

# FLUVAL®

# FX5



**Smart Pump  
Technology™**

For quiet efficient operation  
Pour un fonctionnement silencieux et efficace  
Für einen leisen und effizienten Betrieb  
Para un funcionamiento silencioso y eficaz

USER MANUAL

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GUIDE  
DE L'UTILISATEUR

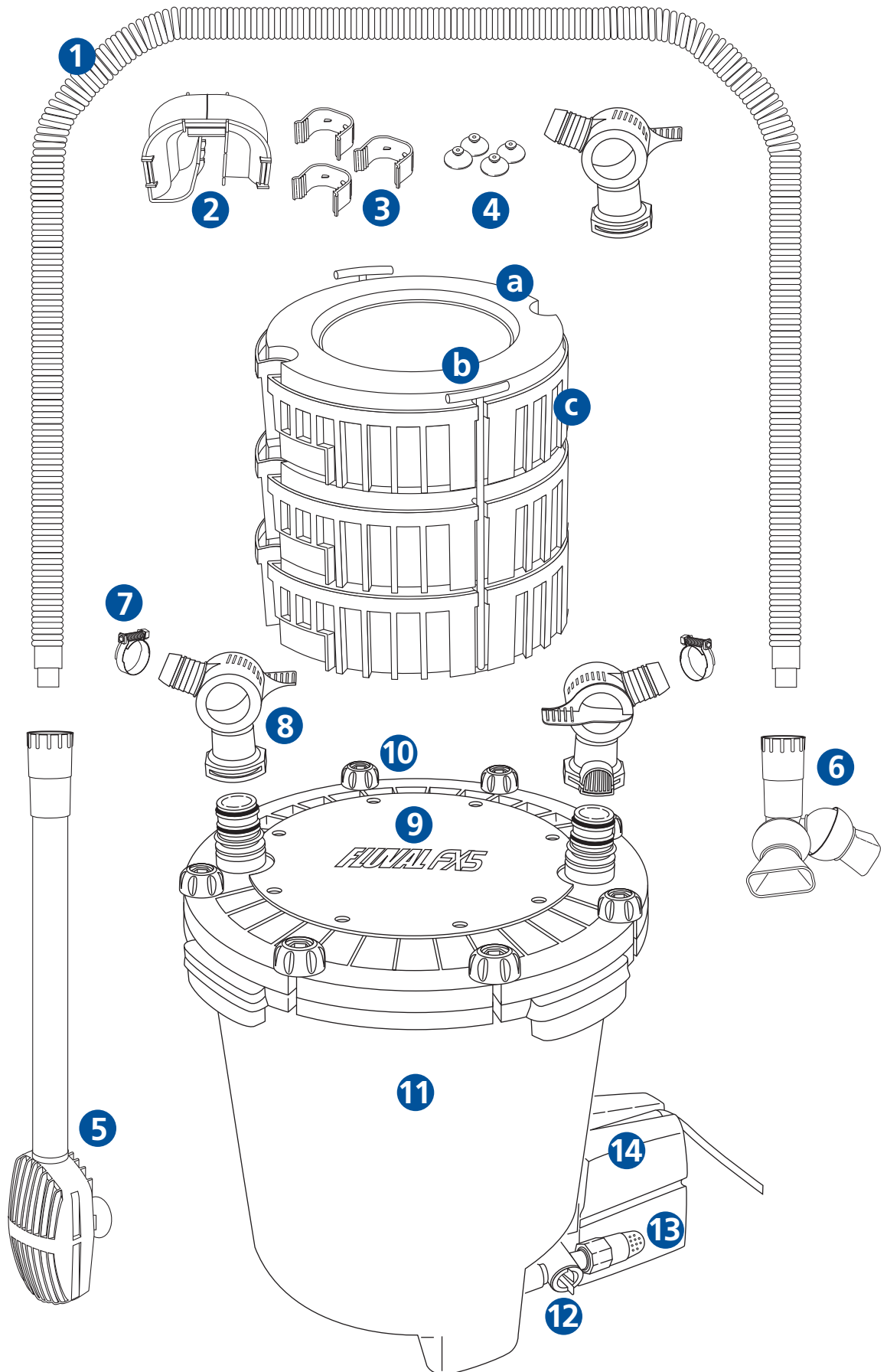
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BENUTZERHANDBUCH

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MANUAL  
DE INSTRUCCIONES

# FLUVAL FX5



## PRODUCT PARTS

- |                           |                           |
|---------------------------|---------------------------|
| 1 Hosing                  | 8 AquaStop valves (3)     |
| 2 Rim connectors (2)      | 9 Filter lid              |
| 3 Rim connector clips (6) | 10 Lid fasteners (8)      |
| 4 Small suction cups (4)  | 11 Filter canister        |
| 5 Intake assembly         | 12 Purge valve            |
| 6 Output assembly         | 13 Drain cap              |
| 7 Metal clamps (2)        | 14 Pump unit & power cord |

### Filter baskets with foam inserts

- |                     |
|---------------------|
| a Foam (6)          |
| b T handles (2)     |
| c Media baskets (3) |

## PIÈCES DE L'APPAREIL

- |  |                                    |
|--|------------------------------------|
| 1 Tuyau  | 7 Colliers de serrage en métal (2) |
| 2 Raccords des tuyaux au cadre (2)             | 8 Soupapes AquaStop (3)            |
| 3 Pincés pour raccords des tuyaux au cadre (6) | 9 Couvercle du filtre              |
| 4 Petites ventouses (4)                        | 10 Fermeurs du couvercle (8)       |
| 5 Bloc d'entrée d'eau                          | 11 Boîtier du filtre               |
| 6 Bloc de sortie d'eau                         | 12 Soupape d'évacuation            |
|  | 13 Bouchon de vidange              |

### 14 Pompe et cordon d'alimentation

### Paniers de filtration avec blocs de mousse

- |                             |
|-----------------------------|
| a Mousse (6)                |
| b Poignées en T (2)         |
| c Paniers de filtration (3) |

## PRODUKTTEILE

- |                               |                        |
|-------------------------------|------------------------|
| 1 Schlauch                    | 7 Metallklemmen (2)    |
| 2 Rahmenbefestigungsätze (2)  | 8 AquaStop-Ventile (3) |
| 3 Rahmenbefestigungsclips (6) | 9 Filterdeckel         |
| 4 Kleine Saugnäpfe (4)        | 10 Deckelschrauben (8) |
| 5 Ansaugverbindung            | 11 Filterbehälter      |
| 6 Wasseraustrittsverbindung   | 12 Ablaufventil        |
|                               | 13 Abflussskappe       |

### 14 Pumpeneinheit und Netzkabel

### Filterkörbe mit Schaumstoffpatronen

- |                   |
|-------------------|
| a Schaumstoff (6) |
| b T-Griffe (2)    |
| c Medienkörbe (3) |

## Piezas del PRODUCTO

- |                             |  |
|-----------------------------|--|
| 1 Tubos                     | 8 Válvulas AquaStop (3)                    |
| 2 Salvatubos (2)            | 9 Tapa del filtro                          |
| 3 Clips de salvatubos (6)   | 10 Cierres de la tapa (8)                  |
| 4 Ventosas pequeñas (4)     | 11 Vaso                                    |
| 5 Conjunto de entrada       | 12 Válvula de vaciado                      |
| 6 Conjunto de salida        | 13 Tapa de goma de vaciado                 |
| 7 Abrazaderas metálicas (2) | 14 Unidad de bomba y cable de alimentación |

### Cestas de filtro con espumas

- |                                   |
|-----------------------------------|
| a Espuma (6)                      |
| b Asas en T (2)                   |
| c Cestas de medios filtrantes (3) |

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# IMPORTANT SAFETY INSTRUCTIONS

**WARNING - To guard against injury, basic safety precautions should be observed.**

## READ AND FOLLOW ALL SAFETY INSTRUCTIONS

**To guard against injury, basic safety precautions should be observed when handling the Fluval Canister Filter, including the following:**

### 1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS

and all the important notices on the appliance before using. Failure to do so may result in damage to the unit.

### 2. DANGER - To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt repairs yourself; return the appliance to an authorized service facility for service or discard the appliance.

A. If the appliance falls into the water, DON'T reach for it! First unplug it and retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately.

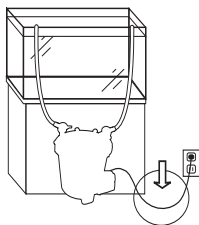
B. If the appliance shows any sign of abnormal water leakage or if RCD (or GFCI- Ground Fault Current Interrupter) switches off disconnect the power supply cord from mains and remove pump from water.

C. Carefully examine the appliance after installation. It should not be plugged if there is water on parts not intended to be wet.

D. Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or 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.

E. To avoid the possibility of the appliance plug or receptacle getting wet, position the appliance to one side of a wall mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip loop" (see illustration 1) should be arranged by the user for the cord connecting appliance to a receptacle. The "drip loop" is that 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 in contact with the receptacle.

If the plug or receptacle does get wet, DON'T unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance. Then unplug and examine for presence of water in receptacle.



3. Close supervision is necessary when any appliance is used by or near children.
4. **To avoid injury, do not touch moving parts or hot parts.**
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.** 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.
6. This is an aquarium filter-pump. Do not use this filter-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.
  - Do not use this filter-pump in swimming pools or other situations where people are immersed.
  - This filter-pump is suitable for use in water temperatures up to 35 °C.
  - Do not use this filter-pump with inflammable or drinkable liquids.
7. This filter-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 that the filter-pump is securely installed before operating it. Do not allow pump to 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 product it is recommended that this manual is thoroughly read and understood. Failure to do so may result in damage to this product.

