

Operating Manual

External Aquarium Filter HW-702A, HW-702B, HW-703A, HW-703B, HW-704A, HW-704B 50948, 50949, 50950, 50951, 50952, 50953



Illustration similar, may vary depending on model

Read and follow the operating instructions and safety information prior to initial operation.

Technical changes reserved!

Illustrations, functional steps, and technical data may deviate insignificantly due to continuous further developments.



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If you have found an error or wish to suggest an improvement, we look forward to hearing from you.

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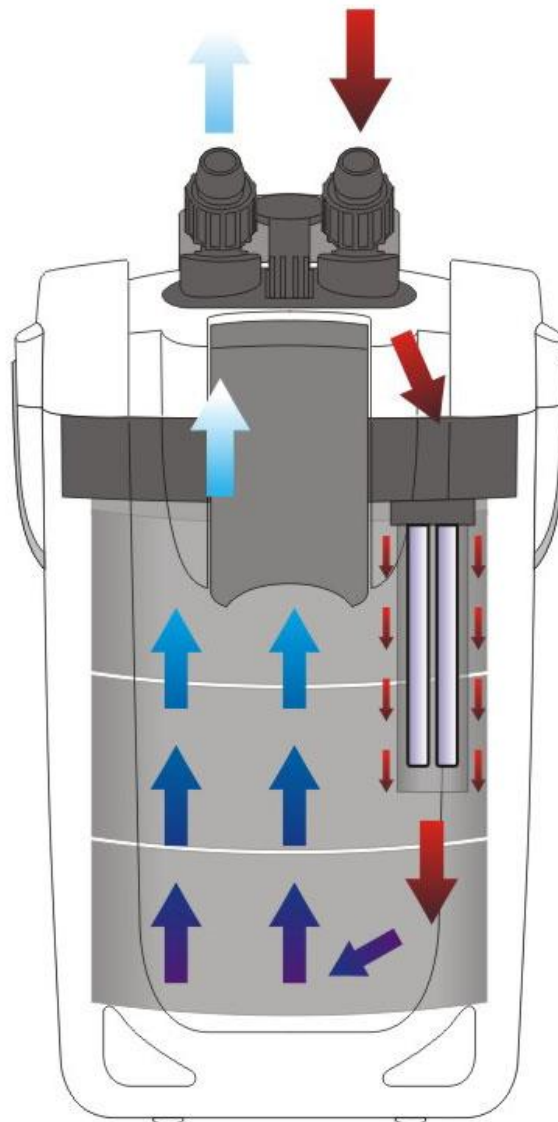
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Introduction

