Installation and Start-up

1. Place the HousePure® ScaleStop system in the desired location.
2. Connect the cold water supply to the inlet of the HousePure® ScaleStop Tank 1.
3. Using the included stainless flex line, connect the outlet of tank 1 to the inlet of the HousePure® ScaleStop Tank 2.
   NOTE: Tank 2 operates in UP-Flow mode, which is opposite of a conventional water softener.
4. Follow the “Tank 1 start-up procedures” beginning on the next page BEFORE continuing further (Pages 11-14).
5. After following step 4 above, place a bucket under the outlet port of Tank 2 or run a line from the outlet port to a drain.
6. Open the Tank 2 inlet and outlet valves. Slowly open the outlet valve of Tank 1. Allow Tank 2 to fill with water. Close the Tank 1 outlet valve when a steady stream of water comes out of the Tank 2 outlet port.
7. Connect the outlet of the HousePure® ScaleStop Tank 2 to the cold water supply.
8. Open the Tank 1 supply valve, allowing water to pass through both Tank 1 and Tank 2.
9. Open faucets downstream from the HousePure® ScaleStop system to relieve trapped air.
10. Check for leaks. Repair as needed.
11. The system is now ready to be put in service. Review performance expectations on page 18 for further information on filter operation.

Tank 2 Bypass Valve Configuration

As shipped, the Tank 2 bypass is configured for upflow use. The arrow shape of the handles point in the direction of the water flow. Please ensure that the Tank 2 bypass valve is configured as shown below. If not, pull up on the red handles until they come off. Rotate the red handles 180° and put the handles back on the valve stems.

In Tank 2 Water  Out ScaleStop® Treated Water
Out To Drain

In Cold Water  Out Tank 1 Water

HousePure® ScaleStop Tank 1

HousePure® ScaleStop Tank 2
(Upflow Water Direction)

Model W5-HPSS-1.25 shown with bypass assemblies.
Tank 1 Start-Up - Important Safety Information

Read All Instructions Before Using

- Before beginning installation, read all these instructions completely. Then obtain all the materials and tools needed for installation.

   NOTE: Failure to install the HousePure® ScaleStop system correctly voids the warranty.

- Perform installation according to state and local plumbing codes.

- Handle all components of the system with care. Do not drop, drag or turn components upside down.

- Be sure the floor under the water filter system is clean and level.

- The system uses 120 volt-60 Hz electrical power. Always use the power cord and transformer supplied.
  - Plug transformer and power cord into an indoor 120 volt, grounded outlet.

- Install system in a protected area. Be sure electric outlet and transformer do not come in contact with water. See Where to Install the Filter, in the section below.
  - Always connect the system to the main water supply pipe before the water heater.
  - Do not expose system to freezing temperatures. Water freezing in the system causes equipment damage.

- Minimum inlet water pressure is 30 psi. Maximum inlet water pressure is 100 psi. Use a pressure reducing valve if necessary.

Where to Install the Filter

Consider the following points when determining where to install the water filter:

- Place the system as close as possible to a sewer drain. Runs of up to 12’ elevation above the control head is permissible. Minimum drain line pipe ID to be used is 1/2”.

- Do not install the filter where it would block access to the water heater, or access to the main water shutoff, water meter, or electrical panels.

- A 120V electrical outlet is needed to plug in the transformer. If the outlet is remote (up to 100 feet), use 18 gauge wire to connect.

- Always connect the system to the main water supply pipe before the water heater.

- Install the system where it will not be subject to temperatures outside of the limits stated in the specification section or to prolonged direct sunlight.
Tank 1 Start-Up Procedures

1. Turn off the water supply to pipes to be cut, and drain the house water pipes.
2. Open both hot and cold faucets.
3. Move the filter assembly into installation position.
4. Ensure the installation surface is level and smooth.
5. Plumb IN and OUT connections to and from the filter.

NOTE: Be sure the incoming water supply is directed to the INLET port of the valve.

Notes to the Installer

The valve body of the control is marked with arrows indicating the proper flow direction.

Caution!

- If making a soldered copper installation, do all sweat soldering before connecting pipes to the bypass valve. Torch heat will damage plastic parts.
- When turning threaded pipe fittings onto plastic fittings, use care not to cross-thread.
- Use Teflon tape on all external pipe threads. Do not use pipe joint compound.
- Support inlet and outlet plumbing in some manner (use pipe hangers) to keep the weight off of the valve fittings.

Caution!
DO NOT OPEN THE TANK 1 INLET WATER SUPPLY VALVE UNTIL INSTRUCTED TO DO SO!
6. When adapting a rigid drain pipe to the Tank 1 system, do not attach barbed hose fitting to valve. Instead, plumb rigid tubing directly to the 1/2" male NPT drain fitting.

7. Cut and connect drain pipe to a suitable drain making sure it is secure.

8. Place bypass valve in "bypass" position.
Tank 1 Start-Up Procedures (continued)

Notes to the Installer
The valve is fully programmed at the factory for backwash frequency, duration and time of day. The system is now ready to be filled with water and backwashed.

Caution!

Read the following instructions carefully first. The start-up procedure must be followed correctly to ensure the best performance from the system and to prevent any possible problems.


10. Slowly, turn “INLET” bypass valve back in the “service” position. Allow water to flow into the Tank 1 unit.

11. Connect the unit to a power supply (see page 11 for details). Push and hold “extra cycle” button to allow unit to go into backwash.

