GalvinCare® Electronic Mental Health Concealed Shower Mixer with GalvinCare® Handle & Controller
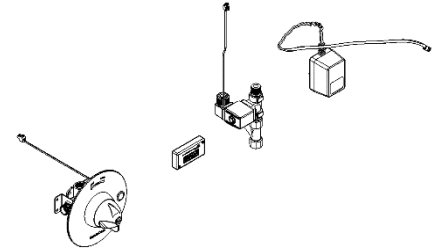
PRODUCT CODES:

- **TZ-FLOWTMSHWINR**

WaterMark
AS/NZS 3718 Lic. WMKA0034
SAI Global

SPECIFICATIONS

- GalvinCare® Electronic Mental Health Concealed Shower Mixer provides the complete anti-vandal, anti-ligature solution. The unique electronic valve assembly provide a precise delivery of water, and is specifically designed for prisons, mental health facilities and other custodial establishments. The adjustable temperature control handle allows users to adjust from a cold water option to the set hot temperature.
- This item is designed for wall installation and has bevelled edges to provide tight fixing
- GalvinCare® Electronic controller is a 24V AC electronic control system allowing connection of up to 2 button inputs and up to 2 solenoids (single solenoid only for shower flushing units). Controller is pre-programmed and ready to use. The solenoids will open for a specific time once the appropriate button is pressed. The standard program can be modified to suit individual needs. To modify the operation settings a compatible Android device with Bluetooth is required.

IMPORTANT: All GalvinCare® tapware is tested in accordance with AS/NZS 3718 and leave our premises in good working order.

TECHNICAL DATA

Power Supply	Type		Transformer
	Input		230-240V – 50Hz
	Output		24V AC 0.9AMPS 22VA
	Cable length		3m
Solenoid	Input Voltage		24V – 50Hz - 60Hz
	Power Consumption		8W
	Cable length		5m
	Connection	Inlet	½" BSP - Female
		Outlet	½" BSP - Male
Sensor	Type		IP68 24V
	Activation		Push Button
	Connections		2 pin connector
	Cable length		5m
Controller	Input Voltage		24V AC
	Program type		Flowmatic
	Connections		2 pin connectors
Shower Mixer	Inlets		½" BSP - Male
	Outlet		½" BSP - Female
Whole Unit (kit)	Pressure Range (kPa)	Min	100
		Max	500
	Temperature (°C)	Min	5
		Max	90
Headwork			Solenoid
Finish (user)			Chrome
Working Pressure Range (kPa)		Min	100
		Max	500
Working Temperature Range (°C)		Min	5
		Max	90

TOOLS REQUIRED

− Power drill	- Spanner or adjustable crescent

PRE - INSTALLATION

IMPORTANT: ⚠️

- **INSTALLATION COMPLIANCE:** Galvin Engineering products must be installed in accordance with these installation instructions and in accordance with AS/NZS 3500, the PCA and your local regulatory requirements. Water and/or electrical supply conditions must also comply to the applicable national and/or state standards. Failing to comply with these provisions shall void the product warranty and may affect the performance of the product (Refer supplied installation compliance sheet with the product).

- Pipe sizing shall comply with AS/NZS 3500.1 and shall be hydraulically calculated.

- Before proceeding with installation first check the solenoid valve supplied is suitable for the site water pressure and conditions. If your water pressure is outside the stated range, please contact Galvin Specialised.

- Ensure all supply lines are flushed thoroughly to remove debris prior to the installation of this product. A line strainer is supplied to protect the solenoid valve from debris.

- We recommend a thermostatic mixing valve is used to provide premixed water to the valve and pressure reduction valve may be required to comply with recommended maximum supply pressure.

- Ensure that access to the push button, solenoid valve and transformer/GPO is available for future maintenance when installing the components. It is recommended that isolating valves be installed upstream to the solenoid valve to allow for servicing. All wiring must be able to be removed when installed into cavities or walls, therefore, it is recommended that a minimum of 25mm conduit be used to house the leads. The unit is supplied with 3 meters of lead on the transformer and 5 meters from the solenoid. Additional lead lengths may be accommodated up to a length of 5m but must be ordered separately.

- Whilst our product designs consider a broad range of installation types and surfaces, it is important that surfaces which fixtures are mounted to are flat and free from defect. This is especially important for our *GalvinCare*® range where special attention is required to minimise ligature points and areas for concealment of contraband. In addition to ensuring the products are fitted securely and in accordance with the following instructions, consideration shall be given to the use of non-pick mastics such as BASF Sonolastic "Ultra" to ensure a high quality and safe installation.