# HIGH PERFORMANCE CANISTER FILTER

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**The Fluval Canister Filter** offers unparalleled filtration power, maximum versatility and incredible control in fine-tuning water characteristics. Our multi-stage system allows you to stack filtration media in the precise combination of layers that will work best for your aquarium. Thus providing you infinite flexibility in creating and maintaining the ideal environment for your fish.

Its massive capacity and powerful integrated motor processes and recirculates fully 607 US gallons (2300 liters) of water every hour, enabling you to precisely manage water conditions for aquariums as large as 400 US gallons (1500 liters). It will hold up to 1.5 gallons (5.9 liters) of media, yet it's compact enough to fit under almost any aquarium cabinet.

With Fluval's unique Smart-Pump Technology, this self-priming system offers plug-in-and-start convenience. Upon start-up the canister fills with water, pauses to evacuate air, immediately begins the filtering process, and continues filtering until it is unplugged. Once every 24 hours, the filter will pause again to evacuate any air that has become trapped in the system—to maintain the total vacuum necessary for maximum efficiency.

The FX5's stack of media baskets allow multiple options to modify water with scientific precision. Use one type of media in each basket, or layer two or three types to suit your aquarium's needs.

The FX5 Filter also offers incomparable ease-of-use features: click-fit connections you just push on; AquaStop valves so you can handle routine maintenance without breaking the system's vacuum, no need to disassemble hosing; innovative handles that let you lift the entire stack of baskets out to change or clean media; and a purge valve and extra Aquastop Valve so you can empty the canister easily, no need to move or lift a heavy, water-laden tank.

This filter's superior performance and capability are backed by Fluval's well-earned reputation for the best in fish and aquarium care. HARS (Hagen Aquatic Research Station) certification is your assurance of the most up-to-date and reliable research in aqua-care science.

For complete understanding of your Fluval Multi-Stage Canister Filter, and enjoyment of all its capabilities, please read and follow these instructions for proper installation, maintenance, and use. Failure to do so may result in loss of fish life and/or damage to the filter. **SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

## SYSTEM OVERVIEW

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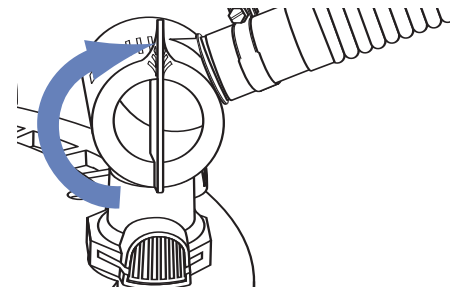
The FX-5 filter siphons water and suspended debris in through its clog-proof intake strainer, then sends it through three levels of foam, which traps most particulate matter. The powerful pump then sends it through the multiple levels of media for whatever cleaning and processing sequence you have chosen.

As water flows back into the aquarium, the flared design of the adjustable output nozzle disperses it in multiple directions, agitating the water and creating currents that help break down wastes, and prevent them from settling. All for a continuous flow of pure, precisely treated water.

# FLUVAL STATE-OF-THE ART TECHNOLOGY

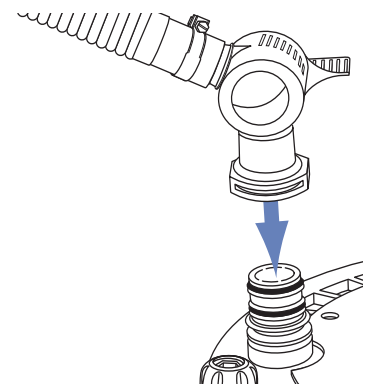
## AquaStop Valves

The AquaStop valve makes maintenance easy by allowing you to stop the water flow with an easy 90-degree turn of the valve lever. This means you can separate the hosing from the filter in one step. The valve lever can also be used to regulate water flow with no harm to the motor or its components. Three Valves are provided; one for the intake, one for the output and one to be used to drain the filter under certain circumstances during the maintenance process.



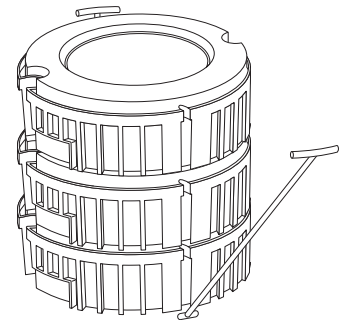
## Click-fit Connectors

Click-fit connectors are designed for quick set-up and leak-proof maintenance. You just push the intake and output assemblies (AquaStop valves and attached hosing) down. Once you hear the "click," you know the connection is secure and watertight.



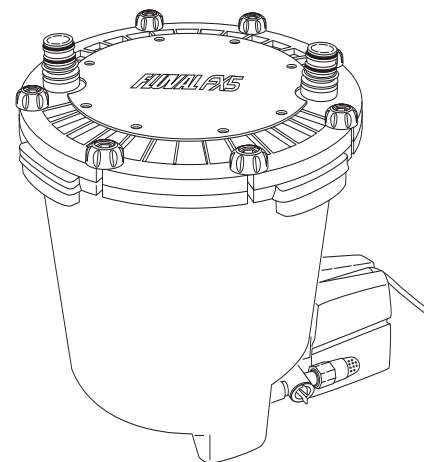
## Lift-Out Stack of Media Baskets

The lift-out stack of media baskets is at the heart of Fluval multi-stage filtration. These large capacity baskets enable you to stack filtration media in the precise combination of layers that will work best for your aquarium. Each basket is lined with a foam insert for effective mechanical pre-filtering. The instant-release T-handles let you lift, then separate the basket stack quickly and easily, making routine maintenance simple.



## High Capacity Canister

The FX5's compact, super capacity tank processes and recirculates fully 607 US gallons (2300 liters) of water every hour and accommodates the stack of media baskets with their capacity of up to 1.5 gallons (5.9 liters) of media. Yet this enormous-capacity tank is short enough (21 in./54cm) to fit under most large aquariums.



# FLUVAL STATE-OF-THE ART TECHNOLOGY

## Smart-Pump Technology

Designed and engineered for reliable filtration of delicately balanced aquarium environments, Fluval's FX5 SMART PUMP technology employs an electronic circuit board to continually monitor the pump. Impeller speed and force are constantly measured to ensure powerful output and energy efficiency.

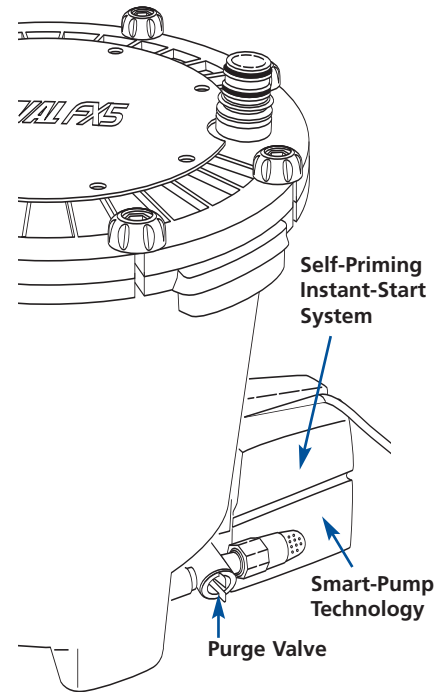
Smart pump technology is also critical in evacuating any air that may build up in the system. Once every 24 hours, the filter will pause and allow any trapped air to escape, thus maintaining maximum filtration efficiency.

## Self-Priming Instant-Start System

With the FX5, there's never any need for manual siphoning. As soon as you plug the filter in, the canister fills with water from your aquarium. It pumps for 2 minutes, pauses for 2 minutes to evacuate air from the system, then immediately begins the filtering process.

## Purge Valve

The FX5 canister features a purge valve drain at its base. This makes it possible for you to empty the canister for maintenance before moving it.

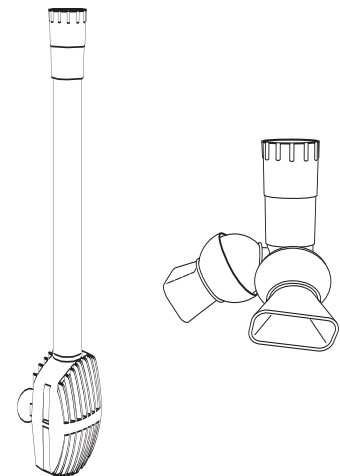


## Clog-Proof Intake Strainer

The wide, rounded mouth of the FX5 intake strainer is shaped to siphon water quickly. Covered by a fine screen that's beveled to repel debris, it is virtually clog-proof, so there is never a build-up of solids that could impede water flow.

## Multi-Directional Output Nozzle

The flared spout of the adjustable output nozzle sends multiple streams of purified water toward all corners of the aquarium, creating currents that agitate the water to break down wastes and help hold them in suspension until they can be drawn into the filter by the intake strainer. With more waste solids kept afloat, fewer settle, which means that bottom surfaces, and in fact the entire aquarium, is kept cleaner.



