

inspire Caroma Electronic Flush Valve - Series II

Service Guide

This guide addresses several of the most common servicing issues related to the electronic Urinal Flush valve.

1) Valve will not flush.

Actions:

- Check to see if the built in stop cock (ball valve) is **open**. (The flush valve is supplied with the stop cock closed). Note: The stop cock is the flat screw above the solenoid – when it is horizontal the valve is **closed**, when it is **vertical** the valve is **open**.

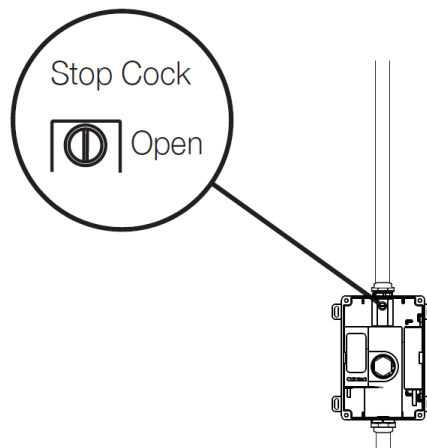


Figure 1: Stop Cock orientation

- Check all cable connections.
 - Ensure cables are connected to the correct device (identified with colored bands on cables, see below)
 - Ensure white markings on both connectors are aligned.
 - Apply firm pressure to push connectors together.

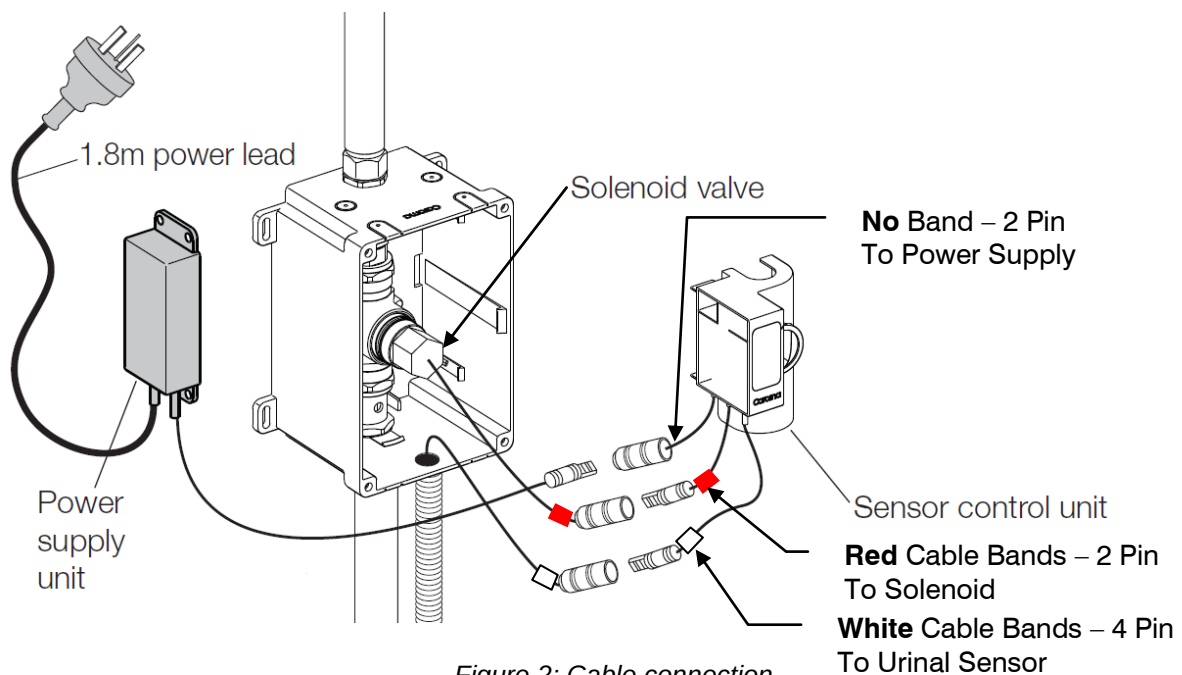


Figure 2: Cable connection

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- Perform a Diagnostic Check. The controller can perform internal diagnostic checks of the main system components and display their current status. If any of the component(s) is faulty (ie: 3 second Long flash), replace the component(s):

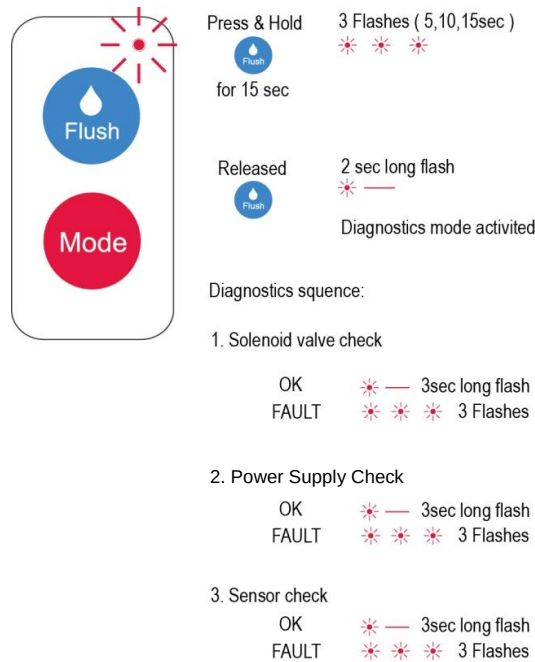


Figure 3: Diagnostics

- If controller DOES NOT responds with LED flashes as shown, check that the transformer is connected to a working 240V AC power supply outlet (GPO). If power is being supplied from the electrical outlet but there is no response (ie flashing LED) from the controller, then the transformer needs replacing.
- If the red light on the Controller is constantly flashing then the unit has received a power spike or surge. In this instance the module needs to be unplugged from the transformer and left to reset for a minimum of 10 minutes. When reconnecting the module to the transformer the modules red light should flash only a few times. If the red light is still constantly flashing then the module is faulty and needs to be replaced.
- The solenoid may be operational/OK, but may be blocked with debris. Remove & inspect the solenoid to ensure the mesh is clear of any debris.
- The default value for “Usage Duration” (that is, the time required for continuous use before the flush valve is triggered) is set to **7 seconds by default**.

Check this setting by slowly pouring water into the urinal for a period of at least 7 seconds and check that the unit flushes. This value can be changed to a lower setting of 5 seconds with the following procedure:

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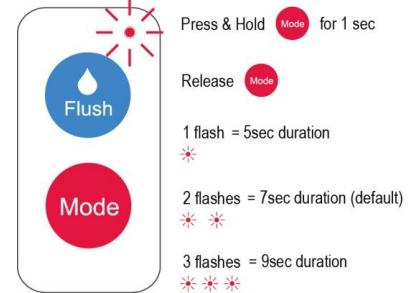
Setting: Usage Duration - Default: 7 seconds.

Duration:

- ❖ A **short** duration (5 seconds) can be specified if even a small amount of urine is required to activate the valve.
- ❖ The **default** duration (7 seconds) should be sufficient for most installations.
- ❖ A **long** duration (9 seconds) can be selected in sub optimal environmental conditions such as small rooms without ventilation or poor drainage.

- Press and hold  button for **1 second** to **CYCLE** through the Sensor Duration settings.
- The indicator LED will flash to confirm the current Duration setting.

Short Duration (5 seconds):	1 Flash
Default Duration (7 seconds):	2 Flashes
Long Duration (9 seconds):	3 Flashes



2) Valve will not shut off, resulting in constant flushing/flow.

Actions:

- If the red light on the Electronic Control Module is constantly flashing then the unit has received a power spike or surge. In this instance the module needs to be unplugged from the transformer and left to reset for a minimum of 10 minutes. When reconnecting the module to the transformer the control module's red light should flash only a few times. If the red light is still constantly flashing then the control module is faulty and needs to be replaced.
- Perform a Diagnostic Check from the Controller (See above)
- If the diagnostics are OK, Check that the solenoid plug is connected correctly. (Note: if the Solenoid is plugged in the reverse way then the solenoid will open for a long time, stop and then re-open)
- If the Controller is OK and the Solenoid is connected correctly, it is most likely that the solenoid valve cannot close and needs replacing – this could be due to impurities in the plumbing lines. Replace the solenoid.

3) Water is spilling out from integrated Airbrake – (holes below solenoid).

Action:

- Check if the flush valve is installed upright that is **vertical** as in the diagrams of the instruction manual. If the valve is on its side **horizontal** then water will spill out of the airbrake. Rectify by mounting the valve properly (See Figure 4).

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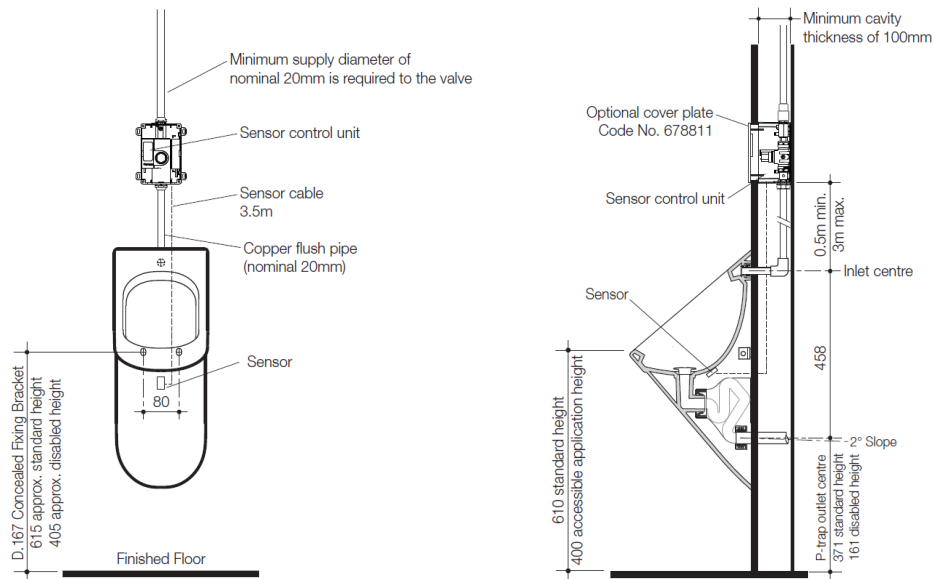


Figure: 4 Correct Inwall Installation

- Check if the flush pipe from the base of the valve to the inlet of the urinal is a minimum distance of 500 mm and min DN20 diameter.
- Check to see the flush pipe is vertical from the base of the valve to the urinal inlet. If a plumber has 90° - 45° bends in the flush pipe coming from the base of the valve then water will back up and spill out of airbrake.
- Check to see that the Kee Seal has not been pinched. If the Kee Seal has been pinched the water cannot flow and will back up and spill out of the airbrake.
- If water is still spilling out and the valve is installed correctly with a straight flush pipe with a minimum length of 500 mm then it could be the Sparge pipe at the inlet of the urinal. If the Sparge pipe is protruding past the Kee Seal then it may be too long. In this instance the Sparge pipe hits the back of the urinal which means the water cannot spread as intended into the urinal, instead the water may back up in the flush pipe and spill out of the airbrake. In this very rare situation the Sparge pipe may need to be cut back.

4) Valve flushes then closes and repeats without activation.

Actions:

- Perform Diagnostic Check (see above) to see if the Sensor is OK.
- If all components are OK: perform a Factory Reset (See Instruction manual)
- The Sensor is self calibrating and should be able to detect & select the appropriate sensitivity / range. If the steps above have been completed, then replace sensor.

For more information about this product, including detailed Installation Manuals, please visit the Caroma website;

specify.caroma.com.au/products/urinals

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