

## SunSun HW-603B

# SunSun Tech'n'Toy HW-603B External Canister Filter

## INSTRUCTION MANUAL

### 1. Introduction

Thank you for choosing the SunSun Tech'n'Toy HW-603B 3-Stage External Canister Filter. This filter is designed to provide efficient mechanical, chemical, and biological filtration for aquariums up to 20 gallons. Proper installation and maintenance are crucial for optimal performance and the health of your aquatic environment. Please read this manual thoroughly before installation and operation.

### 2. Safety Instructions

- Always disconnect power to the filter and all other aquarium equipment before performing any maintenance or cleaning.
- Ensure the filter is placed on a stable, level surface below the aquarium water level to allow proper siphoning and flow.
- Do not operate the filter if the power cord or plug is damaged.
- Never immerse the power head or electrical components in water.
- This appliance is for indoor use only.
- Keep out of reach of children.

### 3. Package Contents

Carefully unpack all components and verify that all items are present and undamaged. The 12-piece set typically includes:

- HW-603B Canister Filter Unit with integrated pump
- Filter Pads (coarse, medium, fine sponges)
- Inlet and Outlet Hoses (green tubing)
- Inlet and Outlet Pipe Assemblies (including spray bar, intake strainer, U-pipes, suction cups)
- Hose Clamps



Image 1: All components of the SunSun HW-603B 12-piece set, including the canister filter, hoses, and various pipe fittings.

## 4. Setup Guide

Follow these steps for proper installation of your HW-603B filter:

1. **Prepare Filter Media:** The filter comes with three filter pads (sponges) for mechanical filtration. These are typically arranged from coarse to fine. You can add additional media (e.g., activated

carbon, ceramic rings, bio-balls) in the spaces above and below the filter pads for enhanced chemical and biological filtration (sold separately).

2. **Connect Hoses:** Attach the green hoses to the inlet and outlet ports of the filter unit. Ensure a secure connection to prevent leaks. You may need to warm the ends of the hoses in hot water to make them more pliable for easier attachment to the connectors.
3. **Assemble Inlet and Outlet Pipes:** Assemble the U-pipes, intake strainer, and spray bar using the provided fittings and suction cups. The intake pipe with the strainer goes into the aquarium to draw water, and the outlet pipe with the spray bar returns filtered water.
4. **Position Filter:** Place the filter unit on a stable surface below the aquarium's water level. This is crucial for the filter to siphon water correctly.
5. **Install Pipes in Aquarium:** Secure the inlet and outlet pipe assemblies inside the aquarium using the suction cups. Ensure the intake strainer is submerged and the spray bar is positioned to create good water circulation.
6. **Prime the Filter:** Before turning on the power, fill the filter canister with water from your aquarium. This helps to remove air and initiate the siphoning process. Once filled, ensure the lid is securely fastened.
7. **Start Operation:** Plug in the filter. The pump will begin to draw water from the aquarium, through the filter media, and return clean water. Check for any leaks immediately after starting.



Image 2: The SunSun HW-603B filter unit shown with its internal filter sponges, illustrating the media placement.

## 5. Operating Instructions

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Once installed and primed, the SunSun HW-603B filter operates continuously to maintain water quality. The integrated pump ensures a steady flow rate of 106 GPH (400 L/hr). Monitor the water flow regularly to ensure optimal performance. A decrease in flow rate typically indicates that the filter media requires cleaning.

## 6. Maintenance

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Regular maintenance is essential for the longevity and efficiency of your filter.

1. **Cleaning Frequency:** The frequency of cleaning depends on your aquarium's bioload. Generally,

mechanical filter media should be rinsed every 2-4 weeks, or when a noticeable reduction in flow occurs.

## 2. Disassembly for Cleaning:

- Disconnect the filter from the power supply.
- Close any inline valves on the hoses (if applicable) to prevent water backflow.
- Carefully detach the hoses from the filter unit.
- Unclip the lid fasteners and remove the lid.
- Remove the filter pads and any other media.

3. **Cleaning Media:** Rinse the filter sponges thoroughly in old aquarium water (from a water change) to preserve beneficial bacteria. Do not use tap water directly, as chlorine can kill beneficial bacteria. Replace chemical media (like activated carbon) as recommended by the manufacturer, typically every 2-4 weeks.

4. **Canister and Impeller Cleaning:** Clean the inside of the canister and the impeller assembly (located in the pump head) to remove any sludge or debris. Ensure the impeller spins freely.

5. **Gasket Maintenance:** Inspect the lid gasket (O-ring) for any signs of wear or damage. Clean it and apply a thin layer of silicone grease (aquarium safe) to maintain a good seal and prevent leaks.

6. **Reassembly:** Reassemble the filter in reverse order, ensuring all media is correctly placed and the lid is securely fastened. Prime the filter again before reconnecting power.



Image 3: The main SunSun HW-603B canister filter unit, showing the lid and integrated pump.

## 7. Troubleshooting

If you encounter issues with your filter, refer to the following common problems and solutions:

### • No Water Flow or Weak Flow:

- Check if the filter is plugged in and receiving power.
- Ensure the filter is properly primed and free of air pockets.
- Clean clogged filter media.

- Inspect the impeller for obstructions or damage.
- Verify hoses are not kinked or blocked.
- **Leaking:**
  - Ensure the lid is securely fastened and all clips are engaged.
  - Inspect the lid gasket (O-ring) for proper seating, damage, or dryness. Clean and lubricate if necessary.
  - Check all hose connections for tightness.
- **Excessive Noise:**
  - Air trapped in the filter can cause noise. Re-prime the filter to remove air.
  - Clean the impeller and impeller housing for any debris.
  - Ensure the filter is on a stable, level surface.

## 8. Specifications

<b>Model</b>	HW-603B
<b>Recommended Tank Size</b>	Up to 20 gallons
<b>Flow Rate</b>	106 GPH (400 L/hr)
<b>Pump Power</b>	6W
<b>Dimensions (L x W x H)</b>	6.5" x 6.5" x 11" (Canister)
<b>Item Weight</b>	1.6 pounds
<b>Filtration Stages</b>	3-Stage (Mechanical, Chemical, Biological)

## 9. Warranty and Support

For warranty information or technical support, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase. Always refer to the specific warranty terms provided at the time of purchase.