



# Whole House Filtration System with UV in SS Enclosure



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## Technical Overview

### I. Important Notes

**For correct operation of this appliance, it is essential to observe the manufacturer’s instructions.**

Installation must be carried out by a qualified plumber or authorised technician to comply with Australian Plumbing Codes. This filter system is certified to WaterMark Standards AS/NZS 3497 Under the Certificate number 23247. WaterMark certification is the level of certification required by law for a licensed plumber in Australia to install a water filter system.

**This system contains electrical components and plumbing components; Use caution and if leaking occurs, turn the power off immediately before conducting maintenance or repair to the system.**

This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.

### II. UV Specifications

Flow Rate @ 30mJ/cm <sup>2</sup>	105L/Min
Flow Rate @ 40mJ/cm <sup>2</sup>	75L/Min
Voltage	230V – 240V
Chamber Material	304SS
Max pressure	700 kpa
Operating Pressure	500 kPa
Lamp Power	48W HO
System Dimensions	600w x 220d x 875h

### III. WARNING

This appliance must be installed into **a single socket surge protector directly**, before being connected to a 240V 10A GPO. It must be a surge protector; Circuit Breakers and RCDs are not suitable substitutes as they do not protect the unit from power surges.

**Danger:** Dangerous electrical voltage is present inside the power supply box & chamber. These instructions must be followed closely to prevent serious personal injury. Ensure eye protection is worn when servicing and installing this unit to protect from harmful UV-C Radiation. This radiation can be harmful to eyes and skin, UV lamps should

only be used when properly installed in the irradiation chamber. The UV lamp must not be operated outside the chamber.

- This unit must be used only for its intended purpose as described by the manufacturer.
- This unit must be installed in accordance with this manual.
- The unit must be unplugged when; The unit is not in use, before fitting or removing any parts.
  - The unit must be electrically isolated before Maintenance, Cleaning or Lamp Replacement.
- The System will need to be de-pressurised before maintenance.
- The UV lamp is designed for continuous usage to reach full disinfection capacity. Frequently turning the system on/off will cause the lamp to reduce in effectiveness and may cause the lamp to fail.

**Overheating:** For long periods of no flow through a UV system, it is required to fit a Thermal Relief Valve (TRV) which can be purchased separately. Excessive build-up of temperature in the chamber may cause the O-ring to deform and fail, causing leakage which can meet the lamp/power supply causing damage or personal injury. Installing a UV system without a TRV may void warranty – check the Warranty details for further clarification.

#### IV. Before You Purchase/Open

The system requires specific working conditions to be met before installation, some general guidelines\* are listed below. If these conditions are not met, the system may not be suitable for the application and may not function as specified.

These systems are designed for use in home applications on Main Water or Tank Water. For applications where raw water supplies are used (E.g. Bore, Dam, Creek) please contact the manufacturer for technical assistance to determine if your application is suitable for these systems.

Feed Water Conditions	Min	Max
Inlet Pressure	175 kPa	700 kPa
Temperature	0.5°C	38°C
pH Level	2	11
TDS	0 mg/L	2,000 mg/L
Iron	0 mg/L	0.3 mg/L
Manganese	0 mg/L	0.1 mg/L
Hardness	0 mg/L	200 mg/L

#### V. Before You Begin Installation

The HPF-UV systems come pre-assembled on the bracket with centre joiners installed. These units are batch tested to ensure there are no leaks. Due to transit, fittings and other components may be loosened or damaged – **ensure the system is inspected for damages prior to employing a plumber for installation.**

To ensure full germicidal protection, rainwater tanks should be treated with HydroSil-ULTRA (Hydrogen Peroxide Water Sanitiser) before the HPF-UV system is installed. After dosing, run water throughout the house (open each tap) and this will sanitise the plumbing within your house. This is required as UV systems are a point of contact sanitiser and they do not have any residual effect (i.e., they only kill bacteria when flowing through the UV; UV radiation does not stay in the water as it moves throughout your house). Once this is completed, you can begin installation.

#### VI. What is Standard Filtration

Standard Filtration generally refers to systems designed to remove dirt/sediment & chemicals (such as chlorine) from drinking water. These systems are NOT designed to remove **Fluoride** or other dissolved salts or minerals

from water. These units are generally simple to install and run and have a lower cost to maintain. They help improve the taste of the water whilst removing common impurities.

