



Installation Guide

HP02 SYSTEMS

Thank You for Your Purchase!

Questions ? Please contact Water, Inc. Service Department 1-800-322-9283

We will be glad to assist you!

Water, Inc 704 Kingshill Place ♦ Carson, CA ♦ 90746



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WHAT IS INCLUDED WITH YOUR SYSTEM

- 1" NPT Plastic Yoke
- ¾" NPT Plastic Yoke
- Bypass Plastic Assembly
- 90 Degree Adaptor
- 5800 Pentair Head
- 1054 Preloaded tank (Varies on models)
- Neoprene cover or Chrome sleeve for tank protection

JOB SPECIFICATION SHEET

Model Number: _____

Water Hardness: _____ ppm or gpg

Capacity Per Unit: _____

Mineral Tank Size: _____ Diameter: _____ Height: _____ Salt Setting per Regeneration:

1. System Type: _____

A. System #4: 1 Tank, 1 Meter, Immediate, or Delayed Regeneration

B. System #4: Time Clock

2. Control Program Settings:

A. Backwash: _____ Minutes

C. Rapid Rinse: _____ Minutes

E. Pause Time: _____ Minutes

F. Second Backwash: _____ Minutes

3. Drain Line Flow Control: _____ GPM

WARNING: CALIFORNIA PROPOSITION 65 WARNING This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.



IMPORTANT PLEASE READ

- The information, specifications and illustrations in this manual are based on the latest information available at the time of printing. The manufacturer reserves the right to make changes at any time without notice.
- This manual is intended as a guide for service of the valve only. System installation requires information from several suppliers not known at the time of manufacture. This product should be installed by a professional plumber.
- This unit is designed to be installed on potable water systems only. This product must be installed in compliance with all state and municipal plumbing and electrical codes. Permits may be required at the time of installation.
- It is established that when daytime water pressure exceeds 75 PSI, the maximum pressure rating of 75 PSI cannot be exceeded. A pressure regulator (not supplied) must be installed on this system or warranty is voided.
- Do not install the unit where temperatures may drop below 32°F (0°C) or above 125°F (52°C). Freezing temperatures will cause damage to the system which will void the manufacturer's warranty. Do not place the unit in direct sunlight. Black units will absorb radiant heat increasing internal temperatures. Do not strike the valve or any of the components.
- Warranty of this product extends to manufacturing defects. Misapplication of this product may result in failure to properly condition water, or damage to product. A prefilter should be used on installations in which free solids are present.
- In some applications local municipalities treat water with Chloramines. High Chloramine levels may damage valve components.
- Correct and constant voltage must be supplied to the controller to maintain proper function.

INSTALLATION:

Water Pressure A minimum of 20 psi (1.4 bar) of water pressure is required for the regeneration valve to operate effectively.

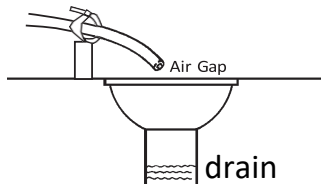
Electrical Facilities An uninterrupted alternating current (120 VAC) supply is required. The control uses a transformer to supply 12 VDC. Please make sure your voltage supply is compatible with your unit before installation.



Installation Cont.

Existing Plumbing Condition of existing plumbing should be free from lime and iron buildup. Piping that is built up heavily with lime and/or iron should be replaced. If piping is clogged with iron, a separate iron filter unit should be installed ahead of the water softener.

Location Drain You must have an air gap on the drain line to prevent back flow of drain water into the system. A 2x the drain line pipe diameter air gap is required with a minimum 1" air gap.



Outdoor Locations

When the water conditioning system is installed outdoors, several items must be considered.

- **Moisture** — The system is not designed to withstand extreme humidity or water spray from below. Examples: constant heavy mist, near corrosive environment, upwards spray from sprinkler.

CAUTION This unit is for dry location use only unless used with a Listed Class 2 power supply suitable for outdoor use.

- **Direct Sunlight** — The materials used will fade or discolor over time in direct sunlight. The integrity of the materials will not degrade to cause system failures. If it is necessary to locate the system in direct sunlight, a protective outdoor cover # WI-HP-28816 over the valve and controller is necessary.

- **Insects** — If installing in an environment that may expose the system to insects or other small animals, a protective cover is required. The protective outdoor cover has been designed to keep all but the smallest insects out of the critical areas. The cover should be installed securely in place.

Bypass Valves Always provide for the installation of a bypass valve if unit is not equipped with one.

CAUTION Water pressure is not to exceed 75 psi water temperature is not to exceed 110°F (43°C), and the unit cannot be subjected to freezing conditions.



Warning: The system must be depressurized before removing any connections for servicing.



