



ULTRAKLEAN™ POND FILTER

**UltraKlean™ 2000
Pond Filter**
Item #95053

**UltraKlean™ 3500
Pond Filter**
Item #95054



aquascapeinc.com



Thank you for choosing the Aquascape UltraKlean™ Pond Filter. At Aquascape, we connect people to water the way nature intended. Since 1991, we've been creating and field-testing water features in order to provide you with the most reliable products and best value in the water gardening industry.



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UltraKlean™ Pond Filter

The Aquascape UltraKlean Pond Filter with UV and integrated electronic bulb-saver adjustment provides pond owners with optimum water conditions and crystal-clear pond water. The unique design utilizes small plastic UltraKlean BioBalls (#95055) instead of sponges, maximizing efficient mechanical and biological filtration and minimizing maintenance on the filter. The UltraKlean's simple-to-use cleaning feature allows for the unit to be backwashed in less than five minutes without opening the canister or getting your hands dirty.

This instruction manual will guide both the installation of your filter and the recommended maintenance procedures to ensure long-term effectiveness.

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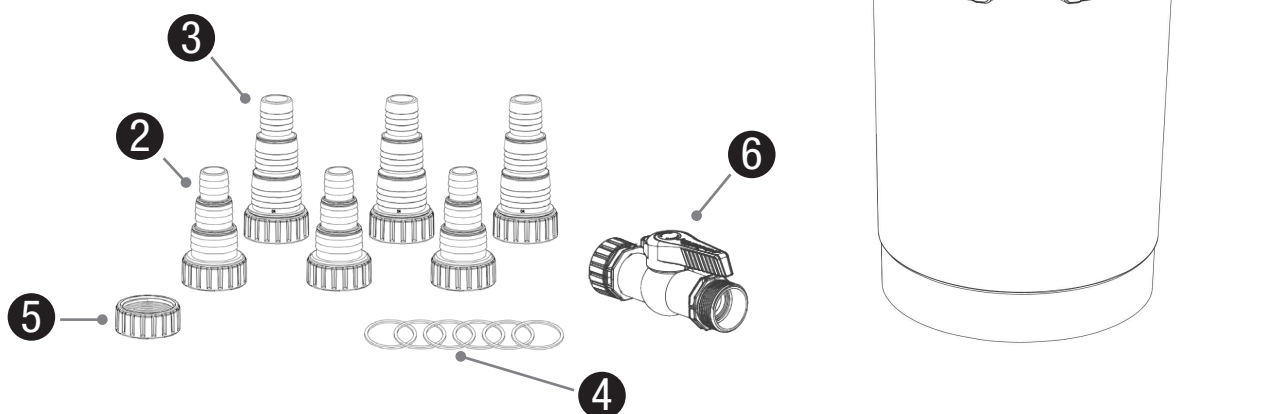
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Contents	
No.	Description
1.	UltraKlean Filter
2.	Multi-Hose Adapter (Aquascape) (3)
3.	Multi-Hose Adapter (North American Standard) (3)
4.	Flat Rubber Gasket (6)
5.	Backwash Cap
6.	Discharge Shut-off Valve



Safety Information



WARNING: Risk of electric shock – This filter has not been approved for use in swimming pool or marine areas.



WARNING: To provide continued protection against risk of electric shock, connect to properly grounded, Residual Current Device (RCD) outlets only, using the following guidelines:

- (A) This filter is weatherproof, but it is not designed to be submersed in the water.
- (B) Have a qualified electrician install a properly grounded receptacle outlet, acceptable for outdoor use and protected from snow and rain. If possible locate the outlet or filter so the 6 m. filter cord will reach the outlet without an extension cord.
- (C) Inspect cord for damage prior to use.
- (D) If an extension cord is required, make sure it is rated for outdoor use.
- (E) Any wiring of pumps should be performed by a qualified electrician to maintain warranty, user safety, and code compliance.
- (F) To reduce risk of electrical shock, all wiring and junction connections should be made per local codes. Requirements may vary depending on usage and location.

- (G) The power cable should be protected at all times to avoid being cut or punctured.
- (H) Never handle power cords with wet hands.
- (I) Unplug filter at receptacle outlet when not in use.
- (J) Do not remove cord and strain relief. Do not connect conduit to filter.
- (K) Do not use power cable to lift the filter.



WARNING: UV SAFETY - A small LED indicator on the control panel will glow when the filter is completely assembled and the UV light is turned on.



WARNING: Never override the internal UV safety switch when the filter is disassembled as this could activate the UV light. Direct exposure to UV light can damage eyes and skin.

- Use only in fully assembled state, and make sure that all clips securing the filter top to the base are completely snapped down into the closed position before turning on the pump.
- The UV lamp and quartz sleeve are fragile. Please inspect for any signs of damage prior to installing, and check to make sure quartz sleeve is threaded tightly.



