



Natural. Clear Water. Guaranteed.™

OWNER'S MANUAL FOR:

# AM10-SW & AM20-SW Shallow Water Aeration Systems

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## THANK YOU FOR CHOOSING The Airmax® Aeration System

You have purchased the most efficient and cost-effective aeration system available on the market today!

**A**



### 1. System Components

#### SYSTEMS

##### AM10-SW

- Two ProAir™-2 Self-Weighted Diffuser Plates
- Standard SilentAir™ Composite Cabinet w/ Cooling Fan
- High Efficiency Diaphragm SilentAir™ Compressor w/ Double Manifold Assembly

##### #600201

- 100' 3/8" Self-Weighted Airline
- #600202**
- 200' 3/8" Self-Weighted Airline

##### AM20-SW

- Four ProAir™-2 Self-Weighted Diffuser Plates
- Standard SilentAir™ Composite Cabinet w/ Cooling Fan
- High Efficiency Diaphragm SilentAir™ Compressor w/ Quad Manifold Assembly

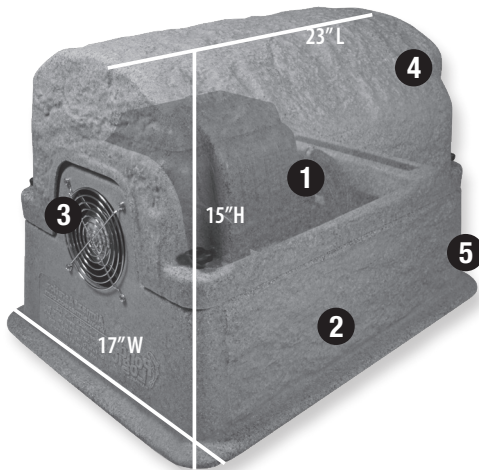
##### #600205

- 200' 3/8" Self-Weighted Airline
- #600206**
- 400' 3/8" Self-Weighted Airline



### SilentAir™ CABINET & COMPRESSOR

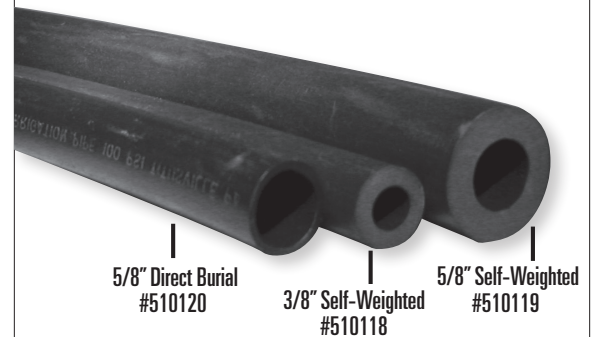
SilentAir™ Compact Composite Cabinet  
For AM10-SW & AM20-SW



1. Integrated Air Regulator Assembly for Easy Air Flow Management
2. Elevated Base Designed for Flood Protection
3. Enhanced Cooling System Tunnels Air Flow Evenly Through the Cabinet With a High Flow Cooling Fan and High Density Air Intake Pre-Filter
4. Composite Rock-Like Cabinet
5. 6' Grounded Power Cord

### EasySet™ AIRLINE

- Self-Weighted Airline: 3/8" 100' Roll (#510118), 5/8" 100' Roll (#510119): Lead-free weighted airline is made of durable PVC composite. Fish hook resistant and kink-free. Use from pond's edge to diffuser.
- Direct Burial Airline (sold separately): 5/8" 100' Roll (#510120) Flexible, yet kink-free. Bury from cabinet and compressor to pond's edge when placing the cabinet and compressor away from the pond.



### CONNECTOR KITS\*



3/8" Connect Kit  
#490204



3/8" to 5/8" Connect Kit  
#490205



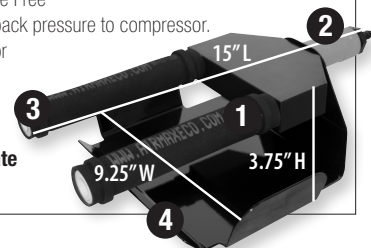
5/8" Connect Kit  
#490206

\*Systems include enough connector kits for 1 Roll of weighted airline plus 1 Roll of direct burial airline per diffuser plate. Additional connector kits may be necessary for your installation.