- Most installation problems are due to damage to the unit during installation or the selection of an inappropriate installation location. Select the location carefully and take care with the installation, consider ease of operation for the end user.
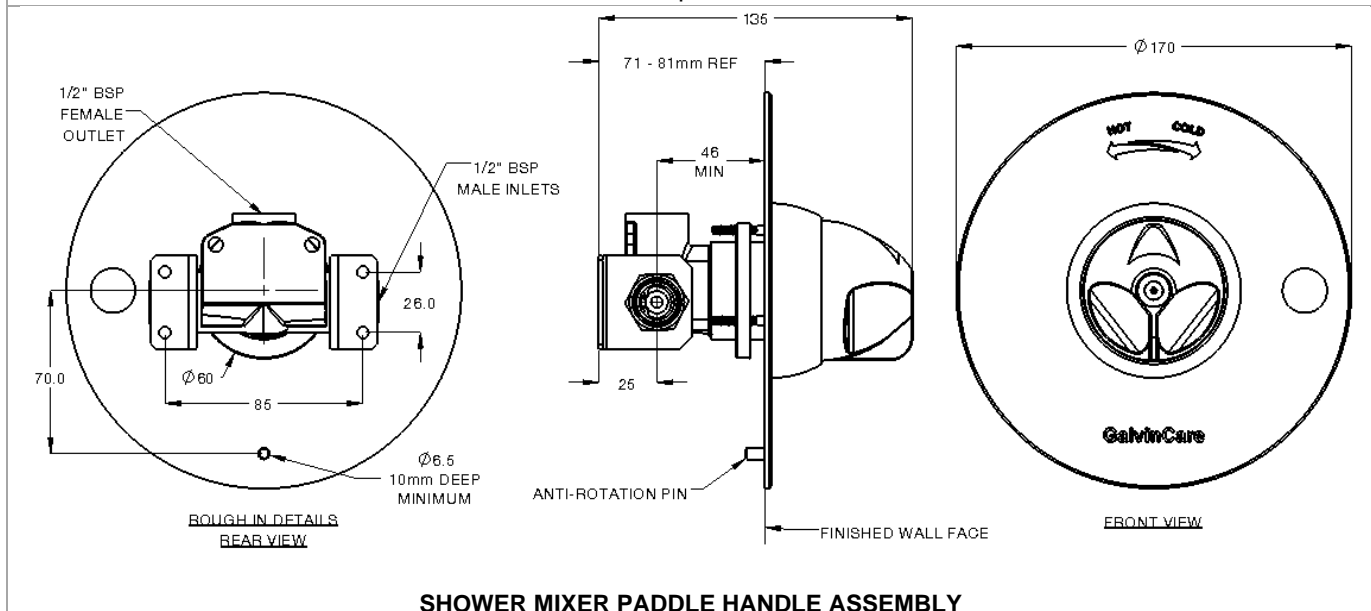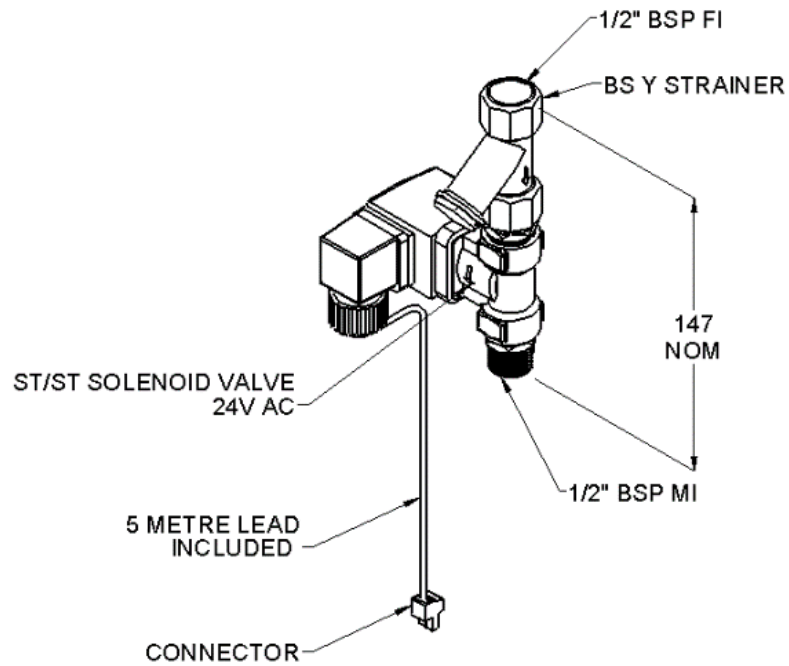
GENERAL INSTALLATION REQUIREMENTS

- Do not cut the wires or extend the existing leads without using a correct lead extension from Galvin Specialised, as this will void warranty.

- Suitable access to the service of all components must be provided.

- It is recommended that acoustic dampening products or materials be used in facilities where increased levels of sound protection are required. A water hammer arrestor may also be required.

- The number of valves and simultaneous demand must be considered when sizing pipes. If other fixtures are connected to the supply line, calculations of flow rates and pressures must be undertaken to ensure adequate water supply.

- Limit the number of changes of directions in pipe work. This will result in less friction loss, better valve performance and reduce potential water cavitation noise.

- We recommend fitting isolating valves before solenoid for easy servicing.

- Do not apply heat near this product during the connection of water line. Heat generated by soldering could damage plastic or electrical parts and seals and will void the warranty.