WARNING: Do not touch UV lamp with bare hands as the oil from skin may damage the bulb performance. Make sure there is no moisture inside the quartz sleeve or on the bulb prior to operating. Inspect area around the ballast for any water that may have collected and remove.

- The filter is weatherproof, but it is not designed to be submerged into the pond. Submerging the pond filter could cause electric shock and will void the product warranty.
- If located in a cold freezing climate, remove pond filter in winter months. Drain the filter completely and store in a frost-free location.

- Do not filter hazardous materials or liquids such as oil, saltwater, or organic solvents.
- Do not block or restrict the filter discharge.
- Products returned must be cleaned, sanitized, or decontaminated as necessary prior to shipment. This will ensure that employees will not be exposed to health hazards in handling said material. All applicable laws and regulations shall apply.



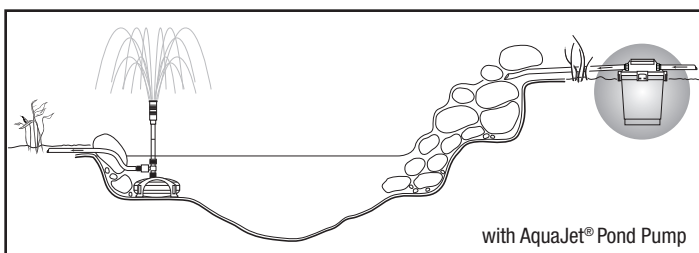
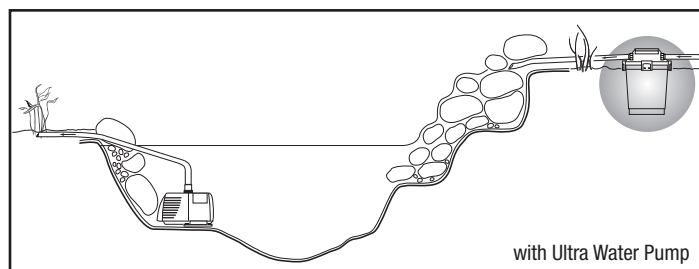
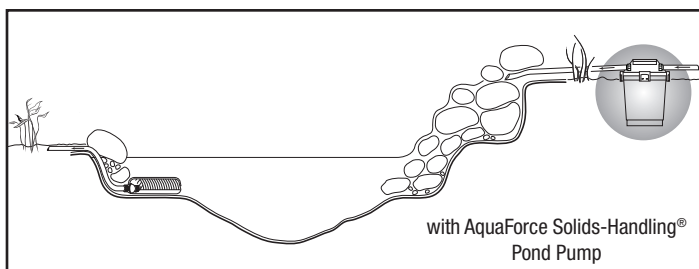
IMPORTANT: Aquascape, Inc. is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions or misuse/abuse of filters, pumps, and other equipment.

UltraKlean™ Pond Filter Specifications

- Input Voltage: 230V AC
- Input Frequency: 50 Hz
- For outdoor or indoor use
- Thermally protected
- This filter has been evaluated for use with water only

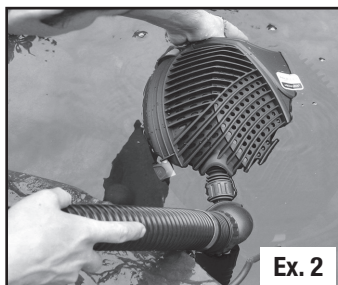
UltraKlean Pond Filter Specs		
Model Number	2000	3500
Average Pond Size Recommendation	6,000 Liters	13,000 Liters
Maximum Flow Rate (LPH)	10,000	20,000
Minimum Flow Rate (LPH)	3,800	7,600
Recommended Pumps	AquaForce® Solids-Handling Pond Pump 1000, 1800 & 2700; AquaJet® Pond Pump 1300 & 2000; Ultra Water Pump 1100, 1500 & 2000	AquaForce® Solids-Handling Pond Pump 2700, 3600 & 5200; Ultra Water Pump 2000
UV Wattage	14 W	28 W
Power Cord Length	6 m	6 m
Discharge Hose Diameter	25, 32, 40 mm	25, 32, 40 mm

Installation

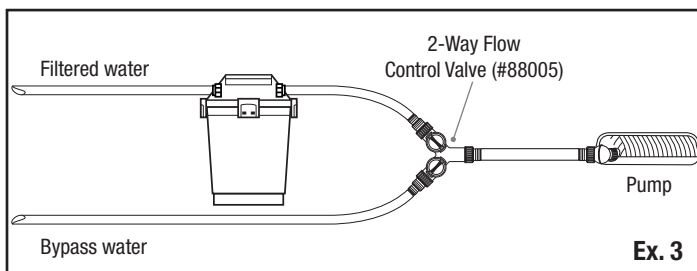


IMPORTANT: It is recommended that the pump not be positioned in the deepest area of the pond. This will protect the fish by preventing the pond from completely draining in the case of a leak in the plumbing or filter. Bricks or stones can be used, if needed, to raise the pump up from the bottom of the pond.

