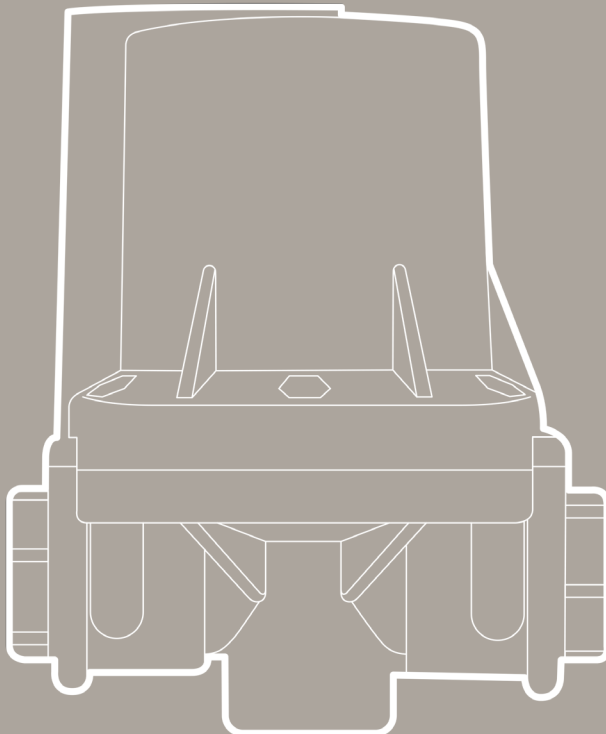


**Cistermiser**  
OUR WORLD IS WATER

## Hydraulic Valve Installation Guide



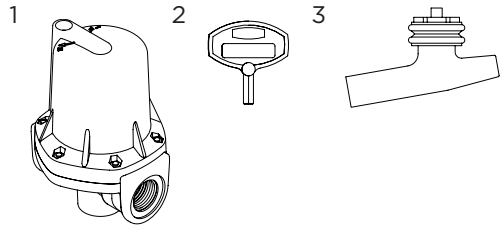
# 1. Introduction

The Hydraulic Valve is an automatic urinal flush control valve. The valve uses a unique and simple mechanism which prevents water waste by ensuring that the auto-flush cistern is only filled, and can only flush, when the washroom is used.

The Cistermiser Hydraulic Valve is installed on the supply pipe to the urinal cistern. The valve is activated by short-term pressure drops created by use of taps or WCs on the same supply. The valve is normally closed; when it is activated, it allows water to pass to the urinal cistern until the internal pressures inside the valve stabilise. When the cistern is full the auto-siphon will flush. The length of time the valve takes to close can be set by the installer.

## Parts

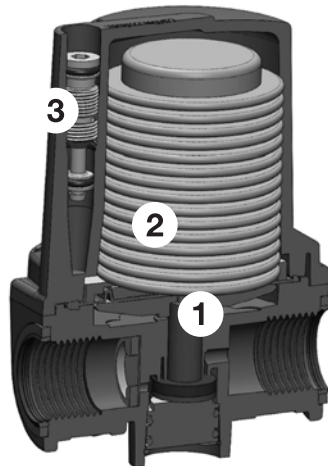
1. Valve
2. Key
3. Hygiene flush attachment (optional)



## Product diagram

The Cistermiser Hydraulic Valve consists of three main elements as shown here:

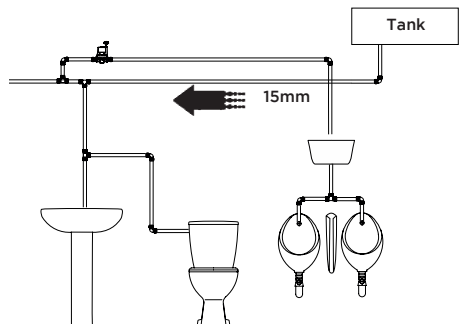
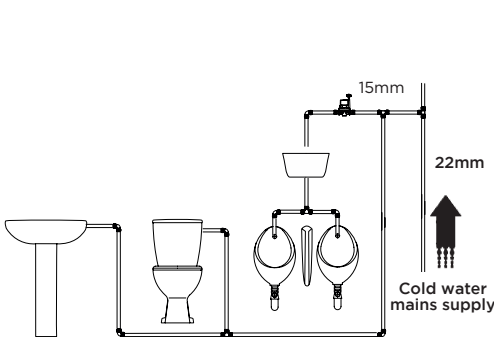
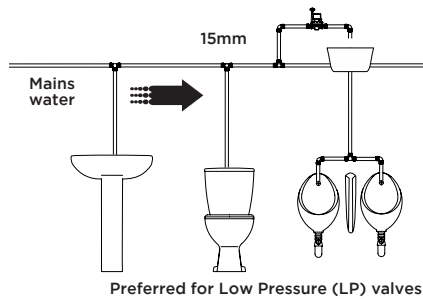
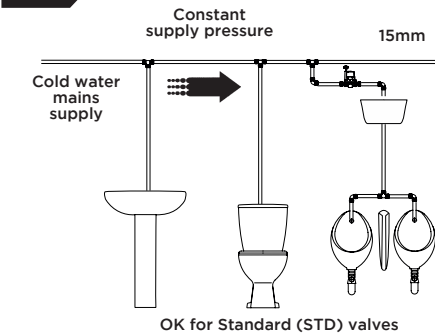
- 1 Diaphragm operated valve which, when opened, allows water to pass to the urinal cistern.
- 2 Hydraulic accumulator, pressurised to the supply pressure, keeps pressure on both sides of the diaphragm equal and valve closed. When pressure on the inlet (supply) side is reduced, as other services are used, the pressure imbalance causes the valve (1) to open.
- 3 Adjustment (restrictor) screw which can be set during installation to determine the volume of water discharged into the cistern at each operation by altering the duration of the 'open' period.



