

AquaClear[®]

Power Filter

Instruction Manual

Voir instructions en français à l'intérieur

See inside for Quick Start Guide!



Models 20, 30,
50, 70, and 110

English

IMPORTANT SAFEGUARDS

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

1. For the complete enjoyment, use and understanding of this product,

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

and all-important notices on the AquaClear® Power Filter before using. Failure to do so may result in damage to the unit.

2. **DANGER**-To avoid possible electrical 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; return the AquaClear® Power Filter to an authorized service facility for service or discard the appliance.
 - I. If the AquaClear® Motor Unit falls into the water **DO NOT** reach for it! First unplug it and then retrieve it. If any electrical component of the AquaClear® Power Filter gets wet, unplug it immediately.
 - II. If the AquaClear® Motor Unit shows any sign of abnormal water leakage or if RCD (or GFCI- Ground Fault Current Interrupter) switches off, disconnect the power supply cord from mains and remove pump from water.
 - III. Carefully examine the AquaClear® Power Filter after installation. It should not be plugged in if there is water on parts not intended to be wet.
 - IV. Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or if it is dropped or damaged in any manner. The power cord of this appliance cannot be replaced; if the cord is damaged, the appliance should be discarded. Never cut the cord.
 - V. To avoid the possibility of the AquaClear® Power Filter's plug or receptacle getting wet, position the unit to one side of a wall mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip loop" (A) should be arranged to the receptacle. The "drip loop" is the part of the cord below the level of the receptacle or the connector if an extension cord is used, to prevent water traveling along the cord and coming into contact with the receptacle. If the plug or receptacle does get wet, **DO NOT** unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance. Then unplug and examine for presence of water in the receptacle.
3. Close supervision is necessary when any appliance is used by or near children.
4. To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, etc.
5. **CAUTION**- Always unplug or disconnect all appliances in the aquarium from electricity supply before placing hands in water, before putting on or taking off parts and whilst the equipment is being installed, maintained or handled. When inserting or removing the pump from the water, always pull out the main electricity plug. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect. Always unplug an appliance from an outlet when not in use.
 - Do not use this pump in swimming pools or other situations where people are immersed.
 - This pump is suitable for use in water temperatures up to 35 °C.
 - Do not use this pump with inflammable or drinkable liquids.
6. Do not use this pump for other than intended use (i.e.: do not use in swimming pools, bathrooms, etc.). The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.



7. This pump is suitable for INDOOR use only. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.
8. Make sure an appliance mounted on a tank is securely installed before operating it.
9. Read and observe all the important notices on the appliance.
10. If an extension cord is necessary, a cord with a proper rating should be used. A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled. The connection should be carried out by a qualified electrical installer.
11. The pump must not run dry.

SAVE THESE INSTRUCTIONS

For the complete use and understanding of this power filter it is recommended that this manual is thoroughly read and understood. Failure to do so may result in damage to this filter.

HOW TO CONTACT US

If you have a problem, or have questions about the operation of this product, please let us try to help you before returning product to your dealer. Most problems can be handled promptly with a toll-free phone call. Or if you prefer, you can contact us on our web site at www.hagen.com.

When you call (or write), please have all relevant information, such as model number and/or part numbers available, as well as the nature of the problem.

CANADA: CALL US ON OUR TOLL FREE NUMBER 1-800-554-2436

between 8:30 a.m. and 5:00 p.m. Eastern Standard Time. Ask for Customer Service.

U.K.: HELPLINE NUMBER 01977 556622

between 8:30 a.m. and 5:00 p.m. Eastern Standard Time. Ask for Customer Service.

FOR AUTHORIZED WARRANTY CUSTOMER SERVICE

CANADA: Return unit with dated receipt plus \$4.00 for shipping and handling to:

Rolf C. Hagen Inc., 3225 Sartelon St., Montreal, Quebec, H4R 1E8

U.K.: Return unit (**well packaged and by registered post**) enclosing dated receipt and reason for return to: **Rolf C. Hagen (UK) Ltd.**, California Dr., Whitewood Ind. Est., Castleford, West Yorkshire WF10-5QH

WARRANTY

The AquaClear® Power Filter is unconditionally guaranteed for defects in material and workmanship for a period of two years from date of purchase. This guarantee is valid only under normal operating conditions for which the Power Filter is intended. This guarantee will not apply to any unit subjected to improper use, negligence or tampering. This guarantee does not include responsibility for animate matter contained in the aquarium and is limited to the Power Filter unit only. The motor is factory sealed; tampering will void guarantee.

REGISTER ON-LINE: www.hagen.com.

- To learn more about Hagen products.
- For a copy of our FREE full color, 40 page, Basic Aquarium Guide. (Canada only)

HOW IT WORKS

The AquaClear® Power Filter draws water from the aquarium through an extension tube into the motor which then pumps water out of the impeller assembly. The intake "U" tube directs the flow of unfiltered water through filter inserts to trap particles, debris, and purify the water.



CYCLEGUARD® MULTI-STAGE FILTRATION SYSTEM

Provides optimal Mechanical, Chemical, and Biological filtration



A healthy aquarium requires "beneficial" bacteria. Invisible and harmless, beneficial bacteria are essential in the removal of toxic ammonia and nitrite.

With cartridge filtration systems, when you throw away the cartridge, you throw away beneficial bacteria. It can take weeks for the bacteria to recolonize, resulting in a stressful environment. The AquaClear® multi-stage filtration system is different. Only one of three filtration components is changed at a time. This ensures that significant amounts of beneficial bacteria remain. There is never a sudden depletion of bacteria, so biological filtration remains at highly effective levels.

Stage 1: Mechanical-Foam Filter Insert

AquaClear® Foam Filter Inserts perform mechanical filtration by trapping particles and debris as they pass through the insert. This unique foam, designed for use with AquaClear® Power Filters, features optimal pore size for efficient mechanical and biological filtration.

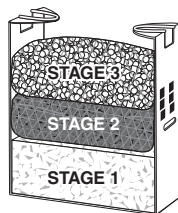
Stage 2: Chemical-Activated Carbon Filter Insert

AquaClear® Activated Carbon Filter Inserts contain 100% premium research grade carbon. Premium research grade carbon provides large amounts of surface area for adsorption of undesirable impurities. The Activated Carbon Filter Inserts will remove unwanted odors, discoloration and impurities resulting in a crystal clear aquarium.

Stage 3: Biological-BioMax Insert

AquaClear® BioMax Filter Inserts contain BioMax ceramic rings. The surface of BioMax is made up of a complex pore system that allows bacteria to thrive. Use of the BioMax Filter Insert will provide optimal living space for beneficial bacteria and enhance the removal of ammonia and nitrites resulting in a healthy aquarium environment.

NOTE: Regular replacement of AquaClear® Filter Inserts is essential for optimum filter performance.



PATENTED REFILTRATION SYSTEM

For a healthy aquarium and clear water

Sometimes delicate fish and plants require a gentler water flow. The patented AquaClear® refiltration system allows you to control the flow rate without compromising filtration efficiency. When the flow rate is reduced, up to 50% of the water within the filter chamber is processed multiple times. More impurities are filtered out, creating a healthier tank with sparkling clean and clear water.

NOTE: A reduced flow rate is also recommended for use during feeding, to ensure more efficient food consumption and less waste.

AQUACLEAR® POWER FILTERS FLOW RATES

MODEL #	20	30	50	70	110
Maximum Flow Rate	100 gph	150 gph	200 gph	300 gph	500 gph
	378 lph	568 lph	757 lph	1135 lph	1890 lph
Minimum Flow Rate	33 gph	50 gph	66.6 gph	100 gph	166.6 gph
	125 lph	190 lph	250 lph	380 lph	630 lph
Watts	6 Watts	6 Watts	6 Watts	6 Watts	14 Watts
RPM	3600 rpm	3600 rpm	3600 rpm	3600 rpm	3600 rpm

POWER FILTER MAINTENANCE

Always unplug the Aquaclear® Power Filter prior to cleaning. Remove cover, filter basket, and discard water remaining in the filter case. Thoroughly rinse collected debris from the case, impeller cover and impeller assembly in clear lukewarm water. The intake "U" tube and extension tube can be cleaned with a filter stem brush to remove any buildup of deposits. When all parts have been cleaned and thoroughly rinsed, reassemble filter and replace onto aquarium.

(See Quick Start Guide 2, 3 and 4.)

Follow operating instructions to restart and prime Power Filter.

(See Power Filter Start-Up.)

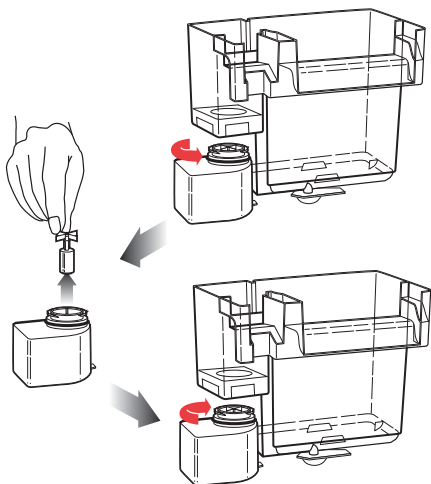
Every three months, the motor should be thoroughly cleaned.

Remove cover, filter basket and discard water remaining in filter case.

Remove motor by twisting a 1/4 -turn gently in the direction of the arrow on front. Ease motor down slowly to prevent damage to the filter and motor guide.

Pull impeller out of impeller well and rinse to remove accumulated slime deposits.

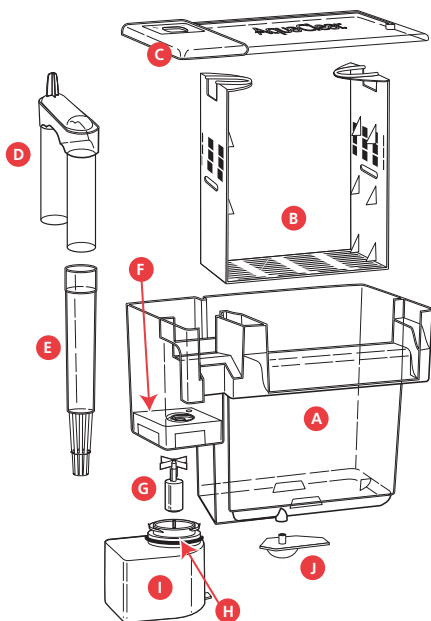
A cotton swab or impeller well brush (not supplied) can be used to remove more stubborn deposits. Wet motor seal ring to prevent damage before placing into filter case.



REPLACEMENT PARTS

To re-order parts for your AquaClear® Power Filter please refer to Parts List below.

NEW MODEL #	20	30	50	70	110
Formerly model	Mini	150	200	300	500
Article #	A-595	A-600	A-610	A-615	A-620
A Filter Case	A-16020	A-16120	A-16220	A-16320	A-16420
B Filter Basket	A-16040	A-16140	A-16240	A-16340	A-16440
C Filter Cover	A-16030	A-16130	A-16230	A-16330	A-16430
D Intake "U" Tube	A-16050	A-16150	A-16150	A-16350	A-16350
E Extension Tube	A-625	A-625	A-625	A-627	A-627
F Impeller Cover	A-16015	A-16015	A-16015	A-16315	A-16415
G Impeller Assembly	A-630	A-632	A-634	A-636	A-638
H Seal Ring	A-16017	A-16017	A-16017	A-16017	A-16417
I Motor Unit	A-16000	A-16000	A-16000	A-16000	A-16400
J Leveling Device	A-16325	A-16325	A-16325	A-16325	A-16325
* Intake "U" Tube Adaptor	N/A	N/A	N/A	N/A	A-16412



* Not shown. Available for Model 110 only.

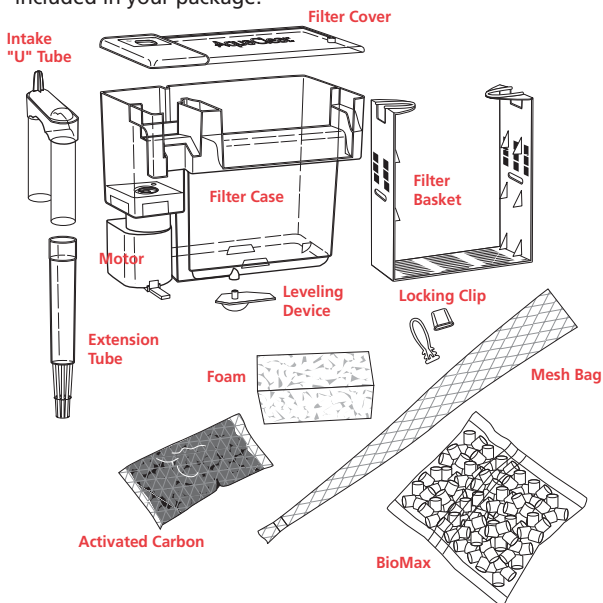
AquaClear® Power Filter Quick Start Guide

1

PACKING LIST

Congratulations on the purchase of your new AquaClear® Power Filter. Please allow approximately 15-20 minutes for the complete installation of filter parts and inserts. The rewards to your aquatic adventures will be worth it!

