



Water Works With Otterbine



Aqua Series Fractional Aerator Owner's Manual

A Guide to More Dependable
Water Quality Management
With Otterbine Barebo Inc.'s
1/4 & 1/2 Horsepower Surface Spray Aerator

Welcome Aboard!

Welcome to the growing family of people who depend on aerators for better water quality control and aesthetic improvement. Otterbine Barebo, Inc. moves its aerator line into the next century with a revolutionary platform. This design offers a two-year warranty with virtually no maintenance, reduced float visibility, and interchangeable spray patterns. All Otterbine products are safety tested and approved by ETL, ETL-C and CE.

Water Quality Specialists

Barebo, Inc. is a team of scientists, engineers, and crafts persons who specialize in efforts to improve water quality. Otterbine aerators are built at Barebo, Inc.'s 25,000 square foot factory in Emmaus, Pennsylvania. Each step in assembly is followed by a quality assurance check to maintain high quality.

The **Aqua Series Fractional Aerator** of Otterbine aerators, made of powder coated aluminum and high tech engineering plastics, reflects the results of aerator research and development programs that started in 1956, plus the experience gained through thousands of installations on commercial fish farms, golf courses, parks, and architectural applications.

Follow the Guidelines

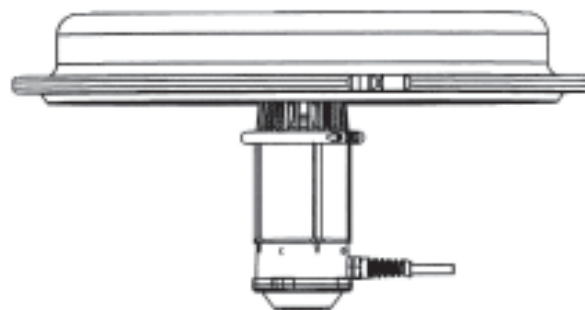
You'll find guidelines for installing, operating, and maintaining your aerator in the following pages. We strongly recommend that you read, understand, and apply these guidelines. They will help you get better performance and dependability from your Otterbine aerator.



1/2HP AquaBlast



1/2HP AquaGem



CADDrawing of Unit

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Revised 3/25/2004

WARNING: **PHYSICALLY** disconnect the unit and lights from their electrical source before entering, wading in or swimming in the water in which they are installed.

Aerator Equipment

A. Unpack and inspect your aerator, report any damage to the carrier that delivered your aerator. Make sure you have received the following:

- 1. Unit** - You will find an identification label located on the housing of the unit. Check the label to make sure you have received the correct horsepower and voltage. The unit comes standard with a submersible power cord; 50ft (15m) for 1/4HP units and 100ft (30m) for 1/2HP units.
- 2. Float** - Mount the float to the unit by following the mounting instructions in this manual.
- 3. Debris Screen with Mounting Kit** - Mount the screen to the float by following the mounting instructions in this manual.
- 4. Power Control Center (Optional for 50Hz Units)** - Outdoor rated 24-hour timer with GFCI (Ground Fault Circuit Interrupter).
- 5. Light Set (Optional)** - If lights were ordered, verify the light set and the light Timer/Transformer Controls (controls for 60Hz ONLY) are enclosed.
- 6. Warranty Registration Card** - make sure to fill in your Otterbine warranty registration card and send it back to the factory so that you can ensure years of service and also receive our bi-annual customer newsletter, which will keep you up to date on all the latest aeration news. **WARRANTY IS VOID UNLESS CARD IS RETURNED.**

B. Prior to installation, please measure your water depth. Otterbine Aqua Series Fractional Aerators require at least 13 inches (33cm) for 1/4HP units and 14 inches (35.5cm) for 1/2HP units of water depth to run properly. If the water is too shallow, dig out a portion of the pond directly under the unit or move the unit to a deeper section of the pond. If large fluctuations or high waves in water depth occur, it will be necessary to allow for more than the required minimum operating depth.

C. Spray Pattern Selection: your Otterbine Aqua Series Fractional Aerator has been factory configured with the AquaGem spray pattern. If the AquaBlast spray pattern is desired, refer to the "Changing the Spray Pattern" section of this manual.

Electrical Installation

WARNING: TO PREVENT FATAL OR SERIOUS ELECTRICAL SHOCK, THIS EQUIPMENT MUST BE INSTALLED:

- **By a licensed and qualified electrician**
- **In compliance with national, state and local electrical codes**
- **With the proper size fusing and/or circuit breaker protection**
- **For North America, with a 5 milliamp ground fault circuit interrupter (GFCI)**
- **For Europe (International), with a residual current device (RCD) having a rated residual operating current not to exceed 30mA**

A. Your Aqua Series Fractional Aerator is safety tested. It is ETL and ETLc listed, and CE marked. However, proper installation is the most crucial step to assure a safe and reliable unit.

B. Install the Otterbine Power Control Center as close to the pond as possible. The enclosure is rated for both indoor and outdoor use. Mount panel a minimum of 3 feet (1m) above the ground and above any flood zone.

CAUTION: The Power Control Center must not be accessible from the water.

WARNING: The Aqua Series Fractional Aerator can be run out of the water to verify operation, however, do not run it for more than 30 seconds. Motor or seal damage may occur and void the warranty.

CAUTION: KEEP HANDS CLEAR OF THE IMPELLER WHEN STARTING THE UNIT.



THERMALLY PROTECTED AUTOMATIC RESET

- **UNIT WILL RESTART WITHOUT WARNING AFTER PROTECTOR TRIPS.**
- **KEEP FINGERS OUT OF IMPELLER SYSTEM UNTIL UNIT IS DISCONNECTED.**
- **ALWAYS DISCONNECT UNIT FROM POWER SOURCE BEFORE SERVICING.**

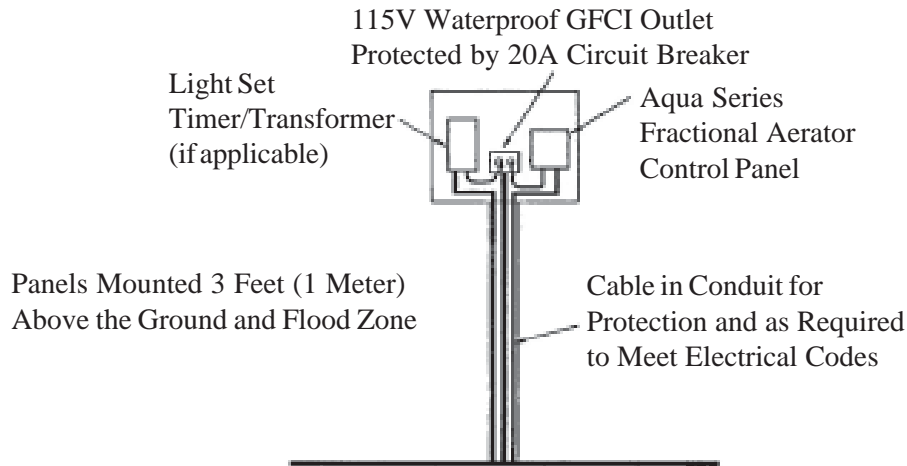
NOTE: This unit contains thermal protection to help prevent high heat conditions in the motor that could damage the motor. If your unit is intermittently starting and stopping, the unit is showing symptoms of a larger problem and you should disconnect power from the unit and contact Otterbine or your distributor.

NOTE: Otterbine suggests that the power cord be encased in conduit between the power control center and the pond. This insures against possible cable damage. The submersible power cord is not rated for direct burial.

Electrical Installation - continued

C. Typical 115V 60Hz Power Control Center Installation.

NOTE: For 115V units, a plug is supplied with the power control center. This plug must be attached to the Aqua Series Fractional Aerator cable and installed only into the power control center.



D. Typical 220V 50Hz Power Control Center Installation.

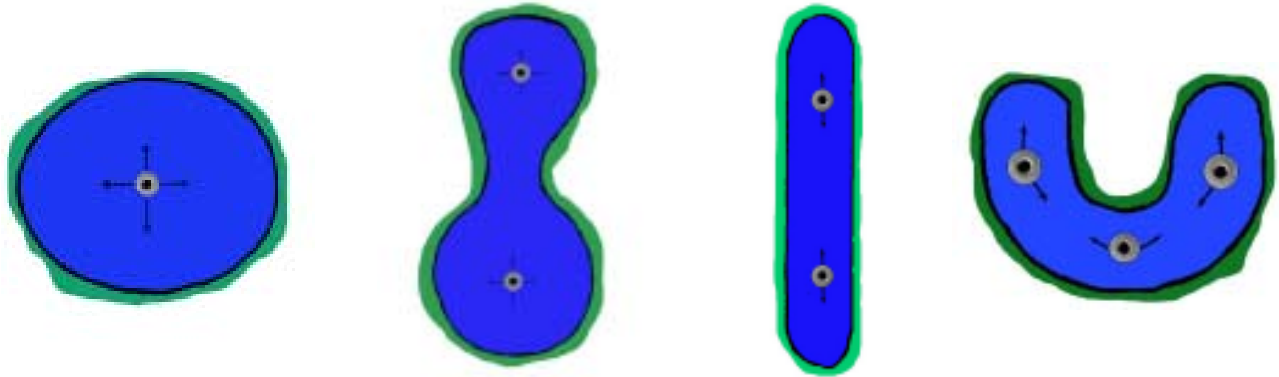
NOTE: For 220V 50Hz units, the PCC for the unit is optional. The PCC contains the proper fusing for the unit and must be hard wired (input and output power). There are no optional 50Hz controls for the Light Set. The lights require 12VAC to operate.

E. Physically disconnect the power cords for the unit and lights from their electrical source and proceed with the physical installation of the unit.

