



Aerator & Aerating Fountain Installation and Operating Instructions

INTRODUCTION

Water is naturally able to hold great quantities of dissolved oxygen and nutrients; however, temperature, sunlight, run-off, and stocking densities can have a detrimental effect on the water's self-replenishment abilities.

In many cases, artificial aeration and flow generation can not only replenish the levels of dissolved molecules in water, but can also raise these levels higher than what is naturally available.

Low dissolved oxygen levels and poor water quality can mean lower yields, reduced growth rate, and increased susceptibility to fish and plant stress and disease.

Power House Aerators are energy efficient and produce some of the highest oxygen transfer rates per horsepower per hour available. Also these units help to maintain cleaner water, provide gentle circulation, and prevent thermal stratification. Additional benefits include the ability to use the units as flow generators and to prevent winter fish kills. These units are also used to keep wildlife and livestock ponds open during freezing weather.

Power House Aerators are unique in design and superior in construction and performance. They are suitable for continuous operation in both salt and fresh water.

Our units are shipped complete with mooring/positioning lines and power cords. They can be taken straight from the shipping box and, after insertion into the float, be attached in place and plugged in.

INSTALLATION

Inspect your Aerator for damage immediately upon delivery. Report any damage to your dealer.

Install the unit in the float by following these simple instructions:

- 1) Turn the Aerator upside down with the prop end down on a flat surface.
- 2) Pass power cord through the float from the Power House name side.
- 3) Slide float, Power House name side down, over the shroud. Twist to align slots in the throat of the float with the power cord and mounting bolts.
- 4) Make sure cord is free and does not loop above the level of the prop hub.

If you are installing optional large screen - connect the screen to the bottom lip of the float using the sixteen (16) small white clamps. The sides of the screen will need to be connected by using pliers to close the metal rings.

- 5) Turn unit to an upright position with the propeller facing up.

- 6) Fasten one mooring line to a secure place such as a fence post or large cinder block.
- 7) Drop unit into water and secure the other rope directly across from the first. Adjust your fastening points to position the unit where desired.
- 8) Make certain that there is adequate water depth (at lowest water level) so that the unit floats freely. Keep unit away from heavy grass or debris.
- 9) Make sure all hands, feet, cords, lines, etc. are clear of the unit before connecting to power supply.
- 10) Plug the electrical cord into a receptacle that matches the unit operating voltage or connect to an appropriate power source. GFI required for each unit.

(It is recommended that an electrician verify your power supply.)

- 11) Unit will start immediately and can twist slightly upon starting. Make certain that all lines are clear and secure. Water should be forced well above the top lip of the white shroud and should look thick.

CAUTION: *Do not place Aerator on the bottom. Do not allow it to run out of the water. Unit must always be submerged. Keep hands clear.*

*The **Power House, Inc.** Aerators & Fountains have been designed to operate in temperatures above 32 °F (0 °C). Damage will occur to Aerator and Fountain units if they are left in freezing water and/or allowed to operate after sitting in freezing water.*

*The **Power House, Inc.** will not be held responsible or libel for damage to the unit as a result of operating the unit in temperatures at or below 32 °F (0 °C).*

OPERATION

Your **Power House** Aerator is designed for continuous operation. It can be cycled by the use of a timer, photocell or dissolved oxygen meter. Contact your local electrician for assistance.

When the unit is used for flow generation in a circular tank or pond, the water will gradually circulate and will continue for some time after the unit is turned off.

Small fish can be sucked through the unit under certain operating conditions. Make sure that you have reviewed your stock and any possible damage before you start the unit.

MAINTENANCE

The Aerator motor is filled and sealed with a special non-toxic dielectric fluid and does not need lubrication. When storing your unit, clean it thoroughly and place it prop side down in a flat, cool place. Storing prop side down will keep the seals lubricated.

Heavy weed or plant locations may need to have the screen and prop cleaned occasionally. Before removing or cleaning the unit, unplug or disconnect the unit from the power source. Scrub with a stiff, nylon bristle brush. The unit will not be damaged by cleaners; however, these products could leave a residue that may damage plants and animals when the unit is put back in service. If cleaners are used, flush and rinse thoroughly with fresh, clean water.

