

SunSun HW-302

SunSun HW-302 3-Stage External Canister Aquarium Filter Instruction Manual

Model: HW-302

1. INTRODUCTION

The SunSun HW-302 3-Stage External Canister Aquarium Filter is designed to provide superior mechanical, biological, and chemical filtration for freshwater and saltwater aquariums. Its external design maximizes filtering capacity without occupying internal tank space, making it ideal for larger or heavily-stocked aquariums. This manual provides detailed instructions for the proper setup, operation, and maintenance of your HW-302 filter to ensure optimal performance and longevity.

2. SAFETY INFORMATION

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Must be at least 18 years and over to purchase.

- Always disconnect power to the filter and any other aquarium equipment before performing maintenance or handling the filter.
- Ensure all connections are secure and leak-free before operating the filter.
- Do not operate the filter if the power cord or plug is damaged.
- Keep the filter and all electrical components away from water splashes and ensure they are placed on a dry, stable surface.
- This filter is designed for indoor use only.

3. PACKAGE CONTENTS

Carefully unpack all components and verify that all items listed below are present and undamaged. If any parts are missing or damaged, please contact customer support.



Figure 3.1: All included components of the HW-302 filter.

- 1x Barrel Head (Filter Lid)
- 1x Main Canister Body
- 2x 5 feet lengths of flexible tubing (green)
- 1x Draining Tray Cover
- 4x Draining Trays (media baskets)
- 1x Output Curvy Bar
- 1x Input Curvy Bar
- 2x Connected Bars
- 2x Spray Bars
- 1x Spray Bar Cover
- 3x Input Bars
- 1x Input Cover
- 3x white-fine Pad Cottons pads (filter floss)
- Hose clamps and suction cups for installation

4. SETUP

4.1. Filter Media Installation

The HW-302 comes with three media trays, allowing for customizable filtration. It includes filter floss for mechanical filtration. You will need to purchase additional biological and chemical media (e.g., ceramic rings, activated carbon) separately to achieve full 3-stage filtration.



Figure 4.1: Filter media trays and cover.

1. Open the filter by unlatching the clamps on the sides of the barrel head.
2. Place the included white-fine pad cottons (filter floss) into the bottom media tray for mechanical filtration.
3. Add your chosen biological media (e.g., ceramic rings, bio-balls) to the middle tray.
4. Add your chosen chemical media (e.g., activated carbon, purigen) to the top tray.
5. Ensure media is evenly distributed and does not obstruct water flow.
6. Stack the trays inside the main canister body, ensuring they are properly aligned.
7. Securely close the barrel head by aligning it with the canister body and clamping down the side latches.

4.2. Filter Placement and Hose Connection

The filter should be placed below the aquarium water level to allow for proper siphoning and operation. Ensure the filter is on a stable, level surface.



Figure 4.2: Assembled filter with hoses and attachments.

1. Connect the flexible green tubing to the input and output nozzles on the barrel head. Ensure hose clamps are used to secure the connections tightly to prevent leaks.
2. Assemble the intake pipe (Input Curvy Bar, Input Bars, Input Cover) and attach it to one end of the input hose. Place the intake pipe inside the aquarium, ensuring the intake strainer is submerged and positioned to draw water effectively.
3. Assemble the output pipe (Output Curvy Bar, Connected Bars, Spray Bars, Spray Bar Cover) and attach it to one end of the output hose. Place the output pipe inside the aquarium, positioning the spray bar to create gentle water circulation.
4. Ensure all hoses are free of kinks and are not excessively long, which can reduce flow rate.

4.3. Priming the Filter

Priming the filter fills it with water, expelling air, and is crucial for proper operation.

1. Ensure all hose connections are secure and the filter is closed.
2. Open the shut-off valves on the input and output connections on the barrel head.
3. Press the large priming button on top of the filter head repeatedly until water begins to flow into the filter and fills it completely. You may hear air escaping.
4. Once water is flowing steadily through both hoses and the filter is full, plug the filter into a grounded electrical outlet.
5. The filter pump will start, and water should begin circulating through your aquarium.
6. Gently shake the filter to help release any remaining trapped air bubbles. Air bubbles can cause noise and reduce efficiency.

