

# HYDRO-GUARD®

## HG-6 Hydrant-Based Flushing System

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**⚠ WARNING:**

1. Failure to read and follow the instructions contained within this manual could result in serious personal injury, and/or damage to the Hydro-Guard® Automatic Flushing Device.
2. Each person involved in the assembly, installation and/or maintenance of the Hydro-Guard Automatic Flushing Device must read this manual carefully and follow all instructions prior to performing any installation or maintenance procedures involving the Unit.
3. Verify the drainage path prior to installation to ensure that pedestrian and vehicular hazards will not be created by the installation and use of the Hydro-Guard Automatic Flushing Device (In areas in which freezing may occur, special attention should be given to this procedure).
4. Never assemble, disassemble, or perform Hydro-Guard maintenance unless the influent supply valve has been closed, verified and secured, and internal piping pressure has been relieved.
5. Always use all necessary safety equipment and follow all recommended procedures when installing, operating and maintaining the Hydro-Guard Automatic Flushing Device.
6. Perform annual safety inspections and replace worn or defective parts.
7. Operate the Hydro-Guard Automatic Flushing Device only when fully installed and correctly assembled.

**⚠ CAUTION:**

The recommended optimal operating pressure for a Hydro-Guard® Automatic Flushing System is between 20psi and 120psi. In the event pressure may exceed 120psi it is recommended that a Pressure Regulating Valve be installed ahead of the Hydro-Guard flushing system.



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# HYDRO-GUARD® HG-6 Flushing System

## Installation Instructions

### GENERAL

#### Overview

The Hydro-Guard® HG-6 Hydrant-Based Flushing System is a portable and emergency use device designed to flush water lines from fire hydrants located anywhere in the distribution network. These devices require the hydrant to be live when programmed for flushing. The HG-6 has been engineered and manufactured to provide outstanding dependability and performance.

Please read and retain this manual for future reference, training, troubleshooting, and maintenance.

#### Site Evaluation

Each installation is unique and will require a minimum of advance planning. Prior to installation, the drainage patterns for the intended installation location should be reviewed. The drainage pattern must permit discharged water to flow

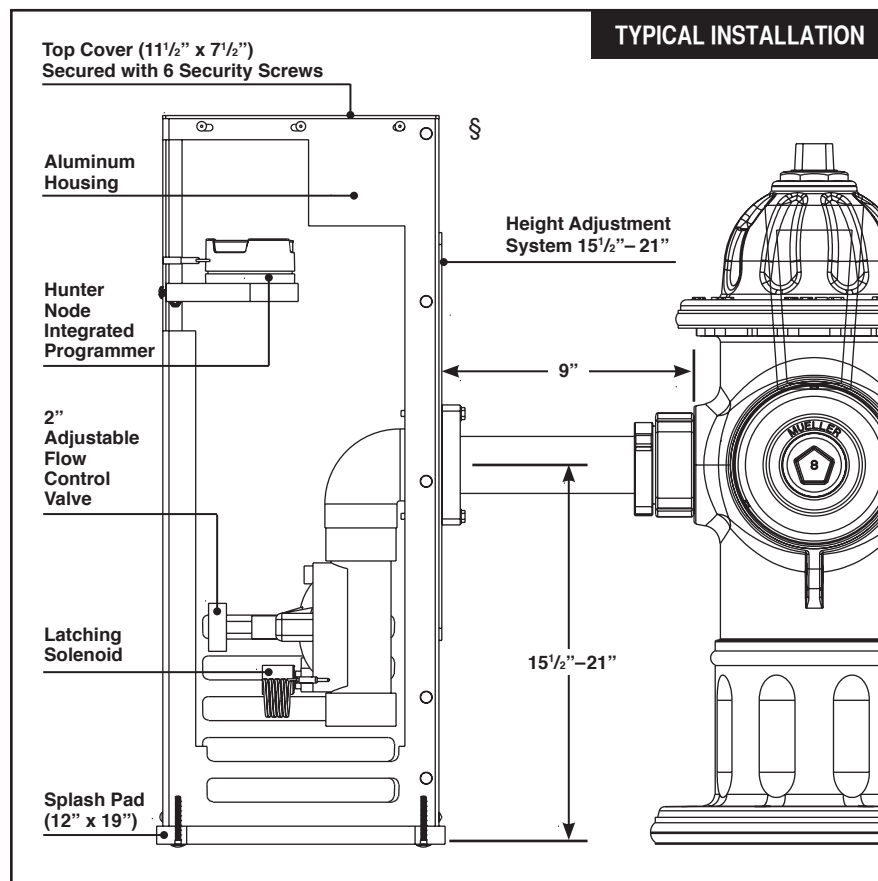
away from the Hydro-Guard® Unit or to be absorbed by the surrounding soil. The Unit's ground-level erosion controlling splash plate is designed to disperse the water energy from the discharging water and reduce the risk of erosion from around the base of the fire hydrant. In order to prevent undue pooling of the effluent water, multiple nightly flushes are effective in managing discharge volumes.