### FLUVAL FX5 SPECIFICATIONS

Aquarium Capacity:	400 gallons	1,500 liters	Filter Circulation*:	607 g/h	2,300 l/h
Pump Output:	925 g/h	3,500 l/h	Head Height (max.):	10.8ft	3.3 m
Mechanical Area (Foam):	325.5 in. <sup>2</sup>	2,100 cm <sup>2</sup>	Wattages 120V/60Hz:	50W	
Biological Volume:	1.5 gallons	5.9 l	Wattages 230-240V/50Hz:	48W	
Filtration Volume:	5.28 gallons	20 l	*Note: Flow rates were measured with intake and output hoses of the same length and without media.		



**IMPORTANT:** Read all instructions before beginning.

- For best results, top off water in aquarium before beginning setup.
- Allow 45-60 minutes for setup and installation.
- Tools required: Phillips screwdriver and utility knife.  
(NOTE: For an unusually shallow aquarium, the intake tube *may* need to be cut; this requires a hacksaw.)

**DO NOT PLUG IN FILTER UNTIL SETUP IS COMPLETE AND UNIT IS FILLED WITH WATER.**

## 1. Unpack and identify all parts

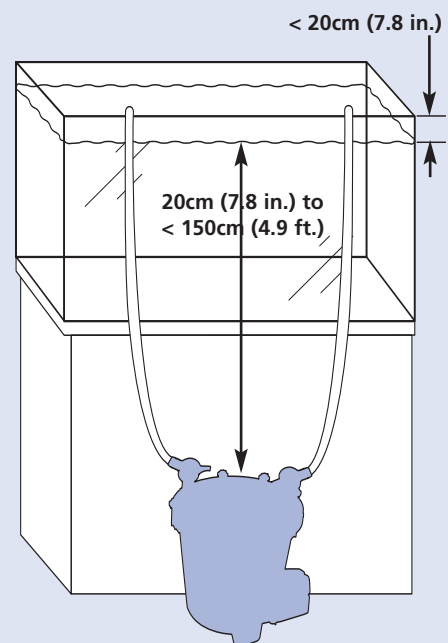
Use the diagram on the inside front cover as a guide.

## 2. Prepare the aquarium

1. **Decide on filter placement.** Remember, this is a gravity-fed system. For it to work properly, all the Installation Requirements below must be adhered to.

### Installation Requirements

- For best results fill aquarium to maximum level before beginning setup.
- The filter lid must be at least 7.8 in. (20cm) below your aquarium's water level but **never more than 4.9 ft. (150cm)**.
- The hosing supplied with the unit is 9.8 ft. (3m) long. **If longer hosing is required, intake hosing must NOT exceed 9.8 ft. (3m) and the total length of intake and outlet hosing combined must not exceed 16.4 ft. (5m).**
- Hosing must follow a **straight path** from the filter to the aquarium rim, with **some slack, but no loops**.
- The water level should never be more than 7.8 in. (20 cm) below your aquarium rim.
- **NEVER** install the filter above the water level.
- For best performance, the filter should be completely beneath the aquarium.
- Position Purge Valve so that you will be able to attach a hose without moving the unit.

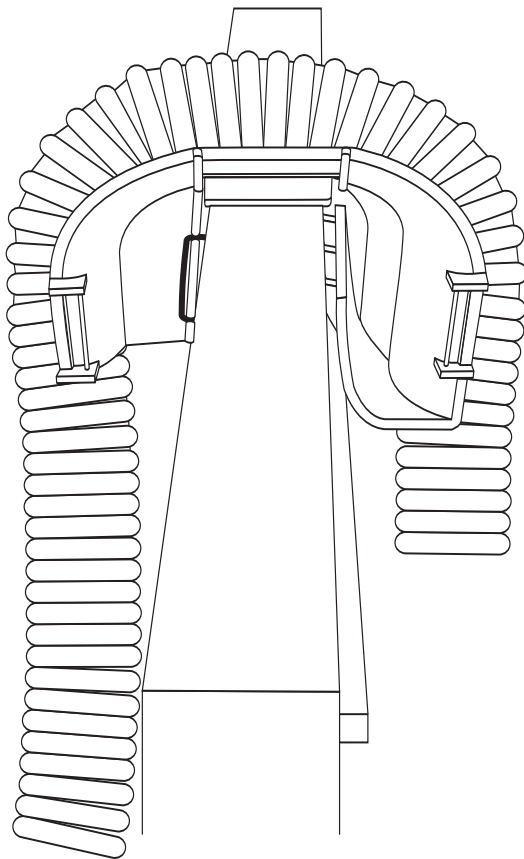


## INSTALLATION AND USE

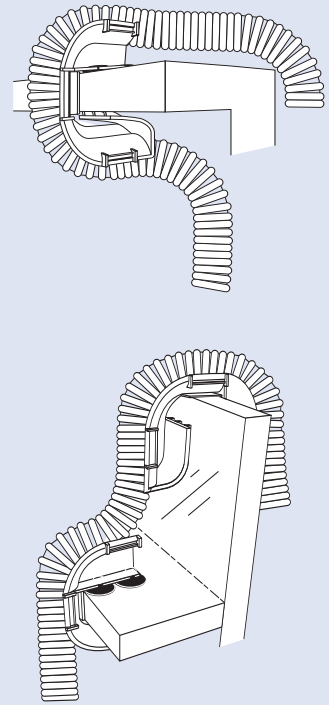
2. Place the two rim connectors over the back top edge of the aquarium. Place one just above the spot where you want to place the intake tube; place the other just over the spot where you want to position the output nozzle. Be sure that the long end of the bracket is on the inside of the aquarium.

The rubber rings on the connectors are designed to help them adhere to tank glass better. If the aquarium walls are thinner than 5/8" (1.58 cm) replace the rubber ring with the four smaller suction cups provided.

**Important:** Be sure to position the intake tube away from any air source—an air stone, an aeration device, protein skimmer or the output valve. Air entering the intake strainer will diminish filter efficiency.



### Alternate Configurations

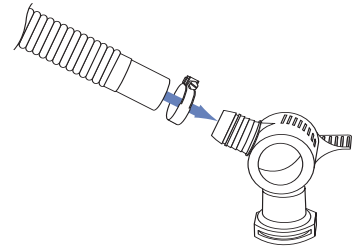


Note: A dropped ledge rim requires purchase of an extra rim connector. (See "Replacement Parts" for ordering information.)

## 3. Prepare intake connections

### 1. Connect the hosing to one of the three valves:

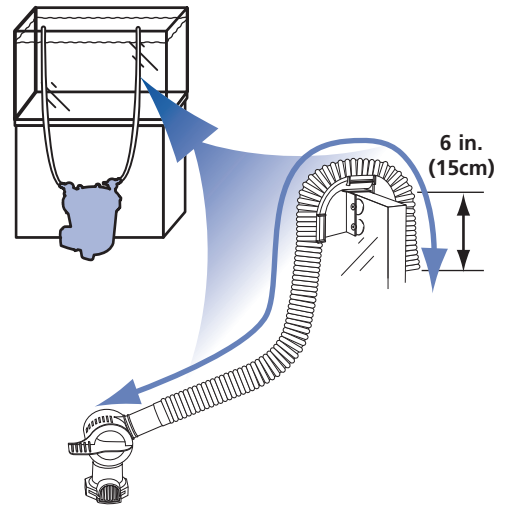
- Loosen one of the metal clamps, and slide it onto one end of the hosing.
- Push the end of the hosing onto the valve; push it all the way, as far as it will go.
- Position the metal clamp over the rubber connector, and tighten.



### 2. Measure and cut the hosing. You will need a length of hosing that reaches comfortably from inside the aquarium to the filter canister.

**Important:** Hosing should follow a straight path from the filter to the aquarium rim, with some slack, but no loops. If the hosing is too long, the filter will not work efficiently.

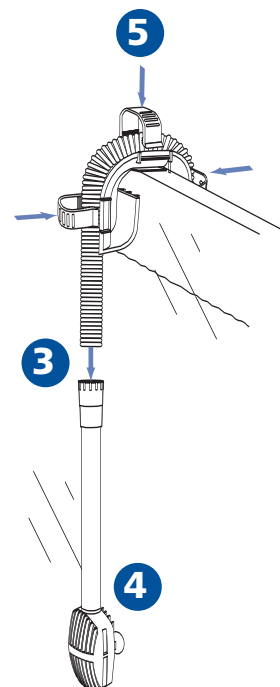
- Place the valve end of the hosing at the approximate spot where it will be positioned on the filter lid (once the filter is installed).
- Stretch out the hosing so it rests over the "intake" rim bracket.
- At a spot at least 6 in. (15cm) beyond the aquarium rim, use a utility knife to cut the hosing. **Do not cut it too short.** Remember, you can always cut it shorter during final installation, if necessary.



### 3. Push the cut end of this "intake" hosing into the rubber connector on the intake tube. Push the hosing in by at least 1 in. (2.5cm) without twisting it.

### 4. Place the intake strainer in the tank, making sure it is at least 3 in. (7.5 cm) from the bottom. (If the tube is too long for the height of your aquarium, remove the strainer, cut the intake tube with a hacksaw, and then replace the strainer.) Once the intake strainer is properly positioned, lock it in place by pressing the suction cups against the glass.

