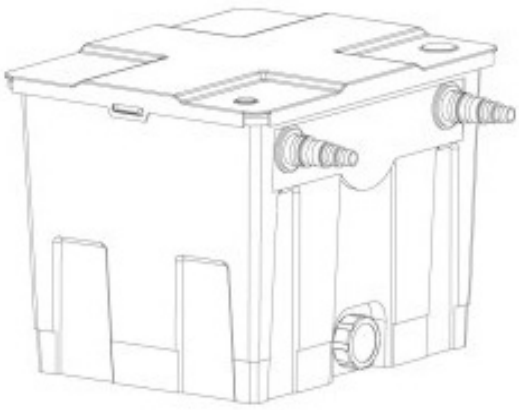
Operating Instructions

Pond-Bio-filter

CBF-350 – ARTICLE 50107
CBF-350B – ARTICLE 50108
CBF-350C– ARTICLE 50114



Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!
Due to further developments, illustrations, functioning steps and technical data can differ insignificantly.

Updating the documentation
If you have suggestions for improvement or have found any irregularities please contact us.

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Although Wiltec Wildanger Technik GmbH has made every effort to make sure that this user manual is complete, accurate and updated, errors cannot always be avoided. In the event of problems with this user manual please complete and send this form back to us.

FAX-notification (+++49 2403 55592-15**),**

from: _____

Name: _____

Firm:_____

Tel/Fax:_____

I would like to report the following mistakes:

Customer Service Wiltec Wildanger Technik GmbH

e-mail: **service@wiltec.info**

Tel:++ +49 2403 55592-0

Introduction
Thank you for purchasing this quality product. **To minimize the risk of injury by means of fire or electric shock we urge that our clients take some basic safety precautions when using this device. Please read the operation instructions carefully and make sure you have understood its content.**

Safety guideline

***ATTENTION*:**

The device is not intended for use by persons (including children) with impaired or limited physical, sensory and mental abilities or lack of experience and/or real knowledge, unless they are supervised by a person responsible for their safety or you follow the instructions made by this person how to use the device correctly.

Children should be supervised to make sure they do not play with the device

***ATTENTION*:**

- Run a visual inspection of the device before every use. Do not use the device if the safety appliances are damaged or worn out. Never override safety regulations.
- Use the device exclusively according to the intended purpose stated in the instructions for use.
- You are responsible for the safety of the working environment.
- The device cannot be installed in the drinking water circuit.
- The device can be installed only out of the water.
- It must be ensured that the device cannot fall into the water.
- Place the device in such a way so that it is not exposed to direct sun light.
- Die universal hose connectors (stepped hose tails) can be shortened if necessary to match the hose diameter.
- Apply / mount the hoses and the hose clamps.

***WARNING*:**

Read carefully all the safety guidelines and the instructions.
Keep the instructions and the safety guidelines in a safe place in case you need them in the future.

Wear resistance

- The max. temperature of the conveyed liquid should not exceed +35°C in permanent operation.
- The filter is exclusively designed and intended for filtering garden ponds!
- The filter is not suitable for filtrating water that exceeds 40°C or falls below 8°C.
- Do not use in combination with oil, petrol or lubricant. The filter is not frost-resistant! (Therefore, it is recommended not to use the filter in winter!)
- The filter cannot be used under water!
- The filter must be placed at least 2m away from the pond edge!

Technical Data

Bio-Filter	CBF-350	CBF-350B	CBF-350C
Dimensions mm	520x435x420	900x520x420	1360x520x120
Max. water flow L/h	8000	12000	12000
Hose inlet - sizes inch	¾ up to 1 ½	¾ up to 1 ½	¾ up to 1 ½
Outflow / outlet size mm	70	70	70
Number of filter mats	1	2	3
Number of coarse sponges	2	4	8
Number of fine sponges	2	4	4
Suitable for fish ponds up to : m^3	6 m^3	25 m^3	45 m^3
Suitable for ornamental ponds up to:	12 m^3	60 m^3	90 m^3
Connection to UV-Lamp (optional)	CUV-118 (18W)	CUV-136 (36W)	CUV-136 (36W)

According to the type of use, the optimal circulation cycle is dependent on various factors: fish population, water plants, solar radiation and the desired water clarity. Of course the other components of the filter circuit must be harmonised with one another if necessary.
Basically there are two distinctions:

1.) Optimal pond circulation

This refers to how often one channels/conducts the whole pond content through the filter within a specific time unit (circulation per hour).

The following values may serve as guide values:

Koi pond/ fish pond:
1 x in 3 hours up to
2 circulation /circuits in 1 hour (without plants and with high fish stock)

Garden pond/plants pond:
If the pond has no fish stock one can leave out the circuit/circulation. In this case water and marsh plants are a sufficient replacement/substitute for a filter system.