Inspect AquaClear® Power Filter for any visible signs of shipping damage and verify that motor is securely fastened to filter case. The following parts should be included in your package.

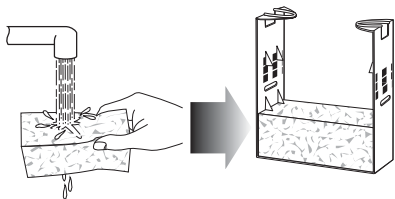


* All AquaClear Power Filters, except Model 20, are shipped with two extension tubes

2

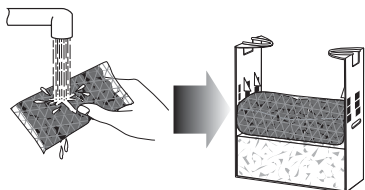
PREPARING FILTER INSERTS

ALL FILTER INSERTS MUST BE RINSED THOROUGHLY PRIOR TO INSTALLATION.



AquaClear® Foam Filter Insert: Rinse Foam Filter Insert and place into filter basket first. The foam block should totally fill the bottom of the basket leaving no space between the filter basket base and sides.

Replace Foam Filter Insert every two months.



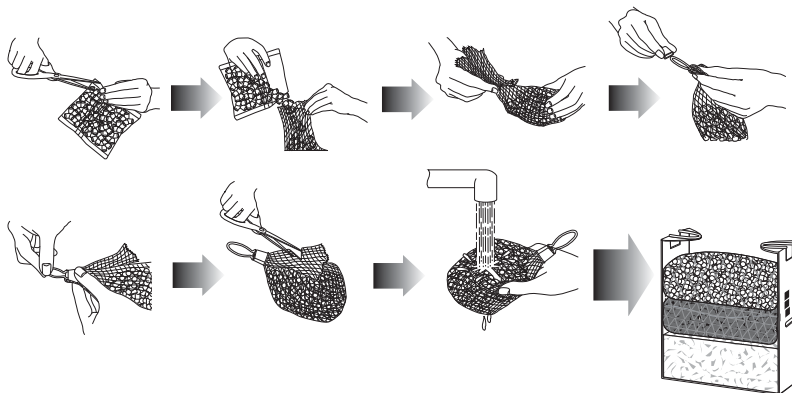
AquaClear® Activated Carbon Filter Insert: Remove Activated Carbon Insert from protective plastic bag and rinse pouch to remove any carbon dust particles. Flatten insert and place horizontally on top of Foam Filter Insert.

Replace Activated Carbon Insert every month.

AquaClear® BioMax Filter Insert: Open poly bag and transfer contents into mesh bag. Apply locking clip as shown, trim excess mesh, and thoroughly rinse insert materials before placing on third level of the basket.

Replace BioMax Insert every three months.

NOTE: Regular replacement of AquaClear® filter inserts is essential for optimum filter performance.



FILTER INSERTS MAINTENANCE

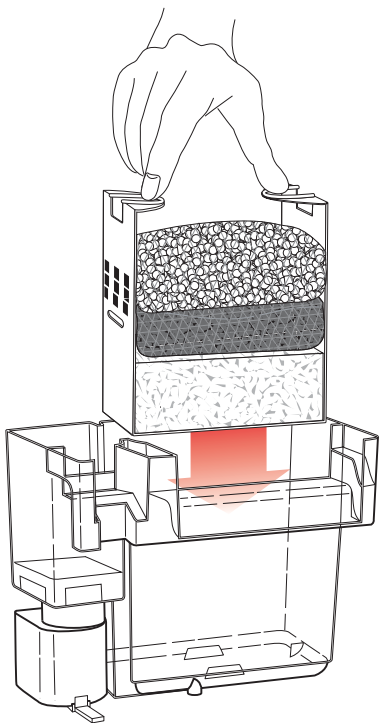
AquaClear® Foam, Activated Carbon and Biomax Inserts should be changed alternately in order to maintain continuous biological activity. Follow individual packaging instructions for recommended replacement intervals.

Never replace all Filter Inserts in any AquaClear® Power Filter at the same time.

