

# Eco-Logic<sup>®</sup>

POND & LAKE RECLAMATION SYSTEM



Model 10

SINCE 1963  
**ATLANTIC U ULTRAVIOLET**  
CORPORATION<sup>®</sup>

## ABOUT US

Since 1963, Atlantic Ultraviolet Corporation® has pioneered the discovery and development of beneficial uses of ultraviolet energy. Over the years these efforts have led to the development of valuable, cost effective and environmentally sound techniques and products now known and respected throughout the world.

The UV Application Specialists at Atlantic Ultraviolet Corporation® assist customers in the selection of germicidal lamps and equipment. Their specialized knowledge is a valuable resource in formulating effective and cost-conscious ultraviolet solutions. Extensive inventories and a dedicated staff enable Atlantic Ultraviolet Corporation® to fulfill its commitment to provide fast deliveries and responsive customer service.



Model 17

## AERATION & OZONIZATION

### *Aeration*

The **Eco-Logic®** Pond & Lake Reclamation System employs an innovative aeration method that directly introduces life-giving airborne oxygen to the bottom of the lake or pond. Rising air bubbles circulate, destratify, and revitalize oxygen-depleted water while displacing dissolved carbon dioxide. The increase in dissolved oxygen levels promotes the proliferation and well-being of fish and other oxygen-dependent aquatic life.

### *Ozonization*

The **Eco-Logic®** Pond & Lake Reclamation System employs a specially-developed ozone cell, automatically producing high-purity ozone. This ozone is combined with pressurized air prior to its injection into the bottom of the lake or pond. Ozone enrichment is employed to accelerate and amplify the beneficial effects of the dissolved oxygen. In addition, the ozone serves to oxidize organics and toxins that are resistant to oxygen alone.

## ADVANTAGES

### *Effective*

Removes floating algae, aerates water, and eliminates odors caused by anaerobic decomposition.

### *Economical*

Low power consumption and minimal labor required for upkeep and maintenance.

### *Safe*

No electrical wire or energized equipment is in contact with the water. Treatment is non-toxic to human and marine life.

