

# FLUVAL® C Power Filter

## Instruction Manual

### Quick Start Guide

1

### PACKING LIST

Congratulations on the purchase of your new Fluval C Power Filter. Please allow approximately 15-20 minutes for the complete installation of filter parts and inserts. Inspect the filter for any visible signs of shipping damage, and verify that the motor is securely fastened to the filter case. The following parts should be included in your package.



2

### PREPARING FILTER INSERTS. All filters must be rinsed thoroughly.



#### FLUVAL POLY/FOAM PAD

Slide the mechanical frame out of the filter body and rinse under tap water to remove any debris caused during shipment. Check to make sure the Poly/Foam pad is inserted correctly, with the dense polyester side facing the grid on the frame.



#### FLUVAL BIO-SCREEN

Rinse Bio-Screen under tap water, and place into Trickle Chamber cover.

**Note:** The side with the large holes must face upwards.



#### FLUVAL ACTIVATED CARBON

Remove Activated Carbon insert from its plastic shipping bag, and rinse pouch under tap water to remove any dust particles. Place pouch loosely into the chemical media basket. **(Do not remove carbon from porous bag).**



#### FLUVAL C-NODES

Open poly bag and spread them evenly in the Trickle Chamber, then rinse under tap water. (Aquarium water is preferable if the aquarium is already established). Replace Trickle Chamber cover. **Note:** Ensure C-Nodes are well positioned inside the chamber so that the cover closes perfectly.

#### FILTER INSERTS MAINTENANCE

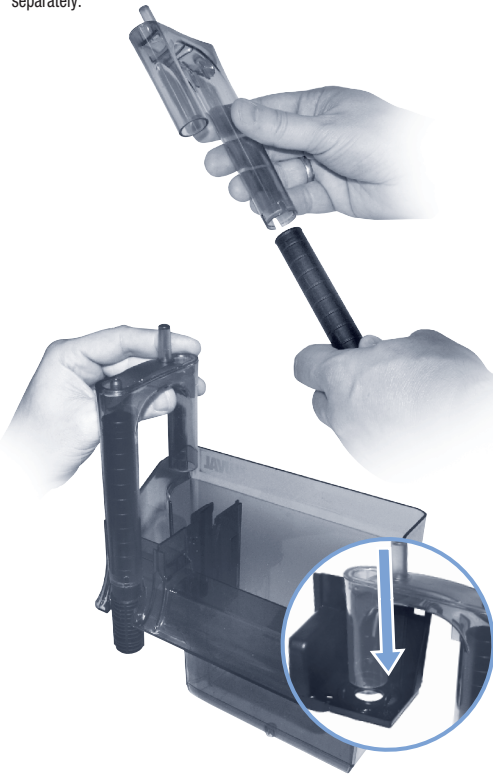
**NOTE:** Regular replacement of Fluval filter inserts is essential to ensure optimum filter performance.

The Fluval Poly/Foam Pad, Activated Carbon, Bio Screen and C-Nodes should be changed alternately in order to maintain continuous biological activity. To enhance bacterial action, pour a dose of Nutrafin Cycle Biological Aquarium Supplement onto your filter inserts each time you change the media. Follow individual packaging instructions for recommended replacement intervals.

**3****ATTACHING "U" TUBE**

1. Attach the telescopic intake tube to the "U" tube.
2. Slide the "U" tube down into its place.

**Note:** For deep aquariums, an additional extension tube can be purchased separately.

**4****INSTALLING FILTER INSERTS**

After preparing filter inserts, first slide the mechanical cartridge frame into the rear of filter case with the cleaning indicator to the right. Then slide the chemical basket and Trickle Chamber into the filter case.

**5****ATTACHING LEVELING DEVICE**

To ensure optimal operating performance, the Fluval C Power Filter must be level.

1. Insert leveller into bottom of filter case.
2. Mount Power Filter onto rear of aquarium, and adjust leveller by turning it to the required setting so that the filter sits perfectly in vertical position.



