

Installation, Operation and Maintenance Manual

STOPflow™ Valve Controller

Installation Guide

⚠ WARNING



Read this manual **BEFORE** using this equipment. Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment. Keep this manual for future reference.



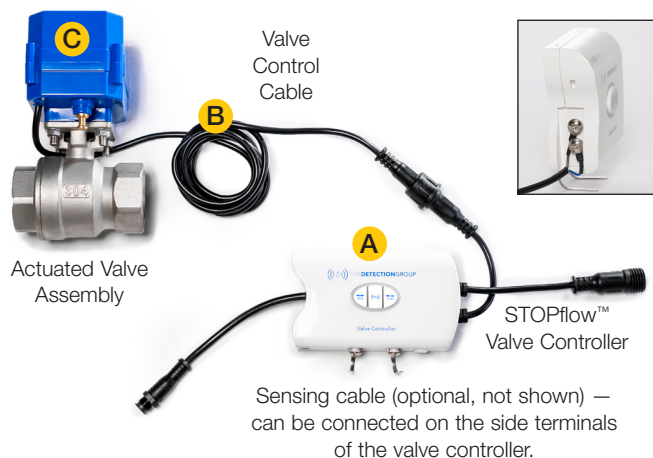
⚠ WARNING

You are required to consult and follow any applicable codes in the installation of this product.



What is Included

There are three pieces of equipment involved in a Trident™ valve controller install.



- A** DT-503-S STOPflow™ Valve Controller
- B** DTVS-C25 & DTVS-C40 Valve Control Cable
- C** DT-505-X Actuated Valve Assembly in varying sizes

Equipment Details

Valve Controller

For STOPflow the valve controller will be used as a sensor by making sure the two bottom prongs are firmly resting on the surface you wish to protect.

Requires standard 110v power. The power adapter (5' length) is connected to the tail that comes out of the left side of the valve controller.

- 2 CRV123 backup batteries are pre-installed. Battery tab needs to be pulled during installation and make sure battery cover screws are secure.

Up to two valve connections can be made to a single valve controller using the two tails on the right side of the valve controller.

- The top tail is referred to as connection 1, slot 1 or valve 1. The bottom tail is connection 2, slot 2, or valve 2.

Valve Control Cable

Use a valve control cable if the valve controller and actuated valve assembly are installed >5' apart.

- Valve control cables are available in 25' and 40' lengths and can be connected up to 120'.

Actuated Valve Assembly

Must be installed prior to Valve Controller installation.

Actuators for valves >1.25" have an indicator knob and a brass clutch.

- Once installed verify the brass plunger/clutch is fully pulled out and engaged. You should not be able to rotate the valve with the knob.

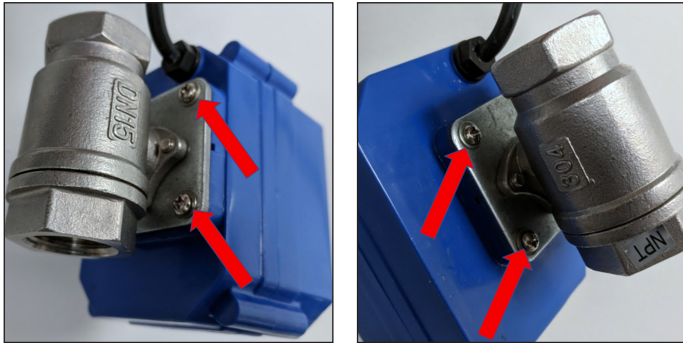
Should be installed in an accessible location.

If you are installing a TDG valve near an existing valve, in most cases it is preferred to locate the TDG valve in line after the current valve.

For applications where separate lines provide hot and cold water, 2 valves will be required. Up to 2 valves can be operated by a single Valve Controller. Both valves will be closed simultaneously. Valves may be installed in either direction.

Control Wire Labeling

If the control wire must be run to a different location, ensure that the wire is labeled with the valve location and what it controls.



IMPORTANT: It is required that the screws or studs used to attach the valve to the actuator are accessible to enable removal or replacement (the larger actuators have threaded studs with a nut).

Operating Information

Power-Cycle

Press and hold open and close buttons for ~12 seconds. All lights will flash (Blue, Yellow, Red) and buzzer will beep one time.

Active Mode

Device checks for water every 15 seconds at the same time as the LED blink.

Any connected valves will add an additional blink following the initial device status blink. First blink represents hardware status, 2nd and 3rd blinks represent the valve 1 and 2 status.

Blue = Open Red = Closed

Water Alarm Mode

Device blinks red and beeps once every 3 seconds.

Silence Alarm

- Press and release the button. The device will silence and go into a lockout period in which the device will not sense water.
- During this lockout period the device will blink Yellow every 15 seconds.