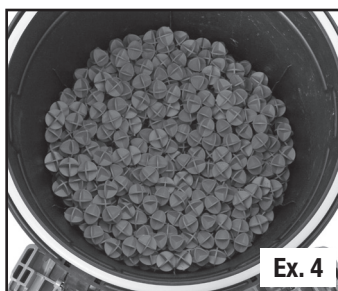
- The AquaForce AquaForce Solids-Handling Pond Pump (Ex. 1) is ideal for use with the UltraKlean Pond Filter. The AquaForce Pond Pump pre-filter cage allows for the pump to be submerged directly in the pond (Ex. 2) and reduces filter maintenance by preventing larger debris from reaching the UltraKlean Pond Filter. Other in-pond pump makes and models can also be used.



- When pumping 100% of pond water through a pressurized pond filter, you will experience a reduction in flow, especially when using larger water pumps. The optional 2-Way Flow Control Valve (Item #88005) (Ex. 3) will allow you to achieve the following:
 1. Optimize contact time between UV lamp and water flowing through the filter.
 2. Minimizing flow loss when using large pumps.



- The UltraKlean Pond Filter is designed to be located outside the pond. We recommend placing it in a location that is easy to hide as well as accessible for maintenance. The UltraKlean Pond Filter can be set on level ground or buried up to 1" below the clips on the canister to help hide the filter.
- The UltraKlean Pond Filter includes UltraKlean BioBalls that must be removed from their bags prior to use (Ex. 4). Additional UltraKlean BioBalls (#95055) can be added to increase biological filtration if desired (1 box for UltraKlean 2000 and 2 boxes for UltraKlean 3500).



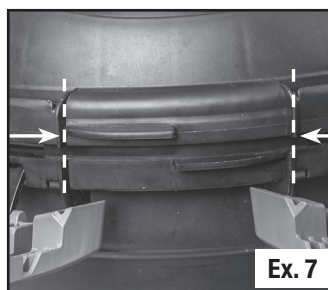
- Fill the canister about half way with water (Ex. 5). The water will allow the UltraKlean BioBalls to shift around the UV tube, making installation of the UltraKlean Pond Filter lid quick and easy.
- Before lowering the lid and UV assembly into the canister, inspect the O-ring in the top of the canister to be sure the O-ring and recessed area the O-ring sits in is clean and free of any debris which could cause a water leak. Silicone oil can also be used, if needed, to help grease the O-ring.



IMPORTANT: Make sure the O-ring is fully seated in the groove around the entire canister before attaching the lid (Ex. 6).



- Carefully align the indented lid clamping spots with the clips on the canister, making sure that the tab on the lid lines up with the tab on the tank (Ex. 7). This will allow for easy removal of the lid. Once aligned, close all the lid clips tightly (Ex. 8). This will seal the UltraKlean Pond Filter lid to the canister.

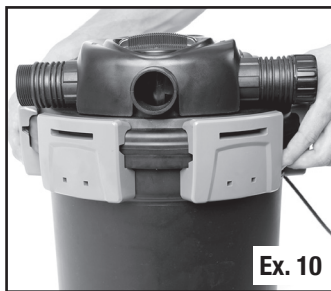


NOTE: The lid clips may require force in order for the lower portion of the clip to lock securely to place.

- Do not use lid clips to lift the UltraKlean Pond Filter (Ex. 9). This could damage the clips. Instead lift the unit from under the lip of the canister, gripping the canister lip in between any of the clips (Ex. 10).

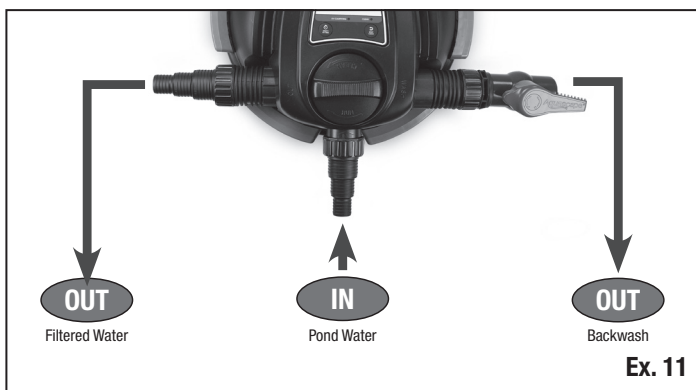


Ex. 9



Ex. 10

- The UltraKlean Pond Filter includes three plumbing ports (Ex. 11):
 - In: Pipe from pump
 - Out: Pipe back to pond
 - Wash: Connection to backwash



Ex. 11

- Locate and attach the included discharge shutoff valve (with flat rubber gasket) and threaded adapter to the backwash plumbing port (Ex. 12).