### INSTALLATION

1. Remove the Hydro-Guard® Unit from its packaging and inspect for possible damage during shipping.
2. Using the pumper nozzle, flush hydrant for several minutes to ensure the water flow is free of debris (i.e., rocks, etc.)
3. Confirm hydrant is turned off.
4. Gather 2" NTP connector and hydrant wrench.
5. If necessary, loosen but do not remove the four bolts on the side of the Hydrant Flusher in order to adjust connection height, ensuring the device is supporting its own weight. Once proper height is determined, tighten the four height adjustment bolts.
6. Connect the Hydro-Guard® Unit by means of the 2" threaded nipple and supplied hose adapter.
7. Open the hydrant's valve in order to charge the hydrant.
8. If the HG-6 has been shipped with the Dechlorination Upgrade; remove one of the security screws at the door at the unit's base, remove the dechlorination chamber, open, fill with sodium sulfite or ascorbic acid tablets, reinsert and replace security screw.

9. Disinfect the Hydro-Guard® Automatic Flushing Device in accordance with the utility's policy. Do not exceed the dosage and contact times recommended by the American Water Works Association.

10. The Hydro-Guard® Automatic Flushing Device may now be programmed and placed into service.



### PROGRAMMING HYDRO-GUARD® UNIT FOR OPERATION

#### Technical Data

- Operating temperature range of 32° to 120° F
- Operating Pressure: 7 to 200psi

**NOTE: Where sustained pressures may exceed 120psi the installation of a pressure reducing valve (PRV) is recommended.**

#### Battery Life

- Will vary based on number of cycles per year, operating pressure, and temperature. We recommend checking the battery every 6 months, but in many cases, you will get more life out of them.

#### HG-6 Removable (Requires Handheld)

##### TBOS-II Programming Instructions

The TBOS-II handheld uses on screen prompts for intuitive programming. It will control current programming interface (T-2: dark gray case), as well as the previous model of programming interface (T-1 modules programmed by the TBOS-US handheld).

#### Features

- 1 to 24 possible flushing events daily, or on selected days weekly, 365-day calendar
- Flush duration 1 minute to 12 hours (1 minute increments)
- Preprogram and store up to 3 different schedules
- Rechargeable battery (low battery indicator shows both handheld and controller battery conditions) with recharging adaptor (9-volt lithium battery can be used in the built-in programming interface)

**NOTE: In that the handheld was designed by its manufacturer to program flush systems, many displays use flush terminology.**

*In the following instructions, in such cases the equivalent flushing terminology is shown in parentheses.*

**⚠ CAUTION:** Leaving the infra-red connector connected to the built-in programming interface can significantly reduce the battery life of the 9-volt batteries in the programming interface and the rechargeable battery in the TBOS-II handheld.

#### TBOS-II Handheld Keys

**HOME** – press three seconds to turn handheld on.

**ABC** – press to choose from three available programs (to store a program when preprogramming, or uploading a program to controller).

**LEFT** and **RIGHT ARROWS** – move cursor left or right, also go back or forward one screen.

**ON** and **OFF/+** and **- /UP** and **DOWN ARROWS** – Used to set flushing events on or off, move selector up and down on screen, or increase or decrease duration and other values.

**OK** – press to make selection final.

#### TBOS-II Handheld Home Screen Menu

1. **TBOS infra-red** – accessible only when connected to programming interface via the IR cable: select to connect handheld to programming interface via infrared cable and access programs on it, or to transfer programs from handheld to programming interface.
2. **Templates (TBOS-II)** – select to program handheld without connecting to programming interface.
3. **Settings** – select to access and set time, date, and various other available user settings.

