



8100-04 Paseo, Kansas City, Missouri 64131
800-821-3177

**INSTALLATION
OPERATION
AND
MAINTENANCE
OF THE
AQUARIAN® COMMERCIAL®
FLOATING AERATOR**

2008

DO NOT DESTROY!

This manual is designed for use in the installation, operation and maintenance of the Aquarian® Commercial®. Store this document in an easily accessible location.

The following information is provided to alert persons to potential personal injury hazards inherent with products.

! DANGER: Indicates an eminently hazardous situation which, if not avoided, will result in death or serious injury.

! WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

! CAUTION: Indicates a potentially hazardous situation, which may result in minor or moderate injury.

January 1, 2005



SAFETY DATA INFORMATION SHEET

- ! DANGER:** RISK OF ELECTRIC SHOCK. DO NOT INSTALL THIS EQUIPMENT IN SWIMMING AREAS. THIS EQUIPMENT HAS NOT BEEN INVESTIGATED FOR USE IN SWIMMING AREAS.
- ! WARNING:** DISCONNECT AND LOCK OUT ELECTRICAL POWER BEFORE ANY SERVICE IS PERFORMED ON THIS DEVICE.
- ! WARNING:** THE CONTROL PANEL AND UNIT MUST BE GROUNDED. FAILURE TO CONNECT TO A PROPER GROUND COULD RESULT IN PERSONAL INJURY OR DEATH.
- ! WARNING:** BEFORE ATTEMPTING TO INSTALL, SERVICE OR MAINTAIN THE UNIT AND/OR FLOTATION IN ANY BODY OF WATER A COAST GUARD APPROVED PERSONAL FLOTATION DEVICE (PFD, TYPE III OR HIGHER) MUST BE WORN.
- ! WARNING:** THE FLOTATION PROVIDED FOR THIS EQUIPMENT, HAS NOT BEEN INVESTIGATED PERSONAL FLOTATION DEVICE.
- ! WARNING:** ATTEMPTING TO INSTALL OR SERVICE EQUIPMENT FROM AN UNSTABLE WORK PLATFORM COULD RESULT IN DEATH OR INJURY.
- ! WARNING:** POSSIBLE CUTTING HAZARD. ROTATING PROPELLER COULD RESULT IN SERIOUS INJURY. TURN OFF POWER AND LOCK OUT BEFORE INSTALLATION OR SERVICING.
- ! NOTICE:** *DO NOT OPERATE THIS EQUIPMENT OUT OF THE WATER. (EXCEPTION:;) IT IS PERMISSABLE TO BUMP RUN 3-PHASE EQUIPMENT OUT OF THE WATER TO VERIFY COUNTER CLOCKWISE MOTOR ROTATION WITH A RAPID ON/OFF OPERATION.*
- ! CAUTION:** INSTALLATION OR SERVICE WORK MUST BE PERFORMED FROM A STABLE WORK PLATFORM TO AVOID THE POSSIBILITY OF CAPSIZING.



POWER CABLE SELECTION AND THE ATTACHMENT TO THE JUNCTION BOX

! DANGER: ELECTRIC SHOCK HAZARD. DISCONNECT ELECTRIC POWER AND LOCK-OUT BEFORE SERVICING ELECTRIC CONTROLS OR AERATOR.

POWER CABLE (waters edge to aerator).

Flexible water and U. V. resistant power cable is used for connection between the waters edge and the Aquarian® Commercial® aerator. 300 VOLT SJTOW cable for 230 volt motors 600 VOLT SEOW cable for 460 volt motors is acceptable by the N.E.C. (National Electric Code) for wet locations and is factory approved for use on Air-O-Lator® Aquarian® Commercial® aerators. **REFER TO THE CABLE SELECTION GUIDE.**

During the course of service cable selection you must consider the entire power supply run from the **service entrance** to the **aerator** to avoid concerns of voltage drop.

The factory has provided the power cable (waters edge to the aerator). It is important to select the correct size (gauge) cable from the service entrance to the waters edge based on the total percentage of power supply run service entrance to aerator overall based on the National Electric Code (N.E.C.) or local codes.

NOTE: THE JUNCTION BOX IS NOT MEANT TO BE WATERTIGHT. DO NOT ATTEMPT TO SEAL OR FILL THE JUNCTION BOX BY ANY MEANS.

THE SPLICE CONNECTION WITHIN THE JUNCTION BOX IS MADE WATER-TIGHT BY IMPLEMENTING ONE TIME USE UL LISTED PRESSURE-TYPE DIELECTRIC SILICONE GREASE FILLED WIRE CONNECTORS.

Cable Selection Guide

Single Phase, Three Wire with ground cable, 60 Hz

(Maximum length in feet – Service entrance to aerator)

Motor Rating		Copper Wire Size		
Volts	HP	12	10	8
230	2	250	400	*
230	3	200	300	400

Asterisk * Cable lengths over 400' feet contact the factory.

