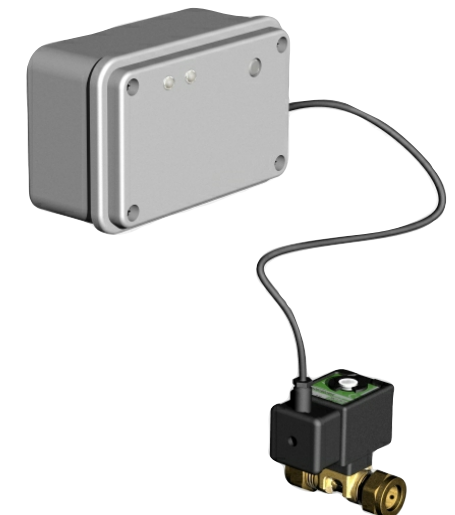




FLUSHMASTER

Battery Powered
PIR Urinal Control

CISTERN FILL INSTALLATION & SET UP GUIDE



IMPORTANT

Do Not attempt to set up the Flushmaster system until the valve is correctly installed, tested & connected.
Check water supply is turned on & the cistern has been **fully** emptied.

<u>ACTION</u>	<u>LCD DISPLAYS</u>
Connect the battery & then press the Reset Button .	FLUSHMASTER (SERVICE 01803 521415) V1.2.0 No 0000001 (EXAMPLE)
Wait 5 seconds. Fill Time programming screen appears.	
Press the Adjust Button to open the valve & start filling the cistern.	WITH CISTERN EMPTY, PRESS ADJUST TO START FILL TIMING FILL TIME: 00:00
Press the Adjust Button again when water begins flushing into urinal bowls.	PRESS ADJUST WHEN FLUSHING STARTS FILL TIME: 06:00 (EXAMPLE)
Delay programming screen appears.	
Press the Adjust Button to increase flush delay time in minutes. (The time between movement detected & flushing starting)	PRESS ADJUST TO INCREASE . PRESS FUNCTION WHEN DONE DELAY TIME: 30 (EXAMPLE)
Press the Function Button when done.	
Janitor programming screen appears.	
Press the Adjust Button to increase the Janitor flush frequency in hour increments. (Hygiene flush x hours after the last motion was detected)	PRESS ADJUST TO INCREASE . PRESS FUNCTION WHEN DONE JANITOR: 12 (SUGGESTED SETTING)
Press the Function Button when done.	
Set-Up is complete & Test Mode activates for 5 minutes.	TEST MODE ACTIVATED FOR 5 MINUTES ONLY. FIT LID TO CASE
Refit the lid securely to the back box & see notes below for Test Mode.	

TO TEST THE FLUSHMASTER Walk away from the region where the PIR sensor is set to detect, wait 10 seconds, then approach the urinal area & make sure that the LED test light flashes on the control box in response. After the LED flashes, there is a 20 second delay before the PIR starts sensing again. After five minutes testing, the Flushmaster sounds a long beep to signal that test mode is complete, & that normal operation has begun automatically.

FLUSHMASTER ALARM MODES

LCD displays - BATTERY IS BAD - in the menu.

Then the Battery / Batteries should be replaced immediately.
Do not attempt to set up the Flushmaster with poor condition batteries.
If the batteries are removed whilst the menu is displayed, the Flushmaster may lock-up & cease to respond to the buttons, in this case the RESET button must be pressed which restores the Flushmaster to its initial set up state & all settings will need to be re-entered.

Battery Low Condition in service.

The battery low condition is indicated by a short beep.
When the time comes to replace the batteries, make sure that the display is blank before disconnecting the batteries, otherwise the contents of the memory will be lost. Once the batteries are disconnected, the Flushmaster retains its settings for 30 seconds.

IMPORTANT

Only use quality replacement Alkaline Batteries
Fit One Battery = Approximately 2 / 3 years Battery Life
Fit Two Batteries = Approximately 4 / 5 years Battery Life

If the LCD displays - VALVE FAULT - in the menu.

The valve fault condition is also indicated by a warbling sound this alarm means that the valve is either stuck open or closed.
This could mean that the valve is faulty, or the valve is being operated outside its pressure range, or that the wiring is faulty. In all these cases the valve & wires must be checked, serviced or replaced, do not allow the system to operate if this alarm is sounding as water will be wasted.