- For personal installation assistance and spare parts, please call our head office on 1300 514 074 and speak to our customer service staff.
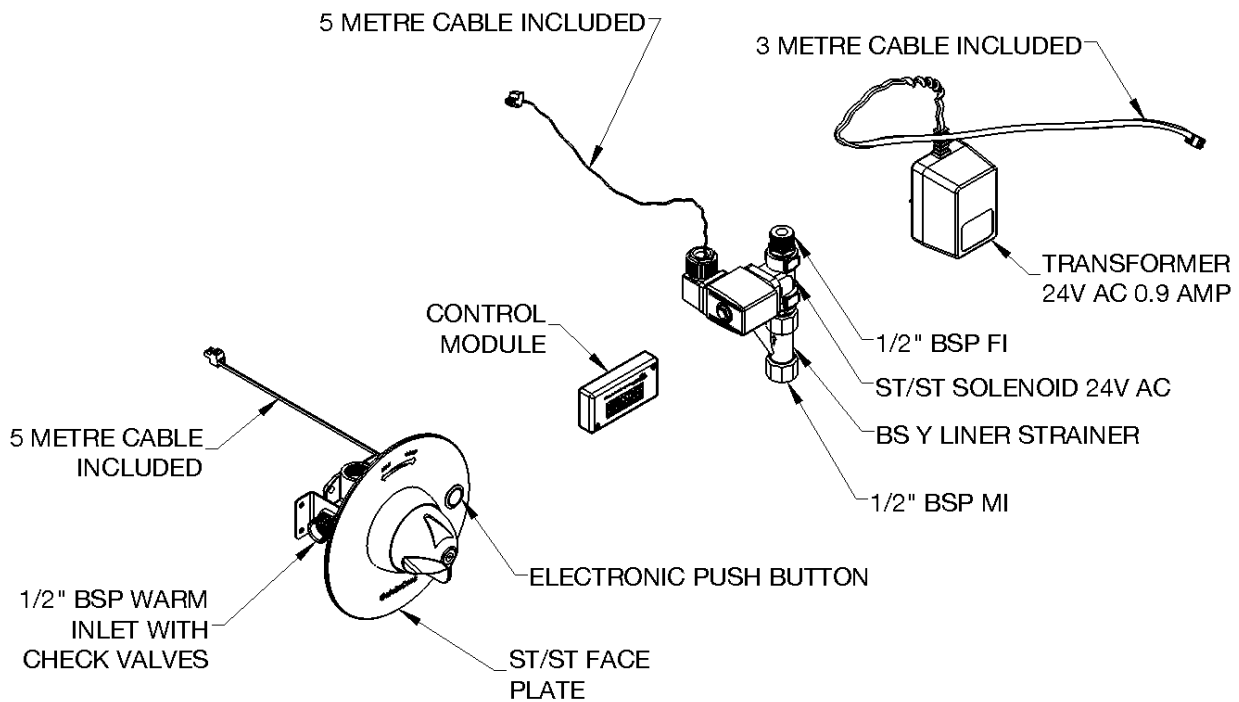
MOUNTING DETAILS

- Suitable for in-wall mounting
- Drill ∅6.5mm hole as shown for Anti-Rotation pin.

SHOWER MIXER PADDLE HANDLE ASSEMBLY

1/2" BSP FI

BS Y STRAINER

147 NOM

1/2" BSP MI

ST/ST SOLENOID VALVE 24V AC

5 METRE LEAD INCLUDED

CONNECTOR

SOLENOID ASSEMBLY

5 METRE CABLE INCLUDED

3 METRE CABLE INCLUDED

TRANSFORMER 24V AC 0.9 AMP

CONTROL MODULE

1/2" BSP FI

ST/ST SOLENOID 24V AC

BS Y LINER STRAINER

1/2" BSP MI

5 METRE CABLE INCLUDED

1/2" BSP WARM INLET WITH CHECK VALVES

ELECTRONIC PUSH BUTTON

ST/ST FACE PLATE

INSTALLATION

IMPORTANT: *Galvin Specialised products must be installed in accordance with these installation instructions and in accordance with AS/NZS 3500, the PCA and your local regulatory requirements. Water and/or electrical supply conditions must also comply to the applicable national and/or state standards. Failing to comply with these provisions shall void the product warranty and may affect the performance of the product.*
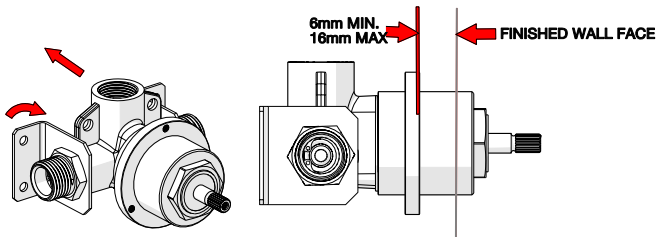
1.   Fit body assembly

- Secure body with mounting brackets as indicated, ensure it is protruding past the finished wall between 6mm minimum and 16mm maximum.
- Brackets are suitable for horizontal and vertical mounting.
- It is critical that the centre line of the cartridge spindle is perpendicular to the finished wall to ensure correct fitment of the faceplate and flange.
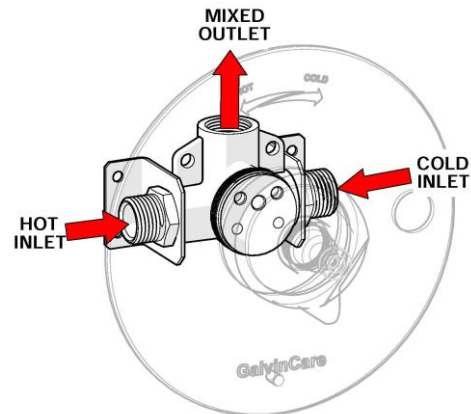
2.   Connect water supply

- Connect water supply to correct inlets as shown, ensure a suitable sealing compound is used
- Connect correct outlet connection to shower outlet.