Ex. 12

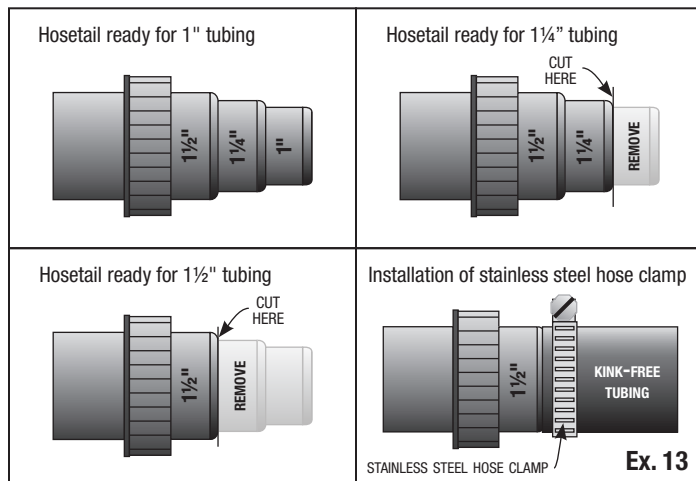


IMPORTANT: Do not use tools to attach the fittings. Fittings should be hand-tightened and installed with the flat rubber gaskets (in each fitting) to achieve leak-free seals.

- Due to the wide variety of different tubing/pipe measuring standards used throughout the pond industry, Aquascape has included different-sized tapered fittings with your new filter. We recommend selecting the fittings that best fit your new or current tubing/pipe.
- Thread the selected multi-hose adapters hand-tight to the in, out, and discharge shutoff valve with the included flat rubber gaskets. Putting the fittings on the filter before

attaching the tubing/pipe will make it easier to make the connection.

NOTE: We recommend using the largest diameter of tubing possible in order to achieve maximum water flow (up to 40 mm diameter). If using a pipe diameter larger than the smallest section of the multi-hose adapter, trim off the smaller sections to avoid flow restriction (Ex. 13).

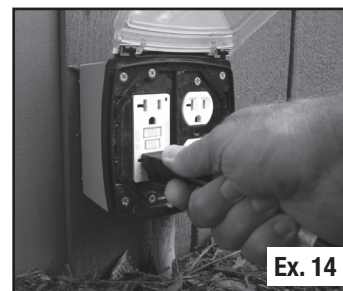


Ex. 13

- Attach the tubing/pipe onto the fitting with a twisting motion, pushing it into place.

NOTE: In some instances the tubing/pipe may be tight and difficult to use with the fitting barbs. If this is the case, we recommend heating the tubing with the use of a hair dryer or simply dipping it for a few seconds in very hot water. Lubrication can also be used; we recommend silicone grease or olive oil.
- Attach a section of tubing to the multi-hose fitting connected to the discharge shutoff valve. The backwashed water can be discharged to an area of your yard or garden. This nutrient-rich waste makes for an excellent fertilizer.
- We recommend using a hose clamp (not included) to secure tubing onto each fitting.

NOTE: If not using the discharge shutoff valve, attach the included backwash cap to the wash port when not performing a backwash.
- We recommend using a hose clamp (not included) to secure tubing onto the fitting.
- After completing the plumbing, plug the pump and the UltraKlean Pond Filter into an outlet that is protected by a ground fault circuit interrupter (GFCI) (Ex. 14). Once the pump is running and water is circulating through the UltraKlean Pond Filter, check for any fitting leaks where the external connections are made. Since the filter is located outside the pond, even a small leak must be corrected.

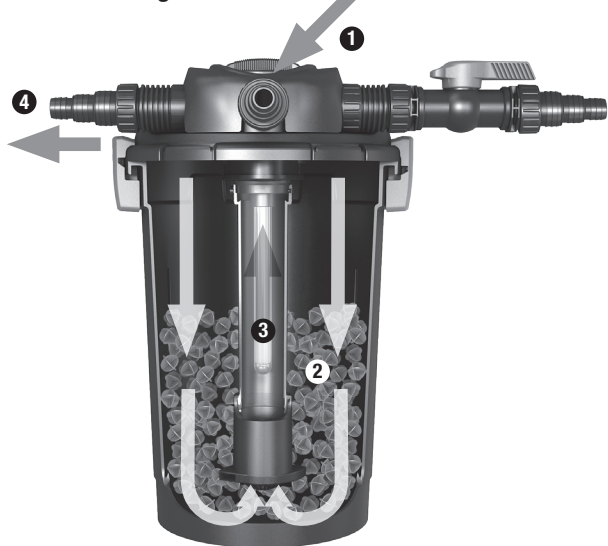


Ex. 14

General Maintenance

- The following diagrams illustrate the flow of water during the “Filtration” setting (Ex. 15) and the flow of water during the “Backwash” setting (Ex. 16).