12. Allow unit to run to drain for approximately 10 minutes.

13. Check plumbing work for leaks and fix immediately if any are found.

14. Push “extra cycle” momentarily to allow unit to advance to “rapid rinse”.

15. Monitor the water flowing to drain during Rapid Rinse. Confirm that the water is clear. Capture some water in a glass and inspect it to ensure that there are no black (carbon) particles.

16. Allow unit to run to drain for the duration of the cycle. 10 minutes.

17. Repeat steps 11 through 16 as needed to ensure there are no black particles present.

Caution!

IMPORTANT NOTE TO INSTALLER:

Do not open the Tank 1 Outlet valve until water flows clearly (without any black particles) through the drain during the backwash cycle. Not following this step will cause un-rinsed carbon particles to flow through the house water supply.
Features of the HousePure ScaleStop Backwashing Controller:

- Power backup that continues to keep time and the passage of days for a minimum of 48 hours in the event of power failure.
- Settings for both valve (basic system) and control type (method used to trigger a backwash cycle).
- Day-of-the-Week controls.
- While in service, the display alternates between time of day and days remaining to the next Backwash cycle.
- The Service Icon flashes if a backwash cycle has been queued.
- A backwash cycle can be triggered immediately by pressing the Extra Cycle button for five seconds. During backwash, the user can force the control to advance to the next cycle step immediately by pressing the Extra Cycle button.
- The Parameter display shows the Current Cycle Step (BW [Backwash], or RR [Rapid Rinse]) during Backwash, and the Data display counts down the time remaining for that cycle step. While the valve is transferring to a new cycle step, the display will flash.
- The Parameter display will identify the destination cycle step (BW or RR) and the Data display will read “----”. Once the valve reaches the cycle step, the display will stop flashing and the Data display will change to the time remaining.

Setting the Time of Day

1. Press and hold either the Up or Down buttons until the programming icon replaces the service icon and the parameter display reads TD (Time of Day).
2. Adjust the displayed time with the Up and Down buttons.
3. When the desired time is set, press the Extra Cycle button to resume normal operation. The unit will also return to normal operation after 5 seconds when no buttons are pressed.
**Timer Features (Continued)**

Setting the Backwash Cycle Frequency (Day Override)
1. Press the Up and Down buttons for five seconds while in service, and the time of day is NOT set to 12:01 pm.
2. Use this display to adjust the backwash frequency. This option setting is identified by “DO” in the upper left hand corner of the screen (figure 1). The HosuePure® ScaleStop is preset for a 12-day backwash cycle frequency.
3. When the desired backwash cycle frequency is set, press the Extra Cycle button, the screen now shows “RT” in the upper left hand corner (figure 2). Use this display to adjust the backwash time of day setting. The HosuePure® ScaleStop is preset for backwash to occur at 12:00 am.
4. Press the Extra Cycle button once more to resume normal operation.

- **Queueing a Backwashing Cycle**
  Press the Extra Cycle button. The service icon will flash to indicate that a backwash cycle is queued. To cancel a queued backwash cycle, press the Extra Cycle button.

- **Manually Initiating an Immediate Backwashing Cycle**
  Press and hold the Extra Cycle button for five seconds.

Setting the Cycle Duration (Only to be performed by a qualified service professional)
1. Set the time of day to 12:01 pm. Press the Up and Down buttons for five seconds to enter the master programming.
2. Press the Extra Cycle button until “BW” appears in the upper left hand corner of the screen (figure 3). Use this display to adjust the backwash cycle duration. The HousePure® ScaleStop is preset for a 10-minute backwash cycle duration.
3. Press the Extra Cycle button until “RR” appears in the upper left hand corner of the screen (figure 4). Use this display to adjust the Rapid Rinse cycle duration. The HosuePure® ScaleStop is preset for a 10-minute rapid rinse cycle duration.
4. When the desired Rapid Rinse duration is set, press the Extra Cycle button once more to resume normal operation.

**Filter Operation**

Backwashing consists of three cycles:
1. **Backwash Position**
   Backwash is a rapid upward flow of water that loosens the media bed and flushes iron particles, dirt and sediments filtered in the bed out to the drain.

2. **Rapid Rinse Position**
   Rapid Rinse is a fast flow of water down through the media tank that follows a Backwash. This flushes all remaining organics from the tank and packs the carbon bed for efficiency.

3. **Service**
   When the filter is In Service, it is flowing water through the system and reducing objectionable materials from your water.
Control Operation During A Power Failure

- The Timer includes integral power backup. In the event of power failure, the control shifts into a power-saving mode. The control stops monitoring water usage, and the display and motor shut down, but it continues to keep track of the time and day for a minimum of 48 hours. The system configuration settings are stored in a non-volatile memory and are stored indefinitely with or without line power. The Time of Day flashes when there has been a power failure. Press any button to stop the Time of Day from flashing.

- If power fails while the unit is in backwash cycle, the control will save the current valve position before it shuts down. When power is restored, the control will resume the backwash cycle from the point where power failed. Note that if power fails during a backwash cycle, the valve will remain in its current position until power is restored. The valve system should include all required safety components to prevent overflows resulting from a power failure during backwash.

- The control will not start a new backwash cycle without line power. If the valve misses a scheduled backwash cycle due to a power failure, it will queue a backwash. Once power is restored, the control will initiate a backwash cycle the next time that the Time of Day equals the programmed backwash time. Typically, this means that the valve will backwash one day after it was originally scheduled.