



# BIO CF internal cartridge filter

CF MINI, CF1,  
CF2 and CF3

Instruction manual  
and set up guide



FOR CRYSTAL  
CLEAR WATER



# BIO CF internal cartridge filter

Thank you for purchasing this Interpet **Bio Internal Cartridge Filter**. Interpet has applied over seventy years of aquatic experience to ensure every element of the design of this product has been carefully considered to ensure you enjoy aquarium keeping.

**Please retain this manual for on-going care and future reference.**

We are sure that this filter will enable you to fully enjoy the benefits of owning and looking after aquarium fish and plants.

The Bio Internal Cartridge Filter is easy to use and keeps the aquarium water clear and healthy for your fish. The filter also contains Clean Aquarium Pods to create healthy water by bioactivating your filter and reducing aquarium maintenance by consuming sludge.

## Contents

- Why do I need a filter in my aquarium?
- Getting to know your Bio Internal Cartridge Filter
- Installing your new Bio Internal Cartridge Filter
- Maintaining your filtration
- Troubleshooting
- Top tips
- Guarantee and safety information

## Section 1 - Why do I need a filter in my aquarium?

Aquariums are a closed system and any waste or dirt produced by fish and plants remains in the water. A filter acts like a waste processing plant:

- Trapping dirt and removing dyes for crystal clear water
- Processing fish waste creating healthy water
- Circulating and aerating water to maximise oxygenation

## Effective five stage filtration

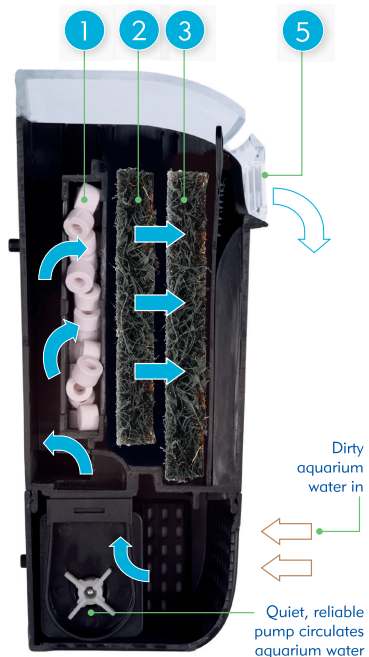
**1. Biomedica** - Creates healthy water by acting as a home for essential bacteria which remove toxic fish waste

**2. Mechanical Coir Tech™ Cartridges**  
Clears water by trapping fine waste

**3. Carbon Coir Tech™ Cartridges**  
Purifies water by removing dyes, toxins, heavy metals and odours

**4. Clean Aquarium Pods**  
Bioactivates filter for clean and healthy water

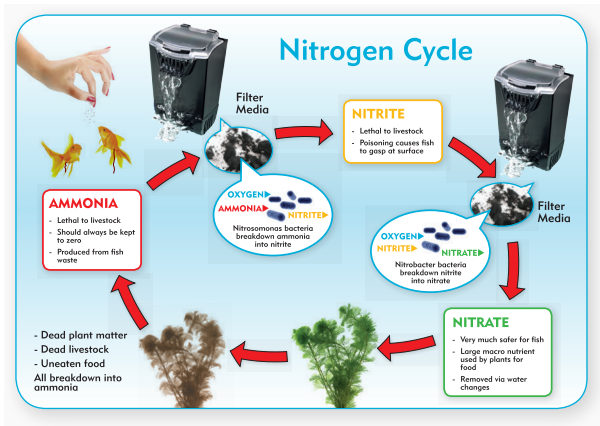
**5. Oxygenated** - Clear and healthy water returns to the aquarium



## The nitrogen cycle

Before adding fish to your aquarium there is some important information to understand about how the aquarium water remains clean and healthy enough for fish to thrive.

