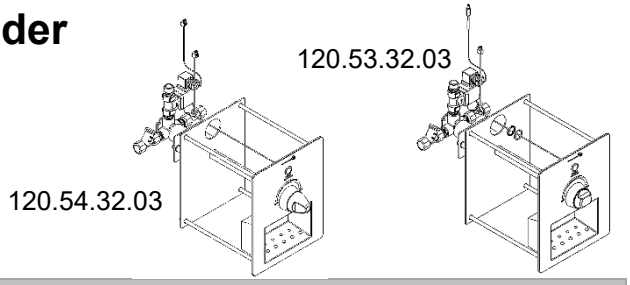
GalvinCare® Lead Safe Ligature Resistant Electronic Ducted Shower Mixers with Soap Holder



PRODUCT CODE:

- **120.53.32.03 (Low Profile Handle)**
- **120.54.32.03 (Ezy-Grip Handle)**

SPECIFICATIONS

- GalvinCare® Electronic shower assemblies provide complete ligature & vandal resistant solution. The unique electronic valve assembly provides a precise delivery of water and is specifically designed for High Risk and Secure Environments. The adjustable temperature control Galvincare® handles allow users to adjust from a cold-water option to the set hot water temperature.
- 4mm-thick, exposed stainless-steel faceplate to suit back mounted applications and features push activation buttons. Plates have no front penetrations and are fixed from the duct.
- Solenoid is a Watermarked high flow, low-pressure loss control valve. The body is made from stainless steel and is hammer resistant.
- These units must be installed with Galvincare® Electronic controller 24V AC electronic.
- Lead Safe™ brass construction for internal fittings. *

***IMPORTANT**: All GalvinCare® assemblies are tested in accordance with AS 3718 and leave our premises in good working order.*

**Our Lead Safe™ product range is compliant with the Lead-Free Requirements of the NCC 2022 Vol. Three, Clause A5G4(2) and NSF/ANSI 372.*

WARNINGS: Special attention to be paid on notes, photos, images, or drawings of assembly steps marked with the warning symbol.

TECHNICAL DATA

Inlet			½" BSP – Female
Outlet			½" BSP – Male
Headwork			Diverter Cartridge
Solenoid	Input Voltage		24V AC – 50Hz
	Power Consumption		4.5VA
	Cable length		5m
	Pressure Range (kPa)	Min	100
		Max	1000
	Temperature (°C)	Min	-30
		Max	95
Sensor	Type		IP68 24V
	Activation		Push Button
	Connections		Terminal Plug 2 Way 3.81mm
	Cable length		5m
Finish			Stainless Steel

***NOTE:** Galvin Engineering continually strive to improve their products. Specifications may change without notice.*

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).
- 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 Engineering.
- 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.
- It is recommended that 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 5 meters of lead on the transformer and a 5 meters lead 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 Electronic® 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.

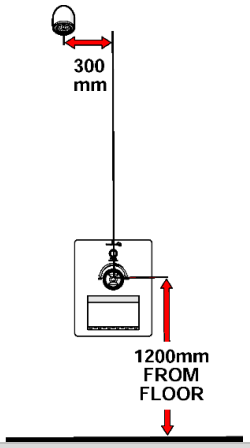
GENERAL INSTALLATION REQUIREMENTS

- Do not cut the wires or extended the existing leads without using a correct lead extension from Galvin Engineering, 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 connecting 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

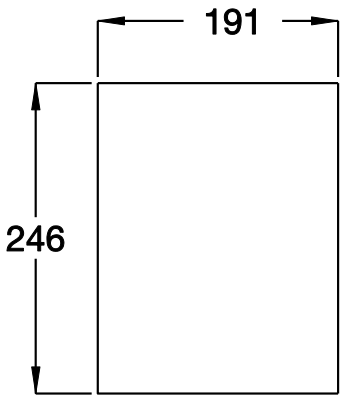
Shower face plate position

- Locate the shower face plate at a suitable distance from the shower rose (we recommend the shower face plate is not positioned directly beneath the shower rose, but at 300mm to the right or left of the centre line of shower rose and at a height of 1200mm from FFL to the centre of the handle).
- Outlets are not supplied and must be ordered separately.