#### First Time Use

1. Press **HOME** key for three seconds to turn on handheld.
2. Press **RIGHT ARROW** key or the **OK** key to access “Settings”
3. Use **DOWN ARROW** to select and set the following:
  - a) Date and Time
  - b) Contrast of the screen
  - c) Name of the handheld controller (can be assigned to a specific operator)
  - d) Language (English, French, Spanish, Italian, Dutch, Portuguese, Turkish, etc.)

# HYDRO-GUARD® HG-6 Flushing System

## Programming Unit

### Programming Flushing Schedule

There are two ways to proceed:

- select “**TBOS-II infra-red**” if IR cable is connected to a TBOS-II programming interface to access, change or load programs there, or
- select “**Templates (TBOS-II)**” to create or change programs stored on the handheld to load onto a programming interface at a later time (IR cable not used).

**NOTE: The home screen for “TBOS-II infra-red” shows battery condition for programming interface and ON/OFF state of any current operation in progress.**

1. Press **HOME** key for three seconds to turn handheld on.
2. Press **RIGHT ARROW** key or the **OK** key to access “**Settings**”.
3. Use **DOWN ARROW** to select “**Templates**” and press **OK**.
4. Use **DOWN ARROW** to select “**Programs**” and press **OK**.
5. Use **DOWN ARROW** to select “**Watering Days**” (Days to Flush) and press **OK**.
6. Use **UP/DOWN ARROWS** to select one of the following:
  - a) **Custom Cycle (Week)**: use **RIGHT/LEFT ARROWS** to move to days of the week, use **ON/OFF** keys to highlight days on which to flush, then press **OK** to confirm days when selections are complete.
  - b) **Even Days**: to Flush on even dates, press **OK** to set.
  - c) **Odd Days**: to Flush on odd dates including 31st, press **OK** to set.
  - d) **Odd Days 31**: to Flush on odd dated except 31st, press **OK** to set.
  - e) **Cyclical**: to Flush every “X” days, set “X” using **ON/OFF** keys (X=1 to 31), press **OK** to set; then set start date “dd/mm/yyyy” using **ON/OFF** keys, press **OK** to set.

7. Use **LEFT ARROW** to navigate back to the program “**Settings**” menu.
8. Select “**Start times**”, press **OK** to set.
9. Use **ABC** to select program to be set up.
  - a) Set hours and minutes for each start time (up to 8 per program) using **ON/OFF** keys, press **OK** to set each (hours are indicated using 24 hour clock). [When exiting this screen, start times will automatically sort into chronological order.]
10. Use **LEFT ARROW** to navigate back to the program “**Settings**” menu.
  - a) Use **DOWN ARROW** to select “**Valve Run Times**” (Flush Duration), press **OK** to set.

**NOTE: Although six valves may be shown on screen, only Valve 1 is used to manage the Hydro-Guard® unit.**
  - b) Use **ON/OFF** keys to select program A, B and/or C (one or more can be assigned).
  - c) Then use **ON/OFF** keys to set Flush duration (hours and/or minutes) for program just set, use **LEFT/RIGHT ARROW** keys to move between hours and minutes and **+** and **-** keys to set times (1 minute to 12 hours), press **OK** to set.

### Transmitting Time, Date and Programs to Programming Interface, Clearing/Checking Programs, Manual Start

Connect handheld to programming interface using IR cable.

1. To transmit: from home screen, use **DOWN ARROW** to select “**TBOS-II infrared**” and press **OK**. TBOS-II handheld will receive data (settings) from built-in programming interface.
2. Once data receipt is complete press **RIGHT ARROW** to move to “**Settings**” menu.

3. From “**TBOS-II infra-red**” settings screen select “**Transmit**” and press **OK** again. When program to be transmitted appears, press **OK** to confirm.
4. To clear programs A, B, or C: from “**TBOS-II infra-red**” welcome screen, use **DOWN ARROW** to select “**Clear Programs**” and press **OK**, then select type of program to clear and follow prompts.
5. To check programs A, B, or C: from “**TBOS-II infra-red**” welcome screen, use **DOWN ARROW** to select “**Programs**” and press **OK**, then select what is to be checked and follow prompts.