Natural swimming pond:
Here the circulation cycle is strongly influenced/greatly dependent on the plants and your own requirements.
The upper limit is 1 x in 2-3 hours, the lower limit by „no circulation cycle “.

2.) The water dwelling time in the Filter (length of stay)/ filter volume

Here the real volume of the filter applied by pressureless sytems is interesting:
50107 (CPF-350) = approx. 85 Litre
50108 (CPF-350B) = approx. 170 Litre
50114 (CPF-350C) = approx. 250 Litre
After a period of time of approx. 2-3 weeks nitrifying bacteria settle in the filter sponges. These need time in order to affect (have an impact on) the water.
The intended period that the pond pump need in order to fully fill the filter once is by the above mentioned filter volume between 1,5 minutes and 3 minutes.
A good „run-in“ filter needs therefore NO circulation cycle of 2-3x per hour. It definitely suffices here, depending on the pond size, to have cycles of 1-2x every 10 hours.

Calculation example:

A specific example: Our pump manages 10.000 litre per hour. This means that by our **Pond Test** with 100.000 litre volume the **pond** is completely filtered every 10 hours. In 24 hours this means 2,4 times/cycles, in which the water in our **pond filter** flows through and is clarified. Because our filter takes 250 litre water, and in one hour 10.000 litre are pumped into the **pond filter** it means that the pond filter is fully filled with water 40 times per hour. This means every 1,5 minutes the filter is fully filled once. Consequently our **bacteria** have only 1,5 minutes time to have an effect on the water and give clear, filtered water.

We recommend according to your needs to find a reasonable compromise beween both systems to achieve an optimal pond filtration.

Intended use

Products of this series are optimal for the cleaning of garden and fish ponds. If it is correctly applied the pond water is effectively cleaned.

Biodegradable filter materials clean the water from bacteria through mechanical filtering.

Equipment features (partly optional)

- Efficient cleaning through ultraviolet light sterilisation before filtering.
- Powerful bio-filtering by means of large filters, multi-chamber system, easy installation and cleaning due to its modular structure
- The water flow system that conducts the first step of the filtration reduces the pressure on the filter mats and the maintenance.
- The optimal design of the filter enables an easy cleaning.
- Dirt indicator
- Temperature - indicator

Commissioning

1. Remove the top cover (1), take out the bio-filter-sponges (7) and wash them.
2. Wash also the filter mats (8).
3. Bring the cleaned filter materials to their exact position again.
4. If the pond filter has a UV–lamp place the filter at least 2m away from the pond shore on a firm and even ground. The filter must be levelled and sit up straight in order to avoid overflowing.
5. Install the discharge hose for the water outlet directed towards the pond and the hose for the dirt outflow towards the sewer system or the flower bed with sufficient gradient (sufficient inclination).
6. Cut the stepped hose tails at the corresponding place.
7. Then insert the hose in the stepped hose tail (connect them) and tighten it with a hose clamp
8. Insert a flat gasket ring (19) over the thread of the stepped hose tail. Afterwards push the thread of the stepped hose tail through the water inlet opening. Insert a second flat gasket ring from the inside on the thread and the screw the outlet nozzles (18) from inside on the thread.
9. Connect now the other end of the hose with the pump.
10. For the normal filter operation leave the dirt outflow with its screw cap (17) and the sealing ring (15) closed. If you want to install a permanent 2-inch-hose, remove the screw cap, in order to install the hose.
11. Install the upper cover.
12. Supply the filter with voltage. Now the filter starts working.