Note: Water supply should be flushed before fitting. The use of in-line strainers is highly recommended.
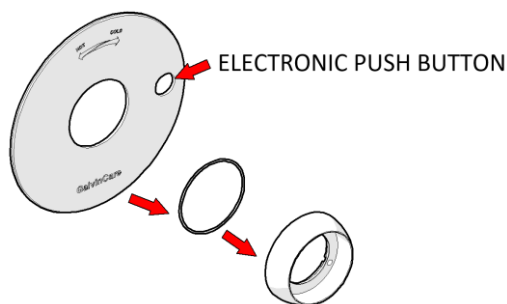

3.   Fit faceplate & flange

- Fit supplied o-ring into groove on the back of the flange.
- Fit faceplate on to shoulder of flange.
- Fit the electronic push button to the faceplate.
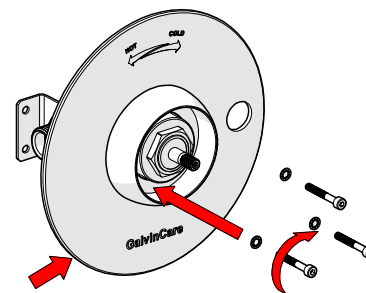
4.   Secure flange

- Slide faceplate and flange onto the body.
- Secure with three M4 cap screws and lock washers, ensure the faceplate anti-rotation pin is pushed through the $\varnothing$6.5mm hole.

Note: Cartridge spline must be parallel with the faceplate within 1°.

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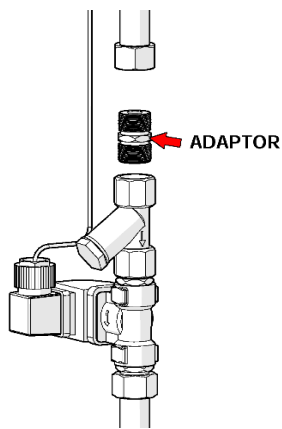
ADAPTOR

5. Connect water

− Connect the water supply to the strainers and turn on water supply. Check for leaks.
− Adaptors supplied by the installer must be in accordance with AS/NZS 3500.

⚠ **Do not apply heat near this product. Heat generated by soldering could damage plastic or electrical parts and seals and will void the warranty.**
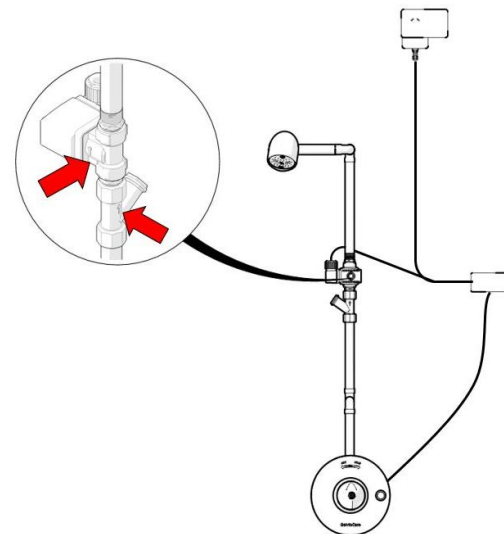

6. Connect solenoid

− Connect solenoid assemblies to the outlet as shown and in accordance with AS/NZS 3500.
− Ensure that the solenoid is installed in the correct direction (the arrow on the solenoid body must align with the direction of water flow).
− Line strainers are supplied attached to the solenoid valves. Removal of these strainers may void the warranty.

⚠ **Ensure no thread tape, copper swarf, sand or other debris enters and fouls the solenoid valve.**
⚠

Make sure solenoid valve is orientated such that the electrical wiring is not twisted and connectors are easily accessible.

WITHIN 5 METRE
FROM THE SERVICE

WITHIN
3 METRE
FROM GPO
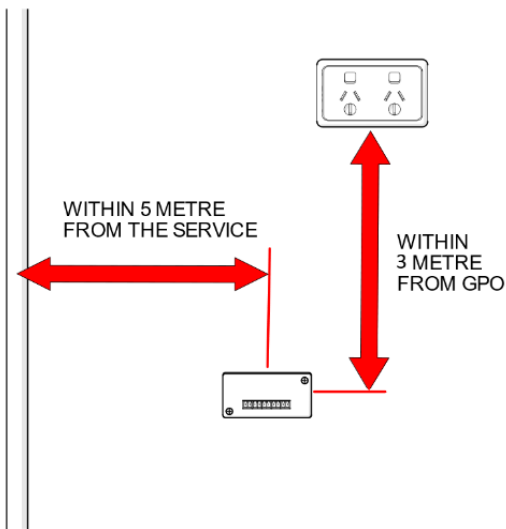
Note: Controller must be mounted away from any moisture or potential water splashing.

7. **Mount control module**

– Attach the control module to a flat surface away from any possible splashing or moisture using supplied Velcro.

– Find a suitable place to mount the control module within 5mtrs of the service and 3mtrs of the GPO.

