

hideaway

The Gap Sensor-Flush Urinal

1.1 Check contents of packaged unit:

- Flush control unit is fitted with short 100mm cables for sensor and power and 1500mm long cable for solenoid flush valve connection
- Solenoid valve is fitted with 200mm cable and 2 pin connector (Fig. 1)
- Cables are supplied as follows:
 - Sensor extension cable 2500mm long with female/male 4 pin connectors
 - 1800mm power cable wired with single male connector one end and other end hard wired to a transformer/ power supply (AC adaptor 240V AC/6V DC)

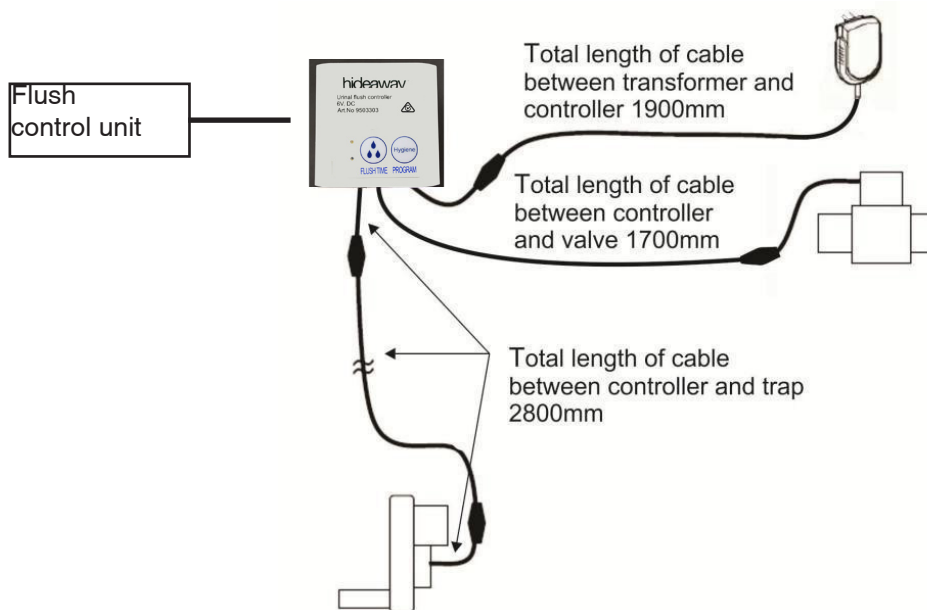


Fig. 1

-Flush valve kit (Fig. 2) consisting of an isolation/shutoff valve, solenoid valve and vacuum breaker/air break

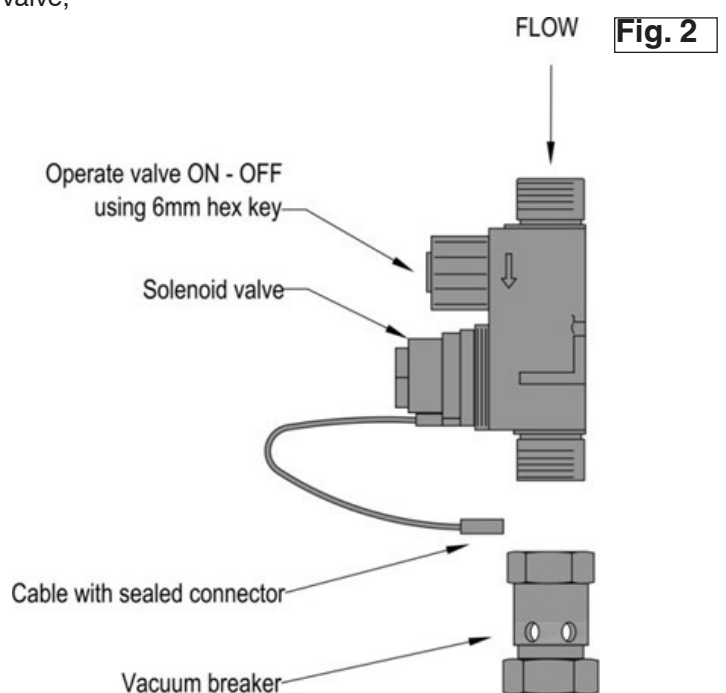


Fig. 2

Gap urinal complete with paper template, wall mounting brackets and screws

Note: Optional battery powered model is also available

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

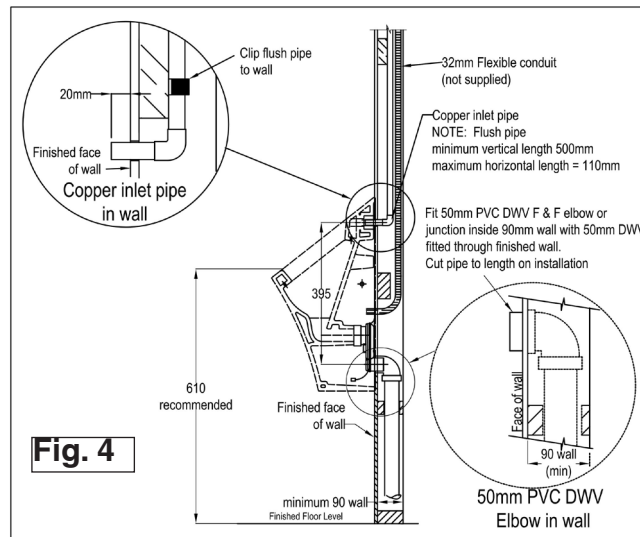
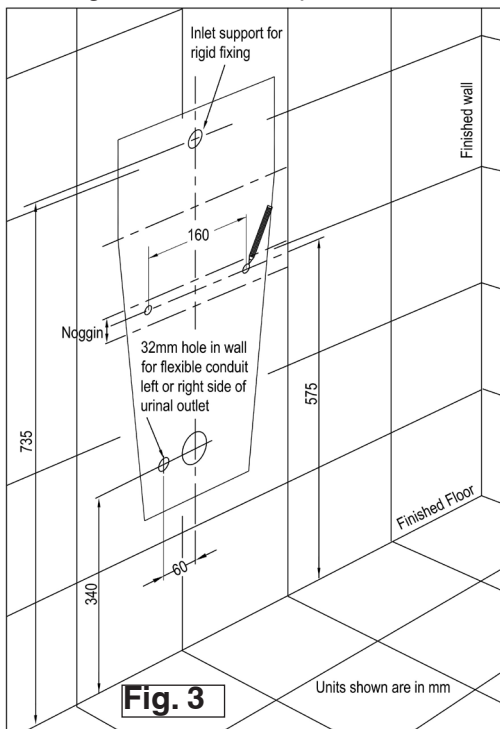
hideaway

The Gap Sensor-Flush Urinal

2.1 Rough in wall preparation

Note: All plumbing installation work has to be carried out in accordance with AS/NZS 3500. Installation requirements may vary, please check with your local authority.

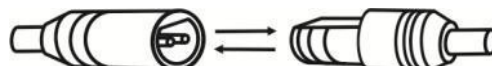
1. Determine mounting height of urinal based on recommended height to front edge (610mm)
2. Fit timber noggin into wall cavity to support urinal mounting brackets (Fig. 3)
3. Fit 20mm copper inlet pipe supported rigidly in wall allowing 20mm proud of finished wall and remove burr from pipe end (Fig. 4). The flush pipe should be installed without offsets.
4. **IMPORTANT: Accuracy is required to maintain 395mm centre distance between inlet and outlet and 20mm length of inlet pipe off wall.**
5. Trap outlet seal fits straight into the inside of 50mm DWV PVC pipe
6. Minimum 20mm water supply to this urinal is required as per AS/ NZS 3500
7. Install flexible electrical conduit (32mm minimum size, not supplied) free of kinks for sensor extension cable (Fig. 4)
8. Fit single 240 volt 10 amp GPO for transformer/power supply unit adjacent to proposed location of controller



3.0 Control Unit connection

1. Ensure rough in wall details have been completed first as detailed in Figs. 3 and 4
2. Flush the water lines
3. Assemble flush valve components (Fig. 2) following directional arrow on solenoid valve body during assembly.
4. Install flush valve as required in-ceiling (Fig.11), in-duct (Fig. 12) or in-wall (Fig. 13)
5. Flush valve must be installed in the vertical position with the isolation valve closed
6. Connect flush valve to 20mm copper flush pipe using olive fitting supplied
7. Connect water supply to flush valve (1/2" BSP male inlet)
8. Peel off tape backing on Velcro strip to mount control unit directly into position
9. Make connection from flush valve to control unit using 1500mm solenoid valve cable.

Note: Care must be taken to align pins inside each male connector with holes in female connector before pushing connectors together to prevent pins being bent



10. Make connection of sensor cable to control unit.
11. Route sensor cable through flexible conduit and 100mm out through wall.

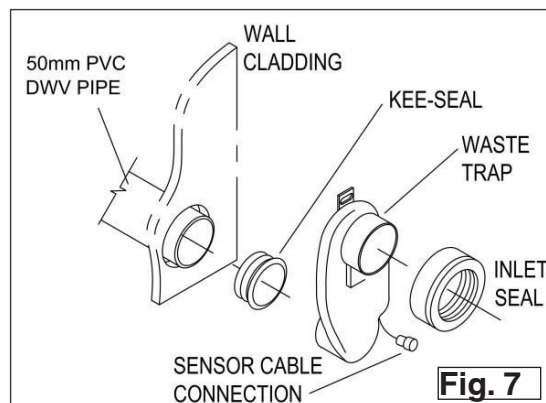
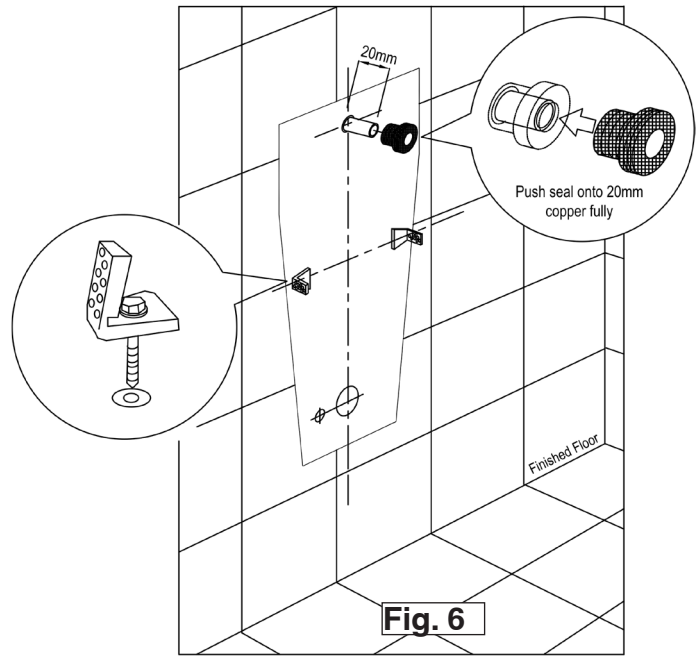
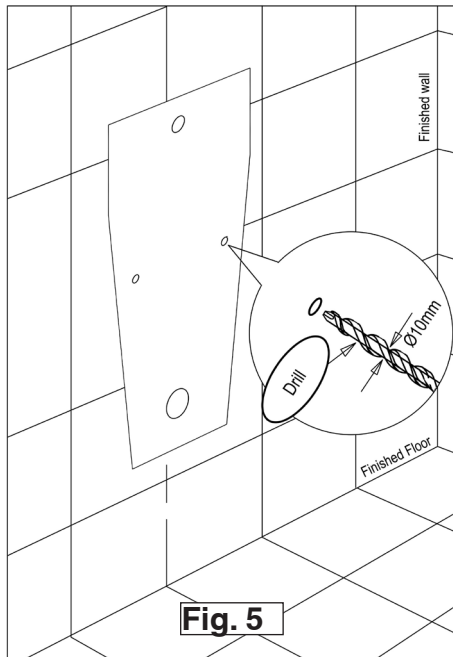
Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

hideaway

The Gap Sensor-Flush Urinal

4.1 Urinal installation instructions

1. Cut out paper template supplied, place in position flat on wall aligning centre of cut out holes with inlet and outlet.
2. Mark hole centres through template onto wall to provide wall locations for two 'L' shaped brackets (Fig. 5).
3. Fit 'L' shape mounting brackets to wall with fixings supplied (Fig. 6).
4. Fit Inlet Seal to 20mm exposed inlet pipe on wall
5. Before fitting waste trap, cut 50mm PVC DW V flush with finished wall (Fig. 7)



6. Fit kee-seal to waste trap and lubricate before gently pushing into 50mm PVC DW V pipe so trap finishes flush with face of wall. Fix waste trap to wall with single screw (Fig. 8).
7. Ensure sensor cable is installed through finished face of wall and connected to trap before installing urinal.
8. Lubricate and fit rubber inlet seal to trap. Carefully lift urinal into installed position, ensuring full engagement with:
 - Inlet pipe urinal rubber inlet seal
 - Outlet fully inserted into waste trap inlet seal

Urinal mounting screws are fitted using plastic sleeves provided and tightened into L shape brackets (Fig. 9).

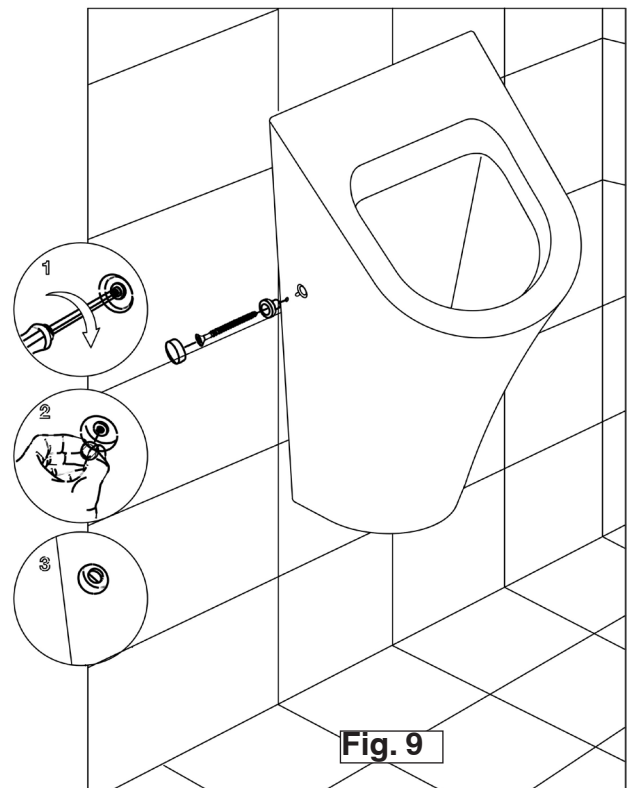
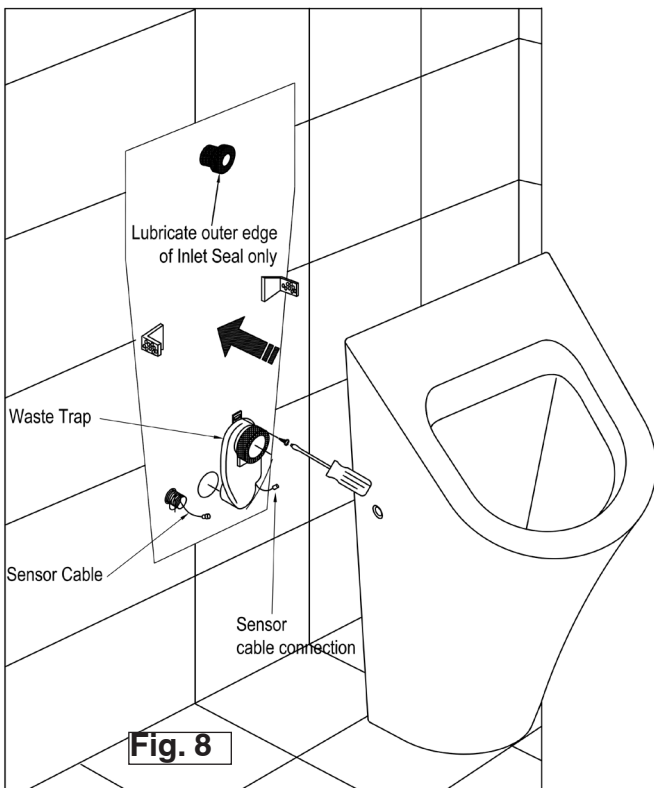
IMPORTANT: DO NOT OVER TIGHTEN SCREWS AS THIS MAY CRACK URINAL SIDE WALL

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

hideaway

The Gap Sensor-Flush Urinal

Important! Do not seal the urinal to the wall yet. Urinal should only be sealed once the urinal has been fully commissioned.



5.1 Commissioning

If you experience any technical issues refer to the **Trouble Shooting Guide** first (Section 12.0). If the issue cannot be resolved, contact Tech-Support for phone assistance on free call 07 3875 2465.

We are happy to assist you!

1. If mains powered, make connection from control unit to power supply unit.
2. Open the isolation valve and switch power ON (mains power model) or install battery (Battery powered model) to check system function:
 - When power is first connected to the controller, the system performs an automatic self-check to confirm that all components are functional
 - Observe the red LED flash response on the controller There could be 3 different flashing responses A, B or C

Do not press buttons on the controller yet

LED FLASH RESPONSE – FIRST TIME POWER ON	MEANING
<p>A</p> <p>1) Initial 2 short flashes followed by steady flashes at 1 second intervals. After about 25 seconds of steady flashing sequence - the flashing will change into a rapid on and off sequence and then stop. This signals that the self-check cycle has ended.</p>	<p>Confirmation that the self-check has not detected a fault</p>
<p>2) After a pause of 20 seconds 2 flushes will be automatically triggered.</p>	<p>Trap has been filled and the system is ready for use</p>
<p>3) Test flush the urinal in one of two ways:</p> <p>A) Hold the blade of an uninsulated screwdriver with your bare hands and dip one end into the water below the grate for 2 seconds and remove.</p> <p>B) Pour 100ml or more of warm water into the urinal.</p>	<p>After 10 seconds a flush will be triggered</p> <p>Note: Do not submerge the screwdriver for longer than 2 seconds otherwise the cleaning cycle may be activated. This will suspend flushing for 30 minutes. Also if flushed too often in quick succession the saver mode may be activated.</p> <p>To cancel these modes just unplug power for 30 seconds and re-connect. If you have any questions please contact Service ph. 07-3875 2465</p>

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

hideaway

The Gap Sensor-Flush Urinal

B

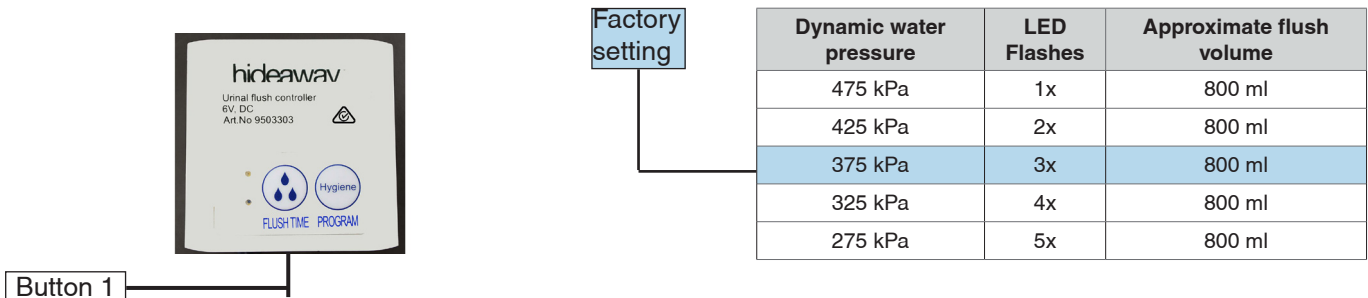
LED FLASH RESPONSE – FIRST TIME POWER ON	MEANING
1) Initial 2 short flashes followed by a sequence of double flashes in 3 second intervals. After about 25 seconds of the double flashing sequence – the flashing will change into a rapid on and off sequence and then stop. This signals that the self-check cycle has ended	Self-check has detected a fault with the sensor. Please switch off the power. Un-plug and re-plug every cable connection. Check that no cable has been damaged during construction. Re-connect the power and check if the LED response is as above in A.
2) After a pause of 20 seconds 2 flushes will be automatically triggered.	If the fault is still indicated contact Service ph. 07- 3875 2465 Do not proceed with sealing the urinal with sealant to the wall.

C

LED FLASH RESPONSE – FIRST TIME POWER ON	MEANING
1) Initial 2 short flashes followed by a sequence of quick triple flashes in 2 second intervals. After about 25 seconds of the triple flashing sequence – the flashing will change to a rapid on and off sequence and then stop. This signals that the self-check cycle has ended.	Self-check has detected a fault with the solenoid. Please switch off the power.
2) No flushes will be triggered	1) Unplug the solenoid valve connection. 2) Check that the pins in the male plug are not bent apart and line up with the holes in the female plug. If required use your fingers to squeeze the plug and pins together. 3) Check plug alignment and re-connect. Re-connect the power and check if the LED response is as above in A.
	If a fault is still indicated contact Service ph. 07-3875 2465. Do not proceed with sealing the urinal with sealant to the wall.

3. If no faults have been detected the urinal can now be sealed to the wall with anti-fungal flexible sealant.

4. Flush Time: To achieve the required flush volume, measure the dynamic water pressure that is available at the installation site. Compare your measurement with table values in Fig.10 and select the required flush time setting with 'Button1' on the controller. The flush time of a new controller is supplied with the setting adjusted to 375 kPa. To change flush times follow the instructions below.



Dynamic water pressure	LED Flashes	Approximate flush volume
475 kPa	1x	800 ml
425 kPa	2x	800 ml
375 kPa	3x	800 ml
325 kPa	4x	800 ml
275 kPa	5x	800 ml

How to change the flush time

A) Press Button 1 once (for 1 to 3 seconds) and the LED will indicate current controller setting by flashing 1x or 2x up to 5x - at which setting the controller currently is.

Note:

The LED will continue flashing in a steady repeating rhythm to indicate that the controller is still in editing mode and settings can be changed. Do not be distracted by this flashing.

B) Press 'Button 1' again and the flush time will advance to the next flush time setting. The LED will now respond by flashing 1x or 2x up to 5x to indicate the new selected setting.

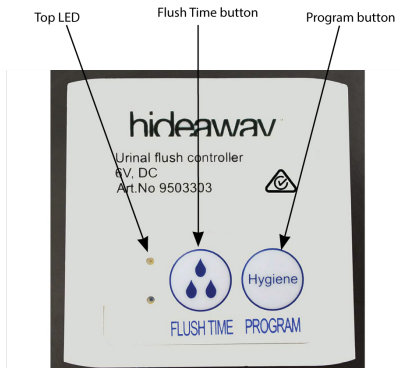
C) Once the desired setting is achieved wait for approximately 20 seconds for the controller to automatically exit the edit mode.

As confirmation that the controller is now ready for use 2 flushes will be automatically triggered.

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

hideaway

The Gap Sensor-Flush Urinal



Full time step	LED Flashes	Dynamic pressure in kPa	Approximate flush volume
1	1x	475	800 ml
2	2x	425	800 ml
3	3x	375	800 ml
4	4x	325	800 ml
5	5x	275	800 ml

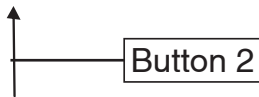
5. To select a different flush program

A new controller is supplied with the flush program set to Program 1. This is the normal flush mode and is the recommended setting.

This program flushes after every use and will automatically switch to Saver Mode (1 flush only after every 3rd user) when 4 users visit the urinal at less than one minute intervals. 1 minute of non-use will re-set the controller automatically to flush after every use.

A janitor flush will be triggered if the urinal has not been used for 48 hours.

How to change the flush program Program 2 (Eco Mode)



Flush 'Program 2' is designed to be used only in venues with very high customer turnover that come all at once at specific time intervals such as Theatres, Stadiums and Schools

This program will flush the urinal only after every 3rd user or 15 minutes after use, whichever comes first. It also triggers a janitor's flush after 48 hours of non-use.

To change the program, complete the following:

A) Press 'Button 2' once (for 1 to 3 seconds) and the LED will indicate by flashing program setting. Either a short 1 second flash indicates 'Program 1' or a long 2 second flash indicates "Program 2"

Note: The LED will continue flashing in a steady repeating rhythm to indicate that the controller is still in editing mode and settings can be changed. Do not be distracted by this flashing.

B) Press 'Button 2' again to change programs. The LED will now respond with a 1 second short flash to indicate program 1 or a 2 second long flash to confirm the selected program.

C) Once the desired setting is achieved wait for about 20 seconds and the controller will automatically exit edit mode.

As confirmation that the controller is now ready for use 2 flushes will be automatically triggered

hideaway

The Gap Sensor-Flush Urinal

6.1 Cleaning

Cleaning of the urinal is an important part of the regular maintenance. This should not just only involve the ceramic part of the urinal. Cleaning the trap and pipe connection at regular intervals is equally important.

Water can react with urine and form struvite. Struvite is a hard crystalline deposit that will form on the ceramic and inside the trap and pipe connection. Over time Struvite can build up creating a blockage. Struvite deposits have to be frequently removed with a suitable acidic type toilet cleaner at regular intervals.

Cleaning agents are more effective if they soak for a certain time (refer to the cleaning agent instructions). To assist with the soaking period, the controller is equipped with a cleaning cycle that suspends flushing for 30 minutes.

How to activate cleaning cycle in Program 1 (Normal Mode)

- 1) Hold the blade of a screwdriver with your bare hands (no gloves can be worn) into the water below the grate for 10 seconds. Whilst still holding the rod in the water pour some of the cleaning agent into the water of the urinal.
- 2) Now remove the rod from the water. This will trigger two short flushes which will carry the cleaning agent to the back of the trap and pipe connection. Now the flushing is suspended for 30 minutes.
- 3) Add more of the cleaning agent to the water of the urinal. After 30 minutes a flush will automatically trigger and the urinal is ready for use.

How to clean in Program 2 (ECO Mode):

In Program 2 which flushes after every third user or approximately 15 minutes after use whichever is first, cleaning may be done within 15 minutes in 2 ways.

A) The cleaner can visually check if the urinal has been flushed.

If it has been flushed proceed as follows.

1. In a bucket mix the cleaning agent with some water (follow cleaning agent instructions) and pour into the urinal. This will carry the cleaning agent into the back of the trap and pipe connection.
2. No longer disturb the urinal in any way for the next 15 minutes until it automatically flushes.

B) If it hasn't been flushed proceed as follows.

1. Hold the blade of a screwdriver into the water for 2 seconds and remove. Wait for 10 seconds to see if the urinal flushes. If not repeat the same procedure until it flushes.
2. In a bucket mix the cleaning agent with some water (follow cleaning agent instructions) and pour into the urinal. This will carry the cleaning agent into the back of the trap and pipe connection.
3. No longer disturb the urinal in any way for the next 15 minutes until it automatically flushes.

7.0 Overflow Protection:

To avoid overflow in the case of a pipe blockage the urine sensing device will cease to activate further flushing once the urinal bowl has filled.

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

hideaway

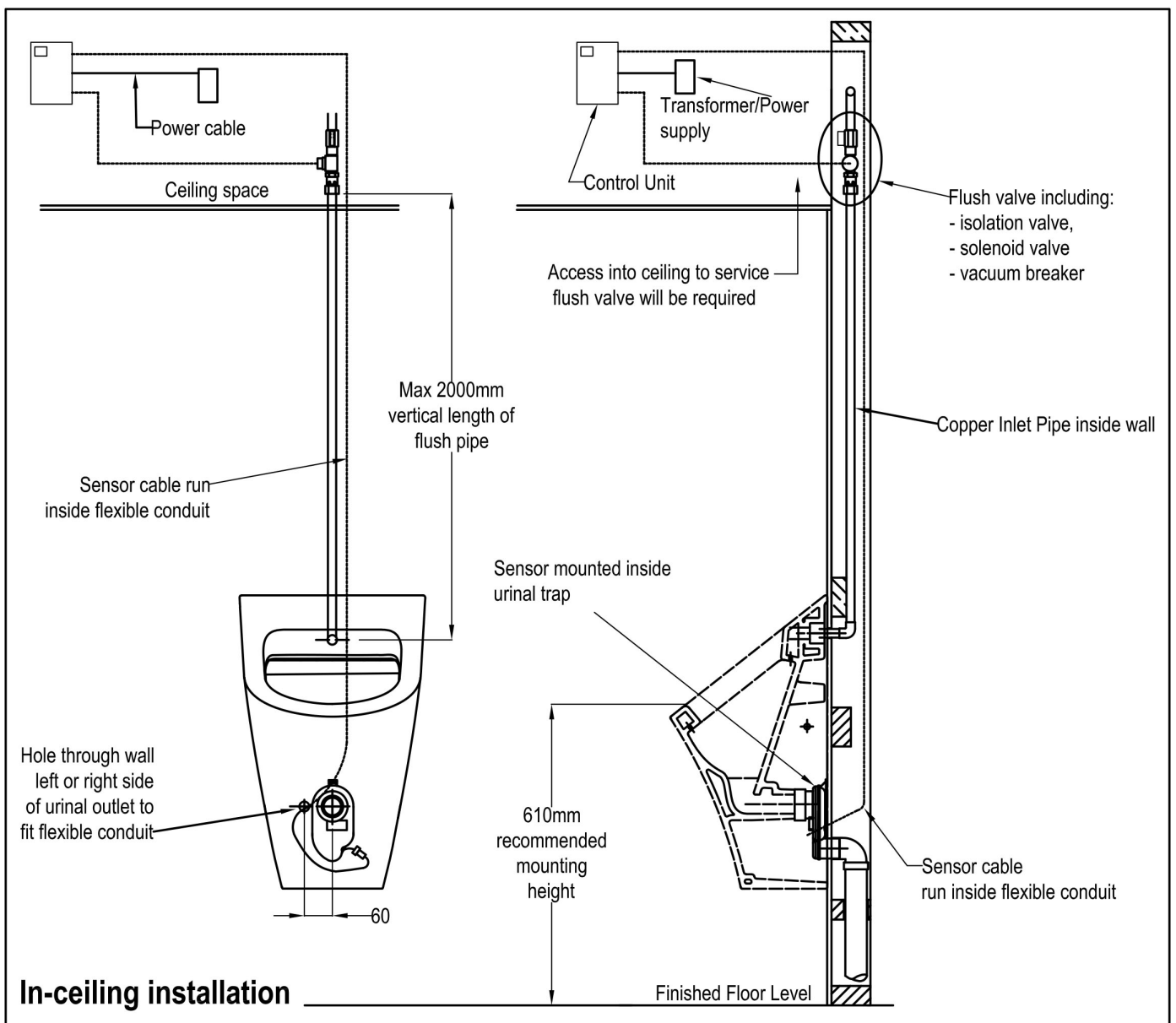
The Gap Sensor-Flush Urinal

8.0 Installation Types:

Use the following figures to provide installation guidance:

- Fig. 11 In-ceiling installation
- Fig 12 In-duct installation
- Fig 13 In-wall installation

Fig. 11

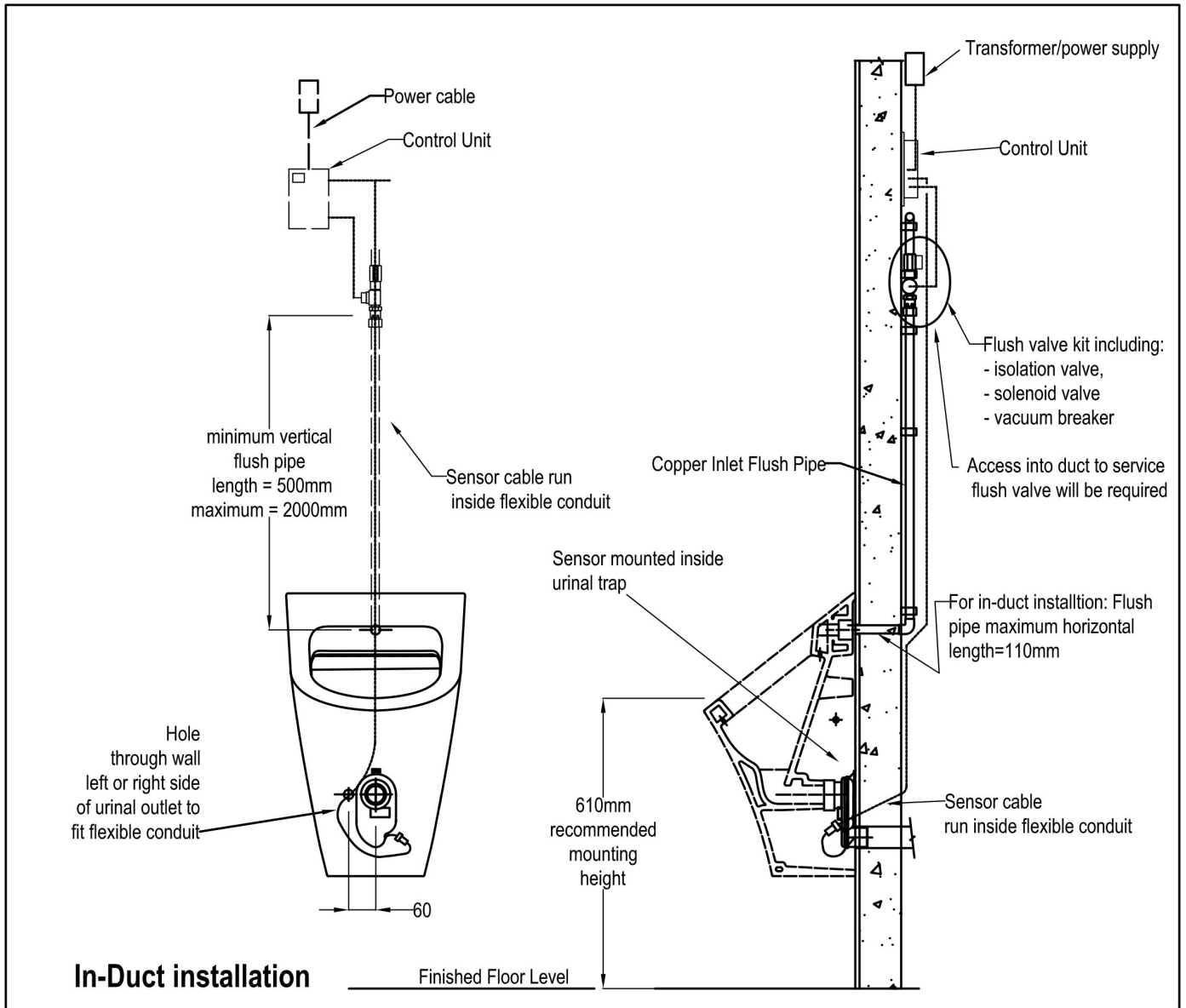


hideaway

The Gap Sensor-Flush Urinal

8.0 Installation Types (Continued)

Fig. 12



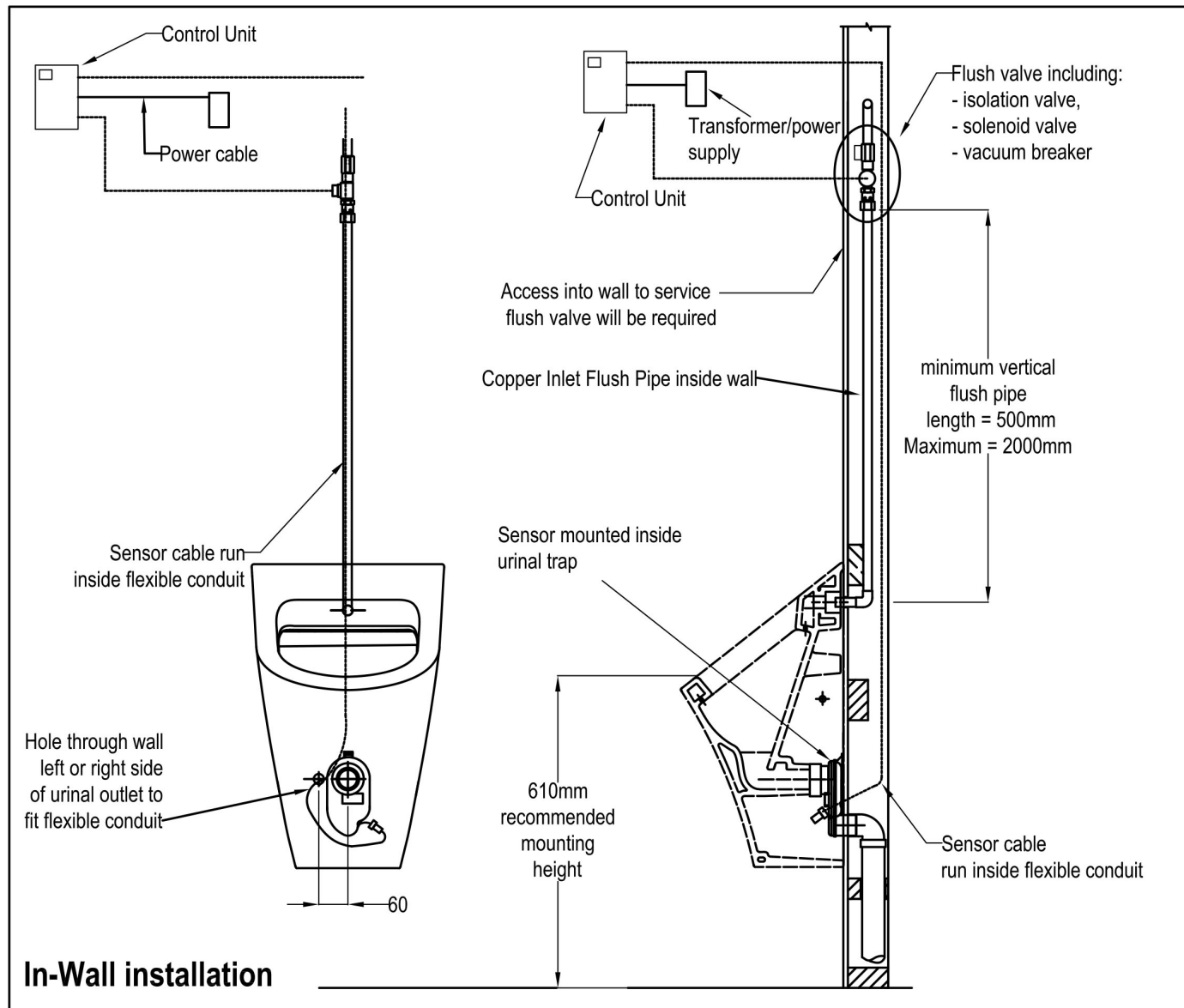
Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

hideaway

The Gap Sensor-Flush Urinal

8.0 Installation Types (Continued)

Fig. 13



Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

hideaway

The Gap Sensor-Flush Urinal

9.0 System Description and Technical Specification

Gap Urinal with Hideaway Smart Demand Operation and Urine Sensing Device

- The Sensor detects urine entering the urinal bowl and initiates a flush accordingly.
- The Controller is equipped with a flush time adjustment and program selector switches.
- Flush time can be selected depending on available dynamic pressure.
- The Program Selector switch allows the selection of the appropriate setting to maximise water conservation based on the expected usage as follows:

Program 1 (Normal Mode-Factory setting) flushes after every use and will automatically switch to Saver Mode (1 flush every minute) when 4 users visit the urinal in less than 1 minute intervals no matter how many times used. 1 minute of non-use will reset the control unit back to Normal Mode. Janitors Flush activates after 48 hours of non-use.

Program 2 (Eco Mode) flushes after every 3rd user or 15 minutes, whichever is first. Janitors Flush activates after 48 hours of non-use.

- Overflow protection, avoids overflow in the case of a pipe blockage where the urine sensing device ceases to activate further flushing once the urinal bowl has filled.
- Self-diagnostic fault finding.
- Sensor is concealed to protect against vandalism.

Operating voltage mains powered model:	240V AC
Operating voltage battery powered model:	6V DC
Power consumption:	0.3 W
Output:	6V DC
Flushing time:	Selectable based on available dynamic pressure
Minimum dynamic pressure:	275 kPa
Maximum dynamic pressure:	475 kPa
Minimum connection pipe size:	DN20
Minimum flowrate:	18 litres/minute (l/min)

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

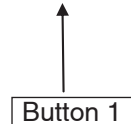
hideaway

The Gap Sensor-Flush Urinal

10.1 Diagnostic Function:

To assist in finding faults in the electronic components the controller is equipped with a diagnostic function. Follow the instructions below to activate this function.

- 1) Press and hold down 'Button 1' (flush time) for 10 to 20 seconds. While holding the button the LED will flash dimly, which is normal.
- 2) After 10 to 20 seconds release the button.
- 3) The LED will now flash in a bright sequence as outlined below. This LED flash sequence is consecutive and checks for 5 potential faults. Between each fault check the LED will switch off for a 5 second pause.



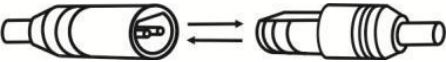
DIAGNOSTIC FUNCTION	CORRECTIVE ACTION RESPONSE
<p>Battery Power check:</p> <p>One long flash = Battery OK →</p> <p>OR</p> <p>Multiple flashes = Battery Power LOW →</p> <p>Note: This check is for battery power controller checking only, not mains power</p>	<p>Operating correctly</p> <p>Replace battery</p> <p>Problem fixed</p> <p><i>If problem cannot be resolved – call 07 3875 2465</i></p>
5 seconds pause	
<p>Pause then, Capacitive Sensor check:</p> <p>One long flash = Sensor OK →</p> <p>OR</p> <p>Multiple flashes = Capacitive Sensor not OK →</p>	<p>Operating correctly</p> <p>Ensure sensor cable is connected correctly at both plug connections. Re-start Urinal by turning power off and then on again after 30 seconds. Check red LED response as soon as power is switched on (see Commissioning). Look for 2 confirmation flushes to confirm urinal is functioning normally.</p> <p>Problem fixed</p> <p><i>If problem cannot be resolved – call 07 3875 2465 for assistance</i></p>
5 seconds pause	
<p>Pause then, Temperature Sensor check:</p> <p>One long flash = Sensor OK →</p> <p>OR</p> <p>Multiple flashes = Temperature Sensor not OK →</p>	<p>Operating correctly</p> <p>Ensure Solenoid Valve is connected. Re-start Urinal by turning power off and then on again after 30 seconds. Check red LED response as soon as power is switched on (see Commissioning). Look for 2 confirmation flushes to confirm urinal is functioning normally.</p> <p>Problem fixed</p> <p><i>If problem cannot be resolved – call 07 3875 2465 for assistance</i></p>
5 seconds pause	
<p>Pause then, Solenoid Valve check:</p> <p>One long flash = Solenoid Valve OK →</p> <p>OR</p> <p>Multiple flashes = Solenoid Valve is not OK →</p>	<p>Operating correctly</p> <p>Ensure Solenoid Valve is connected. Re-start Urinal by turning power off and then on again after 30 seconds. Check red LED response as soon as power is switched on (see Commissioning). Look for 2 confirmation flushes to confirm urinal is functioning normally.</p> <p>Problem fixed</p> <p><i>If problem cannot be resolved – call 07 3875 2465 for assistance</i></p>
5 seconds pause	
<p>Pause then, indicates Average user statistics over the past 30 days.</p> <p>1. Flash = less than 20 usages per day</p> <p>2. Flashes = between 20 and 60 usages per day</p> <p>3. Flashes = more than 60 usages per day</p> <p>Pause then, Completion of Diagnostic Mode is followed by 2 confirmation flushes</p>	<p>Informative only, no action required.</p>

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference

The Gap Sensor-Flush Urinal

11.0 Trouble Shooting Guide:

If you experience any technical issues refer to the Trouble Shooting Guide first. If the issue cannot be resolved, contact Tech- Support for phone assistance on free call 07 3875 2465. We are happy to assist you.

Problem	Symptom	Remedy
1. Urinal will not flush.	No power to control unit. Urine sensor does not activate urinal to flush.	Ensure power supply is connected and switched on. Press "Flush Time" button to activate Diagnostic Function and follow steps (refer to manual section 10.0)
2. Water is spilling out near solenoid valve from air holes in vacuum breaker.	Flush valve orientation is incorrect. Water flow through urinal; is restricted. Flush valve connection to urinal is not long enough. Water flow through inlet pipe into urinal is restricted.	Rectify by mounting the valve vertically. Check waterways through urinal are clear. Raise the height of the flush valve kit assembly. Lift urinal off wall & refit inlet seal onto exposed copper inlet pipe. Refit urinal following section 4.1
3. 40 seconds after use, the urinal still has not flushed.	The control unit is in Eco Mode.	Review step 5.0 flush program selection in Section 5.0.
4. Urinal flushes unexpectedly.	Janitors Flush mode triggers an automatic hygiene flush after 2 days (48 hours) of non-use.	No action required
5. Poor flush performance.	Strainer in the solenoid cartridge is blocked. Dynamic pressure has changed.	Un-screw the solenoid cartridge and rinse out dirt out of the strainer (see Section 1 Maintenance of the Solenoid Cartridge). Check dynamic pressure and reset flush time step if required.
6. Urinal keeps flushing.	Solenoid valve will not shut off, water flushes continuously.	Switch off power. Check Solenoid Valve is not fitted upside down. Correct direction is indicated by a directional arrow on valve body and labelling 'IN' and 'OUT'. Check also that the solenoid cable has been plugged in the correct way.  Restart the unit by switching the power on again.
7. No response from battery powered controller.	Red LED does not flash	Remove battery from controller to check if battery is correctly fitted. Reinstall battery back into controller – if still no response replace with new battery.
8. After use of the urinal 4 short flushes are activated.	After use of the urinal, instead of the usual one flush – 4 short flushes are activated.	Indicates that the battery is low. Replace the battery.
9. The urinal flushes at regular intervals without anybody triggering it.	The urinal continues to flush at regular intervals.	Sensor trap defect – replace sensor trap.
10. Urinal stopped flushing	Possible struvite build up in the trap or pipe, pipe work blockages.	Disconnect power to the flush system, wait for 10 seconds and re-connect. During the two commissioning flushes observe if water is draining slowly- if water is draining slowly, check for struvite build up in the ceramic, trap and pipe work – clean out the ceramic, trap or pipework if required.

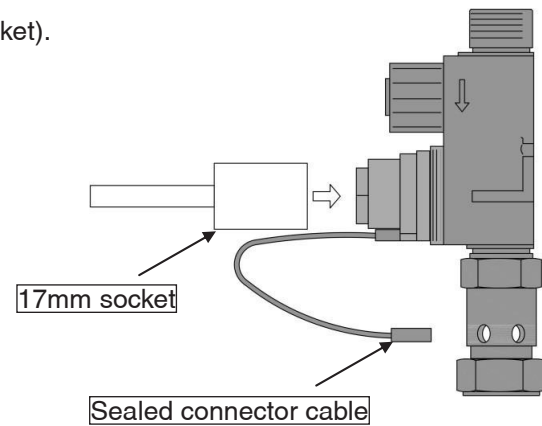
hideaway

The Gap Sensor-Flush Urinal

12.1 Maintenance of the Solenoid Cartridge:

When performing maintenance on the flush valve or its components shut off the power and water supply and unplug the solenoid sealed connector cable.

1) Unscrew the solenoid cartridge (if required use a 17mm socket).



2) Rinse and clean the strainer fitted to the solenoid cartridge.

3) Before re-installing the solenoid cartridge lubricate the two O-Rings with a suitable tap O-Ring lubricant, Hydroseal tap lubricant or equivalent.

Note: Do not over-tighten. The max torque is 1Nm (hand-tight).



hideaway

The Gap Sensor-Flush Urinal

Picture	Reece Code	Product Description	Part Number
	9503303	HIDEAWAY URINAL CONTROL UNIT 240V	200.030
	9503304	HIDEAWAY URINAL SENSOR TRAP (NO SEALS)	200.031
	9503305	HIDEAWAY URINAL 240V TRANSFORMER	200.032
	9503306	HIDEAWAY URINAL SENSOR EXT CABLE (2.65M)	200.033
	9503307	HIDEAWAY URINAL INLET & OUTLET SEAL	200.034
	9503309	HIDEAWAY URINAL SOLENOID CARTRIDGE	200.036
	9503310	HIDEAWAY URINAL SOLENOID BODY	200.037
	9503311	HIDEAWAY URINAL AIR-BREAK	200.038
	9503312	HIDEAWAY URINAL FLUSH VALVE	SV-8
	9503984	HIDEAWAY URINAL CONTROL BATTERY POWERED	200.040
	9503985	HIDEAWAY URINAL BATTERY 6V CR-P2	200.041
	9508476	HIDEAWAY GAP GRATE	

Plumbers, please ensure a copy of the installation instructions is left with the end user for future reference