### 5. Fasten the intake strainer's hosing onto the rim connector using the three rim connector clips.



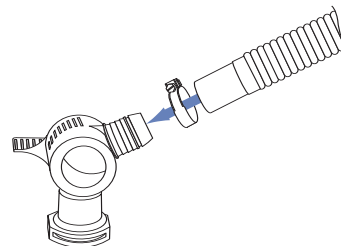
# INSTALLATION AND USE

## 4. Prepare output connections

### 1. Connect the hosing to the second valve

(just as for the intake hosing):

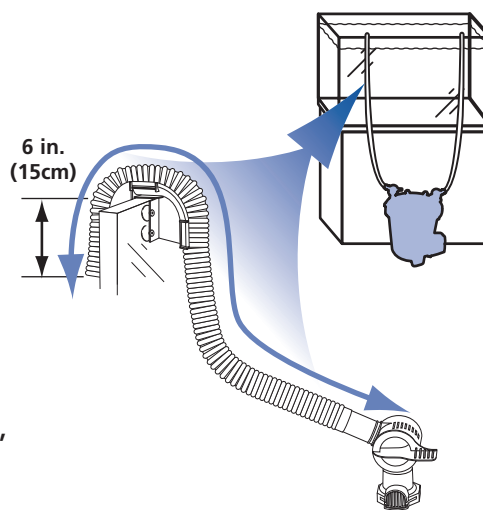
- Loosen the second metal clamp, and slide it onto the factory-finished end of the hosing (not the cut end).
- Push the end of the hosing onto the valve; push it all the way, as far as it will go.
- Position the metal clamp over the rubber connector, and tighten.



### 2. Measure and cut the hosing. Again, you will need a length of hosing that reaches comfortably from inside the aquarium to the filter canister.

**Reminder:** Hosing should follow a straight path from the filter to the aquarium rim, with some slack, but no loops. If the hose is too long, the filter will not work efficiently.

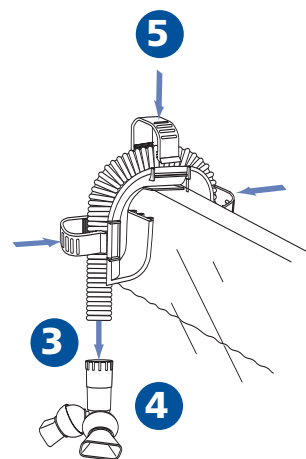
- Place the valve end of the hosing at the approximate spot where it will be positioned on the filter lid (once the filter is installed).
- Stretch out the hosing so it rests over the “output” rim bracket.
- At a spot at least 6 in. (15 cm) beyond the aquarium rim, use a utility knife to cut the hosing. **Do not cut it too short.** Remember, you can always cut it shorter during final installation, if necessary



### 3. Push the cut end of this “output” hosing into the rubber connector of the output nozzle. Push the hosing in by at least 1 in. (2.5cm) without twisting it.

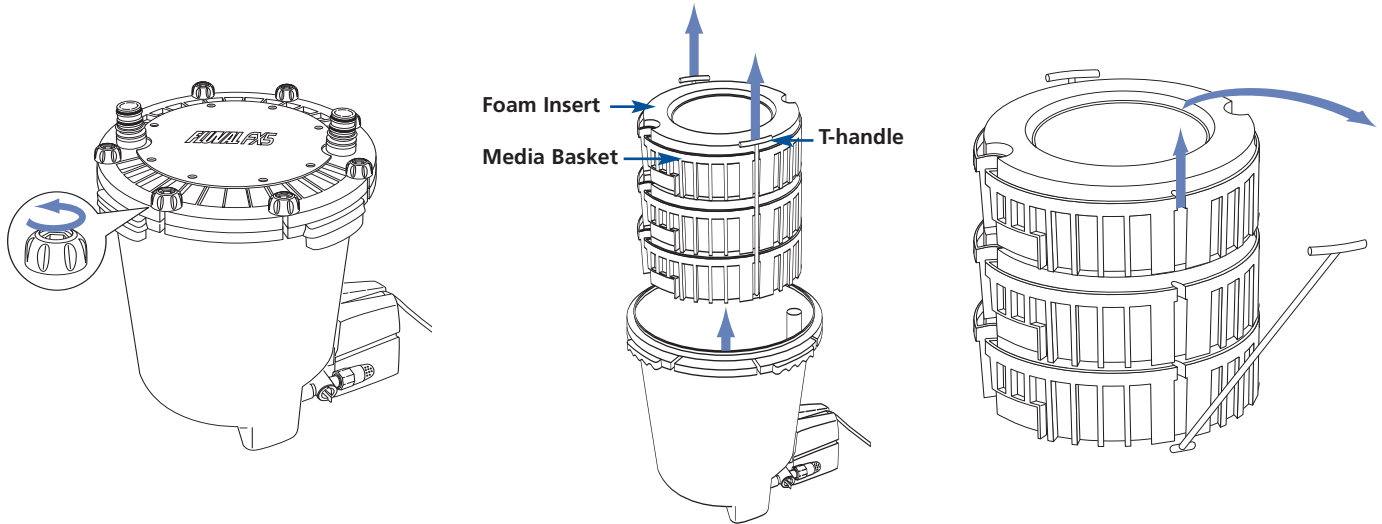
### 4. Place the nozzle in the tank about 1 in. (2.5cm) below the water line.

### 5. Fasten the hosing to the “output” bracket using the three rim connector clips.

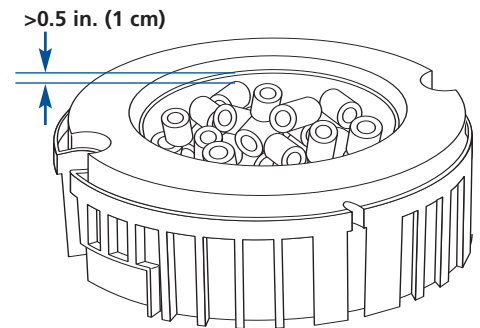


## 5. Prepare the Filter

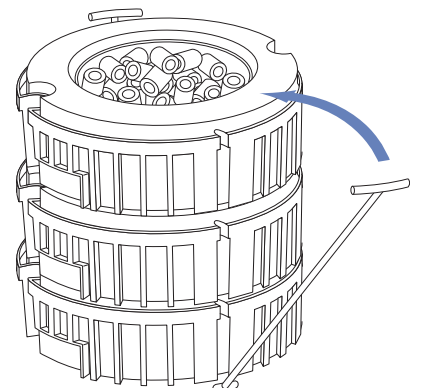
1. Loosen and disengage the eight lid fasteners.
2. Remove the filter lid and set it aside. Be careful not to damage the inlet stem connected to the lid.
3. Using the orange T-handles, lift the three media baskets from the filter canister. The T-handles will fall outward so the baskets can be handled separately.



4. Rinse the media baskets and foam inserts under running tap water to remove any dust particles.
5. Replace the foam inserts, and fill the center of each basket with filtering media (*Media not included. See "About Media" for detailed descriptions of all media available from Fluval*). Leave at least 0.5 in. (1cm) free space on top of the media, so the baskets will fit together properly.



6. Stack the baskets, carefully aligning them, so that all shapes match. Reinsert the T-handles into their vertical slots, and replace the baskets in the filter canister. The foam in the upper basket should be just about even with the top edge of the canister (*the output tube, which is affixed to the inside of the canister, will be protruding slightly*).



## INSTALLATION AND USE

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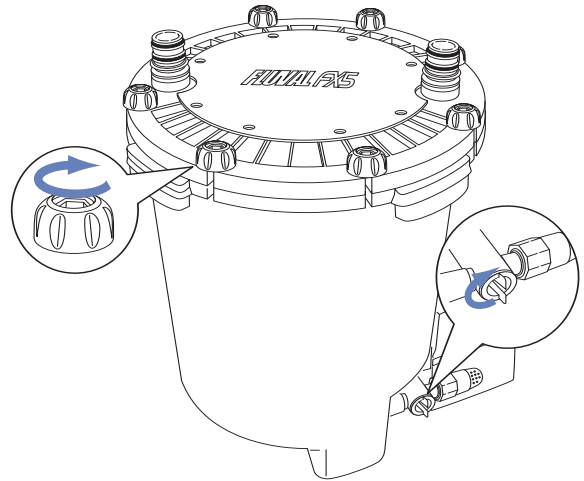
7. Move the filter canister to its final position.
8. Be certain the purge valve is in the vertical (closed) position.
9. Pour about 2 gallons (8 liters) of water into the filter canister.

**IMPORTANT:** Correct water volume is necessary for system priming.

10. Place the filter lid back on the canister. Check to make sure the filter lid seal ring is present and installed properly on the canister lid. There is only one orientation possible. Gently press the lid down until the output tube is firmly seated in the OUT connection on the filter lid.

**Important:** If the inlet tube attached to the canister lid has slipped out of its seat, be sure to fully re-insert it under the IN connection of the lid.

11. Replace and hand-tighten the eight lid fasteners. The lid is properly closed when it is in direct contact with the canister. **DO NOT USE ANY TOOLS, AS DOING SO MAY DAMAGE THE UNIT.**



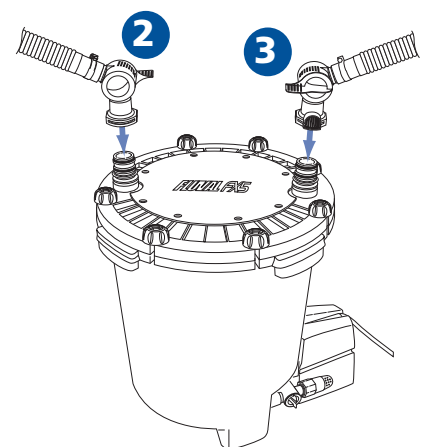
## 6. Install the filter

1. Once the filter unit is in its final position, make sure that the aquarium has the appropriate amount of water.

### Important Reminders:

- The filter lid must be at least 7.8 in. (20 cm) below your aquarium's water level but **never more than 4.9 ft. (150 cm)**.
- The hosing supplied with the unit is 9.8 ft. (3m) long. **If longer hosing is required, intake hosing must not exceed 9.8 ft. (3m) and the total length of intake and outlet hosing combined must not exceed 16.4 ft. (5m)**.
- Hosing must follow a straight path from the filter to the aquarium rim, with **some slack, but no loops**.
- For the self priming feature to work properly the water level **cannot be more than 7.8 in. (20 cm)** below your aquarium rim.
- **NEVER install the filter above the water level.**
- For best performance, the filter should be completely beneath the aquarium.
- Position purge valve so that you will be able to attach a hose without moving the unit.
- **Important:** Check to be sure that the hosing follows a straight path from the aquarium rim to the filter. Leave some slack, but no loops. **If the hosing is too long, the filter will not work efficiently.**
- Assure the lid seal ring is already installed on the filter canister lid.

