



ALLIED PRECISION INDUSTRIES, INC.  
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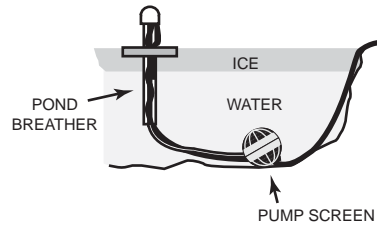
# INSTRUCTIONS FOR POND BREATHER™

## Model 8PB

### Assembly and Operation

PATENT PENDING

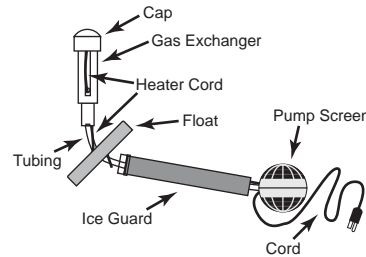
During the winter, harmful gasses from decomposing matter and accumulated fish waste can be trapped under the ice in a pond. If not allowed to escape, the gasses can reach toxic levels and harm the fish. The *POND BREATHER* from Allied Precision is specifically designed to vent the harmful gasses to the atmosphere without incurring the harmful side effects of pond de-icers.



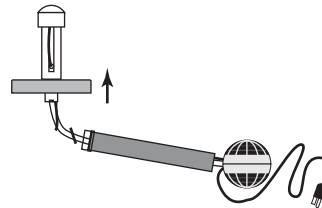
## ASSEMBLY

The *POND BREATHER* is shipped partially assembled.\* Please follow the steps below to complete assembly.

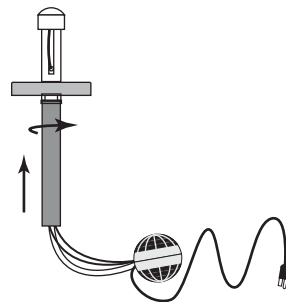
1. Carefully remove the unit from the box. The Cap, Gas Exchanger, Float, and Ice Guard should all be connected via the Tubing and Heater Cord that passes through them from the Cap to the Pump. (If the Pump Screen is not attached, complete Step #4 at the end of the process.)



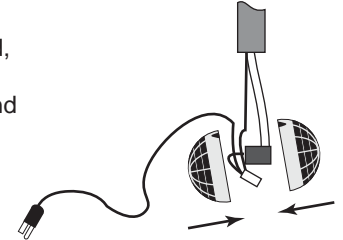
2. Slide the Float up the tubing and over the end of the Gas Exchanger. The Float is notched so the tabs on the end of the exchanger will pass through it.



3. Next slide the Ice Guard up so that its cap engages the tabs on the bottom of the Gas Exchanger. Rotate the Ice Guard clockwise to lock it in place.



4. The *POND BREATHER* is now assembled. If for some reason, the Pump Screen is not attached, simply fold the cords around the pump and snap together the Pump Screen halves with all cords and tubing exiting through the large hole.



## OPERATION

The *POND BREATHER* operates at 40 watts and can be run year-round to aerate the pond. During winter, it is designed to freeze into the ice and move a steady stream of water above the ice layer to be exposed to the air. The amount of gasses that can escape and oxygen that can be absorbed is directly proportional to the water surface area that is exposed. Every 24 hours, the *POND BREATHER* exposes 4,000 to 10,000 times the surface area of the water than conventional heaters or de-icers.

Install the *POND BREATHER* in open water. It should float vertically. The pump screen can either lay on the bottom of the pond or, in deep water, it will hang suspended by the tubing. The *POND BREATHER* operates on 120 volts and is supplied with a 15 ft. cord that should be plugged into a Ground Fault Interrupter (GFI). When it is plugged in, you should see water start to flow through the Gas Exchanger.

During operation, ice may form on top of the Float from water that exits the overflow hole near the bottom of the Gas Exchanger. This is normal. Do not remove the Heater Cord from the overflow hole or plug the hole in any way.

## MAINTENANCE

The *POND BREATHER* is designed to operate practically maintenance-free, however, to maintain optimum performance you should do the following:

1. Ensure that the Pump Screen is located where it will not become clogged with leaves or mud.
2. Keep the Cap clear of snow so air can enter the Gas Exchanger.
3. Make sure the Heater Cord runs down the outside of the Gas Exchanger and enters the overflow hole and that the hole is not blocked.

\*If for some reason the unit arrives unassembled, please refer to [www.alliedprecision.com](http://www.alliedprecision.com) for assembly instructions.

## TROUBLESHOOTING

1. Unit is plugged in but no water is running.
  - a) Check to make sure that electricity is being provided to the unit and that the GFI has not been tripped.
  - b) Look closely to make sure that the unit is not running. Sometimes the water splashes can be hard to see.
  - c) The Tubing may have become disconnected from the pump. Open the Pump Screen and reconnect the Tubing if necessary.
  - d) The electricity may have gone off and water has frozen in the unit. If so, the unit should thaw itself and resume operation within 2 hours after electric power is restored.
2. The Heater Cord on the outside of the Gas Exchanger feels hot.
  - a) This is normal operation. The cord puts out 35 Watts of heat and should feel warm or hot to the touch.
3. Icicles are hanging down the side of the Gas Exchanger.
  - a) Check that the overflow hole in the lower portion of the Gas Exchanger is open and that the Heater Cord is warm and enters through the hole.
4. The unit keeps tripping the Ground Fault Interrupter (GFI).
  - a) The unit is defective and, if under warranty, should be returned.
5. Ice is building up on top of the Float and around the Gas Exchanger.
  - a) This is normal operation.

## FAQs

- Q. Will the *POND BREATHER* supercool the pond?  
A. No. A slight amount of heat is added to make up for heat loss to the air.
- Q. Will the *POND BREATHER* invert the temperature layers in the pond?  
A. No. The unit takes water from below the top surface layer and returns it to the same layer.
- Q. Will the *POND BREATHER* cause temperature swings in the pond?  
A. No. The *POND BREATHER* is not a heater. It provides only enough heat to maintain a clear channel through the unit.
- Q. How much does it cost to operate?  
A. The *POND BREATHER* uses less than 40 watts of electricity--slightly more than a night light.
- Q. What happens if the electricity goes out and the water freezes in the unit?  
A. The *POND BREATHER* will thaw itself and resume operation within a couple hours of electric power being restored.

- Q. How is the *POND BREATHER* more efficient than a heater or deicer?  
A. Heater and deicers expend large amounts of energy to keep a hole open in the ice so that gasses can escape. However, the amount of gas exchange and aeration is directly proportional to the exposed surface area of the water. With a hole open in the ice, the same water stays around the opening. The *POND BREATHER*, on the other hand, pumps a steady stream of water past the air to exposed thousand of times more surface area using a fraction of the energy used by heaters or deicers.
- Q. Can I run the *POND BREATHER* during the summer?  
A. No. The *POND BREATHER* should be used during the winter months when algae is not present. The *POND BREATHER* should be removed from the pond when not in use.

## WARRANTY

This product is warranted 12 months from the date of purchase. If you believe this product is defective and still within the warranty period, return it to the factory for inspection and possible replacement. The warranty is voided if there is evidence of general abuse such as animals chewing on the cord. This warranty does not cover incidental or consequential damage resulting from either a defect in parts, materials, or operation failure. Some states do not allow the exclusion or limitation of the above damages so the above limitation may not apply to you. No agent, employee, or representative of Allied Precision has any authority to bind Allied Precision to any affirmation, representation, or warranty directed towards any products bearing the Allied Precision name, except as stated herein. This warranty gives you specific legal rights--you may also have other rights which vary from state to state.