### *Easy*

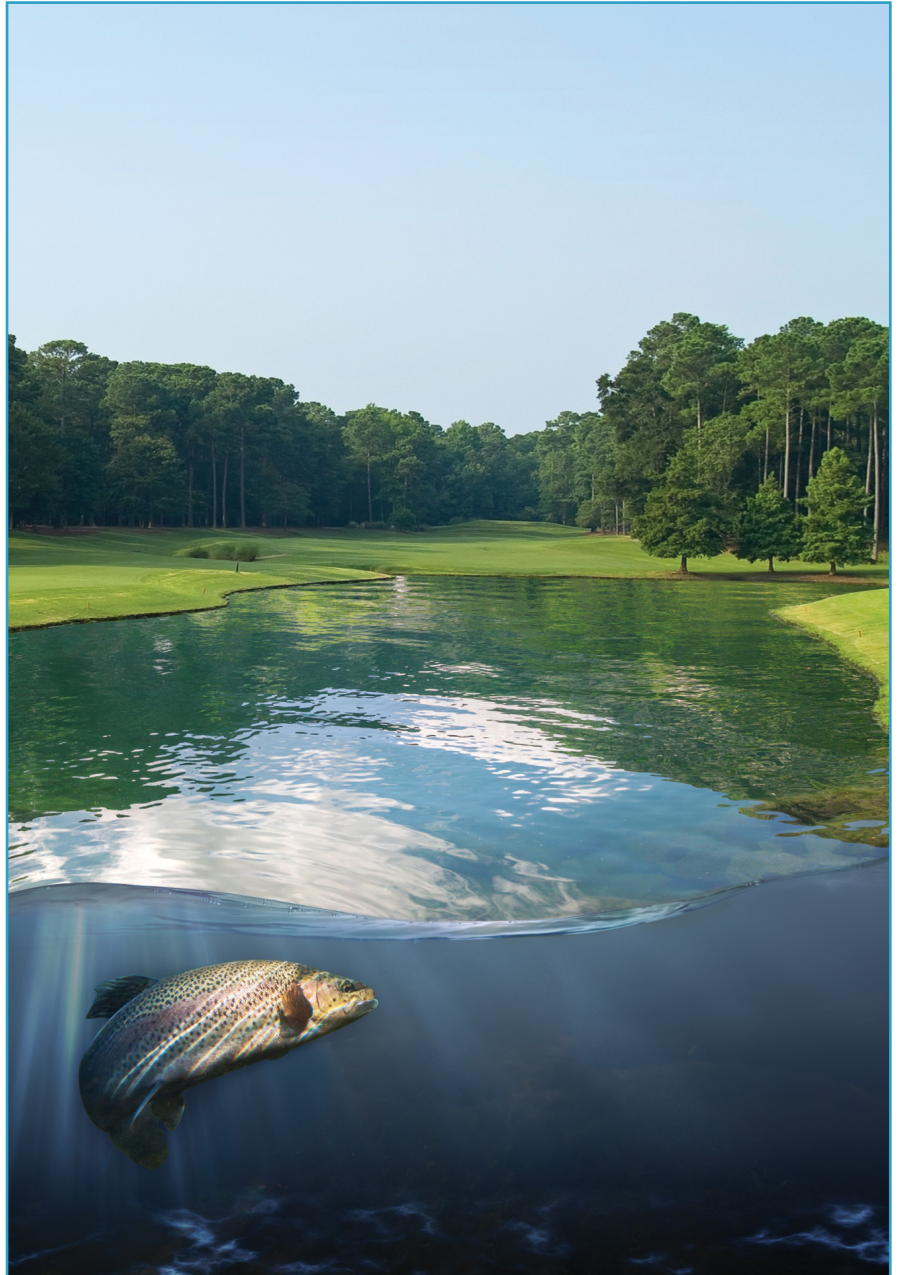
Simple installation and maintenance.

### *Automatic*

Provides continuous and thorough treatment without operator attention or measurement.

### *Chemical Free*

Eliminates use, handling and storage of dangerous chemicals. No harmful residuals or disinfection by-products. Alleviates need for pH balancing.



# PRINCIPLE OF OPERATION

## The Problem

In early Spring, stagnant lakes and ponds begin growing algae that thrive on large amounts of nutrients and sediment built up from decaying plant and animal matter. By mid Summer these lakes and ponds have become dark and murky and begin releasing unpleasant odors. As this unsightly process continues, a deficiency in dissolved oxygen becomes progressively worse and the lakes and ponds are robbed of their ability to support fish and aquatic life.



*A stagnant, choked pond—unable to clean itself.*

## The Solution

The **Eco-Logic**® Pond & Lake Reclamation System directly introduces a controlled combination of air and ozone to the bottom of the lake or pond.

This, in turn, promotes a positive ecological balance in the water in numerous ways:

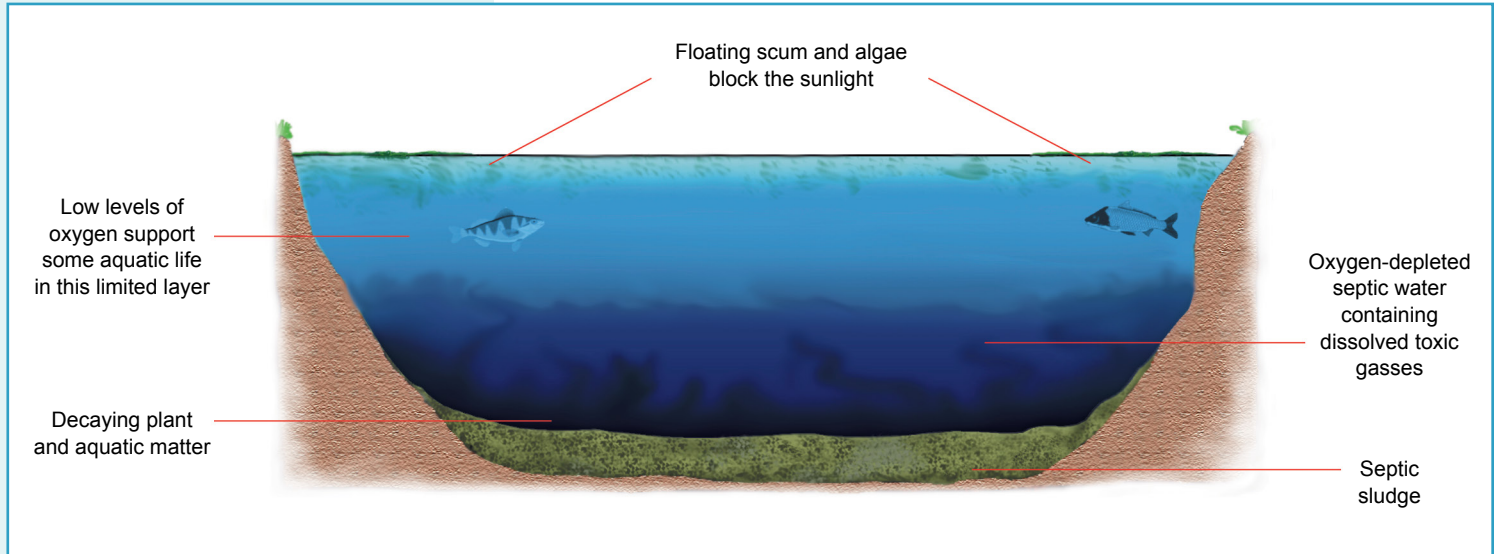
1. The direct introduction of air increases the oxygen levels throughout the body of water.
2. The abundant oxygen promotes survival and proliferation of fish and aquatic organisms that feed on plant and organic matter.
3. The introduced oxygen displaces carbon dioxide, thereby eliminating unwanted waterborne weeds and algae.
4. The rising, minute bubbles cause circulation and destratification of the water, thereby carrying septic water to the surface, where toxic gases are released and the water is exposed to sunlight.
5. The induced currents create more uniform water temperature throughout, leading to improved distribution of aquatic life within the lake or pond.
6. The controlled amount of ozone ( $O^3$ ) acts in conjunction with the abundant dissolved oxygen ( $O^2$ ) to break down and oxidize even stubborn toxins and organic matter that are resistant to oxygen alone. Ozone directly reduces color, turbidity, and odors, and oxidizes and precipitates dissolved metals.



