

# Tetra EX 500 Plus Complete External Filter-Set Owner's Manual

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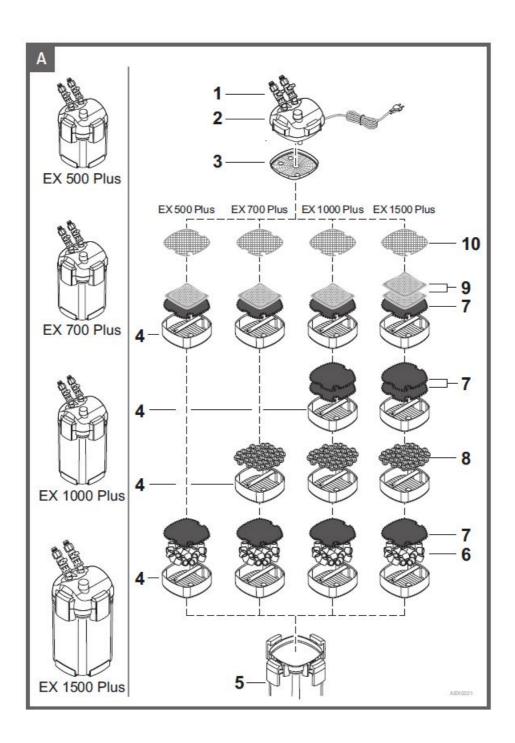
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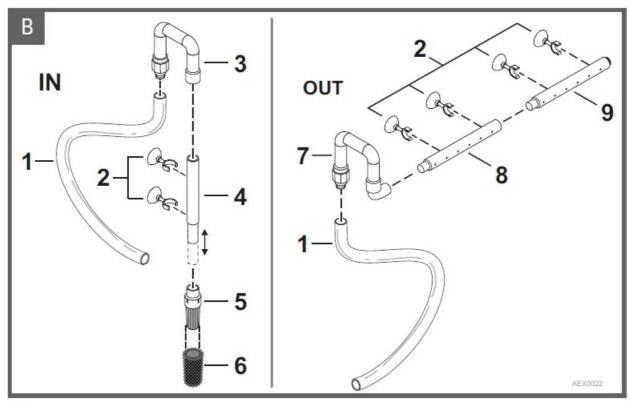


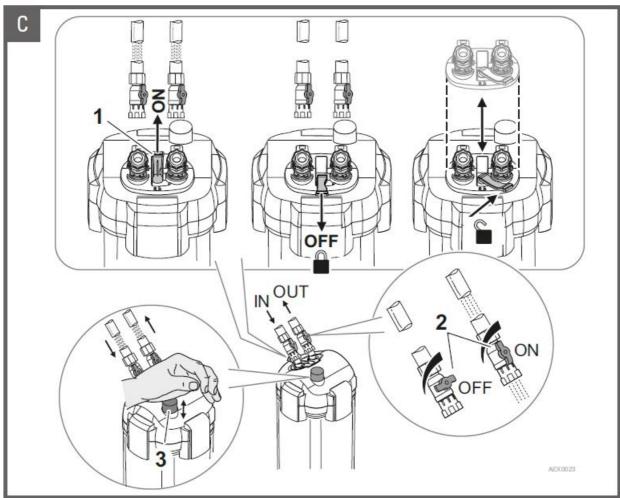
Tetra EX 500 Plus Complete External Filter-Set



