



EnhanceAir™ PRO 1 & 2 Owner's Manual



Congratulations and thank you for your purchase of the **Complete Aquatics EnhanceAir™ PRO Pond & Water Garden Aeration Kit**. By installing an aeration system into your pond, you will increase the dissolved oxygen levels and other gas exchange in your water. This will make your fish happier & healthier and also increase the biological activity that helps keep your water clear. Please read this entire manual before installing!

Contents:

Warnings & Safety.....	2
EnhanceAir™ Parts.....	3
EnhanceAir™ Assembly.....	3
EnhanceAir™ Installation.....	4
Winter Operation Considerations.....	5
Regular Maintenance.....	6
Warranty Information.....	7
Accessories.....	7

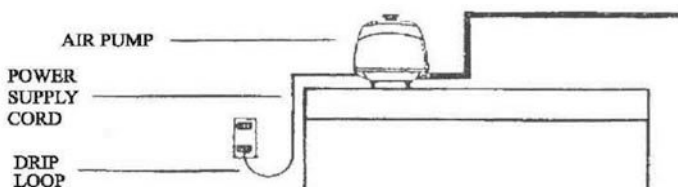


WARNING

IMPORTANT SAFEGUARDS. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

To avoid possible equipment electric shock, special care should be taken when the pump is used as water garden equipment. For each of the following situations, do not attempt to repair yourself, return the air pump to an authorized service facility for servicing, or discard the pump.

- I) If the pump falls into the water, DO NOT REACH FOR IT: first unplug the pump from electricity supply, and then retrieve it.
- II) Carefully examine the air pump after installation. It should not be plugged in if there is water on parts that are not intended to be wet.
- III) Do not operate if the cord or plug is damaged, or if the pump is malfunctioning, dropped, or damaged in any way.
- IV) To prevent the plug or the electrical outlet getting wet, create a drip loop near where the cord meets the outlet. This should avoid water dripping onto the plug or outlet. A drip loop is shown in the figure below.



If the plug of outlet does get wet, DO NOT UNPLUG THE CORD: Disconnect the fuse or circuit breaker supplying power to the pump. Then unplug and examine for the presence of water in the outlet.

- V) Do not use the pump near volatile liquids such as gasoline, thinners, etc, as this creates the possibility of an explosion.

CAUTIONS FOR USE

- I) This pump is air-operated. Do not, under any circumstances, attempt operation with water or other liquids, otherwise pump may be damaged.
- II) If operating pump as a winter de-icer or otherwise freezing conditions, see the section labeled "**Winter Operation Considerations**" on Page 5.
- III) Do not block the air being discharged. The pump must have sufficient room to allow for heat dissipation. Under the extreme operating temperature conditions which may be caused by failure to observe cautions II) or III), pump will automatically switch off until cool.
- IV) Always unplug pump prior to servicing. Grasp plug to remove cord from outlet. Do not remove by pulling on power cord.
- V) Do not use the air pump for any other purpose which different from its original use. Use of unauthorized replacement parts may jeopardize safety.
- VI) When not in use, store pump in a dry, frost-free area.
- VII) Never use an extension cord, this may result in equipment failure.
- IX) **Always connect to an outlet protected by a Ground Fault Circuit Interrupter (GFCI or GFI)**

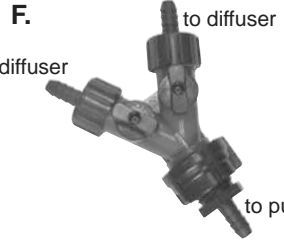
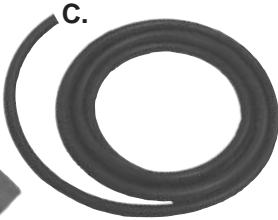
DO NOT REMOVE PUMP CASING UNTIL UNIT IS DISCONNECTED FROM ELECTRICAL SUPPLY.

EnhanceAir™ PRO Kit Parts

Your EnhanceAir™ PRO Kit includes one or more of the following, depending on whether you purchased the EnhanceAir™ PRO 1 or EnhanceAir™ PRO 2 kit.