## VII. Installation with other Systems

It is common for these systems to be supplied with other additional filtration systems for different applications. Below are some example scenarios. NOTE: These are just guidelines and may be different depending on the requirements of the job. Check with the client or supplier as to which type of installation order is required for not standard installations.

**Calcite Filter:** Calcite filters are usually installed on Rainwater Systems to counteract the pH of acidic rainwater which usually causes green/blue staining in the water or on fixtures. The calcite filter is usually installed as stage 1 as it is a back washable media vessel, followed by the Big Blue System.

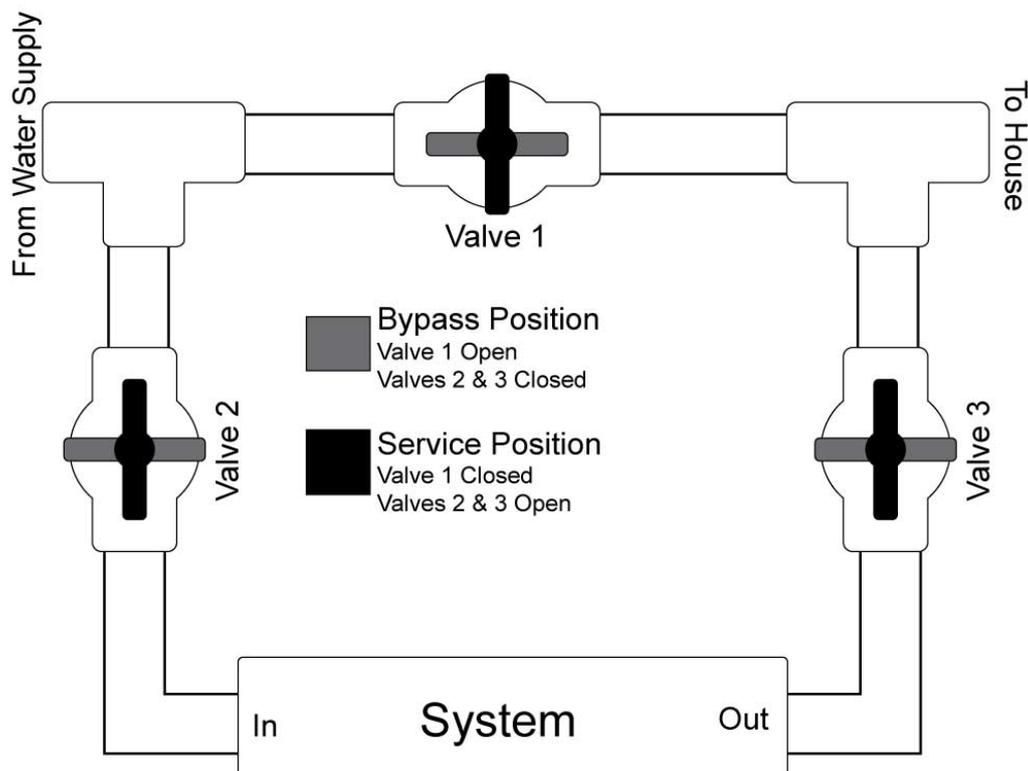
**Water Softener:** Water softeners are common on both mains water and also bore water installations. For bore water installations it is best to check with the supplier as to the installation position and any other requirements such as flow controllers and float switches. The most common bore water installation will go in order of Bore → Softener → Tank → Calcite Filter → HPF-UV → House

## Installation Introduction

### I. Site Preparation

The HPF-UV System will need to be installed on the water line between the water supply and your house. Ideally if you can find where the cold water enters the building or tees off to the HWS. Either way, you will need access to modify the pipe work to install the system in place.

Allow enough room to install a bypass for the filtration system. If something goes wrong with the system, or during maintenance you can still get a water supply to the house. Below is an example of a bypass installation.



The HPF-UV Systems are weather resistant however where possible it is best for the longevity of the system to install the unit undercover, if possible, to shield it from direct sunlight and weather extremes such as rain, storms, and frost.

## II. Stainless Steel Enclosure

The Stainless-Steel Enclosure & Frame of the HPF-UV system is proudly Australian Made & Owned. Manufactured locally here in SE QLD. It features a robust stainless-steel frame & thick heavy duty mounting plate for the filtration. The front cover is a sleek & stylish brushed chrome finish with premium laser etching rather than plastic stickers/labelling to blend in with a more modern and upmarket style home. The top cover has a toughened glass viewing window for easy monitoring of the UV system and the pressure gauges. Durable automotive grade 3M™ compressed foam tape lining fixed to the joins to reduce metal on metal contact and reduces the chance of water and dust from entering the top section.



Toolless fixing screws are used to mount the front cover and top cover in place which can easily be removed by hand OR a flat head screwdriver.

## III. Mounting

The system is constructed from Stainless Steel and has 2 keyhole mounts at the rear of the top plate for mounting the unit. Allow enough space on either side for the plumbing connections and ensure there is enough space in front of the unit to allow easy removal of the front/top covers and for maintenance. Also allow at least 500mm height clearance for the UV lamp installation & maintenance. The mounting location will require a 10A GPO within ~1.5m from the left side of the system for the UV power supply. If mounting on an uneven surface, it is recommended to install a spacer behind the mounting holes, so the unit is sitting slightly off the wall to allow easier installation & removal of the top cover.

## IV. Installing Connections

The HPF-UV system has a standard 1" Female BSP port for the inlet connection into the stage 1 Big Blue filter housing. The outlet point is from the UV system which has an internal and external thread to choose from depending on the installation requirements. 1" BSP male or 3/4" BSP female.

**DO NOT use any type of liquid thread sealant as this will cause the cap to split shortly after it cures - warranty will not cover this.**

**Thread tape is the only form of sealing material permitted for use on these housings. Alternatively, you can also use a suitable 1" BSP fitting with an O-ring for sealing.**

## V. Filter Protection

**If there is no Pressure Limiting Device (PLV) installed on the main line incoming to the house to limit the water pressure to 500 kPa, you will need to install one prior to the filtration system to reduce the pressure in compliance with Australian Plumbing Codes & HPF Warranty. Failure to do so may cause excessive pressure & potentially damage the housings.**

It is recommended that an anti-water hammer device is installed on the house to dampen water hammer commonly caused by washing machines. It is best to install these devices at the point of hammer such as on the cold-water line at the washing machine or dishwasher.

## VI. Pressure Gauge Installation

The HPF-UV system is supplied pre-fit with gauges, if the gauges are to be removed or replaced, follow the below.

**Kit Contains:** Opening Spanner, Pressure Gauges (If applicable), Gauge Port Bungs, O-Rings

**Install with Gauge Plugs:** The housings are supplied with a thin o-ring in a zip-lock bag. Install this o-ring into the gauge port then screw in the gauge plugs firmly without thread tape.

**Install with Pressure Gauges:** When installing pressure gauges, use the thin o-ring supplied in the zip-lock bag, the O-ring is to go in the port at the bottom – NOT around the thread of the gauge.

Firmly hand tighten the gauge without the use of thread tape – **Do not overtighten the gauge.**

**NOTE: If there is no reading on the pressure gauge, it is likely that the gauge is too tight – causing the o-ring to obstruct the hole on the gauge.**

If the o-rings do not provide an adequate seal, you are permitted to remove them and use 6 to 8 wraps of **white** plumber's tape. Excess thread tape or thread glue/sealant will cause the port to split.

## VII. Cartridge Installation

Cartridges should be installed in order of: Pleated Before Polyspun, Polyspun Before Carbon, Highest Micron Before Lowest Micron.

As an example, a common filter set would be 5uM Polyspun, 5uM Silver Carbon. You would install them in that order as per the above guideline.

Cartridges will need to have the outer plastic shrink wrapping removed before being installed. Maintain minimal contact with the surface of the carbon filter, handle by the end caps only to avoid contamination as carbon will absorb smells and oils from the skin. **NOTE: Cartridges may be supplied already inside the housings for transport, however they will still be wrapped in their original wrapping as per regulatory guidelines.**

Gently lower the cartridge into the blue sump and locate the filter so the stem in the bottom of the sump inserts into the centre hole of the cartridge. **Do not drop the filter** in as this centre stem may break the plastic caps of the filters. Once the filter is located, screw the sump into the cap (in a vertical position). It can help to wobble the sump to help the filter locate into the guide lugs in the top of the cap.