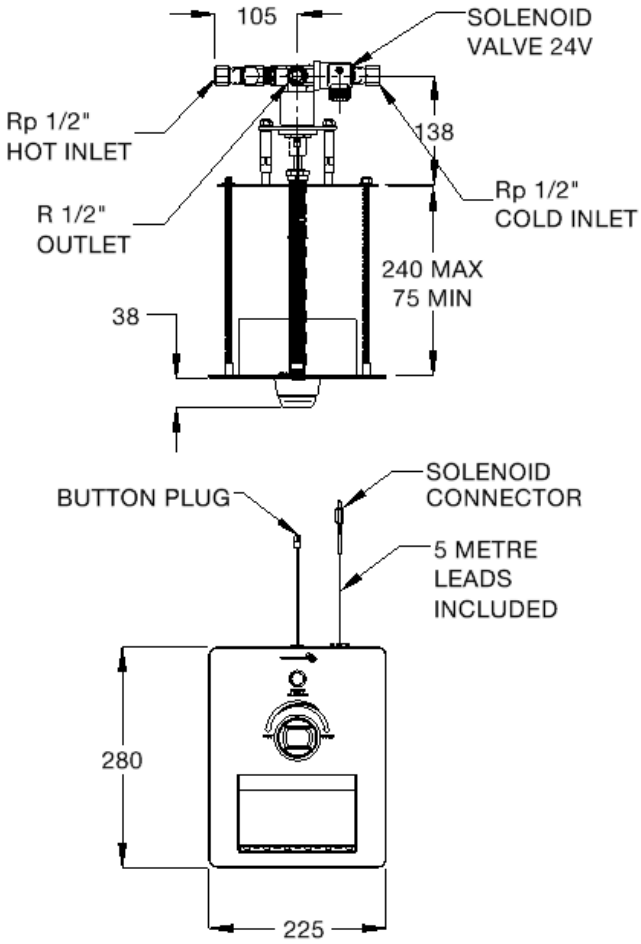


Cut out details for face plate

- Shower assembly to suit wall thickness between 75mm to 240mm. Ensure the cut-out details are as below, and the wall thickness does not exceed 240mm.



Component Dimensions



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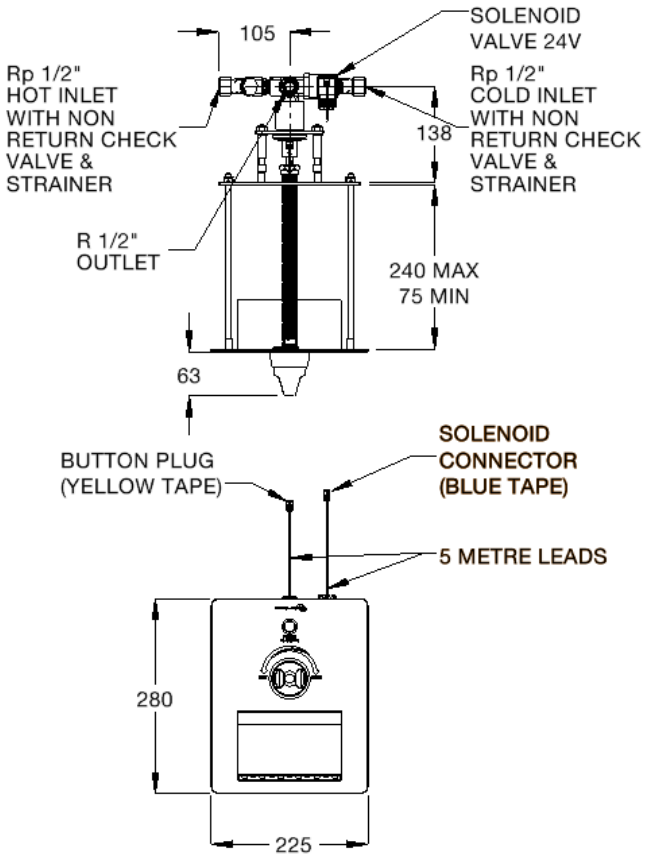

