Electronic Trap Primer

Installation Instructions

General Use/ Product Description

Electronic trap primer product(s) shall be used to distribute water to drainage traps, assuring the trap seal remains replenished with water. Each electronic trap priming device (ETP) is intended to distribute water to a trap or traps by setting the number of activations in a 24-hour period and the duration of the activation. Sioux Chief suggests a daily distribution of 2 ounces of water per activation per port at a minimum recommended supply pressure of 20-PSI. Frequency of distribution is adjustable and dependent on the location and area of installation. The specifying engineer or contractor shall determine the necessary ounces of drainage required per drain. Electronic trap priming products are manufactured assemblies that are equipped with water hammer arrester, supply valve/piping, distribution manifold/piping (for boxed units), vacuum breaker, fuse protection (for boxed units), solenoid, appropriate electrical necessities and accessible box (for boxed units).

General Installation

1. Both electrical and plumbing connections must be made in accordance with local and national code.
2. Install units as closely to drain(s) to be filled as possible. Placement must be close enough to assure drainage from the device activation reaches the desired end point/drain. Any back pressure from improper fall will make its way out of the vacuum breaker. Do not exceed 60 feet from drain to be filled.
3. Do not use pipe dope, thread-paste, or thread compound when making any connections as it has the potential to foul the solenoid. Use PTFE tape only.
4. Flush all lines, assuring they are free of sediment and debris, prior to installation. Sediment may damage the solenoid or clog the inlet screen.
5. Inlet sediment screen should be kept free of debris and may require periodic maintenance.
6. Assure all connections are free of obstructions for free flow to the intended drain.
7. Assure all trap priming lines are installed with the proper fall to assure the drain is primed as intended. Be sure to knock out the drain trap primer port cover if it is installed.
8. Level the Trap Primer box or assembly. Assure the Trap Priming manifold within the unit is level.
9. Test all joints for leak
10. Adjust the amount of trap priming drainage required for the area and drain. See attached chart.

Operating Pressure

Optimal operating pressure is between 20 psi – 80 psi. For inlet pressures higher than 20 psi, outlet water distribution must be set to assure 2 ounces of water distribution per drainage port. See Startup (Note 3 and associated chart).

Operating Temperature

35-140 degrees Fahrenheit

Recessed Cabinet

Install cabinet, surface mount or solo unit, so that the bottom is minimally above the drains to be filled and installed above the flood rim of the floor or as code dictates. Level the box when installing unit to ensure optimum performance of all components. Place cabinet between studs and attach ears of cabinet directly to the stud face prior to the installation of drywall. Assure manifold is level.

Note: When installing the 30" cabinet, a stud cavity must be framed to accommodate cabinet. Top and bottom framing must accommodate applicable water and power supply and drainage lines.

Surface Mount Box

Attach distribution manifold to timer unit box. Using mounting screws and mounting holes on the back of the unit, attach unit to the wall. Use a level when installing unit to ensure optimum performance of all components. Level the manifold(s) and install tube clamps. Be sure mounting screws are set into the wall studs.

Single Surface Mount Priming Unit

Secure the unit to a stud or bracketing or through the drywall into a building member, assuring the vacuum breaker and distribution outlet are vertical. If installed in a recessed application, provide appropriate accessibility.

Note: Make sure the extension nipple is in place during installation. For optimal performance, do not exceed 60 PSI inlet pressure.

Function

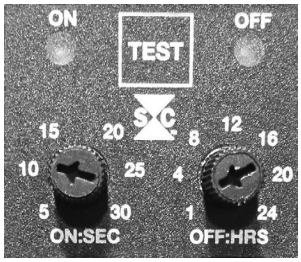
The Single Surface Mount Priming Unit can be used in conjunction with various accessories within the 695 series (distribution splitter and wye) to prime up to 8 drains. Note that 2 oz is min recommended per drain. See chart. The number of traps serviced by any trap primer is a function of activation frequency and evaporation rate and should be determined by the design engineer and/or the installing contractor.

Plumbing

Set supply valve inside trap primer cabinet to the closed position (perpendicular handle position). Connect water supply to the unit by soldering supply line to the cupped copper connector provided with the recessed models, or by threading to the ½" NPT fitting on the supply valve provided. Connect the distribution manifold to all drains to be filled. Use appropriate tools to secure onto manifold port when connecting distribution piping. Be sure there are no kinks in lines to prevent inhibited flow. Be sure all unused ports are properly sealed with a capped outlet or a compressed pipe stub. Check all connections for watertight seal.

Electrical

Connect unit to 120 VAC supply. Power consumption is 9.2 watts at 60Hz.
Maximum feet to electrical supply: 300 Ft.
Minimum wire gauge: 18-gauge
White wire is common, black wire is hot, green wire is ground.



(open electrical cover)

(closed electrical cover)

Startup

1. Turn handle of supply valve to the on position to 'prime' unit with water.
2. Before adjusting any electronics, be sure to disconnect power feed.
3. Press the test button after setting the frequency and duration of the priming cycle. To fill traps an initial time, a long duration could be chosen or multiple cycles could be chosen. See chart for proper priming distribution and frequencies for typical environments.
4. Valve/timer should be set to deliver 2 oz. of water to each port per activation. To increase the amount of water delivered per activation, turn the knob on the left labeled "on-sec" clockwise. To decrease the amount of water delivered per activation, turn the same knob counterclockwise. To increase the number of hours between activations, turn the knob on the right labeled "off-hrs" clockwise. To decrease the number of hours between activations, turn the same knob counterclockwise.

Note:

1. This unit is equipped with a sediment screen in the supply valve. To clean the screen – turn off water and remove the knurled cap on the left side of the valve, rinse the screen and re-install. Turn water back on. Periodic cleaning may be necessary.
2. Before performing any maintenance on Sioux Chief electronic Trap Primers, please refer to all instructions. Shut off water supply and primary power before any work is begun.
3. The below table represents approximate discharge from each trap primer port. The volume in the table below represents the minimum flow from the least flowing port (for the given time) in an effort to assure each port distributed 2 oz of water.

Setting Needed to Achieve Minimum 2 fl oz Discharge

	1 Port		5 Port		10 Port		15 Port		20 Port		30 Port	
	On Time (seconds)	Actual Discharge	On Time (seconds)	Actual Discharge	On Time (seconds)	Actual Discharge	On Time (seconds)	Actual Discharge	On Time (seconds)	Actual Discharge	On Time (seconds)	Actual Discharge
20 psi	5	12.5 fl oz	5	2.25 fl oz	10	2.1 fl oz	15	2.4 fl oz	15	2 fl oz	20	2.1 fl oz
40 psi	5	16.5 fl oz	5	3.3 fl oz	5	2 fl oz	10	2.1 fl oz	10	2 fl oz	15	2.25 fl oz
60 psi	5	22.5 fl oz	5	4 fl oz	5	2.3 fl oz	10	2.8 fl oz	10	2.5 fl oz	10	2.1 fl oz
80 psi	5	28.4 fl oz	5	4.7 fl oz	5	2.7 fl oz	10	3.25 fl oz	10	2.7 fl oz	10	2.25 fl oz

⚠ **WARNING:** Cancer and Reproductive Harm. **www.P65Warnings.ca.gov**

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