Occasionally inspect the prop, internal brackets and shaft for accumulation of weeds, vines or string. These objects can damage the seals, prop and shaft. Keep the shaft and prop clear of debris. Inspect the brackets and prop for chips and cracks. Broken or damaged brackets or prop can be replaced easily in the field with factory parts.

(Your local dealer should have a stock of, or be able to obtain, any parts that can be repaired by you.)

Inspect the power cord for breaks, nicks and abrasion. Under normal conditions, the cord will be usable for many years. However, physical abuse and rodent, animal or equipment damage can result in safety hazards such as electrical shock. If the outer jacket is cut deeply enough that the inner conductors can be seen, the cord should be replaced. If the copper wire is showing, immediately remove the unit from service and replace the cord. Severe shock could result.

For CE labeled units: *If the power supply cord is damaged, it must be replaced by the manufacturer or its service agent or similarly qualified person to avoid a hazard.*

Units operated in brackish or salt water must have a zinc attached to the shaft. The zinc must be inspected periodically for deterioration. Operation without the zinc could result in metal deterioration and contamination and may void the warranty.

DO NOT open the sealed motor unit for any reason. It can only be opened and assembled under special conditions at the factory or authorized service center. Do not attempt to repair the motor. Any tampering or attempted repairs may void the warranty and could result in equipment failure or bodily injury.

For optimum operation, it is suggested that each unit be returned to the factory for regularly scheduled maintenance every three years, less for commercial duty usage.

TROUBLE SHOOTING TIPS

- 1) If unit does not start when plugged in or turned on:
 - a) Check power source to make sure that voltage is available.
 - b) Make certain that the power cord connections are fully made. Check tightness at both the source end and at the unit.
 - c) See if circuit breaker is tripped or has a blown fuse.

Check ground-fault interrupter. If any of these are tripped or blown, have an electrician check your installation.

d) Unplug unit and make certain that prop turns freely. Turn prop through several full revolutions. Try to start unit again.

2) If unit starts slowly or does not have full flow:

a) Check power source for voltage drop or undersized service. If several pieces of equipment are operating on the same circuit, they may need to be started individually.

b) Unplug unit and make certain that prop turns freely. Turn prop through several full revolutions. Try to start unit again.

c) Unplug unit and make sure there is no debris around prop or shaft.

d) Check screen to make sure it is clean. Algae or grass accumulation must be removed.

3) If unit starts and stops then starts and stops:

a) Check power source for voltage drop or undersized service. Unit may be overheating due to low voltage.

b) Unplug unit and make sure there is no debris around prop or shaft. Unit may be overheating due to overload.

ELECTRICAL CONNECTIONS

The electrical diagram below is typical for **Power House** Aerators. Special units may have different wiring requirements. CE labeled units must be wired as shown on the label on the unit. If there are any questions about how to wire your unit, call the factory number at 800.243.4741. Units without a plug may need an electrician to make the connection. Do not attempt to rewire the sealed motor unit or cord connector.

See Connection Diagram on Aerator for CE labeled units.
Color coding and connections will differ.

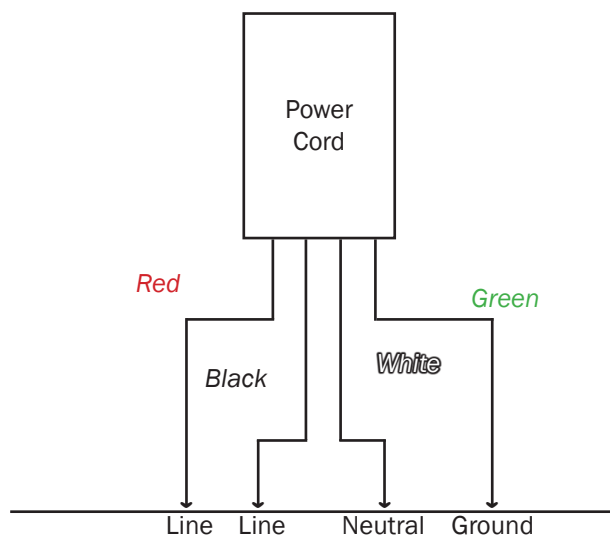
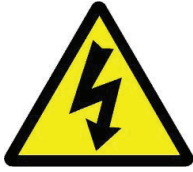
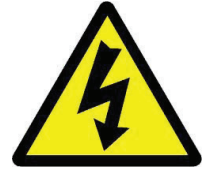


diagram applies to 115V & 230V units



PLEASE READ

WARNING WARNING WARNING
ELECTRICAL SHOCK HAZARD



THIS MOTOR IS PROVIDED WITH A GROUND WIRE OR GROUNDING TYPE PLUG FOR YOUR PROTECTION.