The caps should screw up rather smoothly with little resistance so it is usually suitable to firmly hand tighten the housings. If you encounter resistance before the housing is more than  $\frac{3}{4}$  tightened you may not have the cartridge aligned with the guide lugs; remove the sump and line it up correctly before tightening. An opening spanner is provided with these systems and is only required for installation if hand tightening is not easily achieved or if slight leaking occurs. It is important not to overtighten the housings as this can lead to excessive stress on the cap thread which may cause damage to the housing long term. The spanner can be used to help unscrew the housing when filter changes are required as the housings are usually more difficult to unscrew over time being installed.

## Ultraviolet System Installation

### I. Quartz Tube Installation

Due to the fragile nature of the quartz, care must be taken when handling and installing the thimble and lamp. The below steps are for horizontal installations.

1. Remove the knurled nuts from either end of the UV chamber.
2. Wearing clean gloves or handling with a micro-fibre cloth, remove the thimble from the packaging and check for any marks or blemishes. Insert the glass thimble into the chamber from the top.
3. Allow equal parts of the thimble to be exposed from each end of the chamber and slide the O-Rings over each end of the glass as shown. Be careful not to drop the glass at this point. Once the O-rings are in place, it will assist in holding the glass in place. It is recommended to put something soft underneath the system just in case the glass does slip through, it may prevent the glass from breaking.



4. When the O-rings are seated, firstly loosely install the bottom nut and then the top nut until you feel resistance. Simultaneously tighten (by hand) the top and the bottom nut equally to keep the Quartz tube centred in the chamber. Do not apply any thread tape, grease, or sealant.  
**Caution: Overtightening the nuts may cause the quartz to crack.**
5. You can look through the open end of the nut to see if the o-ring is seated correctly or feel this with your fingers. There will likely be a slight gap between the end edge of the thimble and the recessed stop-end of the knurled nut - this is normal. If you see that the quartz tube is hitting the stop end of the top nut, stop tightening the nuts because it is likely that the bottom nut has caused the quartz to shift off centre. You will need to loosen off the bottom nut and push the glass back down before continuing with tightening. If you experience issues with this, please contact the distributor or manufacturer for assistance.
6. When following the next commissioning steps, check the chamber for leaks once it is pressurised. If a leak occurs from the quartz, the nuts may need to be slightly tighter. A gripping tool can be used if required if the stop end is not contacting the glass. Thoroughly dry out the unit before continuing.

## II. Ballast Operation

To guarantee user safety, this ballast features complete control and protection functions which are caused by.

1. UV Lamp exceeding life cycle (365 Days).
2. UV Lamp Failure.
3. Working beyond rated voltage and load.

This ballast is designed to work with germicidal UV lamps. Do not mistake the input/output wire to avoid ballast failure.

- Ensure the voltage is within the specification of the ballast.
- Match the UV lamp with the power output of the ballast.
- Ensure the connections (plugs) are fitted correctly – the earth wire must be affixed securely.

**Working Condition:** Green LED light of ballast ON, No Red LED, Digital Display indicating # of Days

**Fault:** Red LED on / Flashing, Audible alarm

**Working Timer Function:** The First timer indicates number of operating days from 0 to 9999, the Second timer indicates UV lamp working life which is a countdown from 365 days to 0. The UV lamp working life is set by default, but you can switch between these indicators by pressing and holding the “SELECT” button for 2 Seconds (repeat this to return to Default).

**UV Lamp Replacement Alarm:** Once the UV lamp working day timer reaches 0, the digital display will show “A3”. The Red LED light will flash and there will be an audible alarm to remind you to change to a new lamp.

**Ballast Reset:** When the lamp has been changed, press, and hold the “SELECT” button for 10 seconds until the display shows “RSET” – Continue holding for a further 5 seconds until the display shows “0365” and you will hear an audible beep. Release the button and the timer is successfully reset.

## III. UV Lamp Installation

Once the chamber has been pressure tested and there are no water leaks, the lamp can be installed. It is usually recommended to complete step 1 to 4 of *I. Plumber Commissioning* before installing the lamp.

1. Remove the lamp from its protective wrapping, inspect for damages. Ensure there is no water in the thimble or surrounding areas.
2. Drop the Spring into the chamber so it is sitting at the bottom of the quartz thimble, this prevents the UV lamp from falling and hitting the bottom of the glass and keeps the lamp in the correct position for the power connection.