EnhanceAir™ PRO 1 Kit:

- 1x..EnhanceAir™ PRO 30 lpm Air pump (A)
- 1x.....12" Air Diffuser & Baseplate (B)
- 1x.....20' of 3/8" Self-weighted Airline (C)
- 1x.....Brass 3/8" Insert Fitting (D)
- 1x.....2" Length of 3/8" Vinyl Tubing (E)



EnhanceAir™ 2 Kit:

- 1x..EnhanceAir™ PRO 60 lpm Air pump (G)
- 2x.....12" Air Diffuser & Baseplate (B)
- 2x.....20' of 3/8" Self-weighted Airline (C)
- 1x.....Brass 3/8" Insert Fitting (D)
- 1x.....2" Length of 3/8" Vinyl Tubing (E)
- 1x.....Manifold and Valve Assembly (F)



EnhanceAir™ PRO 1 Kit Assembly

Below are step-by-step instructions for assembling your EnhanceAir™ PRO 1 Kit: *(EnhanceAir™ PRO 2 on next page)*

EnhanceAir™ PRO 1 Kit:

Step 1: Thread the Brass Connector (D) onto the pump's air discharge port. Lightly tighten with a wrench. Do Not over-tighten.



Step 1

Step 2: Un-roll the Self-weighted Airline and push one end onto the Brass Connector.



Step 2

Step 3: Push the other end of the Self-weighted Airline onto the barbed connector on the Air Diffuser (B).



Step 3

Step 4: Place the Pump at the edge of the pond and the Diffuser Assembly into the pond at desired location. See page 4 for placement guidelines.

EnhanceAir™ PRO 2 Kit Assembly

EnhanceAir™ PRO 2 Kit:

Step 1: Thread the Brass Tubing Connector (D) onto the Air Pump. Lightly tighten with a wrench. Do Not over-tighten.

Step 2: Slip one end of the short piece of Vinyl Tubing (E) over the Brass Connector.

Step 3: Slip the other end of the Vinyl Tubing (E) over the bottom end of the Manifold Assembly (F) (see image on page 3).

Step 4: Un-roll both Self-weighted Airlines and push one end of each onto the open ends of the Manifold Assembly (F).

Step 5: Push the other ends of the Self-weighted Airline onto the barbed connector on the Air Diffusers (B).

Step 6: Place the Pump at the edge of the pond and the Diffuser Assemblies into the pond at desired locations. See page 4 for placement guidelines.



Step 1



Step 2



Step 3



Step 4

Step 5- See page 3

EnhanceAir™ PRO Aeration Kit Installation

To install the EnhanceAir™ PRO Aeration Kit into your pond or water garden, first find a suitable place *outside* of the pond for the air pump. Such a place should be level, flat and *above* the water level in the pond to avoid water siphoning back into the pump in a power failure. Next find a suitable place *in* the water garden for the diffuser. For warm weather operation, this will be near the center of the pond. For winter operation or using the aeration kit as a de-icer, read the section labeled "**Winter Operation Considerations.**" Do not place the diffuser at depths greater than 4 feet as this will greatly reduce air flow and reduce the life expectancy of the air pump. After the diffuser and air pump are in place, take actions to conceal the self-weighted tubing, like snaking it through rocks or burying it under mulch. Do not place the tubing anywhere it can be stepped on, run over or otherwise damaged. Do not kink or pinch tubing.

Notes on Installation

- Pump must be above water level in the pond and on a horizontal surface.
- Elevate air pump a few inches off the ground to keep moisture from coming in contact w/ the pump.
- Do not allow pump to be exposed to the elements. It is highly recommended to use a *vented* cover, such as an artificial rock or irrigation valve box, to protect the pump.
- If using multiple diffusers (EnhanceAir™ PRO 2), ensure diffusers are evenly distributed throughout the pond. Also, make sure air flow to each diffuser is regulated by a valve. Adjust these valves to balance the air flow to each diffuser. Ensure that valves *balance* air flow between diffusers and avoid restricting overall air flow from the pump.
- The pump will automatically operate when plugged in. Pump must be plugged into an outlet with a proper ground. If your outlet has no ground, contact an electrician to properly ground the unit. Also, pump must be plugged into an outlet protected by a Ground Fault Circuit Interrupter (GFCI or GFI).

Winter Operation Considerations

During any season, the EnhanceAir™ PRO Kit will provide the necessary oxygen to your pond to promote happy and healthy fish as well as greatly enhance the biological ecosystem that keeps it clean and clear. In the winter months, though, an aerator not only provides oxygen but is 80% more energy efficient than typical floating heaters and equally effective in keeping an area of the pond from freezing, allowing the necessary transfer of harmful and beneficial gasses.

Following are precautions and recommendations when using your pond aeration system in the winter months:

Diffuser Placement:

In warmer months, the best place for the diffuser is in the middle of the pond near the deepest point to circulate highly oxygenated surface water down into the depths of the pond (Figure 1). However, in winter the pond's surface water is super-chilled from the cold air and should not transfer to the bottom of the pond where the fish are. For this reason, it is **extremely important** to move the aeration diffuser to an upper shelf level near the pond surface in colder weather (Figure 2). Place the diffuser so that it is 6" to 8" below the water surface. This will keep the super-chilled water from circulating to the bottom of the pond as well as create greater turbulence at the water surface to keep an area from freezing. Note that the ice all around the opening is thinned and will not support weight, so never walk or step on the ice. When the pond is used for recreation in the winter, clearly post signs at or mark the location of the diffuser and thin ice at the surface to warn any individuals on the ice.