Three Phase, Three Wire with ground cable, 60 HZ

(Maximum length in feet – Service entrance to aerator)

Motor Rating		Copper Wire Size		
Volts	HP	12	10	8
230	3	400	*	*
460	3	400	*	*

Asterisk * Cable lengths over 400" feet contact the factory.



OPERATION INSTALLATION AND MAINTENANCE OF AQUARIAN COMMERCIAL AERATORS

REMOVE THE AQUARIAN® COMMERCIAL® UNIT FROM THE SHIPPING CONTAINER. INSPECT FOR ANY SHIPPING DAMAGE. Contact the factory if any damage is evident.

Do not dispose of the shipping container and packing material. SAVE in the unlikely event of return for service.

ELECTRICAL CONNECTION

! DANGER: ELECTRIC SHOCK HAZARD. DISCONNECT ELECTRICAL POWER BEFORE SERVICING PANEL OR EQUIPMENT.

! WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK CONNECT ONLY TO A PROPERLY GROUNDED CONNECTION. FAILURE TO CONNECT TO A PROPER GROUND COULD RESULT IN PERSONAL INJURY.

EQUIPMENT LEAKAGE CIRCUIT INTERRUPTER INFORMATION

EQUIPMENT LEAKAGE CIRCUIT PROTECTION is provided on single (1)-phase equipment manufactured for use in the United States. (E.L.C.I.) protection is not included on 3-phase equipment. Canadian Electric Codes require (E.L.C.I.) protection at the service entrance. The “trip level” for 230-volt 1 phase equipment is nominally 27Ma. **EQUIPMENT LEAKAGE CIRCUIT INTERRUPTER (E.L.C.I.) DEVICES ARE NOT TO BE CONFUSED OR USED AS A CIRCUIT BREAKER OR OFF / ON SWITCH.**

If the equipment leakage interrupter should trip the cause may be difficult to discover. It is human nature to immediately suspect the equipment, when in fact outside influences should be suspect. To assist you in determining the best method of finding electric faults, contact a licensed electrician in your area or call the factory at 1-800-821-3177, 8:30 a.m. – 4:30 p.m. Central Standard Time.

Single (1) phase Aquarian® Commercial® aerators, are supplied with an equipment leakage circuit interrupter (ELCI), which is attached to the power supply cord. Do not alter or remove this device. A dedicated circuit for the Aquarian® Commercial® aerator is required to help prevent nuisance tripping of the ELCI.

The single-phase, 2-hp AQ-20 requires a 15 amp, 230-volt receptacle. The single phase, 230-volt 3-hp AQ-30 requires a 20 amp, 230-volt receptacle. It is permissible to “hard wire” the control box to the power connection.



TIME CLOCKS:

If a time clock is desired on the AQ-20 or AQ-30, 230-volt single-phase units, install the time clock between the control box and the equipment leakage circuit interrupter (ELCI). The timer must be a 2-pole single throw timer of the appropriate voltage and amperage carrying capability. If a time clock is desired on three-phase Aquarian equipment the time clock should control the power to the contactor coil. AIR-O-LATOR® HAS AVAILABLE FOR IMMEDIATE SHIPMENT MULTI-TRIP TIME CLOCKS IN NEMA 3-R ENCLOSURES FOR FIELD INSTALLATION.

SINGLE PHASE CONTROL BOX MOUNTING: Remove the cover to control box. Mount the control box to any solid object, i.e., wall or post, using the holes provided. The control box must be mounted so that the electrical cables are toward the ground. **DO NOT ALLOW THE ELECTRICAL CONTROL BOX TO LIE ON THE GROUND.**

NOTE: ALTERATIONS TO ANY OF THE WIRING OR MOTOR CONNECTION, OTHER THAN CONNECTION WIRING FROM THE SERVICE, WILL VOID WARRANTY.

! WARNING: CONNECT TO A GROUNDED OUTLET OR CONNECTION ONLY. Failure to do so may result in personal injury. GROUND FAULT PROTECTION is strongly suggested on ANY electrical device. **DO NOT INSTALL OR USE THIS DEVICE IN SWIMMING AREAS. This equipment has not been evaluated for use in swimming areas.**

! WARNING: POSSIBLE CUTTING HAZARD. ROTATING PROPELLER COULD RESULT IN SERIOUS INJURY. TURN OFF POWER BEFORE SERVICING THE MACHINE.

THREE PHASE CONTROL CONNECTIONS

Air-O-Lator has supplied an I.E.C. motor protection device to use with the Commercial aerator; electric motor control sizing has been taken into consideration. All that is necessary is to mount the control in the desired location. Be certain that the power is off and locked out and enter the control with appropriate gauge service entrance wire, supply the proper voltage and make the necessary connections.

Enter the motor protection device (commonly through the base) and connect the unit cable to the appropriate contactor terminals if not already completed at the factory on the control relay. **WIRE PER THE NATIONAL ELECTRIC CODE AND OR LOCAL CODES.**

While the aerator is running input voltage is to be maintained within + or – 10% of motor nameplate voltage.



CORRECT MOTOR ROTATION
(Three-phase equipment)

NOTICE! NOTICE! NOTICE!