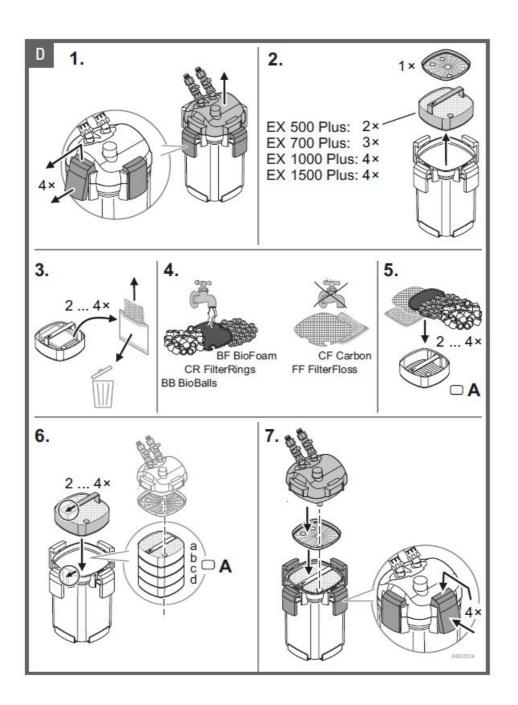
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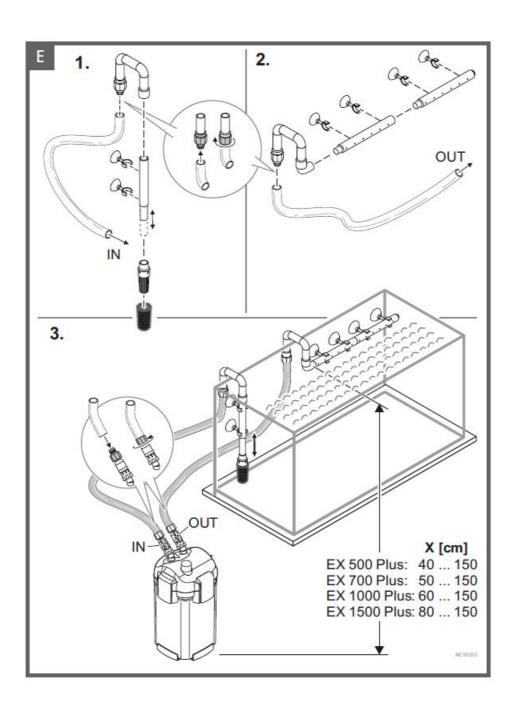


