Entrelec 125116-01	8
25	9.804-609.0	▲ Marker, Blank - 6mm, 23300001, NK, RCG10 100/SH	0.92
26	8.753-351.0	Channel, 1", Gray w/Cover	7 in
27	8.718-568.0	Washer, 1/4" SS Sealing Rubber	2
28	9.802-457.0	Din Rail, 35mm	9 in
29	9.802-759.0	Screw, 10/32" x 1/2 BHSOC Blk	4

ITEM	PART NO.	DESCRIPTION	QTY
30	9.802-514.0	Strain Relief, STRT, LQ Tite 3231 Small	28
31	8.716-547.0	Connector, 1/2" Straight, BLK	7
32	9.802-788.0	Nut, 3/56" SS Whiz Loc	12
33	8.716-280.0	Box, Plastic, 18 x 16 x 9.25 w/Hinged Lid	1
34	8.718-621.0	Bolt, 5/16" x 14" NC, HH, SS	4
35	9.802-105.0	Plug, 7/8", Hole	2
36	8.918-076.0	Wlmt, Electrical Standoff CLP	1
37	8.716-989.0	pH Controller w/Sensor (Option)	1
38	8.913-143.0	Bracket, pH Controller (Option)	1
39	8.913-152.0	Bracket, Microbe/Nutrient Pump	1
40	9.802-765.0	Screw, 1/4" x 1/2" BH SOC CS	4
41	9.802-793.0	Nut, Cage, 1/4" x 16 Ga	8
42	8.749-856.0	Pump, Peristaltic	2
43	8.901-228.0	Label, Water Maze, CLB-603 Control Panel	1
44	8.901-226.0	▲ Label, Electrical Timers	1
45	8.718-936.0	Screw, # 8 1/2, Phillips	25
46	9.802-805.0	Washer, 5/16" Flat, SAE, SS	4
47	8.913-149.0	Stand Off Plate	1
48	8.749-855.0	Pump, Peristaltic 8-45 gpd (Option)	1
49	8.716-905.0	Sensor, pH (Option)	1
50	8.901-223.0	Label, WaterMaze Nutrient Pump 1	
51	9.803-674.0	Screw, 8/32 x 2"	1
52	9.802-785.0	Nut, 8/32 Keps	5
53	9.802-244.0	Conduit, WTR, Tite, Flex	57 in
54	9.802-244.0	Conduit, WTR, Tite, Flex	57 in
55	8.749-857.0	Tubing, Pe Black 1/4" x 4 ft (Option 1/4" x 5 ft)	2 1
56	8.718-941.0	Screw, 10-16 x 5/8 TEK4 (Option)	2
57	8.901-222.0	Label, Watermaze, Microbe Pump	1
58	8.900-467.0	Label PH Pump (Option)	1
59	8.718-603.0	Bolt, 1/4" x 3/4" SS	2

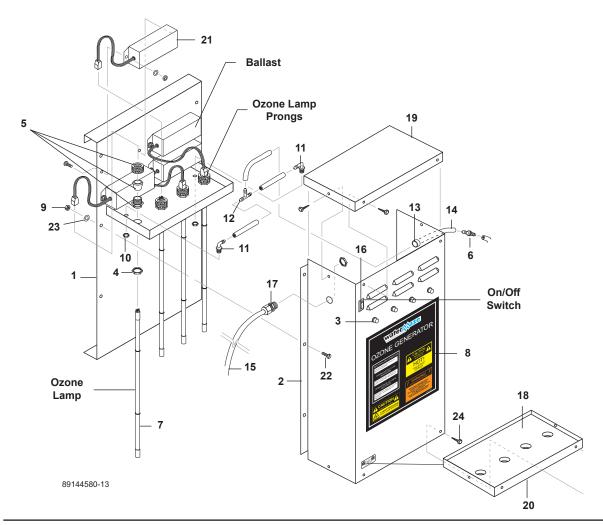
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#### **CLB-603 DIMENSION LOCATIONS OF TANK CONNECTIONS**



## **OZONE GENERATOR EXPLODED VIEW**

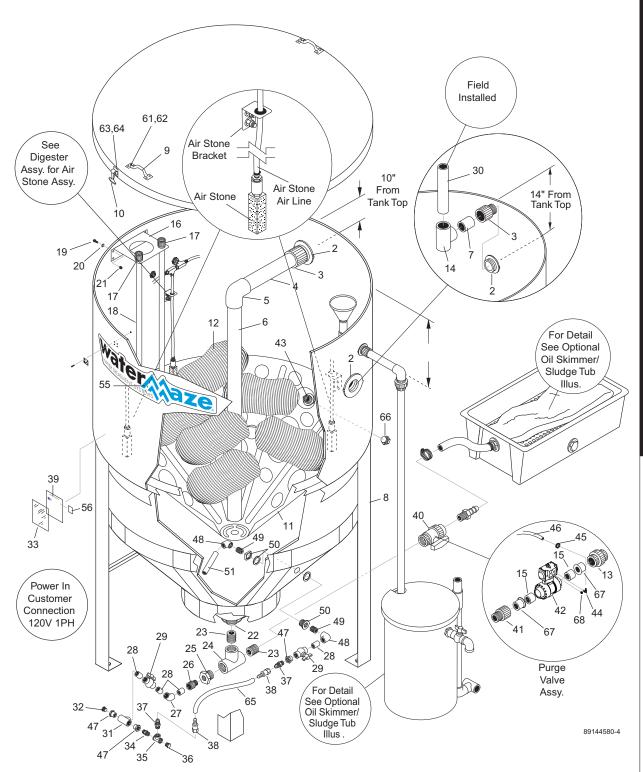


#### **OZONE GENERATOR EXPLODED VIEW PARTS LIST**

ITEN	PART NO.	DESCRIPTION	QTY
1	8.913-357.0	Ozone Box, Back, 400	1
2	8.913-360.0	Ozone Box, Front 400	1
3	9.802-455.0	Light, Indicator, Green	4
4	9.802-523.0	Locknut, 3/4" Conduit	4
5	8.716-583.0	Connector, Aluminum Cord SCH1037	4
6	8.707-355.0	Ozone Check Valve	1
7	8.716-600.0	Lamp, Ozone Replacement	4
8	8.900-455.0	Label, Ozone Generator	1
9	9.802-695.0	Nut, 10/32", NF ST ST KEP	4
10	8.706-570.0	Locknut, 3/8" Nylon	2
11	8.706-585.0	Connector, 3/8" x 3/8", Male Elbow, Kynar	2
12	8.706-594.0	Tee, 3/8" Kynar	1
13	8.706-733.0	Bushing, 1/2" Snap	1
14	8.711-733.0	Tubing, 3/8" x 1/2", Black Vinyl	6 ft.