***NOTE*:**

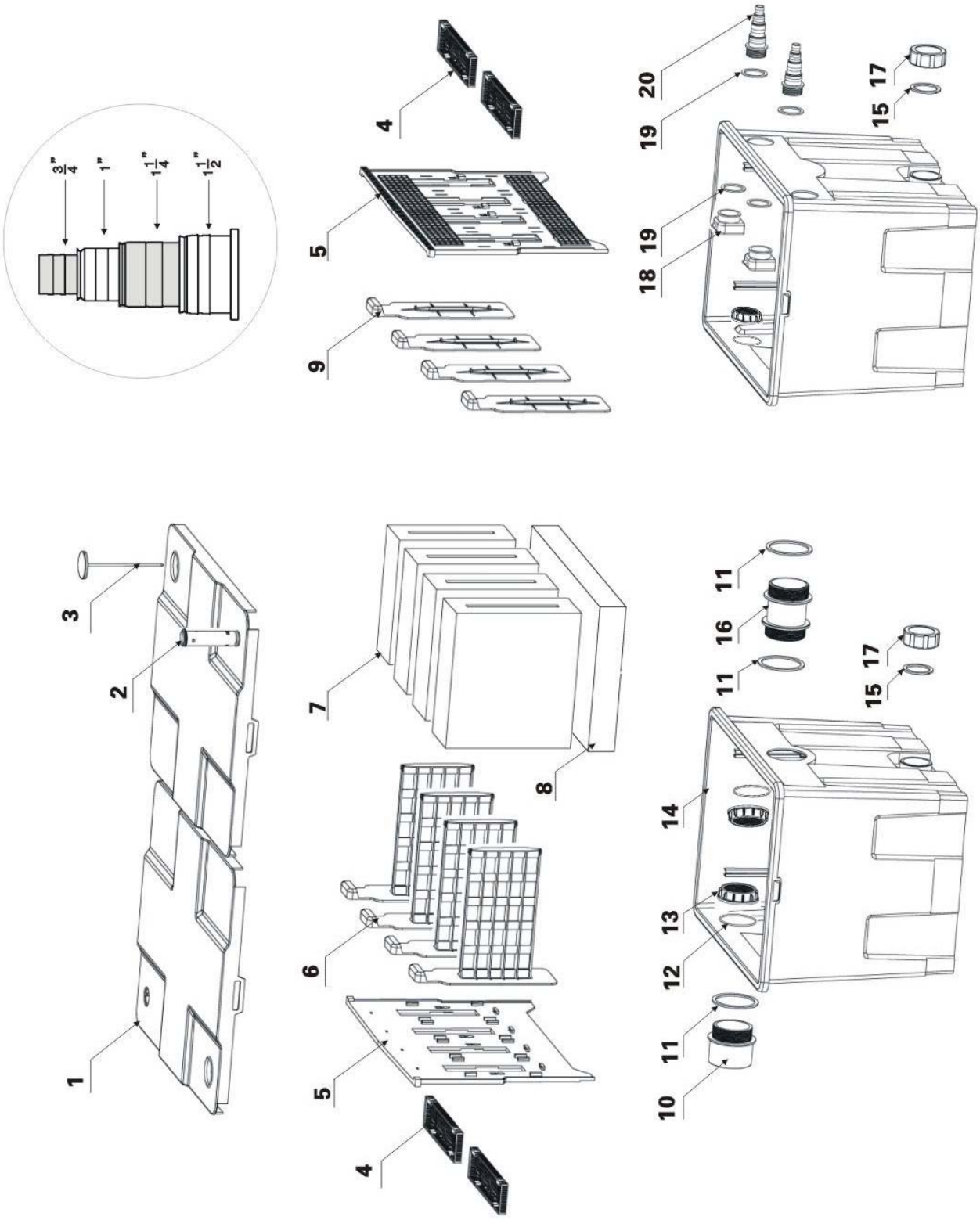
The bio-filter is a biological filter system and needs a few weeks, if newly installed, to reach its full biological efficiency.

Cleaning and maintenance

Attention! Before cleaning and maintenance works disconnect the pump/filter!

The device should be cleaned when required – see dirt indicator (2). For this reason no chemical cleaning agents are allowed, because they can destroy the bacteria in the filter sponges. As soon as the float of the dirt indicator becomes visible, disconnect the pump and the clarifier from the power supply and open the upper cover. Take out the filter sponges by holding them by the fix-up (6). Press together (squeeze) the filter sponges slowly for several times against the grips (6 - sponge fix-up, 9 - sponge press board). If necessary clean the filter sponges with pond water. Open the screw cap of the dirt outflow until the water has drained away.
At temperatures below 8°C or higher than 40°C the device must be taken out of operation! Therefore empty the filter and clean the device thoroughly. Remove all filter materials in order to dry them. Keep the filter materials in dry, frost-free place over the winter. Cover the filter housing so that no rain water can ingress. Empty all the hoses, pipelines and connectors to the extent possible.

Before starting–up the filter again, install it again with the open side towards the exit.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Disposal regulations

EU guidelines regarding the disposal of scrap electric appliances (WEEE, 2002/96/EC) were implemented in the law related to electrical and electronic equipment and appliances.

All Wiltec electric devices that fall under the WEEE regulations are labelled with the crossed-out wheeled waste bin logo. This logo indicates that this electric equipment must not be disposed with the domestic waste.

The company Wiltec Technik GmbH has been registrated in the German registry EAR under the WEEE-registration number **DE45283704**.

Disposal of used electrical and electronic appliances (intended for use in the countries of the European Union and other European countries with a separate collection system for these appliances).
The logo on the article or on its packaging points out that this article must not be treated as normal household waste but must be disposed to a recycling collection point for electronic and electrical waste equipment. By contributing to the correct disposal of this article you protect the environment and the health of your fellow men. Environment and health are threatened by inappropriate disposal.

Materials' recycling helps reduce the consumption of raw materials.

Additional information on recycling this article can be provided by your local community, municipal waste disposal facilities or the store where you purchased the article.

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Important notice: