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› [Geekpure](#) /

› Geekpure Whole House Water Filter System UV-55W Instruction Manual

Geekpure UV-55W

Geekpure Whole House Water Filter System UV-55W Instruction Manual

Model: UV-55W

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Geekpure Whole House Water Filter System UV-55W. This system is designed to provide ultraviolet water purification for your entire home, ensuring water quality at every tap and appliance. It is crucial to read and understand all instructions before proceeding with installation or operation to ensure safe and efficient use of the product.

2. PRODUCT COMPONENTS

The Geekpure UV-55W system includes the following components:

- 1 x Stainless Steel 304 Reactor Chamber
- 3 x UV Filter Bulbs (55W)
- 3 x Quartz Sleeves
- 1 x Electronic Ballast with Audible and Visual Alarm
- 3 x Fixed Clamps
- Aluminum End Caps
- Silicone Stoppers



Figure 2.1: Overview of the Geekpure UV-55W system and its included components. The main unit is a 38-inch long stainless steel chamber with 1-inch inlet/outlet connections. Individual components like the quartz sleeve, UV filter bulb, mounting clips, electronic ballast, aluminum end cap, and silicone stopper are shown separately with their quantities.

3. KEY FEATURES

- **Whole House UV Filtration:** Provides purified water to all taps and appliances throughout your home.
- **High Capacity:** Features a flow rate of 12 gallons per minute (GPM) with a 55 Watt UV lamp.
- **Durable Construction:** Made with a BPA-free Stainless Steel 304 chamber and 1-inch MNPT inlet/outlet.
- **Long UV Lamp Life:** Each UV filter has an effective life of approximately 9,000 hours of continuous use.
- **No Secondary Pollution:** Operates without adding chemicals to the water, preserving natural taste and preventing chemical residue.
- **Electronic Ballast:** Includes an electronic ballast with audible and visual alarms for operational status.

It is rated at an effective life of approximately 9,000 hours of continuous use.