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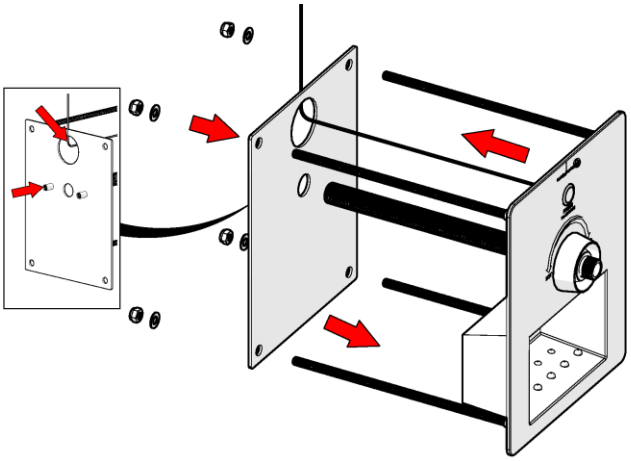
INSTALLATION

Avoid common installation errors **:**

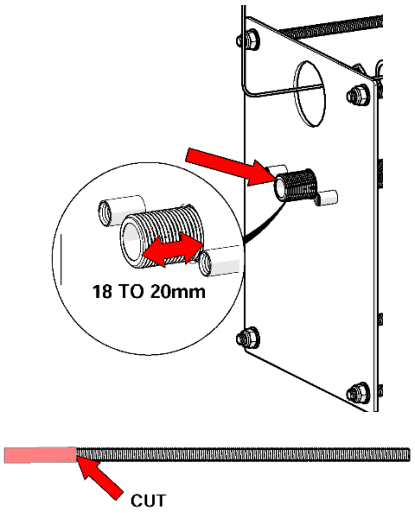
- *Incorrect supply pipe size installed.*
- *Non-compliance to Australian Standards.*
- *Water pressure not tested before installation*
- *Lines not flushed before installation.*
- *No access for service.*



1. Mount face plate

- The stainless steel face plate is always mounted flush to the wall.
- Mount faceplate to the wall using the back plate, washers and nyloc nuts; the two welded nuts on the back plate must be outside the wall cavity.
- Ensure the button lead is fed through the large hole at the top of the back plate and lightly tighten with the Nyloc nuts until the assembly is held
- Apply a thin bead of silicon on the edge of the wall cut out.

Do not force the faceplate to fit onto wall or attempt to disassemble components, as this could result in damage to sensor push button.

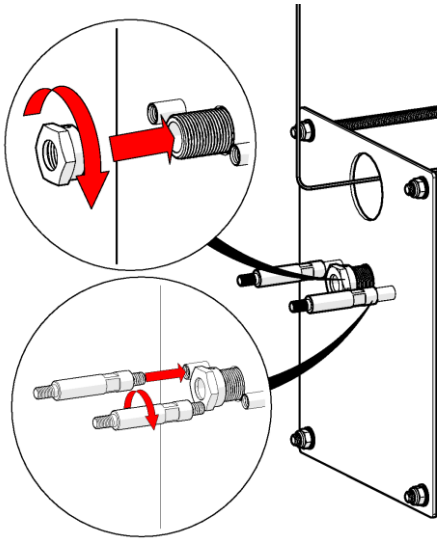


2. Shorten Tail

- Before tightening the Nyloc nuts, check that the threaded tail protrudes past the back plate between 18-20mm. If it is too long mark the threaded tail, remove the back plate and cut to suit.