THE PROPELLER IS ATTACHED TO THE MOTOR BY MEANS OF AN INVOLUTE SPLINE IN THE BORE OF THE PROPELLOR AND SIMPLY IS SLID DOWN ONTO THE INVOLUTE SPLINE OF THE MOTOR SHAFT. THRUST HOLDS THE PROPELLER FIRMLY TO THE MOTOR SHAFT.

HOWEVER:

BEFORE INSTALLING THE AERATOR; APPLY POWER TO THE AERATOR AND “BUMP RUN” THE AERATOR ON THE SHORE TO VERIFY THAT **COUNTER-CLOCKWISE ROTATION** OF THE PROPELLER IS EVIDENT.

TO CORRECT THE MOTOR ROTATION YOU SIMPLY SWAP ANY TWO POWER LEAD POSITIONS.

CORRECT “**COUNTER-CLOCKWISE**” ROTATION AS YOU LOOK DOWN ON THE SHAFT IS CRITICAL; OTHER WISE THE PROPELLOR WILL COME OFF OF THE SHAFT OF THE MOTOR.

**Franklin Electric Submersible
Single Phase Motor Specifications (60 Hz)**

Motor				Maximum		Line to Line	S.F.	Circuit Breaker	Fuse
Model Number	H.P.	Volts	S. F.	S.F. Amps	Watts	Resistance	Power Factor %	Amp Size Standard	Amp Size Time Delay
224301	2	230	1.25	Y 13.2	2650	1.6-2.3 Main	93.10%	30	15
				B 11.9		5.2-7.15 Start			
				R 2.6					
224302	3	230	1.15	Y 17.0	3650	.9-1.5 Main	98.00%	45	20
				B 14.5		3.0-4.9 Start			
				R 4.5					

**Franklin Electric Submersible
Three Phase Motor Specifications (60 Hz)**

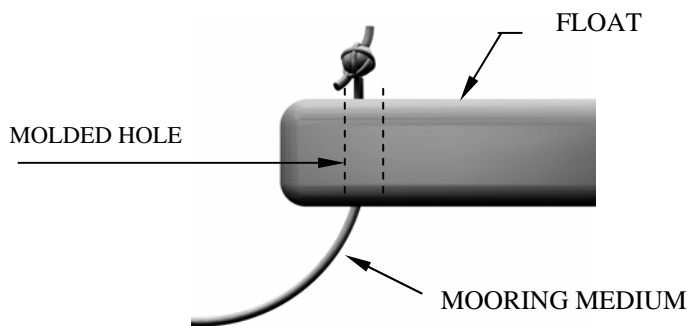
Motor				Maximum		Line to Line	S.F.	Circuit Breaker	Fuse
Model Number	H.P.	Volts	S. F.	S.F. Amps	Watts	Resistance	Power Factor %	Amp Size Standard	Amp Size Time Delay
234316	3	230	1.15	10.9	3420	1.8-2.2	81.50%	30	12
234326	3	460	1.15	5.5	3420	7.0-8.7	81.50%	15	6



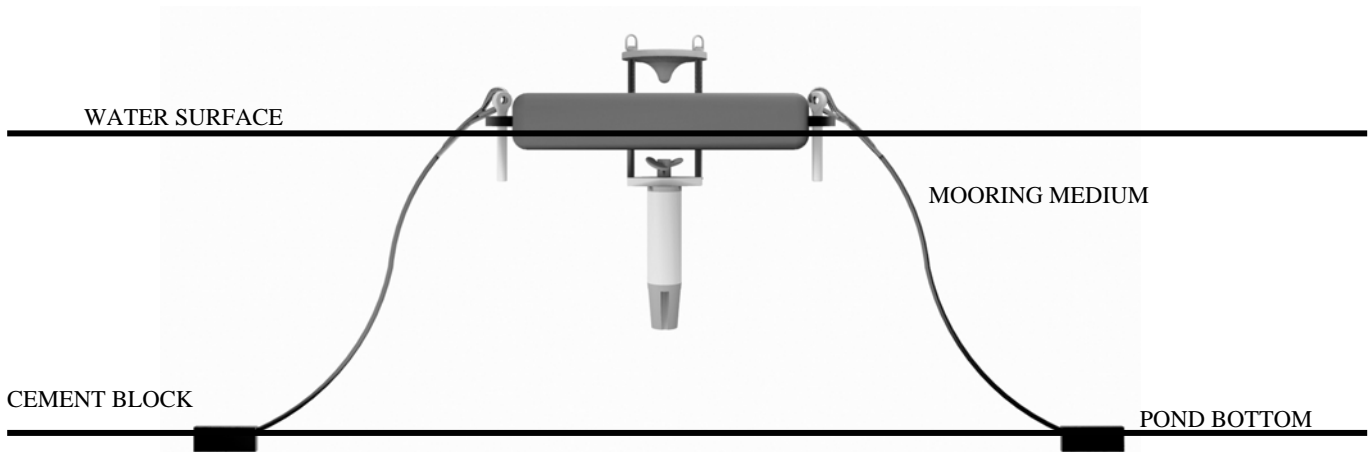
AQUARIAN® COMMERCIAL® AERATOR INSTALLATION INSTRUCTION