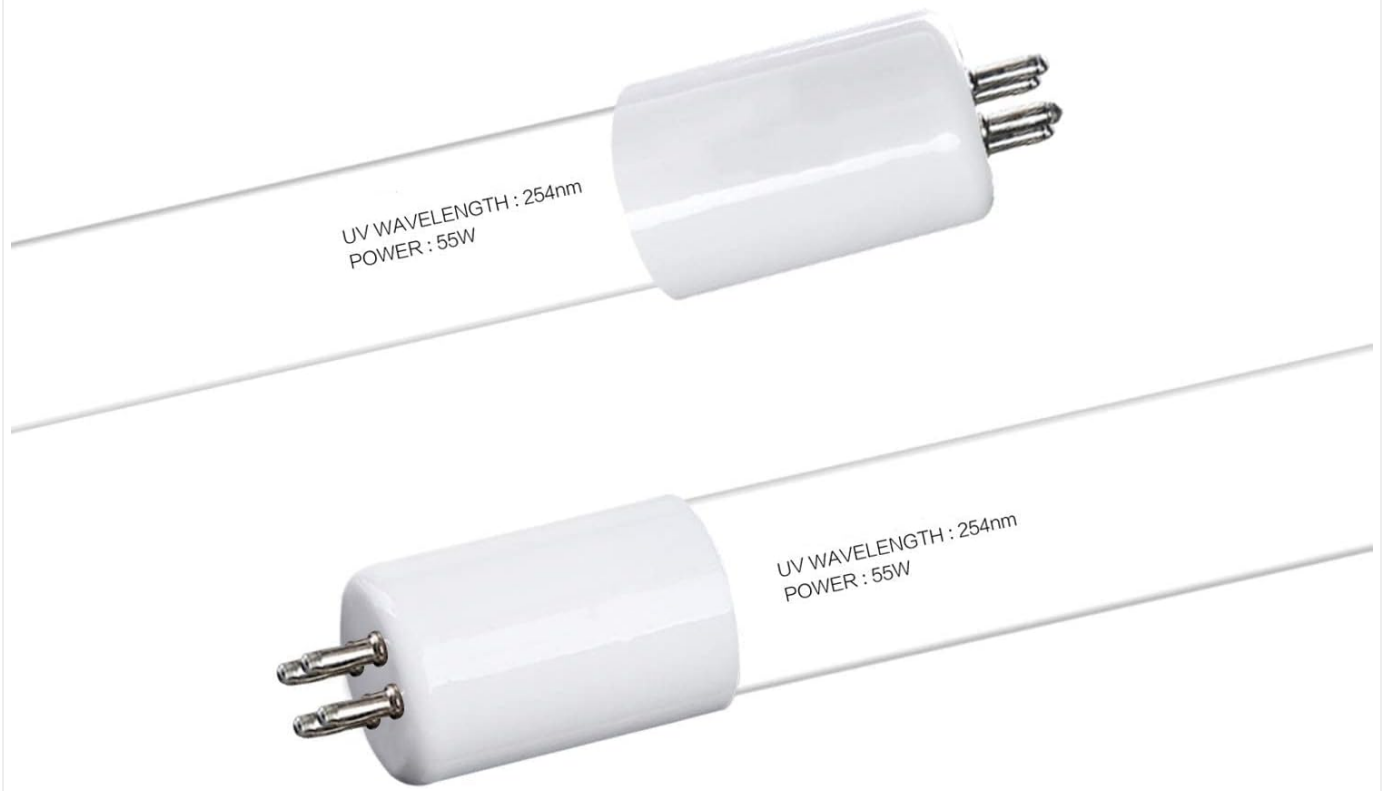


Figure 3.1: A close-up view of the UV filter bulb, indicating a UV wavelength of 254nm and a power of 55W. The bulb is rated for approximately 9,000 hours of continuous operation.



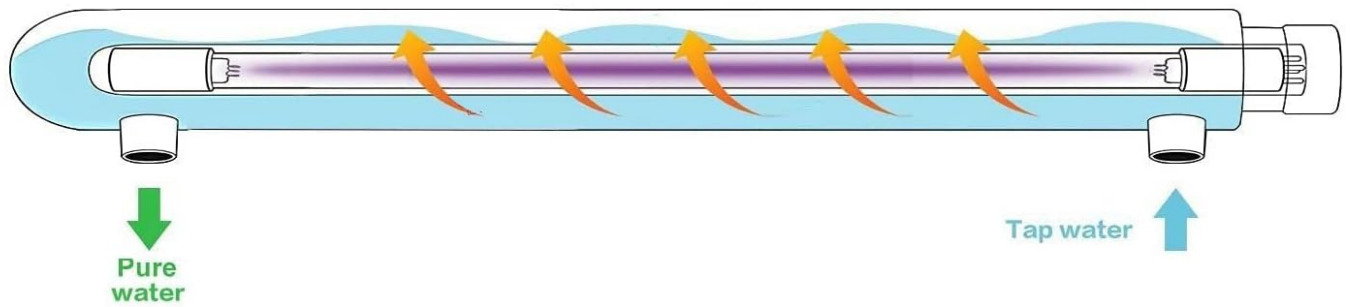
Figure 3.2: The electronic ballast, which powers the UV lamp and includes indicators for operational status.

4. IMPORTANT CONSIDERATIONS

- **Pre-filtration Required:** The UV filter cannot directly filter well water or reduce impurities, chemical contaminants, hardness, or TDS. It is designed to be installed as the last-stage filter in conjunction with other professional whole house water filter systems (e.g., sediment and carbon block filters) or reverse osmosis systems.
- **Water Conditions:** Ensure feed water conditions meet the following requirements: Work Pressure: 50-60 psi, Temperature: 40-110°F (5-45°C), Free Chlorine Tolerance: <0.1 ppm.
- **UV Effectiveness:** The UV system is effective at reducing up to 99% of harmful microorganisms by disrupting their DNA.