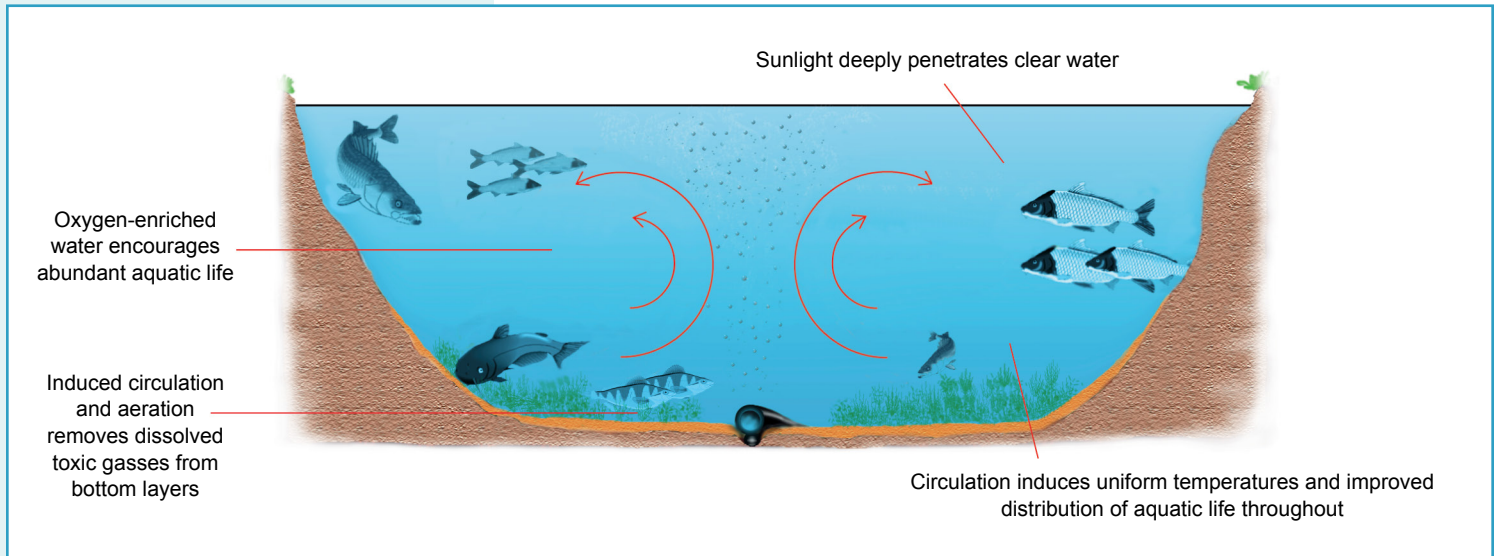
*Complete revitalization—a healthy pond of clean, oxygenated water.*

# PRINCIPLE OF OPERATION

## Before Treatment



## With Treatment



## The Benefit

**Eco-Logic®** treated water is beautiful water—clear, clean and odor-free.  
... a pleasure to behold.

## FEATURES

### *Stainless Steel Construction*

Polished, stainless steel cabinet and access cover provide an attractive finish and lifetime corrosion-resistant service.

### *Tamper-Resistant*

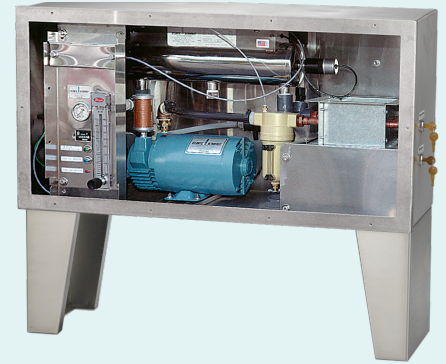
Units are secured with tamper proof screws to prevent unauthorized entry.

### *Key Lock Switch*

Ensures controlled operation in either on or off position by authorized personnel.

### *Permanent Filter*

System cooling air is drawn through a permanent, washable electrostatic air filter. Filter is reinforced with a rust-resistant, galvanized steel cloth and rigid frame to ensure years of service.



### *Pressure Gauge*

Rugged, liquid-filled air pressure gauge provides continuous confirmation that critical pressure values are within optimum limits.

### *Promate™ Elapsed Time Indicator*

Provides visual indication (in hours) of time that equipment is in service. Useful in scheduling periodic maintenance.

### *Operation Indicators*

Individual indicator lights provide visual indications to assist operator in monitoring specific system functions.

### *Flow Meter*

Provides accurate, real-time readout showing volume of aeration mixture as it is delivered to the treated water.

### *Easy Installation*

The **Eco-Logic®** is a free-standing unit installed either indoors or outdoors, close to the water being treated. Installation of the aeration tubing and connection to an ordinary electrical outlet is all that is required.

Regular maintenance consists of replacement of **STER-L-RAY®** Germicidal Ultraviolet Lamps and consumable compressor vanes every 10,000 hours and cleaning or replacement of air filter elements as required.

**CAUTION:** Exposure to direct or reflected germicidal ultraviolet rays will cause painful eye irritation and reddening of the skin. Personnel subject to such exposure must wear suitable face shield, gloves and protective clothing.

Hg - LAMP CONTAINS MERCURY, manage in accord with disposal laws, see: [www.LampRecycle.org](http://www.LampRecycle.org).