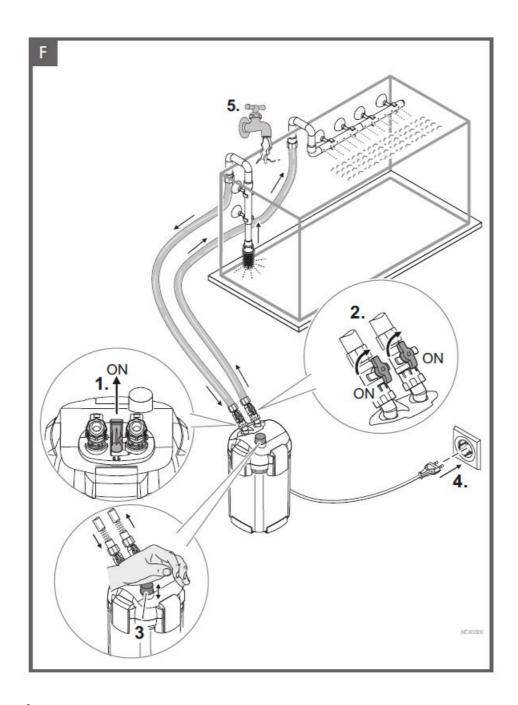




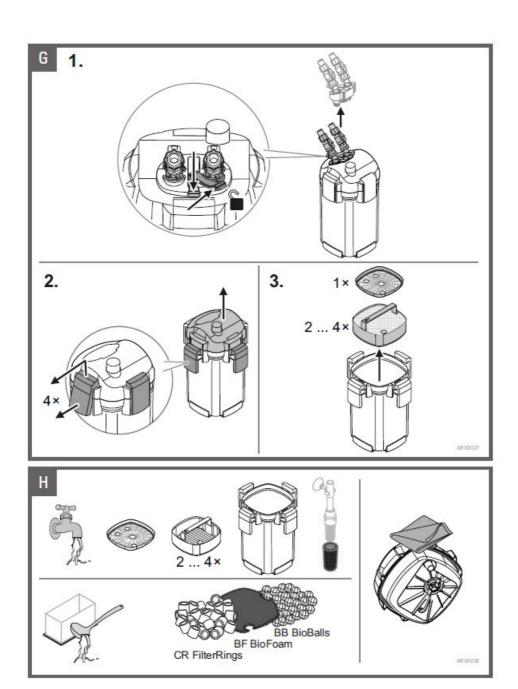
**How To Use** 

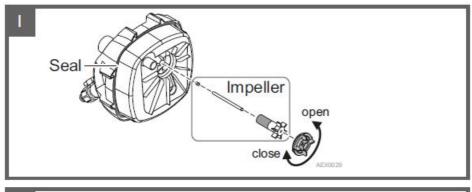


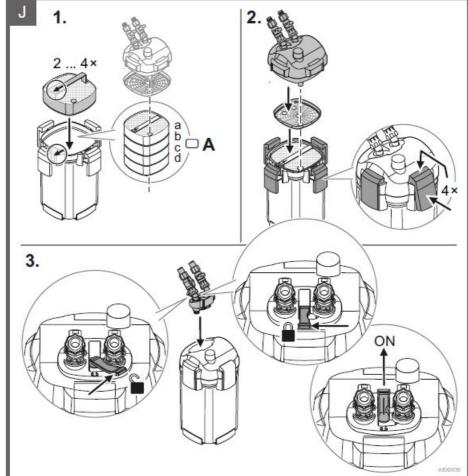




**Safety Instructions** 







# **WARNING:**

This device is suitable for use by children aged 8 and over as well as people with reduced physical, sensory or mental capacities or a lack of experience and knowledge if they are supervised or have been instructed how to safely use the device and understand the resultant risks. Children must not play with the device. Children must not conduct cleaning or user maintenance activities without supervision.

Thank you for choosing a quality product from Tetra. For further useful information and services in relation to your product and Tetra's fascinating underwater worlds, please visit our website: www.tetra.net.

# **ABOUT THIS MANUAL**

This manual contains information about the safe use of the Tetra Filter-Set EX 500 Plus, EX 700 Plus, EX 1000 Plus, and EX 1500 Plus.

Please read the manual prior to using the device. The manual goes with the device and must be stored for future reference.

# **SAFETY INSTRUCTIONS**

#### Prevention of electric shocks:

- Before connecting the device to the mains, check that the housing and connection cable are intact. Modifications are not permitted.
- Only connect the device to a professionally installed plug socket. The power plug must be freely accessible so that the device can be quickly disconnected from the mains in an emergency.
- Disconnect the plug from the mains immediately if parts of the housing or the connection cable are damaged.

# Prevention of personal injury:

- Do not allow children to play with the packaging materials. There is a risk of choking.
- Ensure the connection cable does not pose a trip hazard.

### Preventing material damage:

- The pump will be damaged if it is allowed to run dry, i.e. without water.
- Do not bend or crush the connection cable.
- Only use original spare parts and accessories.

### Warnings:

- Do not dispose of the device with household waste; send for recycling.
- Protection class II: Metal parts that can lead to voltage failure are insulated.
- Intended for indoor use only.

### PRODUCT BASICS

**Product description:** The Tetra EX Plus filter is a water filter for aquariums, which is installed outside the aquarium (external filter). The dirty aquarium water is conveyed through the filter via a hose/tube system, and once it has been cleaned it is conveyed back into the aquarium via a hose/tube system. The triple filtration (mechanical, biological, and chemical) produces crystal-clear, healthy water for your ornamental fish and aquatic plants.

**NOTE:** If you notice any residual moisture in the originally packed filter, it is not a defect but a sign of quality. Before delivery, each filter is checked to make sure that it works properly and is watertight.

### Intended use:

Only use the Tetra EX Plus filter

- to clean aquarium water (fresh and marine water),
- in indoor areas,
- for private and fishkeeping purposes,
- in line with the technical data.

### Filter elements

Fig. A	Description
1	Hose adapter  For maintenance purposes, the hoses can be conveniently disconnected from the filter head here w
	ithout draining the hose/ tube system.
2	Filter head with mains cable  Inside the filter head, there is a filter pump, which pumps water through the filter during operation.
3	Cover grid
4	Filter baskets with filter media
5	Filter housing

# Filter media

Fig. A	Description
	Tetra CR Filterrings (ceramic filter rings)
6	The filter rings retain larger particles and ensure an even flow within the filter housing by distributing the water in different directions.
	Tetra BF BioFoam (biological filter sponge)
7	The biological filter sponge retains medium-sized particles and encourages the settlement of beneficial bacterial cultures to biologically clean the water.
	Tetra BB BioBalls (biological filter balls)
8	Filter balls with a special macro-surface encourage the settlement of beneficial bacterial cultures in their interior, to biologically clean the water.
	Tetra CF Carbon (carbon filter medium)
9	The carbon filter granules in a mesh bag eliminate harmful organic substances, odors, and discolor ed water.
	Tetra FF FilterFloss (filter floss pad)
10	The filter floss pad retains the smallest particles that are let through by the other filter elements.