FLUSHMASTER BASIC SPECIFICATION

Control Box	Grey ABS 120 x 80 x 50 mm
Battery Life	2 years or 4 years
Battery Type	PP3 9Volt (Premium Quality Only)
Cistern Fill Time	0 – 35 minutes (1 second steps)
Flush Delay	0 - 99 minutes (1 minute steps)
Light Sensor	Automatic Selection
Janitor Flush	Adjustable to 1 flush every 1, 3, 6, 12, 24 or 48 hours after the last motion was detected
Flush Counter	To check how many flushes have occurred press the function button & when in first screen press & hold the adjust button for 3 seconds

VALVE

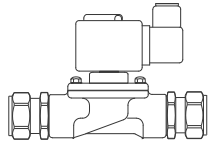
Valve Fault	Warble Alarm
Type	2mm Latching Bi-Stable Solenoid Valve
Voltage	6VDC / 40 ms Pulse
Fittings	1/2" BSP / 15mm Compression
Max Pressure	10 Bar
Flushmaster NWP	1 - 7 Bar
Service Interval	3 years (recommended)

Default Settings: Fill Time 6 Mins, Delay Time 30 Mins, Janitor flush 24 Hours

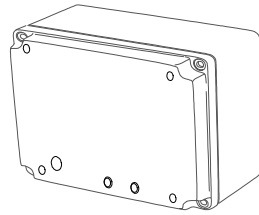
WARRANTY

12 months parts replacement only, no responsibility can be taken for failure of the valve directly resultant from contaminated water supplies, or improper installation of the Flushmaster.

STEP 1 (Introduction)



Solenoid Valve



Flushmaster Control Box

Within the installation pack you will find One Flushmaster control Box, The Flushmaster solenoid Valve, 2 meters of cable with pre-fitted valve plug & cable gland. One Battery, & Instruction guide.

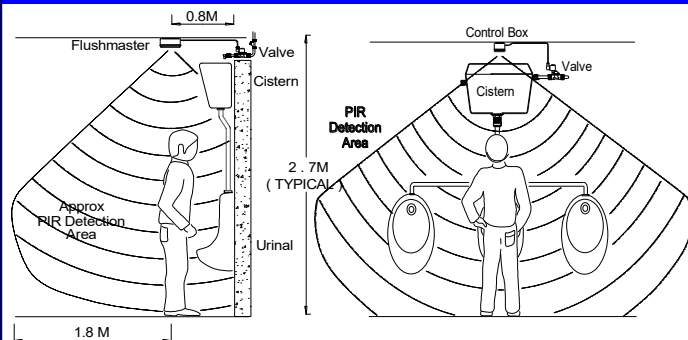
The Installation must be conducted by a competent tradesman & in accordance with local water bylaws & relevant building regulations.

The Flushmaster is an electronically controlled sensor & valve system designed to automate & control water used for flushing urinals, delivering water savings of up to 95%.

The passive infra-red sensor detects motion near the urinal, & the solenoid operates the flushing system only when needed.

The system can be used in either single urinals or wide trough urinals.

STEP 2 (Control Box Location)



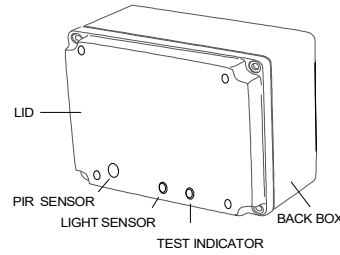
The PIR detector control box will normally be located on the ceiling positioned at the centre of the urinals to be controlled, facing downward & positioned at approx 0.5m - 0.8m from the cistern wall.

Mounting on a vertical wall is also permissible in some locations but not considered ideal as false activation will occur from other occupants using other facilities in the washroom, thus causing unnecessary water waste.

For correct operation, people moving to the urinal must cross the Passive infra-Red (PIR) detector "beam". The Flushmaster when installed in ideal conditions will detect human movement up to 6m away from the PIR sensor.

Avoid if possible locating the control box near heat sources (eg, radiators), or where sunlight can fall on the PIR detector window on the control box.

STEP 3 (Installing The Control Box)



Flushmaster Control Box Exterior Features

Use Screws & Correct Fixings To Attach Back Box To Ceiling

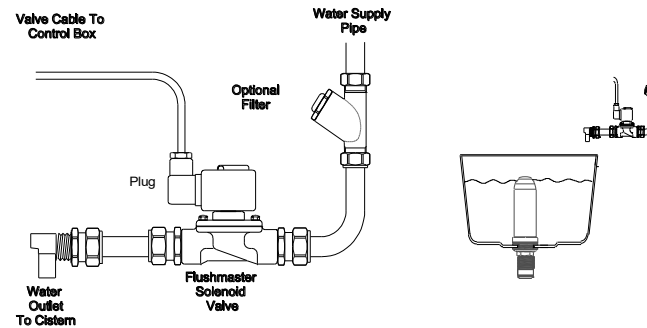
Having selected a suitable position on the ceiling for the control box, separate the control box lid & back box & keep the control box lid in a safe / dry Place.

