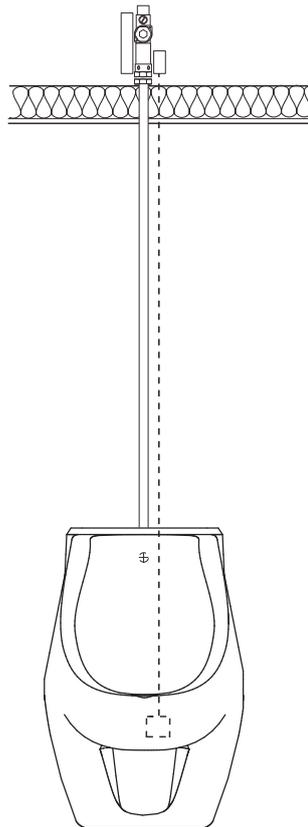




INSTALLATION INSTRUCTIONS

ET3-M Smart Demand Urinal Flushing System

**- urine detecting sensor fixed to rear of ceramic
for fully hands free 6 star WELS electronic activation.**



Thank you for purchasing this Enviro-Tech product

INSTALLATION INSTRUCTIONS ET3-M URINAL FLUSH VALVE

TECHNICAL SPECIFICATION

Smart Demand - Urine sensing technology. Product will not detect movement in room, heat, light or any other method of activation.

Function	ET3-M
Power input	DC: 6V (4XAA alkaline batteries) AC: 220-240V (50/60Hz)
Power consumption	Static: <4Ma; active: <500mA
Water pressure	100kPa-500kPa Maximum (recommended 350kPa)
Inlet/outlet diameter	15mm 1/2G
Flush volume	Preset at 800mls at 350kPa
Detection zone	250mm (adjustable-see Controller Adjustment)
Inductive confirmation times	Detects constant flow over sensor - 6 times in 5 seconds before flushing
Confirmation time after use	5 seconds
Flush time	4 seconds (adjustable-see Controller Adjustment)
Reset time after flush	10 seconds
Automatic Stadium Mode	Increases confirmation time and flushes less often in times of high usage
Trap seal protection	Automatic every 24hrs if not used

IMPORTANT- Product is designed to operate as mains powered with battery back-up. If only batteries are installed, product will function but batteries will run down quickly and Urinal will suddenly stop working. Surge protectors are recommended to avoid power spikes affecting the life of the transformer and the Controller. Transformers should not be plugged in until all major electrical work has been completed on site. Ensure good access to components for maintenance.

COMPONENTS

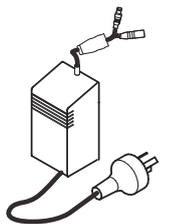
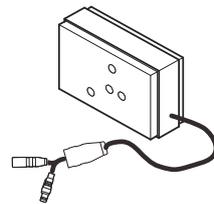
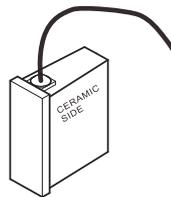
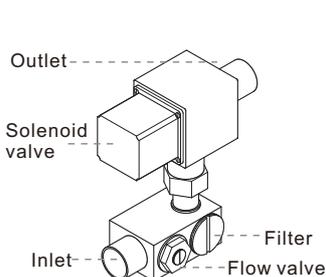
1. Solenoid valve