# **Tube system elements**

Fig. B	Description
1	Hose (2 pcs)
2	Attachment clip with suction cup (6 pcs)
3	U-piece inlet
4	Telescopic tube
5	Suction sieve
6	Foam pre-filter
7	U-piece outlet
8	Nozzle tube
9	Nozzle end tube (with sealing plug)

# **OPERATION**

**Switching on and off:** The device is switched on when the plug is inserted into a socket. It is switched off (no power) when the plug is pulled out.

# **Controls:**

Fig. C	Description
1	Shut-off lever  Position up: Shut-off valve open. Water circulation on.  Position down: Shut-off valve closed. Water circulation off. Position bottom right: The hose ada pter is unlocked and can be removed upwards.
2	Stopcocks  The flow rate can be adjusted using the IN stopcock (inlet). The OUT stopcock (outlet) should always be fully open when the filter is in use.
3	Start button  If there is no (or very little) water in the filter housing, the filter pump cannot generate a flow of wat er. If you press the start button several times, water is pumped into the filter housing and the filter is vented.

# PREPARE FOR OPERATION

The filter media supplied as standard are located in the filter baskets inside the filter housing. For some filter media, packaging foil must be removed before start-up and some filter media must be rinsed with tap water before use.

Procedure: → Fig. D

Please note when inserting the filter media into the filter baskets:

• The arrangement of the filter media within the filter baskets depends on the filter type (→ Fig. A).

- The filter media must not protrude beyond the edge of the filter baskets.
- The pipe segments in the filter baskets must not be covered, because the dirty water pipe is formed by the segments.

Note: when inserting the filter baskets into the filter housing:

- The order of the filter media inside the filter housing depends on the filter type (→ Fig. A).
- The arrows on the filter basket handle and on the filter housing rim must be aligned identically.
- The handles of the filter baskets must be pressed down after insertion.

### **ASSEMBLY AND SET-UP**

Procedure: → Fig. E Please note when installing the pipe system:

- The side of the aquarium must be clean so that the suction cups can be attached securely.
- There must be feed-through openings in the aquarium for the hoses.
- To prevent the filter from drawing up sand from the aquarium, there must be more than a 10 cm distance between the suction sieve and the sand.

Please note when positioning the device:

- For the filter to work properly, it must be placed at a certain distance X (→ Fig. E) below the water level in the
  aquarium.
- The hoses must not be overly twisted or bent, otherwise, the device may not work properly. Shorten the hose if necessary.
- There must be an accessible power socket nearby.

### **INITIAL USE**

# NOTE:

- The filter needs a run-in period of approx. 2 weeks. Do not introduce any fish or plants during this time!

  Tip: Tetra SafeStart (accessories) allows fish and plants to be introduced as soon as the aquarium is set up.
- Before introducing fish and plants, check the water values, for example with a Tetra test strip (accessories).
- If you are adding medication to the water, you should only use filter media without activated carbon because activated carbon absorbs many types of medication from the water.

Procedure: → Fig. F Please note the following during start-up:

- The shut-off lever on the filter head must be pushed upwards to the stop ("ON" position). Both stopcocks must be fully open.
- To bleed, press the start button several times in quick succession (pump) until water comes out of the return pipe and the flow is stable.
- Make sure that all of the hose connections are tightly connected.
- Top up the water in your aquarium, as the water level will have dropped from filling the filter.
- Position the outlet tube in the aquarium in such a way that it creates slight movements at the water surface.

This is good for the water quality. If necessary, the flow rate can be adjusted using the "IN" stopcock.

### **CARE AND MAINTENANCE**

**WARNING:** Before performing any work on the device, remove the plug from the socket to prevent a harmful electric shock.

**NOTE:** Perform a visual inspection of the filter during all work on the filter. Remove any deposits and dirt. Replace defective components with original spare parts.