2. Grasp the intake valve (*which is at the end of the hosing attached to the intake tube*); slide it onto the IN connection on the filter lid, and press until it clicks into place.
3. Grasp the output valve (*which is at the end of the hosing attached to the output nozzle*); slide it onto the OUT connection on the filter lid, and press until it clicks into place.
4. Be certain both valves are locked in place and that the valve levers are in the open (vertical) position before proceeding.



# INSTALLATION AND USE

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## 7. Start the Filter

### 1. Check your installation.

**Before turning the filter on, be sure that:**

- a. The purge valve is in the closed (vertical) position, and its rubber cap is secured in place by the lock nut.
- b. All top lid fasteners are well tightened.
- c. The IN and OUT valves are fully open (valve levers should be vertical).
- d. The intake strainer is fully submersed in water.
- e. There are 2 gallons (8 liters) of water in the canister.

**VERY IMPORTANT:** You need to know that as soon as the unit is plugged in, it will start, and will immediately go through its automatic priming sequence.

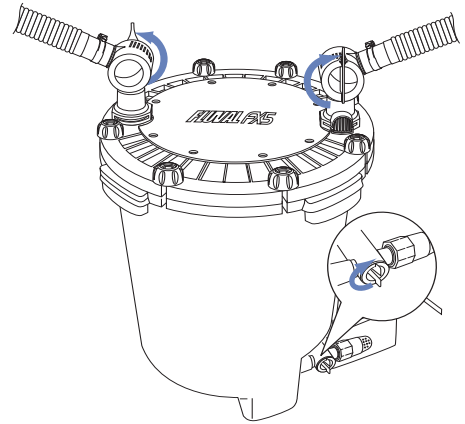
### 2. Plug the unit into an electrical outlet.

The electronic automatic priming sequence will begin. This is what will happen:

- a. The pump will run for 2 minutes to fill the filter canister with aquarium water.
- b. The pump will stop for 2 minutes to evacuate air from the filter canister.
- c. The pump will start again; it will remain on and will run continuously until it is unplugged.

**This sequence will repeat itself** every time the unit is unplugged and plugged back in.

**Approximately every 24 hours:** The pump will stop for 2 minutes to evacuate any air that may have become trapped inside the unit.





# FLUVAL ADVANCED FILTRATION

There are three basic types of filtration. Mechanical filter media removes waste particles and solid debris through mechanical strainers. Biological filter media breaks down and eliminates organic toxins—ammonia and nitrite—through bacterial action. And chemical filter media actively changes water characteristics through deliberately managed chemical reactions.

Fluval offers a wide variety of filter media materials. Some perform more than one job. This is the true power of the Fluval system—the broad range of media available for use in its baskets. These extensive choices give you maximum flexibility in designing the aquatic environment just right for your aquarium.

## The Fluval Stack of Media Baskets

The stack of three large-capacity media baskets in the Fluval FX5 Filter enables you to employ all three types of filtration, in whatever configuration or sequence you determine. Filtration always begins with a mechanical stage of waste particle removal as water is drawn through the foam that lines the perimeter of each basket. It continues as water is pumped down through the media in the three baskets. In all, the media baskets will hold a total of 1.5 gallons (5.9 liters) of media.

Because you can place one, two, or even three different kinds of media in each basket, you will be able to design a system that provides additional mechanical filtration, as well as biological and chemical filtration in the widest possible variety of combinations. This section contains detailed information, as well as general guidelines, about media selection and use.

### 1 Top Media Basket

**Pre-Filter**, **Carbon**, and **Zeo-Carb** are all options for screening small particles from the water. Pre-Filter is inert, acting solely to create a screen. Carbon removes dyes, medications, and solubilized wastes that a simple screen cannot. Zeo-Carb removes ammonia; it is often used in beginning setups to keep initial ammonia spikes lower than would occur naturally.

### 2 Middle Media Basket

The middle media basket is useful for chemically modifying water. **Peat Granules**, for example, will gradually lower the water's pH level.

The middle chamber is a good place to begin the biological reduction process as well. Many media types provide both mechanical filtering and biological treatment, creating an excellent environment for beneficial bacteria to proliferate. Even many chemical compounds will support colonies of bacteria. With the primary mechanical purification of the water stream occurring in the foam inserts, it

is typical to load additional biological media into the middle media basket. **BioMax** and extra **Carbon** or **Ammonia Remover** are commonly used. This is also the place where more exotic media, chosen for a specific application, can be used.

### 3 Bottom Media Basket

This basket receives the purest water stream, making it the proper place for dedicated biological media. Placed here, **BioMax**, for example, provides optimal biological power in a very compact ring. With a multitude of pores perforating both the surface and the internal matrix, it is an ideal substrate for this position. To capture

any small particles remaining in the water before it reaches this final stage of filtration, consider layering a **Polishing Pad**, a fine mechanical filter, on top of any biological or chemical media placed in the bottom basket. This will prevent the clogging of the delicate pores of the media used here, enhancing its useful life.

To be effective, media must be cleaned or replaced regularly. Check media monthly, and change when necessary. **However, never change all media at the same time, or valuable bacterial colonies will be lost.**



# FLUVAL FILTER MEDIA

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## **Foam Inserts** (All Baskets) A-228 (3-pk.)

Fluval Foam Inserts capture large particles for effective mechanical filtration, the crucial first stage in the filtration process. Custom fit to prevent bypass, they have a pore size that allows efficient water flow with less clogging for long-lasting filtration. These inserts also enhance biological filtration.

**For freshwater and marine environments.**



## **Ammonia Remover** (Top or Middle Media Baskets) A-1480 (3-pk., 180g ea.) A-1485 (700g) A-1486 (1600g) A-1487 (2800g)

Fluval 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 product to provide a healthy environment when setting up a new aquarium or maintaining one that contains a higher than average fish stock. Ammonia Remover gradually becomes inactive. Replace regularly, at least once a month.

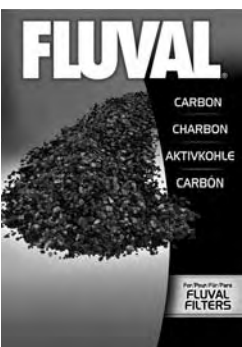
**For freshwater use only.**



## **BioMax** (Middle or Bottom Media Baskets) A-1456 (500g) A-1457 (1100g)

Fluval BioMax ceramic rings have a complex pore system where beneficial bacteria can thrive. With more capacity than most biological filter media, BioMax helps reduce ammonia and nitrite. Plus, the rings allow ideal water movement throughout the media, to ensure optimal contact time for efficient biological filtration. Replace BioMax every 3 months. **IMPORTANT:** Replenish only half at one time to allow proper seeding from older media to new.

**For freshwater and marine environments.**



## **Carbon** (Top or Middle Media Baskets) A-1440 (3-pk., 100g ea.) A-1445 (375g) A-1447 (900g) A-1448 (1650g)

Fluval Carbon—a premium, research grade, low-ash carbon—improves water clarity and color, while also removing odors. Highly porous, it provides large amounts of surface area for adsorption of impurities. It effectively removes heavy metals, odors, discolorations, organic contaminants, and pollutants to leave your aquarium water crystal clear and sparkling. This product does not release phosphates. Carbon loses its activity without outward sign. Replace monthly to ensure that active adsorption is maintained. Carbon should always be removed when medication is being administered in aquarium water. Also, because carbon will adsorb a large percentage of the nutrients in plant fertilizer products, it should be used carefully when keeping live plants.

**For freshwater and marine environments.**



**Peat Granules** (Middle Media Basket)  
A-1465 (600g)

Fluval Peat Granules are the all-natural way to soften aquarium water and achieve the pH levels required for breeding and rearing certain tropical fish. Peat contains humic acid, tanning agents, and trace elements that are essential for various life processes. Highly concentrated for maximum effectiveness, this product is recommended for fish that prefer soft, acidic water.

**For freshwater use only.**



**Polishing Pad** (Top or Middle Media Baskets)  
A-246 Water Polishing Pad  
A-248 Fine Filter Pad

Fluval Water Polishing Pads are uniquely designed to fit Fluval canister filters. These extra thick micro-fine polyester pads capture micro particles as the water passes through. Use Fluval Water Polishing Pads when cloudy water occurs or after tank maintenance for crystal clear aquarium water. Fluval Fine Filter Pads are uniquely designed to fit Fluval canister filters. These polyester pads capture small particles and help maintain crystal clear water. Use Fluval Fine Filter pads after using Fluval Polishing Pads to maintain water clarity.