Geepure UV Filter



Reduce up to 99% of harmful matters

Figure 4.1: Illustration of the UV purification process. Tap water enters the UV chamber, passes through the UV light, and exits as pure water. This process reduces up to 99% of harmful microorganisms.

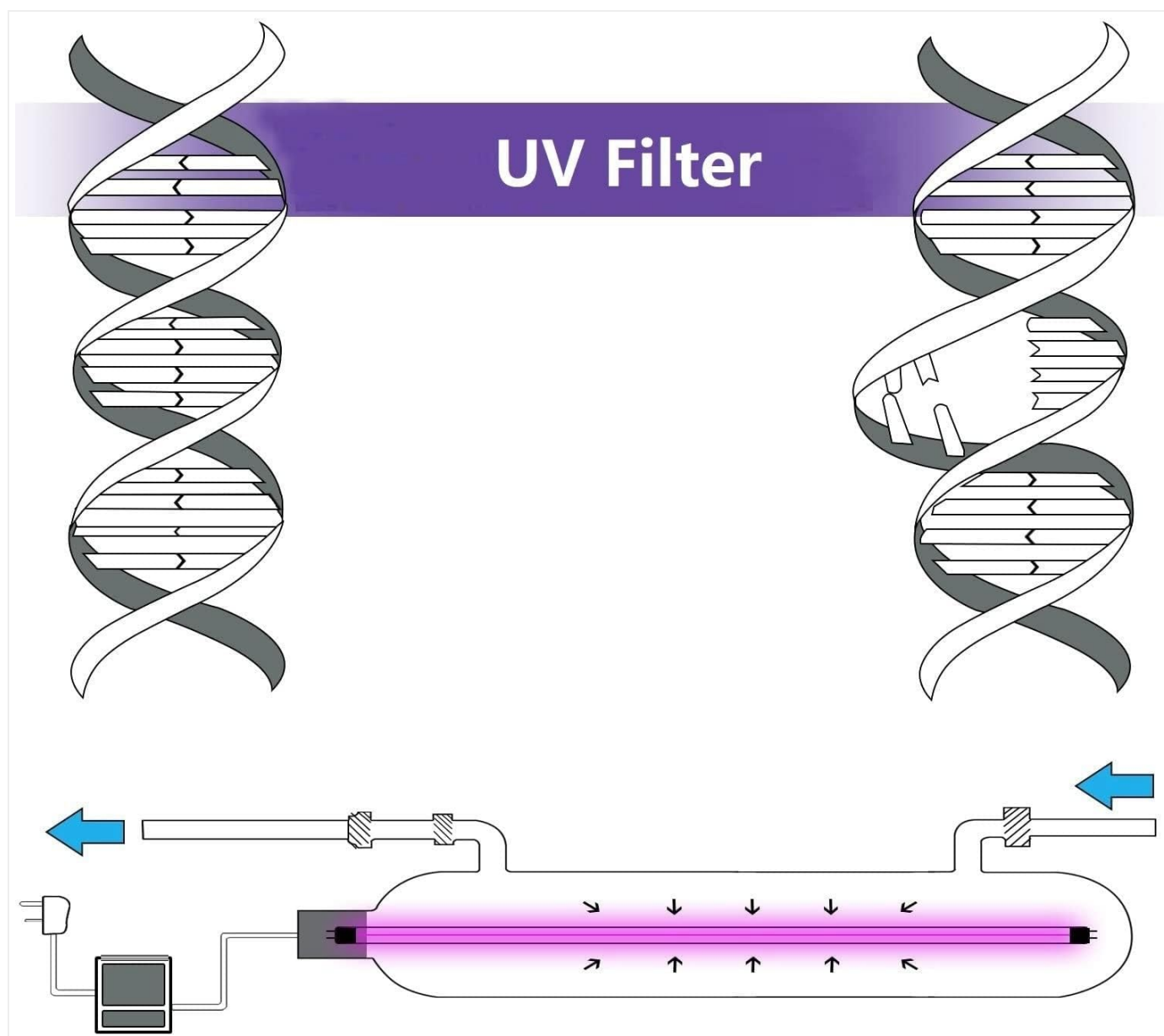


Figure 4.2: Conceptual diagram showing how UV light (represented by purple light) interacts with and disrupts the DNA of microorganisms, rendering them unable to reproduce and effectively sterilizing the water.

5. SETUP AND INSTALLATION

Proper installation is critical for the optimal performance and longevity of your UV water filter system. It is recommended to install the UV system as the final stage after other filtration systems (e.g., sediment and carbon block filters).

5.1 Pre-Installation Steps

1. **Location Selection:** Choose a suitable location for installation, preferably indoors, where the system is protected from direct sunlight and freezing temperatures. Ensure adequate clearance (approximately 7 feet) for future UV bulb replacement.
2. **Shut Off Water Supply:** Turn off the main water supply to your home.
3. **Drain Water Lines:** Open a faucet to relieve pressure and drain water from the pipes.

5.2 Assembling the UV System

1. **Install Quartz Sleeve:** Carefully insert the quartz sleeve into the stainless steel chamber. Wear rubber gloves to avoid leaving fingerprints or contaminants on the sleeve.
2. **Install UV Filter Bulb:** Gently insert the UV filter bulb into the quartz sleeve. Align the pins correctly with the socket on the

ballast. Hand-tighten the fitting.

3. **Mounting:** Securely mount the stainless steel chamber using the provided fixed clamps. If mounting vertically, consider adding additional support below the unit to bear the weight.

5.3 Plumbing Connections

1. **Apply Thread Sealant:** Apply at least 10 wrappings of PTFE (Teflon) tape to the inlet/outlet threads of the UV chamber and any PVC adapters to ensure a watertight seal.
2. **Connect to Water Line:** Connect the UV system to your main water line. The inlet and outlet are typically 1-inch MNPT. It is highly recommended to install shut-off valves and unions on both sides of the UV unit for easier maintenance and bulb replacement.
3. **Pre-filtration Integration:** If using a pre-filtration system (e.g., sediment and carbon block filters), ensure the UV system is installed downstream as the final treatment stage.