The aquarium is a small 'closed' environment; this means harmful waste can build up quickly because there is not enough water volume to dilute the waste, as would happen in a natural lake, nor is there a constant supply of fresh water to wash it away, as would happen in a river or stream. The breakdown of fish waste, excess food, dead plant material and other organic matter will cause invisible toxic compounds to build up in the aquarium water, unchecked this would eventually harm your fish. Fortunately there is a natural process called the 'Nitrogen Cycle' which we can recreate in the aquarium to convert the toxic waste into safer compounds (The diagram below shows how this process works)

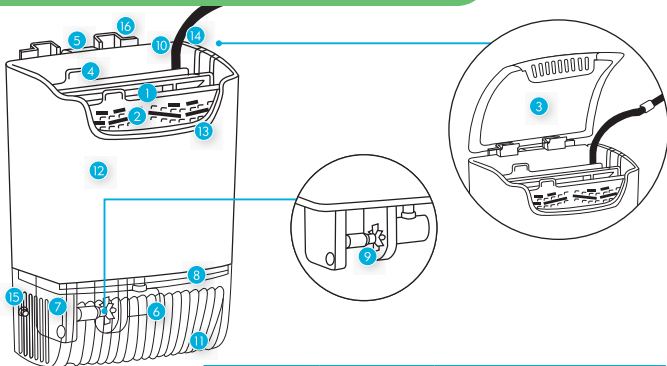


This Nitrogen Cycle is carried out by essential 'Nitrifying' bacteria which set up home in the biological media in the aquarium filter. These bacteria would naturally take a couple of months to become established in the filter. During this maturing period fish keepers often experience fish losses caused by the build-up of invisible toxic compounds which is referred to as 'New Tank Syndrome'.

New Tank Syndrome can be avoided by; adding Fast Filter Start to boost beneficial bacteria levels, and with correct water care.



## Section 2 - Getting to know your Bio Internal Cartridge Filter



Part No.	Part Description	Spares Code			
		BIO CF MINI 2310	BIO CF1 2311	BIO CF2 2312	BIO CF3 2313
1	Coir Tech Cartridges™	1 Month: 2315 3 Month: 2316	1 Month: 2317 3 Month: 2318	1 Month: 2319 3 Month: 2320	1 Month: 2321 3 Month: 2322
2	Coir Tech Cartridge™ Bio Holster	2333	2334	2335	2336
3	Clear Filter Cover	–	–	–	–
4	Ceramic Media Cartridge	–	–	–	–
5	Locator Hook	–	–	–	–
6	Pump Inlet Cover and Pipe	–	–	–	–
7	Pump Motor	–	–	–	–
8	Pump Plate Locator	–	–	–	–
9	Pump Impellor	2325	36635	36636	2314
10	Pump Cable Duct	–	–	–	–
11	Removable Intake Cage	–	–	–	–
12	Filter Body	–	–	–	–
13	Water Return Cascade	–	–	–	–
14	Pump Cable	–	–	–	–
15	Rubber Vibration Dampers	–	–	–	–
16	Sucker Mounted Location Cradle	*Not included	–	–	–
17	Attachment Suckers	–	–	–	–

## Specification Chart

Size	Max Flow Rate		Power	For Aquarium Size	
				Length	Volume
BIO CF	Lt/hr	Gal/hr	Watts	cm (inch)	Litres (gal)
MINI	130	28.5	3.5	Up to 40 (16)	12-35 (2.6-8)
1	320	70	3.3	Up to 60 (24)	36-68 (8-15)
2	480	106	4	Up to 80 (28)	68-110 (15-24)
3	700	153	10.5	Up to 100 (40)	111-160 (20-35)

## Coir-Tech™ Biodegradable Cartridges

Coir Tech™ Biodegradable cartridges are made from coconut coir, a natural waste material, with a protective outer layer of natural latex. Coated in activated carbon, which purifies the water by removing dyes, toxins, heavy metals and odours. 100% plastic-free, that does not emit micro-plastic pollution unlike classic filter sponges. Reducing the amount of plastic polluting our oceans. Once used for 28 days (1x month), remember to change your Coir Tech™ biodegradable cartridge, as it will naturally start to degrade and it's important to keep your aquarium healthy, clear and clean. Available in one and three month service packs.