3. You will need to connect the ballast connection to the lamp prior to lowering in the lamp. Ensure the connection is firm and plugged in all the way.
4. Lower the lamp carefully until it contacts the spring then slide the white cap over the knurled nut.
5. Connect the Green/Yellow earth wire to the small nut and finger tighten the nut over it to hold it in place.
6. Connect the 3 Pin AU plug into a single socket surge protector.
7. Remove the Red sight plug on the white cap and turn on the power to the UV system to check that the lamp is working. You may hear an audible beep from the power supply and the screen should display 365 representing the day countdown. The Green working light should be solid to signify that the lamp is operating correctly.
8. Replace the red plug

## System Start Up & Operation

### I. Plumber Commissioning

When you are confident that the system is correctly installed, do the following steps to start up the system and commence the flushing procedure.

1. Open a tap downstream from the system to allow air to bleed from the plumbing – if this is not easily achievable disregard, just note that sputtering may occur more prevalently in the house until the air has vented from the lines.
2. Close off the bypass and open the system valves to allow water to flow through the system, depress the red button on top of the 1<sup>st</sup> housing until water comes out (to bleed the air), repeat for each housing inline.
3. The water coming out of the system will likely run cloudy or discoloured temporarily which is normal as this is the fines coming off the carbon filter.
4. Shut off the tap and allow the system to hold under static pressure and check for any leaks.
5. While the filter is new, there may be some slight taste issues with the water (such as a metallic or ‘chemical like’ taste. This is normal and is the reaction that activated carbon has with water when the filters are new. Flushing the filters will help reduce the time until the water is back to normal taste. The metallic taste is usually due to the high pH that is created due to this reaction, it is only temporary and is usually gone within 1 week from installation if not sooner.

### II. Turning the System On/Off

This will depend on the style of bypass that is installed on the system. Refer to the above diagrams of a bypass in service and bypass position.

If the water to the house is not going to be used for over 48 hours, it is recommended to turn the system into bypass mode to avoid static pressure build up in the system. The UV system should also be turned off to prevent overheating in the chamber. For periods of time over 1 week, the above also applies, however we would suggest briefly flushing the system before use (allow the first few minutes to run down the drain) specifically for drinking water.

## Maintenance

### I. Replacement Parts

There are generally no parts (excluding consumables) on the system that will require periodic replacement at regular intervals. Below is a list of parts that may be applicable:

GT8-13G	20" x 4.5" Housing (Includes Cap)
GT8-11G-CAP	BB Cap 1" Ports Suit GT8-11G + GT8-13G
GT19-35SC	1" PE Nipple Joiner with O-Rings

GT16-3S	60mm Bottom Mount Pressure Gauge
GT19-127	¼” Gauge Port Stopper
GT23-1LS	BB O-Ring
GT17-2LS	BB Opening Spanner

## II. Replacement Cartridges

Cartridges have a varying life span but generally can be replaced under the following guidelines under normal working conditions; For clean water supplies (commonly found in Metro locations on the E & SE coast of Australia the filters should generally last up to 12 months. For harsher water conditions commonly found in rural areas or the North, West and South parts of Australia, filters may need to be changed every 6 months. NOTE: Usage will also be a factor for filter changes – if your pressure begins to drop and the water slows down through the filters it can be an indication that the filters are blocking and may be due for a replacement. These guidelines are based on appropriately sized/quoted systems for the intended application. Systems purchased without recommendation by the supplier may not perform to the above expectations.

## III. UV Parts

The 48W lamp in this system is rated for an effective lifespan of 9000 hours (12 months). They are designed for continuous running, not for intermittent operation.

### Lamp replacement | Every 12 Months

H7-90-Lamp	48W HO UV Lamp to suit H7-90-AT
H7-90-Thimble	470mm x 23mm OD Quartz Dome end Thimble
H7-90-OR	23mm OD O-Rings

### Replace Quarts Sleeve and O-Rings | Every 2 years

### Replacement Ballast

H7-90-PS	HPF Electronic Ballast   33W – 120W with Countdown Timer
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## IV. Testing Filters

Differential pressure is a good test to determine if the filters are beginning to block and need replacement. When new filters are installed, record the pressure on each gauge while the water is static (no flow) then again measure the pressure with an outlet running (such as a shower). This will give you a baseline for static and flowing differential pressure. There is no set rule as to when filters need replacing due to high differential loss, it more comes down to personal preference. Filters should be replaced at least every 12 months.

