# Supreme AWS300

# Urinal Water Saver

# Installation Guide


Manufactured

and distributed by

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Cambridge

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Congratulations on choosing a Supreme Master Flush Water Saver from SPL Ltd.

For best results please read and understand these instructions before attempting installation.

Please hand to the building occupier for future reference.

SPL Ltd

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**Warranty**

The water controller and solenoid valve are guaranteed against defective materials and faulty workmanship for a period of twelve months from date of purchase. The manufacturer warrants that should any part of the controller fail within one year of purchase that part will be replaced or repaired free of charge. Distance and travelling time outside metropolitan areas by tradesperson or accredited service agents for repair under warranty that does not cover damage resulting from non-operation of the water controller, failure due to accident, misuse, abuse or failure to follow installation and maintenance instructions or consequential damage to any other goods, furnishings, property or persons.

This warranty does not displace any statutory warranty in relation to the controller but any liability of the manufacturer under any statutory warranty will be limited to a replacement or repair of the controller or refund of the cost of such replacement or repair at the option of the manufacturer.

**Common Faults**



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**Important—Please note well**

Service calls due to contamination are not covered by any warranty.

New pipe work should be thoroughly flushed before installing the solenoid assembly.

Please note that both the filter fix valve and the solenoid have integral filters fitted which should be checked if low water flow is detected.

Water savers should be installed in compliance with all local/national water supply standards.

Hand this instruction sheet to the owner/occupier after installation for future reference.

**General Information**

The Supreme AWS300 water saver use passive infra-red sensors to detect occupancy.

Sensors should not be located near any heat source as this will reduce or eliminate detection.

The controller activates a DC latching solenoid valve via a variety of flushing options to be set at time of installation to suit the occupier preferences as appropriate.

The Supreme AWS300 is suitable for controlling the water flow in direct injection or cistern fed urinals.

Consideration should be given to any regulations relating to an air gap, an air break or double check valve to protect against back flow.



**Cistern fed urinals**

It has been assumed that the cistern will be fitted with an auto flushing syphonic device.

Remember to maintain a 25mm air gap between the water supply to the cistern and the flood water level in the cistern for back flow prevention.

1. Start the set up with an empty cistern.
2. Move the delay before flush tab to 25 seconds.
3. Open the filter fix ball valve approximately half way.

   NOTE: You should not have a volume of water entering the cistern greater than the sparge pipe could flush. This is to safeguard against a possible overflow of the cistern under fault conditions.

4. Press and release the learn button to start water flowing
5. When the auto syphon system starts to flush press the learn button again to stop the water flow.

   NOTE: The maximum flush time is factory set at 7 minutes.

6. Your flush cycle is now set.
7. Finally you will need to choose the delay before flush option. This should be determined in consultation with building occupier.

## Programming flush cycles

### Direct feed urinals

The unit has been pre-set for a typical direct feed set up as follows:

**ON DETECTION**

2 Second pre-flush — 1 minute delay

5 second flush — 1 minute delay

Plus a 12 hour janitor flush option

However this can be set up to suit your requirements.

Firstly decide if you want the pre-flush option (see explanation of pre-flush) and turn this on or off by moving the tab.

Set the flush time with the learn button i.e. whilst looking at the urinal press and release the learn button to start the water flowing, when you are happy with how much water has flushed i.e. cleaned the bowl. Press and release the learn button to stop the water flow.

This is now your flush time set.

You now need to choose a time (delay) before flush. (See explanation of delay before flush).

We would suggest a minimum of 1 minute to be selected for this.

NOTE: The flushing volume of water should not exceed the volume the sparge pipe can flush to avoid flooding during fault conditions and is controlled with the ball valve.

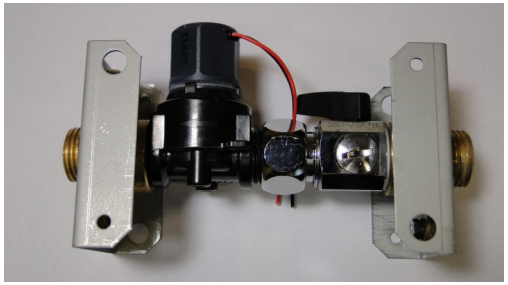


## Fitting the solenoid assembly

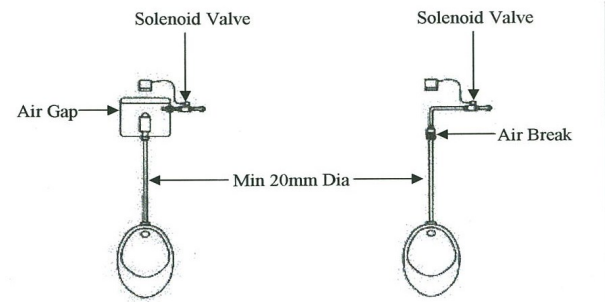
Isolate the water supply and identify a suitable location for the solenoid assembly, the assembly can be handed left or right as required.

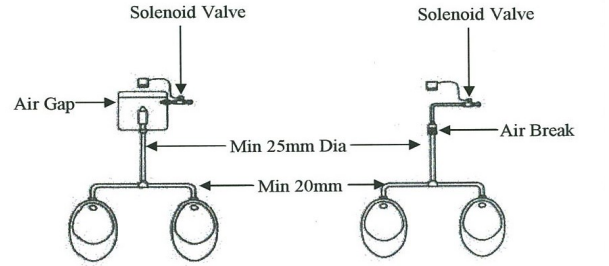
Take note of the water flow direction marked on the body of the solenoid valve by an arrow.