### Manual Flushing

Using TBOS-II handheld on the T-2 built-in programming interface (dark gray in color).

**NOTE: Manual start cannot be initiated if there is no program in the programming interface.**

1. To start manual flushing from “**TBOS-II infra-red**” welcome screen.
  - a) Use **DOWN ARROW** to select “**Manual Watering**” (Manual Flush) and press **OK**,
  - b) Select “**Start Valve**” (Open Control Valve) then using **ON/OFF** keys select “**Valve 1**” and press **OK**,
  - c) Use **ON/OFF** keys to set the manual Flush Time (1 minute to 12 hours) and press **OK** to confirm. Flushing will start after a four (4) second delay.

### Stop Manual Flush Sequence

1. Reconnect IR cable to built-in interface, then hold down **HOME** key on handheld.
2. Use **RIGHT ARROW** to select “**TBOS-II infra-red**” menu and select “**Manual Watering.**”
3. Select “**Cancel Flush**” to cease the manual flush sequence.

### HG-6 Built-In: (Integrated)

#### NODE Programming Instructions

##### Batteries

The NODE uses standard 9-volt alkaline batteries to operate the control valve and program the controller. The controller can operate with one or two batteries installed. Under normal conditions, potential life is 1 year for a single battery.

##### Battery Installation

1. Unscrew rear body of the NODE to gain access to battery compartment.
2. Insert battery/batteries into battery tray and connect the battery connector to controller.
3. Make sure no water is inside battery compartment.
4. Screw the NODE rear body back onto front half.

**NOTE: Make sure that seal marker on rear half of the NODE lines up with front half, ensuring a proper seal is created. Also, The NODE has non-volatile memory, which allows battery replacement without losing program information.**

##### Idle Mode – Waking Up

Normally the NODE display shows time and day, day of week, and battery life indicator. During a short period of inactivity the display will shut off to retain battery power. Pressing any key will wake up the NODE to the Idle Mode.

##### Run Mode

When controller is operating a program, items shown on display will include station number (always “1”), program letter (A, B, or C), remaining runtime, and a blinking Rotor icon.

##### Programming

The NODE has the capability to hold 3 programs (A, B, C) and 4 start times per program. When programming, flashing portion of display can be changed by pressing + or – keys. To change something not flashing, press **LEFT or RIGHT ARROWS** until desired item is flashing.

##### Setting Date/Time

1. Press **RETURN/ENTER** key until **CLOCK** icon is displayed.
2. All 4 digits will be displayed representing the year. Use + or – keys to change year. Press **RIGHT ARROW** key to proceed to setting month.
3. All 4 digits will be displayed with two digits on left flashing representing the **MONTH**. Use + or – key to change month. Press **RIGHT ARROW** key to proceed to setting **DAY**.
4. Only two digits on right will be flashing, representing the **DAY**. Press + or – key to change day. Press **RIGHT ARROW** key to proceed to changing **TIME**.
5. The **AM/PM/24** time setting is shown flashing. Press + or – key to change to AM, PM, or 24-hour time. Press **RIGHT ARROW** key to proceed to setting the **HOUR**.
6. All 4 numbers are shown with two numbers on the left flashing, representing the **HOUR**. Press + or – key to change the hour. Press **RIGHT ARROW** key to proceed to setting **MINUTES**.
7. All 4 numbers are shown with two numbers on right flashing, representing **MINUTES**. Press + or – key to change minutes. (Pressing **RIGHT ARROW** key will return to **YEAR** setting at step #2.)
8. Press **RETURN/ENTER** key to proceed to next programming function, or allow controller to return to idle mode.

##### Setting Flush Sequence Start Times

1. Press **RETURN/ENTER** key until **CLOCK** icon is displayed.
2. The **START TIME** will be displayed flashing, along with the program letter (A, B, or C) and start time number (1, 2, 3, or 4) in the upper left of the display. Up to 4 different start times can be set for each program.
3. Use + or – key to change **START TIME** for program displayed. Each press of key will change start time in 15-minute increments.
4. Press **RIGHT ARROW** key to add an additional **START TIME** to program displayed. The start time number is shown in upper left corner of display.
5. Press **PRG** key to add **START TIME** to a different program.
6. Press **RETURN/ENTER** key to proceed to next programming function, or allow controller to return to idle mode.