Select & mark the position of cable entry into the "back" box & drill a 13 mm hole for the cable gland, securely fix the back box to the ceiling then run the length of twin core flex provided from the selected valve area making sure it is secured in cable clips or preferably installed in a plastic conduit, to prevent damage or tampering after installation.

Take the control box lid & connect the valve plug to the valve connection on the PCB, temporarily fit the lid back on to the installed back box to prevent the cable joints from being strained.

Note: Do not fit the PP3 Alkaline battery / batteries at this stage.

STEP 4 (Installing The Valve)



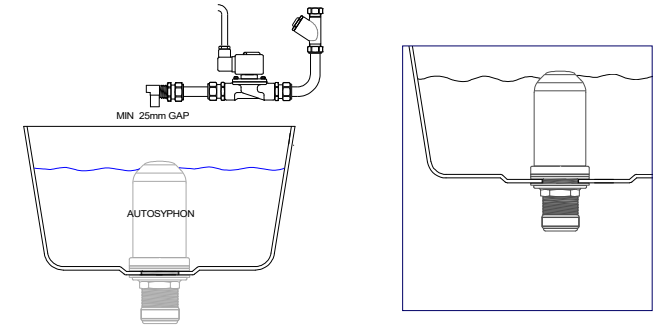
If the water supply pressure exceeds 8 bar a pressure reducing valve should be installed in the incoming water supply pipe prior to the solenoid valve.

The fitting of a water "Y" type strainer prior to the solenoid valve is recommended as this will extend its service life & improve reliability.

Turn off the water supply & identify a suitable location for the solenoid valve assembly. Remove a section of pipe & fit the solenoid valve taking note of water flow direction & the flow markings on the valve.

After the valve is installed turn on water supply & check for leaks before proceeding to the next step. Use the battery to open & close the valve by momentarily touching the battery contacts onto the 2 small contacts on the valve in one polarity to open & reverse polarity to close the valve, wait until the cistern flushes then immediately close the valve. Please ensure there are no flow restrictions between the valve & the outlet into the cistern.

STEP 5 (Autosiphon)



The flush is obtained through an existing cistern fitted with an serviceable Autosiphon. Most cisterns have this type of device already installed.

Always ensure the cistern filling time is longer than the time it takes for the cistern to empty & flush the urinals to prevent overflowing, & possible water waste.

The maximum water level in the cistern should be below the top of the emergency water over flow. A water flow restrictor must be fitted if the water flow rate into the cistern is greater than 6 litres per minute.

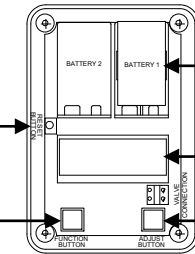
Sometimes it is possible to restrict the maximum incoming water flow by adjusting the local water isolating valve to the cistern. It is recommended that the water flow into the cistern should be adjusted to ensure the flush cycle is greater than 10 minutes. The overall flushing interval is determined by the PIR sensor & timer settings after the control box has been set up.

STEP 6 (Pre - Programming Set Up)

Rear View Of Flushmaster Control Box Lid

Press to Reset & Clear Old Settings

Press to progress through Set-Up Menu



1 Battery = 2 Yrs
2 Battery = 4 Yrs
Of Normal Use

LCD Display To Indicate Your Settings

Press to Adjust Individual Settings

Carefully remove the cover from the control box taking care not to stress the valve cable or connections. The valve wire will be connected to the valve connector.

Remove the protective cap from the battery & place it into the battery clips, then fully engage the connectors in the correct polarity then immediately press the reset button & wait 5 seconds for the LCD display to illuminate.

The Flushmaster is fitted with an LCD display for use during the "programming set up and to display the Flush Counter.

If the battery is connected & the Flushmaster is not set up correctly then after 35 minutes a factory default setting is activated followed by 5 minutes in test mode to provide some basic hygiene flushing until the Flushmaster is set up correctly.

Default Settings: Fill Time 6 Mins, Delay Time 30 Mins, Janitor flush 24 Hours