⚠ **All electrical components should be protected from contact with water or excessive heat and installed in accordance with local regulations.**

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Flowmatic Control Module is programmed as per standard settings for a mains flushing system.
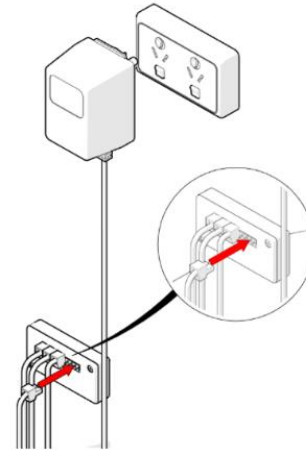
8. **Control module connections**

– **We recommend that all cabling is fed through 25mm conduit to make servicing and replacment easier.**

– Connect the button lead to the input side of the control module and the solenoid leads to the output side.

– **If extension leads are required, please contact Galvin Specialised.**

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Do not cut the leads. If the leads are too long, it is recommended that any excess is coiled up and clipped to the wall.
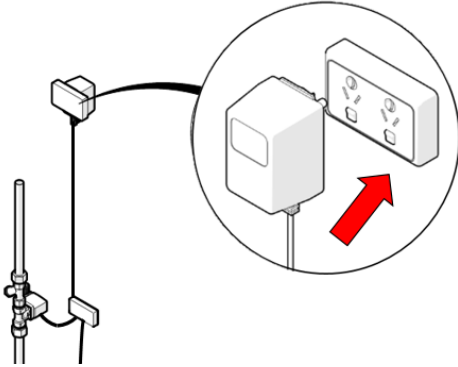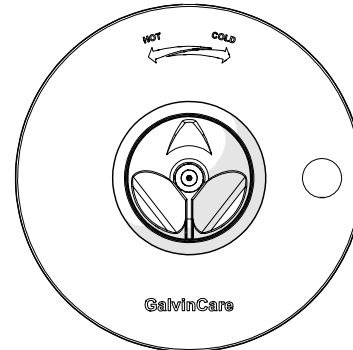
9. **Connect power supply and check for correct operation**
   - Connect the module to the GPO and turn on.
   - When the button is pushed water should flow from the outlet.
   - Check for correct operation.

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The connection of this product to mains power supply should be undertaken by a competent person and should conform to local Wiring Regulation – AS3000 Wiring rules.
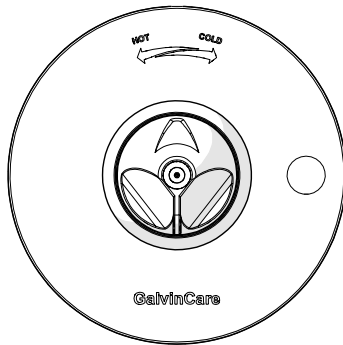

10. **Testing**
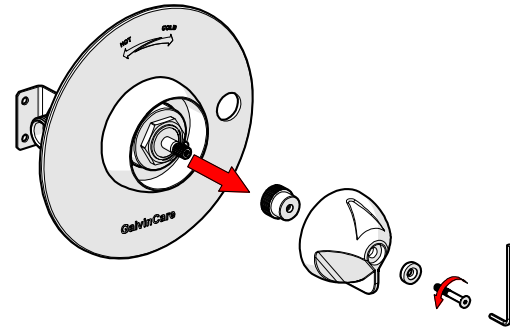   - Once fitted & connected with controller, test body for leaks and correct operation.
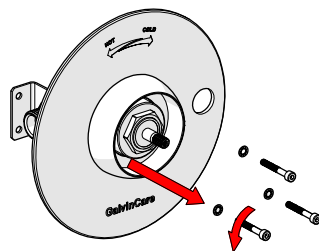
SERVICE AND MAINTENANCE

1. Turn off water

- Turn off the water supply and turn on the tap handle to release any pressure in the lines
- Disconnect the plug from controller
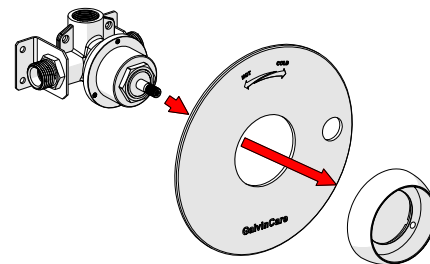- Disconnect cold, hot and inlet water connections

2. Remove handle assembly

- Unscrew tamper proof screw from handle
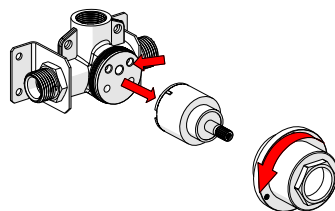- Pull out handle assembly from the body

3. Remove flange screws
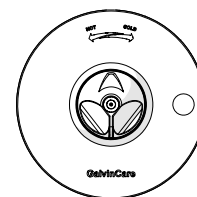
- Unscrew the flange screws

4. Remove faceplate (with button) and flange

5. Remove cartridge nut and check cartridge

- Unscrew cartridge nut and remove cartridge.
- Check the cartridge for wear and damage. Replace if required with cartridge replacement available through your supplier
- Check and clean the body of all debris


