

SUPREME

AUTOFLUSH



Installation
& maintenance
instructions.

General Information

- Designed for indoor use only. Do not expose to the elements of nature.
- All plumbing connections must be made in accordance with AS/NZ3500 and installation with AS/NZ3500.2.
- Auto Flush systems should be installed in compliance with all local / national water supply standards.

Warnings

- Read all instructions before attempting to install this system. It is recommended a qualified & registered plumber completes the install.
- Ensure pipe work is thoroughly flushed before installing the solenoid assembly. Solenoid components are susceptible to debris and require additional flushing compared to a standard plumbing fixture.
- Consideration should be given to any regulations relating to an air gap, an air break or double check valve to protect against back flow.

Operating Instructions and Parts Manual

Please read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage. Retain instructions for future reference.

Supreme Auto Flush Urinal Water Control

Mains-powered, featuring microwave sensor technology, detecting movement through ceilings or walls for a fully concealed, vandal-resistant installation.

On-demand, touch-free flushing reduces water usage with adjustable cycles and a hygiene flush. Ideal for single stall, wall-hung, and trough urinals, with expansion options using dual solenoids.

Specifications

Sensor	Motion detect electronic microprocessor 2.4GHz
Power Supply	Double insulated AC plug pack (cord length 1.8m)
Input	240V AC 50Hz
Output	24V AC 750mA - 1A
Sensitivity	Adjustable on the control module. Will beam directly down (does not radiate in every direction)
Solenoid Valve	24V AC 1A, DZR brass (SS on request) 15mm female connection, normally closed and water hammer free - WaterMark
Pressure Range	2.5 - 5.00- Bar (250-500Kpa)
Flushing Cycle	Adjustable duration (2-120 seconds)
Delay Before Flush	60 seconds
Lockout Period	Adjustable (30 seconds to 1 hour). Detects movement during this period, but solenoid will stay closed
Dimensions	
Control Unit	160mm (L) x 80mm (W) x 35mm (D)
Junction Box	190mm (L) x 110mm (W) X 60mm (D) IP54 rated
WELS Rating	3 Star - 1.6L per flush, per stall
Warranty	12 months
Product Code	SAF300 (Concealed) SAF300E (External Mount)

Included:

Each kit comes complete with sensor, solenoid and mains power adapter, 2.0m length of two core cable (external junction box on request).

Planning

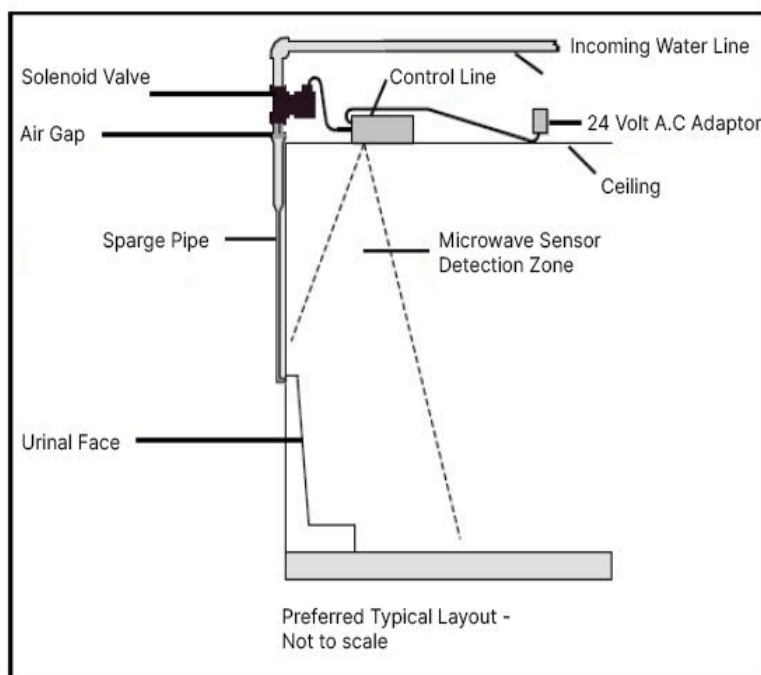
Can be used for single stall, wall hung or trough style urinals in both direct feed and cistern style.