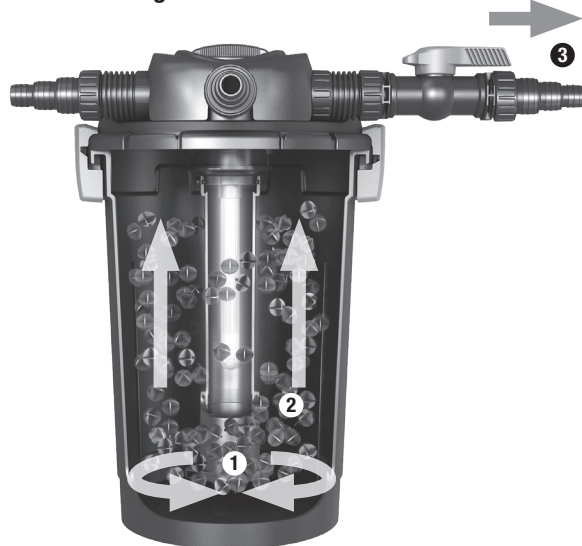
Water Flow During Filtration



- 1 Water inlet diffuser evenly distributes debris
- 2 UltraKlean BioBalls provide efficient, non-clogging biological and mechanical filtration
- 3 Water passes around the UV light, providing optimum contact time, maximizing the efficiency of the UV clarifier.
- 4 Filtered water

Ex. 15

Water Flow During Backwash



- 1 Backwash swirl diffuser churns the UltraKlean BioBalls
- 2 Debris is separated from the UltraKlean BioBalls
- 3 Debris discharges during backwash

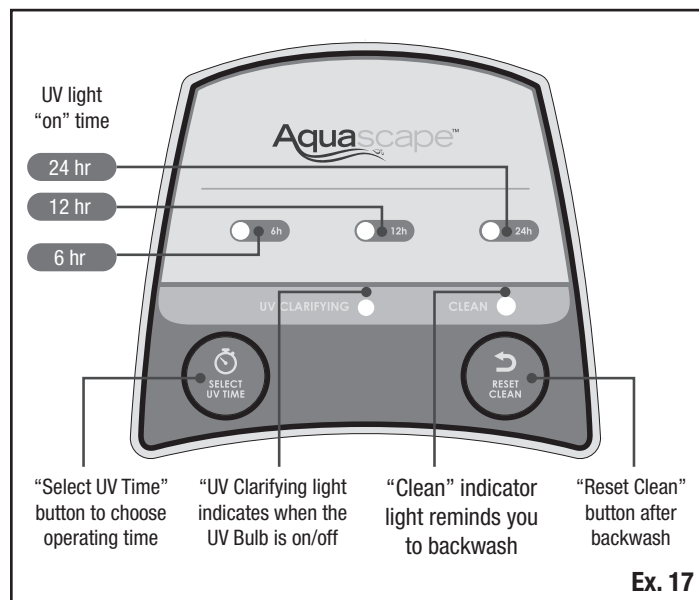
Ex. 16

UltraKlean Pond Filter Biological Start-Up

- The biological filtration process is nature’s way of breaking down fish waste and other pond debris into harmless by-products. To be successful, allow anywhere from three to six weeks for biological filtration to be fully functional. The pump supplying water through the UltraKlean Pond Filter should be operated 24 hours a day in order to maintain the biological function of the filter.

Filter Cleaning

- The “CLEAN” indicator light will illuminate to remind you to backwash the filter (approximately once every two weeks). It takes only a few minutes to clean, and there is no need to open your filter at this time. You can backwash the filter more often if you notice the water flow from the filter slow down. Press the “RESET” button once you have completed the cleaning operation (Ex. 17).



Ex. 17

Backwashing the UltraKlean Pond Filter

- Unplug or shut off power to pump before beginning backwash process.
- Fully open the discharge shutoff valve. If not using the included discharge shutoff valve, remove the backwash cap from the port on the lid of the filter (Ex. 18).
- If using the included discharge shutoff valve, rotate the backwash valve 90 degrees counter-clockwise to the “CLEAN” or backwash position.



Ex. 18

- If not using the discharge shutoff valve, attach the appropriate multi-hose adapter to the backwash port. Then, attach a section of tubing that can discharge the water to your yard or garden before rotating the backwash valve 90 degrees to the “CLEAN” position (Ex. 19).



NOTE: The valve can be a little stiff to turn if it hasn't been moved in a while. Do not use tools which might crack the handle. The valve assembly can be removed from the lid for cleaning and lubrication with silicone grease. We recommend doing this if the valve becomes very stiff to turn.

- Plug in or restore power to pump.
- Backwash approximately 1-3 minutes depending on how dirty the filter is or until the water begins to come out clear.
- Unplug or turn off power to pump. If using the discharge shutoff valve, fully close the valve. If using the backflush cap, remove the multi-hose fitting and replace the backflush cap.
- Turn the valve 90 degrees clockwise to the “RUN” position.
- Plug in or restore power to pump. Press the “RESET-CLEAN” button once you have completed the cleaning operation.