6. Re-assemble

- Re-assemble, by reversing steps 5 to 1.
- When re-assembling, do not overtighten support nut (12-13Nm).
- Ensuring sealing compound is used when connecting water supply and outlet.
- Turn on water and check for correct operation

CONTROL MODULE PROGRAM MODIFICATION

***Required to make changes to the controller settings :***

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- *Android device (e.g. smartphone, tablet).*
- *Installed software from PlayStore 'Flowmatic system'.*
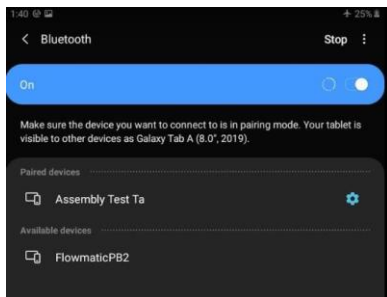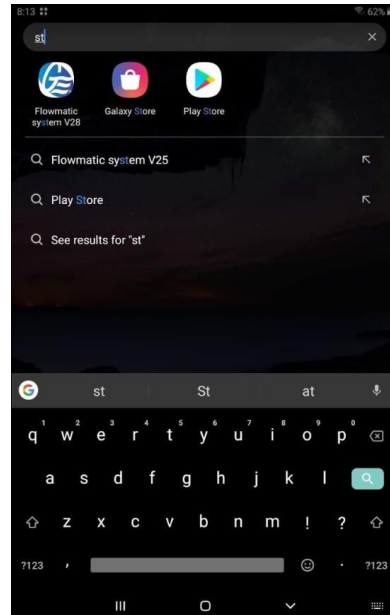
1. Establish Bluetooth connection

– Go to the Bluetooth settings on your device then scan for devices. Generally, when scanning the first thing to come up in available devices will be a Mac address that looks like this example (AB:EC:69:57:34:02). This will eventually change to the name of the device, which is from factory set as 'FlowmaticPB2' (This later can be changed to a custom name in the app).

– Select this device.
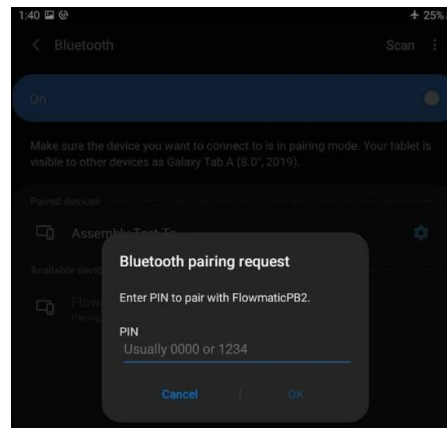
2. Entering the pin

- The device will ask for a pin, which from factory is '1234'. (This pin can be changed later in the app.). Your device is now connected to the controller, and is ready to be adjusted from the 'Flowmatic system' app.
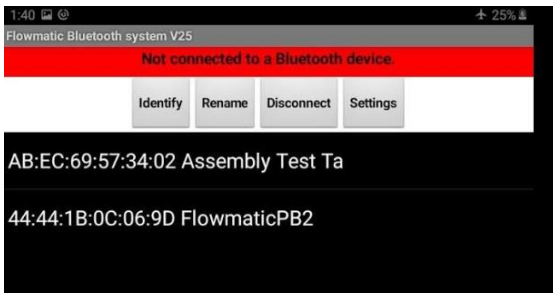
3. Changing controllers settings

– Open the Flowmatic system' app. The device will appear on the screen. with Mac Address first and then controller name e.g. 'AB:EC:69:57:34:02 FlowmaticPB2'.

– Select the Flowmatic PB2, this will then update the controllers time clock, and then open the setting screen.
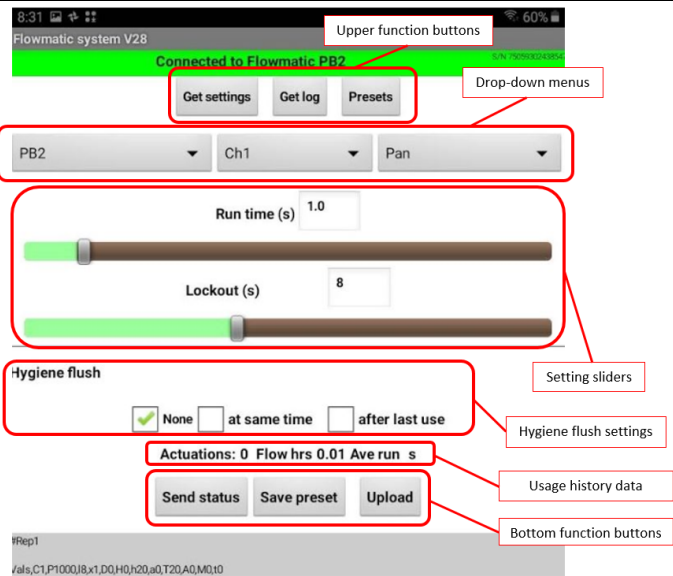
4. Setting screen overview.

– **Upper function buttons**. By pressing the 'Get settings' button the currently stored parameters in the controller's internal memory will be downloaded to the app. The 'Get log' button will pop up the log data screen. The 'Presets' button will list all saved presets.

– **Drop-Down menus**. First menu from left is to select the type of controller the app is connected to. The second menu is to select which 'channel' is going to have parameters changed. The third menu is to declare what is the controlled feature designed for.