2. DC Battery box

3. Sensor box

4. Control panel box

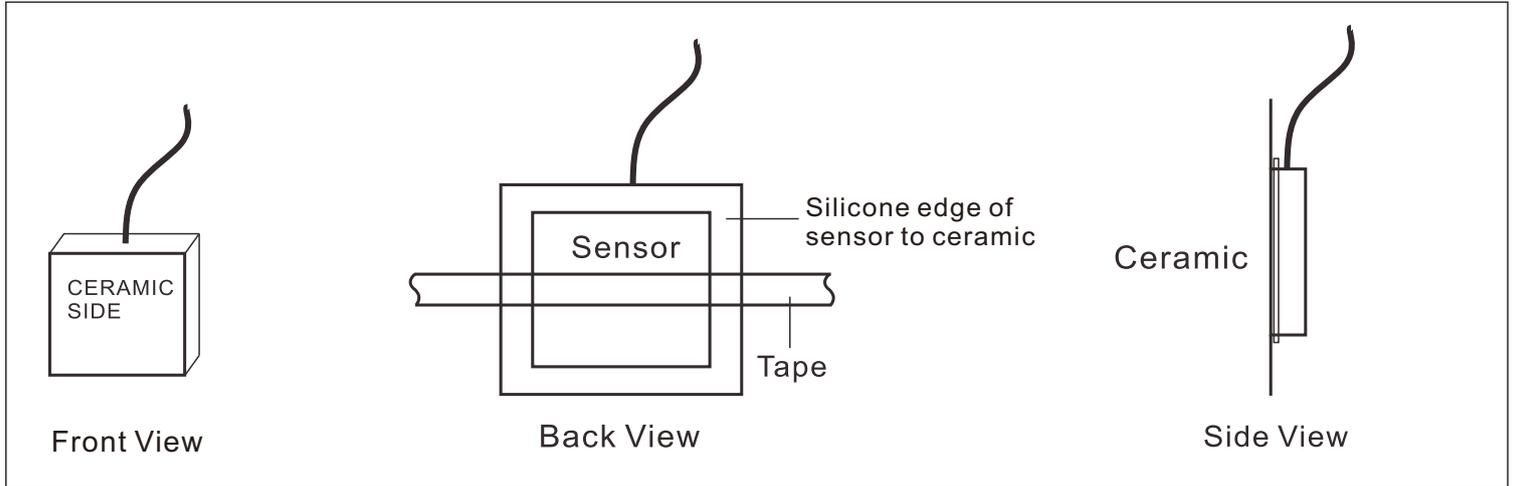
5. Transformer



INSTALLATION

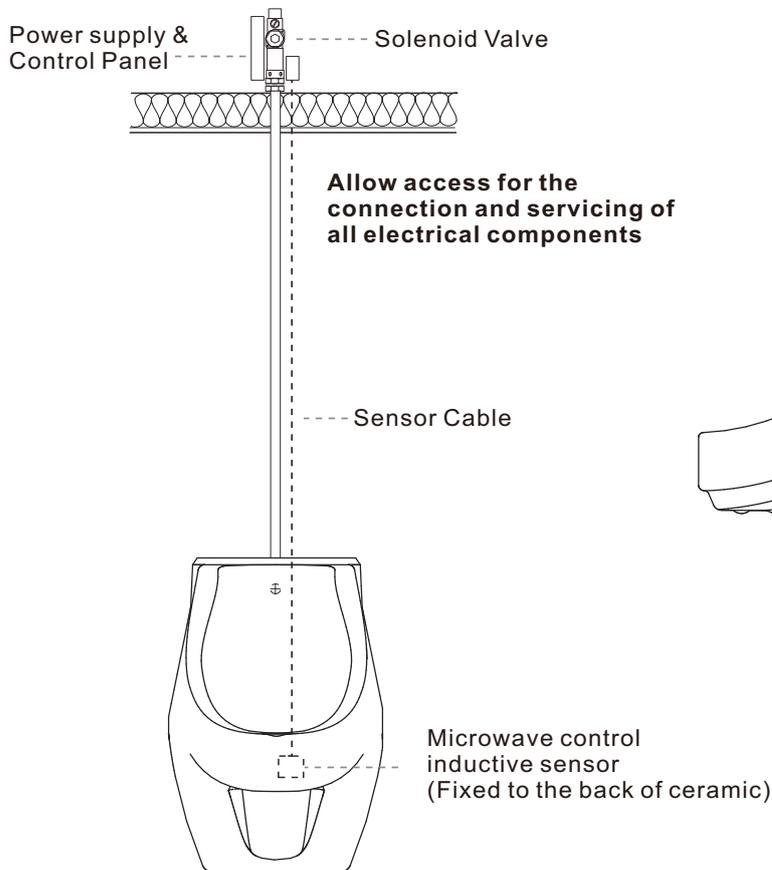
We strongly recommend that you use a qualified and registered plumber and electrician. You must ensure all pipe work is flushed thoroughly, particularly in new builds or where lines have been disrupted. Solenoid valves are particularly susceptible to debris and will require more thorough flushing than a standard plumbing fixture. We also recommend the install of a 1/2" Y strainer as additional filter protection against poor water quality. Water pressure of more than 500kPa will damage solenoid.

1. Ensure application site is free of dust and grease. Silicone sensor to lower rear of urinal. Note: Attach using silicone around the edge of the sensor only. Ensure that silicone does not spread to sensing surface, as this will reduce sensitivity and effectiveness of product.

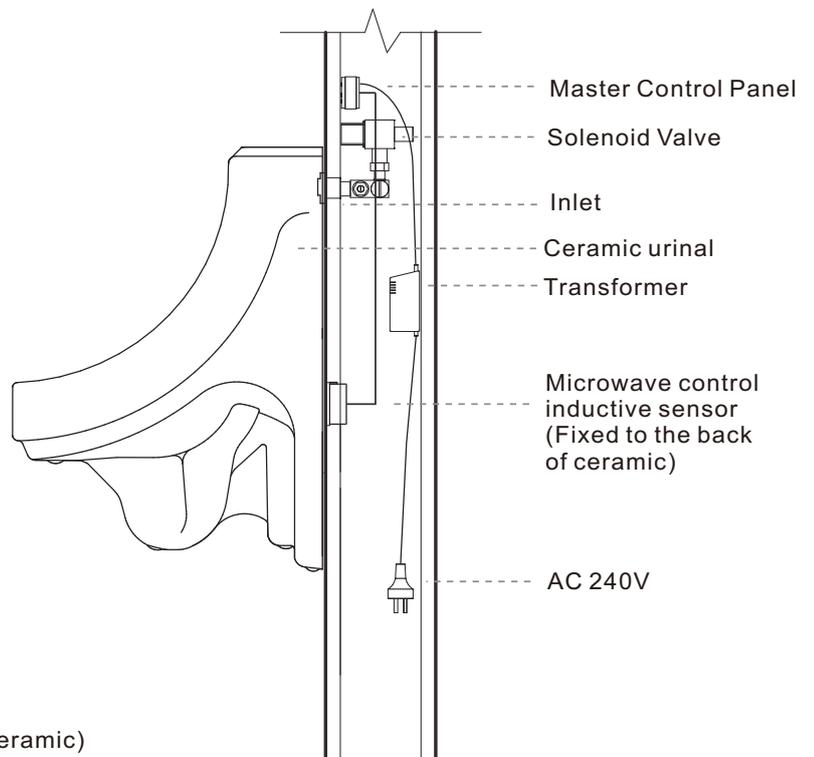


2. Refer to installation drawings below.

INSTALLATION IN CEILING



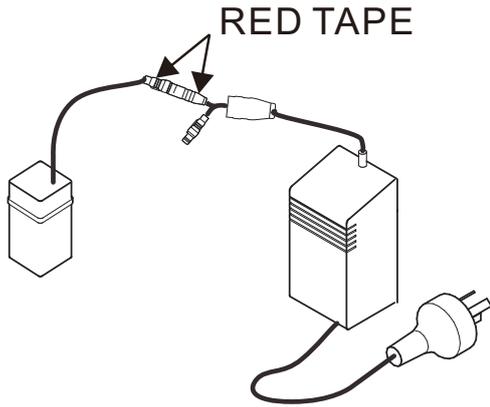
INSTALLATION IN WALL



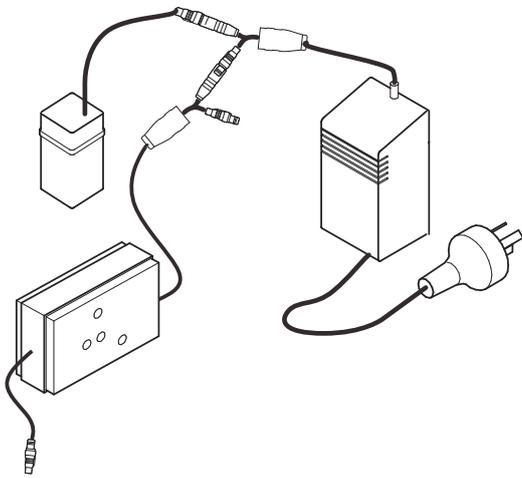
IMPORTANT: In-ceiling installation - Flush Valve must be installed vertically. Flushpipe must be vertical