Anchoring method:

- (1) Cut two (2) lengths of a satisfactory mooring medium such as polyethylene rope 1/4" 3/8" in diameter of sufficient length to allow for the rise and fall of the body of water the aerator is to be operated in. Nylon rope is also acceptable; however it has a tendency to stretch.
- (2) Attach the mooring ropes to the flotation securely by inserting the rope end through the molded holes in the flotation corners and fasten securely. Be certain the mooring medium will not come loose.
- (3) Make the same connection to the remaining corner. In the case of a four (4) corner application complete those connections as well. The above outlined "rope mooring is cost effective. However; you may use any other suitable mooring medium. See diagram below.



- (4) Attach the opposite end of the mooring medium to anchors (usually made of concrete building blocks); one block per corner diagonal from each other is usually sufficient.



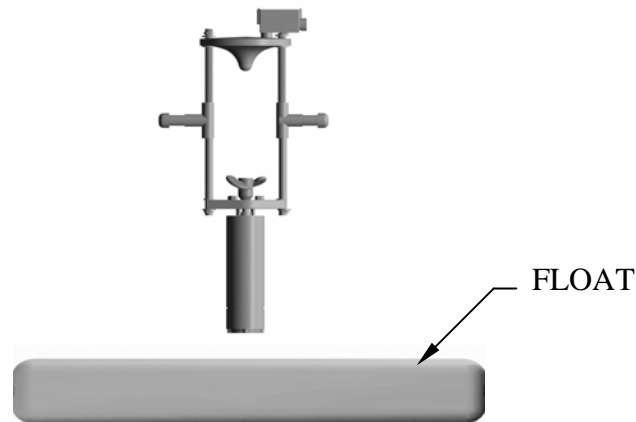


INSTALLATION (CONT.)

- (5) As an alternate method of securing the aerator and therefore preventing the unit from “wandering around” is to attach the opposite ends of the mooring medium to posts or other structures.



- (6) You may now install the Aquarian® Commercial® aerator unit into the flotation. Make certain that the motor is not allowed to rest in any muck or mire that is sometimes prevalent particularly in existing lagoons or at the water’s edge. The Commercial aerator is modular in design and sets directly on the flotation platform. The unit requires no attaching hardware.



The flotation, aerator and power cord installation is now complete.

Now that the Commercial® aerator has been installed and after being certain that no personal injury to your own person or to others can occur; you may apply power and verify that the aerator is operating at the correct **voltage and amperage** as tested, indicated and is provided on the envelope of this **Installation, Operation & Maintenance Manual**



Three Phase Current Unbalance

A full three-phase supply is recommended for all three phase motors, consisting of three individual transformers or one three phase transformer.

So called “open” delta or wye connections using only two transformers can be used, but are more likely to have problems, such as poor performance, overload tripping or early motor failure due to current unbalance.

Contact a licensed electrician for the confirmation of transformer selection sizing and installation per the National Electric Code or local codes.

Checking and correcting current unbalance:

(1) With the aerator operating, check the current (amperage) of each of the three power leads going to the aerator at the motor protector indicated as T-1, T-2, T-3 and determine the amount of unbalance; if any; in percent as explained below.

(2) If the current unbalance is within 2% or less, there is no need to correct the unbalance indicated.

If the current unbalance is greater than 2%, (roll) the motor leads at the point where the power leads connect to the motor starter; indicated as T-1, T-2, T-3. Rolling the leads is best described as moving the **Red**, **Black**, **Yellow** or **White**, wires going to the aerator motor protection device.

Example: **R** is moved from T-1 to T-2, **B** is moved from T-2, to T-3, **Y** or **W** is moved from, T-3 to T-1. This can be done two (2) more times before you start all over again. You are looking for the smallest current unbalance as you can achieve.

(1) To calculate the percent of current unbalance:

(A) Add the three line current (amp) values together.

(B) **Divide** the total by three (the number of current readings taken) to yield the average current (either high or low).

(C) Choose the amp value, which is furthest from the average current (either high or low).

(D) Determine the difference between this amp value (furthest from average) and the average previously determined in (B) above.

(E) Divide the difference by the average. **Multiply** the result by 100 to determine the percent of unbalance.

(5) Current unbalance should not exceed 5% at service factor amperage (max amps). If the unbalanced condition cannot be corrected by (rolling) the leads, the source of the unbalance must be located and corrected. If, on the three possible lead hookups, the leg farthest from the average stays on the same power lead, the most probable cause is on the “power supply side” and you should contact the power company. If however the reading farthest from average moves with the same motor lead, the primary cause would be to suspect the “motor side”. In this instance consider a; damaged cable, poor splice connection or a faulty motor winding.



Maintenance

The Aquarian® Commercial® aerator Franklin Electric motors have hermetically sealed windings and are water-cooled.

The bearings and motor shaft are water lubricated.