ITEN	I PART NO.	DESCRIPTION	QTY
15	9.802-423.0	Cord, Service, SEO, 16/3	8 ft.
16	9.802-453.0	Switch, Curvette, 120V & 220V	1
17	9.802-515.0	Strain Relief, 1/2" NPT Ozone Gen	1
18	8.706-545.0	Cushion, 1/2", 13-3/4" x 5-3/4", Rubber	1
19	8.913-358.0	Ozone Box, Top	1
20	8.913-359.0	Ozone Box, Bottom	1
21	8.716-590.0	Ballast, 220V, Ozone Generator	4
22	9.804-566.0	Screw, 10/32" x 1/2" Slot Pan, MS ZN	12
23	8.718-968.0	Washer, 10 x SAE ZN	12
24	9.802-798.0	Screw, #10 x 1/2" Tek Hex Head	8

#### **CLB-30 AUXILIARY DIGESTER ASSEMBLY EXPLODED VIEW**



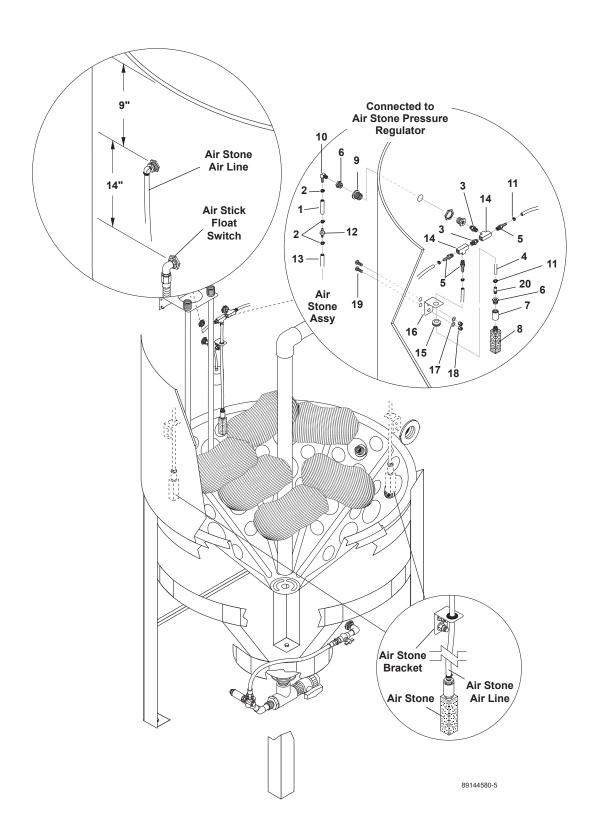
# **CLB-30 AUXILIARY DIGESTER ASSEMBLY PARTS LIST**

	I PART NO.	DESCRIPTION	QTY
1	8.719-177.0	Tank, 600 Gal, Clarifier, w/Lid	1
2	8.706-483.0	Bulkhead, 3" FT x FT, Polypro	2
3	8.706-454.0	Adapter, 3" SLIP x MT, PVC 40	2
4	8.706-368.0	Pipe, 3" PVC 40	24 ir
5	8.706-385.0	Elbow, 3" SLIP x SLIP, PVC 40	1
6	8.706-368.0	Pipe, 3" PVC 40	36 ir
7	8.706-368.0	Pipe, 3" PVC 40	6 in
8	8.913-095.0	Assy, Tank Stand	1
9	8.706-648.0	Handle, Sandpot Lid	2
10	8.706-568.0	Handle, Rubber T, w/Keeper	3
11	8.902-236.0	Cone, 3/16" w/Holes	1
12	8.707-435.0	Bag, Pre-Sewn, Eofill	6
	8.706-676.0	Plastic, Eofill, Bio-System	36 II
13	8.706-476.0	Union, 2" FS x FT, PVC 80 (option)	1
14	8.706-437.0	Tee, 3" Slip	1
15	8.706-367.0	PIPE, 1.5", PVC 80, /FT 1.5 x 2-3/4	2
16	8.913-157.0	Bracket, Air Stick	1
17	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	2
18	8.706-366.0	Pipe, 1", PVC 80 1" x 48",	2
19	9.802-721.0	Bolt, 3/8" x 1", HH, SS	10
20	9.802-808.0	Washer, 3/8, SAE SS	10
21	9.802-788.0	Nut, 3/8", Whiz Loc, SS	10
22	8.706-479.0	Bulkhead, 2" NPT, Polypro	1
23	8.706-466.0	Nipple, 2" Close, PVC 80	2
24	8.706-436.0	Tee, 2" FT x FT x FT, PVC 80	1
25	8.706-418.0	Bushing, Reducer, 2 x 1, PVC-80	1
26	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	1
27	8.706-371.0	Elbow, 1" S x S, PVC 80, 45°	1
28	8.706-366.0	Pipe, 1" PVC 80, 1" x 2"	4
29	8.707-359.0	Valve, 1" S 80 PVC S x S Molded in Place Ball	2
30	8.706-368.0	Pipe, 3" PVC 40 (Field Installed)	22 ii
31	8.706-430.0	Tee, 1" S x S, PVC 80	1
32	8.706-397.0	Plug, 3/4" MT, Sch 80 PVC	1
33	9.800-034.0	Label, Clear Lexan	1
34	8.706-800.0	Nipple, 3/4", Hex, Brass	1
35	8.706-846.0	Tee, 3/4", Female Pipe Brass	1
36	8.706-869.0	Plug, 3/4", Hex, Head	1
37	8.706-899.0	Nipple, 3/4" JIC x 3/4" Pipe	2
38	9.802-152.0	Swivel, 3/4" SAE Fem, Push-on	2
39	9.800-013.0	Label, ASSLD,	
- •		USA intended for indoor use	1
40	8.707-349.0	Valve, 2", Single Union Ball	1
41	8.706-451.0	Adapter, 2" Slip x MT, PVC 80 (option)	1