**For freshwater and marine environments.**



**Pre-Filter** (Top or Middle Media Baskets)  
A-1470 (750g)

Fluval Pre-Filter consists of chemically inert ceramic rings designed to capture larger solids. Trapping these particles before they can move further through the system, Pre-Filter prevents the clogging of active media that will filter the same water in subsequent stages. This extends the media, and reduces the need for frequent replacement. Pre-Filter is permanent, and requires only occasional rinsing.

**For freshwater and marine environments.**



**Zeo-Carb** (Top or Middle Media Baskets)  
A-1490 (3-pk, 150g ea.)  
A-1492 (1200g)  
A-1493 (2100g)

Fluval Zeo-Carb is a premium blend of Fluval Carbon and Fluval Ammonia Remover. Working together, these highly effective media eliminate liquefied impurities, odors, and discoloration, while, at the same time, removing toxic ammonia, for a clean, healthy aquarium. Combining two products into one gives you more space in your filter system for other types of media. Replace once a month, more often if aquarium is heavily populated. Remove when medication is being administered in aquarium water. Use carefully when keeping live plants.

**For freshwater use only.**

# FLUVAL LAB SERIES MEDIA

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**Opti-Carb** (Middle or Bottom Media Baskets)  
A-1504 (175g)

Hi-Capacity Ion Exchange Media. Opti-Carb's mixture of ion-exchange and synthetic organic removal resins, and research grade carbon combine to create a powerful adsorbent water polishing media. Rapid reduction of dissolved organic matter, removal of proteins before they break down into toxic compounds, elimination of odors and discolorations can all be accomplished with Opti-Carb resulting in sparkling clear aquarium water. Use as everyday filter media or for removal of specific toxic metals and organic compounds.

Does not affect pH, KH and general hardness. Treats up to 189 L (50 US Gal.). For larger tanks use multiple bags.

**Formulated for reef aquariums, freshwater or marine environments.**



**Phosphate Remover** (Middle or Bottom Media Baskets)  
A-1500 (150g)

Fluval Lab Series Phosphate Remover rapidly adsorbs large quantities of Phosphate, silicate and dissolved organics without leaching adsorbed substances. Maintaining low levels of phosphate will result in cleaner, healthier aquarium water while allowing corals to efficiently absorb the calcium they require to grow and reproduce. Phosphate Remover contains ferric oxide, an iron-based phosphate binder ideal for use in aquarium filters.

150g removes up to 20 mg/L PPM of phosphate in a 50 U.S. Gal. (189 L) aquarium. Will not affect pH or hardness.

**For freshwater and marine environments.**



**Nitrate Remover** (Middle or Bottom Media Baskets)  
A-1502 (150g)

Fluval Lab Series Nitrate Remover is a high capacity laboratory developed ion exchange resin. Developed from a pure high grade strong base anion exchange resin, Nitrate Remover rapidly and selectively removes nitrate and eliminates toxic nitrite in a matter of hours, resulting in a healthy environment for your fish.

- Safe for fish, plants and invertebrates
- Will not affect pH or hardness
- Does not contain phosphates

Resin can be recharged several times. Removes up to 25 mg/L (ppm) of nitrate in a 50 U.S. Gal. (189 L) aquarium.

**For freshwater use only.**

# MAINTENANCE PURGE VALVE DRAINING

**WARNING: ALWAYS DISCONNECT ALL APPLIANCES IN THE AQUARIUM FROM ELECTRICITY 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.**

Filter media must be periodically replaced or cleaned in accordance with instructions on individual packages. Prior to periodic media care the FX5 filter canister must be drained.

The FX5 filter offers you two methods to drain the canister:

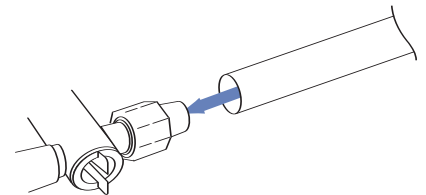
- Option 1: Purge Valve Draining
- Option 2: Filter Pump Draining

## Purge Valve Draining

To use the purge valve to drain the water from the filter canister you will need a 5/8" (1.58cm) flexible drain hose (not supplied) that is long enough to reach from the canister to a drain or basin. Fluval ribbed hosing item number A-20015 (sold separately) is recommended as it will secure tightly to the purge valve using the lock nut connector.

1. Unplug the pump from the electrical power supply.
2. Turn the IN and OUT valves to the closed (horizontal) position.
3. Be certain the Purge valve is in the closed (vertical) position; turn the lock nut clockwise to loosen it, then remove the rubber drain cap.

4. Attach one end of a flexible 5/8 in. (1.58cm) diameter hose (not supplied) to the Purge valve, and position the other end in an appropriate basin or discharge drain. Be sure the hose is secured to the purge valve. If not using the Fluval ribbed hosing it may be necessary to use a clamp to secure the hose in place.



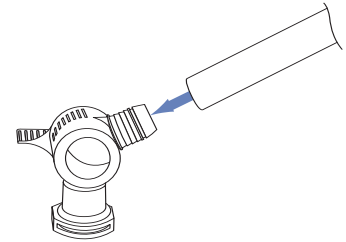
5. First, turn the Purge valve to the open (horizontal) position by turning it counter-clockwise. Then disconnect the IN valve: press its release button, and lift it from the filter lid. It is a good idea to have a cloth handy as some water will escape when removing the AquaStop Valve.
6. Water will immediately begin to drain from the canister. Since this is a gravity fed method, water will stop draining once the water level in the canister and drain bucket equalize. Once this happens simply close the valve and empty the bucket. Repeat the draining process until enough water is removed to make the canister light enough to carry to your work area.
7. Once a sufficient amount of water has been removed, close the purge valve and disconnect the drain hose. Replace the rubber drain cap and secure with the locknut, turn the locknut counter clockwise to secure the drain cap in place. Disconnect the OUT valve and move to an appropriate work area.

# MAINTENANCE FILTER PUMP DRAINING

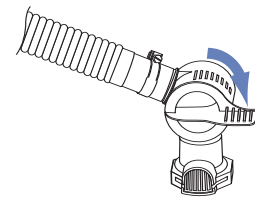
## Filter Pump Draining

To use the filter pump to drain the water from the filter canister you will need to prepare a drainage hose using the third Aquastop Valve (drainage hose and clamp not included).

1. To prepare the drainage hose attach the third Aquastop Valve to a 1" (2.5cm) diameter hose securing it to the valve with a hose clamp. Follow the instructions in the "Installation and Use" section Prepare intake connections Step 1.



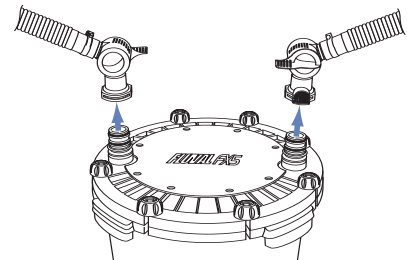
2. Turn the IN and OUT valves to the closed (horizontal) position.



3. Unplug the pump from the electrical power supply.

**Note:** It is a good idea to have a cloth handy as some water will escape when removing the AquaStop Valve.

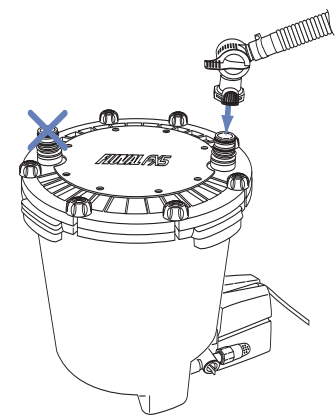
4. Disconnect both the Intake and Output Aquastop valves from the canister.



5. Attach the third Aqua-Stop valve with attached drainage hose (prepared in Step 1 above) to the OUT connection on the canister. **WARNING:** Be sure the Drainage Hose and AquaStop Valve is connected to the OUT connection.

6. Position the hose opening in an appropriate drain basin.

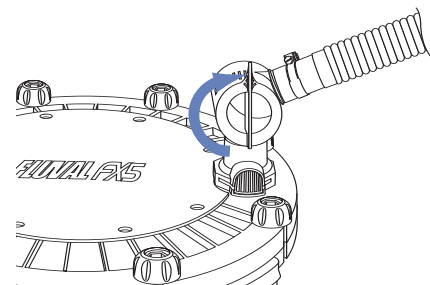
7. Plug the power cord into an electrical outlet.



8. Open the Aquastop to the open vertical position. Let the filter pump run until all the water is drained from the canister.

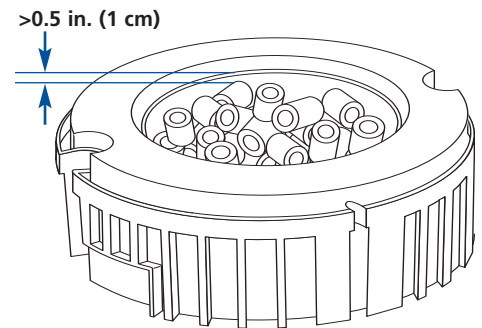
9. Once the filter is drained unplug the unit.