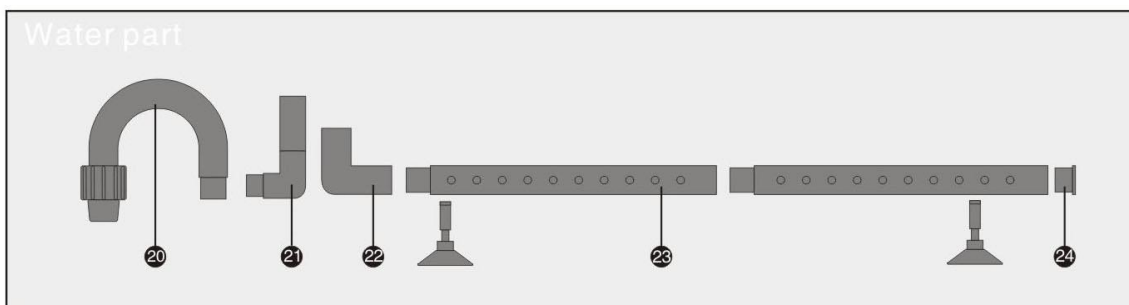
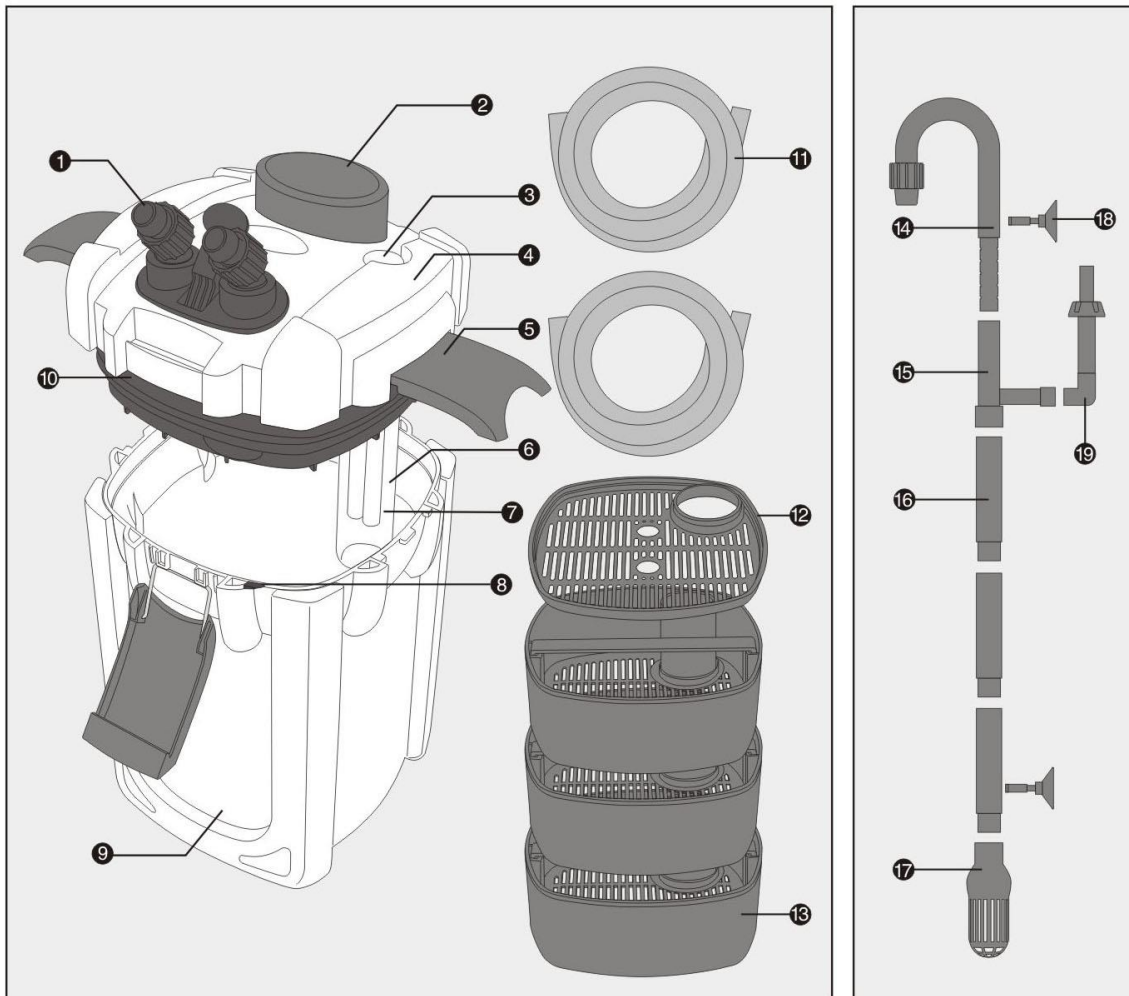
Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it. Keep these operation instructions in a safe place.

The advantage of the external aquarium filter is that it takes up very little space inside the aquarium. An external aquarium filter can easily be placed under or next to the fish tank. The 360° rotatable hose connections on the top of the lid allow for optimal positioning. Due to its large volume, the canister offers enough space for various filter media to ensure an effective filtering process.



The **SunSun external aquarium filters of the HW series** can easily be connected to fish tanks with large volumes of water. Filtering large aquariums becomes a finger exercise. The external aquarium filter series is characterised by its high flow rate and yet quiet operation. Its rubber feet provide for an optimal vibration attenuation. The extremely quiet SunSun series filter technology is suitable for both freshwater and saltwater aquariums.

Parts list





No	Name	No	Name	No	Name
1	Inlet/outlet connection piece	6-1	O-ring quartz glass tube	15	Connection pipe
1-1	O-ring connection piece	7	UV lamp	16	Connection pipe
2	Hand pump	8	Decor moulding	17	Inlet basket
3	Switch	9	Canister	18	Suction cup
4	Lid	9-1	O-ring canister	19	Skimmer
4-1	Cover pump shaft and impeller	10	Filter head	20	Outlet elbow
4-2	Pump shaft and impeller	11	Hose	21	Connection elbow
5-A	Lid clip	12	Cover filter basket	22	Connection elbow
5-B	Canister clip	13	Filter basket	23	Spray bar
6	Quartz glass tube	14	Inlet elbow	24	Spray bar plug