**Maintenance intervals:** Observe the specified maintenance intervals for the following components:

Components	Cleaning	Replacement	
Tetra FF FilterFloss	-	Once per month	
Tetra CF Carbon	_	After 2 to 4 weeks	
Tetra BF BioFoam	Every six months	Every year	
Tetra BB BioBalls	Every year	When needed	
Tetra CR Filterings	Every year	When needed	
Foam pre-filter	Once per week	When needed	
Filter head seal	For each assembly	Every year	
Impeller unit	Once per month	Every year	

**Disassemble device:** Procedure: → Fig. G Please note when disassembling:

- The filter housing is full of water. When opening the filter housing, this water may leak out or spillover. Take suitable precautions. For example, place the filter in a sufficiently large bowl.
- To prevent water from leaking out of the hose/pipe system and thus also out of the aquarium when opening the filter housing, the shut-off valve on the hose adapter must be closed beforehand. To do this, press the shut-off lever on the hose adapter down to the stop ("OFF/Locked" position).

The clean device, pre-filter, and filter media Procedure: → Fig. H Please note when cleaning:

- Do not use any cleaning agents or solutions for cleaning.
- To protect beneficial bacterial cultures, we recommend:
  - cleaning or replacing the filter media at different times.
  - cleaning the filter media with water from the aquarium.

Clean and replace filter head seal The housing seal is located below the filter head. Procedure: → Fig. I Please note:

- The seal sits in a groove and can be carefully pulled out there.
- The seal must be undamaged and clean.
- The seal must not be twisted or squeezed during installation.\

### Clean and replace the impeller

The impeller is located in the filter head behind a rotary lock. Procedure: → Fig. I

**Assemble device** Procedure: → Fig. J

Please note when assembling:

- The order of the filter media inside the filter housing depends on the filter type (→ Fig. A).
- The arrows on the filter basket handle and on the filter housing rim must be aligned identically.
- The handles of the filter baskets must be pressed down after insertion.
- The shut-off lever on the hose adapter must be at the far right stop ("Unlocked" position) before you press the hose adapter onto the filter head.

### **TROUBLESHOOTING**

If you are unable to rectify any faults yourself, contact your local retailer or Tetra Customer Service.

Malfunction	Cause	Solution		
	Attachment clips open.	Close them.		
Filter head is not watertight , water is leaking.	Dirt, foreign particles.	Clean.		
-	Filter head seal faulty.	Clean or replace, if necess.		
Motor not working.	Power supply off.	Check.		
Wotor not working.	Impeller faulty, blocked.	Clean or replace, if necess.		
	Valve closed.	Open.		
	Bent hoses.	Re-position.		
Water flow reduced.	Filter, filter media or tube system dirty.	Clean or replace, if necess.		
	Leak or system drawing air.	Stop leak or place intake pipe below wat er level.		
	Not enough water in filter housing.	Press start button several times (pumpin g motion).		
Water not circulating.	Air pocket in filter.	Increase distance between filter & water level.		
	Leak.	Stop leak.		

# **DISPOSAL**

The device contains electronic components and cannot be disposed of with the standard household waste.

- Dispose of the device using the return system for your area so that the raw materials can be recycled.
- Cut off the connection cable prior to disposal to prevent the device from being used.

### **TECHNICAL SPECIFICATIONS**

		EX 500 Plus	EX 700 Plus	EX 1000 Plus	EX 1500 Plus	
Connection voltage		230	230			
		50	50			
Power consumption		5.5	7.5	10.5	17.5	W
Recomm. aquarium size		≤100	100 200	150 300	300 600	1
Max. flow rate pump		910	1040	1150	1900	l/h
Max. flow rate in operat.		440	500	540	1030	l/h
Filter volume	Filter volume		4.9	6.1	12.2	1
Qty. of filter baskets		2	3	4	4	
Æ hose, inside		16 22			mm	
	Length	212			262	mm
Dimensions	Width	212 262			262	mm
	Height	343	392	441	544	mm
Weight		4.0	4.5	4.8	8.5	kg
Length of mains cable		1650			mm	
Protection rating		IP68				

### **WARRANTY**

Thanks to state-of-the-art production technology, premium-quality components, and stringent quality controls, the device comes with a three-year warranty from the purchase date. Please save your receipt. The warranty shall not apply in the event of improper handling, standard wear, and tear, or interference with the device technology. Your statutory warranty claims remain unaffected. In the event of a complaint, please contact your retailer or Tetra: <a href="https://www.tetra.net">www.tetra.net</a>

# **Documents / Resources**



<u>Tetra EX 500 Plus Complete External Filter-Set</u> [pdf] Owner's Manual EX 500, 700, 1000, 1500 Plus, Plus Complete External Filter-Set