**Intertek**

The product has been independently tested in accordance with ISO 14855-1:2012

The biodegradation rate of the applied product was tested over 45 days as 19.5%.

## Section 3 - Installing your new Internal Bio Cartridge Filter

Unpack all of the items in the box and check everything is present against the parts list in section 2.

Note: as we look to remove more plastic packaging from our products, you might find some ceramic dust which can be easily rinsed away.

Do this before installing into the aquarium for the first time.

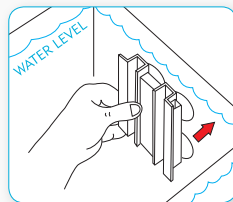
Your Bio Internal Cartridge Filter is set up ready for use. For the Bio CF1, CF2 & CF3 simply fix the sucker mounted support cradle (16) onto the back or side of your aquarium, and then slide the filter into place using the locator hook (5).

For the Bio CF Mini, suckers are conveniently located on the back of the filter body enabling direct fit onto the inside of the aquarium glass. It is advisable to position the filter where it is easy to reach for cleaning. The support cradle enables your cartridge filter to hook into position as seen in the below diagrams;

### Position cradle on aquarium

For the Bio CF1, CF2 & CF3 push firmly on the location cradle to the side or back wall of the aquarium and ensure it is as high as it can go based on the water level marker but allowing space for the locator hook to attach. See diagram right.

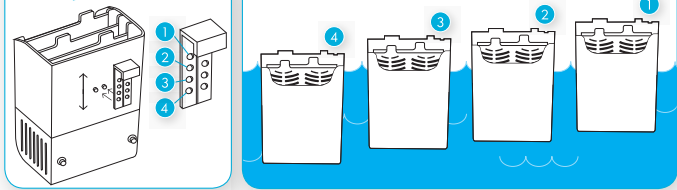
Note: This may need to be adjusted to ensure that it does not interfere with aquarium hood.



### Attach cartridge locator hook

Now attach the cartridge locator hook (5) by push fitting onto the two location pins on the back of the main filter body (12). The hook has a number of locator holes to allow the filter height to be adjusted to achieve the correct filter water level position in different aquarium designs.

#### 4 hole positions

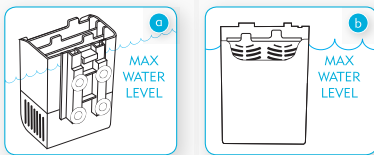


Note: The higher up the hook, for example position the higher up the cartridge filter will sit on the location cradle (16) and thus in the aquarium.

The Bio CF Mini also comes complete with a cartridge locator hook, which can be used to hang directly on the top edge of the aquarium. When using this direct installation remove the bottom two suckers and replace with the supplied vibration dampers (15). This minimises vibration noise when the filter is in operation.

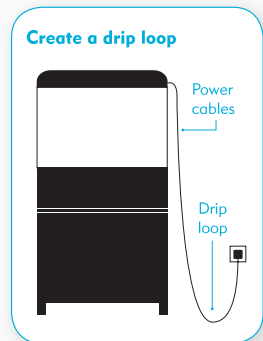
### Attach Internal Cartridge Filter

Hook the Bio cartridge filter onto the top of the location cradle (16) as seen in diagram (a) below. The water level should be no higher than the maximum line on the front of the cartridge body (12) as seen in figure (b) below.



#### Important safety information

To prevent any drips entering the electrical socket, create a drip loop for the filter cable as per the diagram to the right.



## Section 4 - Maintaining your filtration

Always turn off power to your filter when carrying out maintenance. The Bio cartridge filters are designed so that the Coir Tech™ cartridges (front & back) can be easily removed. Simply lift the clear filter cover (18) to the fully open position and pull out each cartridge vertically and responsibly dispose of the old cartridges. Replace with new ones using the service packs (sold separately).

### Daily Care Routine

- Ensure the filter is working and that there is good water flow to oxygenate the water. This is good for both fish and the bacteria in the filter.

### Weekly Care Routine

- Top up any water evaporation to ensure the filter works most effectively.