and straight otherwise slow drainage could occur, causing re-flush. Use Copper for flushpipe, DO NOT use flexi-hose and ensure no bends/kinks or horizontal pipework. Incorrect installation WILL NOT be covered by your warranty.

3. Cable Connections - Connect in order as per diagram. WARNING: Electronics will be damaged if connected incorrectly and will not be covered by your warranty.

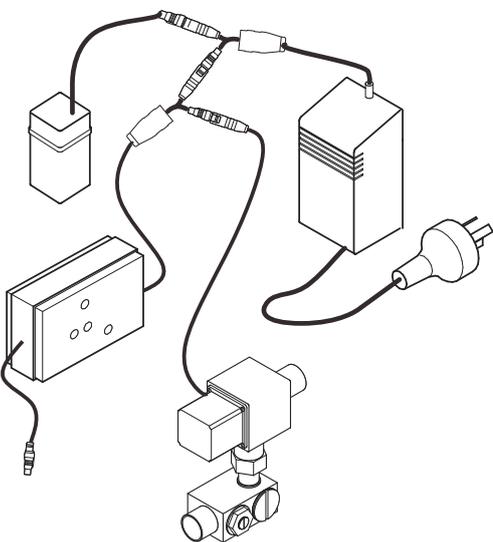
1. Insert batteries in to DC battery box and connect battery box to transformer.



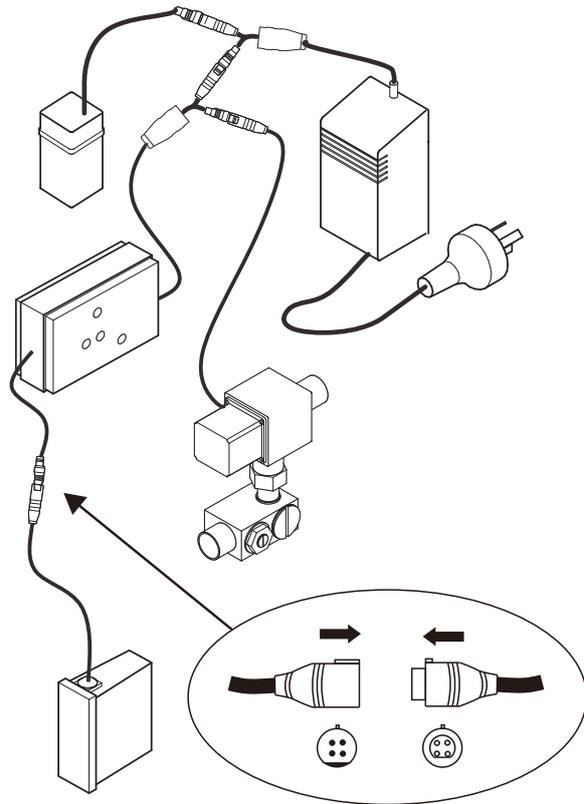
2. Connect transformer to master control.



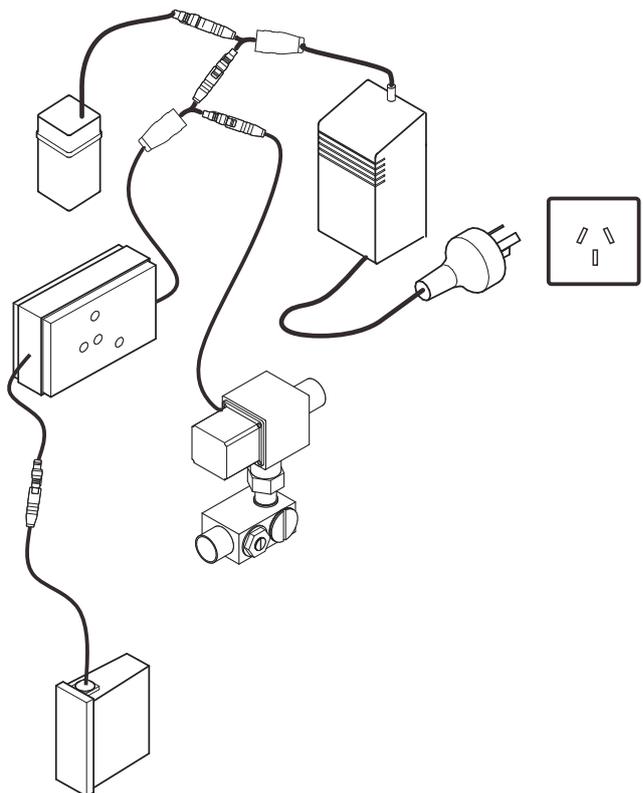
3. Connect master control to solenoid valve.

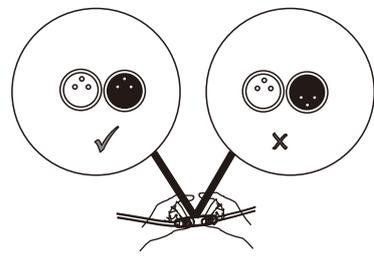
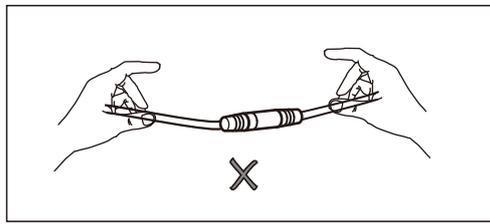
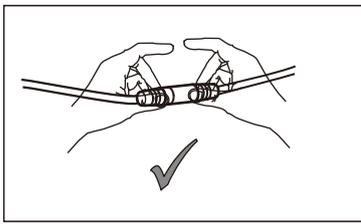


4. Connect sensor to master control. Make sure the raised ridge on the outside of each plug and the flat part of each plug matches together.



5. Connect transformer to power. Confirm there is power at the socket.





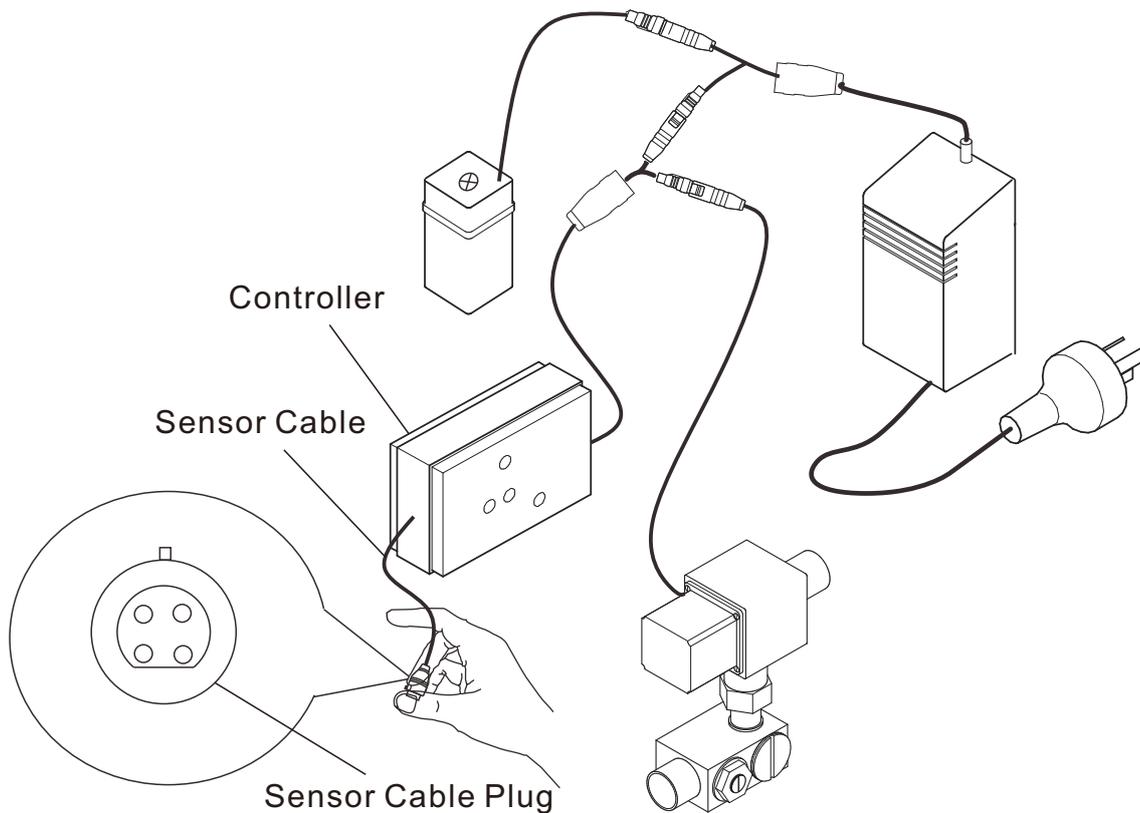
Attention:

Hold the plug not the wire to connect and disconnect and make sure the pins align to the holes in the right position.

COMMISSIONING OF INSTALLATION

Note: When testing the urinal - note confirmation from Technical Specification table. Repeated rapid testing will cause product to enter Stadium Mode, resulting in intermittent flushing.

Connection Test - this will confirm if controller is working correctly. It will confirm that there is power and that the connections are correct:



Unplug sensor cable and rub thumb over the 4 metal pins. The red light will start to flash. Stop rubbing the pins when the red light stops flashing (up to 20 seconds). The solenoid will be activated and the urinal will flush.

Sensor Test - Make sure silicone is dry before performing flush test:

Pour water slowly over the surface of the urinal (must run over sensor location). If the red light is flashing, when you stop pouring water the red light will stay on - there will be a delay but the urinal will flush.

Water Saving Test - Make sure silicone on sensor is dry before performing this test:

Pour water down the surface of the urinal (in area where sensor is attached) and on flush activation, collect the water in a measuring jug. The volume collected should be less than 1Ltr. If necessary, adjust volume with the flow valve adjuster, next to the inlet valve on the solenoid. (Note: Flush volume of 800mls is pre-set at the factory using 350kPa)

SETTINGS

This 6 Star WELS Rated product is tested at 350kPa and is pre-set as follows:

Detection Zone – 250mm

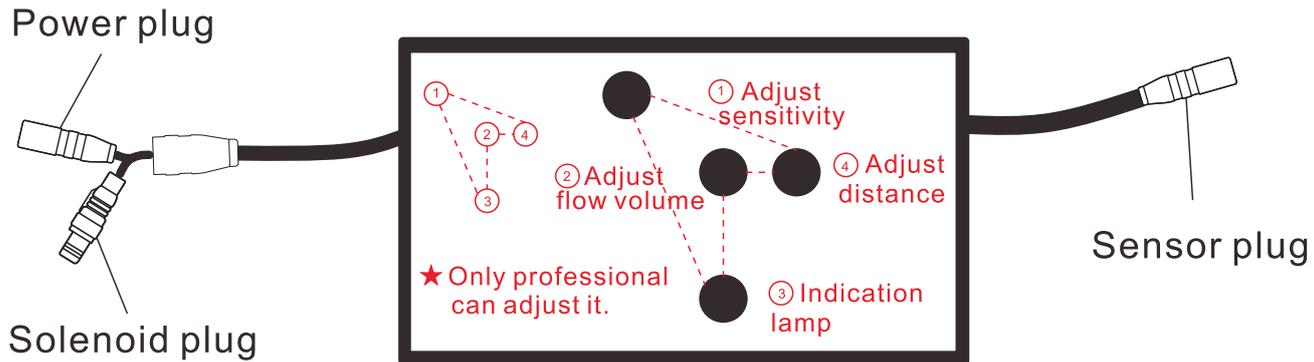
Flush Time/Volume – 4 second flush delivering 800mls per flush

If this volume is not adequate for your setting, adjustment should be made to the flow valve on the solenoid. NB. Any adjustment may reduce the WELS rating for this product.

ET3-M CONTROLLER ADJUSTMENT

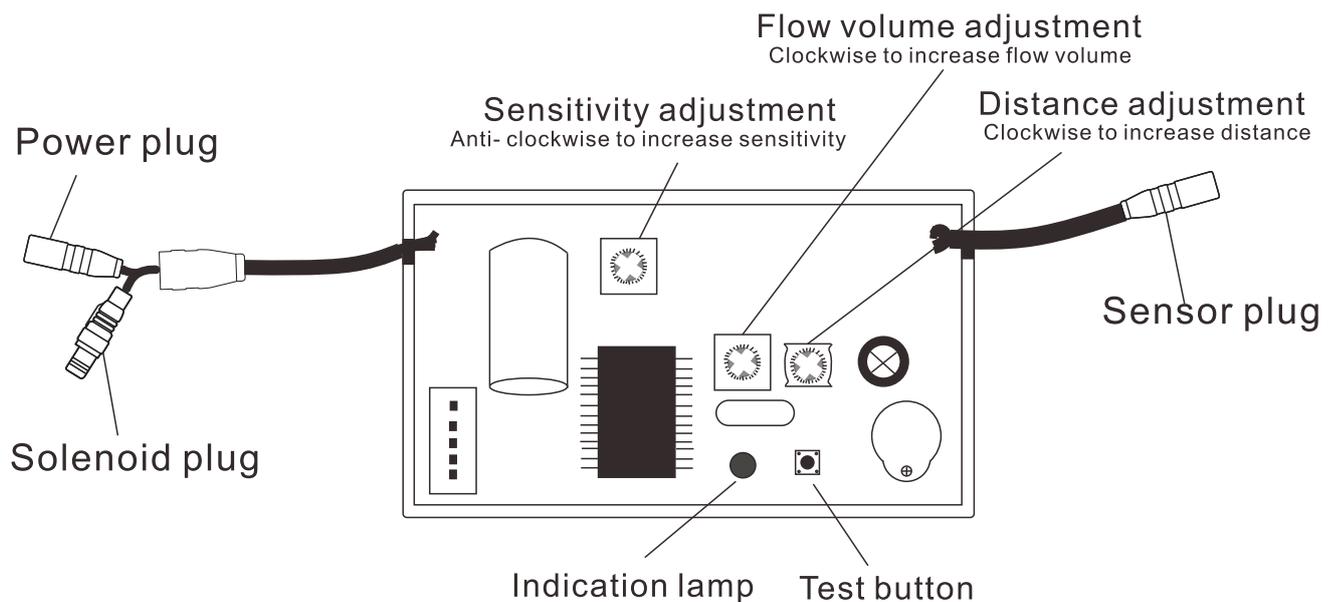
CAUTION IS ADVISED AS ADJUSTMENT TO THE CONTROLLER IS NOT USUALLY NECESSARY. CALL US IF YOU NEED ANY HELP.

EXTERNAL VIEW



Carefully remove front cover by inserting small flat edge screwdriver into hole on the side of the controller.

INTERNAL VIEW



IMPORTANT-Any adjustments should only be made using a small cross head screwdriver and gentle ¼ turns. Excessive force will cause the grub screw to snap and is NOT covered by your product warranty.

ET3-M CONTROLLER ADJUSTMENT CONTINUED

Sensitivity – this makes an adjustment to the sensitivity of the sensor. Effectiveness of sensor can be compromised if too much silicone is used on install or the sensor is not installed in the correct area. Increasing the sensitivity and/or sensor distance may help.

Distance – this increases the distance at which the sensor can activate (detection zone). Effectiveness of sensor can be compromised if too much silicone is used on install or the sensor is not installed in the correct area. Increasing the sensor distance and/or sensitivity may help.

Flow Volume – this increases the length of time of the flush. Controlling how long the solenoid is 'open' for allows more water to pass through the solenoid during the flush activation.

NB. Adjustments to increase water flow volume should usually be made on the flow adjuster valve on the solenoid. (Any adjustments may reduce the WELS rating)

TROUBLE SHOOTING

Problem	Possible Cause	Solution
No water out	Most common: Plugs not connected correctly/ No water supply/No power The filter or solenoid is blocked	<ul style="list-style-type: none"> • Check water and power supplies. • NB. If Urinal has been working correctly for some time but has suddenly stopped – likely cause is no power. Change Batteries and check mains power supply. • Unplug all cables, leave unplugged for 5 minutes and reconnect everything carefully in the correct order. (See Cable Connection diagrams) • Perform Connection and Sensor Tests. (See Commissioning of Installation Section) • If problem persists- call us for advice. Clean Filter. Clean/replace solenoid.
Urinal will not flush	Commissioning Tests not completed correctly.	Flush Valve is urine sensing. It does not detect movement in the room, heat, light or any other method of activation. Perform Connection and Sensor Tests. (See Commissioning of Installation Section)
Too much or too little water flow	Water pressure is incorrect. Flow valve needs adjusting The filter or solenoid is blocked	Adjust water pressure. Adjust flow valve on solenoid. Clean the filter. Clean/replace solenoid.
Second Flush/Run On shortly after installation	Incorrect Installation Debris in Solenoid	<ul style="list-style-type: none"> • Check Installation is correct - See Section 2 and notes for in-ceiling installation. • Run-on after install - usually caused by debris in water supply preventing solenoid closing. Can also be caused by high water pressure >500kPa. Clean solenoid, flush pipework and retest. You may need to replace solenoid, which is not covered by product warranty.
Flush time/sensing distance not adequate	Sensor requires adjustment	See the 'Settings' and 'Controller Adjustment' section of this manual for instructions

For detailed troubleshooting advice, see the Installation page of our websites enviro-tech.com.au or enviro-tech.co.nz



WARRANTY

This Enviro-Tech product is guaranteed for 12 months from the date of purchase. This is a parts only warranty and Enviro-Tech is not liable for any associated costs incurred in the replacement or repair of any item. For full details of the warranty conditions, see the Warranty page of our websites.

AFTERCARE

Ensure good water quality is maintained and the filter on the solenoid valve is cleaned out regularly. Failure to do so could result in a blocked solenoid/impair product functionality and may invalidate your product warranty.

This Enviro-Tech product is manufactured strictly to adhere to the ISO9001 standard, WaterMark certification and WELS standards. Enviro-tech reserves the right to update product technology at any time.

Contact Info:

Australia – 1300 530 883 or info@enviro-tech.com.au

New Zealand – 0800 2 ENVIRO or info@enviro-tech.co.nz