UV Operation

- The UltraKlean Pond Filter with UV prevents/eliminates single-celled algae commonly referred to as green water. The UltraKlean Pond Filter includes a bulb saver timer feature that extends the life of the UV bulb by allowing you to set the operating time for the bulb based on the water quality conditions in the pond.
- Setting the UV Timer – If the pond water has a planktonic algae bloom (green water) then use the “Select UV Time” button to set the UV timer to the 24-hour setting (always on). In general the cleaner and clearer the pond water, the less the UV light needs to be operated. Once the green water is cleared you can reduce the UV timer to the 12-hour setting (on for 12 hours/off for 12 hours) or the 6-hour setting (on for 6 hours/off for 18 hours). If you notice the green water beginning to reappear, you can increase the UV light operation time until the green water clears.
- Bulb Life – For effective clarification, the UV bulb should be replaced after 12 months of continuous use when operated on the 24-hour setting. The bulb saver

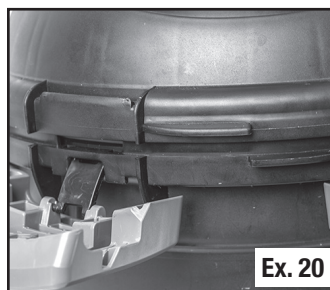
feature can extend the life of the bulb up to 2 years when operating on the 12-hour setting or 4 years when operating on the 6-hour setting.

NOTE: even though the UV bulb still emits light, it may have lost its effectiveness at clarifying if the recommended operating duration has been exceeded.

- Cleaning/Replacing the Quartz Sleeve – A dirty quartz sleeve will reduce the effectiveness of the UV bulb. Debris and mineral deposits can be cleaned using a mild acid like white vinegar or a non-abrasive calcium, lime, or rust remover with a soft bristled brush or sponge.

To access the quartz sleeve:

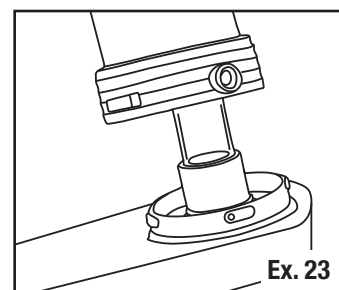
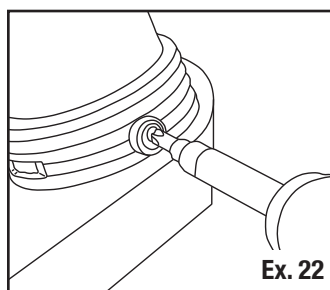
1. Unplug both the pump and the UltraKlean Pond Filter.
2. Once the clips are released (Ex. 20), use the lid and tank tabs to gently lift the lid assembly free from the canister (Ex. 21). The lid may be difficult to lift due to the pressure inside the filter. Loosening one of the plumbing fittings will reduce the pressure, making it easier to remove the lid.



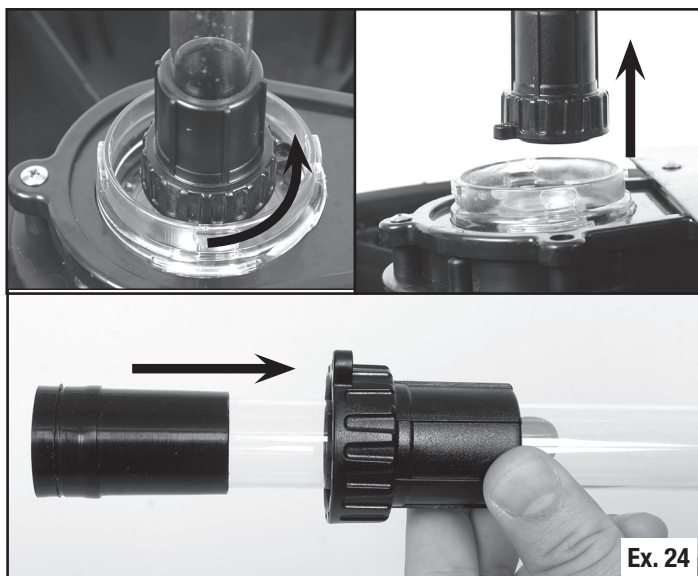
3. Remove the set screw holding the UV light tube in place under the UV ballast (Ex. 22).

NOTE: use a properly-sized Phillips screwdriver small enough to grip the set screw.

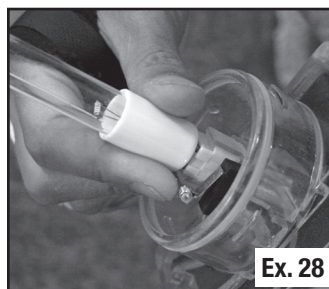
4. Twist counterclockwise and lift to remove it and expose the quartz sleeve (Ex. 23).