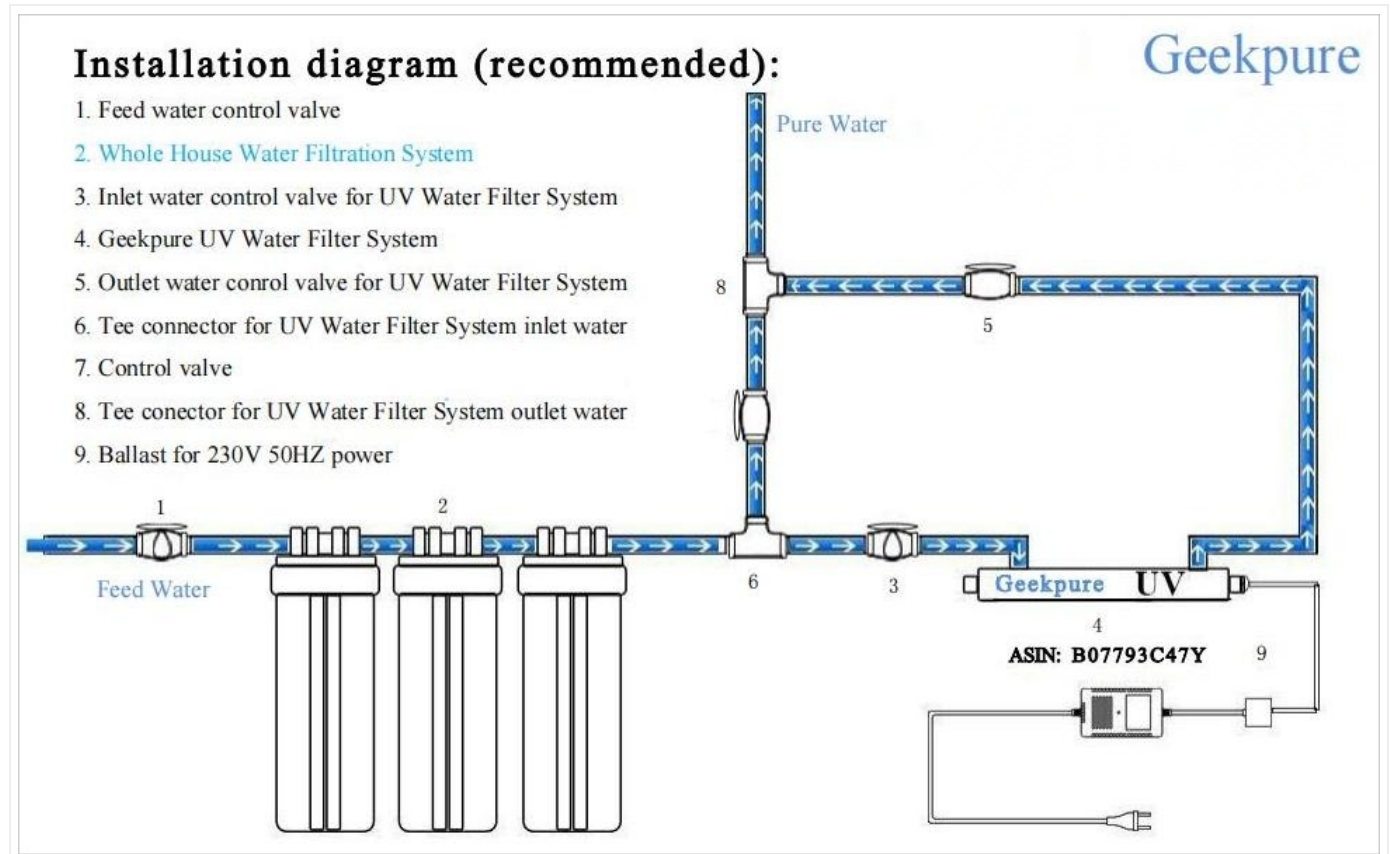


Figure 5.1: Recommended installation diagram showing the integration of a whole house water filtration system (e.g., 2-stage sediment and carbon block filters) followed by the Geekpure UV filter. This setup ensures optimal performance by pre-filtering water before UV treatment. Key components include feed water control valve, whole house filtration system, inlet/outlet control valves for UV, tee connectors, and the ballast.

5.4 Initial Startup

1. **Check for Leaks:** Slowly turn on the main water supply and check all connections for leaks.
2. **Power On:** Plug in the electronic ballast. The ballast will typically have an indicator light and/or an audible alarm to confirm operation.
3. **Flush System:** Allow water to run through the system for several minutes to flush out any air or loose particles.

5.5 Related Product Video



Video 5.1: This video from Geekpure Water Group demonstrates the installation and function of a 2-stage whole house water filtration system, which is often used as a pre-filter for UV purifiers like the UV-55W. It illustrates how sediment and carbon block filters work to remove particles, chlorine, taste, and odors before water reaches the UV sterilization stage. The video provides a visual guide to the

6. OPERATING INSTRUCTIONS

Once installed and powered, the Geekpure UV-55W system operates continuously to purify your water. The electronic ballast will indicate the operational status of the UV lamp.

- **Continuous Operation:** For optimal water quality, the UV system should operate 24/7.
- **Status Indicators:** Monitor the electronic ballast for visual and/or audible alarms, which indicate the status of the UV lamp (e.g., lamp failure).