If you were to look inside a Franklin Electric motor you would find water and it is normal.

Never attempt to open the motor. Attempting to do so will be evident and will void the warranty.

There are no serviceable parts within the motor.

The motor shaft is sealed by an extremely durable “silicon carbide” mechanical seal and does not require any routine seal maintenance or lubricating medium change.

Aquarian® Commercial® aerator maintenance consists of observing the operating characteristics of the aerator to see if the spray pattern has deviated from the original appearance. If this condition occurs it is recommended to turn the aerator off.

! WARNING: Rotating propeller could result in serious injury. Turn off power before servicing>

Lock out the power source to prevent accidental operation and inspect the unit for debris build-up around the propeller and or motor shaft and the subsequent removal of the debris.

! DANGER: Electric shock hazard. Disconnect electrical power before servicing machine.

Every 6 months remove the unit from the water and eliminate any foreign matter that may be evident.

At the same time check the condition of the propeller. Have the balance and pitch checked and if found to be in question do not operate the aerator. An imbalanced condition will promote vibration, premature bearing failure and ultimate motor failure. Repair or replace the propeller promptly. Contact the factory 1-800-821-3177 and have at hand the serial number, voltage and horsepower to aid in providing the best service.

It is best to remove the unit from the body of water to perform any mechanical service on the Aquarian® Commercial®.

Remove the propeller apply two standard screwdrivers (flat bladed) and place the blades under the hub of the propeller and over the motor mounting bolts diagonally across from each other using the bolt heads as a fulcrum point and press downward to pry the propeller from the motor shaft.

Reinstall the propeller clean all mating surfaces (Motor shaft spline and propeller spline) and apply a small amount of silicone rubber **sealant** to each component and allow it to cure. The silicone rubber is used to hold the propeller in place during the re-installation of the aerator to minimize the chance of the propeller being dislodged and falling into the basin.



DEBRIS MANAGEMENT INFORMATION

The factory has included on Aquarian Commercial aerators, Ready 2000, Font’N-Aire and Gulf Stream fountains a “shroud” to minimize the chance of debris fouling the propeller or impeller area and yet maintain a maximum flow of water past the motor.

Add-on shrouds may be purchased for the Aquarian Residential and the Aquarian Aquaculture equipment. There is no shroud for the Quantum aerator.

The shroud is **only** to be considered a best-placed effort to minimize any fouling and is **not** a guarantee that foreign material will not come in contact with the moving components.

The shroud is **NOT** to be considered a safety device.

In certain situations it may be desired to add additional debris barriers to aerator or fountain equipment.

Material that should be considered for after market debris barriers are plastic or non-corrosive metal mesh materials. The material should be installed around the flotation periphery or within the unit-mounting hole located in the center of the float. Note: the threaded inserts seen on the center hole on some Air-O-Lator floats are provided as a convenience.

DO NOT install a bottom in this type of shroud **UNLESS** a shroud of similar material is placed on top of the flotation. The idea is to prevent “CRITTERS” from falling into the shroud area, thus becoming entrapped and then afoul of the smooth operation of the equipment.

Aerator “top of float” shroud material must be of a fine strand so that the water being delivered to the atmosphere by the aerator has minimal impingement of the water against the shroud.

Fountain “top of float” shroud material does not have the mesh size restrictions as that of the aerator. Simply cut a hole in the material to allow the nozzle to project through the hole so that the spray pattern is unimpeded.

After all this has been said it is important to realize that if a shroud truly is effective that the shroud will have to be cleaned just as a propeller or nozzle would in the first place. Otherwise theoretically the unit could suffer from a lack of performance or worse.

THE CHOICE IS YOURS.



TROUBLE SHOOTING PROCEDURE

Due to the extremely simple design of the Aquarian® Commercial® aerator and minimal maintenance required there is consequently a limited amount of trouble shooting to be sought.

A volt ohmmeter is required to complete these checks.

! DANGER: Electric shock hazard. Disconnect and lockout the electrical power before servicing.

If the aerator does not start:

- (1) Check for the correct voltage by using a voltmeter and verify that the voltage is within 10% of the nameplate rating. If the voltage is incorrect contact a licensed electrician or your power company.
- (2) If the correct is present check for the correct size of fuses, loose connections or a tripped circuit breaker. Replace the fuses with the correct size and rating or reset the circuit breaker. If the problem persists contact your electrician.
- (3) In the case of single-phase equipment check for loose connections or overload breakers of which there are two (located on the bottom of the control box) that may have tripped and push to reset.
- (4) Inspect the power cord and motor lead with an ohmmeter check for continuity. Check for cuts causing short circuits. Replace as necessary with a new motor lead or power cable. Use the correct gauge and type for the power cable that being SOW or SEOW.

