

# Installation and Operation Manual

## 3-Stage System

### Model PWSYS-FIL-ICE1

# PURE WATER

### Important

Please read the entire manual before proceeding with the installation and startup. Your failure to follow any attached instructions or operating parameters may lead to the product's failure.

Save manual for future reference



PWSYS-FIL-ICE1-600

### Table of Contents

- Systems Specifications . . . . . 2
- Notice to Installers . . . . . 2
- Installation Precautions . . . . . 2
- Operation . . . . . 3
- Installation . . . . . 3
- Maintenance . . . . . 3
- Filter Cartridge Replacement Procedure . . . . . 3
- Replacement Parts List . . . . . 3

**Note:** Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.



# System Specifications

Maximum Pressure: 125psi/8.6 bar

Maximum Temperature: 100°F/38°C

Inlet/Outlet Connections: ½" FNPT

Maximum Flow Rate: 2 GPM

## Filter Cartridge Life Span

Filter cartridges should be changed at 6,000 gallons, 15psi overall system pressure drop at normal flow rate, or 6 months, whichever comes first.

## Replacement Filters

MODEL	FREQUENCY	DESCRIPTION
PWFIL-SED-STD-10-20M-DEP	6 Months	10" Sediment filter
PWFIL-CB-STD-10-5M-4K	6 Months	10" Carbon Block filter
PWFIL-PHOS-STD-10-16	6 Months	10" Polyphosphate filter

**Note:** Water conditions may require more frequent cartridge replacement

**Please note:** Cartridge capacities are estimates and may be less depending on incoming water quality. Cartridges should be changed at least every 6 months.

## Notice to Installer

- Do not discard this manual after installation. This manual contains important operation, maintenance and precautionary information. Please present this manual to the user/owner/operator after installation.
- It is strongly suggested that you read this manual before installing system to ensure the best possible installation.
- Installation must comply with all local and state plumbing codes and regulations.
- Connect the system to cold water supply only. Water Temperature cannot exceed 100°F/37°C.
- System must be installed in a vertical, upright and level position.
- Do not use with water that is microbiologically unsafe or of unknown water quality.
- Notice to user/owner/operator: Please retain this manual for a future reference for parts, maintenance, or troubleshooting.
- It is recommended that all personnel responsible for operation and maintenance of this product read the precautions, maintenance, and operation sections of this manual.

## Installation Precautions

- Do not install system on line pressure above 125psi.
- Do not install the system on a hot water line. Failure to limit the water temperature to 100°F can result in housing failure and property damage.
- Do not connect the system backwards with the feed water line connected to the outlet.
- Do not use liquid pipe thread compounds for threaded connections. Use Teflon® tape only.
- Do not solder plumbing connections that are attached to the housings or inlet/outlet fittings. System damage may occur due to high temperature.
- Do not allow the system to freeze. Turn off water supply and drain the system if temperature falls below 32°F.
- Do not install system in direct sunlight or where the system will be exposed to harsh chemicals or may be subjected to being hit by moving equipment, carts, mops, or any other item that may cause damage.
- Allow 3" minimum clearance under the housings for filter replacement.
- If water hammer is evident, install water hammer arrestors before the system.
- Do not over tighten fitting connections.
- Always back up valves and fittings with a wrench when installing fittings to avoid over tightening or loosening existing fittings.
- Do not install the unit behind equipment where it may be difficult to access the system for future filter replacements.

Position the system in a suitable location. The direction of flow through the system is left to right. Keep this in mind when determining installation locations. Do not mount the system near any source of heat. Also do not mount this system over anything that may be adversely affected by water.

# Operation

With sufficient pressure, operation of this system is completely automatic. Dependable operation involves only monitoring system pressure differential, periodic filter changes, and service documentation.

# Installation

**\*Please note: All cartridge filters are preinstalled, in the housings, at the factory.**

1. Turn off all equipment to be fed by the system, locate the water supply cut-off valve and turn it off.
2. Thread the inlet and outlet valve and pressure gauge assemblies in to the inlet and outlet of the system. The valve and pressure gauge assembly with the 1/4" compression connector is to be installed on the outlet of the system. **NOTE: DO NOT OVERTIGHTEN THESE FITTINGS INTO THE FILTER HEADS.**
3. Anchor the system on a wall stud or suitable mounting material spanning wall studs. System must be vertical, upright and level.
4. Run a suitable line of at least 1/2" in diameter from the tap water source to the inlet ball valve on the left side of the system. Brace the inlet ball valve on the system with a wrench when connecting the feed water line. **NOTE: DO NOT OVERTIGHTEN CONNECTION FITTING INTO BALL VALVE.**
5. Select the appropriate size tubing for the equipment being fed, and connect it to the outlet ball valve of the system. **NOTE: DO NOT OVERTIGHTEN CONNECTION FITTING INTO BALL VALVE.**
6. Install the 1/4" tubing into the compression fitting on the outlet of the system and hold it over a drain. Open the 1/4" drain valve.
7. Once all inlet and outlet piping has been completed check and make sure all filter housing are tight, slowly open the inlet valve and allow all air to purge from the system. Slowly close the 1/4" drain valve, allow the system to reach operating pressure, and check for leaks.
8. If no leaks are present, open the 1/4" drain line again and allow it to run to drain for 5 minutes to flush the system then close the valve.
9. Open the outlet water valve and check for leaks.
10. Record the start up date and pressures in this manual.