5. The quartz sleeve can now be accessed for cleaning or replacement.
6. If replacing or removing the quartz sleeve, remove the threaded plastic collar that locks the quartz sleeve over the water-tight seal and remove the quartz sleeve (Ex. 24).



6. Grip the base of the UV bulb (Ex. 28) and pull it free from the four-pronged socket (Ex. 29).



7. Replace UV bulb in reverse to the order it was removed.

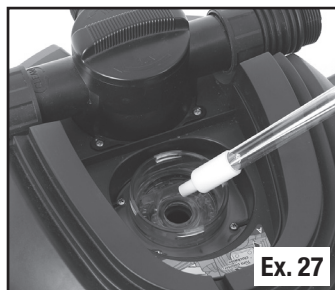
- Use a clean lint free cloth to wipe off any dirt or smudges on the bulb prior to reinstalling the control panel into the lid of the filter. Also, make sure there is no standing water or moisture inside the quartz sleeve or on the bulb prior to reassembly.

Changing the UV Bulb

1. Always unplug both the pump and the UltraKlean Pond Filter before releasing the lid clips to service the filter.
2. Remove the plastic cover surrounding control panel (Ex. 25). The panel should be removed without tools.
3. Inspect area around the base of the control panel before removing and drain any water that has collected around this area from rainfall.
4. Rotate the electronic control board counter-clockwise to disengage the control board from the lid (Ex. 26).



NOTE: Do not touch UV bulb with bare hands, as the oil from skin will reduce the bulb's performance and lifespan (Ex. 27).



5. Carefully remove the control board with attached UV bulb from the lid by pulling STRAIGHT UP, making sure not to break the UV bulb.

Winter Application

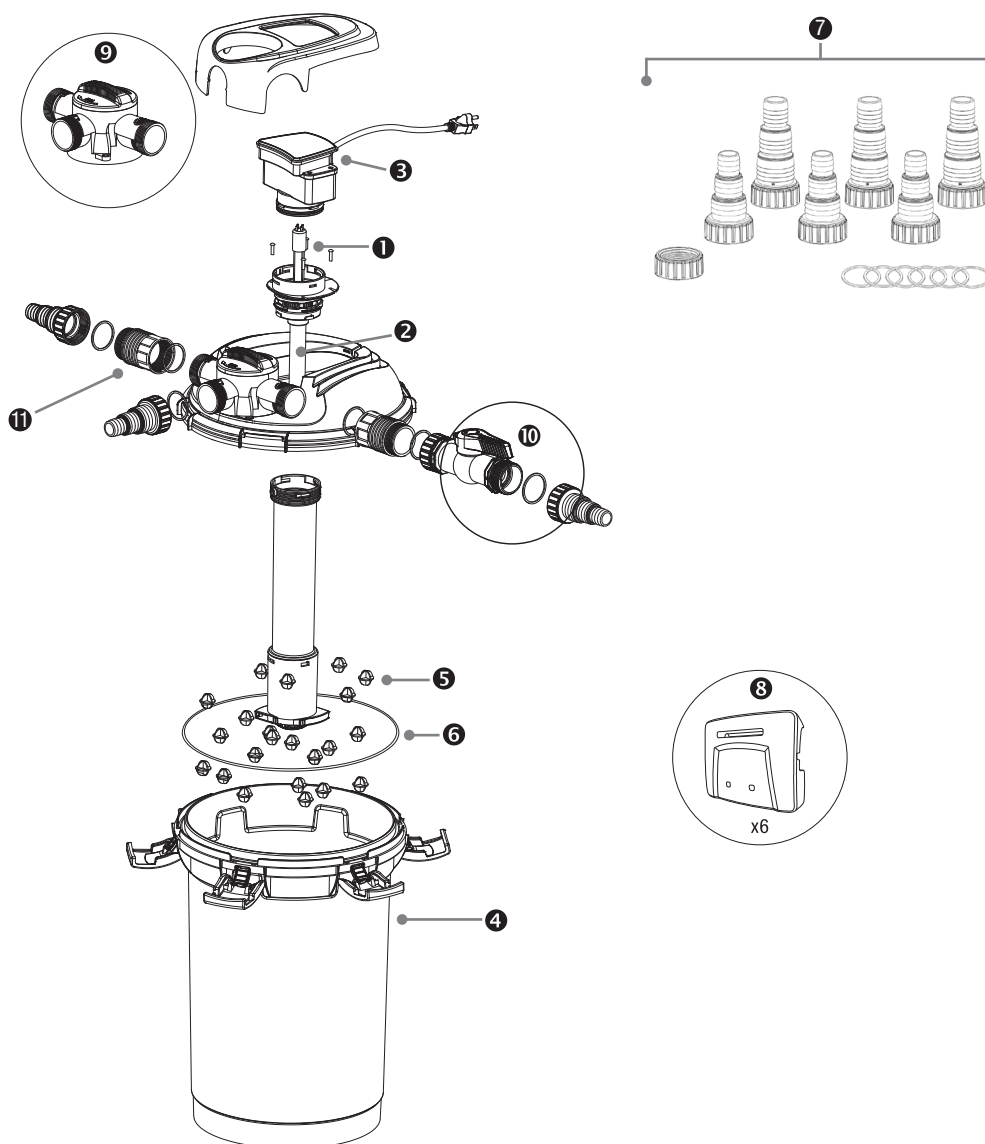
If your pond is subject to freezing, the UltraKlean Pond Filter should be shut down and stored indoors or in a frost-free location. If you've buried the canister body we recommend removing it from the ground to avoid possible damage. When disconnecting the tubing from the filter, the threaded fittings should be removed without the need for any tools (be careful not to lose the flat rubber washers).