THE GROUND WIRE MUST BE SECURELY ATTACHED TO PROPER ELECTRICAL GROUND OR THE GROUNDING TYPE PLUG MUST BE USED ONLY WITH A PROPERLY GROUNDED RECEPTACLE. IN ADDITION, YOU SHALL USE GROUND FAULT INTERRUPTER PROTECTION IN ACCORDANCE WITH 2005 NATIONAL ELECTRIC CODE, SECTION 555.19 (B) (1).

A QUALIFIED ELECTRICIAN MUST BE CONSULTED TO INSURE A SAFE INSTALLATION.

DO NOT UNDER ANY CIRCUMSTANCES CUT OR REMOVE THE GROUND PRONG FROM A GROUNDING TYPE PLUG.

ALL REPAIRS MUST BE MADE AT THE FACTORY OR BY AN AUTHORIZED SERVICE STATION.

ANY REWORK OR DAMAGE TO THIS CORD MAY CREATE SHOCK HAZARD AND WILL VOID THE WARRANTY.

WARNING WARNING WARNING

ALWAYS DISCONNECT THE ICE EATER FROM THE POWER SOURCE BEFORE ANY SERVICING, CLEANING OR MOVING OF THE UNIT, BY UNPLUGGING OR BY REMOVING FUSE OF DEACTIVATING CIRCUIT BREAKER.

WARNING WARNING WARNING

DO NOT ATTEMPT TO OPEN THE UNIT OR TO REMOVE THE END BELL. OPENING OR REMOVAL OF THE END BELL WILL VOID THE WARRANTY. ALL REPAIRS MUST BE MADE AT THE FACTORY. UNDER NORMAL OPERATING CONDITIONS THERE IS NO NEED TO OPEN THE SEAL MOTOR ASSEMBLY. THERE ARE NO INTERNAL PARTS THAT CAN BE REPLACED BY YOU, THE CUSTOMER.

WARNING WARNING WARNING

CAUTION LOW VOLTAGE DROP

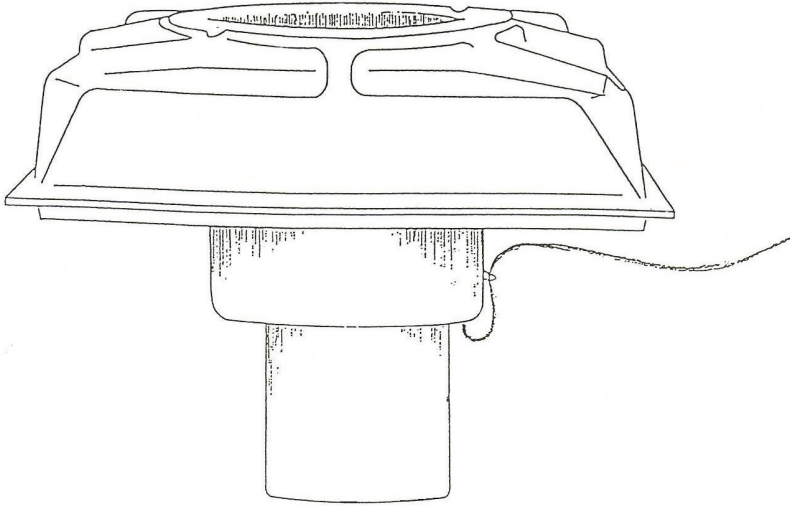
IMPROPERLY SIZED FIELD WIRING CAN RESULT IN POOR STARTING, ERRATIC/REDUCED PERFORMANCE AND PREMATURE MOTOR FAILURE DUE TO EXCESSIVE LINE LOSS OR VOLTAGE DROP.