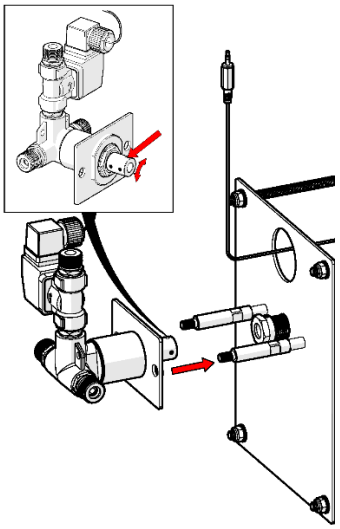
Note: If the four (4) threaded studs are too long these can also be shortened to suit.

Warning: remove the centre handle before shortening. De-burr the threaded tail after cutting and re-assemble into wall. Do not over tighten Nyloc nuts (max. 35 Nm).



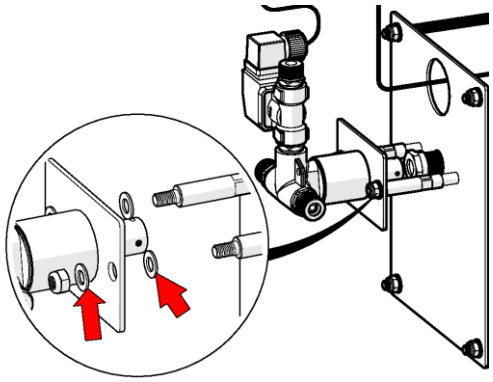
3. Fit Guide Nut and Studs

- Fit the guide nut to the end of the extension tail and tighten.
- Fit the two brass studs into the welded nuts on the back plates and tighten



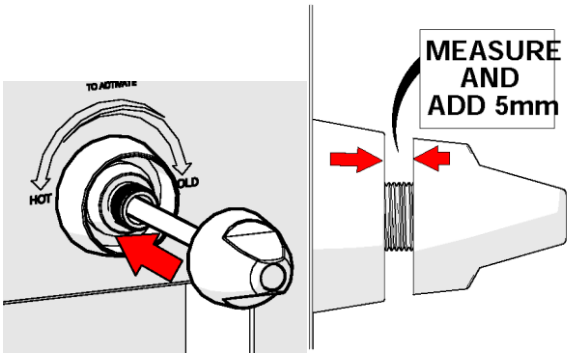
4. Set Diverter to Midway

- Turn the shower diverter from one extreme to the other, this should be 90° of movement.
- Set the diverter cartridge to midway of the movement. In this position the drilled hole in the brass connector should be vertical; this will allow easy drilling of handle



5. Fitting the Solenoid Assembly

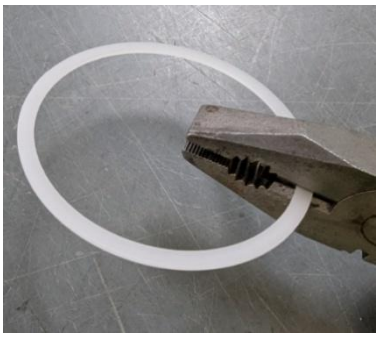
- Fit the solenoid assembly onto the brass studs with washers on both sides of the mounting plate as shown, lightly tighten with the Nyloc nuts until the assembly is held

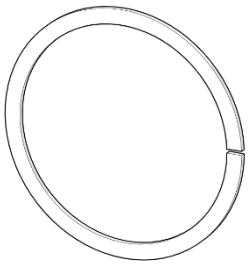


6. Adjust Handle Length

- Insert the handle through the threaded tail and into the brass connector on the mounted solenoid assembly making sure the handle is pushed as far into the brass connector as it will go.
- Measure the distance between the handle and the flange and add 5mm. This is the length that the handle needs to be shortened.

