

POWER HOUSE AERATION

OWNER'S MANUAL | SURFACE AERATORS



PLEASE READ ENTIRELY BEFORE OPERATING



AIRMAX®

- ☐ F250 - .25HP Single Propeller Aerator
- ☐ F500 - .5HP Single Propeller Aerator
- ☐ F750DP - .75HP Dual Propeller Aerator
- ☐ F1000DP - 1HP Dual Propeller Aerator
- ☐ F1500TP - 1.5HP Tri-Propeller Aerator

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WARNING WARNING WARNING WARNING WARNING WARNING

SURFACE AERATORS

As water flows through the bottom of the shroud and four additional holes, the propeller mixes and forces the water above the surface. The high pumping volume degasses the water of nitrogen, carbon dioxide, and hydrogen sulfide while raising dissolved oxygen levels. Degassing gets rid of nutrients which cause algae and weeds, resulting in clearer water and decreased odor. Moving water mixes and agitates the water, spreading oxygenated water throughout the body of water.

COMPLETE PACKAGE

- (1) Assembled Motor (with shroud).
- (1) UV Resistant Float.
- (2) 25' Long 3/8" thick Hollow Braided Polypropylene Mooring Lines.
- (1) SJTOW Rated 3-Wire, 14 Gauge Power Cable with Potted Quick Disconnect.

QUICK FACTS

- Able to Operate in Water as Shallow as 36" (92cm).
- Total Component Listed to meet UL, CE, & CSA Standards for Safety in Water.

UL Listing No. E481181

Met Listing No. E112360

- Energy efficient with excellent Gallons per Minute (GPM)/kW Rates.
- High Oxygen Transfer at an affordable price.
- Sacrificial Aluminum Anode and Electrolysis Kit are available for corrosion protection and use in salt-water applications.
- Industrial Strength Design.
- **2-Year Warranty.**

WARNING

Discontinue use and remove from water when water is below freezing temperatures (32F/0C). Do not run the unit out of water. Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) protected circuit required.

MOTOR ASSEMBLY

- .25Hp; 300GPM; 2.6amps (115V).
- .5Hp; 884GPM; 6amps (115V).
- .75Hp Dual Propeller; 1050GPM; 7amps (115V).
- 1Hp Dual Propeller; 1150GPM; 8.2amps (115V).
- 1.5Hp Tri-Propeller; 1300GPM; 5amps (230V).
- Single Phase motors; 3-Phase on 1Hp motors available upon request.
- Units available in 115V or 230V.
- 50/60 Hz.
- 1,650 Rotations per Minute (RPM).
- Oil Cooled, Continuous Duty Rated.
- Two Long Life Bearings.
- Thermal Overload Protection.
- Fully Utilized Heavy Duty Carbon Ceramic Mechanical Seal.
- Series 300 Austenitic Stainless Housing with Magnesium Bronze End-Bell.

POWER CABLE

- SJTOW UL & CSA Approved Underwater Rated Cable, 3 Wire.
- 115V available in 50', 100', and 150' with Quick Disconnect Power Cord.
- 230V available in 50', 100', 150', 200', 250', 300', 350', 400' with Quick Disconnect Power Cord.
- Potted Quick Disconnect on 14 Gauge Cord.

FLOAT

- U.V. Resistant High Density Thermoplastic.
- Single Piece Float with Closed Cell Foam Filling.
- Series 300 Stainless Steel Hardware.
- (2) 25' long 3/8" thick hollow braided polypropylene ropes.

POPULAR ACCESSORIES

115V TIMER

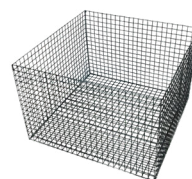
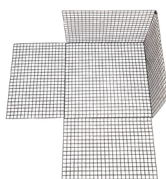
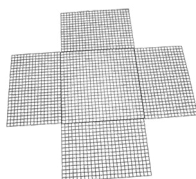
- Portable Outdoor 24 Hour Timer available for both 115V and 230V.
- Outdoor grade plastic.
- Timer: 24-hour with 23-1/2 hour maximum on time. (2) "ON" & (2) "OFF" trippers – standard.
- Dial will accept up to 12 sets of trippers.
- Electrical Rating: 15 A (1800 W), Resistive or Tungsten.
- Agency Approval: CSA/C-US.
- Outdoor grade cord with ground plug, 3 wire, 22 inches.
- 1 Year Manufacturer's Warranty.