# 6

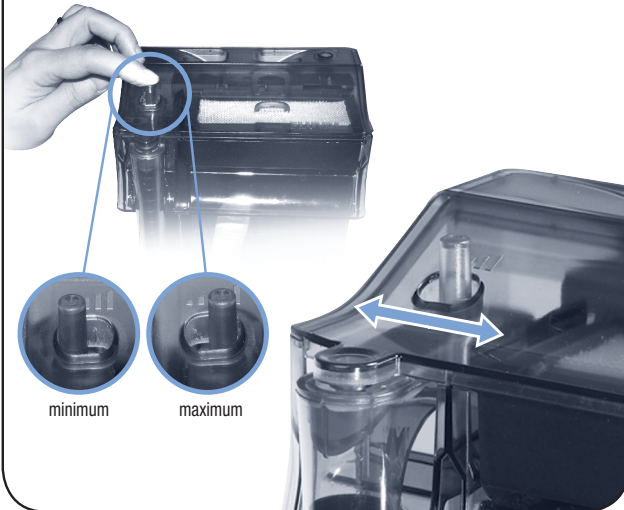
## POWER FILTER START-UP

1. With the cover removed, fill the Power Filter case completely with water and replace cover.
2. For the initial start-up and for a faster priming of the filter, adjust water flow control lever on the intake "U" tube to its minimum position.
3. Plug power cord into electrical outlet. Allow a few seconds for priming (air being expelled from the "U" tube.)
4. After priming has been completed, move adjustment control on "U" tube to adjust water flow rate to desired output level.

(See How it Works — Patented Refiltration System.)

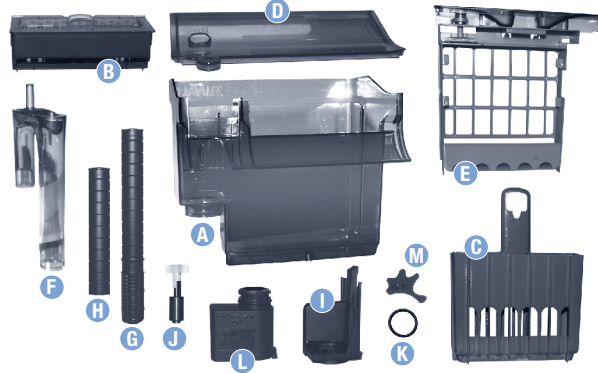
**IMPORTANT: DO NOT OPERATE FILTER WITHOUT WATER.**

For a correct filter installation, the minimum water level in the tank should be no more than 6 cm (2.25 inches) below the aquarium rim. **NOTE:** For maximum filter operation and efficiency, regular cleaning of media is recommended every two weeks.



## REPLACEMENT PARTS

To re-order parts for your Fluval C Power Filter, please refer to the parts list below.



ITEM	C2	C3	C4
A Filter Case	A20265	A20266	A20267
B Biological Trickle Chamber with cover	A20268	A20269	A20270
C Chemical Basket	A20271	A20272	A20273
D Filter Cover	A20274	A20275	A20276
E Mechanical Frame	A20277	A20278	A20279
F "U" Tube	A20280	A20280	A20281
G Telescopic Intake Tube	A20282	A20282	A20283
H Extension Tube	A20284	A20284	A20285
I Impeller Cover Assembly	A20286	A20286	A20287
J Impeller	A20297	A20298	A20299
K Motor Seal Ring	A20288	A20288	A20288
L Motor Unit	A16000	A16000	A16000
M Leveling Device	A20290	A20290	A20290

## IMPORTANT SAFETY INSTRUCTIONS

**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 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 Fluval Power Filter for repair to an authorized service facility for service or discard the appliance.
  - I. If the Fluval Motor Unit falls into the water **DO NOT** reach for it! First unplug it and then retrieve it. If any of the electrical components of the Power Filter get wet, unplug it immediately.
  - II. If the 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 the wall socket and remove pump from water.
  - III. Carefully examine the 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 Power Filter's plug or socket getting wet, position the unit to one side of a wall mounted socket to prevent water from dripping onto the socket or plug. A "drip loop" (A) should be arranged. The "drip loop" is the part of the cord below the level of the socket or the connector if an extension cord is used, to prevent water travelling along the cord and coming into contact with the socket. If the plug or socket 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 socket.
3. **WARNING** - Close supervision is necessary when any appliance is used by or near children. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
4. To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, impeller etc...
5. **CAUTION** — Always unplug or disconnect all appliances in the aquarium from electrical 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 electrical plug. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect. Always unplug appliances from the socket when not in use.
6. This is an aquarium filter-pump. Do not use this pump for other than its' 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, and will invalidate your warranty.