If the aerator runs but the overloads trip:

- (5) Check for the correct voltage at the incoming line terminals. The voltage must be within 10% of the nameplate voltage. Contact the power company to correct the voltage.
- (6) Overloads are heat sensitive and can trip if a control box is exposed to an excessive amount of ambient heat. Shade or move the control box away from the heat source.
- (7) A possible condition although remote is that a control box has defective components or is defective. Possible causes are lightning or power surges. Repair or replace the defective components or the entire control box as required.
- (8) Check the power cable and motor lead for cuts or breaks using an ohmmeter. Never attempt to tape or splice a cable or motor lead.
- (9) The motor may be defective. There is nothing to repair in the motor. If found to be defective; replace the motor if required.



**INSULATION
&
WINDING
RESISTANCE
VALUES**

CONDITION OF MOTOR AND LEADS	OHM VALUE	MEGOHM VALUE
A used motor which can be reinstalled.	10,000,000 (or more)	10.0
MOTOR IN WATER. Ohm readings are for drop cable plus motor.		
A motor in the water in reasonably good condition	500,000-2,000,000	0.5-2.0
A motor which may have been damaged by lightning or with damaged leads. Do not pull aerator this reason.	20,000-500,000	0.02-0.5
A motor which definitely has been damaged or with a damaged cable. The aerator should be pulled and repairs made to the cable or the motor replaced. The motor will not fail for this reason alone, but it will probably not operate for long.	10,000-20,000	0.01-0.02
A motor which has failed or with completely destroyed cable insulation. The aerator must be removed and the cable repaired or the motor replaced. Insulation resistance does not vary with rating. All motors of all HP, voltage, and phase rating have the same value of insulation resistance.	less than 10,000	0.0-0.1



STORAGE

Place unit in an upright position. Since you have taken the suggestion of Air-O-Lator's to hold on to your shipping container in the event of a service return you can also use the shipping container the unit was originally shipped in to store the unit in an upright position. Protect the unit from exposure to temperatures below -20°F and avoid exposure to temperatures over 120°F.

Remove the flotation from the body of water during freezing conditions and guard against freezing.

The most desired method of storing the unit would be to leave it in the pond or lake, as long as the unit is not allowed to freeze in, which could result in damage to the float or the unit.

If the unit is to be removed during freezing periods it is suggested to attach the mooring ropes to an empty plastic 1-gallon jug. If this method is used it will be easy to find the exact place the unit operated during the prior year.



AQUARIAN “COMMERCIAL” AERATOR

CERTIFICATE OF LIMITED WARRANTY

2008

1. Your Legal Rights Under This Warranty

This warranty is the only express warranty that Air-O-Lator makes for your Air-O-Lator product. This warranty gives you specific legal rights.

This warranty is only for products sold for use in the USA.

THERE ARE NOT WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

This warranty will be governed by the laws of the State of Missouri, USA.

2. What's Covered

2.1 Basic Warranty

Air-O-Lator warrants to the original purchaser that the equipment delivered by it will be of the kind and quality described in the order and will be free of defects in **workmanship, material or factory preparation** when operated under normal use and services.

A. What's Covered at No Cost to You

The Basic Warranty covers the cost of all parts needed to repair any defective item on your Air-O-Lator product – that is, defective in material, workmanship, or factory preparation. Warranty repairs or adjustments including all parts and labor connected with them – will be made at Air-O-Lator Corporation or an AUTHORIZED repair facility.

B. Products Covered

The **AQUARIAN “COMMERCIAL”** aerator using Franklin Electric 4” motors.

C. When It Begins

The Basic Warranty begins on either of the following dates, whichever is earlier:

- The date you **take delivery** of the Air-O-Lator product or
- The date when the product was first put into service – up to **36 months** from the date of manufacture.

D. When It Ends

The Basic Warranty lasts for **36 months** for Aquarian Commercial (12 months for equipment used in wastewater).

E. Exceptions

Exceptions to the 36 month are: **equipment used in severe environments**, which **are warranted for 12months**, i.e., wastewater applications or where high concentrations of corrosive or abrasive material are present.

F. Registration and Operation Requirements

The Basic Warranty covers your Air-O-Lator product only if:

- It was built for sale in the U.S.
- It's registered in the U.S.
- It's used in the U.S. and
- It's operated and maintained in the manner described in your Owner's Manual.

3. What's Not Covered

3.1 Modifications Not Covered

A. Some Modifications Don't Void this Warranty but Aren't Covered

Certain changes that you might make to your product do not, by themselves, void this warranty. Examples of some of these changes are:

- Installing non-Air-O-Lator supplied parts, components, or equipment (such as a non-Air-O-Lator supplied Franklin Electric motor, stainless steel fasteners, or fountain nozzles).

But this warranty does not cover any part that Air-O-Lator did not supply. Nor does this warranty cover the cost of any repairs or adjustments that might be caused or needed because of the installation or use of non-Air-O-Lator parts, components, equipment, or materials.

Examples of the types of alterations not covered are:

- Installing accessories – except for genuine Air-O-Lator accessories approved for installation – such as lighting, propeller guards, rock covers, or motors.
- Labor to install or remove any Air-O-Lator product.

B. Modifications That Will Void Your Warranty

Disconnecting, tampering with, or altering the electric control panels will void your warranty, unless you or your repairing technician follows Air-O-Lator's requirements for repairing or replacing the controls.