10. Disconnect the drainage Aquastop Valve and move canister to appropriate work area.



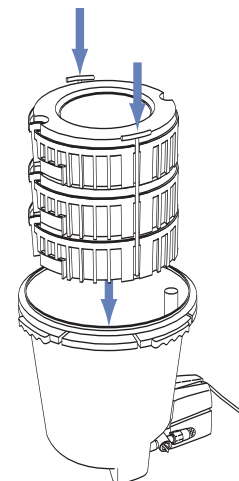
## Cleaning or Replacing Media

1. Move the filter to an appropriate area convenient for maintenance.
2. Loosen and remove the eight lid fasteners; remove the filter lid and set aside. Be careful not to damage the inlet stem connected to the lid.
3. Using the orange T-handles, lift the three media baskets from the filter canister; let the T-handles fall out of their slots, and separate the baskets.
4. Remove all foam inserts from the media baskets, rinse using aquarium or de-chlorinated tap water, or replace with new foam, as required.
5. Replace chemical media, as needed. Chemical media cannot be cleaned.
6. Rinse biological media with aquarium water, or replace, as required.
7. Empty and rinse the filter canister. **NEVER** use soap or detergents when cleaning the canister or rinsing the baskets, as remaining traces of cleaning products may damage sensitive fish tissue.
8. Replace foam inserts and filter media in the appropriate areas of the baskets. Arrange foam inserts carefully, being certain that each piece covers the entire half-circle of the basket from bottom to top. Be sure to leave at least 0.5 in. (1cm) of free space on the top of filter media so that baskets will stack properly.



## Reassemble Unit

1. Stack the baskets, aligning them so all shapes match. Reinsert the T-handles into their vertical slots, and replace the baskets in the filter canister. Foam in upper basket should be just about even with the top edge of the canister.



# MAINTENANCE MEDIA CARE/PURGE VALVE

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## 2. Replace Filter Lid.

a. **Inspect the Lid Gasket for wear and tear.**

b. **Place filter lid back on canister.** There is only one orientation possible. Gently press the lid down until the output tube, affixed to the inside of the filter canister, is firmly seated in the output (OUT) valve lid opening.

**Important:** If the inlet tube attached to the canister lid has slipped out of its seat, be sure to fully re-insert it under the IN connection of the lid.

3. **Replace and hand-tighten the eight lid fasteners.** The lid is properly closed when it is in direct contact with the canister. **DO NOT USE ANY TOOLS, AS DOING SO MAY DAMAGE THE UNIT.**

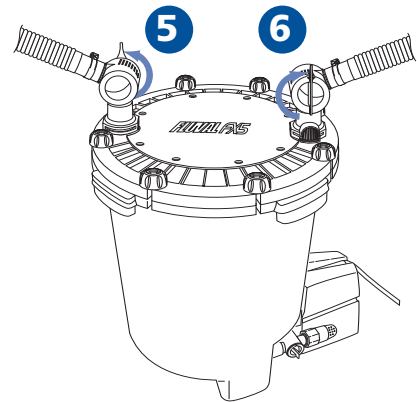
4. **Place the IN and OUT valves back on the lid connectors and press firmly until they click into place.** Be sure the IN valve is connected to the hose attached to the intake strainer, and the OUT valve is connected to the hose attached to the output nozzle.

5. **First, open the IN valve (turn to vertical position).**

6. **With the IN valve already open, open the OUT valve.** Do not change this sequence, or the canister will not refill properly. If the canister is no longer primed, you will need to remove the lid, pour about 8 liters (2 gallons) of water into the canister, and replace the lid. (See "Prepare the Filter" Step #7)

7. **You will be able to hear water filling the canister.**

Meanwhile, air will be forced through the output nozzle, causing bubbling and agitation in the aquarium. Once the bubbling in the aquarium stops, plug the power cord back in. The pump will resume its normal stop/start sequence as described in "Start the Filter."



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## Purge Valve

Larger, heavier particles of aquarium debris will collect in the bottom of the canister, outside the bottom media basket. The Purge Valve at the base of the unit allows for partial discharge of this heavy debris. There is no need to open the filter lid or disconnect the hosing.

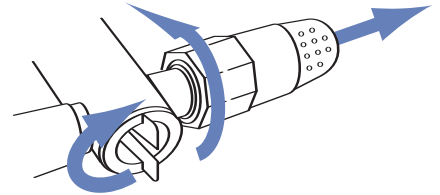
1. **Unplug the pump from the electrical power supply.**

2. **Turn the IN and OUT valves to the closed (horizontal) position.**

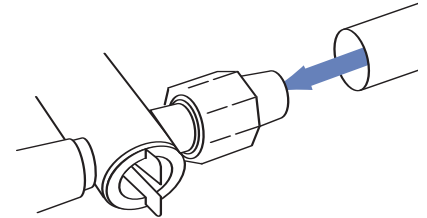


## MAINTENANCE MEDIA CARE/PURGE VALVE

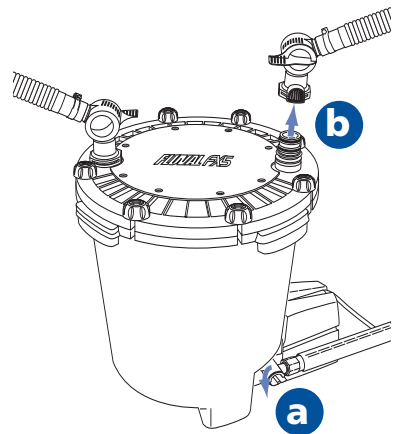
3. Be certain the Purge valve is in the closed (vertical) position; turn the lock nut clockwise to loosen it; then remove the rubber drain cap.



4. Attach one end of a flexible 5/8 in.(1.58cm) diameter hose (not supplied) to the Purge valve, and position the other end in an appropriate basin or discharge drain. If not using the Fluval ribbed hosing it may be necessary to use a clamp to secure the hose in place.



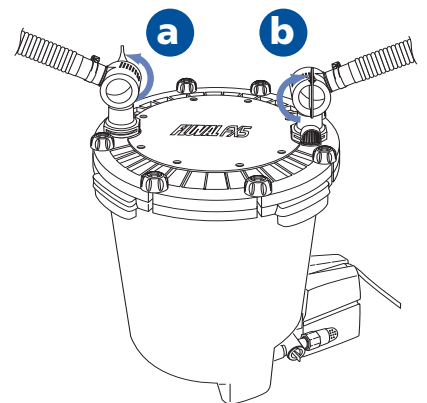
5. a. First, turn the Purge valve to the open (horizontal) position (rotate it counter-clockwise).  
b. Then disconnect the OUT valve: press its release button, and lift it from the filter lid.



6. Water will immediately begin to drain from the canister.
7. When water stops draining turn the IN valve to the open (vertical) position for a few seconds, then close it quickly by turning it to the closed (horizontal) position. Repeat this sequence two or three times to create a "tide" effect that will force much of the debris at the bottom of the filter canister out into the basin or discharge drain.
8. When the purge cleaning is complete turn the IN valve to the closed (horizontal) position. Then close the Purge Valve by turning it to the vertical position. Remove the drain hose; replace the rubber drain cap, and secure it by turning the lock nut clockwise.

9. Replace the OUT valve back in the OUT connection on the filter lid, and press gently until it clicks into place.

10. a. Open the IN valve.  
b. Then open the OUT valve. Do not change this sequence. The filter should refill automatically. If it does not, fill with 8 liters of water (as in "Set Up the Filter, Step #7).



11. Once the water level is restored, plug the unit back in. The filter will go through its normal start up sequence.

# MAINTENANCE PUMP CARE

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## Pump Care: Impeller Magnet Replacement

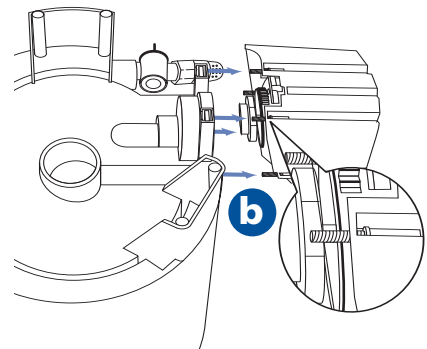
**WARNING: ALWAYS DISCONNECT ALL APPLIANCES IN THE AQUARIUM FROM ELECTRICITY SUPPLY BEFORE PLACING HANDS IN THE WATER, BEFORE PUTTING ON OR TAKING OFF PARTS, AND WHENEVER THE FILTER EQUIPMENT IS BEING INSTALLED, MAINTAINED OR HANDLED.**

Prior to performing pump care the FX 5 filter must be completely emptied of water, media baskets, and media.

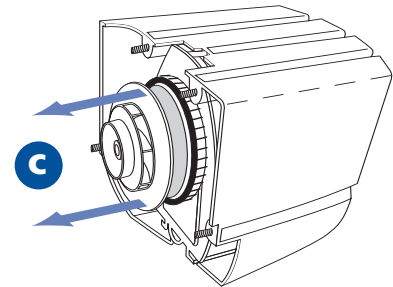
1. Empty the filter canister by following the steps outlined in the Media Care Section. Move unit to appropriate work space.
  2. Remove all media and media baskets from the filter canister. Empty the canister completely in a sink or basin.
- 

3. To Remove the pump unit:

- a. Place the filter unit upside down on a secure work area so that the pump screws and screw seats are visible. Remember that the output tube protrudes slightly from the top rim of the canister. Be sure not to bend or damage the tube while it is upside down.
- b. Unscrew the 4 fixing screws using a Phillips screw-driver (cross headed). Screws are located at one end of the slits around the pump.
- c. Remove the impeller assembly by grasping its flange.