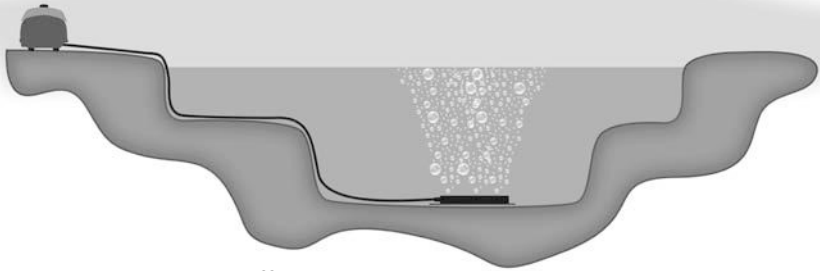


Figure 1: Diffuser placement in warm months.



Figure 2: Diffuser placement in freezing conditions

Winter Operation Considerations, cont'd

Air Pump Winter Care:

The air pump should sit on a flat, horizontal surface elevated slightly off the ground and above the pond's water surface. Ensure there is good air circulation around the pump and no water or snow can come in contact with the pump. Protect the pump with a cover that will allow proper ventilation and block precipitation or melt-runoff. Use a cover that is large enough to house the pump and does not have much extra space. The pump will generate heat during normal operation and a proper cover will ensure that the pump will keep warm function properly during extreme freezing conditions. The Complete Aquatics Faux Rock with ventilation is an ideal cover. If one is not available an inverted flower pot without drain holes can be used (NOTE: When using an inverted flower pot, drill a few 3/8" holes through the side of the pot to allow ventilation or elevate base of pot 1/4" from the surface of the ground. Make sure the bottom of the pump is above the base of the upturned pot).

Winter Trouble Shooting:

As with any de-icing device, it is important to visually inspect it frequently to ensure that it is functioning properly and a hole is maintained in the ice over the pond.

If the air pump stops pumping air:

1. Check the electrical outlet to make sure the pump is getting power.
2. Inspect the ventilation on the pump cover. Remove any abstractions such as ice or snow.
3. Check intake filter; it may need cleaned. Check intake before and after filter for obstructions.
4. Check all the tubing connections.
5. Check the air transfer tubing for proper air flow. If condensation has frozen in the tubing and preventing air flow, use a hair dryer to thaw it out. You can also disconnect the tubing and bring inside to a warm environment. Replace the tubing immediately after clearing.

Regular Maintenance

Safety Notice:

- Always use parts that are supplied or approved by Complete Aquatics. Use of other parts may result in poor performance and could create a hazardous situation. Contact your dealer for information on how to get parts.
- Always unplug the air pump from the outlet to perform any maintenance on the unit.

The air filter (located under the black cap on the top of the pump) on the pump ensures no dust or debris makes it into the tubing or diffuser, which could clog the system and restrict air flow. The air filter must be periodically cleaned (dust lightly, then use mild soapy water; let filter dry thoroughly) or replaced. After cleaning, place the filter back into the air pump. **DO NOT OPERATE THE PUMP WITHOUT THE FILTER INSTALLED.**

The air pump will need a diaphragm replacement every 12-36 months depending on: operating depth, air quality & operating temperature. If the air pump is operating but there is no air coming out of the unit or diffusers, then it is possible the diaphragm will need replaced. Ask your dealer for information about replacing the diaphragm when acquiring a new one.

Inspect the air tubing and diffusers periodically for any damage such as cuts, cracks, kinks or creases. Replace any damaged parts before continuing operation.

Product Warranty

The EnhanceAir™ warranty is broken down by components:

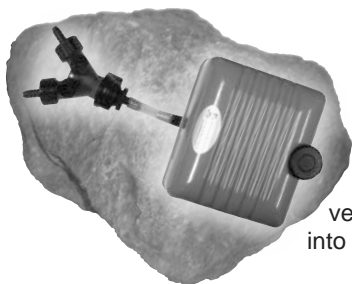
<u>Component</u>	<u>Warranty Period</u>
EnhanceAir™ PRO Air Pump	2-year (limited)*
Diffuser	1-year (limited)
Self-weighted Rubber Tuing	1-year (limited)

Warranty Limitations: The warranty covers the parts from the purchase date against product defects and/or poor workmanship. Proof of purchase is required for any warranty claims.