7. MAINTENANCE

Regular maintenance ensures the continued effectiveness and longevity of your UV water filter system.

7.1 UV Lamp Replacement

- **Frequency:** UV lamps have an effective life of approximately 9,000 hours (about 1 year of continuous use). Replace the UV lamp annually, even if it appears to be working, as its germicidal effectiveness diminishes over time.
- **Procedure:**
 - a. Shut off the water supply and unplug the ballast.
 - b. Drain the system.
 - c. Carefully remove the old UV lamp and quartz sleeve.
 - d. Clean the inside of the stainless steel chamber.
 - e. Install a new quartz sleeve and UV lamp, following the assembly steps in Section 5.2.
 - f. Restart the system as per Section 5.4.
- **Replacement Parts:** For replacement UV lamps and quartz sleeves, search for ASINs B08LV8GG7H or B09HGTTQPD.

7.2 Quartz Sleeve Cleaning

- **Frequency:** Inspect and clean the quartz sleeve every 3-6 months, or more frequently if water quality is poor. Mineral deposits or sediment on the sleeve can reduce UV light transmission.
- **Procedure:**
 - a. Follow steps for UV lamp replacement to access the quartz sleeve.
 - b. Clean the quartz sleeve with a soft cloth and a mild acid solution (e.g., vinegar) to remove any mineral buildup. Rinse thoroughly with clean water.
 - c. Reinstall the clean quartz sleeve and UV lamp.

7.3 System Disinfection (for well water users)

If using well water, periodic disinfection of your entire plumbing system is recommended to ensure comprehensive water safety.

- **Procedure:**
 - a. Bypass the UV system and any other filters that could be damaged by chlorine.
 - b. Introduce a small amount of household bleach (chlorine) into your well or main water line.
 - c. Run water through all faucets, toilets, and appliances until you detect the smell of chlorine.
 - d. Allow the chlorinated water to sit in the pipes for several hours (e.g., overnight).
 - e. Flush the entire system thoroughly until no chlorine smell or taste is detected. Water test strips can be used to confirm chlorine removal.

f. Reconnect the UV system and other filters.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
UV lamp not lighting / Ballast alarm	Power outage; Faulty UV lamp; Faulty ballast	Check power connection; Replace UV lamp; Replace ballast if lamp is new and still not working.
Water leakage	Loose connections; Insufficient thread sealant; Damaged O-rings or seals	Tighten connections; Reapply PTFE tape; Inspect and replace O-rings/seals.
Reduced UV effectiveness	Old UV lamp; Dirty quartz sleeve; High turbidity in water	Replace UV lamp; Clean quartz sleeve; Ensure proper pre-filtration.
Water still tastes/smells bad	UV system does not remove taste/odor; Pre-filters are exhausted	Ensure a carbon block pre-filter is installed and replace it if necessary.

9. SPECIFICATIONS

Specification	Detail
Model Name	UV-55W
Brand	Geekpure
Purification Method	Ultraviolet
Flow Rate	12 Gallons Per Minute (GPM)
UV Lamp Power	55 Watts
UV Lamp Life	9000 hours
Product Dimensions (L x W x H)	38" x 2.5" x 2.5"
Material	Stainless Steel 304
Inlet/Outlet Size	1 inch MNPT
Operating Pressure Range	10-60 PSI
Operating Temperature Range	40-110°F (5-45°C)
Power Source	Corded Electric (100-140V / 50-60 Hz)
Supported Water TDS Level Maximum	300 PPM
Item Weight	9 Pounds

10. WARRANTY AND SUPPORT

Geekpure provides a **1-year warranty** for this product. For technical assistance or warranty claims, please contact Geekpure customer support. Geekpure offers **24/7 technical support** to assist with any questions or issues you may encounter. Geekpure is an ISO9001:2015 certified manufacturer with over 20 years of expertise in water purification systems.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question