⚠ **Note**: Remove the handle and mark this distance from the end of the shaft and cut, remove any burrs

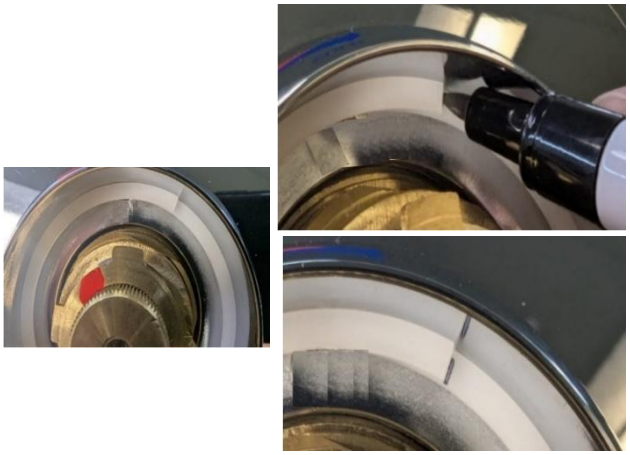




7. Acetal washer initial cut

- Create a cut on one of the two provided Acetal washer circumference as shown. Make sure the cut line is pointing towards washer center. The other washer will be a spare part

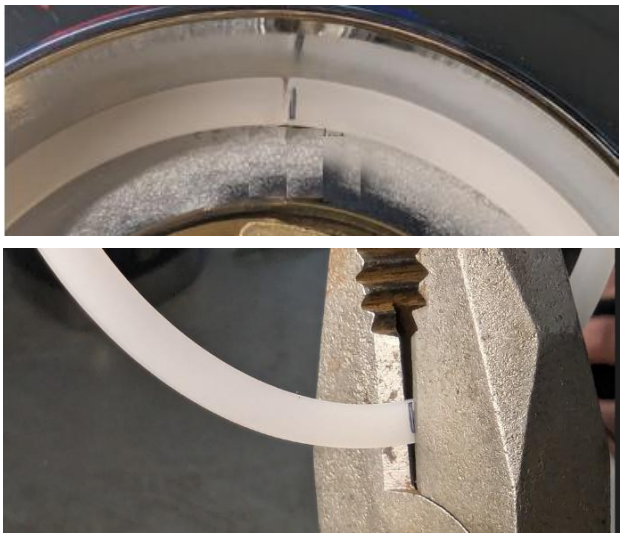
⚠ **Note**: To ensure the washer retains its form and achieves its best fitment, cutting of the washer is required during installation.



8. Acetal washer marking

- Place the split washer inside the flange on the bottom surface as shown. The outer diameter of the washer should touch the inside circumference of the flange.
  - Mark the overlapping part of the split washer as shown.

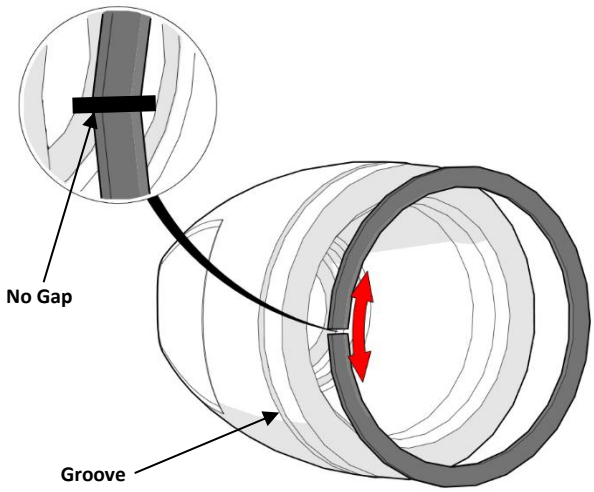
⚠ **Note:** Make sure the washer is positioned concentrically from the assembly.



