

## Gentworks Engineers' Conversion Procedures

When Gentworks engineers carry our conversions for our clients, these are our standard procedures.

### **Step 1: Check and, if necessary, rectify waste pipe configuration:**

- If urinal waste pipes are split or showing other significant signs of deterioration, replace with new pipework. Copper pipes should, ideally, always be replaced with plastic ABS as the copper reacts with uric acid in urine to form a hard copper sulphate compound contributing to blockages. Similarly, metal traps should be replaced with plastic wherever possible and with the client's permission.
- Ensure there is a minimum of 4 degree fall on the waste run before connection to the stack, to allow gravity to drain the waste through the pipework.
- Where waste pipes are at a 90 degree angle, fit an access cap for maintenance access unless already present.

### **Step 2: Clear waste pipes:**

Unless the waste pipes are new, perform a full mechanical descale with electrical rodding through equipment to remove limescale and debris from the urinal run to the stack. If stack pipes heavily scaled and need attention, alert appropriate person on site.

### **Step 3: Fit Urinal Maintenance Device:**

1. Place bucket under urinal
2. Remove existing waste outlet by undoing the holding nut that connects the outlet to the bowl.
3. Remove old sealing compound from around the drain of the bowl and clean surfaces. Also clean the underside of the bowl.
4. Apply suitable sealant (e.g. "plumbers mate") to inner lip of new waste outlet provided by Gentworks, then push outlet into urinal bowl
5. Under the urinal bowl, secure the waste outlet with rubber sealing washer and then the backnut, both of which are provided by Gentworks. Thread backnut to bottom of bowl until hand tight.
6. Whilst holding the outlet stationary, tighten the backnut with suitable pliers one complete turn.
7. Remove excess sealant around the waste outlet from the inside of the bowl. Use a Stanley knife for plumbers mate, or a cloth for silicon sealant.
8. Fit trap (preferably new) to waste outlet and waste pipe.
9. Carefully pour two litres of warm water into the bowl, without spillage onto the floor, then check underneath for leaks.
10. If there is no need to rectify any leaks, insert waterless urinal cartridge. Note that there is a lug on the outlet that fits into a recess on the cartridge. The lug and the recess will have to be lined up for the cartridge to fit flush into the bowl.
11. Clean the bowl surfaces with the cleaning solution provided, including underneath the bowl and around the trap.

### **(Waterless Use only) Step 4: Stop flushing and attend to dead legs:**

1. Turn off water supply to urinals. If required by client, follow dead-leg procedure below:
2. Trace along the water supply pipes from the urinal cisterns to the nearest "tee" joint and then isolate the water supply by closing the nearest service valve or "stop-tap" below the "tee" joint. This may temporarily stop the water supply to other facilities.
3. With water supply isolated, sever the water supply pipe spur to the urinal cisterns as close as possible to the "tee" joint and install an additional isolation valve and end stopper.
4. The service valve below the "tee" joint can then be reopened to restore water supply to other facilities.

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### **(Low-Flushing use only) Step 4: Check adequate flush volume to all bowls and rectify if necessary**

If there is an uneven flush volume disconnect and clean the spreaders. If there is still a problem, dismantle and clear the flush pipes.

### **(Low-Flushing use only) Step 5: Install and calibrate Gentworks Low-Flush controller**

A Gentworks flush controller will be fitted and set to flush approximately once every 4 to 12 hours, depending on decision reached with client.

Locate stop tap or other isolation device to stop water supply to Urinal cistern(s). Where this is not possible or the existing stop tap or other isolation valve is seized & cannot be shut down, then it will be necessary to stop water flow by temporarily freezing the inflow pipe. In the event that freezing becomes necessary then a replacement stop tap or other isolation device will be fitted.

1. Locate the solenoid valve in an appropriate position, as close to the cistern as possible, ensuring correct orientation of the solenoid valve as identified by the word IN or by a directional arrow stamped on the solenoid.
2. Cut the supply pipe and purge any debris or swarf.
3. Tighten all joints and check for leaks.
4. Restore water supply system.
5. Connect solenoid to the circuit board by means of the 2 pin connector, ensuring correct polarity.
6. Calibrate the FCV01 units in accordance with the instructions supplied.
7. Test operation.



***Gentworks Low-Flush Instruction Manual (74k)***