# SPECIFICATIONS

Model	Nominal Power Consumption <sup>①</sup> (watts)	Treatment Capacity <sup>②</sup>	Dimensions (inches) <sup>③</sup>			Net Wt. (lbs.)
			Length	Width	Height	
<b>Model 4</b>	525	Up to 1 Acre	42¼	13	30¾	135
<b>Model 4 Recommended Accessories:</b> 100 ft. of feeder tubing (27-0008); 250 ft. of 3" spacing aeration tubing (27-0009); 2 plug connectors (27-1525); 1 tee connector (27-1538); 6 hose clamps (27-1542)						
<b>Model 10</b>	1100	Up to 2.5 Acre	48¾	15	32¾	196
<b>Model 10 Recommended Accessories:</b> 100 ft. of feeder tubing (27-0008); 500 ft. of 3" spacing aeration tubing (27-0009); 2 plug connectors (27-1525); 1 tee connector (27-1538); 6 hose clamps (27-1542)						
<b>Model 17</b>	2400	Up to 4.5 Acres	54¼	15	38¾	252
<b>Model 17 Recommended Accessories:</b> 100 ft. of feeder tubing (27-0008); 1000 ft. of 3" spacing aeration tubing (27-0009); 2 plug connectors (27-1525); 1 tee connector (27-1538); 2 straight connector (27-1541); 10 hose clamps (27-1542)						

① All data shown above is for 120 Volt 50/60 Hz. **Eco-Logic®** units are available for operation on public power supplied throughout the world.

Consult factory with specific power requirements.

② Consult your **Eco-Logic®** dealer for specific recommendations.

③ Dimensions shown include optional floor stand. For height without floor stand deduct 12 inches.

## OPTIONAL ACCESSORIES

**Stainless Steel Floor Stand:** Supports the unit 12" off the ground, allowing for easy access to entire unit as well as a simple installation. (Unit comes equipped for wall mounting.)

**Aeration Tubing with 1.5" Spacing:** ½" I.D. weighted tubing with aeration ports spaced every 1- ½" on center. Tubing Output: 31 feet/cfm.

**Aeration Tubing with 3" Spacing:** ½" I.D. weighted tubing with aeration ports spaced every 3" on center. Tubing Output: 62 feet/cfm.

**Weighted Feeder Tubing:** ½" I.D. weighted tubing for feeding air from unit to aeration tubing. Fitting Tee, Barbed. For use with ½" I.D. feeder and aeration tubing.

**Fitting Tee-Barbed:** For use with ½" I.D. feeder and aeration tubing – splitting air flow from one line to two.

**Fitting Straight, Barbed:** For joining ½" I.D. feeder and aeration tubing of 250 lengths together to make 500 ft. long or 1000 ft. long lengths.

**Fitting Plug, Barbed:** For closing of ½" I.D. aeration tubing end.

**Hose Clamp:** For feeder and ½" I.D. aeration tubing.

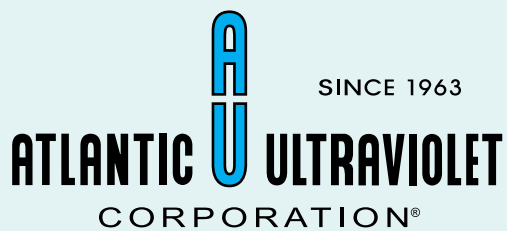
**Promate™ Safety Glasses:** Safety eyewear should be used as general-purpose safety protection and for additional shielding from germicidal ultraviolet rays.

**Promate™ Face Shield:** Lightweight visor with adjustable headgear provides eye and face protection from germicidal UV rays.

*The Standard of Excellence In Ultraviolet*



*Manufacturers / Engineers / Sales / Service* – Germicidal Ultraviolet - Equipment & Lamps



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375 Marcus Boulevard • Hauppauge, NY 11788 • 631.273.0500 • Fax: 631.273.0771  
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