3

INSTALLING FILTER INSERTS

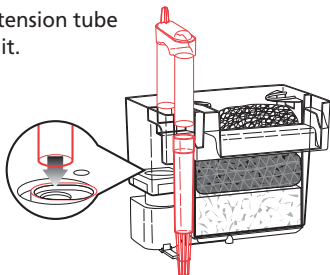
After preparing filter inserts as indicated, place filter basket into filter case. Gentle pressure may be necessary to ease filter basket into position due to the snug fitting Foam Filter Insert.



4

ATTACHING INTAKE "U" TUBE

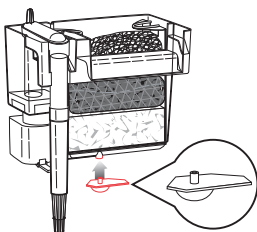
- Install intake "U" tube as shown and apply gentle pressure to "click" into position.
- Additional slight pressure is then applied to ensure base of tube "clicks" into the opening over impeller cover.
- Attach extension tube on aquarium side of intake.
- Add more than one extension tube if tank depth requires it.



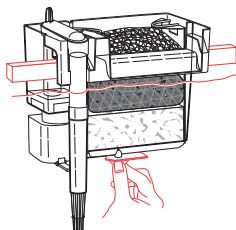
5

ATTACHING LEVELING DEVICE

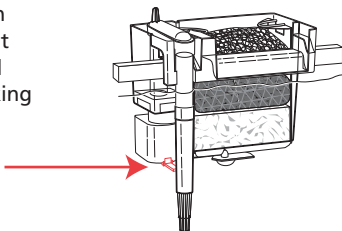
Power Filter must be level to ensure optimal performance. Insert leveling device into bottom of filter case.



Mount Power Filter onto rear of aquarium and adjust leveling device by turning to required setting.



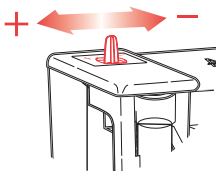
NOTE: If necessary, an additional adjustment may be made to level Power Filter by breaking off the leveler bar at base of motor.



6

POWER FILTER START-UP

- Fill Power Filter case completely with water and replace cover.
- Adjust water flow control lever on intake "U" tube to its maximum position for initial start-up.
- Plug power cord into electrical outlet. Allow 30-45 seconds for priming (air to be expelled from "U" tube.)
- After priming has been completed, move adjustment control on intake "U" tube to adjust water flow rate as required. (See *How it Works- Patented Refiltration System.*)



IMPORTANT

DO NOT OPERATE FILTER WITHOUT WATER

NOTE: For maximum filter operation and efficiency, regular cleaning of the filter and its parts is recommended every two weeks. Soap or detergents are NOT recommended for filter maintenance. (See *Power Filter Maintenance.*)

TROUBLESHOOTING & FAQs

- Q. What if the Power Filter motor doesn't start or makes a mechanical noise?**
- A. Check to make sure impeller blades are free moving on magnet assembly.
- Q. Why won't the Power Filter motor re-start after performing filter insert maintenance?**
- A. Make sure unit has been plugged back into power outlet and that all parts are thoroughly clean and replaced as directed.
(See [Power Filter Maintenance](#).)
- Q. What should I do if the priming process doesn't occur?**
- A. Verify that:
- all parts are installed correctly
 - filter case is completely filled with water
 - unit is plugged into power outlet
 - ensure "U" tube lever is set to maximum position
- Q. Why is the water cloudy in my new aquarium?**
- A. Bacterial cloudiness may occur during the first week of a new aquarium set-up and may last up to six weeks. If the condition persists, consult your local aquarium professional.
- Q. What happens if I forget to clean my filter inserts?**
- A. If the Power Filter is left unattended for too long, the filter inserts become clogged with debris. In extreme cases, the filter basket may be forced up from the filter case due to the pump pressure. This is an indication that the efficiency of the filtration is very low and that the filter inserts require immediate rinsing or replacement.
(See [Filter Inserts Maintenance](#).)
- Q. When should I operate a reduced flow?**
- A. Reduced flow is most helpful during feeding times, or when the input suction or output stream is too strong for small or delicate fish. (See [How it Works-Patented Refiltration System](#).)
- Q. Why should I use only aquarium water to rinse my filter inserts after they are installed?**
- A. Most cities add chlorine or other chemicals to eliminate harmful bacteria in drinking water for human consumption. These additives, while harmless to us, are very toxic to fish.