

## INSTALLATION & PROGRAMMING INSTRUCTIONS

The Gentworks Ultra Low Flush Timer is a reliable low cost urinal flush controller that can be concealed behind panels or in ducts or fixed to a washroom wall.



### The Product Includes:

- control box
- solenoid valve for connection to water supply
- 6v lithium battery or power transformer depending on chosen option.
- leads for connecting the solenoid to the control box

### Features:

- simple dipswitches to set a flush interval (between 1 and 15 hours in 1 hour increments)
- adjustable cistern fill time (between 15 seconds and 15 minutes, 45 seconds in 15 second increments)
- extremely reliable and low maintenance
- very low power consumption – for the battery model, battery life is typically 2-3 years

with 15mm ASCO valve



### INSTALLATION

**Fitting the Solenoid** – Isolate the water feed. Locate the solenoid valve in a position as near to the cistern as possible and preferably upright. Cut the supply pipe and purge of any debris or swarf, fit the valve ensuring the solenoid valve is fitted with the flow markings on the solenoid valve body pointing or orientated towards the cistern. Tighten all joints and check for leaks.

**Wiring and Cable Preparation.** Power is provided either by a 6 volt lithium battery or a mains transformer, depending on model purchased. This connects to the circuit board via a simple 2 pin connector and care must be taken to connect it correctly. The two lugs on the plug fit over the plastic tongue on the connector attached to the circuit board (E on the image below).

**Resetting the Solenoid Valve.** Once the power supply has been connected to the circuit board (D on the image below) it should not be disconnected otherwise it will be necessary to press the reset button. This is located on the far left hand side of the circuit board. To see if the Solenoid Valve has reset, conduct the operation shown under 'Test Mode'.

### CALIBRATION

**STEP 1 – TEST MODE** - Set all dip-switches to the off position, connect power supply and press the small black reset button (C on the image below). If the solenoid was already 'open' it should close. Wait for the valve to reopen. The valve should then open for approximately 5 seconds and then close again. This cycle will then be repeated approximately once every 35 seconds whilst still in test mode. Return dip-switches to their original / required positions and press the reset button again.

**STEP 2 – Flush Interval Time (Delay)** (A on the image below).

This is set using the 4-way switches

#### The 4-WAY SWITCH - Flush Delay periods are as follows

Nº 1	=	Adds 1 hour to the delay.
Nº 2	=	Adds 2 hours to the delay.
Nº 3	=	Adds 4 hours to the delay.
Nº 4	=	Adds 8 hours to the delay.

This allows for operation intervals of between 1 and 15 hours in 1 hour increments.

**STEP 3 – Setting the Cistern Fill Time** (B on the image below).

This is set using the 6-way switches. All switches in the off (down) position, provides a nominal valve open time of 5 seconds. **NOTE** The Flush Interval Time (Delay) set by the 4-way switches will include the Cistern Fill Time set by the 6-way switches.

#### The 6-WAYSWITCH – Cistern Fill Time periods are as follows

Nº 1	=	Adds 15 seconds to the fill time.
Nº 2	=	Adds 30 seconds to the fill time.
Nº 3	=	Adds 1 minute to the fill time.
Nº 4	=	Adds 2 minutes to the fill time.
Nº 5	=	Adds 4 minutes to the fill time.
Nº 6	=	Adds 8 minutes to the fill time.

This allows for valve open times of up to 15mins 45 seconds.

**IMPORTANT** The cistern must be empty of water before the fill time can be set. This can either be accomplished by filling the cistern manually or by pulsing the solenoid valve open using the following method:

1. Connect unit to power supply and set all switches to the off position (See STEP 1 - TEST MODE).
2. Press the small reset button. This will pulse the valve open.
3. Disconnect the power cable from the pins on the circuit board. This will cause the valve to remain open.
4. IMMEDIATELY the cistern starts to flush, reconnect the power cable. This should cause the valve to close. If it doesn't, press the reset button again.
5. Allow the cistern to completely discharge.
6. Once the cistern is empty, repeat procedures 1 to 3, but on this occasion time how long it takes for the cistern to fill and flush (preferably with a stop-watch).
7. Now select the combination of switches required to achieve the recorded time (see Settings Chart).
8. Press the reset button again to set the new timings.