*Warranty does not cover the pump diaphragm.

Accessories

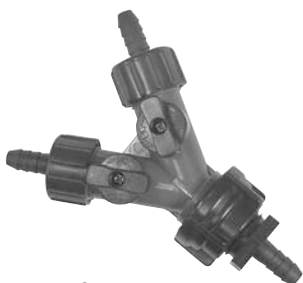
Below are accessories you can purchase to upgrade your EnhanceAir™ PRO system. Contact your Complete Aquatics Dealer to order or get more information about these products and other ways to enhance your pond and its biology.



Vented Faux Rock Cover

These are not your ordinary Faux Rocks, these imposters look incredibly like the real thing. Sitting side-by-side with natural stone, one can barely tell the difference. Each is finished by hand and so has a unique look and character. Also, these covers are pre-vented, making them perfect for blending your aeration kit into the landscape.

Complete Aquatics catalog #: DE40056



Seasonal Diverter Valve

Quit wading through your pond just when the water turns cold to relocate your diffusers to an upper-shelf. With an extra set of diffusers and self-weighted air tubing (below) you can hook up a system that only requires the turning of two valves outside of the pond come winter. You can also add a diverter and set of diffusers and tubing to increase effectiveness of your aeration system in circulating and aerating the entire pond by increasing its aera of effect.

Complete Aquatics catalog #: AE40050



12" Rubber Air Diffuser

Self-cleaning, requires little-to-no maintenance compared to air-stones. Can handle up to 2 cfm of air.

Complete Aquatics Catalog #: AE40005

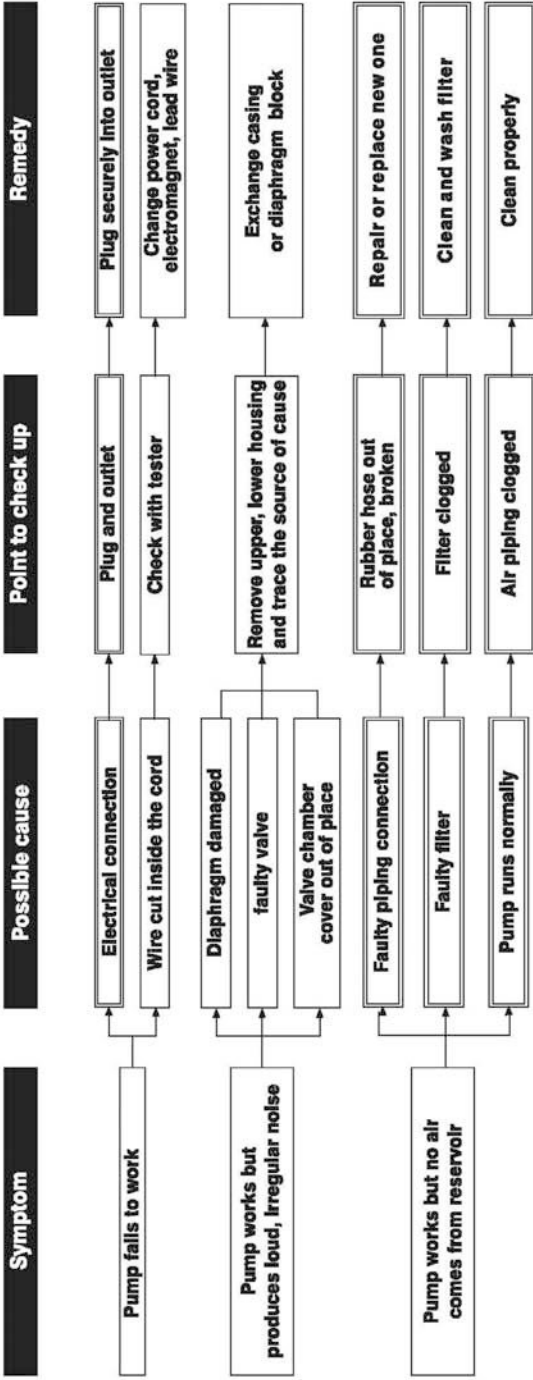
3/8" Self-weighted Rubber Tubing

20' or 100' lengths

Complete Aquatics Catalog #: AE40055 (20') & AE40030 (100')



Diagnosing malfunction -No air is discharged.



Caution:

- 1) Double bracketed items can be repaired by customer. For other troubles, return pump to nearest repair depot for repairs by manufacturer.
- 2) Change diaphragms once a year.

- 3) During operation, do not touch the lower housing with bare hands as the temperature will become about 70 °C. (This temperature will not affect the performance of the pump.)