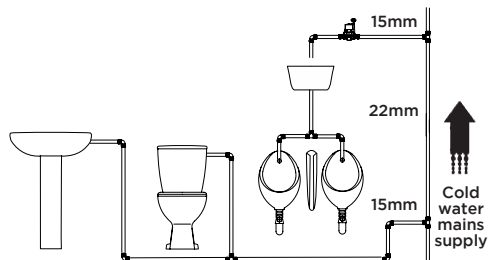
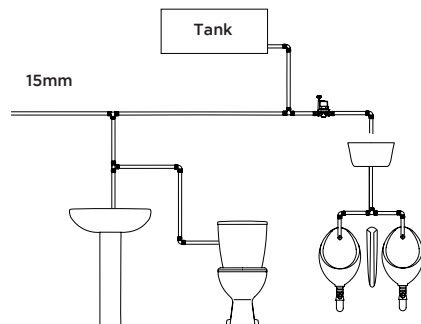
# 2. Positioning (valve orientation)

Note: Draw-off point must be as close as possible to the valve. Pipe bends and water pressure will determine maximum distance.

**YES**

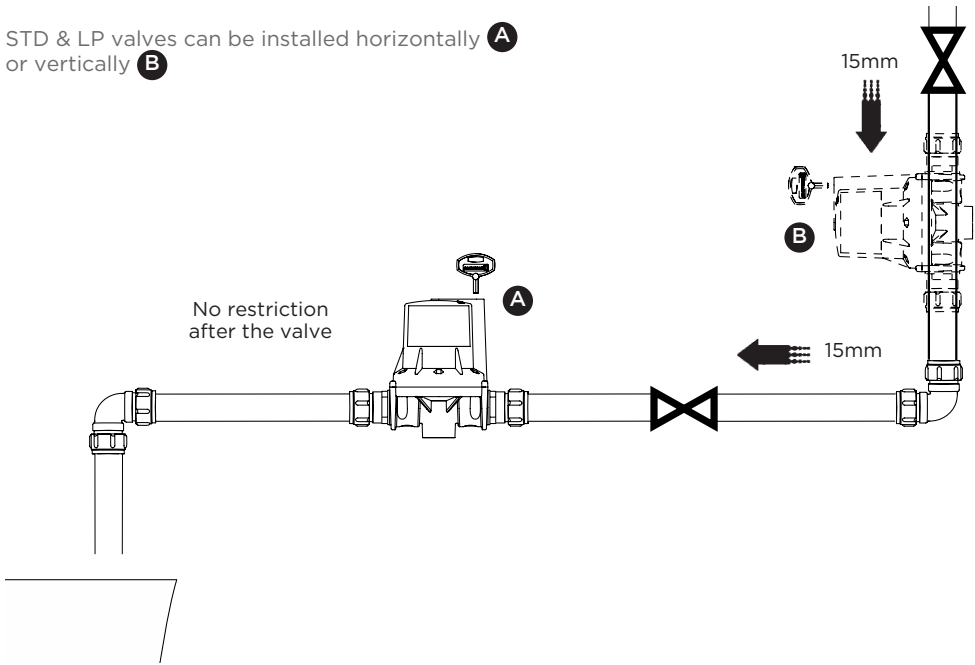


**NO**



### 3. Installation schematic

STD & LP valves can be installed horizontally **A** or vertically **B**



### 4. Commissioning

#### Commissioning the STD & LP Valve

1. Trapped air must be vented from the valve. Restrict the water supply and, using the black key supplied, unscrew the restrictor screw (anti-clockwise) to reveal the 'O' Ring.
2. Increase the water supply until all trapped air has been exhausted and water runs freely from the restrictor.
3. Turn the restrictor screw clockwise until the top is flush with the outer body of the valve (on STD models it may be necessary to turn down the water pressure momentarily to ensure the pressure does not cause the 'O' Ring to become dislodged from the restrictor).
4. Wait approximately one minute for the valve to charge up. Turn the restrictor three and a half complete turns clockwise so that it is recessed into the valve body. The valve is now ready. Turn on a hand basin tap or flush a WC on the same 15mm supply and the valve will open.
5. To increase the time that the valve remains open once activated, turn the restrictor screw clockwise. This will allow more water to enter the cistern at each operation and increase cistern flushing frequency. This should be set according to the number of urinals served / size of cistern and the number of activations desired between flushes.

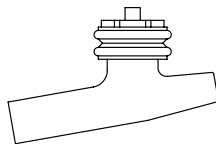
## Hygiene flush attachment

The hygiene flush attachment permits a slow drip into the cistern to initiate a flush approximately every 12 hours. For correct operation it is essential that the siphon of the auto flushing cistern does not leak.

Remove the black plastic plug from the bottom of the Hydraulic Valve using circlip pliers: the plug is no longer required but take care to retain the spring.

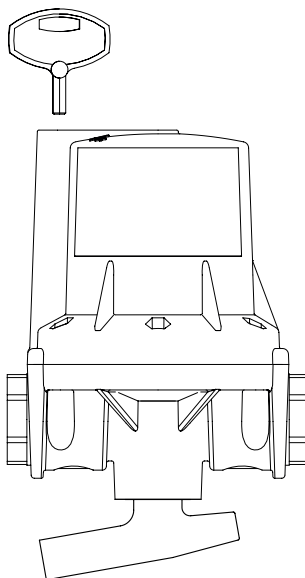
Insert the hygiene flush attachment in place of the plug making sure to align it to the hexagon shaped end.