Troubleshooting

- Reduced water flow
 - All pressure filters, even when new and clean, will reduce water flow from pump by approximately 50%. It is recommended to use the largest diameter tubing possible (up to 40 mm diameter) in order to achieve maximum water flow rates.
 - Make sure to trim off smaller sections of multi-hose adapter to avoid flow restriction.
 - The UltraKlean BioBalls could be clogged with debris and require a backwash cleaning.
 - Pump or plumbing may be clogged. It may be necessary to clean the pump cage screen and impeller.
- UV light is not on
 - Cycle timer is not set to the 6-hour, 12-hour, or 24-hour setting.
 - Power to the UltraKlean Pond Filter has been lost. Check to be sure it's plugged in and the ground fault breaker is not activated.
 - UV internal bulb connection may be loose. Disengage the UltraKlean Pond Filter ballast, and check to make sure the UV bulb's four-pronged base is seated securely into the receptacle inside the lid. Also, when replacing the quartz sleeve, be sure the collar is snug as tightening the collar activates the safety switch for the UV light.
 - UV bulb could be beyond its life expectancy. Replace UV light.

Replacement Parts

UltraKlean Pond Filter 2000 Replacement Parts		UltraKlean Pond Filter 3500 Replacement Parts	
No.	Item number/description	No.	Item number/description
1.	95030 – 14W High Output UV Bulb	1.	95031 – 28W High Output UV Bulb
2.	95078 – Quartz Sleeve (G2) (For 14W UV)	2.	95079 – Quartz Sleeve (G2) (For 28W UV)
3.	95056 – Electronic Control Board & Ballast Kit (G2)	3.	95057 – Electronic Control Board & Ballast Kit (G2)
4.	95081 – Canister Kit with Lid Clips (G2)	4.	95082 – Canister Kit with Lid Clips (G2)
5.	95055 – Extra UltraKlean BioBalls (qty 250)	5.	95055 – Extra UltraKlean BioBalls (qty 250)
6.	95080 – O-Ring Kit	6.	95080 – O-Ring Kit
7.	95083 – Fitting Kit	7.	95083 – Fitting Kit
8.	95102 – Clip Kit (6 Clips and Axles)	8.	95102 – Clip Kit (6 Clips and Axles)
9.	95103 – Valve Kit	9.	95103 – Valve Kit
10.	88040 – Discharge Shut-off Valve Kit	10.	88040 – Discharge Shut-off Valve Kit
11.	88027 – 38mm FPT x 1.5" MPT Metric to North American Thread Adapter	11.	88027 – 38mm FPT x 1.5" MPT Metric to North American Thread Adapter



Warranty Information

3 YEAR WARRANTY

Aquascape warrants that the UltraKlean™ Pond Filter will be free of manufacturing defects for three years from date of purchase. Proof of purchase required. Warranty does not cover damage resulting from electrical supply problems, improper wiring, lightning, negligent handling, misapplication, misuse, or lack of reasonable maintenance or care.

Warranty does not cover parts subject to normal wear, such as impellers. This product should only be operated in fresh water, completely submerged, without corrosive chemicals like chlorine or bromine. If upon Aquascape's inspection, the pump shows evidence of a manufacturing defect, Aquascape's liability is limited, at Aquascape's option, to the repair of the defect, replacement of the defective product, or refund of the original purchase price.

The warranty excludes costs of labor, removal of product, shipping and expenses related to the installation and re-installation of the product. All products that include plumbing (tubing, pumps, check valves) need to be properly drained and winterized otherwise warranty is null and void. No liability for loss or damage of any nature or kind, whether arising out of or from the use of the product, whether defective or not defective, is assumed by Aquascape, Inc. or its affiliates. Aquascape shall not be liable for any incidental, consequential or other damages arising under any theory of law whatsoever.

For more information about our company or products, please visit our website at aquascapeinc.com
or call us at US (866) 877-6637 CAN (866) 766-3426