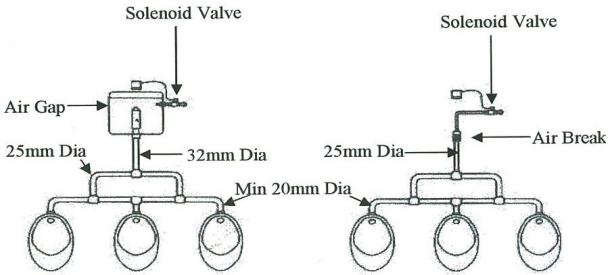
NOTE: The solenoid valve and ball valve both have integral stainers, however pipe work should still be thoroughly flushed before installation. The solenoid valve should not be installed upside down i.e. coil vertically down.



## Typical piping arrangements




**Note;** Triple installations may require some form of water balancing to achieve uniform flushing to the three stalls.



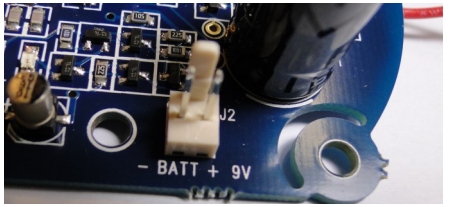



Photo one: Battery Switch

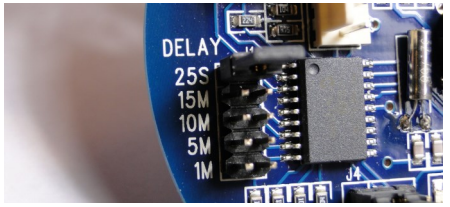



Photo two: Delay switch


Photo three: Learn button

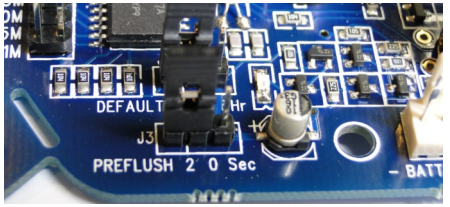



Photo four: Pre-flush switch

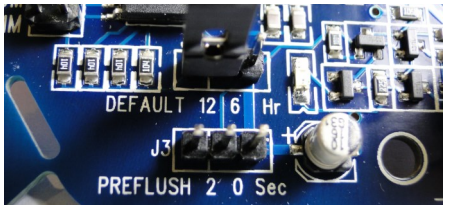



Photo five: 6 / 12 hour janitor flush

**Delay before flush** *see photo 2*

This is usually one of the last to be set and is commonly used to reduce water usage by introducing a delay after activation but before the flush cycle, examples of its use are in schools where everyone uses the facilities at break times or in sporting venues.

**Low battery warning**

When the battery pack voltage drops to a pre determined level. A chirp is heard on activation. The battery pack should be replaced.

**Replacement battery packs part number: AWS111**



**Mounting the sensor**

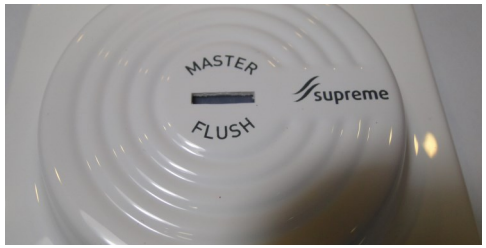
The sensor can be ceiling or wall mounted however for optimal performance the sensor should be positioned between 1000mm and 1500mm from the urinal to allow traffic to pass through the detection area rather than stand directly under the sensor.

When a suitable location has been found the mounting plate can be affixed in position using the most appropriate fixing method for the substitute.

Then run the flex between the sensor position and the solenoid assembly.

NOTE: Any additional flex should be coiled up and left either at the solenoid or inside the sensor.

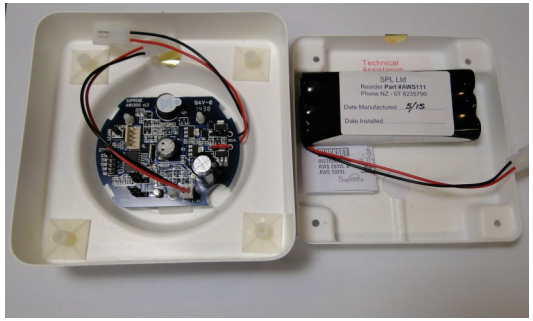
**DO NOT** cut and join this flex as polarity is vitally important for the operation of the valve, additional lengths of flex can be supplied if required.




Slot in sensor housing to be parallel to the urinal, not at right angles.

## Set up

1. Turn water on and check for leaks
2. Separate the two halves of the sensor assembly by removing the 4 x self tapping screws.
3. Affix battery pack to the back cover and pass solenoid lead through hole. Attach the back cover to the ceiling mount plate (already installed)
4. Connect the solenoid lead and battery to the printed circuit board (PCB)
5. Program flush cycle.
6. RE: Assemble the controller
7. Attach to ceiling plate.





## Explanation of AWS300 features

The controller has a number of features to allow customisation

**Pre-flush or hygiene flush** *see photo 4*

This feature is commonly utilised for direct feed urinal installations but can be deactivated by moving the tab to the middle pin and O second position as per photo.

The pre-flush option gives the urinal a quick two second rinse, when the urinal sensor is activated and is usually followed by a one minute delay before the full flush.

**Learn button** *see photo 3*

The learn button is used to set the length of time the solenoid is open. The button should be pushed and released once to open the valve and pushed and released to shut the valve after the desired flush time.

This time is memorised and will become your flush time.

**Janitor hygiene flush** *see photo 5*

The janitor flush facility will activate the flush cycle either 6 or 12 hours after the last activation and then 6 or 12 hours after that if no activation occurs. This feature has been incorporated to keep the urinal fresh during periods of inactivity and cannot be disabled completely. Selection of the time period is via moving a tab between the 6 and 12 hour pins as per picture.