When fully engaged secure the circlip and adjust the drip into the cistern to the required rate with the allen key provided.



## 5. Power connection

There are no power requirements because the valve is activated by pressure fluctuations within the water supply.



# 6. Usage advice and specification

## Choosing the right valve for your application

There are two models in the range of Hydraulic Valves, each suited to different water supply pressure. The table below will help to specify the right model for your application:

### Standard valve (STD) and Standard valve with hygiene flush (STDIF)

(Blue colour coded packaging)

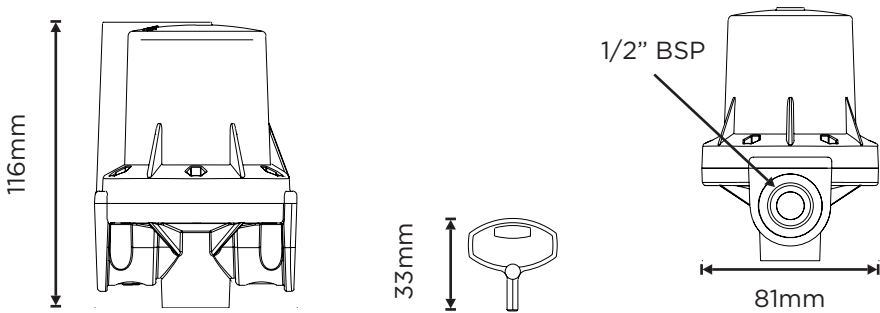
|                        |                                                                          |
|------------------------|--------------------------------------------------------------------------|
| Supply:                | Mains water pressures 0.5 bar to 6 bar or tank-fed systems above 5m head |
| Operating sensitivity: | 15% of supply pressure                                                   |

### Low Pressure valve (LP) and Low Pressure valve with hygiene flush (LPIF)

(Green colour coded packaging)

|                        |                                 |
|------------------------|---------------------------------|
| Supply:                | Tank-fed systems, 3m to 5m head |
| Operating sensitivity: | 20% of supply pressure          |

# 7. Component dimensions



## 8. Frequently asked questions

### There is a continuous flow of water through the valve

|                                                                  |                                                                                                                     |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| The valve has been installed in reverse                          | Remove the valve and fit with arrow (located at the base of the valve) in the direction of water flow.              |
| Water pressure too high for valve: may crush bellows             | Purchase a valve suitable for your water pressure.                                                                  |
| Valve is being triggered by a drop in pressure from another room | Change pipework or change valve to a Cistermiser IRC which can be powered by either batteries or mains electricity. |