- 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.
7. This pump is suitable for **INDOOR HOUSEHOLD** 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, and that the electrical connections are in accordance with data on the rating label. Do not allow pump run dry.
  9. If an extension cord is necessary, a cord with 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.

## 10. 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.

## 2 YEAR WARRANTY

To register your warranty on line or for more information on this and other products go to: [www.hagen.com](http://www.hagen.com) The Fluval C Filters are guaranteed against defects in material or workmanship under normal aquarium usage and service for 2 years. We offer a 2 year guarantee on all non-replaceable parts which means that the filter will be repaired or replaced at the manufacturer's discretion, free of charge, when the complete pump is returned with proof of purchase and postage paid. This warranty does not apply to any filter that has been subjected to misuse, negligence, or tampering. No liability is assumed with respect to loss or damage to livestock or personal property irrespective of the cause thereof.

### FOR AUTHORIZED WARRANTY REPAIR SERVICE

For Authorized Warranty Service please return (well packaged and by registered post) to the address below enclosing dated receipt and reason for return. If you have any queries or comments about the operation of this product, please let us try to help you before you return the product to your retailer. Most queries can be handled promptly with a phone call. When you call (or write), please have all relevant information such as model number, age of product, details of aquarium set-up, as well as the nature of the problem. 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:** Hagen Industries, Consumer Repair, 3235 Guénette, Montréal QC H4S 1N2

**U.S.A.:** Rolf C. Hagen (U.S.A.) Corp., 305 Forbes Blvd, Mansfield, MA. 02048

**UK:** Rolf C. Hagen (UK) Ltd, Customer Service Department California Drive, Whitwood Ind Est., Castleford, West Yorkshire WF10 5QH — <http://hagen-uk.custhelp.com>

**CALL US ON OUR TOLL-FREE NUMBER:** Canada only: 1-800-554-2436 between 9:00 a.m. and 4:30 p.m. Eastern Standard Time. Ask for Customer Service.

**U.S. only:** 1-800-724-2436 between 9:00 a.m. and 4:00 p.m. Eastern Standard Time. Ask for Customer Service. **U.K. only:** Helpline Number 01977 556622. Between 9:00 AM and 5:00 PM, Monday to Friday (excluding Bank Holidays).

## RECYCLING

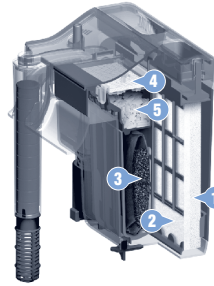
This product bears the selective sorting symbol for waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European Directive 2002/96/EC in order to be recycled or dismantled to minimize its impact on the environment. Check with your local Environmental Agency for possible disposal instructions or take to an official council registered refuse collection point.

**Electronic products not included in the selective sorting process are potentially dangerous for the environment and human health due to the presence of hazardous substances.**



### HOW IT WORKS

The Fluval C Power Filter draws water from the aquarium through the intake tube into the motor which then pumps water out of the impeller assembly. The motor pushes the flow of unfiltered water through filter inserts to trap particles, debris, and purify the water. The New Fluval C series filtration system offers the ultimate multistage filtration available in the market: With 2 x Mechanical, 1 x Chemical and 2 x Biological, each stage operates independently.



### NEW 5 STAGE FILTRATION SYSTEM

Unsurpassed 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 re-colonize, resulting in a stressful environment. The Fluval® 5 stage filtration system is different. Only one of the filtration components is changed at a time. This ensures that the maximum amount of beneficial bacteria remains. There is never a sudden depletion of bacteria so biological filtration remains always at high effective levels.

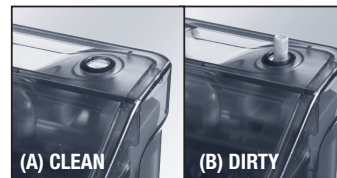
#### Stage 1 & 2: Mechanical — Poly/ Foam Pad

Effective mechanical filtration is essential for efficient chemical and biological filtration. The large surface area of the Poly/Foam pad effectively performs two stages of Mechanical filtration. The first stage of porous foam traps large particles and the second stage of dense polyester captures fine debris.