### Monthly Maintenance Routine

#### Clean Aquarium Pods

Be sure to add a Clean Aquarium Pod to the back of your filter, as shown in image 1 (right). Use 1 pod per 50 litres of aquarium water. The water-soluble film will quickly dissolve to release the active ingredients. Clean aquarium pods bioactivate your filter to help create clean and healthy water. They also reduce aquarium maintenance by consuming sludge.



Refer to the Clean Aquarium Pod packaging or [www.interpet.co.uk](http://www.interpet.co.uk) for more detailed product information and for help calculating your required dose.

#### Coir Tech™ Cartridges

- Lift the clear filter cover to the fully open position above the filter (as per image 2). Remove and discard the old front Coir Tech™ cartridge, replace with a new Coir Tech™ cartridge, in the correct slot in the filter body. (See images 3 below).
- Repeat this step for the back Coir Tech™ cartridge. (See images 4 below).



FOR BIO CF MINI



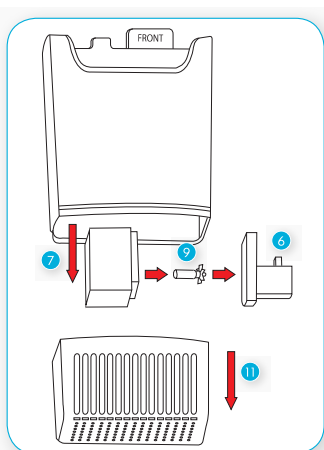
FOR BIO CF1, CF2 & CF3

### Three Monthly Care Routine

- Turn off power to Bio cartridge filter and remove Bio cartridge filter from the aquarium. Unclip the intake cage (11) and clean in fresh water. Be sure to remove as much plant matter and substrate as possible from around the intake grills otherwise it may start to impact the flow rate of the pump.
- Remove the impeller cover (6) and impeller (9) from the pump motor (7). Clean the impeller and the inside of the motor with water and a small brush.
- Reverse this process to reassemble and install back into the aquarium.

### Annual Maintenance Routine

- Once a year the impeller (9) will need to be replaced, follow the Three monthly impeller maintenance as above and insert a new impeller into the impeller chamber. Replacement impellers are available from your local aquatic retailer. See section 2 for correct spares code.



## Section 5 - Troubleshooting

### Problem 1: Filter flow rate drops considerably

**Solution 1:** Check for dirt and debris around the clip on intake cage (11) and the inlet pipe (6) and remove. If this does not resolve the flow rate problem, check the impeller (see problem 2).

**Solution 2:** The Bio cartridge filter design is specifically built around easy access to replace the filter cartridges. This means the outflow is powered by gravity which can appear to be slower than other internal power filters. In reality the Bio CF filter range delivers the same if not more flow than conventional internal power filters but the way its returned via the water return cascade (13) can appear less but works just as effective in filtration.

### Problem 2: Filter is noisy

**Solution 1:** The impeller (9) should be removed and carefully cleaned (see Three monthly care routine). Once the impeller has been cleaned it should be inspected for any damage. If the impeller or magnet is damaged in any way, the impeller should be replaced.

**Solution 2:** The Bio CF Mini also comes complete with a cartridge locator hook (5) which can be used to hang the filter directly on to the top edge of the aquarium. When using this direct installation, remove the bottom two suckers (17) and replace with the supplied vibration dampers (15). This minimises vibration noise when the filter is in operation.

**Problem 3: Power cut**

**Solution:** Any interruption of more than 2-3 hours of the water supply through the filter will cause the bacteria in the filter to die. Should this occur, do not simply re-start the filter. You must thoroughly clean ALL the filter material and start the filter again. In an aquarium fully stocked with fish, this may lead to water quality problems. Use test kits to monitor water, Ammonia Remover & Fast Filter Start products to manage the water quality.

**Problem 4: Water will not stay crystal clear**

**Solution 1:** If the aquarium does not contain large, messy fish check to ensure the Bio cartridge filter is working correctly. Also if it was replaced within 28 days (if not it must be replaced).