### ProAir™ - 2 DIFFUSER PLATE

1. Membrane Sticks (#510165) Have the Synergy of Air Stones but are Virtually Maintenance Free
2. Check valve prevents back pressure to compressor.
3. Elevated membranes for maximum circulation.
4. Self-weighted, powder-coated base.

ProAir™ - 2 Diffuser Plate  
#510142



## 2. Safety

- Read all operating instructions carefully.
- To reduce the risk of electric shock, connect only to a properly grounded, grounding-type receptacle. If in doubt, have the outlet checked by a qualified electrician.
- This unit is to be used in a circuit protected by a ground fault circuit interrupter (GFCI).
- Disconnect unit from power source before handling or maintenance.
- Repair or exchange of cable/power cord must be carried through by the supplier/manufacturer.
- This unit has not been investigated for use in swimming pool areas.

### CAUTION

- Never connect to an extension cord. This may result in equipment failure.
- Do not allow anything to rest on the power cord.
- Do not place the cabinet where people may step on the power cord.
- Never override or "cheat" electrical or mechanical interlock devices.
- Never attempt any maintenance function that is not specified in the user manual.
- Never operate the system if unusual noises or odors are detected. Disconnect the power cord from the outlet and call for service.

## 3. Seasonal Operation

- The circulation of poor quality, low oxygen, deep water to the pond's surface can introduce harmful gases and by-products into the previously healthy upper regions of the water column. These by-products can make the upper regions unfit for aquatic life and could result in fish-kill.

### To Prevent Initial Fish-Kill:

Follow this procedure anytime system has been shut-off for an extended period of time.

- Day 1: Run system for 30 minutes; turn system off for remainder of day.
- Day 2: Run system for 1 hour; turn system off for remainder of day.
- Day 3: Run system for 2 hours; turn system off for remainder of day.
- Day 4: Run system for 4 hours; turn system off for remainder of day.
- Day 5: Run system for 8 hours; turn system off for remainder of day.
- Day 6: Run system for 16 hours; turn system off for remainder of day.
- Day 7: Begin running system 24 hours/day, 7 days/week.

### Summer Operation

To reduce the risk of fish kills in hot summer months and for optimum aeration benefits, Airmax® Aeration Systems should run continuously throughout the summer. To enhance pond health, reduce mucky bottoms and enhance pond's aesthetic appeal, try other Pond Logic® products:

**Ma** MuckAway™ **Pc** PondClear™ **Nb** Nature's Blue™ **Bk** Black DyeMond™ **Tw** Twilight Blue™

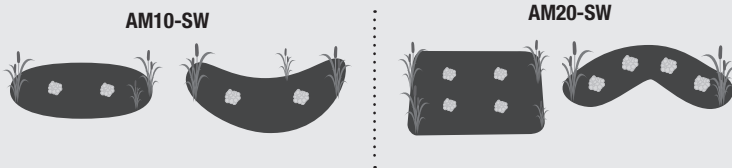
### Winter Operation

Owner assumes all responsibility for operating Airmax® Aeration System during winter months. Operating in freezing conditions on an ice-covered pond will cause large open water areas at diffuser sites. Ice thickness around open areas will be much thinner than the surrounding areas. Airmax® strongly recommends that "Danger - Thin Ice" be posted at frequent intervals around pond. Diffuser plates should be moved out of the deepest points of pond to allow a safe zone for fish dormancy and to avoid "super cooling" effect.

If you choose to turn your system off for the winter, do the following:

- Unplug system. Move cabinet and compressor inside to keep dry.
- Cover flex-tube ends as well as airline ends to prevent debris from entering airline.
- When turning system back on in spring, airlines may contain ice.
- Use 1 cup denatured alcohol in the airline running out to each plate; turn on compressor to push through line and free any ice blockage.
- Follow initial startup procedure to avoid "shock" in the pond.