230V TIMER

- Electromechanical Time Switch.
- Type 3R Plastic Enclosure.
- Provides direct 24-Hour control of most loads.
- Control electrical loads up to 40 Amps.
- 1 to 12 ON/OFF operations each day.
- Minimum ON/OFF times of 1 hour.
- Manual override.
- Equipped with (1) ON and (1) OFF tripper.
- 1 Year Manufacturer's Warranty.

FLOAT CAGE

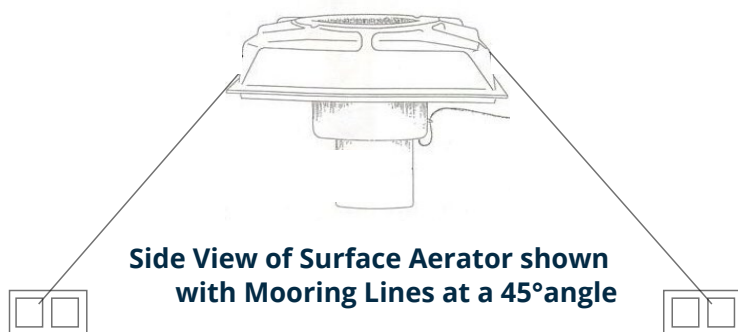
- 24"W x 24"L x 16"H. Fits F500, F750DP, F1000DP & F1500TP.
- Protect your investment by preventing foreign objects from entering the shroud.
- Choice of 1/2" or 1" grid plastic coated, hot rolled metal screen that covers the bottom 5 sides of the float



INSTALLATION & OPERATION INSTRUCTIONS

INSTALLATION

1. Immediately after delivery, inspect the aerator shipment for any visible damages. Report any damage to your dealer.
2. The surface aerator is completely assembled within the housing. You will not need additional hardware.
3. Install the aerator in the floa by following these simple instructions:
 - Turn the aerator upside down with the propeller end facing downward and place on a floa surface.
 - Pass power cord through the topside of the floa (side with "Power House" printed on it).
 - Slide float Power House name side down, over the shroud. Twist to align slots in the throat of the floa with the power cord and mounting bolts.
 - Make sure cord is free and does not loop above the level of the propeller hub.
 - If you are installing optional floa cage - connect the screen to the bottom lip of the floa using the (16) small white clamps. The sides of the screen will need to be connected by using pliers to close the metal rings.
4. Turn unit to an upright position with the propeller facing up.
5. Fasten one mooring line to a secure place such as a fence post or large cinder block.
6. Drop unit into water and secure the other rope directly across from the first. Adjust your fastening points to position the unit where desired.
7. Make certain that there is adequate water depth (at lowest water level) so that the unit float freely. Keep unit away from heavy grass or debris.
8. Make sure all hands, feet, cords, lines, etc. are clear of the unit before connecting to power supply.



OPERATION

1. Once your Power House Surface Aerator unit is properly installed and secured, the surface aerator is ready for immediate use.
2. Your surface aerator is designed for continuous operation. It can be cycled by the use of a timer, photocell or dissolved oxygen meter. This can help to greatly reduce the amount of energy consumed by the aerator, while still circulating the water. Contact your local electrician for assistance.
3. Operating equipment should be observed on a regular basis for any reduction or variation in the aerator's performance.
4. Plug the electrical cord into properly grounded GFCI (Ground Fault Circuit Interrupter) or RCD (Residual Current Device) protected circuit. 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. (Recommended that an electrician verify your power supply.)

WARNING: When an extension cord is used, it must be sized as follows:

Up to 100ft. - Use #12/3 wire cord

Up to 200ft. - Use #10/3 wire cord

5. 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.

WARNING: Do not run out of water. Unit must be submerged. Keep hands clear.

6. Routinely inspect the propeller and shaft for any damage from foreign objects.
7. If using in salt water, routinely inspect the sacrificial anode. Replace parts as necessary.
8. When the unit is used for floa generation in a circular tank or pond, the water will gradually circulate and will continue for some time after the unit is turned off.
9. 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.
10. Freezing Temperatures can cause floa to crack or split.

WARNING: Discontinue use and remove from water when water is below freezing temperatures (32°F/0°C)

AIRMAX

MAINTENANCE & TROUBLESHOOTING

MAINTENANCE

- Airmax surface aerator motors are filled and sealed with a special non-toxic dielectric lubricating fluid and does not require additional lubrication.
- When storing your unit, clean it thoroughly and place it propeller side down in a flat, cool place. Storing propeller side down will keep the seals lubricated.
- Units placed in 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. Cleaners will not damage the unit; however, these products could leave a residue that may damage plants and animals when the unit is put back in service. When using cleaners, thoroughly flush and rinse the unit with fresh, clean water.
- Routinely inspect the propeller, internal brackets, and shaft for the accumulation of weeds, vines or string. Foreign objects can damage the seals, prop and shaft. Keep the shaft and propeller clear of debris. Inspect the brackets and propeller for chips and cracks. Broken or damaged brackets or propeller can be replaced easily in the field with factory parts.
- 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. Replace the cord if there are deep enough cuts in the outer jacket to see the inner conductors. A severe shock could result if the copper wire is showing. Immediately remove the unit from service and replace the cord.
- Units operated in brackish or salt water must have a sacrificial anode attached to the shaft. The anode must be inspected periodically for deterioration. Operation without the anode could result in metal deterioration and contamination and may void the warranty.

WARNING: Do not open the sealed motor unit for any reason.

- The motor 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, send the unit to the manufacturer or authorized service center every four to five years for standard service. Commercial duty operations may wish to service units more frequently.

TROUBLESHOOTING TIPS

1. If the aerator does not start when plugged in/turned on:
 - Check power source to make sure that appropriate voltage is available.
 - Make sure the power cord connections are fully made. Check tightness at both the source end and at the unit.
 - Have an electrician check your installation if the ground-fault circuit interrupter (GFCI) or circuit breaker has tripped or blown a fuse.
 - If the aerator requires a push/spin to start then there is a problem with the Start/Run Capacitor. Discontinue use and have it looked at by an Authorized Service Center.
2. If the aerator starts slowly or does not have full flow: This can be a symptom of several possible problems. There could be a problem with the electrical or a problem with the aerator's motor.
 - Check power source for voltage drop or undersized service. If several pieces of equipment are operating on the same circuit, restart each piece of equipment individually.
 - Unplug the unit and make sure the propeller turns freely. Turn propeller through several full revolutions. Try to start the unit again.
 - Unplug the unit and make sure there is no debris around the propeller or shaft.
 - Check screen to make sure it is clean. You must remove any accumulation of algae or grass.
 - If you're still unable to diagnose the issue, discontinue use and have it looked at by an Authorized Service Center.
3. If the aerator shuts itself off intermittently without tripping the GFCI or Breaker:
 - Unplug the aerator from the power source and remove the unit from water.
 - The unit may be overheating due to low voltage. Check power source for voltage drop or undersized service.
 - The unit may be overheating due to overload. Inspect the aerator to make sure there aren't any foreign objects around the propeller, shaft, or canister. Each surface aerator has a thermal overload built in which will turn the unit off when it overheats. Once the unit has cooled down, it will start back up on its own.

WARNING: Discontinue use immediately if you are noticing these symptoms.

PARTS & ACCESSORIES



Mini Blue Propeller - fit F250



Small Blue Propeller - fit F500



Dual Propeller Assembly - fit F750DP & F1000DP
Also available **Single Broached Propeller**
- 1 replacement propeller with snap ring



Tri-Propeller - fit F1500TP
FRESH WATER ONLY



Brackets - (set of 4)
Small - fit F250
Large - fit F500, F750DP & F1000DP



ALMag Brackets - Fits F1500TP
FRESH WATER ONLY
Also fit F500, F750DP, F1000DP



Shackles - (set of 2)
One Size - fit all surface aerator models. 1/4" stainless steel shackles with a 9/64" short arm hex key.



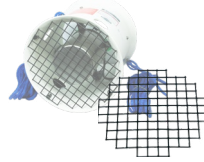
Black Mooring Lines - (set of 2)
25' Long x 3/8" thick hollow braided polypropylene ropes.



Round Black Float
fit F250
U.V. Resistant High Density.



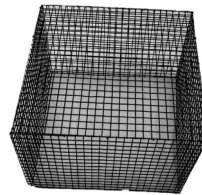
Square Black Float
fit F500, F750DP, F1000DP, & F1500TP
U.V. Resistant High Density Thermoplastic Float with Closed Cell Foam Filling.



Screen Kit
Large - fit F750DP & F1000DP
Installed on top of aerator shroud.



Compact Cage - fit F250



Float Cage - fit F500, F750DP, F1000DP, F1500TP
24"W x 24"L x 16"H
Standard - 1" grid plastic coated, hot rolled metal screen that covers the bottom 5 sides of the float
Minnow - 1/2" grid plastic coated, hot rolled metal screen that covers the bottom 5 sides of the float



Sacrificial Aluminum Anode
One Size - fit all surface aerator models. Allen wrench included. Protects against corrosion and electrolysis. For use in salt water.



115V Timer - This grounded plug-in timer utilizes an outdoor rated raintight flip-open enclosure. (2) On and (2) Off settings make this a perfect timer to control your Aerator and keep your costs low.
230V Timer - This heavy-duty timer stands the test of time while providing the highest horsepower ratings in the industry for industrial, commercial, and residential applications.



Down Tube (float not included)
fit F750DP, & F1000DP
23 1/2" shroud extension, which attaches to aerator unit to pull water up from deeper depths.



Replacement power cords, critter sleeving, and motor assemblies are available for every surface aerator model.

WARRANTY

Airmax, Inc., (herein called "Airmax"), warrants products to be free from defects in material and workmanship for the warranty period specified below from the date of manufacture by Airmax, under normal use and service. This limited warranty does not include defects or failures due to mishandling, misuse, improper installation, or improper electrical supply.

Airmax will replace any defective parts covered by its warranty without charge for parts or labor, provided that the full unit is returned to Airmax (or an Authorized Service Center) within thirty (30) days after discovering the defect.

This warranty is in lieu of any other warranty, express 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 Airmax. In no event shall Airmax be liable for incidental or consequential damages.

In addition to the product-specific limitations below, the warranty will be voided if any of the following occurs:

- Use of parts or products not manufactured by Airmax;
 - The unit is damaged or altered by unauthorized tampering and/or repairs;
 - The unit was subjected to abuse, negligence, accident, or misapplication;
 - Example: chips/nicks and deterioration in propeller size
 - The unit is not stored properly;
 - The unit was run out of water; or
 - An improper sized extension cord or circuit.
- IMPORTANT: one unit per dedicated outlet

Standard maintenance services and the replacement of service items connected with such services are covered by warranty.

Standard Service items include seals, bearings, dielectric fluid, boot & capacitor. Standard Service is only available for Ice Eater, Power House Aeration, & Weeds Away products.

All units must be shipped complete prepaid/brought to the attention of:

**Airmax, Inc.
Attn: Service Center
15425 Chets Way Street
Armada, MI 48005**

OR can be shipped complete prepaid/brought to an authorized service center of Airmax.

There are no warranties beyond those contained herein, and no person is authorized to give any other warranties or assume liabilities on behalf of Airmax. An evaluation fee (see specific product for details), plus return shipping, will be charged when a unit is returned for repair and found to be in good working condition. The evaluation fee also applies for units customers decide not to repair but wish to reclaim certain parts. The evaluation fee is waived if the unit is scrapped (at Airmax) or the unit is repaired. After the original warranty period described below has ended, there is a thirty (30) day warranty period for a standard repair by Airmax. A new, full warranty is only reissued if a customer purchases a brand new motor with service.

- Warranty Period: Two (2) years from the date of manufacture by Airmax. For non-standard use, the warranty period is one (1) year from the date of manufacture by Airmax.
- In areas of high salinity, brackish, high electrical current, and/or warm temperatures, a sacrificial anode should be used on the shaft or for more extreme conditions; an electrolysis kit must also be mounted to the stainless steel can.
- In addition to the limitations above, this limited warranty does not include any defects or failures of the ropes, power cord, propeller, or brackets.
- The warranty will be voided if the shaft and/or stainless steel can shows significant deterioration. Failure to keep the shaft and can clear of debris (including string, bags, calcium buildup, barnacles, etc.); or if the propeller/impeller shows signs of excessive or unusual wear and tear.
- Failure to inspect and clean units constitutes misuse. Recommended frequency for cleaning the unit is once a month.
- Complete units must be shipped for evaluation; however, we do not require floats to be sent in for warranty inspections unless the float is defective.
- The evaluation fee is \$65.

****All units sent to Airmax or authorized repair center are considered abandoned, if not claimed, after six (6) months. Airmax is no longer responsible for such units, and units will be scrapped.****



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