– **Setting sliders**. Depending on the selected controlled feature there will appear one, two or three setting sliders.

– **Hygiene flush setting** menu allows to set the time and intervals of hygiene flush.

– **Bottom function buttons** are to be used to manage the controller internal memory.
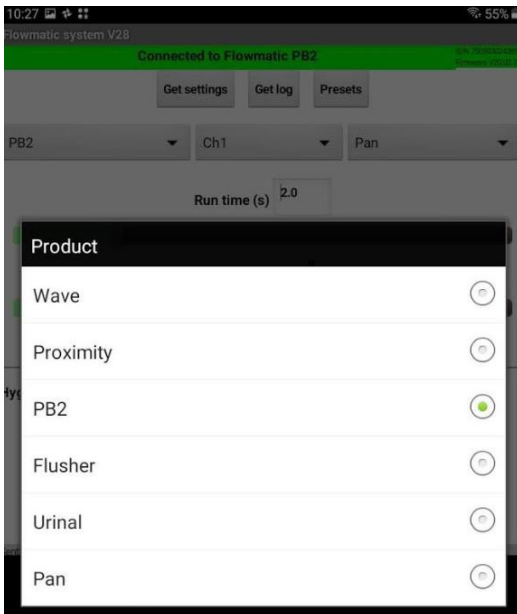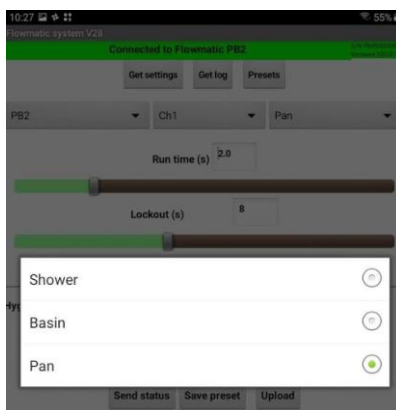
5. Type of controller (left drop-down menu)
- For the PB2 controller only the PB2 selection is correct. Please do not change the selection for the PB2 controller
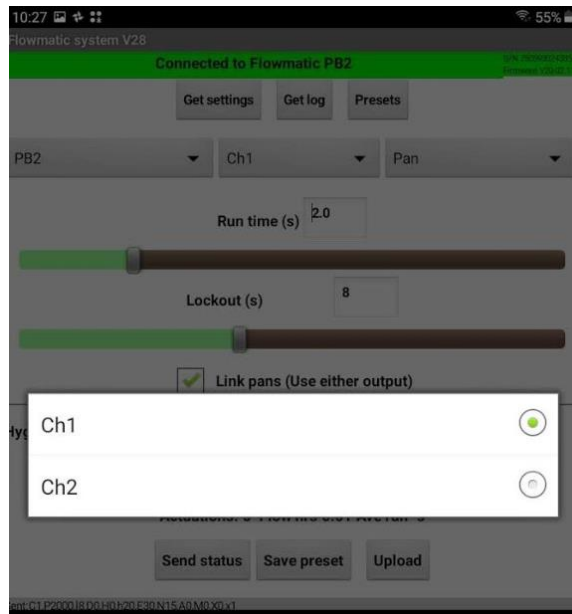

6. Chanel select (middle drop-down menu)
- The PB2 controller has two built in channels. They may be controlled independently or one of the channels to be used as half flush and second channel as full flush for a pan.

7. Designated feature drop-down menu
- The PB2 controller can be used for showers, basins and pans. Depending on the feature selected setting sliders will appear. (e.g. there is only 'Run' time to be set for basin, 'Run' and 'Lockout' times for pans and there is 'Shower end warning' time for showers)
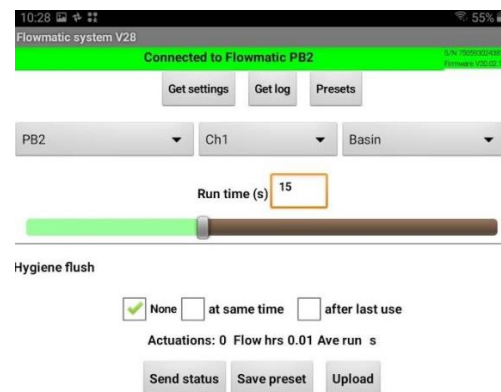
8. Settings for Basin
- Set the channel no. of the solenoid and activation button to be changed.
- Set the required water flow 'Run time' in seconds for the basin.
- Set the Hygiene flush parameters if required.
- Press 'Upload' to upload the settings to the controller.
- The controller can be used in configurations: one button – one solenoid, one button – two solenoids or two buttons – two solenoids.
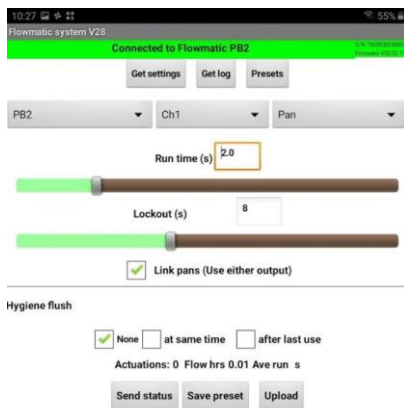
9. Settings for pans.
- The default configuration for a pan is two buttons and one or two solenoids. By marking the 'Link pans' the outputs will work simultaneously.
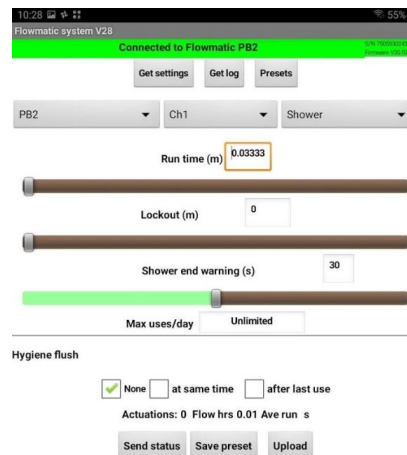- Channel 1 is to be used for the half flush and channel 2 for full flush.
- Set the required time and Hygiene flush for half flush (channel 1) and press 'Upload'.
- Similarly set the required time and Hygiene flush for full flush (channel 2) and press 'Upload'.

10. Settings for shower.
- PB2 controller is capable of controlling two buttons and two showers (solenoids).
- Select channel to be changed.
- Select desired 'Run time'.
- Select desired 'Lockout time' if required or set to "0" if not.
- Select 'Shower end warning'. Recommended only if setting a lock out time.
- Press 'Upload' to store the settings in the controller.
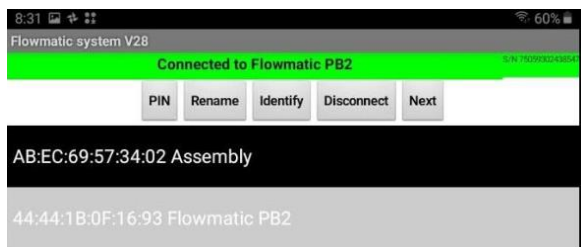
11. Connection menu.
- By pressing the back arrow on Android device, the connection screen will pop up.
- The buttons allow to rename the controller, set new PIN, disconnect or go to setting screen 'Next'.

TROUBLESHOOTING

PROBLEM	CAUSE	RECTIFICATION
Faceplate does not sit flush on wall	Diverter not mounted perpendicular to wall	Remove and re-mount so the mixer body is perpendicular to finished wall
Handle rubs against the flange	The faceplate is not perpendicular to cartridge spline within 1°	Remove and re-mount properly ensuring faceplate is within 1° perpendicular to cartridge spline.
Water flow does not match faceplate markings	Handle not aligned correctly to faceplate	Remove handle and rotate on the spline until handle matches faceplate. Re-tighten
	Outlet on body not connected to the correct service outlet	Change outlet connection on body
No water flow	No power	Check power to transformer is on.
	Faulty solenoid valve	Check electrical connections, Replace solenoid valve
	Water or structural damage to electrical components	Replace damaged electrical components
	Incorrect connections	Check all connections
	Damage to push button lead or power supply lead	Check and replace lead & controllers
	Pressure exceeding 500kPa	Reduce pressure to solenoid to 350 kPa
	Water corroded electrical connections	Replace electronic components
Continuous water flow	Solenoid valve jammed open	Remove obstruction from solenoid valve
	Solenoid installed incorrectly	Reinstall valve correctly

WARRANTY

The warranty set forth herein is given expressly and is the only warranty given by the Galvin Engineering Pty Ltd. With respect to the product, Galvin Engineering Pty Ltd makes no other warranties, express or implied. Galvin Engineering Pty. Ltd. hereby specifically disclaims all other warranties, express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

Galvin Engineering Pty Ltd products are covered under our manufacturer's warranty available for download from www.galvinengineering.com.au Galvin Engineering Pty Ltd expressly warrants that the product is free from operational defects in workmanship and materials for the warranty period as shown on the schedule in the manufacturer's warranty. During the warranty period, Galvin Engineering will replace or repair any defective products manufactured by Galvin Engineering without charge, so long as the terms of the Manufacturer's warranty are complied with.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and Galvin Engineering Pty Ltd shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labour charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, electrical or any other circumstances over which Galvin Engineering has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.

In the absence of a legal or industry definition of anti-ligature or ligature resistant products, when we use these terms, we are referring to products that are designed and manufactured with the intention of reducing the risk of ligature attachment to the product(s).
Galvin Engineering Pty Ltd will always endeavour to design and test our anti-ligature product(s) to reduce the risk of product ligature attachment that may result in serious injury or death.
Whilst all reasonable measures are taken at the time of design, the anti-ligature design of the products are not intended to and will not:
   a. Replace protective measures that need to be taken in the specific circumstances of usage;
   b. Substitute the need for supervision of those who may be at risk;
   c. Protect and or prevent those at risk against any self-harm instances that may occur when installed; and
   d. Protect and or prevent injury when the risks where unknown to us at the time of the design of the product(s).
Galvin Engineering Pty Ltd does not offer and does not represent or warrant that any product(s) for sale that are ligature-free.
Therefore, Galvin Engineering will not be liable for any claims, loss, or damages arising from ligature attachment on our products. It is the purchaser's responsibility to ensure that products purchased and installed are suitable for the environments in which they are installed, and suitable supervision and protective measures are in place to protect those at risk.