9. Acetal washer final cut

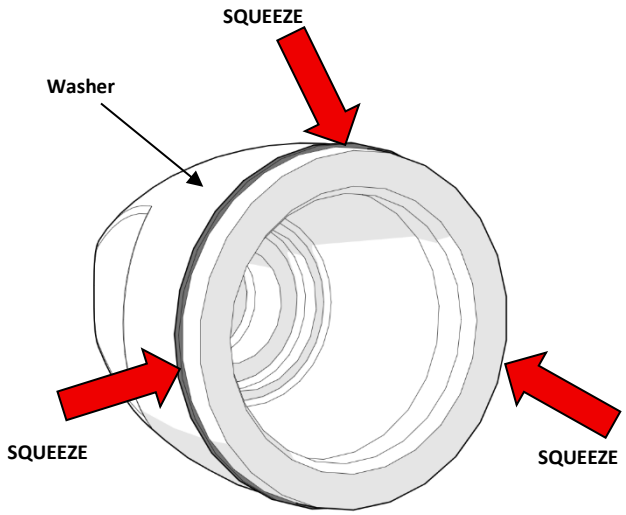
- Take the split washer out of the assembly, cut it at the designated mark, and then put it back into the flange. Finally, check to make sure there's no space between the washer and the flange, and that the washer is positioned correctly.

⚠ **Note:** Make sure the washer is positioned concentrically from the assembly.



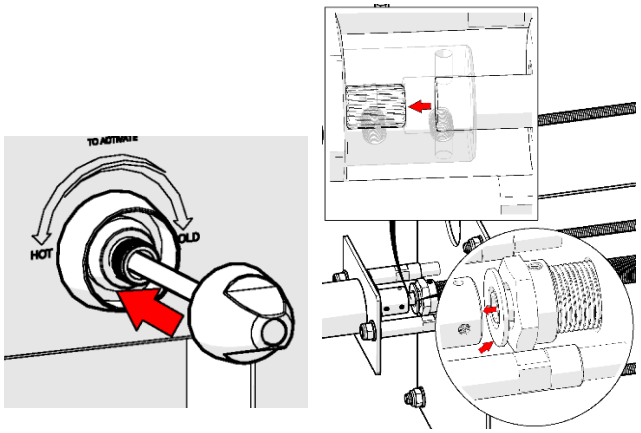
10. Acetal washer placement

- Stretch the split washer gently and fit it into the groove.



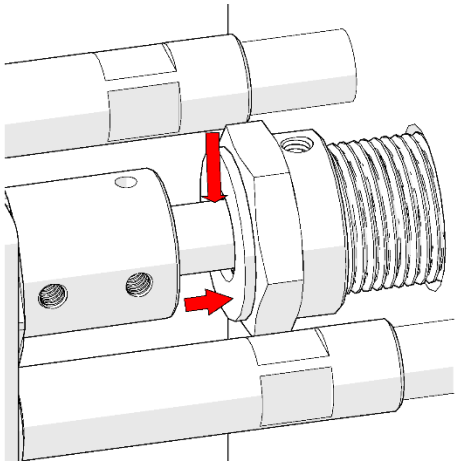
11. Acetal washer positioning

- Fit the split washer in the groove of the handle, squeeze it all around. Keep the washer in the groove of the handle and push the handle into the flange.



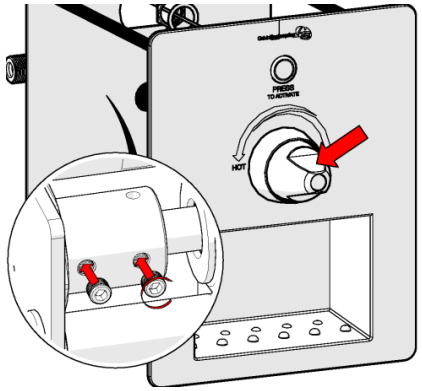
12. Re-assemble Handle

- Re-insert the handle through the threaded tail and the flat washer before entering the Brass connector on the mounted solenoid assembly.
- Ensure the handle is sitting correctly in the flange and is pushed as far into the Brass connector as it will go.