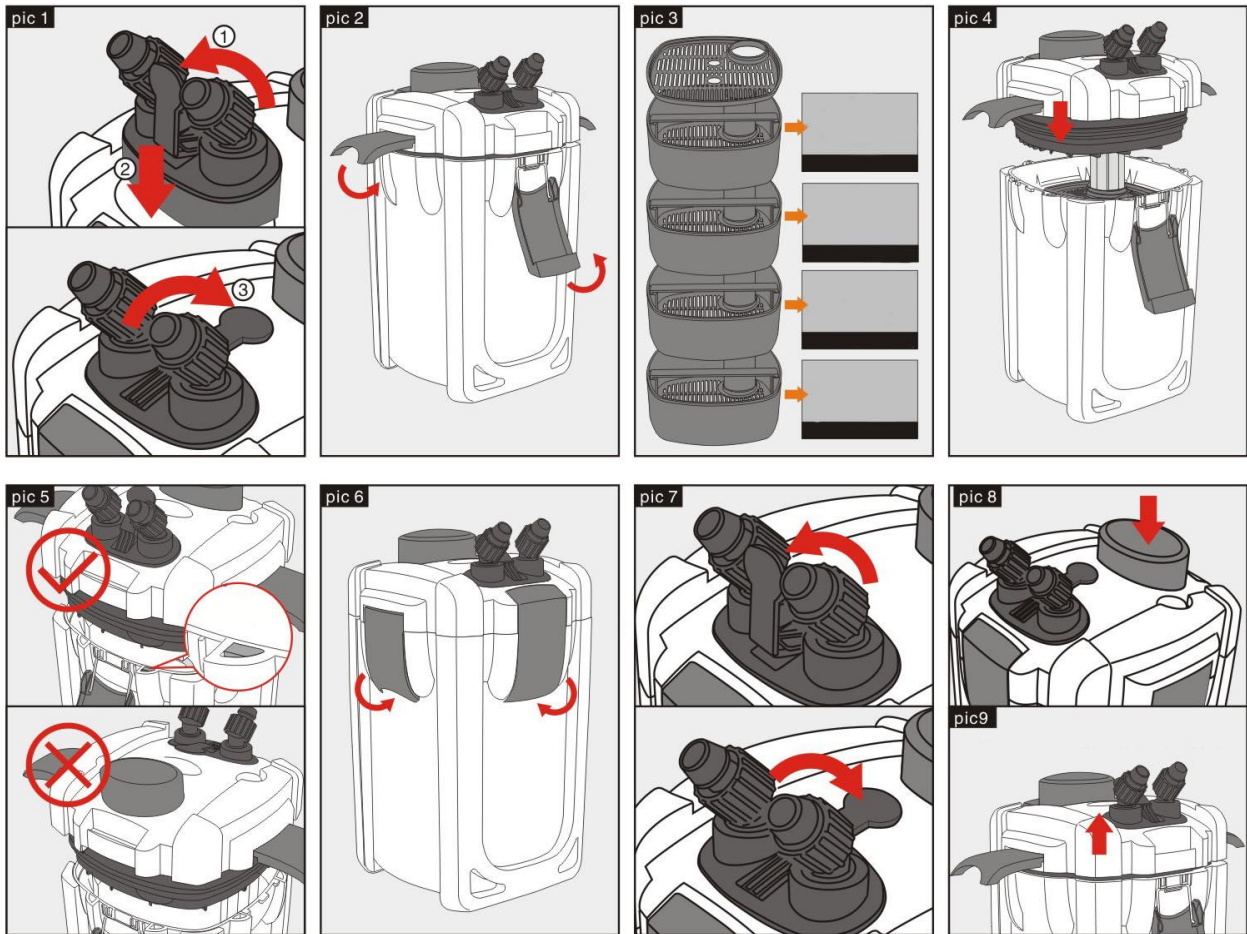
Note: The parts list may vary depending on the model.

- Parts 6, 6-1, and 7 are only available for HW-702B, HW-703B, and HW-704B.
- Part 13:
 - 3 pieces for HW-702A, HW-703A, HW-702B, and HW-703B.
 - 4 pieces for HW-704A, and HW-704B.

