**IMPORTANT SAFETY INSTRUCTIONS**

**READ AND FOLLOW ALL SAFETY INSTRUCTIONS**

**WARNING:** To guard against injury, basic safety precautions should be observed, including the following:

1. Read and follow all safety instructions.
2. DANGER: To avoid possible electric shock, special care should be taken since water is employed in the use of this equipment. For each of the following situations, do not attempt repairs yourself:
   - A. If the appliance falls into the water, do not reach for it. First unplug it and then retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately.
   - B. Do not operate any appliance if it has a damaged cord or plug, if it is malfunctioning, or if it is dropped or damaged in any manner.
   - C. When putting on or taking off parts, always unplug an appliance from the outlet first. Grab the plug and pull to disconnect; never yank the cord.
   - D. Only use an appliance for its intended use. Non-recommended attachments that are not sold by the appliance manufacturer may cause an unsafe condition.
   - E. Read and observe all the important notices on the appliance.
   - F. Do not allow children to handle this equipment. This equipment should be kept away from children.

**Grounding Instructions**

This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing an additional protection from the risk of electric shock, this unit should be properly grounded. Do not modify the conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you do not know whether the appliance is properly grounded. Do not modify the plug provided with the appliance. If it will not fit the outlet, have it repaired by a qualified technician.

**WARNING:** Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you do not know whether the appliance is properly grounded. Do not modify the plug provided with the appliance. If it will not fit the outlet, have a proper outlet installed by a qualified technician.

**Ground-Fault Circuit-Interrupter Protection**

To comply with the National Electrical Code (NFPA 70), and to provide additional protection from the risk of electric shock, this unit should only be connected to a receptacle that is protected by a ground-fault circuit-interrupter (GFCI).

**Extension Cords**

Use only extension cords that are intended for outdoor use. These extension cords are marked: “Acceptable for use with outdoor appliances; store indoors while not in use.” Use only extension cords that have an electrical rating that is not less than the rating of the product. Do not use damaged extension cords; examine extension cords carefully before use and replace if damaged. Do not abuse extension cord and do not yank on any cord to disconnect. Keep cord away from heat and sharp edges. Always disconnect extension cords carefully; disconnect them from the receptacle before disconnecting the product from the extension cord.

**SAVE THESE INSTRUCTIONS**

**Safety Tips**

- Never submerge the unit in water.
- To prevent overheating, always unplug the unit if there is no water running through it.
- This unit produces harmful ultra violet light. Do not look directly at the unshielded bulb as damage to the eyes may occur. Monitoring of lamp operation should only take place by looking through the viewing window.

**UV CLARIFIER COMPONENTS**

- **UV Clarifier Components**
  - Stainless Steel Housing
  - Bulb Protector
  - Multi-Diameter Inlet/Outlet Hose Connector
  - Hose Coupling Ring
  - Sealing Ring for Hose Connector
  - Viewing Window
  - High Performance UV Bulb
  - Rubber O-Rings for Quartz Sleeve
  - Ballast
  - Hose Coupling Ring
  - Sealing Ring for Hose Connector
  - Multi-Diameter Inlet/Outlet Hose Connector

**Warranty Information**

Warranty information and mail-in warranty card on reverse side.

**UV CLARIFIER SIZE SELECTION**

**Determining Pond Sizes:**

In order to determine the gallons in your pond, use this easy calculation:

Length (ft) x Width (ft) x Average Depth (ft) = Cubic Feet

Cubic Feet x 7.5 = Gallons

**UV Clarifier Size Selection:**

Use the chart below to help determine the proper size UV clarifier using your pond size.

It is still safe if the UV clarifier selected is stronger than what is specified for your pond size.

**Pump Selection:**

It is important to control the water through the UV clarifier with a flow rate that is within ±10% of the optimal flows shown below in the chart. The UV clarification process will be most effective at these flow rates. Flow rate that is too fast will minimize the “dwell time” the algae cells have in front of the lamp, thus making it less effective. The flow rates should be measured on the return flow out of the UV clarifier.

**Measuring Water Flow:**

It is highly recommended that the flow to and from the filter be measured using the following technique.

**Timing Water Flow:**

**(determining gallons per hour)**

A. Record the number of seconds it takes to fill a 5 gallon bucket.
B. Divide the number of seconds into 3600, and then multiply by 5 gallons.

Example: If it takes 20 seconds to fill a 5 gallon bucket, it is 90 gallons per hour.

- 660 gallons / 2500 liters = 5 watt = 330 gal/hr / 1250 l/hr
- 1800 gallons / 6800 liters = 9 watt = 935 gal/hr / 3600 l/hr
- 4400 gallons / 16,600 liters = 18 watt = 2200 gal/hr / 8300 l/hr
- 6600 gallons / 25,000 liters = 36 watt = 4400 gal/hr / 16,600 l/hr

**Pump Packaging Instructions:**

Pump packaging instructions will give you guidelines on the flow rates (gal/hr) that can be expected at various pumping heights, as measured from the water surface in which the pump is located. Use this as a starting point, but measure the water going to and from the filter using this timing method.

**GREENFREE® UV CLARIFIERS**

- UVC-36
- UVC-9
- UVC-5
- UVC-18

**How the UV Clarifier Works**

- The clarifier works by exposing single-celled algae to very high levels of ultra violet (UV) light as the pond water containing them is pumped through the unit.
- The algae die and clump together, making them easier for the filter to remove.
- While the UV clarifier will destroy the algae, water clarity is also dependent on adequate pond filtration to trap and remove the dead algae.
- Dead algae may clump, sink and accumulate at the bottom of the pond. It can be removed with a fine mesh net.
- For most ponds with normal levels of green water, the cleaning process should take about one week; however, with thicker algae blooms this may take 2-3 weeks.
- The clarifying process can be made more efficient by regularly carrying out partial water changes (up to 25% of pond volume).
- Always add a dechlorinator water treatment when adding tap water to a pond.
- Turn unit off when treating the pond with any fish medication or remedy.

**SELECTING THE RIGHT EQUIPMENT FOR YOUR POND**

**How to Select the Right Equipment for Your Pond:**

The proper use of the UV clarifier is dependent on adequate pond filtration to trap and remove the dead algae. The algae die and clump together, making them easier for the filter to remove. Dead algae may clump, sink and accumulate at the bottom of the pond. It can be removed with a fine mesh net.

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**FOR MORE INFORMATION CALL**

3001 Commerce Street, Blacksburg, VA 24060-6671

(800) 526-0650

Tetra® is a trademark

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Tip: Use warm vinegar to wipe the quartz sleeve for a faster clean and remove the quartz tube. It is recommended (but not necessary) that the UV clarifier is attached to the tubing that enters external pond filter. This prevents the flow restriction caused by the UV restricting the flow of the filter.

Typical Set-Up for Small & Medium Ponds

UV Bulb and Quartz Glass Tube Installation

Insert the UV-C bulb into the connector. (Note: Avoid touching the bulb, which is heat sensitive. Do not remove any marks using a clean cloth or tissue. Oil from your fingers can reduce the life of your bulb.) Then, place the quartz glass tube into the connector. Be sure O-rings are positioned properly to form a tight seal. Water entering inside the quartz tube may cause damage to the electrical components.

Connecting the UV Clarifier to the Pump

The inlet connection (marked [1]) is the closest to the screw cap of the UV unit. Connect the pump tubing to this inlet. All UVs come with two 3-step adapters that fit the following internal diameter tubing (ID): • 1/4 in., 1/2 in., and 1 in. ID. • Choose the hose adapter size of the UV according to the tubing used. • Make sure that the hose adapter for the outlet (marked [2]) is at least as large as the inlet. - Cut the hose adapter in the groove with hacksaw to fit the tubing selected (if necessary). Ensure that the gasket is in place before attaching the hose adapter into the unit. • Hand-tighten the hose coupling rings. Do not use a wrench. • Secure hoses to adaptors with hose clamps (not included).

UV Clarifier – Electrical Connection

Please read safety instructions before plugging the unit into the electrical outlet. • When working, a purple UV light can be seen through the viewing window located in the UV housing. • An operational test can only be carried out when the equipment is fully assembled.

Seasonal Use

Summer: The unit should remain in operation 24 hours a day. Winter: It is recommended to store the unit in a frost-free location. THE WARRANTY DOES NOT COVER DAMAGE TO THE UV CLARIFIER DUE TO FREEZING TEMPERATURES.

Maintenance and Care

When carrying out any maintenance, the unit must be disconnected from the electrical circuit. • Clean the unit at least twice a year. A clean quartz tube will allow the bulb to work more effectively in controlling algae. More frequent cleaning may be required for ponds with severe algae growth.

Tip: Use warm vinegar to wipe the quartz sleeve for a faster clean and efficient removal of mineral buildup.

WARNING: Do not allow water to come in contact with the electrical socket or bulb. To disassemble: • Always remove inlet and outlets by unscrewing the hose couplings. • Drain the unit before cleaning. • Carefully dismantle the unit by first unscrewing the screw cap and removing the quartz tube. The quartz tube may be loosened by using a small coin or a screwdriver and can then be carefully removed. Clean with a soft cloth and water to avoid scratching the glass quartz tube.

To reassemble: • Be sure that the inside of the quartz sleeve is completely dry prior to reassembly. • When reassembling, ensure that the sealing rings are properly seated (lubricate with a small amount of silicone lubricant/grease if necessary).