ITEM	PART NO.	DESCRIPTION	QTY
42	8.756-648.0	Valve, Ball, 1-1/2", PNEU ACT, NO SOL	1
43	8.706-490.0	Bulkhead, 1-1/2" Polypro	1
44	8.706-958.0 90° (option)	Hose Barb, 1/4" Barb x 1/4" Pipe, 1	
45	6.390-126.0	Clamp, Hose, .4654 ST (option)	2
46	9.802-254.0	Hose, 1/4" (option)	15 ft
47	8.706-447.0	Adapter, 1", 3/4" S x FIPT, PVC 80	3
48	8.706-378.0	Elbow, 1" SLIP x FIPT, PVC 80, 90°	2
49	8.706-439.0	Nipple, 1", PVC 80, Close	2
50	8.706-484.0	Bulkhead, 1" Polypro	1
51	8.706-366.0	Pipe, 1", PVC 80	12 in
52	9.802-486.0	▲ Wire-nut, Orange (In Conduit Box)	4
53	8.750-743.0	Bulkhead, 1/2", NPT Polypro	2
54	9.802-517.0	Connector, 1/2", 90°	1
55	8.900-841.0	Label, Water Maze Logo	1
56		ETL Label	1
57	8.716-377.0	▲ Terminal Ring Tongue	1
58	9.802-696.0	▲ Nut, 10/32" Kep	3
59	8.718-600.0	▲ Bolt, 1/4"-20 x 1-1/4 Hex, SS	1
60	9.802-763.0	▲ Screw, 10/32" x 1 1/4", Slot (Ground for Junction Box)	1
61	9.802-699.0	Screw, 10/32"	8
62	9.802-696.0	Nut, 10/32"	8
63	9.802-747.0	Screw, 6/32" x 5/16" Round	12
64	8.718-854.0	Nut, 6/32", Keps	12
65	9.802-261.0	Hose, 3/4", Push-on	35 in
66	8.706-394.0	Plug, 11/2", PVC 80	1
67	8.706-413.0	Bushing, 2' X 1 1/2' Slip, PVC 80	2
68	8.756-650.0	Muffler, Exhaust, 1/4" NPT, Brass	1

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## **CLB-30 AUXILIARY DIGESTER ASSEMBLY EXPLODED VIEW**

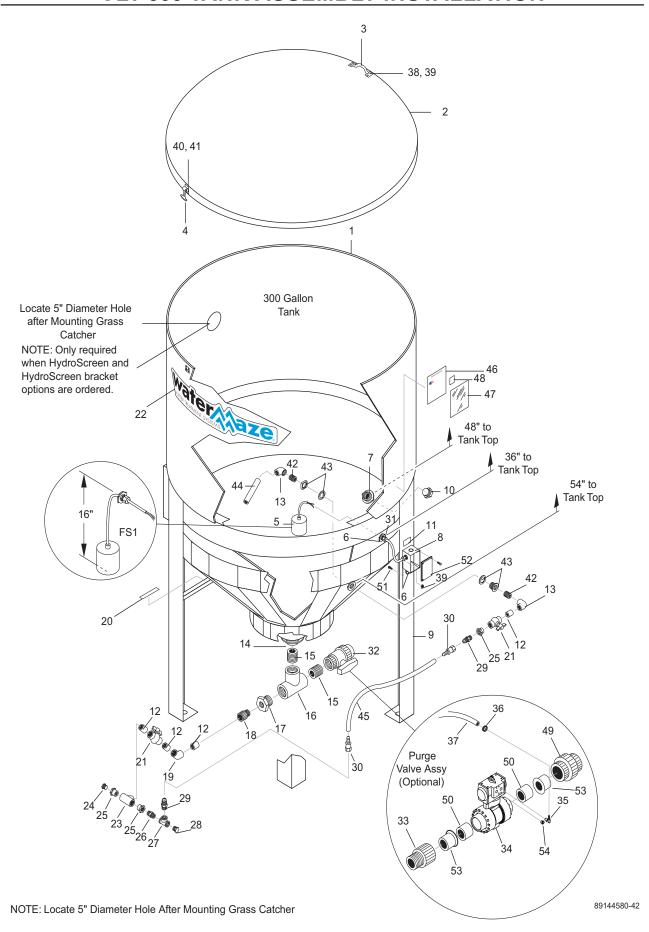


# **AUXILIARY DIGESTER ASSY EXPLODED VIEW PARTS LIST**

ITEN	PART NO.	DESCRIPTION	QTY
1	8.711-733.0	Tubing, 3/8 x 1/2" Clear Vinyl	6 in
2	8.709-069.0	Clamp, Screw #4	3
3	8.706-780.0	Nipple, 1/4" Hex	2
4	9.802-254.0	Hose, 1/4" Push-on	16 in
5	8.706-941.0	Hose Barb, 1/4" x 1/4" MPT	3
6	8.706-407.0	Bushing, 1/2 x 1/4 MT x FT	3
7	8.706-393.0	Coupling, 1/2" SCH 80	3
8	8.712-417.0	Diffuser Stone, Fine Pore,	
		1/2" NPT	3
9	8.750-743.0	Bulkhead, 1/2" NPT Polypro	1
10	8.707-016.0	Elbow, 90°, 1/4" NPT x 3/8	1