## Troubleshooting

Problem	Possible Cause(s)	Solution
<b>Twin 20” x 4.5” Filter System</b>		
Leaking from Centre Joiners	1. Transit Damage	1. The system will need to be dismantled to fix the leak. A plumber should be capable of fixing this; however, it is best to contact the supplier immediately.
Leaking from in/out Ports	1. Insufficient Thread Tape 2. Crack/Split 3. Incorrect Fitting	1. Remove existing tape and apply slightly more tape – do not apply excessive amounts to avoid damage to port. 2. Check the port for a hairline crack or split – if there is one, the cap will need to be replaced, it is not repairable. 3. The caps are 1” BSP and will require preferable a 1” BSPT male fitting.
Pressure Gauges Not Showing a Reading	1. Obstruction	1. If there is no reading on the pressure gauge, it is likely that the flat washer was not removed, or the

		gauge is too tight – causing the washer to obstruct the hole on the gauge. Loosen the gauge to correct this.
Leaking from Gauge Port	<ol style="list-style-type: none"> <li>1. Not tight enough</li> <li>2. Missing O-Ring</li> <li>3. Cracked port</li> </ol>	<ol style="list-style-type: none"> <li>1. There can be a fine line for these gauges to seal, if required, remove the seals and use thread tape as directed previously.</li> <li>2. Install the O-ring into the port and try again</li> <li>3. If there are any signs of damage to the port it may need replacing with a new cap.</li> </ol>
No Water Flow	<ol style="list-style-type: none"> <li>1. Valve Position</li> <li>2. Insufficient pressure</li> <li>3. Damaged or Blocked Filter</li> <li>4. Filter Wrapping</li> </ol>	<ol style="list-style-type: none"> <li>1. Check that the bypass and service valves are in the correct position. Ensure the mains is also turned on.</li> <li>2. Check the incoming water pressure and ensure it meets the requirements of the selected filters. NOTE: some filters require higher pressure to operate (carbon filters).</li> <li>3. Isolate each filter by process of elimination to determine which filter is not allowing water to pass. Check for damages. The filter may also need replacing due to being blocked by some form of contamination.</li> <li>4. Ensure the filters are unwrapped before installation.</li> </ol>
High pH Reading	<ol style="list-style-type: none"> <li>1. Carbon Filter</li> <li>2. Insufficient Testing Equipment</li> </ol>	<ol style="list-style-type: none"> <li>1. If you have a GAC or Block filter (Carbon), this will naturally increase the pH of the water. pH is the measure of Hydrogen in the water and this hydrogen will vent off the water if you leave it to stand and the pH will then drop back down to the normal level.</li> <li>2. pH testing equipment can range from a cheap test pen right up to lab grade equipment. Before coming to a conclusion on pH issues, it is best to ensure the equipment used to measure the pH of the filtered water is of high standards and suitable for reading pH levels in lower EC water (i.e. The guy at the pool shop is not going to cut it). We have access to high quality testing equipment and frequently test our units and conduct research. If you feel that there is an issue with your pH, please contact us.</li> </ol>
Strange taste to the water (New System)	<ol style="list-style-type: none"> <li>1. Residue</li> <li>2. pH Alteration</li> <li>3. Contamination</li> </ol>	<ol style="list-style-type: none"> <li>1. The filters are dry packed, the carbons, alkaline filters will have ‘fines’ on them.</li> <li>2. As previously stated, Activated Coconut carbon will react with the water when new and will increase the pH. People who are not accustomed to higher pH water may notice a strange taste/sensation due to the large variance of pH. Flushing the system will help stabilise the pH from the system and also allowing the water to stand before drinking can also help allowing the water to ‘vent’ the pH</li> <li>3. Bacterial contamination is highly unlikely, but not impossible. If there is a strong ‘foul smell’ or organic taste to the water, it is possible that there is some form of contamination. Contact us straight away so we can rectify (or diagnose) the problem if there is one present.</li> </ol>