**Solution 2:** You may consider using Interpet Quick Clear which clumps together the fine particles and allows them to be removed more effectively by the filter. Cut down on feeding levels for two to three days and ensure you perform monthly water changes with Interpet Tapsafe.

**Problem 5: Filter flow runs over the top of the filter cartridge**

**Solution 1:** The Bio cartridge filter must be positioned in the aquarium no higher than the 'Max water line' located on the front of the filter body (12), see section 3. This ensures sufficient head height for water flow to pass through a new Coir Tech™ filter cartridge (1) before it becomes blocked by dirt and debris over the specified 28 day filtration period.

**Solution 2:** (See Solution 1 from problem 4)

## Section 6 - Top tips for a beautiful and healthy aquarium

1. Select the correct amount and correct species of fish for a balanced and calm community.
2. Care for your water; do all the recommended water changes, filter cleaning, tests and feed correctly, taking special care in the early days or when adding new fish.
3. Don't rush the early days, start slowly and carefully for long term success.
4. ENJOY YOUR AQUARIUM!

See online for further information on all aspects of keeping an aquarium and fishkeeping or join others in our Facebook community: [www.facebook.com/interpet](https://www.facebook.com/interpet)

## Guarantee

This product is guaranteed as free from defects in materials and workmanship for a period of 12 months from the date of purchase. The guarantee covers only any defects caused during normal use and operation of the filter, in accordance with the instructions enclosed.

It does not apply to any unauthorised modifications or misuse, improper or inadequate maintenance, or operations outside the product specifications. In case of defect within the stated warranty period, the product should be returned, with proof of purchase, to the point of purchase.

This guarantee does not effect your statutory rights. Guarantee service includes repair or replacement of the Bio filter at Interpet Ltd.'s discretion. Neither Interpet nor the manufacturer are liable for any direct, indirect, special, incidental or consequential damages, including loss of livestock, arising from a defect in this product.

## Important Safety Information

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

### READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

**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.

This is for indoor use only – do not use outside. Do not use this unit if the cable or plug are damaged or appear to be malfunctioning, or if it is dropped or damaged in any manner.

Do not use this unit if the plug gets wet. Refer to section 2 of this instruction manual to find out how to create a drip loop for the filter. Dispose of responsibly following instructions from your local authority. Close supervision is necessary when any appliance is used by or near children. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing point. If an extension cord is necessary, a cable rated with a proper rating should be used. A cable rated for less amperes or watts than the appliance rating may cause the appliance to overheat. Care should be taken to arrange the cable so that it will not be tripped over or pulled.

- This appliance can be used by children older than 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Cleaning and user maintenance shall not be carried out by children without supervision.
- Always disconnect the appliance from the supply before assembling, disassembling or cleaning.
- Appliances can be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved.
- Children shall not play with the appliance.
- Pump shall not be left outside during freezing weather condition.

### SAVE THESE INSTRUCTIONS

Disposal of used Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)  
The symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, it is your responsibility to dispose of your waste equipment by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment. By separating and recycling your waste equipment at the time of disposal you will help to conserve natural resources and ensure that this equipment is recycled in a manner that protects human health and the environment. For more information about recycling this product, please contact your local city office, your household waste disposal service or the shop where you have purchased the product.



## Service Packs

One and three month Coir Tech™ service packs available for your Internal Cartridge Filter.



## Bioactive Tapsafe Plus

A unique and advanced formulation developed in conjunction with global leaders in Biotechnology. It removes chlorine, chloramines and heavy metals and this in turn allows even hot tap water to be used as part of a water change mix. An Aloe Vera protective colloid within Tapsafe creates a barrier around the fish's delicate skin and gill membranes. As an added feature it also adds a culture of bacteria and enzymes that consume any excess biological waste in the aquarium and boosts filter performance.



## Clean Aquarium Pods

- Creates healthy water by bioactivating your filter
- Reduces aquarium maintenance by consuming sludge



Interpet has applied over 70 years of aquatic experience to ensure every element of the design of this product has been carefully considered to help you enjoy aquarium keeping.

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