ITEN	I PART NO.	DESCRIPTION	QTY
11	6.390-126.0	Clamp, Hose	6
12	8.707-355.0	Check Valve	1
13	8.711-733.0	Tubing 3/8" x 1/2" Clear Vinyl	15 ft
14	8.706-841.0	Tee, 1/4" Female, Pipe	2
15	9.802-064.0	Grommet, Rubber	3
16	9.919-140.0	Bracket, Air Stone	3
17	9.802-805.0	Washer, 5/16" Flat, SAE, SS	6
18	9.802-777.0	Nut, 5/16" ESNA, NC, SS	6
19	8.718-619.0	Bolt, 5/16" x 3/4" NC, GR 5 SS	6
20	8.706-878.0	Nipple, 1/4" Pipe x 1/8" Pipe	3
	·	·	

#### **CLT-300 TANK ASSEMBLY INSTALLATION**

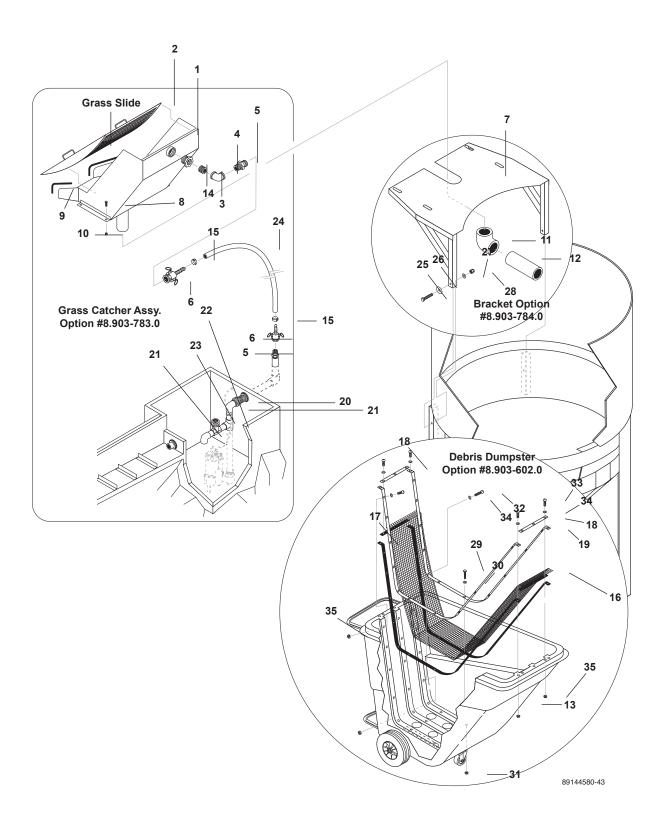


# **CLT-300 TANK ASSEMBLY PARTS LIST**

ITEM	PART NO.	DESCRIPTION	QTY
1	8.719-180.0	Tank, 300 Gal, Clarifier w/o Lid	1
2	8.719-182.0	Lid, 300 Gal. Clarifier Tank	1
3	8.706-648.0	Handle, Sandpot Lid	1
4	8.706-568.0	Handle, Rubber T, w/Keeper	3
5	8.716-142.0	Switch, Float, N/O (Black)	1
6	9.802-514.0	Strain Relief, STRT	3
7	8.706-490.0	Bulkhead, 1-1/2" Polypro	1
8	9.802-477.0	Box, Junction	1
9	8.913-142.0	Assy, Tank Stand 300 Gal., CLT 300	1
10	8.706-394.0	Plug 1-1/2" PVC	1
11	8.940-186.0	Label Float Switch Junction Box	1
12	8.706-366.0	Pipe, 1" PVC 80 1" x 2" Spacer	4
13	8.706-378.0	Elbow, 1" Slip x FIPT PVC 90	2
14	8.706-479.0	Bulkhead, 2" NPT Polypro	1
15	8.706-466.0	Nipple, 2" Close, PVC 80	2
16	8.706-436.0	Tee, 2" FT x FT x FT, PVC 80	1
17	8.706-418.0	Bushing Reducer, 2 x 1 PVC 80 HT x FT	1
18	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	1
19	8.706-371.0	Elbow, 1" S x S, PVC 80, 45°	1
20	8.940-221.0	Label Lifting Point	2
21	8.707-359.0	Valve, 1" S 80 PVC, S x S Molded in Place Ball	2
22	8.900-841.0	Label Water Maze Label, Large	1
23	8.706-430.0	Tee, 1" S x S, PVC 80	1
24	8.706-397.0	Plug, 3/4" MT, SCH 80 PVC	1

ITEM	PART NO.	DESCRIPTION	QTY
25	8.706-447.0	Bushing, 1" x 3/4" SOC x FT PVC 80	3
26	8.706-800.0	Nipple, 3/4" Hex, Brass	1
27	8.706-846.0	Tee, 3/4" Female Pipe Brass	1
28	8.706-869.0	Plug, 3/4", Hex Head	1
29	8.706-899.0	Nipple, 3/4" JIC x 3/4" Pipe	2
30	9.802-152.0	Swivel, 3/4" SAE Fem, Push-on	2
31	8.750-743.0	Bulkhead 1/2" Polypro	1
32	8.707-349.0	Valve, 2" Single Union Ball	1
33	8.706-451.0	Adapter, 2" SLIP x MT, PVC 80 (option)	1
34	8.756-648.0	Valve, Ball, 1-1/2", PNEU ACT, NO SOL	1
35	8.706-958.0 90° (option)	Hose Barb, 1/4" Barb x 1/4" Pipe, 1	
36	6.390-126.0	Clamp, Hose, .4654 ST	2
37	9.802-254.0	Hose, 1/4" Push-on Fuel Line (option)	15 ft
38	8.718-760.0	Screw, 10/32" x 5/8" Pan SS	4
39	9.802-696.0	Nut, 10/32	6
40	9.802-747.0	Screw, 6/32 x 5/16 Rnd	12
41	8.718-854.0	Nut, 6/32 Keps	12
42	8.706-439.0	Nipple 1" PVC 80	2
43	8.706-484.0	Bulkhead, 1" Polypro	1
44	8.706-366.0	Pipe, 1" SCH 80 PVC	12 in
45	9.802-261.0	Hose, 3/4 Push-on 24 in	l
46	9.800-013.0	Label USA Intended Indoor Use 1	
47	9.800-034.0	Label Clear Lexan	1
48	9.804-141.0	ETL Label	1
49	8.706-476.0	Union 2" FSX FT PVC 80 (Option)	1
50	8.706-367.0	Pipe, 1.5", PVC 80, /FT 1.5 x 2-3/4	2
51	9.802-699.0	Screw 10-32 x 3/4" Slot Pan	2
52	9.802-478.0	Lid, Plastic Carlon	1
53	8.706-413.0	Bushing, 2' X 1 1/2' SLIP, PVC 80	2
54	8.756-650.0	Muffler, Exhaust, 1/4" NPT, Brass	1