##### Setting Flush Duration Times

1. Press **RETURN/ENTER** key until **HOURLASS** icon is displayed. **RUN TIME** will be displayed flashing. Also shown is program letter (A, B, or C) and active station # (always #1– all other stations not used) on lower left side of display.
2. Press + or – key to change station **RUN TIME** from 1 minute to 6 hours.
3. Press **PRG** key to add a **RUN TIME** to another program.
4. Press **RETURN/ENTER** key to proceed to next programming function, or allow controller to return to idle mode.

# HYDRO-GUARD® HG-6 Flushing System

## Programming Unit

### Setting Flushing Days

1. Press **RETURN/ENTER** key until **CALENDAR** icon is displayed. The program letter (A, B, or C) will be displayed. Arrows point at specific days of week in which flushing will occur.
2. Press **LEFT** or **RIGHT ARROW** to scroll through days.
3. Press **+** key to activate that day for program displayed, or **-** key to cancel watering for that day. The arrow will show on flushing days for active program.
4. Press **PRG** key to set days to flush for a different program, if desired.
5. Press **RETURN/ENTER** key to proceed to next programming function, or allow controller to return to idle mode.

### Manual Flushing

Manual flushing allows user to test the Hydro-Guard® unit or a program for a specified run time.

Make sure controller is in Idle Mode.

1. Press and hold **RIGHT ARROW** until **HAND** icon is displayed. The station number (always #1) will be displayed in lower left side of display along with **RUN TIME**.
2. Use the **LEFT** or **RIGHT ARROW** to select #1 station if not already displayed, and **+** or **-** key to set manual flushing time.
3. To manually activate a program, press **PRG** key. Program letter (A, B, or C) will show on screen. If a different program is needed, press **PRG** key until desired program is displayed.
4. To stop **MANUAL FLUSHING** cycle press **-** key until time is reduced to zero.
5. Press **RETURN/ENTER** key to proceed to next programming function, or allow controller to return to idle mode.

### NOTE:

*– Pressing **+** or **-** key when running in **MANUAL FLUSH** mode will modify **FLUSH TIME** for that station.*

*– Pressing the button when a station is running in manual watering will stop flush on the current station and advance to the next station.*

*– Pressing the button when a station is running in manual watering will stop the flush on the current station and revert to the previous station.*

### Turn System Off

To turn off controller, press **RETURN/ENTER** key button until icon resembling water spray and **OFF** is displayed on screen. To return controller to auto programming mode, press **RETURN/ENTER** key. The controller will immediately return to auto programming mode and will display time and battery life indicator.

### NODE Quick Check

This circuit diagnostic procedure can quickly identify “shorts” commonly caused by faulty solenoids or when bare common wire touches a bare station control wire. To initiate **NODE Quick Check** procedure:

1. From Idle Mode, press and hold **+**, **-**, **LEFT ARROW**, and **RIGHT ARROW** keys.
2. Display will show all segments. Release keys.
3. Press **+** key to initiate **NODE Quick Check** test.
4. Controller will then activate flushing unit for 1 second to verify operation.

### Battery Life Indicator

Remaining battery life can be estimated from the battery life indicator shown on display. The NODE can operate using either a single 9-volt battery or using two 9-volt batteries. Using two nine volt batteries will yield approximately twice the battery life of a single 9-volt battery. The battery life indicator chart below shows an estimate of remaining battery life.

**Full:** 100-60% remaining battery life

**Med:** 60-25% remaining battery life

**Low:** 25-0% remaining battery life

**Replace battery immediately!**

### Resetting Controller


Resetting controller will erase current program data and restart controller. A reset does not, however, delete a program saved to permanent memory using the Easy Retrieve Memory feature to save a preferred program.

1. From Idle Mode, press and hold **-**, **RIGHT ARROW**, and **PRG** keys.
2. After two seconds screen will go blank. Continue to hold keys.
3. 12:00 will flash on display. Release keys.
4. The controller may show a countdown from 10 to 1 on display, and then 12:00 am will be shown flashing when reset is complete. The controller can now be reprogrammed.