Replacement Parts - Bulbs and Quartz Sleeves:

The following parts are available through your TetraPond dealer/retailer:

Bulbs

- Use TetraPond replacement bulbs for maximum effectiveness.

<table>
<thead>
<tr>
<th>UV-Clarifier</th>
<th>UV Bulb</th>
<th>Quartz Sleeve</th>
</tr>
</thead>
<tbody>
<tr>
<td>UVC-5</td>
<td>5 Watt UV Bulb # 19526</td>
<td># 19530</td>
</tr>
<tr>
<td>UVC-9</td>
<td>9 Watt UV Bulb # 19527</td>
<td># 19531</td>
</tr>
<tr>
<td>UVC-18</td>
<td>18 Watt UV Bulb # 19528</td>
<td># 19531</td>
</tr>
<tr>
<td>UVC-36</td>
<td>36 Watt UV Bulb # 19529</td>
<td># 19533</td>
</tr>
</tbody>
</table>

Replacement of UV Clarifier Bulbs:

- TetraPond UV Clarifier Bulbs should be replaced after 8,000 hours (about once every 11 months of operation). • If using only 5 to 6 months a year, replace the bulb every two years. • The bulb may continue to glow after 11 months of use, but its effectiveness has been greatly diminished.

Replacement of Quartz Sleeves:

- Quartz glass tubes do not need to be replaced unless they are damaged. • Please handle with care, and do not leave outside in winter, since they are fragile.

Additional Spare Parts - The following spare parts are available directly from Tetra: Please call us at 1-800-526-0650 for further information.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19354</td>
<td>UVC Adapter Set (Multi-diameter hose inlet/outlet connector, coupling rings and wrench for hose connection)</td>
</tr>
<tr>
<td>19355</td>
<td>Bulb Protector for UV SW &amp; 9W</td>
</tr>
<tr>
<td>19356</td>
<td>Bulb Protector for UV 18W &amp; 38W</td>
</tr>
<tr>
<td>19362</td>
<td>Quartz Sleeve O-ring Set (3)</td>
</tr>
</tbody>
</table>

Warranty

Tetra warrants the product on this document will be repaired or replaced free of charge for the specified number of years from the date of purchase shown below, if it fails to work because of faulty material or workmanship. (Proof of purchase must be provided).

<table>
<thead>
<tr>
<th>Item</th>
<th>Warranty Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>UVC-9</td>
<td>3 years</td>
</tr>
<tr>
<td>UVC-18</td>
<td>3 years</td>
</tr>
<tr>
<td>UVC-36</td>
<td>3 years</td>
</tr>
</tbody>
</table>

This warranty is subject to the following terms:

1. Should it become necessary to return the product during the warranty period, send the product directly to Tetra, Consumer Services, 3001 Commerce Street, Blacksburg, Virginia 24060-6671.

2. Tetra’s decision on all questions relating to alleged defects and repair shall be conclusive.

3. This warranty does not invalidate your statutory rights, but preserves your full benefits.

4. Repair parts or replacement product will be given on an ex-warehouse basis and will either be more convenient to reconditioned. All customer returned parts or products that we replace become the property of Tetra.

5. The warranty does not cover normal wear and tear, or any deterioration suffered by overloading, improper use, negligence or accident or wearing out or breakage of the bulb and quartz glass tube. Similarly, any modification made by the purchaser to the appliance will invalidate the warranty. Bulbs should be replaced after 11 months of continuous operation, and are not covered by this warranty.

6. Except as set forth in this warranty, Tetra expressly disclaims any and all liability for any loss or damage whatsoever sustained by the purchaser to the fullest extent permitted by applicable law.

Questions? Problems? Missing Parts?

• Before returning the product, please call our Customer Care Department at 300-526-0650,
• Monday–Friday 7:30 a.m. to 5:30 p.m., Eastern USA Time,
• Or email us at consumer@tetra-fish.com
• Often times, our Customer Care Department can provide advice that will help you solve the problem.

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WRUITY CARD

Please fill out this card and mail it to the address on back OR complete an e-notification form by logging on to www.tetrawarranty.com to validate your warranty. Thank you!

Name of Purchaser: ____________________________
Address: ___________________________________
City___________________________ ST_____ Zip code:______________
Date of purchase: ____________________________________________

We will keep your name and address confidential and will not sell, reuse, rent, or otherwise disclose.

Which GreenFree® UV-Clarifier did you purchase?

• UVC-5  • UVC-9  • UVC-18  • UVC-36

Electronic Newsletter

☐ Yes, I would like to receive free e-mail updates on TetraPond products and or other helpful information.
☐ No, I would not like to receive any e-mail updates at this time.