**Note:** The mechanical frame is equipped with a cleaning indicator (A) located on the top portion of the frame. When fully visible (B), the mechanical Poly/Foam pad requires maintenance.

#### Stage 3: Chemical — Activated Carbon insert

Fluval Activated Carbon Filter Insert contains 100% premium research grade carbon. Premium research grade carbon provides large amounts of surface area for adsorption of undesirable impurities. The activated carbon filter insert removes unwanted odors, discoloration and impurities, resulting in a crystal clear aquarium.



### Stage 4: Biological — Bio-Screen

An additional hydraulic circuit conveys part of the intake water to the NEW innovative Bio-Screen placed at the top of the Trickle Chamber cover. Fluval's Bio-Screen removes any debris before dripping into the biological chamber. It also ensures that the water pumped to the Trickle Chamber is evenly spread through all areas before it drips on the C-Nodes, which are contained in the chamber. The motion of water dropping slowly through the grids mimics the rain. This process ensures that additional oxygen is dissolved into the water before returning to the aquarium, for a more efficient biological filtration.

### Stage 5: Biological — C-Nodes

The surface of the C-Nodes is made up of a complex pore system that provides optimal living space for beneficial bacteria to thrive and enhance the removal of ammonia and nitrites. The new "Star Shape" provides a higher filtration surface and more biological power than a traditional cartridge, resulting in a healthy aquarium environment.

### PATENTED REFILTRATION SYSTEM

For a healthy aquarium and clear water

Sometimes delicate fish and plants require a gentler water flow. Fluval's patented 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 re-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 during feeding, to ensure more efficient food consumption and less waste.

### FLUVAL C POWER FILTERS FLOW RATES

MODEL #	C2		C3		C4	
	120V gph	230V lph	120V gph	230V lph	120V gph	230V lph
<b>Maximum Flo Rate</b>	119	400	153	480	264	900
<b>Minimum Flo Rate</b>	62	210	80	330	159	480

## POWER FILTER MAINTENANCE

**WARNING: ALWAYS DISCONNECT APPLIANCES IN THE AQUARIUM FROM THE ELECTRICAL SUPPLY BEFORE PLACING HANDS IN THE WATER, BEFORE PUTTING ON OR TAKING OFF PARTS, AND WHENEVER THE FILTER EQUIPMENT IS BEING INSTALLED, MAINTAINED OR HANDLED.**

No special maintenance is required to clean the external sides of the filter, other than periodic cleaning with a damp cloth (never use harsh chemical products or detergents). Simple lemon juice may be useful for removing calcareous encrustation. Rinse thoroughly afterward to eliminate acid residue. Following a routine maintenance schedule will result in a healthier aquarium, and extend the life of the filter. Fluval C Power Filters have been designed to facilitate these tasks, as they can be done within a matter of minutes.

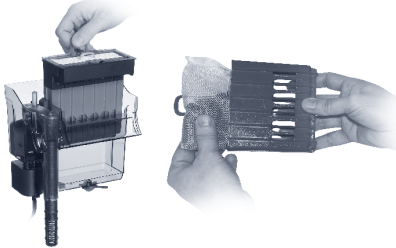
### Poly/Foam Pad

Remove mechanical frame from the filter body and place in an empty bucket. Remove Poly/Foam Pad from frame, and rinse using water taken from the aquarium. **Do not use tap water as this will kill the beneficial bacteria in your foam. NEVER use soap or detergents as these products could be harmful to the inhabitants of your aquarium.** After rinsing, reinstall the Poly/Foam Pad into the mechanical frame, then slide the frame into the rear of the filter case with the cleaning indicator to the right. **Note:** Make sure that the dense polyester side is facing the grid on the frame. **For best results, replace every 4-6 weeks.**



### Activated Carbon Insert

Remove filter cover. Pull out the chemical basket and Trickle Chamber from filter body. Separate the 2 sections, then remove insert from Chemical basket. Replace with new insert. **For best results, replace every 2-4 weeks.**



