



FREQUENTLY ASKED QUESTIONS

1. How do Hydro-Guard® Units work?

The end user programs their Hydro-Guard® Units to flush for a specific duration; from one minute to 12 or 24 hours, and as many as six to 16 flushes per day, dependent upon the model selected. (Flushing can take place during the day or night.) The programming actuator within the Unit sends a signal to a solenoid that opens a slow-opening, slow-closing valve. Once open, the valve allows water to flow until a second signal is received, prompting the valve to close, completing the flush.

2. How do I program the Unit?

Hydro-Guard models call for either a hand-held programmer which plugs into the device's programming pod, or may be configured with an integrated programmer. Once the correct, current time and date are input within the programmer's memory, simply follow the straight-forward programming instructions (supplied with each Unit).

There is an optional radio-control upgrade available for use with the Standard and Direct Discharge Units. This option allows the user to program the Unit from a distance up to 60 feet from the Unit and acts as a time-saving device when using multiple Units as the user does not have to remove the cap (Standard Unit) or remove the top (Direct Discharge Unit) in order to alter the flushing cycle.

3. How are Hydro-Guard® Units installed?

With a minimum of advance planning, Hydro-Guard® Units can be installed quickly and conveniently. The Standard Unit with its 18-inch bury depth and integrated splash pad may take a two-person crew an hour and a half to two hours to install, while the LongNeck Sub-surface Discharge Unit, with up to a seven foot bury depth and requiring the placement of a receiver pipe, may take half a day to install. For permanent installations, simply excavate the site as illustrated in the Operation Manual. It is as simple as installing new or using the existing curb and corp. stops, tapping the main line for a 2-inch lateral feed, turning off the water supply at the corp. stop and connecting to the Unit's feed line. When installing the Hydrant-based Flushing System, you will find the installation procedure takes only a few minutes. All Hydro-Guard Units come equipped with male threaded ends. You'll likely notice water will flow through the Unit at the time of the connection. This is caused by the pressure within the line and should cease in a matter of minutes. At this point, the Unit is ready to be programmed and placed into service.

4. What is the difference between the Standard-style and Direct Discharge-style Units?

The Hydro-Guard® Standard-style and Direct Discharge-style Units function in slightly different manners to achieve the same goals and benefits related to reducing water residence times within dead-end and stagnant, looped lines. The Standard-style Units flush water onto a built-in splash pad where it is diffused around the Unit. These models employ an air gap to prevent backflow. The Direct Discharge-style Units have a similar feed connection, but route the flushed water through an RPZ backflow-preventer, a pressure vacuum breaker or an air gap before directing the discharge away from the site.

5. How much water flows while the Unit is flushing?

The same slow-opening, slow-closing valve is used in all Hydro-Guard Units. It is rated at 200 psi, allowing a maximum flow approaching 250 gallons-per-minute (gpm). Typically, with a static feed-line pressure within the 65 psi range, the flow rate will be approximately 135 gpm. Hydro-Guard® Units are designed to improve water quality through advanced maintenance flushing and are not intended for use as a scouring mechanism. Depending upon the condition of the line it may be advantageous to scour the main prior to installing your Hydro-Guard® Units.

6. How long do we need to flush?

The answer to this question is unique to every Hydro-Guard® application. It is a matter of main line size and length, static pressure, water temperature and draw on the system, to name a few variables. Most users begin by flushing for a longer time than they believe will be necessary to maintain water quality. This creates the immediate benefit of increased residuals. Then, users can gradually decrease the flushing duration in order to find the point where water quality is maintained. Check the Hydro-Guard web site's Flushing Duration Calculator for an idea of where to start;

<http://www.hydro-guard.com/Flushing%20Duration%20Calculator.xls>

7. There are watering restrictions within our community, doesn't daily flushing waste water?

Contrary to wasting water, a timed, daily, small-volume flush acts to effectively maintain water quality with a minimum of waste. Hydro-Guard's patented technology allows a controlled flush over a specific duration resulting in a flush designed to maintain mandated residual levels and overall water quality. In comparison, a typical hydrant flush is performed on an infrequent basis, and often in reaction to customer complaints. These flushes of no-specific duration result in the discharge of uncontrolled amounts of water while adversely impacting the performance of the rest of the distribution system (turbidity, system pressure, etc.). Additionally, as soon as the hydrant flush is complete, chlorine residuals within the line will continue to drop until the next time the crew is scheduled to flush the line, or there is another end-user complaint.

8. How much do Hydro-Guard® Units cost to operate?

Hydro-Guard® Units are powered by a 9-volt Energizer Alkaline or a 3.6-volt lithium ion battery. This battery sends a signal to the solenoid instructing the valve to open and close. This is the only time there is a draw on the battery. With one scheduled flush per day, the 9-volt battery typically lasts for one year, and the 3.6-volt battery will offer up to seven years of life. Based on a proactive battery-replacement schedule, the annual cost of operating the Hydro-Guard® Unit is in the range of \$15.00.

9. Are the Units secure? What about vandalism?

Hydro-Guard® Units are exceptionally durable and are designed to appear ordinary and unobtrusive. Rather than employing obvious, and sometimes enticing external locking mechanisms, Hydro-Guard® Units are designed to incorporate a low-profile security systems.

10. Do Hydro-Guard® Units come with a warranty?

All Hydro-Guard® Units come with a one-year parts warranty. The use of marine-grade polymers within the housing guarantees a virtually fade-free part life. Extended warranties may be available through your independent sales rep company.

11. How do Hydro-Guard® Units work in freezing climates?

Dependent upon the Hydro-Guard model selected, the end user can count on year-round performance regardless of climactic conditions. With Units designed for warmer-weather climates offering nominal freeze protection, to Units designed for 18 inches of frost, 30 inches of frost, or up to seven feet of frost penetration, durable and efficient Hydro-Guard design serves to ensure reliable performance in spite of the weather. From the installation of self actuating thermal control valves to locating the device's valve and electronic components below the local frost depth, Hydro-Guard has you covered.

12. How do we comply with the EPA standard mandating the dechlorination of all discharged water into the environment?

All Hydro-Guard Units are available with OEM Dechlorination Upgrades.

13. What do we do with our current flushing crews?

With recent cutbacks in municipal spending, now more than ever before it is necessary to maximize labor resources. With the implementation of an advanced maintenance flushing program employing Hydro-Guard® automatic flushing devices, labor hours previously dedicated to manual flushing may now be reallocated.

14. Can I use the discharged water for irrigation purposes?

A number of Hydro-Guard® end users direct discharged water into culverts or retention ponds for use in feeding irrigation systems. Due to the controlled discharge offered by the Direct Discharge-style Units, they are well suited to this purpose. There are also reports of Standard-style Units feeding shrubbery and other landscaping around the installation site.

15. Can Hydro-Guard® Units be used as sample stations?

All Hydro-Guard® Units except the Basic Unit offer built-in sample stations designed for use with our own quick-connect Portable Sample Valve. When disinfectant residual sampling is required for reporting purposes, simply perform a brief manual flush in order to ensure you are getting a representation of water in the main, and take the sample using the convenient sample port.

16. Is a separate set of accessories required for each Unit?

No. Hydro-Guard® accessories are designed to be used interchangeably with as many Units as is convenient for the end user. One hand-held programmer and one Portable Sample Valve may service both the Standard-style and Direct Discharge-style Units. The security screwdriver and wrench are solely for use with Standard-style Units.