Removing and operating Air-O-Lator equipment without Air-O-Lator approved electrical controls will also void this warranty. Using any electric cable, connectors or splices not provided or authorized by Air-O-Lator will also void this warranty.

3.2 Environmental Factors Not Covered

This warranty does not cover damage caused by environmental factors such as, chemicals, and salt. Nor does your warranty cover damage caused by **windstorms, hailstorms, tornadoes, lightning, power surges, brownouts, floods, earthquakes debris and animals.**

3.3 Maintenance Costs Not Covered

This warranty does not cover the cost of repairing damage caused by poor or improper maintenance. This warranty does not cover the costs of your equipment's normal or scheduled maintenance I.e. annual propeller/impeller replacement, cleaning etc.

3.4 Incidental and Consequential Damages Not Covered

This warranty does not cover any incidental or consequential damages connected with Air-O-Lator products' failure, either while under warranty or afterward. Examples of such damages include:

- Lost time, Inconvenience; The loss of the use of equipment; The loss of personal or commercial property; The loss of revenue; and Delay

•
3.5 Certain Kinds of Corrosion Not Covered

This warranty does not cover the following:

- Corrosion caused by accident, damage, abuse, or alteration;
- Surface corrosion caused by such things as, sand, salt, stones and barnacles.
- Corrosion caused by the extensive or abnormal exposure of caustic materials like chemicals, acids, and fertilizers.

3.6 Freight:

Warranty shipping charges are to be **pre-paid by the owner.**

Warranty shipping charges are the **responsibility of the owner.**

4. How To Get Warranty Service

4.1 Where to Take Your Air-O-Lator Product

Air-O-Lator authorizes you to return your Air-O-Lator products to the factory **upon notification.**

You may contact: **Air-O-Lator Corporation: 8100-04 Paseo, Kansas City, MO 64131, 1-800-821-3177.**
<http://airolator.com>

CUSTOMER REGISTRATION COPY

Owner Name_____	Model _____
Date Purchased_____	Serial No._____
Owner Address_____	Dealer Name_____
City_____	Address_____
State_____ Zip_____	City_____ State_____ Zip Code_____

NOTE: This information should be retained for your file.

AIR-O-LATOR CORPORATION, 8100-04 PASEO, KANSAS CITY, MO 64131
1-800-821-3177 <http://airolator.com>



THE WATER'S EDGE™

8100-04 Paseo, Kansas City, Missouri 64131
800-821-3177

MAIL IN FORM

WARRANTY REGISTRATION

Font' N-Aire

Aquarian

Ice-Away

Ready _____

Residential _____

Platinum _____

Commercial _____

Gulf Stream _____

Aquaculture _____

Quantum _____

Purchase Date Mo. _____ Day _____ Year _____

Model No. _____

Serial No. _____

Owner Name _____

Dealer Name _____

Owner Address _____

Dealer Address _____

City _____

City _____

State _____ ZIP Code _____

State _____ ZIP Code _____



THE WATER'S EDGE™

AIR-O-LATOR CORPORATION REPAIR RETURN FORM

To avoid delays in the repair of equipment in question, it is best to call the factory at 1-800-821-3177 to determine what portion or portions of the equipment in question should be returned. The fountain or aerator unit itself (that portion that sets down into the hole in the floatation) is to be returned completely assembled. **DO NOT DISASSEMBLE ANY PORTION WITHOUT PRIOR AUTHORIZATION!**

Shipping costs to and from the factory are the responsibility of the shipper as is the packaging. Air-O-Lator encourages the use of the original shipping container that is UPS approved for this equipment to minimize the possibility of shipping damage. Additional charges will apply if original packaging is not retained.

If the original packaging is not retained and used by the customer, Air-O-Lator will supply replacement packaging (at a nominal charge) upon return of the equipment to the shipper (call for current pricing).

Upon the inspection of returned equipment, whether in warranty or not, contact by Air-O-Lator to proceed with repair will be made to the owner or agent with an explanation of the repairs and charges if any. **NO REPAIRS WILL BE MADE UNLESS AUTHORIZED BY THE OWNER OR AGENT.** If Air-O-Lator is unable to contact the owner/agent within 30 days after receipt of the equipment for repair, a "signature required" notice will be forwarded to the owner or agent stating that disposal of the equipment will be made 30 days from the date of the notice.