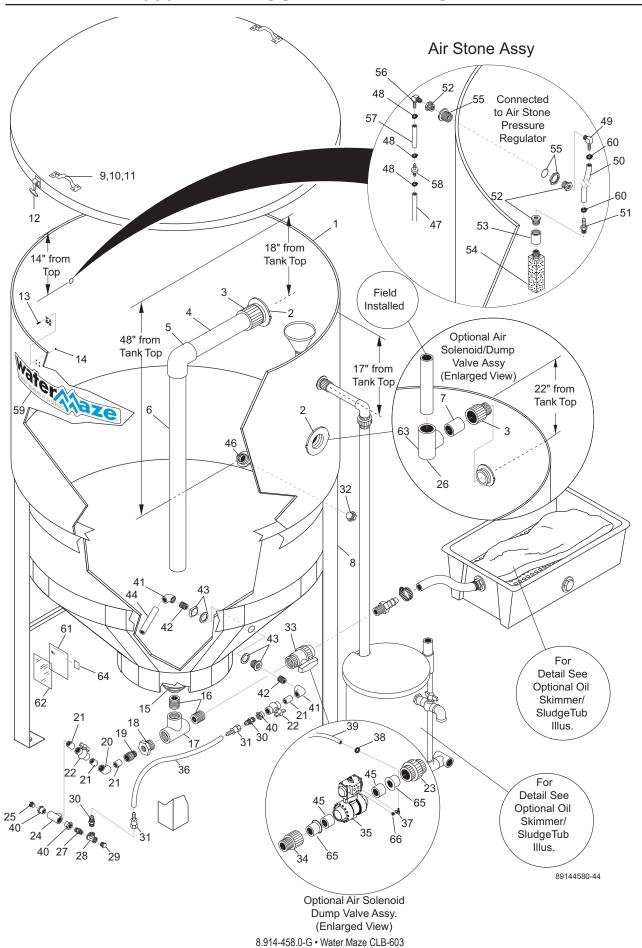
# **CLT-300 TANK ASSEMBLY OPTIONS**



# **CLT-300 TANK ASSEMBLY OPTIONS PARTS LIST**

ΓΕΝ	I PART NO.	DESCRIPTION	QTY
1	8.913-698.0	Assy, Grass Slide, 24"	1
2	8.913-699.0	Grass Screen, 24"	1
3	8.706-424.0	Nipple, 1-1/2" Close, PVC 80	1
4	8.706-375.0	Elbow, 1-1/2" FT x FT, PVC 80 90°	1
5	8.707-169.0	Adapter, 1.5" Male x 1.5" Male Thrd, CAM	2
6	8.707-168.0	Coupler, 1.5" Fem x 1.5" Hose Barb, CAM	2
7	8.913-145.0	Bracket, Grass Slide	4
8	9.802-767.0	Screw, 3/8 x 3/4" Whiz Loc	4
9	9.802-071.0	Trim 1/16" Black 3.33 ft	
10	9.802-781.0	Nut, 3/8" Whiz Loc	4
11	8.902-229.0	Elbow, 4" SLIP x SLIP, PVC 40	1
12	8.902-228.0	Pipe, 4" PVC 40	24 in
13	8.706-681.0	Cart Gray Utility	1
14	8.706-403.0	Bushing 2 x 1-1/2"	1
15	8.709-080.0	Clamp, Hose	2
16	8.719-967.0	Screen, 40 Mesh, SS 97" x 17-1/2"	1
17	9.802-193.0	Gasket, Neoprene	18 ft
18	8.706-530.0	Rail, Front End 1.25 x 15"	2
19	8.706-531.0	Rail, Back End, 1.25" x 94"	2
20	8.706-469.0	Union, 1-1/2" Slip	1
21	8.706-374.0	Elbow, 1-1/2", 90°, SLIP	2
22	8.706-426.0	Tee, 1-1/2" SLIP	1
23	8.707-344.0	Valve, 1-1/2" Gate, SLIP	1
24	8.913-698.0	Hose 1-1/2" Gray Sprialite	20 ft
25	9.802-730.0	Bolt 3/8" x 2-1/2 Zinc	2
26	9.802-099.0	Washer Snubbing	2
27	9.802-807.0	Washer Flat 3/8"	2
28	9.802-779.0	Nut 3/8"	2
29	9.802-714.0	Bolt, 5/16" X 1-3/4", NC HH	4
30	9.802-805.0	Washer 5/16" Flat SAE SS	4
31	8.718-887.0	Nut 5/16" SS Whiz Loc	4
32	8.718-754.0	Screw 1/4" - 20 x 1 1/4" Pan Head SS	4
33	8.718-747.0	Screw 1/4 x 1" SS PH PHIL	24
34	8.718-965.0	Washer 1/4" SS Flat	28
35	8.718-817.0	Nut 1/4-20 Hex Whiz-Loc SS	28