DO NOT PLUG UNIT INTO EXTENTION CORD OR SPLICE TO ADDITIONAL FIELD WIRING WITHOUT FIRST CONSULTING A LOCAL LICENSED ELECTRICIAN OR CONTACTING THE FACTORY AT 800.243.4741 TO DETERMINE THE PROPER FIELD WIRING. IMPROPERLY SIZED WIRING WILL VOID YOUR WARRANTY.

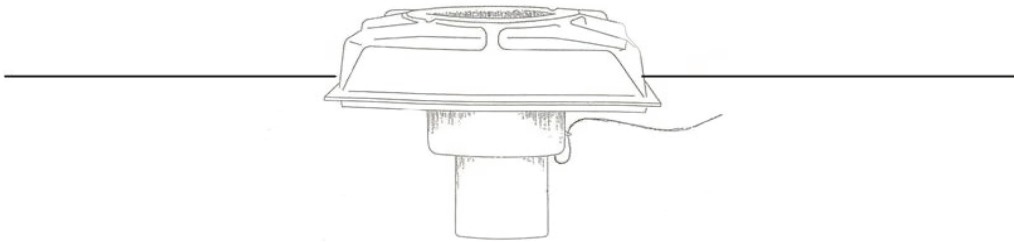
THIS UNIT MAY NOT OPERATE PROPERLY IF THE VOLTAGE SUPPLIED BY YOUR LOCAL UTILITY IS LOWER THAN THE NAMEPLATE VOLTAGE BY MORE THAN FIVE (5) PERCENT. HAVE A LOCAL ELECTRICIAN CONFIRM THAT YOUR POWER SOURCE IS ADEQUATE.

WARNING WARNING WARNING

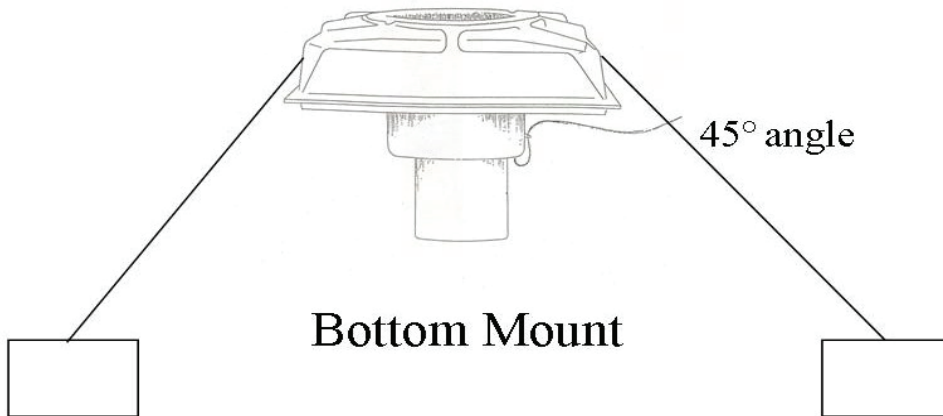
TO REDUCE THE RISK OF ELECTRICAL SHOCK, USE ONLY ON PORTABLE SELF-CONTAINED FOUNTAINS NO LARGER THAN 5 FEET IN ANY DIMENSION.



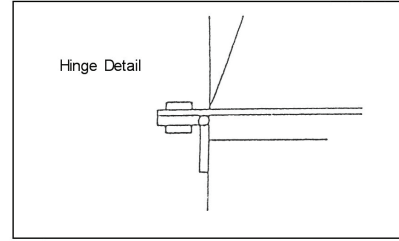
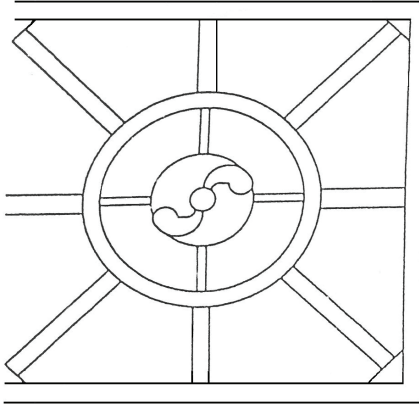
Mooring Installation Diagram