5. OPERATING INSTRUCTIONS

Once properly set up and primed, the SunSun HW-302 filter will continuously circulate and filter your aquarium water.

5.1. Filtration Stages

- **Mechanical Filtration:** The filter floss captures particulate matter, debris, and uneaten food, keeping the water clear.
- **Biological Filtration:** Beneficial bacteria colonize the biological media, converting harmful ammonia and nitrites into less toxic nitrates.
- **Chemical Filtration:** Chemical media (e.g., activated carbon) removes odors, discoloration, and certain dissolved organic compounds.

5.2. Flow Rate

The HW-302 has a maximum flow rate of 265 GPH (1000 L/h). The adjustable spray bar allows you to control the output flow and direction to suit your aquarium's needs and inhabitants.

6. MAINTENANCE

Regular maintenance is essential for the efficient and long-term operation of your filter. The frequency of cleaning depends on your aquarium's bioload and the type of media used.

6.1. Disconnecting the Filter

1. Unplug the filter from the electrical outlet.
2. Close the shut-off valves on the input and output connections on the barrel head. This prevents water from flowing back into the filter or out of the hoses.
3. Use the single valve disconnect feature to detach the hose assembly from the filter head. This allows for easy removal of the filter for cleaning without disturbing the aquarium setup.

6.2. Cleaning the Filter



Figure 6.1: Opening the filter latches.

1. Carry the filter to a sink or bucket.
2. Open the side latches and carefully lift the barrel head off the canister body.
3. Remove the media trays. Rinse mechanical filter media (filter floss) thoroughly under running water until clean. Replace if heavily soiled or degraded.
4. Rinse biological media gently with old aquarium water (not tap water) to preserve beneficial bacteria.
5. Replace chemical media as recommended by the manufacturer (typically every 2-4 weeks for activated carbon).
6. Clean the inside of the canister body and the impeller chamber. The impeller can be accessed by removing the impeller cover. Clean the impeller and its shaft with a small brush to remove any debris or algae buildup.
7. Reassemble the filter in reverse order, ensuring all seals are properly seated and latches are securely fastened.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your SunSun HW-302 filter.

Problem	Possible Cause	Solution
Filter is not pumping water / Low flow	Not primed correctly; Air trapped in filter; Clogged media; Dirty impeller; Kinked hoses.	Re-prime the filter; Gently shake filter to release air; Clean or replace media; Clean impeller; Check and straighten hoses.
Filter is leaking	Improperly sealed lid; Damaged O-ring; Loose hose connections; Cracked housing.	Ensure lid latches are fully secured; Inspect and replace O-ring if damaged; Tighten hose clamps; Inspect housing for cracks (contact support if cracked).
Excessive noise	Air trapped in filter; Dirty or damaged impeller; Filter not level.	Gently shake filter to release air; Clean or replace impeller; Ensure filter is on a level surface.
Water is cloudy	Insufficient mechanical filtration; Overfeeding; New tank syndrome.	Clean or replace mechanical media more frequently; Reduce feeding; Perform partial water changes and monitor water parameters.

8. SPECIFICATIONS

Feature	Detail
Model	HW-302
Max Flow Rate	265 GPH (1000 L/h)
Recommended Tank Size	Up to 75 gallons
Filtration Stages	3 (Mechanical, Biological, Chemical)
Product Dimensions	10"D x 13"W x 15"H
Item Weight	6.6 pounds (3 Kilograms)
Material	Carbon Fiber (likely referring to internal components or a mislabeling, typically plastic housing)
Color	White
Manufacturer	Ming Trading LLC
Country of Origin	China

9. WARRANTY AND SUPPORT

The SunSun HW-302 filter comes with a 180-day warranty from the date of purchase. This warranty covers manufacturing defects under normal use. Please retain your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or warranty inquiries, please contact the retailer or manufacturer directly. Refer to the packaging or purchase documentation for specific contact information.