### The valve is permanently closed

|                                                                                                                                                                                                       |                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water supply                                                                                                                                                                                          | Ensure water supply is turned on and is reaching the valve.                                                                                                                                       |
| Restriction on the outlet of the pipework into the cistern                                                                                                                                            | The pipework after the valve should have no other valves or petcocks fitted and should be open ended: anything fitted after the valve can cause back pressure which stops the valve from opening. |
| No draw-off point. Is there a draw-off point that will activate the valve on a common 15mm supply pipe?                                                                                               | Change pipework or change valve to a Cistermiser IRC which can be powered by either batteries or mains electricity.                                                                               |
| Water pressure too low for valve                                                                                                                                                                      | Change valve to one suitable for the water pressure on site, or change valve to a Cistermiser IRC which can be powered by either batteries or mains electricity.                                  |
| Valve not vented                                                                                                                                                                                      | The valve requires to be vented as per the commissioning instructions; trapped air will cause a malfunction.                                                                                      |
| Restrictor screw adjustment incorrect                                                                                                                                                                 | The restrictor screw should be approx 3.5 turns below the level of the main valve on initial installation (not flush or above the valve body).                                                    |
| Pipework. Is all pipework between the draw-off point (which is activating the valve) and the valve in 15mm? If the pipework is larger than 15mm the ability to detect a pressure drop will be reduced | Change pipework or change valve to a Cistermiser IRC which can be powered by either batteries or mains electricity.                                                                               |

# The valve is permanently closed

|                                                                                                                                                                                     |                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valve installed too far away from draw-off point. The valve must be as close as possible to the draw-off point. Distance reduces the ability of the valve to sense pressure changes | If possible move the valve/draw off point closer together. Change pipework or change valve to a Cistermiser IRC which can be powered by either batteries or mains electricity. |
| Draw-off points used to activate the valve. Are the taps mixer or aerated? Such taps do not always register a significant pressure drop and may not activate the valve              | Purchase a Cistermiser IRC valve which does not rely on pressure drops and can be powered by either batteries or mains electricity.                                            |
| Water supply is pressurised or pumped. A supply that immediately makes up a pressure loss as services are used reduces the capability of the valve                                  | Install a Cistermiser IRC valve.                                                                                                                                               |

# Flow through valve is inadequate/too great

|                                       |                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Restrictor screw adjustment incorrect | Turn the restrictor screw clockwise to increase the volume of water allowed though with each activation of the valve and anti-clockwise to decrease. If this has no effect then a Cistermiser IRC valve, which does not rely on pressure drops, should be installed. The IRC can be powered by either batteries or mains electricity. |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# Faulty valve or installation error

|                                                                  |                                                                                                                                                                                                                       |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| You have tried the above FAQs and the valve is still not working | Remove pipework from the outlet side of the valve, put your thumb over the outlet and activate the draw-off. If you feel a slight suction there may be a fault with the valve and you should contact Cistermiser Ltd. |
| The valve is leaking                                             | The leak is coming from the join with the pipework. The bonded seal may have slipped out during installation. Ensure the bonded seal is fitted before tightening pipework.                                            |

## Cistermiser product warranty and extended warranty

Cistermiser products are guaranteed for 12 months from the date of manufacture. The guarantee is for faulty products and parts only: there is no labour warranty. If you believe your product is faulty, please either contact Cistermiser directly on **0118 969 1611** or at **support@cistermiser.co.uk**, with a photograph and the serial number, to help diagnose the cause of the problem.

The warranty on Cistermiser products can be extended within one year of date of manufacture, at no cost, to three years from the date of installation (see details on page 9). Please make a note of the serial number and take a photograph of the installation before you leave site.



# Commissioning check-list

## Hydraulic Valve

3

YEAR

extended warranty

The warranty on Cistermiser products can be extended within one year of date of manufacture, at no cost, to three years from the date of installation. Once the valve has been installed, complete the product commissioning checklist below to demonstrate compliance with the installation instructions. Email a photograph of this completed form to [warranty@cistermiser.co.uk](mailto:warranty@cistermiser.co.uk) or post to Cistermiser, Unit 1, Woodley Park Estate, 59-69 Reading Road, Woodley, Berkshire, RG5 3AN.

Product serial number.....

Installation address .....

Installer’s name .....

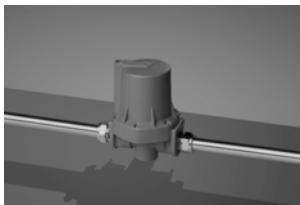
Telephone number .....