WARNING: PHYSICALLY DISCONNECT THE UNIT AND LIGHTS FROM THEIR ELECTRICAL SOURCE BEFORE INSTALLING, SERVICING OR MAINTAINING THE EQUIPMENT

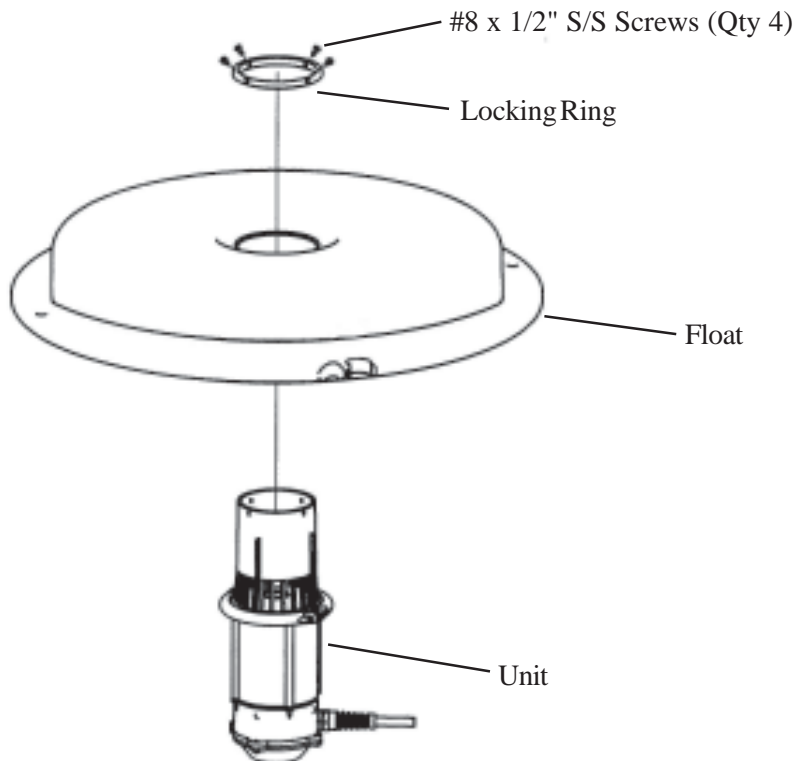
Aerator Placement

When using your Aqua Series Fractional Aerator for aesthetic enhancement only, position the Water Feature in the place you feel it is best suited. When using your Aqua Series Fractional Aerator(s) for water quality management place them as shown in the examples below to insure maximum aeration and circulation throughout the entire pond.



Physical Installation

A. First, the float must be mounted to the unit. See the figure below for reference. Stand the unit upright and remove the locking ring. Slide the float onto the unit so that the Otterbine logo and warning label is facing up. Reinstall the locking ring being very careful not to overtighten the screws. Overtightening the screws may cause damage. If the AquaBlast spray pattern is desired, it should be changed at this point. Refer to the "Changing the Spray Pattern" section of this manual.

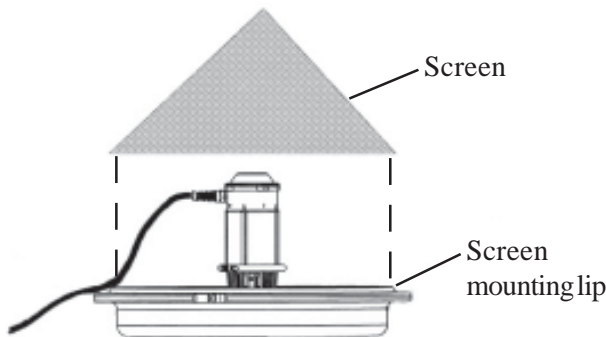


Physical Installation - continued

B. Using one of the cable ties provided, secure the unit power cord to one of the holes in the outer lip of the float. The liquid-tight cord connector on the unit has an integral strain relief.

C. Use the screen only if the water contains a large amount of debris that may clog the pump chamber. If so desired, mount the screen (Screen Kit P/N 12-0106) to the unit, see figure below. Slide the screen over the bottom of the unit and secure to the lip on the float using 8 of the screws and washers provided (Hardware Kit P/N 12-0008). Do not overtighten. Drive the screws directly into the float. The power cord may be ty-rapped to the bottom of the screen to prevent from listing/tilting to one side.

NOTE: The screen will need to be periodically cleaned. If the screen is not cleaned, the performance and efficiency of the aerator will decrease.



CAUTION: When reinstalling a screen use the same screw holes from when the screen was first mounted. Any screw holes in the float not being used must be sealed with silicone or a screw to prevent water from getting into the float.

D. If your unit has lights, proceed to the "Light Set Installation" section in this manual before installing into the water.

E. Bump start the unit out of the water to verify proper operation. Keep hands clear of the impeller when starting the unit. Do not run it for more than 30 seconds out of the water, motor or seal damage may occur and void the warranty. Physically disconnect the the unit from its electrical source before proceeding with installation.

F. Your Otterbine Aqua Series Fractional Aerator now ready to be installed into the water. It may either be moored or anchored in the water. Mooring is the preferred method as it provides an easy way to retrieve the unit and allows for fluctuations in water height.

WARNING: DO NOT USE THE POWER CORD AS A MOORING LINE.

I. Mooring the Aqua Series Fractional Aerator



1. The following is required to moor your unit.
 - a. Polypropylene rope or stainless steel cable for use as mooring lines.
 - b. Wooden stakes, rebar, or "duckbill" type earth anchors (see below) may be used to secure the mooring lines to the shore.