Name _____

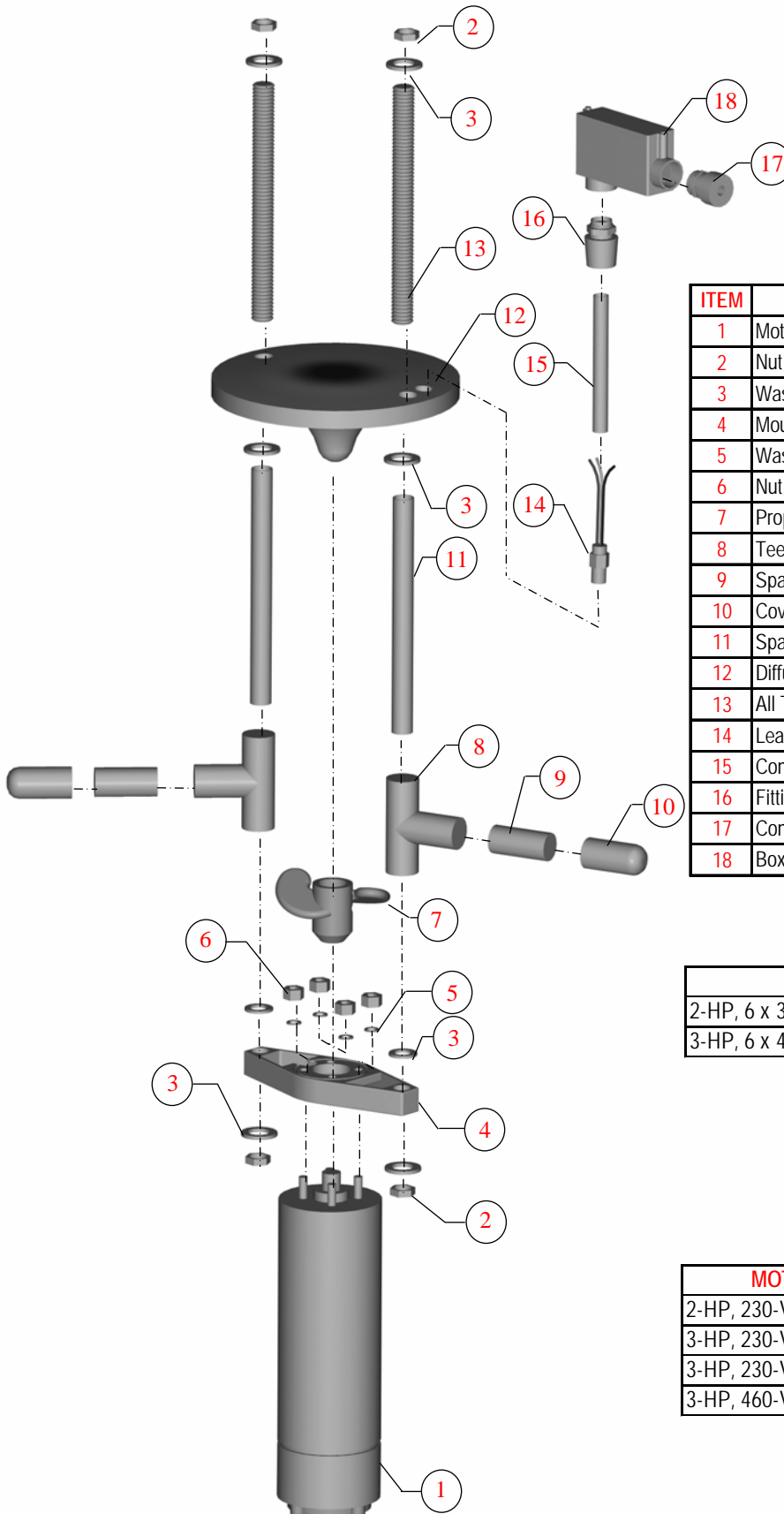
Address _____

Phone _____ FAX _____ E-Mail _____

E-mail _____ Equipment Serial # _____

Comments: _____

AQUARIAN COMMERCIAL AERATOR PARTS LIST



ITEM	PART DESCRIPTION	QTY	PART NUMBER
1	Motor, Franklin	1	See Listing
2	Nut, Hex Fin, Lock, 3/4-10	4	18078615
3	Washer, Flat, 3/4"	8	18079405
4	Mount, Motor, 4/6	1	61MM4/6
5	Washer, Flat, 5/16"	4	18079025
6	Nut, Hex Fin, Lock, 5/16-24	4	18078500
7	Propeller	1	See Listing
8	Tee, 90, SS	2	18ST190
9	Spacer, 3-1/2"	2	85SP3.5
10	Cover, Vinyl Sleeve	2	15VCACT1X3
11	Spacer, 15"	2	85SP15
12	Diffuser, Q	1	07DFQ1/2RM
13	All Thread, 3/4-10x19-1/2"	2	85SR19.5
14	Lead, Motor, 4"	1	58152553905
15	Conduit, Flex, 3/4"	1	15TPVC34
16	Fitting, Liquid Tight, 3/4"	1	15LT43E
17	Connector, BH, Male, 3W	1	15CN-32681
18	Box, Junction, 1"	1	15JBE986F

PROPELLER	PART NUMBER
2-HP, 6 x 3	71PS6X3
3-HP, 6 x 4	71PS6X4

MOTOR, FRANKLIN	PART NUMBER
2-HP, 230-V, 1-PH, SF	492243018402
3-HP, 230-V, 1-PH, SF	492243028402
3-HP, 230-V, 3-PH, SF	492343168402
3-HP, 460-V, 3-PH, SF	492343268402