Installation Instructions

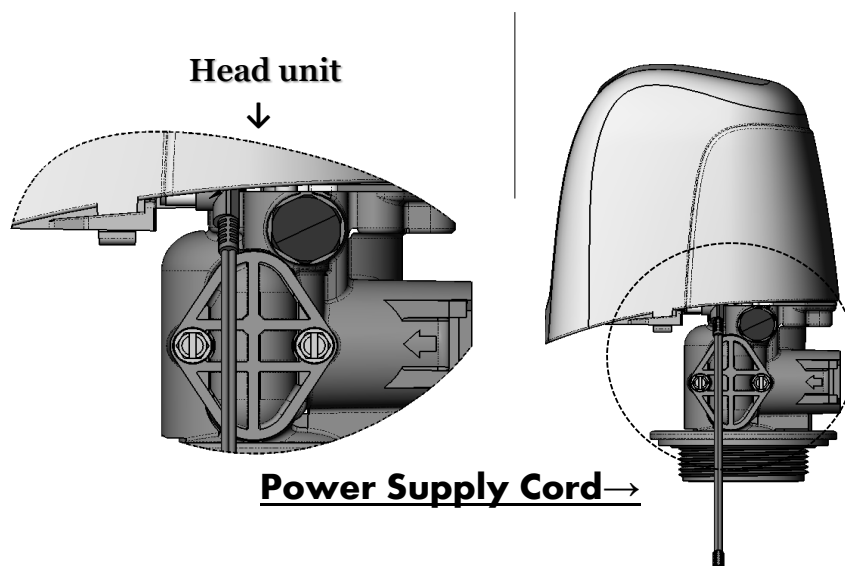
1. During cold weather, the installer should warm the valve to room temperature before operating.
 2. All plumbing should be done in accordance with local plumbing codes. The pipe size for a residential drain line should be a minimum of 1/2" (13 mm). Backwash flow rates in excess of 7 gpm (26.5 Lpm) or drain line length in excess of 20' (6 m) require 3/4" (19 mm) drain line. Commercial drain lines should be the same size as the drain line flow control.
- NOTE:** The tank should have the distributor tube installed and have the proper amount of regenerant in place.
3. Refer to the dimensional drawing for cutting height of the distributor tube. If there is no dimensional drawing, cut the distributor tube flush with the top of the tank.
 4. Lubricate the distributor O-ring seal and tank O-ring seal. Place the main control valve on tank. Note: Only use silicone lubricant.
 5. Soldering of joints near the drain port must be done prior to connecting the Drain Line Flow Control fitting (DLFC). Leave at least 6" (15 cm) between the DLFC and solder joints when soldering pipes that are connected on the DLFC. Failure to do this could cause interior damage to the DLFC.
 6. PTFE plumbing tape is the only sealant to be used on the drain fitting.
 7. Make sure that the floor is clean beneath the salt storage tank and that the tank is level.
 8. On units with a bypass, place in bypass position. Turn on the main water supply. Open a cold soft water tap nearby and let run a few minutes or until the plumbing is free from foreign material (usually solder) that may have resulted from the installation. Once clean, close the water tap.
 9. Slowly place the bypass in service position and let water flow into the mineral tank. When water flow stops, slowly open a cold water tap nearby and let water run until the air is purged from the unit.
 12. Plug the transformer into an electrical outlet.

NOTE: All electrical connections must be connected according to local codes. Be certain the outlet is uninterrupted.

Electrical Connection

The controller operates on 12-volt DC power supply. This requires use of the supplied power adapter included with your system. See illustration below.

NOTE: The power source should be constant. Be certain the AC adapter is not on a switched outlet. Power interruptions longer than 8 hours may cause the controller to lose the time setting. When power is restored, the time setting must then be re-entered.





TROUBLESHOOTING

Error Codes

NOTE: Error codes appear on the In-Service display.

Error Code	Error Type	Cause	Reset and Recovery
---0	Motor Stall /Cam Sense Error	No state changes in the optical sensor are detected for six seconds.	<p>Unplug the unit and plug back in. Allow the control to attempt to find position again.</p> <p>Verify the optical sensor is in place with the wires connected to the circuit board. Verify the motor and drive train components are in good condition and assembled properly. Check the valve and verify that the piston travels freely. Replace/reassemble the various components as necessary.</p> <p>Plug the unit back in and observe its behavior. If the error reoccurs, unplug the unit, put it into bypass and contact technical support.</p>
---1	Motor Run-On Error /Cycle Sense Error	An undesired optical sensor state change occurred.	Non-critical error. Extra optical sensor pulse detected. Press any button to clear the error. Press extra cycle button to advance motor to clear error.
---2	Regen Failure	The system has not regenerated for more than 99 days (or 7 days if the Control Type has been set to Day-of-Week).	<p>Perform a Manual Regeneration to reset the error code.</p> <p>If the system is metered, verify that it is measuring flow by running service water and watching for the flow indicator on the display. If the unit does not measure flow, verify that the meter cable is connected properly and that the meter is functioning properly.</p> <p>Enter Master Programming Mode and verify that the unit is configured properly, For the valve configuration. Check that the correct system capacity has been selected, that the day override is set properly, and that meter is identified correctly. If the unit is configured as a Day-of-Week system, verify that at least one day is set ON. Correct the setting as necessary.</p>
---3	Memory Error	Control board memory failure.	Perform a Master Reset and reconfigure the system via Master Programming Mode. After reconfiguring the system, step the valve through a manual regeneration. If error continues, call technical support.
---4	Fail Safe Error	Valve has failed to find position in one minute.	Unplug the unit and plug it back in. If error continues, call technical support.

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