# **CLT-600 TANK ASSEMBLY EXPLODED VIEW**

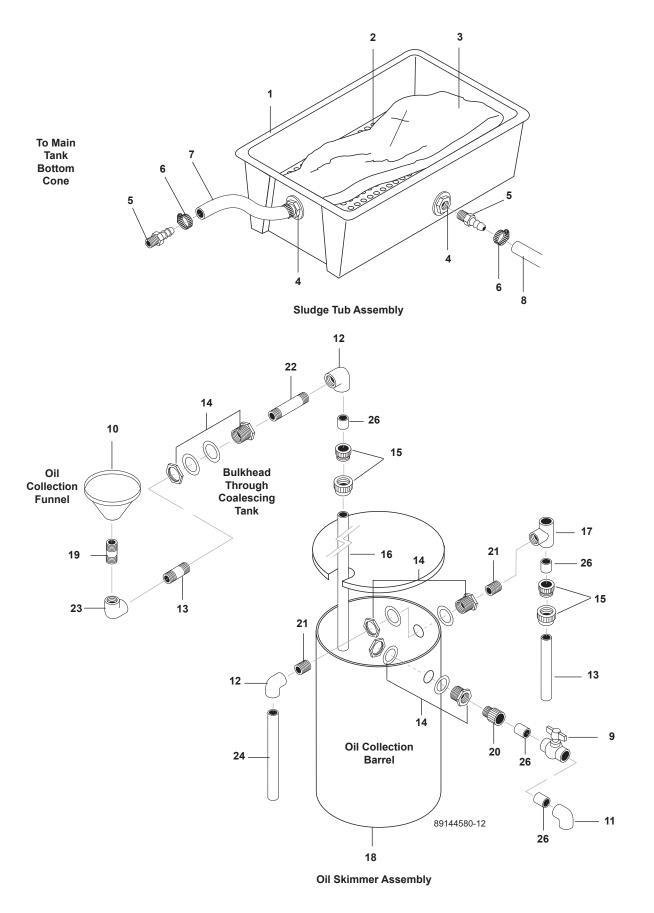


# **CLT-600 TANK ASSEMBLY EXPLODED VIEW PARTS LIST**

TEN	I PART NO.	DESCRIPTION	QTY
1	8.719-177.0	Tank, 600 Gal Clarifier w/Lid	1
2	8.706-483.0	Bulkhead, 3" FT x FT, Polypro	2
3	8.706-454.0	Adapter, 3" SLIP x MT, PVC 40	2
4	8.706-368.0	Pipe, 3" PVC 40	24 in
5	8.706-385.0	Elbow, 3" SLIP x SLIP, PVC 40	1
6	8.706-368.0	Pipe, 3" PVC 40	36 in
7	8.706-368.0	Pipe, 3", PVC 40 6 in	
8	8.913-095.0	Assy, Tank Stand 600, Mild Steel	1
9	8.706-648.0	Handle, Sandpot Lid	2
10	9.802-699.0	Screw 10/32	8
11	9.802-696.0	Nut 10/32	8
12	8.706-568.0	Handle, Rubber w/Keeper	3
13	9.802-747.0	Screw, 6/32 x 5/8	12
14	8.718-854.0	Nut, 6/32	12
15	8.706-479.0	Bulkhead, 2" NPT, Polypro	1
16	8.706-466.0	Nipple, 2" Close, PVC 80	2
17	8.706-436.0	Tee, 2" FT x FT x FT, PVC 80	1
18	8.706-418.0	Bushing, Reducer, 2 x 1, PVC 80 MPT x FPT	1
19	8.706-409.0	Adapter, 1" MT x SLIP, PVC 80	1
20	8.706-371.0	Elbow, 1" S x S, PVC 80, 45°	1
21	8.706-366.0	Pipe, 1" PVC 80 1" x 2" spacer	4
22	8.707-359.0	Valve, 1" S 80 PVC S x S	2
23	8.706-476.0	Union 2" FS x FT PVC 80 (Option)	1
24	8.706-430.0	Tee, 1" S x S. PVC 80	1
25	8.706-397.0	Plug, 3/4" MT, Sch 80 PVC	1
26	8.706-437.0	Tee, 3" S x S x S	1
27	8.706-800.0	Nipple, 3/4" Hex, Brass	1
28	8.706-846.0	Tee, 3/4" Female Pipe Brass	1
29	8.706-869.0	Plug, 3/4" Hex, Head	1
30	8.706-899.0	Nipple, 3/4" JIC x 3/4" Pipe	2
31	9.802-152.0	Swivel, 3/4" SAE Fem, Push-on	2
32	8.706-394.0	Plug, 1 1/2" PVC 80	1

ITEM	PART NO.	DESCRIPTION	QTY
33	8.707-349.0	Valve, 2" Single Union Ball	1
34	8.706-451.0	Adapter, 2" SLIP x MT, PVC 80 (Option)	1
35	8.756-648.0	Valve, BalL, 1-1/2", PNEU ACT, NO SOL	1
36	9.802-261.0	Hose, 3/4" Push-on	35 in
37	8.706-958.0	Hose Barb, 1/4" Barb x 1/4" Pipe, 90° (Option)	1
38	6.390-126.0	Clamp, Hose, .4654 ST (Option)	2
39	9.802-254.0	Hose, 1/4" Push-on, Fuel Line (Option)	15 ft
40	8.706-447.0	Adapter, 1", 3/4" S x FIPT PVC 80	3
41	8.706-378.0	Elbow, 1" SLIP x FIPT PVC 80, 90°	2
42	8.706-439.0	Nipple, 1", PVC 80, Close	2
43	8.706-484.0	Bulkhead, 1" Polypro	1
44	8.706-366.0	Pipe, 1" PVC 80	12 in
45	8.706-367.0	Pipe, 1.5", PVC 80, /FT 1.5 x 2-3/4	2
46	8.706-490.0	Bulkhead, 1-1/2" Polypro	1
47	8.711-733.0	Tubing, 3/8 x 1/2" Clear Vinyl	15 ft.
48	8.709-069.0	Clamp, Screw #4	3
49	8.706-958.0	Hose Barb, 1/4 Barb x 1/4 Pipe	1
50	9.802-254.0	Hose, 1/4" Push-on	16 in.
51	8.706-941.0	Hose Barb, 1/4" x 1/4" Pipe	1
52	8.706-407.0	Bushing, 1/2 x 1/4 MT x FT	3
53	8.706-393.0	Coupling, 1/2" SCH 80	1
54	8.712-417.0	Diffuser Stone, Fine Pore, 1/2" NPT	1
55	8.750-743.0	Bulkhead, 1/2" NPT Polypro	1
56	8.707-016.0	Elbow, 90°, 1/4" NPT x 3/8	1
57	8.711-733.0	Tubing, 3/8 x 1/2" Clear Vinyl	6 in
58	8.707-355.0	Check Valve	1
59	8.900-841.0	Label WaterMaze Logo Large	1
60	6.390-126.0	Clamp Hose	2
61	9.800-013.0	Label USA Intended Indoor use	1
62	9.800-034.0	Label, Clear Lexan	1
63	8.706-638.0	Pipe 3" PVC 40	22 in
64	9.804-141.0	ETL Label	1
65	8.706-413.0	Bushing, 2' X 1 1/2' SLIP, PVC 80	2
66	8.756-650.0	Muffler, Exhaust, 1/4" NPT, Brass	1