Technical specifications

Item	HW-702A	HW-702B	HW-703A	HW-703B	HW-704A	HW-704B
Energy supply	220-240 V/50 Hz					
Power (W)	24	33	35	39	45	54
Max. flow rate (ℓ/h)	1000		1400		2000	
UV power (W)	—	9	—	9	—	9

Operation



1. Take the inlet/outlet connection piece and push up the small lever ①. Press the connection piece into the lid ② and fasten it by using the small lever ③ (Fig. 1).
2. Unclip all clips at the canister and the lid to open the filter (Fig. 2). Separate the filter head from the canister.
3. You can now add your preferred filter media (Fig. 3).
4. Insert UV lamp and quartz glass tube correctly (Fig. 4). Fasten the filter head to the canister (instruction **only** for HW-702B, 703B, and 704B).
5. This product is equipped with a protective switch for the UV lamp. When the filter head is separated from the canister, the UV lamp will be turned off automatically for safety reasons. Please make sure to place the filter head carefully on the canister (Fig. 5). Otherwise, the UV lamp will not work (instruction **only** for HW-702B, 703B, 704B).
6. Close all clips at the canister and the lid carefully (Fig. 6).
7. You can adjust the water inlet and outlet with the small lever of the inlet/outlet connection piece. Push down the lever (Fig. 7) to put the filter into operation. Connect the provided hoses to the inlet/outlet of the filter.
8. Press the button for the manual pump on top of the filter head (Fig. 8) for initial operation. The filter sucks in water through the hose. Repeat this step, if necessary, until the line system is filled with water.
9. The UV lamp must be replaced after 8,000 hours of operation at the latest. Please disconnect the filter from the electricity network before replacing the lamp (**only** for HW-702B, 703B, 704B).

Filter media (see Fig. 3)



Ceramic rings



Filter foam



Filter floss



Bio balls

The included filter media form the basic kit for your external aquarium filter.

Starting with the lowest filtration layer, the order is:

1st layer: mechanical/partial biological filtration

2nd layer: biological filtration

3rd layer: chemical filtration (activated carbon, peat, phosphate etc.)

If you purchase a 4-stage filter, you can add a mechanical or biological filter layer as required.

Ceramic rings

Ceramic rings can be used for internal and external aquarium filters. Mechanical filter media are used to remove suspended particles. The ceramic rings cause water swirls inside the filter basket due to their special form and large surface. The suspended particles accumulate when sinking to the bottom and are thus removed from the water circulation. In addition, the ceramic rings provide optimal conditions for nitrifying bacteria which reduce nitrite peaks better than conventional filter media.

Filter floss

Filter media like floss or sponges are essential material for every modern aquarium. Filter floss absorbs large dirt particles, sponges reduce nitrate, absorb chemical impurities and provide optimal conditions for nitrifying bacteria.

Bio balls

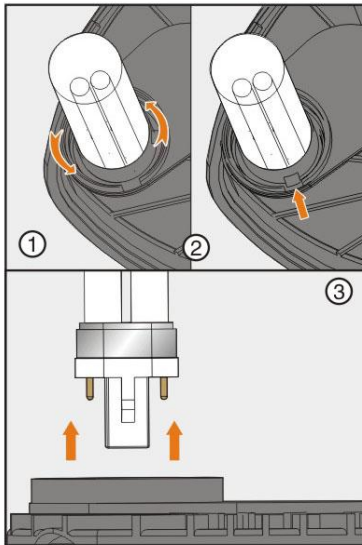
Bio balls are used as mechanical and biological filter media. They provide optimal conditions for nitrifying bacteria due to their extra-large surfaces and are considered high performance filter media, especially for large filter systems. In contrast to other filter media, bio balls have a practically unlimited life span, which makes them a popular and low-cost filter medium for pond filters, trickle filters and chamber filters.

Activated carbon (optional)

Activated carbon is used to absorb urea, humic substances, pesticides, metabolic products, and similar residues, thus ensuring clean aquarium water. Activated carbon also reduces the concentration of ozone and chlorine in the water. Activated carbon is particularly suitable for pre-treatment of tap water, for turbid water due to suspended particles and for absorbing residues of medication.

During medication or algae control, the use of activated carbon should be avoided. After the treatment, however, activated carbon is indispensable to remove any residues. We do not recommend leaving activated carbon in the filter over a long period of time. Once the carbon's capacity has been reached, there is a possibility that the absorbed harmful substances are washed out and get back into the aquarium water.