## DIFFUSER PLACEMENT GUIDE:



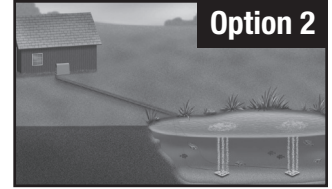
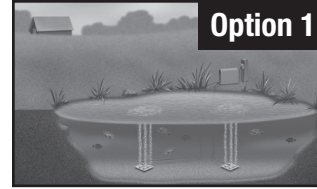
## 4. System Installation

For quick, easy and professional installations, it is suggested that the following materials be on-site: (*None of the following are included with the Airmax® Aeration System*)

- Placement Rope
- Level
- Coast Guard-approved life jacket
- Shovel
- Flathead screwdriver
- Utility razor knife
- Boat/Raft/Swimsuit
- Small stone or gravel
- Rake
- Sharpie® Marker

### Location

- Locate cabinet on a solid support with adequate strength for weight of unit.
- Locate cabinet away from irrigation sprinklers.
- Wear a Coast Guard-approved life jacket; follow all safety and caution guidelines.

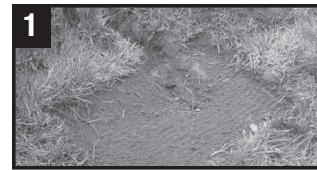


**Option 1:** When power source is available at pond's edge, simply connect one end of EasySet™ Airline to flex-hose and other end to diffuser plate.

*Steps 2 & 3 are not necessary using this option.*

**Option 2:** When power source is not available at pond's edge, place SilentAir™ Cabinet next to nearest power source. Trench Direct Burial Airline (sold separately, 1/2" standard irrigation pipe may be substituted) from flex-tube to pond's edge; then connect to EasySet™ Airline and run to diffuser plate. Each diffuser will be a separate run of airline. Each run may not exceed several hundred feet.

## 6 Easy Steps!



1. Decide on a location for the cabinet and prep ground. May be placed several hundred feet from shoreline (using direct burial airline) if power is not available at shore.



2. **Option 2 Only:** Excavate trench to a minimum of 8" of depth for direct burial line. Place and backfill all direct burial airline (one line per diffuser).



3. **Option 2 Only:** Connect direct burial airline to EasySet™ self-weighted airline.



4. Connect diffuser to airline. Extend EasySet™ self-weighted airline to proper location. Place diffuser. To ensure proper placement, use nylon rope. Plates should be located at average depth of pond (1/2 maximum depth) following Diffuser Placement Guide.



5. Connect airline to flex lines supplied with cabinet. Open cabinet, plug compressor and cooling fan into power control. Plug power control cord into power outlet.



6. Bubbles should be noticeable from all diffuser locations. When more than one diffuser is installed, adjust valves for maximum performance. Once adjustments are made, wait several minutes to see results at the diffuser location(s). Deeper placement of plate(s) and longer runs of tube will require more flow.

## 5. Maintenance\*\*

Airmax® Aeration Systems are designed for low-maintenance and require minimal scheduled maintenance. Cabinet inlets and outlets should be kept free of debris and weed growth allowing normal ventilation.

- Always unplug system before performing any maintenance or troubleshooting.
- Always unplug system and refer servicing to a qualified electrician when: cord is damaged or frayed, compressor, power control, compressor fan, or other electrical components are producing unusual noises or odors.
- Always use parts that are supplied or approved by Airmax® Ecosystems, Inc. Use of other parts may result in poor performance and could create a hazardous situation.

\*\*Local environmental conditions may require more frequent maintenance.

**Cooling Fan:** Check regularly to make sure cooling fan is operating. Hot air should be pulled from cabinet, not cool air blowing in.

**Air Filter:** Clean/Replace every 3-6 months. Replacement filter elements also available.

**Membrane Sticks:** Purge every 12 months. See below for purging instructions based on model.

**AM10-SW & AM20-SW:** While compressor is running, shut off all air flow valves *except one*, forcing all air to one diffuser plate for 10 seconds. Repeat for each plate.

## 6. Troubleshooting

### IF COMPRESSOR IS NOT OPERATING:

ISSUE	CHECK	LIKELY CAUSE	CORRECTION
Cabinet fan is not running.	Option 1: GFCI circuit tripped.	Damage to electrical cord or low voltage from power supply.	Contact Airmax® or local dealer for electrical troubleshooting assistance.
	Option 2: GFCI circuit not tripped.	GFCI malfunction.	

### IF COMPRESSOR IS OPERATING:

ISSUE	CHECK	LIKELY CAUSE	CORRECTION
No bubbles at any diffusers.	Option 1: No air leaks are audible in cabinet. Compressor running louder and possible excessive vibration.	Compressor air filter is dirty/clogged.	Clean or replace filter. <b>NEVER</b> re-install wet filter.
	Option 2: Compressor operating normally or making unusual noises. Exhibits reduced pressure and/or air flow.	Compressor needs piston <b>maintenance kit</b> and possibly new air filter.	Contact Airmax® or local dealer with specifications for <b>maintenance kit</b> . Clean or replace filter. <b>NEVER</b> re-install wet filter.
No bubbles at some diffuser plates.	Option 1: Check for leaks at all connections in line and in cabinet. If none are audible, carefully spray <b>SMALL</b> amount of soapy water onto connections and look for bubbles.	Vibration loosened connection or cracked fitting.	Tighten loose connection or replace cracked fitting as necessary.
	Option 2: Are all flow control valves in compressor wide open?	Improper "balancing" of diffusers.	Adjust air flow valves on manifold in cabinet until all diffusers operate properly. <b>See Section 4. System Installation</b> for more information.
	Option 3: Valves in cabinet are properly "balanced" and no leaks are evident.	Compressor beginning to lose compression and needs piston <b>maintenance kit</b> .	Contact Airmax® or local dealer with compressor specifications for <b>maintenance kit</b> .
Large rolling bubbles instead of fine bubbles at surface above one or more diffuser plates.	Inspect each diffuser plate for malfunction.	Diffuser membrane damaged, diffuser plate fitting broken or diffuser plate is flipped over.	Contact Airmax® or local dealer for repair/replacement.
Compressor stops working for periods of time, then restarts.	Inspect cooling fan for proper function.	Compressor over-heating due to bad cooling fan.	Contact Airmax® or local dealer for fan replacement. If possible, leave top of cabinet open for cooling. Otherwise, unplug system until fan is replaced.
Compressor shakes erratically and is making loud noises.	Option 1: Check for low voltage while compressor is running.	Gauge of supply wires to circuit possibly undersized or cabinet is plugged into extension cord.	If gauge of circuit wiring is incorrect, have electrician replace. <b>NEVER</b> use extension cord to operate system for continual use.
	Option 2: Check for clogged air filter.	Air filter in need of replacement.	Clean or replace filter. <b>NEVER</b> re-install wet filter.

## 7. Warranty

Airmax® Ecosystems will repair or replace defective parts for a period of 2 years from the date of purchase. This excludes normal wear and tear items, such as air filters and piston maintenance. A copy of your receipt will be required for any system submitted for warranty. Customer will be responsible for return shipping of product. Warranty will be void if inspection of unit determines failure due to the following: incorrect voltage, faulty installation including damaged or cut power cords, damage from shipping due to poor packaging, moisture damage or customer negligence.

There is a metallic sticker on the side of the compressor and the electrical box similar to what you see on the right. For your records, copy the appropriate number below. Have this information ready when making inquiries regarding your Airmax® Aeration System.

**AM** \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**PURCHASE DATE:**

Date unit was purchased. (Example: June 1, 2011)

\_\_\_\_\_

WARRANTY VOID IF REMOVED

**AM## - #### - ##A**

AIRMAX® ECOSYSTEMS, INC.  
WWW.AIRMAXECO.COM

THANK YOU FOR CHOOSING



Natural. Clear Water. Guaranteed.™

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