Email address .....

| No  | Activity                                                                                                                                                  | Checked                  | Date                     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| 1.  | Flush pipework prior to installation.                                                                                                                     | <input type="checkbox"/> | <input type="checkbox"/> |
| 2.  | Check the valve is suitable for the incoming water pressure. STD 0.5 – 6 Bar, LP tank-fed 3 to 5 metre head.                                              | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.  | Ensure the valve is installed in the correct flow direction.                                                                                              | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.  | Check the valve is installed on common supply to washroom (valve operates on the pressure drop caused by other services being opened).                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.  | Check the valve is supplied by 15mm pipework; larger pipework will reduce the valve’s ability to sense a pressure drop.                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.  | Ensure the valve is installed no more than 3 metres from the draw-off point.                                                                              | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.  | Ensure there is no restriction after the valve.                                                                                                           | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.  | Vent the valve by removing the restrictor screw until all air is removed.                                                                                 | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.  | Turn the restrictor screw clockwise approximately 3½ turns.                                                                                               | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. | Check operation: ensure valve operates accordingly to the number of urinals served/size of cistern and the number of activations desired between flushes. | <input type="checkbox"/> | <input type="checkbox"/> |

# Cistermiser range

## Urinal flushing



### Hydraulic Valve

An automatic urinal flush control valve which reduces water consumption. The valve uses a simple patented mechanism which prevents water waste by ensuring that the auto-flush cistern is only filled, and can only flush, when the washroom is used.



### Infrared Control (IRC) Valve

This valve automatically manages the water supply to the urinal cistern and reduces water consumption by up to 80%. The PIR sensor detects movement and activates the solenoid valve, allowing water into a urinal cistern.



### Direct Flush Valve

An infrared sensor controlled urinal valve. It automatically flushes individual urinals after use, ensuring the highest level of hygiene from the minimum volume of water.

## WC flushing



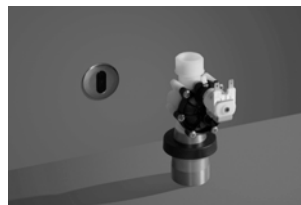
### Easyflush Wave

An infrared, hands-free and water-conserving WC cistern flush valve suitable for concealed or exposed cisterns. Easy to install in retrofits or new installations, its no-touch dual flush WC cistern valve promotes water economy and hygiene in domestic and commercial washrooms.



### Easyflush Walkaway

An infrared controlled automatic WC cistern flush valve that is suitable for concealed cisterns. The valve flushes once the user exits the cubicle. Ideal for use in environments where hygiene and water economy are concerns.



### Easyflush Direct

An infrared electronic flushing system that removes the need for a WC cistern by taking its water feed straight from the mains supply. Ideal for high traffic areas as the system allows for a second flush without a delay.

## Infrared Taps



### Novatap

A contemporary deck-mounted chrome tap. The infrared control reduces water and energy usage and eliminates the risk that the tap may be left running.



### Vectatap

An elegantly designed infrared tap with the benefit of hygienic hands-free operation. Vectatap improves water and energy efficiency and includes auto-shut off and hygiene flush features.

## Washroom control systems



### Sensazone

An innovative system to conserve water and energy. Occupancy is monitored by sensors; when someone enters the washroom all services controlled by Sensazone are activated – the hot and cold water, lighting and extractor fans.

## Remote Monitoring



### LinkThru

The latest innovation from Cistermiser, LinkThru TMU delivers remote real-time monitoring of water temperatures on a 24/7 basis. LinkThru TMU harnesses the power of the Internet of Things to monitor water temperatures and helps to ensure Building Owner compliance with HSG274, reducing the risk of Legionella.

# Davidson Holdings' brands

## Salamander Pumps



**Salamander** is one of the UK's leading manufacturers of pumps for boosting water pressure for showers, bathrooms and whole house supply in domestic and small commercial tank-fed systems.

[salamanderpumps.co.uk](http://salamanderpumps.co.uk)



**Talon** is the UK market leader in the manufacture and supply of plastic pipe clips, pipe collars and fixing plugs, plus a range of cover profiles for concealing pipework.

[talon.co.uk](http://talon.co.uk)



## Keraflo

OUR WORLD IS WATER

**Keraflo** manufacture delayed action float valves, which provide an accurate and effective method of controlling the level of stored cold water in tanks both with and without raised float valve chambers. The range is used in domestic, commercial and industrial applications worldwide.

[keraflo.co.uk](http://keraflo.co.uk)



## Combimate

GUARANTEED LIMESCALE PREVENTION

**Combimate** is a domestic limescale prevention device that prevents limescale build-up and soft water corrosion in combination boilers and other domestic hot water appliances.

[combimate.co.uk](http://combimate.co.uk)



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