# HYDRO-GUARD® HG-6 Flushing System

## Disassembly/Reassembly Instructions

### HG-6 DISASSEMBLY AND REASSEMBLY INSTRUCTIONS

 **TOOLS NEEDED:** 3/8" Socket, 7/16" Wrench, Philips screwdriver, A103 Security screwdriver.

#### Disassembly

1. If attached to a fire hydrant; close hydrant's water supply and allow to drain.
2. Relieve any remaining water pressure within Hydro-Guard® unit by opening sample port.
3. Place HG-6 in area clear of debris.
4. Remove the six security screws from top cover.
5. Remove the four security screws for the unit's splash pad assembly.
6. Remove the ten 1/4" bolts from the HG-6 housing. It's necessary to hold corresponding 7/16" lock nuts from inside the housing.
7. Detach Latching Solenoid from control valve.
8. Detach electrical connectors connecting the wiring of the controller (NODE or T-2) and the Latching Solenoid.
9. Remove the four bolts from the sliding clamp assembly prior to removing the two inner clamps.

10. Loosen clamping bolt on bottom of outside face clamp.
11. Slide clamp assembly away from the unit's 2" Flow Control Valve.
12. Unscrew valve from 2" brass pipe.
13. Remove six 3/8" bolts from valve cover.
14. Pull the top part of the valve away.
15. Check valve for any damages or debris in the inlet and outlet holes on valve.
16. Check diaphragm for any damages and check for any debris in the inlet and outlet holes on inside of the valve cover. When reinstalling valve cover to base, all arrows must point the same direction.


#### Reassembly


1. Screw valve onto 2" brass pipe.
2. Assemble sliding clamp assembly.
3. Slide clamp assembly toward the unit's 2" Flow Control Valve.

4. Assemble HG-6 housing by installing the ten 1/4" bolts. Don't forget the corresponding 7/16" lock nuts inside the housing.
5. Attach Controller to Latching Solenoid.
6. Install top cover with the six security screws.
7. Install the six security screws from cover assembly.
8. Reinstall diaphragm, following inspection into valve's top section.

 **WARNING: Use caution to avoid damaging plastic screen plug.**

9. Reinstall screws in valve and tighten

 **WARNING: Use caution when tightening screws. Overtightening can damage valve body.**

 **WARNING: Ensure flow arrows on top and bottom of valve body are facing the same direction and match the flow pattern of the flushing device.**

### BATTERY REPLACEMENT

#### HG-6 Removable TBOS-II Controller

1. Use HG-A104 Security Tool to remove protective Security Screws from Housing Cover.
2. Unscrew protective cap from gray Programming Interface located at top of unit.
3. Extract battery harness and remove old battery (dispose of battery appropriately).
4. Connect fresh industrial grade 9-volt lithium or alkaline battery. Re-insert with harness into Programmer.

5. Screw protective cap back into place and hand tighten securely.
6. Use Handheld Controller to reset all programs and assure flushing sequence is correct prior to returning the HG-6 Unit to service.
7. Reinstall Exterior Housing Cover and restore water supply to unit.

#### HG-6 Built-In NODE Controller

1. Follow HG-6 Removable TBOS-II Controller steps 1 – 3 (left) to access on-board Programmer.

2. Connect fresh industrial grade 9-volt alkaline battery and reinsert it with harness into Programmer (an optional battery harness is provided for redundancy and extended battery life).
3. Screw protective cap back into place and hand tighten securely.
4. Confirm that desired flushing sequences are correct prior to returning the HG-6 Unit to service.
5. Reinstall Exterior Housing Cover and restore water supply to unit.

# HYDRO-GUARD® HG-6 Flushing System

## Troubleshooting

### TROUBLESHOOTING THE PROGRAMMER

If the LCD is not working, the battery could be expired. If the flashing battery symbol appears, the battery power is low. Replace the old battery with a new battery.

#### Battery Replacement

It is recommended that batteries be changed every six (6) months or when the low battery icon appears

(see Programming for battery type). If you need further assistance, please contact us at 877.864.8500.

PROBLEM	CAUSE	SOLUTION
Controller does not flush as desired	Water at main water supply is shut off	Check main supply valve
	Battery dead	Replace battery
	Controller set to OFF	Set controller to desired program
Blank display	Controller improperly programmed	Check program and clock settings
	Battery dead	Replace battery
Water does not turn off	Overlapping programming	Review all programming and edit any program that is in conflict with desired off schedule  Clear all programming in memory and reset
	Programmer not communicating	Check Programming  Run Manual On/Off with solenoid removed from valve (hold finger or object over solenoid plunger to prevent plunger from dislodging from solenoid body)  Check wiring for damage and connectors to ensure proper connection (red to red and black to black)



### HYDRO-GUARD® KEY FEATURES, OPTIONS AND UPGRADES

From the integrated sample stations to dechlorination upgrades, your Hydro-Guard® Device offers an outstanding return on investment.