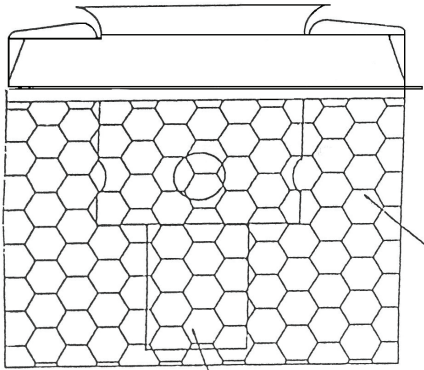
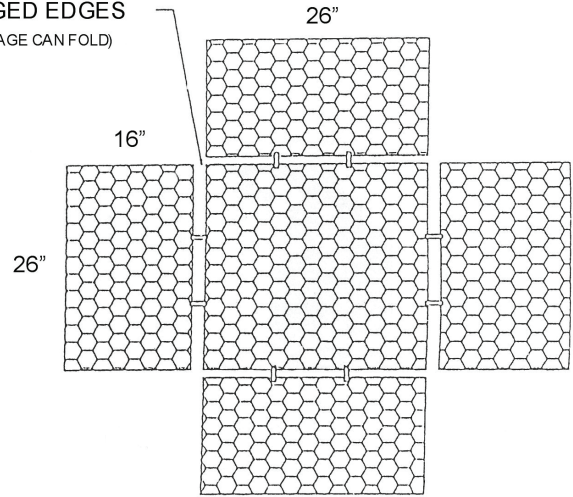
Side Mount



Bottom Mount

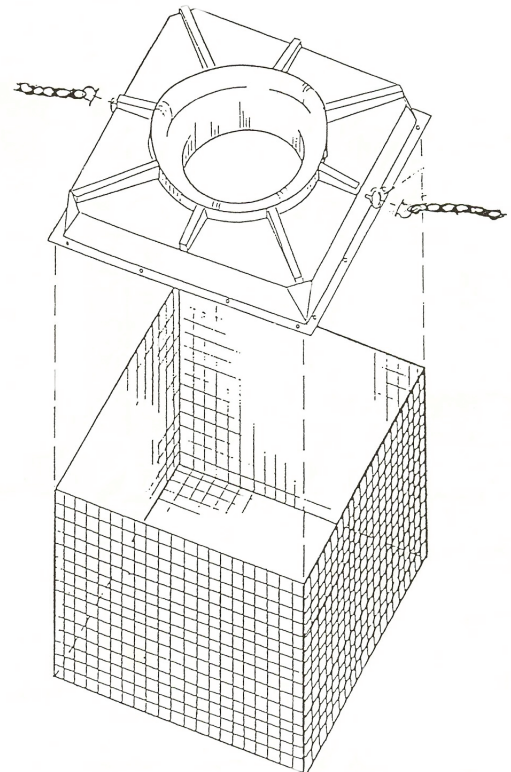


HINGED EDGES
(SO CAGE CAN FOLD)



CAGE MUST GIVE SO
MOTOR CAN MOVE

MOTOR



24-MONTH LIMITED WARRANTY

The Power House, Inc. warrants this aerator/fountain to be free from defects in material and workmanship under normal use and service, but does not include in said warranty any defect or failures of the ropes, power cord, propeller, float or failure due to mishandling, misuse, improper installation or improper electric supply. If the unit is to be used in a salt water application, a zinc anode must be mounted to the shaft and an electrolysis kit must be mounted to the stainless steel can.

The Power House, Inc. will replace free of charge any defective part covered by this warranty within twenty-four (24) months from the date of manufacture.

This warranty is in lieu of any other warranty, expressed or implied, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose and any other obligation or liability whatsoever on the part of The Power House, Inc., and in no event shall The Power House, Inc. be liable for any incidental or consequential damages.

Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

This warranty will be void if unauthorized tampering or repairs damage the unit.

All claims must be, in writing, brought to the attention of :

The Power House, Inc.

10233 S. Dolfield Rd. Owings Mills, Maryland 21117

* All returns must be shipped prepaid to the above address.

** There are no warranties beyond what is contained herein and no person is authorized to give any other warranties or to assume any other liabilities on the part of The Power House, Inc.



10233 S. Dolfield Rd. • Owings Mills, MD 21117

www.thepowerhouseinc.com • 800.243.4741 • info@thepowerhouseinc.com