- 1x control unit and 1x solenoid is sufficient for ~ 3 wall hung urinals or 2 meters of trough urinal
- 2x solenoids can be used to double the area covered with 1x control unit

Note: no more than 2x solenoids can be run from one control unit.

In addition

- You may require; isolation valve, backflow prevention (double check valve or Airgap), inline filter (250-350 micron), pressure reducing valve.
- Ensure disconnection unions are installed to allow full removal of the valve if needed.



Plumbing Considerations

Water Pressure & Flow Management

In high water pressure or flow situations, you can:

- Partially close the stop-cock/ball-valve, or
- Install a Pressure Reduction Valve (PRV) set between 350–500 kPa

Water Contaminants

- An in-line filter must be installed prior to the solenoid. This prevents water contaminants entering the valve & unseating the valves diaphragm.
- The pipework should be flushed well before installing the filter and valve.

Pipe Recommendation





In situations where an air gap is installed it is recommended to use a minimum of 300mm of 40mm sparge pipe before reducing down to 19mm.

Explanation of Auto Flush Features

The controller has a number of features to allow customisation.

See page 7 “Time Settings” for further details

Please Note: These controls are delicate

 <p>The image shows the SUPREME II controller with the Sensitivity knob circled in red. The knob is a blue potentiometer with a red arrow pointing to it. The controller has several other controls: a red LED indicator for Sensitivity, a red LED indicator for Delay, a red LED indicator for Duration, and a red LED indicator for Lockout. The text 'SUPREME II' and 'AUTOFUSH' are visible on the top right of the unit.</p>	<h2>SENSITIVITY</h2> <p>This controls the detection range of the microwave sensor. Clockwise rotation on the control will increase the range. The indicator will illuminate whenever moving is detected.</p>
 <p>The image shows the SUPREME II controller with the Delay knob circled in red. The knob is a blue potentiometer with a red arrow pointing to it. The controller has several other controls: a red LED indicator for Sensitivity, a red LED indicator for Delay, a red LED indicator for Duration, and a red LED indicator for Lockout. The text 'SUPREME II' and 'AUTOFUSH' are visible on the top right of the unit.</p>	<h2>DELAY</h2> <p>After detection the solenoid valve will open after 60 seconds. It must be set to “0”. The indicator will illuminate while this time delay is in effect.</p>
 <p>The image shows the SUPREME II controller with the Duration knob circled in red. The knob is a blue potentiometer with a red arrow pointing to it. The controller has several other controls: a red LED indicator for Sensitivity, a red LED indicator for Delay, a red LED indicator for Duration, and a red LED indicator for Lockout. The text 'SUPREME II' and 'AUTOFUSH' are visible on the top right of the unit.</p>	<h2>DURATION</h2> <p>This control determines the time for the solenoid valve to stay open. The indicator will illuminate while the valve is open.</p>
 <p>The image shows the SUPREME II controller with the Lockout knob circled in red. The knob is a blue potentiometer with a red arrow pointing to it. The controller has several other controls: a red LED indicator for Sensitivity, a red LED indicator for Delay, a red LED indicator for Duration, and a red LED indicator for Lockout. The text 'SUPREME II' and 'AUTOFUSH' are visible on the top right of the unit.</p>	<h2>LOCKOUT</h2> <p>This control determines the minimum time between successive flush operations. The indicator will illuminate while lockout is in effect.</p>

Time Settings

Switch	Delay	Duration	Lockout
0	60 sec	2 sec	30 sec
1	N/A	4 sec	1 min
2	N/A	6 sec	2 min
3	N/A	8 sec	3 min
4	N/A	10 sec	4 min
5	N/A	12 sec	5 min
6	N/A	20 sec	7 min
7	N/A	45 sec	10 min
8	N/A	60 sec	30 min
9	N/A	120 sec	1 HR

System Operation Overview

Standard Flush Cycle:

1. Movement Detected: The microwave sensor detects user.
2. Delay Interval Starts: A 60 second period begins (this ignores additional movement during this time).
3. Flush Activation: After the delay ends, the system opens the solenoid valve, flushing for the pre-set duration.
4. Lockout Interval Begins: After the flush, the system enters a lockout period to prevent repeated flushing from continued movement.