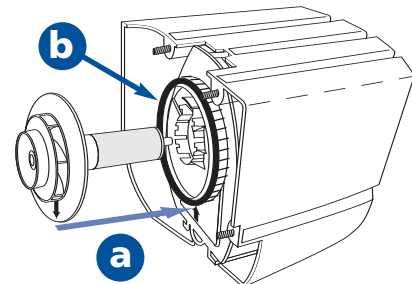


4. Clean the impeller and the impeller well thoroughly by rinsing with clear running water.



5. Reassemble all pump components with care:

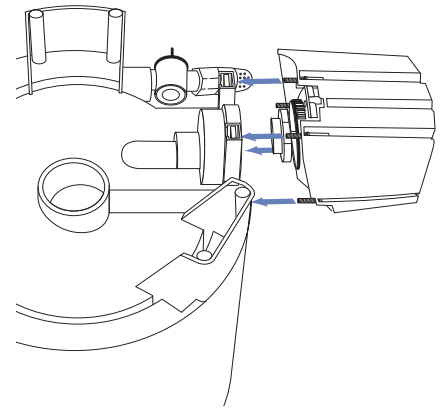
- a. Align the two arrows on the impeller assembly. Before inserting the impeller, gently press the magnet against the flange to be sure that the flange bushing is fully in its seat.
- b. Replace seal ring.



6. Re-attach the pump unit to the canister using the 4 fixing screws with a Phillips screw-driver (cross headed). While re-assembling the pump, the 4 fixing screws should be gently screwed until pump motor cover and canister are securely attached. **Note:** Do not over tighten housing to canister.

**IMPORTANT:** Be sure that impeller bearing (bushing and O-Ring) is correctly placed at the bottom of the impeller well. Though the bushing is made of very resistant material, it is prone to wearing in certain conditions. For this reason, it is recommended that you replace it whenever the impeller unit is replaced. Follow the instructions provided with the replacement parts package.

**IMPORTANT:** Be sure that the seal ring does not slip between the impeller flange and the motor and that the impeller bearing (bushing and O-Ring) is correctly placed at the bottom of the impeller well.

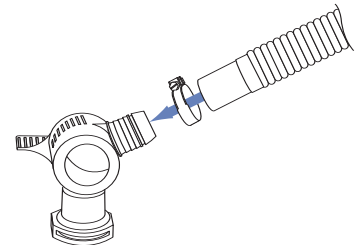


7. Reassemble, reconnect, and restart the unit.

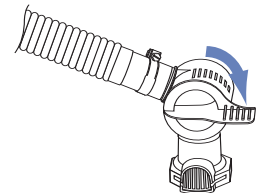
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### Changing Aquarium Water

1. Prepare drainage hose. Attach the third AquaStop valve to a 1 in. (2.5cm) diameter hose (not supplied). Follow the instructions in "Installation and Use/Prepare intake connections," Step 1.



2. Turn the in and out valves to the closed (horizontal) position.
3. Unplug the pump from the electrical power supply.

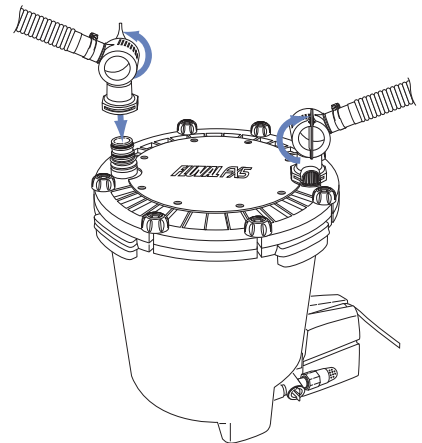
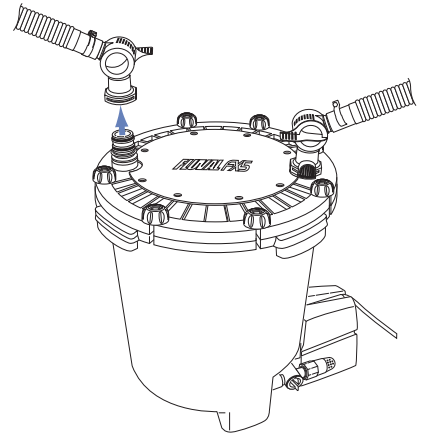


**Note:** It is a good idea to have a cloth handy as some water will escape when removing the AquaStop Valve.

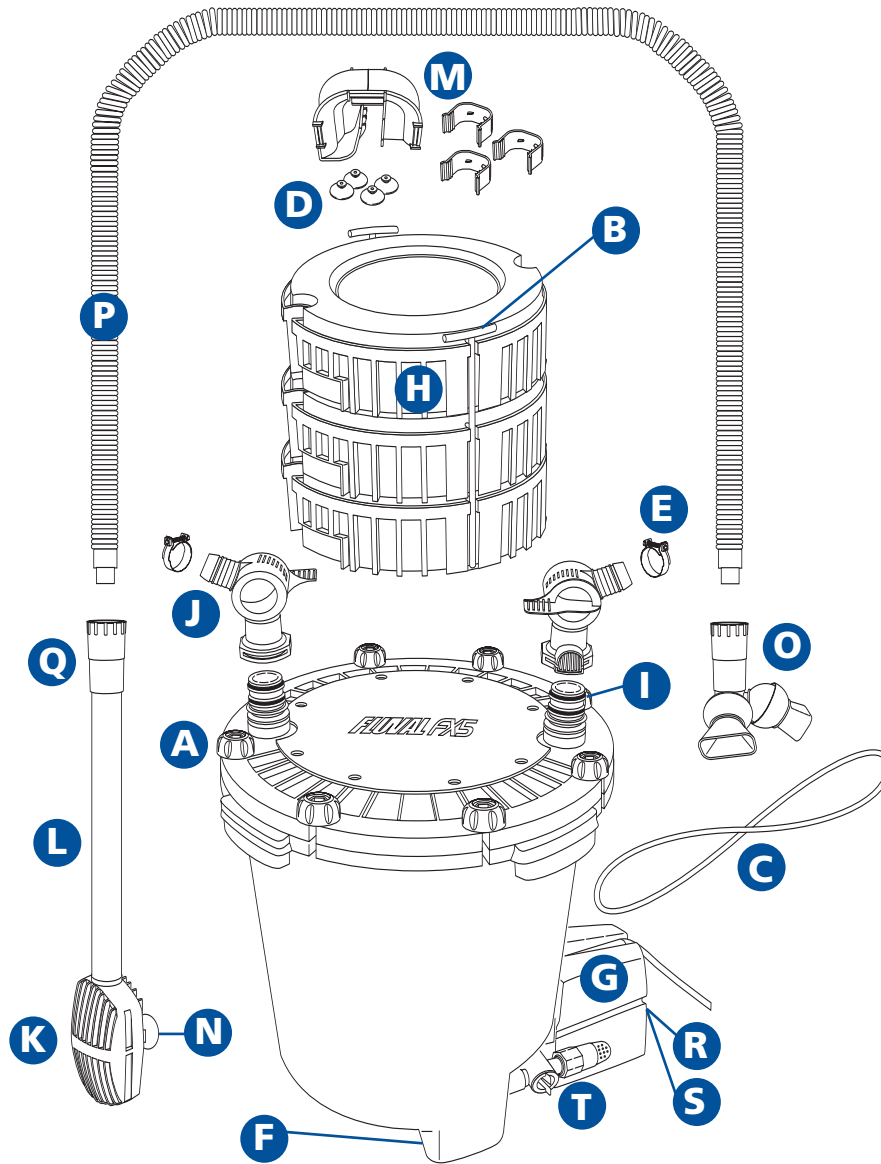
## CHANGING AQUARIUM WATER

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4. Disconnect the AquaStop valve and output hosing from OUT connection on the canister lid. Then connect the third AquaStop valve and drainage hose (prepared in Step 1 above) in the OUT connection.
5. Position the open end of the drainage hose in an appropriate drain.
6. Turn the IN and OUT valves to the open (vertical) position.
7. With both valves open, plug the power cord into an electrical outlet. Let the pump run until the desired amount of water has been drained from the aquarium.
8. Close the IN valve and unplug the unit.
9. Remove the drain valve from the OUT connection on the canister lid. **CAUTION:** the drain hosing may still have some water inside.
10. Replace the OUT valve back on the OUT lid connector.
11. Replace water.
12. Open the IN and OUT valves (valve levers should be vertical).
13. Plug the unit.



# REPLACEMENT PARTS



PART	QTY	NUMBER
<b>A.</b> Lid Fasteners	1	A-20214
<b>B.</b> T-bar Handle	1	A-20240
<b>C.</b> Filter Lid (O-ring)	1	A-20210
<b>D.</b> Rim connector Suction Cup d20	4	A-20232
<b>E.</b> Metal Clamp (for Hosing)	2	A-20234
<b>F.</b> Rubber Feet	4	A-20121
<b>G.</b> Motor Unit	1	A-20200
<b>H.</b> Media Basket	1	A-20238
<b>I.</b> Top Cover Click-fit O-ring	2	A-20212
<b>J.</b> AquaStop Valve	1	A-20216

PART	QTY	NUMBER
<b>K.</b> Intake Strainer	1	A-20220
<b>L.</b> Intake Stem	1	A-20224
<b>M.</b> Rim Connector & clips (3)	1	A-20230
<b>N.</b> Intake Strainer Suction Cup	2	A-15041
<b>O.</b> Output Nozzle	1	A-20226
<b>P.</b> Ribbed Hosing	1	A-20236
<b>Q.</b> Rubber Connector	2	A-20228
<b>R.</b> Magnetic Impeller Assembly	1	A-20205
<b>S.</b> Motor Seal Ring	1	A-20207
<b>T.</b> Purge Valve	1	A-20218