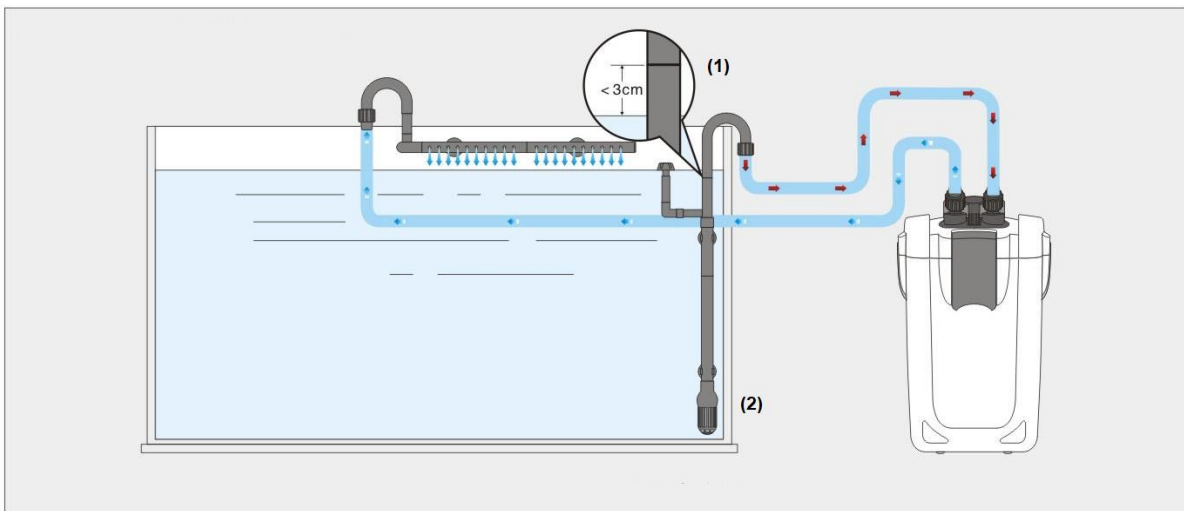
When purchasing a new aquarium filter or after a complete cleaning, the nitrifying bacteria population must be accumulated (once again). There are special bacteria cultures that can be added to the aquarium filter, thus facilitating the accumulation.



Replace UV lamp

1. Open the filter (Fig. 2 above) and turn the filter head over.
2. Carefully turn the quartz glass tube counter-clockwise ① until you feel a resistance ② and pull it out.
3. Pull out the UV lamp and insert a new one ③.
4. Fasten the quartz glass tube again by carefully turning it clockwise.

Placing into aquarium



- (1) = Water level must be 3 cm above inlet bow.
 (2) = Suction must be parallel to aquarium wall.

Filter operation and troubleshooting

Noise reduction/ external air

Especially the suction pipe and the connected skimmer must be adjusted to the water level of the aquarium and checked for seal tightness. In cases where this is not possible due to the form of the aquarium, the skimmer should be sealed completely to avoid undesirable external air intake.

De-aeration

Take the return-flow hose that conducts the water from the filter to the fish tank and put its end inside a clean bucket placed below the filter. Carry out the de-aeration process (evacuation of air) by activating the manual pump. Please make sure to adjust the highest possible flow rate at the inlet/outlet connection piece. As soon as there are no more air bubbles, seal the hose with a finger and reconnect it to the corresponding pipe at the top edge of the aquarium.



Leakage after installation or cleaning

A slight leakage after installation or cleaning of the filter is most likely caused by a problem with the sealing between inlet/outlet connection piece and the filter head or lid.

The inlet/outlet connection piece for the hoses has two O-rings on its lower side to seal the filter head. If these O-rings are dirty, off-centred, or damaged, they can no longer seal the filter head properly. Water gets into the filter head. The water leaks from the lowest point of the filter head, which is usually the clips on the side of the filter head and canister.

This problem is easy to solve. Clean and check the O-rings. Also make sure to clean the spots where the O-rings are inserted into the filter head regularly. Algae growth or sand can impair or damage the sealing properties of the O-rings if these spots are not cleaned on a regular basis. This problem can also appear after initial operation, e.g., because of sand.

Please allow sufficient time for cleaning the filter; if this is not done carefully and thoroughly, the filter may still leak even after cleaning.

If water still leaks from the above-mentioned point despite a thorough cleaning, check the fit of the O-rings inside the connection piece. This requires opening the inlet/outlet connection piece. Please contact our customer service in this case.

Regulations for waste disposal

The Waste Electrical and Electronic Equipment Directive (WEEE Directive, 2012/19/EU) of the EU was implemented in the German law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE directive are labelled with the symbol of a crossed-out wheeled rubbish bin. This symbol indicates that this electric device must not be disposed of with the domestic waste.

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Disposal of used electrical and electronic devices (intended for use in the countries of the European Union and other European countries with a separate waste collection system for these devices).

The symbol on the packaging or the product itself indicates that this product must not be treated as normal domestic waste but must be disposed of at a recycling collection station for electrical and electronic waste. By disposing of this product correctly, you contribute to the protection of the environment and the health of your fellow people. Inappropriate disposal threatens the environment and health.



Material recycling helps to reduce the consumption of raw materials.

Additional information about the recycling of this product can be provided by your local commune, the municipal waste disposal facilities, or the store where you purchased the product.

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