Operation During Lockout:

If movement is detected during the lockout period, it will extend the delay time. Once both the delay and lockout periods end, a new flush will occur.

Automatic Hygiene Flush

If the unit does not detect a user for 6 hours, it will flush automatically to maintain hygiene and water circulation.

Installation - Control Unit

Concealed Mounting:

Install the control unit in the ceiling cavity mounted centrally, 0.5 - 1.0mm off and at a 90° angle (right angle) to the face of the urinal to detect movement properly.

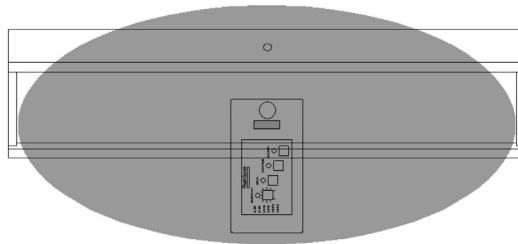
Ensure the sensor field can pass through the ceiling substrate without obstruction.

Suitable ceiling materials include:

- Plasterboard
- Ceiling tiles or similar types of suspended ceiling tiles.
- Plywood or MDF
- Serotone or PVC

Do not install over concrete or steel.

These materials block the microwave signal and will prevent the sensor from detecting correctly.



Mounting Height

The control unit must be installed at a height of no more than 4 metres from the finished floor level.

If the ceiling is made of metal paneling, thick masonry, or impeding steel beams use additional junction box - SAF300E. Surface mount the junction box as per the above description.

Power Supply Requirements

Ensure a standard mains power point (230V AC) is located within 2 metres of the control unit.

The unit is powered using the supplied AC Adapter, which connects to the terminals marked "AC" on the control unit.

All wiring should be installed in conduit to meet building safety and durability standards.

NOTE: Do not turn the power on until installation and wiring are fully completed.

Installation - Solenoid Valve

Installing the Valve:

- Identify the direction of water flow using the arrow stamped on the valve body
- Install the valve in-line, making sure the flow direction matches the pipework
- Install disconnection unions on both sides of the valve to allow easy removal for servicing.
- A stop-cock or isolation valve must be installed upstream of each solenoid valve.
- Do not use lockseal or similar thread-sealing compounds on the solenoid valve threads.

Wiring from Solenoid to Control Unit:

- The valve connects to the terminals marked “Valve” & “Valve” on the control unit (polarity not important).
- Insert one wire from the solenoid plug into each terminal.
- For installations with two urinals:
Connect the second valve to “Valve” & “Valve” in the same way.

Important: No more than two solenoid valves can be connected to a single control unit.

Solenoid Plug Wiring Guide

Each solenoid plug has three pins:

- The two opposite pins are for the live and neutral wires (labelled 1 & 2) polarity not important.
- The larger pin is for the earth wire.

Make sure wires are properly terminated in the plug before connecting it to the solenoid valve.

Sensitivity Settings

- The sensitivity dial controls how far and how easily the sensor detects movement.
- Turning the dial clockwise increases the detection range.

Dial Positions:

Position 1 (7 o'clock) = Least sensitive

Position 11 (5 o'clock) = Most sensitive

Recommended setting:

Normally set between 25%–50% sensitivity, depending on ceiling height and surrounding materials.

Fine-Tuning the Detection Range (Sensitivity)

- Walk in front of the urinal and observe the indicator light to see when movement is detected.
- Adjust the dial to a level where the urinal activates only when someone is standing in the target zone.

Use Test Mode for more accurate setup.

Using Test Mode (Setup Only)

Purpose of Test Mode

Test Mode is a diagnostic tool. When active:

- The solenoid flushes immediately upon detecting movement.
- This mode helps test the sensor coverage and detection zone.

How to Activate Test Mode

1. Power on the unit.
2. Set the Delay, Duration, and Lockout switches to 0 – 0 – 0.
3. Change all three switches to 1 – 1 – 1.
4. Then return them to 0 – 0 – 0.