-Duckbill Earth Anchors are driven into the ground, using a drive rod and heavy hammer, compacting the earth as they drive downward, until they reach the recommended depth. After removing drive rod, installer pulls up on cable. This planes or rotates the anchor into load lock position, like a toggle bolt in undisturbed earth.

Physical Installation - continued

2. Choose a suitable location for your aerator. Refer to the “Aerator Placement” section.
3. Secure a mooring line to each of the holes in the outer lip of the float. Make sure the mooring lines are long enough to reach the edge of the pond when the unit is in the desired location. Carefully place the unit into the water.
4. Secure one of the mooring lines to the edge of the pond. If you are using a stake or rebar, make sure to pound it securely into the ground on outer edge of the pond. If you are using a "duckbill" type earth anchor, you will need to place it 1-2 feet (.3-.6 meters) into the pond and below the surface of the water and then pound it 2 feet (.6 meters) into the pond bottom. The earth anchor will allow your mooring lines to be virtually unnoticeable as it will be hidden beneath the water surface.
5. Walk the other mooring line around to the opposite side of the pond and pull the unit into the desired location.
6. Secure the second mooring line to the edge of the pond. There should be enough slack in the mooring lines to allow the unit to turn 90 degrees or 1/4 turn when started. This slack will allow for proper start-up, wave action, and fluctuations in the water level.
7. Proceed to the "Aerator Start-Up" section of this manual.

II. Anchoring the Aqua Series Fractional Aerator



1. The following is required to anchor your unit.
 - a. Polypropylene rope or stainless steel cable for use as anchor lines.
 - b. Two 15 lb (7 kg) anchors.
 - c. A small boat.
2. Choose a suitable location for your aerator. Refer to the “Aerator Placement” section.
3. Using the boat, take the unit, anchor lines and anchors to the chosen location.
4. Drop the anchors with anchor lines attached out of the boat at a minimum of a 45 degree angle from the desired location of the unit (see the figure above).
5. Bring the anchor lines together and secure to each of the holes in the outer lip of the float. There should be enough slack in the anchor lines to allow the unit to turn 90 degrees or 1/4 turn when started. This slack will allow for proper start-up, wave action, and fluctuations in the water level.
6. Proceed to the "Aerator Start-Up" section of this manual.

Aerator Start-Up

A. With the Aqua Series Fractional Aerator securely moored or anchored, reconnect the power cord for the unit and lights to the power control centers.

WARNING: Do not enter, wade or swim in the water in which the Aqua Series Fractional Aerator is running.

B. Energize the unit. With the unit running, have a licensed electrician take a voltage and an amperage reading. Verify that your unit is receiving the proper voltage and the amperage is to specifications. Record the voltage and amperage readings on the back cover of this manual.

C. Test the GFCI (RCD) device for proper operation by depressing the test button. If the GFCI device does not trip (unit stops running), it is defective and must be replaced. Reset the GFCI device. GFCI devices must be tested monthly per manufacturer's recommendations.

D. This completes the installation of your Aqua Series Fractional Aerator. The unit and lights may be turned on and off as desired by setting the timers accordingly. The unit is designed for continuous run in the water.

Technical Specifications

Subject to change without notice (Updated 2/20/2004)

Model	HP	Electrical Rate	Motor RPM	Running Amps	Spray Height*	Spray Diameter*	Pumping Rate*	MAX Cable Run 12awg (4mm ²) Cable**
AquaGem								
	1/4	115V 1Ph 60Hz	3250 @ 60Hz	3.1	3ft (0.9m)	7ft (2.1m)	175 gpm (39.7 m ³ /hr)	475ft (144.8m)
	1/2	115V 1Ph 60Hz	3250 @ 60Hz	5.5	4ft (1.2m)	9.5ft (2.9m)	200 gpm (45.4 m ³ /hr)	275ft (83.8m)
	1/4	220V 1Ph 50Hz	2700 @ 50Hz	1.8	3ft (0.9m)	7ft (2.1m)	175 gpm (39.7 m ³ /hr)	1525ft (464.8m)
	1/2	220V 1Ph 50Hz	2700 @ 50Hz	3.2	4ft (1.2m)	9.5ft (2.9m)	200 gpm (45.4 m ³ /hr)	850ft (259.1m)
AquaBlast								
	1/4	115V 1Ph 60Hz	3250 @ 60Hz	3.1	1.5ft (0.4m)	4ft (1.2m)	210 gpm (47.7 m ³ /hr)	475ft (144.8m)
	1/2	115V 1Ph 60Hz	3250 @ 60Hz	5.5	2ft (0.6m)	5.5ft (1.7m)	260 gpm (59.1 m ³ /hr)	275ft (83.8m)
	1/4	220V 1Ph 50Hz	2700 @ 50Hz	1.8	1.5ft (0.4m)	4ft (1.2m)	210 gpm (47.7 m ³ /hr)	1525ft (464.8m)
	1/2	220V 1Ph 50Hz	2700 @ 50Hz	3.2	2ft (0.6m)	5.5ft (1.7m)	260 gpm (59.1 m ³ /hr)	850ft (259.1m)

* Specs based on actual and empirical data and may vary due to voltage, elevation, relative humidity and other relevant site conditions.

** Distance measured from service entrance to unit. For longer distances consult your distributor or Otterbine.

Induced Circulation is 10 times the pumping rate. Induced circulation is the mixing effect which is occurring below the water's surface.

HP - Horsepower

Ph - Phase

RPM - Revolutions per Minute

m - meters

m³/hr - Cubic Meters per Hour

V - Voltage

Hz - Hertz

ft - feet

gpm - Gallons per Minute

Changing the Spray Pattern

A. Your Aqua Series Fractional Aerator can be configured into two different spray patterns. It has been factory assembled with the AquaGem spray pattern. To change to the AquaBlast spray pattern, refer to the following instructions and figures. Pictures of each spray pattern are located inside the front cover for reference.

WARNING: Do not use tools on the impeller to hold the shaft when loosening or tightening the hex screw. This may damage the impeller and reduce pump performance.

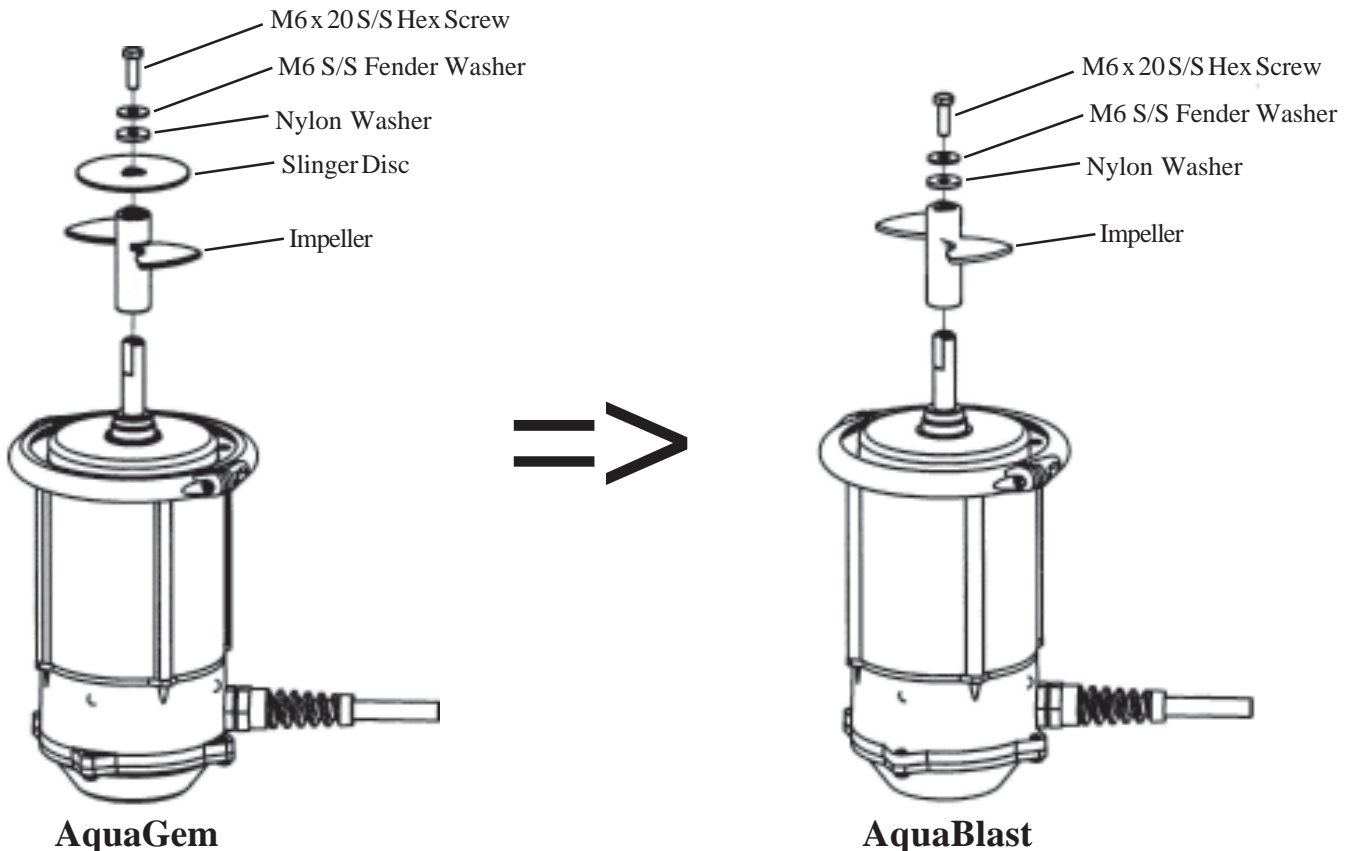
B. The slinger disc is the only component that needs to be removed to change the AquaBlast spray pattern. Remove the M6 x 20 hex screw using a 10mm socket wrench. Do not discard the hex screw or the two washers, they will be reinstalled on the unit.