Cloudy Water	1. Air in water	1. Air is common whenever the system is opened. This will dissipate over time as the air flushes from the system/plumbing.
Slimy Feeling Water	1. Activated Carbon Reaction	1. This is a common symptom with activated coconut carbon. It gives the feeling of ultra-softened water and can feel slimy and also cause soaps to have an increased lather making it harder to rinse off. This is only temporary and does not happen with every installation.
<b>Ultraviolet Sanitation System</b>		
Leaking from Chamber	1. O-Rings Not Seated  2. Knurled Nut too loose  3. Damaged Thimble	1. If there is any issue with the o-ring in the way they are seated this will need to be fixed. Remove the thimble and repeat steps 3 – 5 2. If the nut is not tight enough, the o-rings will not have a good enough compression and will cause a leak. Slightly tighten up the nut until a watertight seal is achieved. It is better to tighten slightly at a time to prevent overtightening. 3. If there is a crack or hole in the thimble, it will fill from the inside out. Turn off the water, carefully remove the thimble and replace with a new one. If the thimble releases and shards of glass, this chamber and downstream plumbing will need to be thoroughly checked and any glass removed before re-connection.
High Water Temperature	1. Low Flow Rate  2. Oversized System	1. If there are periods of low water usage or the water is allowed to stand for long periods of time, the water may be prone to heating up and may become lukewarm or hot in extreme cases. Generally, this only occurs on systems that have a short distance between the outlet and the point of use. Whole house systems have a larger length of cold plumbing pipes downstream. 2. If the system is too large for the application it is likely that even with frequent water usage the water does not get a chance to cool down effectively. If there are significant fluctuations in usage or flow rates, it is good practise to instal a thermal relief valve sold separately on the outlet of the UV chamber which can bleed water from the chamber and keep temperatures below 56°C.
Hot SS Chamber	1. Low Usage	1. As Above, if the water is allowed to stand for periods of time the chamber will heat up naturally. This is normal, however if the heating is excessive to the point where it is causing damage to the chamber or surrounding fixtures, a thermal relief valve should be fitted.
Ballast is alarming	1. Lamp Failure	1. Usually if the ballast is alarming and showing a red flashing status indicating light, the lamp has failed, and it will require replacement. Before replacing a lamp, it is best to check firstly for an external cause for lamp failure, turn off the power then check for water ingress from either rain, or leaks or any signs of

	2. Interrupted power supply	<p>moisture or condensation in or around the electricals. Due to the elevator temperature of the lamp, high humidity may cause condensate to form. If there are no signs of leaking, check for signs of shorts or charring on the lamp connection with the ballast. lastly inspect the tube to see if there are any dark patches or if the filaments are burnt out.</p> <p>2. Sometimes the ballasts may trigger failure alarm if the connection to the lamp is interrupted or perhaps the connection is not solid enough. If the above steps reveal no faults and the lamp is still working, turn the power off for five minutes, check connections and then turn it back on to see if the fault clears.</p>
No Lights on Ballast	<p>1. Ballast failure</p> <p>2. interrupted power supply</p>	<p>1. in the event of a large surge it is possible that the ballast failed. This can also occur from shorts and water ingress. cheque for signs of a short around the lamp connexion end. The ballast will need to be replaced. The UV lamp may also have blown at the same time or could be the cause for the ballast failure. for safety it is best to replace both the lamp and ballast together. If it is within warranty. Please contact the manufacturer for further instructions.</p> <p>2. cheque the wall socket with a different electrical appliance to cheque if the GPO is functioning. Also check your circuit breaker to see if any switches are off.</p>
Lamp is working but the ballast is alarming	<p>1. Faulty lamp</p> <p>2. Faulty ballast</p>	<p>1. The lamp may be lighting up but not working at its full capacity which may be caused by it not drawing enough power from the ballast. The lamp will require replacement. Turn the system off, check connections and turn back on to see if it fixes the alarm.</p> <p>2. The ballast could have a problem with the lamp failure protection and may require replacement. Turn the system off, check connections and turn back on to see if it fixes the alarm.</p>

## I. General Warranty

Water Filter Systems<sup>1</sup> (Excluding consumables) Manufactured or Assembled<sup>2</sup> by High Performance Filtration (HPF) are covered under a 12-month Warranty Against Defects (Manufacturer's Warranty). This warrants the water filter system to be free from defects in material and workmanship for a period of 12 months from date of sale. If applicable, HPF may cover the return freight in the form of a re-imbusement after the system has been inspected and confirmed it is a valid warranty claim.

HPF will not cover any labour charge incurred by the consumer for the replacement or repair of a product. The warranty is strictly parts only for the parts supplied by HPF. This warranty only applies to the original consumer of the product and is non-transferable. If you have purchased the system through a re-seller, please contact them to facilitate the warranty on your behalf. All replaced or exchanged parts become the property of HPF.

HPF does not cover the workmanship of the plumber who originally installed the system. Responsibility for damages that occur during installation fall with the plumber.