The following is a brief overview and introduction to Hydro-Guard® Options.

#### **Integrated Sample Station**

Increase your control of chlorine or chloramines residual maintenance through the integrated sample station. The built-in Sample Valve is located inside the top lid of the HG-6 (this feature is an option on the HG-6/Basic). Make sure to firmly grip the tubing and then turn the ball valve, and collect your sample. You may wish to run a brief manual-mode flush prior to the collection in order to ensure water indicative of the main-line water quality is being sampled. Generally a two-minute flush is sufficient. Track your residual levels and alter flushing frequency

and/or duration in order to maximize water conservation.

#### **Dechlorination**

The HG-6 Hydrant-Based Flushing System has a built-in Dechlorination chamber located in the base of the unit (not available on the HG-6/Basic). By removing the Dechlorination Chamber access door, pull out the chamber and load it with sodium sulfite or ascorbic acid tablets. Dechlorination takes place as a portion of the discharged water passes through this chamber. This action creates a concentrated dechlorination solution that then mixes with the non-directly treated portion of the discharged water.

#### **S.M.A.R.T. Monitoring and Flush Management**

The Hydro-Guard HG-6 can be upgraded to include a S.M.A.R.T. controller and a variety of water

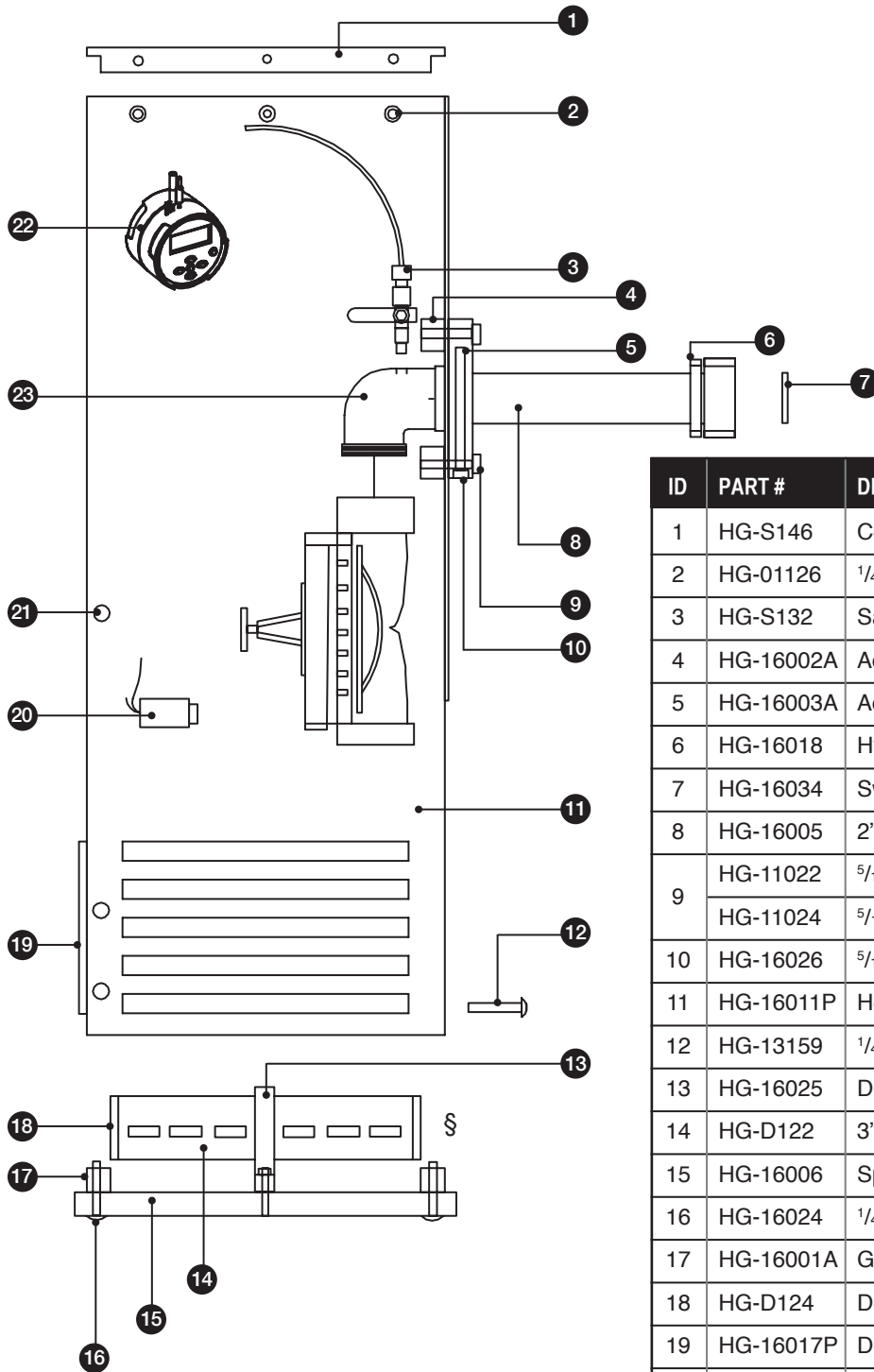
quality sensors. The S.M.A.R.T. equipped HG-6 will allow a utility to remotely monitor, in real-time, the water quality at a specific flush point and automatically initiate a flush event when water quality conditions warrant.