C. Remove the slinger disc from the top of the impeller (keep for possible future use).

D. Reinstall and tighten the hex screw and two washers to secure the impeller. The washers must be in the order shown.

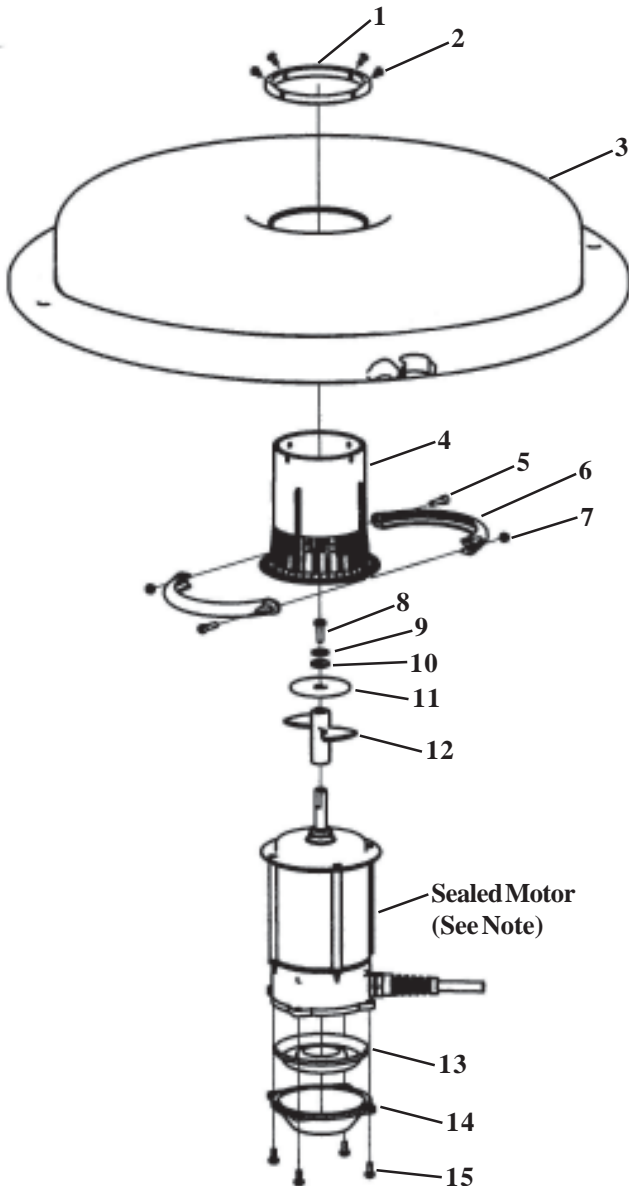
CAUTION: The impeller must be all the way on the motor shaft when reinstalled in order to properly seat the rotary seal. Failure to do this may cause a leak which may cause damage to the motor.

NOTE: Standoff Strainer not shown in the figures below for clarity. It does not have to be removed.



Unit Exploded View Diagram

Item No	Description	Qty	Part Number
1	Locking Ring	1	42-0043
2	#8 x1/2" S/S Type B Screw	4	24-0024
3	Float	1	42-0042
4	Standoff Strainer	1	42-0039
5	M5 x 20 S/S Cheese Head Screw	2	24-0021
6	V-Clamp	2	42-0040
7	M5 S/S Nylon Locknut	2	26-0006
8	M6 x 20 S/S Hex Head Screw	1	24-0022
9	M6 S/S Fender Washer	1	28-0023
10	Nylon Washer	1	29-0007
11	Slinger Disc	1	47-0010
12	Impeller, 1/4HP 60Hz Impeller, 1/2HP 60Hz & 1/4HP 50Hz Impeller, 1/2HP 50Hz	1	42-0044 42-0045 42-0046
13	Diaphragm	1	42-0037
14	Diaphragm Cover	1	42-0036
15	M4 x 12 S/S Screw w/External Washer	4	24-0025



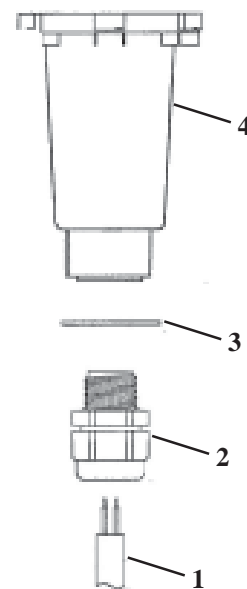
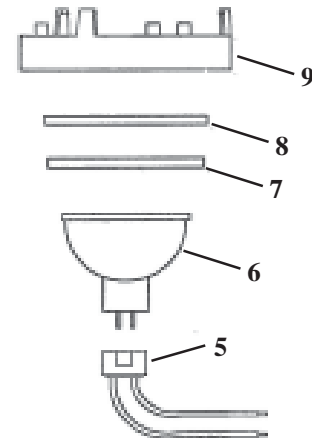
NOTE: Motor Cartridge consists of all parts shown except the Float. Motor Cartridge descriptions and part numbers are as follows:

Motor Cartridge Description	Part Number
1/4HP, 115V 1Ph 60Hz with 50ft Cord	14-0033-115
1/4HP, 220V 1Ph 50Hz with 50ft Cord	14-0033-220
1/2HP, 115V 1Ph 60Hz with 100ft Cord	14-0034-115
1/2HP, 220V 1Ph 50Hz with 100ft Cord	14-0034-220
1/4HP, 115V 1Ph 60Hz with Quick Disconnect	14-0037-115
1/4HP, 220V 1Ph 50Hz with Quick Disconnect	14-0037-220
1/2HP, 115V 1Ph 60Hz with Quick Disconnect	14-0038-115
1/2HP, 220V 1Ph 50Hz with Quick Disconnect	14-0038-220

Light Set Installation

- A.** The Fractional Low Voltage Light Set uses two 12 volt, 20 watt, 40 degree spread MR16 Type Bulbs (700 Candlepower each) with corrosion resistant thermoplastic light housings. The Light Set has a shore mounted transformer/timer. This limits the cable runs since the 12 volts is transformed at the shore. The maximum cable run for this light set is 150 feet (45.7 meters). The controls consist of a transformer/timer (controls are not supplied with 50Hz systems).
- B.** Snap a light fixture into each of the pockets on the outer edge of the unit float.
- C.** Using one of the cable ties provided, secure the light set power cord to the opposite hole in the outer lip of the float that the unit power cord was secured.
- D.** If Color Lenses were ordered, snap into the legs on the outside of the light ring. Before installing, remove the protective plastic from color lens. Color lenses can be easily added, removed or changed without having to disassemble or removed the light fixture. Color Lenses come in a kit (P/N 12-0085) which contains one of each color; blue, red, yellow and green. Color lenses can also be ordered individually (P/N 12-0091, must specify color).
- E.** See the "Electrical Installation" section of this manual for electrical connection instructions.

Item No	Description	Qty	Part Number
1*	Cord Assy, Fractional Light Set	1	08-0042
2*	Liquid-Tight Cord Connector	1	33-0032
3*	Nylon Washer	1	29-0005
4*	MR16 Plastic Light Housing	1	42-0029
5*	MR16 Light Socket	1	31-0144
6**	12V, 20W MR16 Bulb	1	31-0143-020
7	Light Housing O-Ring	1	49-0020
8	Clear Glass Lens	1	47-0004
9	MR16 Light Ring	1	42-0030
10*	Crimp Connector (not shown)	2	33-0028-001
11***	Potting Compound, 3M Scotchcast 2112 (not shown)	--	52-0003



* Items #1, 2, 3, 4, 5, 10 can be purchased as a potted assembly (P/N 09-0028).

** **CAUTION:** Do not touch bulb or inside of reflector with bare hands, may damage glass and/or reduce bulb life.

*** The potting compound is used to sealed the light housing and electrical connections.

Light Bulb Replacement

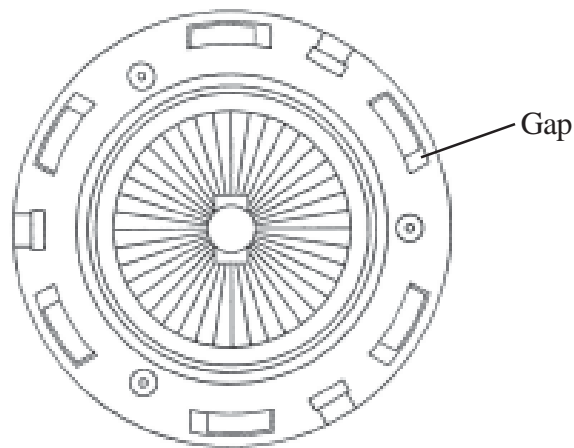
In the event that the light bulb requires replacement, follow these steps.

- A. Physically disconnect the power from the unit and the light set. Allow lights to cool to avoid skin burns.
- B. Remove the light fixture(s) from the float and from the water. Dry excess water off of the light fixture.
- C. Remove the light ring from the housing by twisting it counter-clockwise and lifting it off.
- D. Remove the glass lens and o-ring.
- E. Remove the bulb by pulling it straight out of the socket.
- F. Install the new bulb by pushing it straight into the socket. Verify that the new bulb is the same wattage as the old bulb.

NOTE: The socket will be damaged if the bulb is not pulled out and pushed in straight. When installing or inspecting the bulb do not touch the inside of the reflector or the bulb itself with bare hands. This may cause premature failure or shorten bulb life.

- G. Reinstall the glass lens and the o-ring onto the top of the housing. Place the light ring on top of the housing so it rests in the tabs and twist it clockwise until it snaps into place.

NOTE: If the light ring is on the housing properly, there will be approximately a 1/8" (3mm) gap to the right of each tab on the housing when looking from the top (See Figure below). If this gap is not present, the light ring is not on properly and needs to be twisted more clockwise.



(Top View)

- H. Reinstall the light fixture(s) to the float.
- I. Reconnect power to the unit and the light set. Reset timers if necessary.