# OIL SKIMMER & SLUDGE TUB ASSEMBLY EXPLODED VIEW

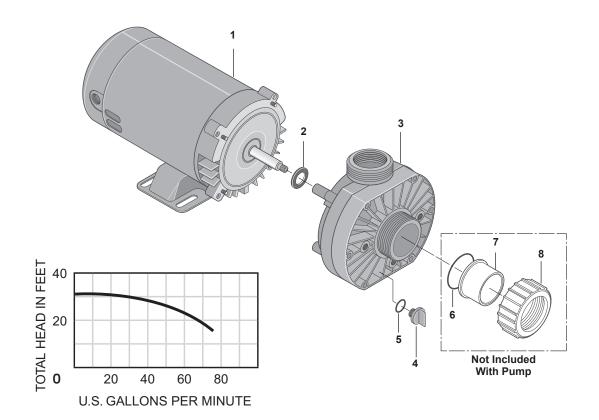


# OIL SKIMMER & SLUDGE TUB ASSEMBLY PARTS LIST

ITEM	IPART NO.	DESCRIPTION	QTY
1	8.719-179.0	Tub, Sludge, w/Lid (Black)	1
2	8.913-094.0	Support, Sludge Bag	1
3	8.719-191.0	Bag, Sludge, Qty 1, Biodegradable	5
4	8.706-479.0	Bulkhead, 2" NPT Poly	2
5	8.706-453.0	Adapter 2" MTx 2- M Hose Insert	5
6	8.709-083.0	Clamp, 3 -1/2" SS Band	5
7	8.711-817.0	Hose 2" Clear Spiralite	21 in
8	8.711-817.0	Hose 2" Clear Spiralite	84 in
9	8.707-361.0	Valve 1 1/2" 80 PVC S x S	1
10	8.706-683.0	Funnel, Plastic Oil Skimmer	1
11	8.706-374.0	Elbow, 1.5" S x S	1
12	8.706-372.0	Elbow, 1-1/2" S x T	2
13	8.706-468.0	Nipple, 1-1/2" x 3"	1
14	8.706-490.0	Bulkhead, 1-1/2" Polypro	3
15	8.706-469.0	Union, 1-1/2" S x S	2
16	8.706-367.0	Pipe, 1-1/2" PVC 80	57 in
17	8.706-428.0	Tee, 1-1/2", S x S x T	1
18	8.719-169.0	Tank, Vertical w/Lid, 26 Gallon	1
19	8.706-492.0	Nipple, 1-1/2" x 2-1/2"	1
20	8.706-441.0	Adapter, 1.5" S x MT	1
21	8.706-424.0	Nipple 1.5 x Close PVC 80	2
22	8.706-482.0	Nipple 11/2" x 6" PVC 80	1
23	8.706-375.0	Elbow 11/2" FTx FT PVC 80	1
24	8.706-367.0	Pipe 1.5 PVC 80	14 in
25	8.706-367.0	Pipe 1.5 PVC 80	11 in
26	8.706-367.0	Pipe 1.5 PVC 80 1.5 x 21/2"	4

## **OZONE PUMP EXPLODED VIEW**

#### Part # 8.917-760.0



# **OZONE PUMP EXPLODED VIEW PARTS LIST**

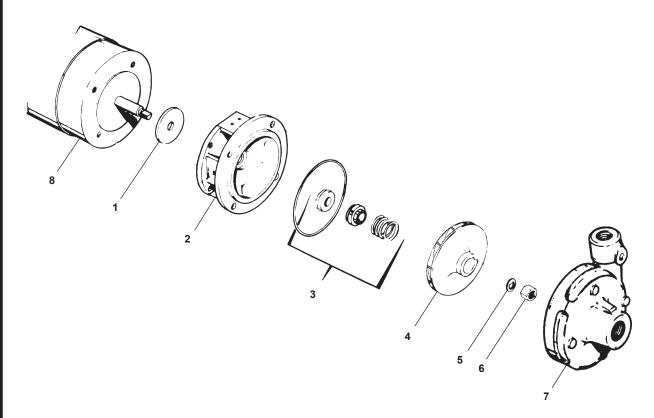
ITEN	I PART NO.	DESCRIPTION	QTY
1	8.726-026.0	Motor, 3/4 HP, 230V	1
2	NA	Slinger	1
3	8.726-024.0	Pump, 3/4 HP, Wet End	1
4	NA	Drain Plug	1
5	NA	O-Ring, Drain Plug	1

ITEM	PART NO.	DESCRIPTION	QTY
6	NA	O-Ring	1
7	NA	Adapter, Union 1-1/2" Slip	1
8	NA	Collar, Union	1
Kit:			
6-8	8.750-270.0	Fitting, Compression, 1-1/2" Slip	