The Hydro-Guard® S.M.A.R.T. Flushing System:

- Monitors chlorine levels (total or free).
- Flushes distribution line when residual disinfectant drops below acceptable levels.
- Monitoring of pH, flow, temperature or turbidity available.
- Two-way real-time communication via cellular, wifi, ethernet or Bluetooth®.

# HYDRO-GUARD® HG-6 Flushing System

## Parts



ID	PART #	DESCRIPTION
1	HG-S146	Cover Sub Assembly
2	HG-01126	1/4" x 3/4" Stainless Steel Security Bolt
3	HG-S132	Sample Port Sub Assembly <sup>1</sup>
4	HG-16002A	Adjustment Clamp
5	HG-16003A	Adjustment Plate
6	HG-16018	Hydrant Adapter
7	HG-16034	Swivel Adapter Gasket
8	HG-16005	2" x 8" Brass Pipe
9	HG-11022	5/16" x 1 3/4" Stainless Steel Bolt
	HG-11024	5/16" Lock Washer
10	HG-16026	5/16" x 3" Stainless Steel SHCS
11	HG-16011P	Housing - Valve Side
12	HG-13159	1/4" x 1" Security Screw
13	HG-16025	Dechlorination Tube Bracket <sup>2</sup>
14	HG-D122	3" Dechlorination Diffuser
15	HG-16006	Splash Pad
16	HG-16024	1/4" x 2" Carriage Bolt
17	HG-16001A	Ground Plate Bracket
18	HG-D124	Dechlorination Tube Cap <sup>2</sup>
19	HG-16017P	Dechlorination Door <sup>2</sup>
20	546596	Solenoid Sub Assembly
21	HG-15181	1/4" Nylock Nut
	HG-13176	1/4" x 3/4" Phil Pan Screw
22	HG-S292	NODE Controller Assembly
	HG-5295	TBOS-II Controller Assembly
23	HG-20051E	Brass 90 Elbow <sup>1</sup>
	HG-13140	SCH 80 PVC Elbow <sup>3</sup>

1. Available option on HG-6/Basic  
 2. Not available on HG-6/Basic  
 3. Only available on HG-6/Basic

# HYDRO-GUARD® HG-6 Flushing System

Notes

## LIMITED WARRANTY

This Hydro-Guard® Automatic Flushing Device is warranted for one year from the date of delivery. Mueller Co. will repair or replace any defective part or component as long as the Unit is installed and operated in accordance with the procedures described within this manual. Damage or failure caused by the improper installation, assembly, disassembly, maintenance or operation of the Hydro-Guard Automatic Flushing Device is not covered by the terms of this warranty. Call Mueller Co. at 877.864.8500 during regular business hours, or contact Hydro-Guard at [www.Hydro-Guard.com](http://www.Hydro-Guard.com) for details on warranty service.



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