13. Mark Shaft for Cotter Pin

- Hold the flat washer against the guide nut and mark the shaft 2mm from the face of the washer.
- Remove the extended handle and drill a Ø3.0mm hole through the shaft where marked.
- Re-insert the extended handle through the extension tail and the flat washer before entering the connector on the mounted solenoid assembly.

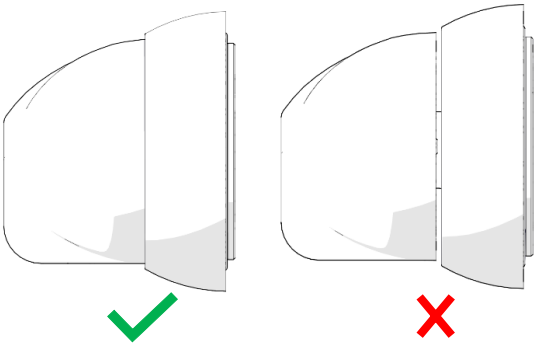


14. Set Handle Position

- Adjust the handle so the flats are horizontal.
- Fit the supplied grub screw into the Brass Connector and lock the handle.
- Check the handle alignment to the solenoid movement is correct. If it is not, loosen the grub screw and adjust before re-tightening

15. Cut gap verification

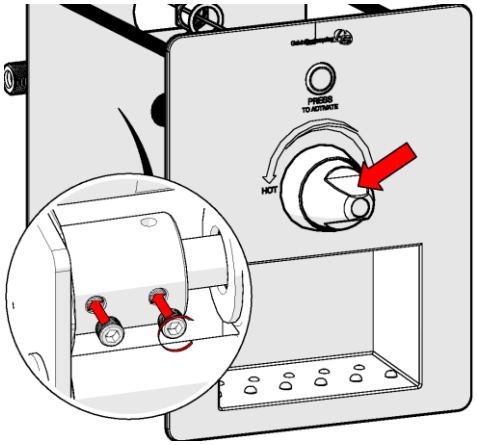
- Once handle is assembled, verify if the cut-gap is less than 1mm. If you see larger gap a new washer needs to be cut and fitted.



16. Handle gap verification

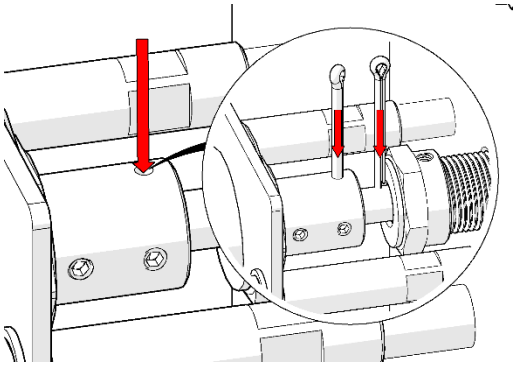
- Verify that the assembled handle is positioned correctly as illustrated.

Note: There must be no exposed gap between the handle and the flange.



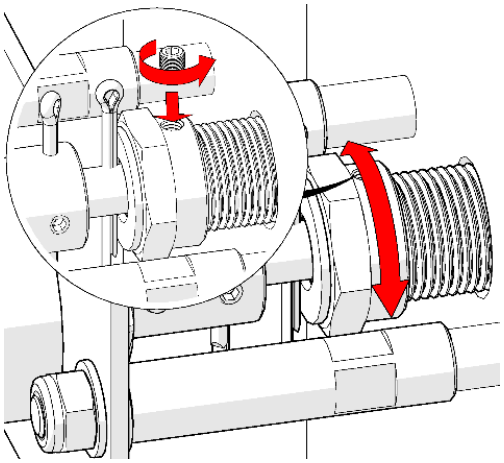
17. Tighten Solenoid Assembly

- Check the handle moves freely and the flats on the handle are horizontal midway through the handle's movement (if the movement appears to be very tight or sticks loosen the Nyloc nuts holding the solenoid assembly and move around on the clearance of the holes until easy movement is achieved).