In Test Mode:

- The Delay, Duration, and Lockout LEDs will flash continuously.
- Sensitivity can be adjusted and observed live.

How to Exit Test Mode:

Change any one of the Duration or Lockout switches to your preferred setting.

Set Up

- Once control unit and solenoid have been installed turn on mains water and stopcock / ball valve. Check all connections.
- Carefully adjust sensitivity, delay, duration and lockout to desired settings.
- Power up the unit at mains power switch and wait 10 seconds.

NOTE: Please see “Fine-Tuning” and “Test Mode” on page 10 for further detection range and sensitivity.

- Your Supreme Auto Flush is now set up.
- Test a number of cycles to ensure adequate detection and flush height to clear urinal

NOTE: If urinal is cistern fed with an auto syphon, setup requires adjustment of the ball valve (flow) and “duration” setting.

Troubleshooting

Symptom	Possible Issue / Fix	Remedy
Sensor unit not detecting occupants	a. Power outage at source b. Plugs not connected correctly (transformer & solenoid) c. Unit not sensitive enough d. Orientation of unit not correct	a. Ensure mains power supply at source b. Check all terminals c. Increase ‘sensitivity’ dial of unit d. Position unit as per instructions
Solenoid valve not opening Note, these valves are ‘normally’ closed	a. Mains power failed b. Installed in correct orientation? c. Debris present / blockage d. Water pressure too high e. Remove plug from unit f. Faulty solenoid	a. Check power source & all connections b. Water inlet / outlet as per arrows c. Clean solenoid d. Check water pressure & install flow restricter if necessary e. Solenoid should close f. Replace solenoid valve
Water is trickling / dribbling when solenoid valve is open	a. Solenoid diaphragm split or debris present / blockage b. Water pressure adequate?	a. Replace diaphragm or solenoid b. Clean all filters including solenoid filter c. Ensure adequate water pressure
Water is running for too short or too long	a. Water pressure / flow change b. Debris limiting flow	a. Refresh ‘Duration’ b. Clean filters on all valves
Cistern under or over fills	a. Water pressure change b. Debris limiting flow	a. Refresh ‘Duration’ & ball valve b. Clean filters on all valves

Supreme Comprehensive Warranty

Your Supreme Auto Flush is fully guaranteed against defective materials and faulty workmanship commencing from the date of sale (according to SPL's records), subject to it being installed and maintained in accordance with the manufacturer's instructions.

SPL (2021) Limited warrants that should any part of the unit fail within the given warranty period (12 months), it will be remedied by SPL.

Due to the significant variation in tradesmen's knowledge, experience, and productivity, labour charges will NOT be accepted unconditionally. We strongly recommend contacting our office for advice before proceeding with any warranty repairs.

This warranty excludes:

- Incorrect installation, or installation that does not specifically follow the installation guidelines supplied
- Defects arising from improper installation, or incorrect electrical supply where applicable
- Failure to follow manufacturer's maintenance instructions
- Damage/Failure resulting from:
 - the use of non-authorised parts
 - authorised parts not installed in accordance with the manufacturer's instructions
 - accidental damage, negligent use, misuse, vandalism, neglect
 - damage caused either directly or indirectly by external sources (power outages, power surges, incorrect power supply, natural disaster, or insect infestation)
- Water ingress caused by property maintenance or flooding
- Failure due to contamination (pipe work should be flushed before installing the solenoid assembly)

The above includes consequential damage to any other goods, furnishings, or property.

- Normal wear and tear and consumable parts (batteries etc)
- This warranty does not displace any statutory warranty in relation to the unit but any liability of SPL (2021) Limited under any statutory warranty will be limited to a replacement or repair of the unit or payment of the cost of such replacement or repair at the sole discretion of SPL (2021) Limited

Note:

- Warranty only extends to products purchased and installed in New Zealand.
- Contamination or poor water quality is not covered by product warranty.
- Damage to solenoid caused by inadequate flushing or excess water pressure is not covered by the product warranty.

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