## II. Qualification for Warranty

As per Australian Plumbing Codes, all filter systems must be installed by a qualified plumber. The consumer is responsible for keeping record and proof of installation in the form of an invoice and/or receipt.

Filter systems must be maintained as per HPF recommendations<sup>3</sup> including the use of replacement filters, fittings and components supplied by HPF. Failure to maintain the filtration systems using HPF supplied/approved products may void warranty.

The warranty only applies if the product was used and/or installed in accordance with the user guide and/or installation instructions. This warranty is given in lieu of all other express or implied warranties and manufacturer shall in no circumstance be held liable for damages consequential or otherwise or delays caused or faulty manufacturing except as excluded by law.

Warranties need to be approved by HPF to ensure the product was not incorrectly used, installed, or claimed. False and incorrect claims will be pursued at HPF's discretion including chargeable inspection and transit costs incurred.

HPF does not take responsibility for retaining customer records, it is the consumer's responsibility to retain all invoices or proof of purchase from the original sale and ongoing maintenance records as proof of upkeep.

## III. Exclusions

HPF Standard Warranty shall be void if the product sustains damage or failure resulting from any of the following:

- If the system was not installed in accordance with the manufacturers instruction manual.
- If your system(s) fails to be maintained in accordance with recommended servicing and as per the manufacturers operating instructions.
- Cross threading or damage to screws and/or threads
- Unauthorised or abnormal use or operation.
- Exposure to unsuitable environmental conditions\*.

### Warranty – Australia

This warranty is given by High Performance Filtration (Jacknel Pty Ltd ATF The J & N Family Trust). ABN 64 855 305 562 Located at 7/38 Jade Drive, Molendinar QLD 4214. Ph 07 5597 6142 & email info@hpfiltration.com.au

This warranty is provided in addition to other rights and remedies you have under law. Our products come with guarantees which cannot be excluded under the Consumer Guarantees Act.

## IV. Extended Warranty

The HPF-UV system is eligible for a conditional extended 4-year warranty (commencing no later than 12 months from the sale date), to provide a total warranty period of 5 years. This extended warranty is subject to terms and conditions outlined below. This extended warranty covers the below parts of the system.

- Ultraviolet Chamber
- 20" Blue Housings & Centre Joiner
- PVC Manifold (Between UV and Filter System).
- HPF-UV Stainless Steel Frame & Enclosure

## Extended Warranty Qualification

Extended Warranty is valid only if the following conditions are met:

- The system was installed by a licenced plumber – proof of installation required in the form of an invoice for the works.
- The system was maintained in accordance with our recommendations in *Maintenance*.
  - UV Parts & Filter cartridges must be genuine HPF products purchased through a registered HPF supplier.
  - Proof of purchase for replacement parts also required.

## Pro-Rata & Consumable Warranty

Some components are considered consumables including the Lamp, Quartz Thimble, O-Rings & Cartridges.

*General Warranty* does not apply to these consumables.

Pro-Rata warranty applies to:

- UV Lamp (12 months)
- UV Ballast (2 years)

Pro-Rata Warranty is determined by the period remaining of the components 'Lifespan' as dictated in the instruction manual or advertisement. A discount of the remaining balance of value (in life) will be deducted from the price of a new replacement part.

For example, A lamp has a successful warranty claim after 6 months from date of original invoice, the discount will be 50% from the next purchase of a replacement UV lamp. Pro-Rata Warranty only applies for a single use within the pro-rata period (12 months).

Pro-Rata Warranty only applies to components purchased new at full list price or as part of an applicable UV system.

Due to a large range of factors, cartridges for the filter system are not covered under a warranty or pro—rata warranty. Rather they are regulated based on consumer law of the cartridge being advertised correctly and fit for purpose.



**HIGH  
PERFORMANCE  
FILTRATION**

## Definitions

<sup>1</sup> Water Filter Systems are defined as systems designed for drinking water under our Water filter Systems, Reverse Osmosis Systems & Ultraviolet

Sanitation Categories – Excluding Cartridges and Shower Filters.

<sup>2</sup> Other products not manufactured or assembled by HPF are covered under the applicable manufacturer's warranty.

<sup>3</sup> HPF specifies recommended or required filter maintenance – see product information for further details. If a maintenance schedule is not

specified, filter maintenance is required at least once per 12-month period.

\* Unsuitable environmental conditions include but are not limited to; Excessive hot or cold, Weather extremes.