### Bio-Screen

Remove filter cover. Using the tab, pull open the Trickle Chamber Cover and remove it. Place cover in the sink or a bucket, and rinse with the Bio-Screen, using water taken from the aquarium. **Do not use tap water as this will kill the beneficial bacteria in your foam. For best results, replace every two to three months.**



### Biological C-Nodes

Using the tab, pull open the Trickle Chamber Cover and remove it. Lightly rinse the C-Nodes with aquarium water or replace 1/2 the quantity every 6 months. Never replace all the C-Nodes at one time, as the valuable colonies of beneficial bacteria would be lost. For best results, completely fill the cartridge with additional C-Nodes, but be sure to allow the cover to close easily.



### Impeller and Motor

Unplug the power cord. Remove cover, filter baskets and discard water remaining in filter case. Remove motor by twisting a 1/4 – turn gently in the direction of the arrow on the motor. Ease the motor down slowly to prevent damage to the filter and motor guide. Pull impeller out of the impeller well, and rinse to remove accumulated slime deposits. If the impeller well needs cleaning, scrub it gently with a Fluval Cleaning Brush (sold separately). A cotton swab or impeller well brush (not supplied) can be used to remove more stubborn deposits. It is recommended to wet motor seal ring to prevent damage before placing into filter case.

**Note: It is recommended to replace the motor O-Ring on a yearly base to prevent leaking.**

Re-position the magnetic impeller on the shaft and insert into the impeller well. Re-position the motor in the filter case.

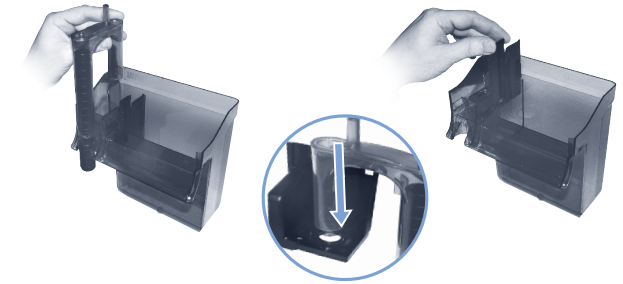


### Water Intake Components

The telescopic intake tube, "U" tube and impeller cover, can be cleaned using a filter stem brush to remove any build-up of deposits.

**To remove the impeller cover assembly:** gently grasp the impeller cover and pull **To insert the impeller cover assembly:** place the impeller cover and gently push it down until it "clicks".

**Note: For an optimal performance it is recommended to clean the impeller cover assembly once a year. The motor should be thoroughly cleaned every three months.** When all parts have been cleaned and thoroughly rinsed, reassemble the 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.)



### AVAILABLE SEPARATELY

#### Alternate Filter Inserts

We offer the following alternative chemical stage inserts as superior solutions to your filtration system.

#### Fluval Ammonia Remover Filter Insert

Ammonia remover is a natural ion-exchange media designed to remove toxic ammonia as water passes over it. Controlling ammonia levels reduces stress on fish. Use this to provide a healthy environment when setting up a new aquarium or maintaining one that contains a higher than average fish stock.



#### Fluval Zeo-Carb Filter Insert

Zeo-Carb filter insert is a blend of premium activated carbon and ammonia remover. It collectively eliminates impurities, odors and discoloration, while simultaneously removing toxic ammonia, resulting in a crystal clear and healthy aquarium. Water quality is the most important aspect of keeping fish. Maintaining the optimum water quality will help you keep your fish healthy and happy, and make the aquarium a beautiful and exciting addition to your home.



## NUTRAFIN WATER CARE PRODUCTS

### Nutrafin Aqua Plus

Tap Water Conditioner makes tap water safe for fish.

### Nutrafin Cycle

Biological aquarium supplement introduces beneficial bacteria to accelerate the maturation of new tanks.



## TROUBLE-SHOOTING & FAQs

### Q. What if the power filter motor doesn't start or makes a mechanical noise?

A. First check that all the filters' components have been correctly installed. Then check to make sure the 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 the unit has been plugged back into the 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
- "U" tube is correctly installed
- The minimum water level inside the tank no more than 6 cm (2.25 inches) below the aquarium rim

### 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. The efficiency of the filtration is very low, and 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.