,	ΗP	Volts	Phase	Siz Inlet	ze Outlet	Running Amps	Max. Pressure	Max. Water Temp.
3	3/4	230V	1	1-1/2" FPT/ 1-1/2" MBT	1-1/2"FPT/ 1-1/2" MBT	5.7	40 PSI	104°F/40°

#### **OPTIONAL TRANSFER PUMP EXPLODED VIEW**

8.715-402.0, 2 HP, 230V 1 PH



#### OPTIONAL TRANSFER PUMP EXPLODED VIEW PARTS LIST

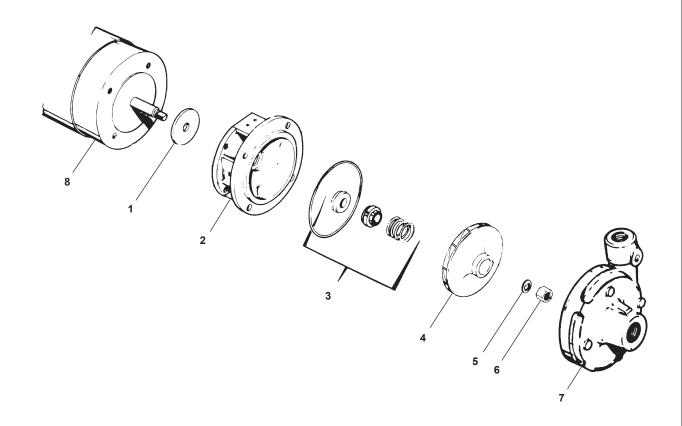
ITEM	PART NO.	DESCRIPTION	QTY
1	8.718-520.0	Flinger	1
2	88-132000200	Adapter	1
3	88-118000340G	Seal	1
4	8.718-534.0	5.13" Impeller	1
5	88-104000168	Washer	1
6	8.718-521.0	Nut	1
7	88-130000170	Case	1
8	88-113000348	Motor, 2 HP 230V 1 PH	1

	AL HI		PERFO NUMBI		CE C 40.00		350	0	RPM		1.0	S.G. 70°F	PU	MР		60		
55-	78-	180-									60		PUMP IMP. MAX. IMPEL	SIZE: TYPE: DIA.: LER NO	1.5	x 1.25 ENCLOS 5.50 B1002		
49-		160-						-		-		-	MAX.	SPHER	E:	7/32	STD.	IMPELLER
43-	61-	140-	5.50			35			``	<u></u>		-				4	FOR O	DP MOTO
37-			5.13		$\  \hat{\beta} \ $	J5 .	40	45	47-	<u> </u>	``,	Ļ				$\bot$	3/4 1.0	4 4.1
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18-	26-	60-		_				-			<u> </u>	V	V			₹`~		+
12-	17-	40-						-				$\swarrow$	1					3 4/0
6-	9-	20-									3	4 45	HO		7.3	1/2	7	20
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LITER PER	S MINUTE	. (	)	3	8	7	6	1	14	13	52	1	90	2:	28	2	66	304

BRAND	MODEL NO.	SIZE INLET OUT- LET	AMPS	VOLTS	PHASE	MAXGPM, PSI
SCOT	60	1-1/2" 1-1/4"	9.1	230	1	See Chart Above

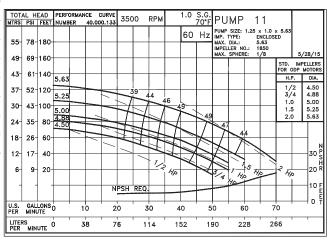
#### TRANSFER PUMP EXPLODED VIEW

#### #8.755-986.0 3/4 HP 1PH



#### TRANSFER PUMP EXPLODED VIEW PARTS LIST

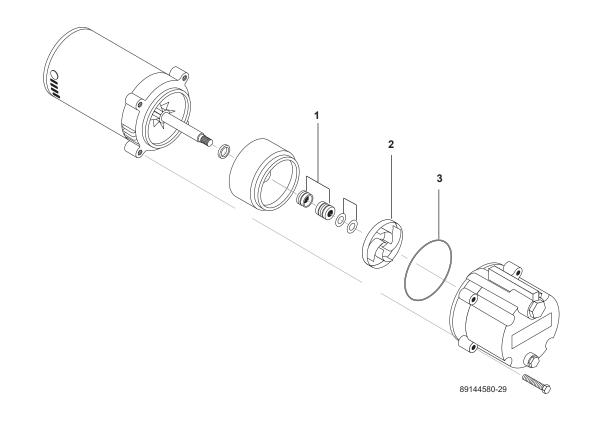
ITEM	PART NO.	DESCRIPTION	QTY
1	104.000.171	Flinger	1
2	132.000.337X	Adapter	1
3	101.000.239	Seal VN-SIL/SIL	1
4	131.000.763D	4.88" Impeller	1
5	104.000.168	Washer	1
6	105.000.465	Nut	1
7	137.002.664X	Case	1
8		Motor, 3/4 HP 230V 1 PH	1



BRAND	MODEL NO.	SIZE INLET OUT- LET	AMPS	VOLTS	PHASE	MAXGPM, PSI
SCOT	11	1-1/4" 1"	5.5	230	1	See Chart Above

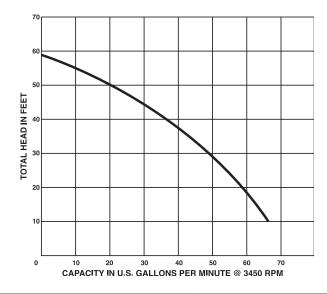
#### **INFEED PUMP PUMP EXPLODED VIEW**

#### #8.715-387.0 1/2 HP 1 PH



#### INFEED PUMP PUMP EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	8.749-983.0	Seal	1
2	8.749-984.0	Impeller	1
3	8.725-503.0	O-Ring	1



BRAND	MODEL NO.	SIZE INLET OUT- LET	AMPS	VOLTS	PHASE	FLOW/HEAD
AMT	2852-95	1-1/4" 1-1/4"	4.0	230	1	See Chart Above