**Note: Overtightening components can damage the system causing water damage and/or system failure.**

# Maintenance

Routine maintenance of this system involves periodic filter changes. The filters should be replaced after 6 months, high pressure differential (15psi or more), or chlorine breakthrough (6,000 gallons), which ever comes first.

## Filter Cartridge Replacement Procedure

**IMPORTANT: Determine whether all equipment connected to the system must be turned off prior to shutting off water supply from filters.**

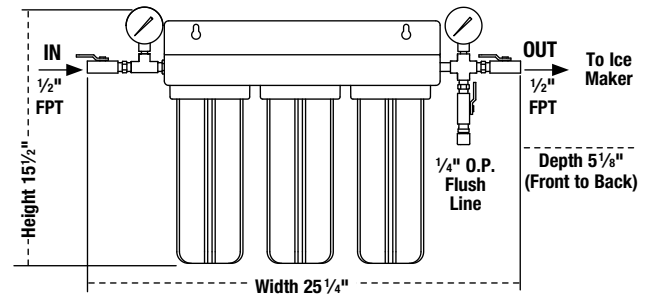
1. If required, turn off downstream equipment.
2. Turn OFF water to the system by closing the inlet and outlet ball valves.
3. Open the 1/4" drain valve on the outlet of the system to relieve pressure in the housings.
4. Remove housings by unscrewing them. They have a standard right hand thread.
5. Clean inside of housing sump with warm water. If desired, disinfect housing using a teaspoon of household bleach. Add to filter bowl and fill with water. Let stand 5 minutes and then discard and rinse.
6. Insert new cartridges into filter housings.
7. Make certain the O-ring is properly positioned and reinstall filter housings. Tighten housings hand tight. Check O-ring for damage and replace if damaged or distorted.

**Do not over-tighten filter housing, overtightening may damage O-ring(s), cause water leaks, or affect system performance.**

8. Slightly open the inlet ball valve and fully open the 1/4" drain valve. Once full flow of water flows from the drain port, slowly open the inlet valve to the full open position. Allow water to flush to drain for 5 minutes.
9. Slowly close the drain valve and check the system for leaks.
10. Slowly open the outlet valve to restore water flow to downstream equipment.
11. Record filter change date in this manual.

## Replacement Parts List

**PWSYS-FIL-ICE1-600 Maximum Flow Rate: 2 gpm**



**Note: Allow 3" of clearance at bottom of system for removal of filter bowls for filter cartridge replacement**

ITEM NUMBER	DESCRIPTION	QUANTITY
1	Sediment Filter 20 Micron 10"	1
2	Carbon Block Filter 5 Micron 10"	1
3	Polyphosphate Filter 10"	1
4	Pressure Gauge	2
5	Filter Housing O-ring	3
6	10" Filter Housing Assembly	3

**CALIFORNIA PROPOSITION 65 WARNING**

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (California law requires this warning to be given to customers in the State of California.)

**For more information:** [www.watts.com/prop65](http://www.watts.com/prop65)

**LIMITED WARRANTY:** Certain Watts Pure Water products come with a limited warranty from Watts Regulator Co. Other products may have no warranty or are covered by the original manufacturer's warranty only. For specific product warranty information, please visit [www.watts.com](http://www.watts.com) or the published literature that comes with your product. Any remedies stated in such warranties are exclusive and are the only remedies for breach of warranty. **EXCEPT FOR THE APPLICABLE PRODUCT WARRANTY, IF ANY, WATTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, WATTS HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND IN NO EVENT SHALL WATTS BE LIABLE, IN CONTRACT, TORT, STRICT LIABILITY OR UNDER ANY OTHER LEGAL THEORY, FOR INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR PROPERTY DAMAGE, REGARDLESS OF WHETHER IT WAS INFORMED ABOUT THE POSSIBILITY OF SUCH DAMAGES.**



A Watts Water Technologies Company

**USA:** North Andover, MA • Tel. (800) 224-1299 • [www.watts.com](http://www.watts.com)

**Canada:** Burlington, ON • Tel. (888) 208-8927 • [www.wattscanada.ca](http://www.wattscanada.ca)