Troubleshooting Guide

<u>SYMPTOM</u>	<u>POSSIBLE CAUSE</u>	<u>CORRECTION</u>
Motor will not start	Breaker/fuse has tripped	Check breaker or fuse. Reset/replace
	Low voltage	Verify voltage in spec
	Excessive cord length	Verify acceptable maximum cord length
	Defective or disconnected power cord	Check cord for damage & verify it is properly connected
	GFCI device has tripped	Reset and test GFCI device. Replace if necessary
GFCI device trips continuously	Rotary Seal sticking	Disconnect power from unit and turn shaft by hand to unstick rotary seal
	Defective power cord	Check cord for damage. Replace/repair
	Bad or noisy power	Low voltage or surges may cause nuisance tripping. Contact your utility company
Unit turns on and off	Water in motor	Contact Otterbine or your Distributor
	Low voltage	Verify voltage is within specification
Fuses blow or circuit breaker trips	Shaft bound	Check shaft/pump chamber for obstruction
	Excessive cord length	Verify acceptable maximum cord length
	Defective motor	Contact Otterbine or your Distributor
Spray pattern low or distorted	Clogged screen	Clean screen
	Clogged pump chamber	Clean pump chamber of debris
	Unit hitting bottom	Move unit to deeper water or dig out underneath unit
Spray pattern tilted	Cord pulling on unit	Give cord more slack
	Mooring/anchoring line too tight	Loosen line
	Damaged impeller	Check impeller. Replace if necessary

Maintenance

Your Otterbine Aqua Series Fractional Aerator has been designed for years of dependable service.

- The screen should be cleaned as required to prevent any intake restrictions.
- At least once a year, you should thoroughly inspect the unit, power cord, and mooring/anchor lines for any signs of damage.

Winterization

If the temperature in your region of the country falls below 32 degrees F (0 degrees C) for any extended period of time, Otterbine strongly suggests that you remove your Aqua Series Fractional Aerator from the water. However, if it is left in the water it **MUST BE RUN CONTINUOUSLY** (24 hours per day/7 days a week) to prevent the pump chamber from freezing up.

!! WARNING !!

Leaving your Otterbine Aqua Series Fractional Aerator operating during the winter can lead to it freezing in. If it freezes in, do not attempt to start the unit until the ice fully thaws as motor or pumping component damage can occur . This damage will not be covered under warranty.

Limited 2 Year Warranty on the Unit
Limited 1 Year Warranty on the Lights
Otterbine® Product

WARRANTY: Barebo, Inc 3840 Main Road East, Emmaus Pennsylvania 18049, U.S.A. hereby warrants, subject to the conditions hereinbelow set forth, that should the **OTTERBINE** product prove defective by reason of improper workmanship or materials at any time during the warranty period the Purchaser at retail will be guaranteed that **BAREBO** will repair or replace the said **OTTERBINE** product as may be necessary to restore it to satisfactory operating condition, without any charge for materials or labor necessarily incident to such repair or replacement, provided that:

- a) The enclosed Warranty Registration Card should be mailed to **BAREBO** within fifteen (15) days of the original receipt by the Purchaser at retail in order to avoid delays:
- b) The **OTTERBINE** product must be delivered or shipped, prepaid, in its original container or a container offering an equal degree of protection, to **BAREBO** or a facility authorized by **BAREBO** to render the said repair or replacement services or, if purchased from an authorized **OTTERBINE** dealer, to such dealer;
- c) The **OTTERBINE** product must not have been altered, repaired or serviced by anyone other than **BAREBO**, a service facility authorized by **BAREBO** to render such service, or by an authorized **BAREBO** dealer, and the serial number of the **OTTERBINE** product must not have been removed or altered: and,
- d) The **OTTERBINE** product must not have been subjected to lightning strikes and other Acts of God, vandalism, freezing-in, accident, misuse or abuse, and must have been installed in conformance with applicable electrical codes (including proper electrical protection), and also installed, operated and maintained in accordance with guidelines in the Owner's Manual shipped with the Otterbine product.
- e) The **OTTERBINE** product must be physically inspected on an annual basis to insure the unit, the connector and the power cable are not damaged and are in proper working condition.

No implied warranties of any kind are made by **BAREBO** in connection with this **OTTERBINE** product, and no other warranties, whether expressed or implied, including implied warranties of merchantability and fitness for a particular purpose, shall apply to this **OTTERBINE** product. Should this **OTTERBINE** product prove defective in workmanship or material, the retail Purchaser's sole remedy shall be repair or replacement as is hereinabove expressly provided and, under no circumstances, shall **BAREBO** be liable for any loss, damage or injury, direct or consequential, arising out of the use of, or inability to use, the **OTTERBINE** product, including but not limited to retail Purchaser's cost, loss of profits, goodwill, damages due to loss of product or interruption of service, or personal injuries to Purchaser or any person.

HORSEPOWER (circle one): 1/4 1/2

VOLTAGE (circle one): 115V 1Ph 60Hz 220V 1Ph 50Hz

UNIT SERIAL NUMBER _____

LIGHTS SERIAL NUMBER (if any) _____

RUNNING VOLTAGE _____

RUNNING AMPERAGE _____



Water Works With Otterbine!

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