Valve Controller Installation

Determine the location where the **Valve Controller (A)** will be placed. The area should be within **Valve Control Cable (B)** distance of the **Valve(s) (C)** to be connected as well as the power outlet. Install the valve controller with the feet firmly resting on the floor. If using optional sensing cable, connect to the side terminals of the Valve Controller placing in low lying areas where water may accumulate.

Valve Controller Installation and Registration Process

Determine installation location and install Velcro adhesive at appropriate height.

Connect power supply and pull battery tab.

Connect valve cables. If only one valve is being connected, use the top tail on the right side of the valve controller, Connection 1. If two valves are being used, make sure to note the name of the connections. (i.e., Connection 1-Cold water; Connection 2-Hot water).

Startup is indicated by an initial Blue, Yellow and Red indicator light and a single beep.

Device will blink Blue every 15 seconds.

- Connecting a valve will trigger the valve controller to add an extra led blink indicating valve status: blue open and red closed.

After connecting the valve(s) use the open/close buttons on the valve controller to test the valve functionality. Once verified, open the valves for normal operation.

Valve controller is now successfully commissioned.

- The default lockout period is 30 minutes.
- Device will automatically reset after 30 minutes.

Reset Device Manually

- Press and hold the button for ~12 seconds to exit reset mode, or wait for the lockout time to expire.

Controlling Valves

Open All Connected Valves:

Press Left Button

- In Process: LED Solid Yellow
- On Success: LED Blue
- Failure: Rapid Red LED (See Troubleshooting section)

Close All Connected Valves:

Press Right Button

- In Process: LED Solid Yellow
- On Success: LED Blue
- Failure: Rapid Red LED (See Troubleshooting section)

Status Indicators

STATUS	LIGHTS	SOUND
Boot	Blue Yellow Red	1 beep
Active	1× Blue every 15s	
Alarm	1× Red every 3s	1× short every 3s
Silence	1× Yellow every 15s	
Reset	3× Blue	1 beep
Battery Warning	1× Yellow every 15s	
Battery Alarm	1× Red every 15s	
External DC Alarm	1× Red every 15s	
Valve(s) Failed	Rapid Red	
Valve 1 Closed	2nd LED Red	
Valve 2 Closed	3rd LED Red	
Valve 1 open	2nd LED Blue	
Valve 2 Open	3rd LED Blue	

Troubleshooting

Components of the System



Trident Valve Controller

Sends commands to the actuator to open or close the valve



Valve Actuator

Receives commands from the Valve Controller and drives the valve



Valve

Connected to the pipe and physically controls the water when driven by the actuator

Troubleshooting by Piece

Valve Won't Actuate

Try to actuate using a different Valve Controller

- If it actuates, the Valve Controller was the issue — Problem Resolved
- If it does not actuate, actuator or control cable is the likely issue

Try to replace the actuator

- If it actuates, the actuator was the issue — Problem Resolved
- If it does not actuate, the valve is the likely issue

Try to turn the valve using a crescent wrench (only applies to valves >1.25" with an indicator knob and brass plunger-Prior to attempting to manually turn valve, depress the plunger to disengage the internal gears)

- If it doesn't turn the valve is the issue — Contact TDG for possible replacement
- If it does turn, then the issue needs to be escalated and testing will need to be repeated

Valve Controller

Issue: Buttons are not responsive

Resolution: the button plunger has been misaligned, and giving the button a pinch will help realign the plunger

Issue: Valve showing up as active when nothing connected. A device is active indicated by the 2nd or 3rd indicator light being blue or red; see indicator light chart (Trident Valve Controller Operating Information document)

Resolution: Detach all valves and perform a power cycle by pressing the open/close button simultaneously for ~12secs till you hear a second beep

Issue: Valve showing up as disconnected when no valve is connected. (See the Trident Valve Controller Operating Information document for more)

Resolution: Detach all valves and perform a power cycle by pressing the open/close button simultaneously for ~12secs till you hear a second beep

Issue: Valve Controller showing power disconnected

Resolution: confirm that the outlet power is active and power cycle the device, if still an issue, replace the power supply

Valve Actuator

Issue: Valve opens and closes, but shows as failed opening or failed closing

Resolution: Contact TDG for support

Issue: Valve doesn't actually turn even though actuator is moving

Resolution: For valves >1.25", on the actuator, check that the brass plunger is activated and out making sure that the gears are engaged

Valve

Issue: Valve does not actuate

Resolution: If other testing has pointed to the valve being the issue, confirm this by using a wrench to try and manually turn the valve (only applies to valves >1.25" with an indicator knob and brass plunger-Prior to attempting to manually turn valve, depress the plunger to disengage the internal gears). If it does not turn, or is hard to turn, valve should be replaced

Issue: Valve is leaking

Resolution: Contact TDG for support

Limited Warranty: The Detection Group (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of installation. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**



A **WATTS** Brand

USA: T: (415) 941-LEAK (5325) • TheDetectionGroup.com