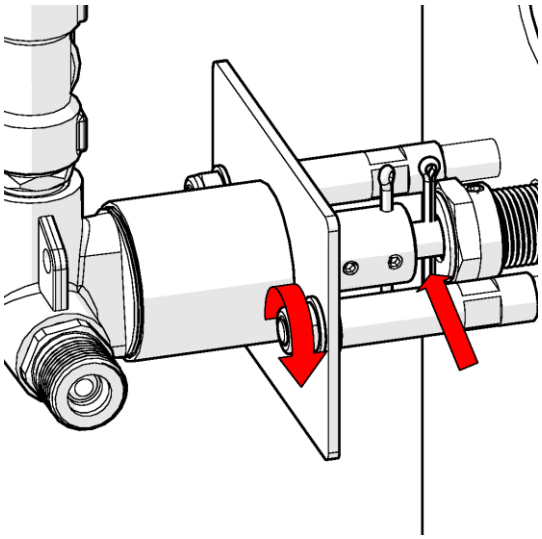
18. Lock Handle

- Using the hole in the Brass connector drill a Ø3.0mm hole through the shaft of the handle
  Fit the cotter pins through the Brass connecter and handle shaft; bend over the ends to stop the cotter pin falling out in use



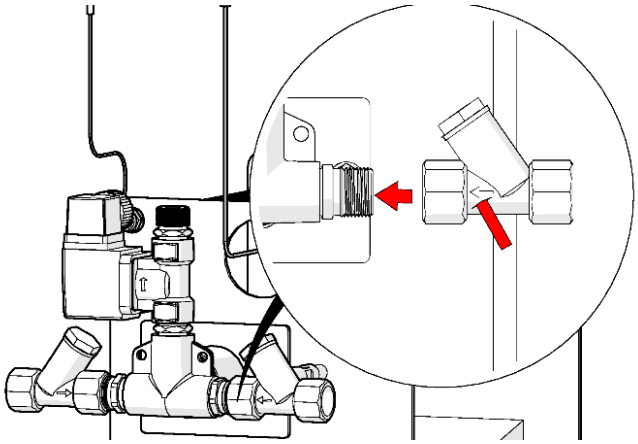
19. Adjust Handle End Float

- Adjust guide nut to limit end float on the handle, do not make too tight as it will affect the easy use of the handle.
- Once the end float has been adjusted lock the guide nut in position with the supplied grub screw.



20. Check

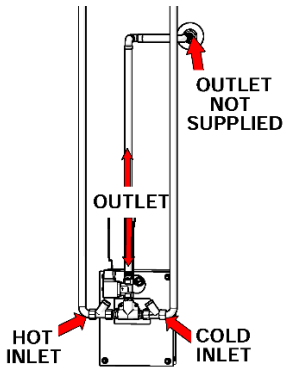
- Ensure all Nyloc nuts and grub screws are securely tightened (max. 35 Nm) and the cotter pins have been bent over to stop them falling out.



21. Fit Y strainers

- The supplied Y strainers are fitted in line. Ensure it is installed in the correct direction (the arrow on the Y strainer body must align with the direction of water flow).

Note: Failure to use these strainers may void the warranty.



22. Connect Water Supply and Outlet

- Connect the water supply to the inlet check valves and the shower rose (not supplied) is connected to the outlet on top of the solenoid assemblies. Turn on water supply and check for leaks.

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

23. Mount and connect control module (must be used with Galvin Engineering Flowmatic control module, it is not supplied with this unit, must order separately).

- Connect the button leads to the input side of the control module and the solenoid leads to the output side. The ends of the leads are colour-coded for easy identification.

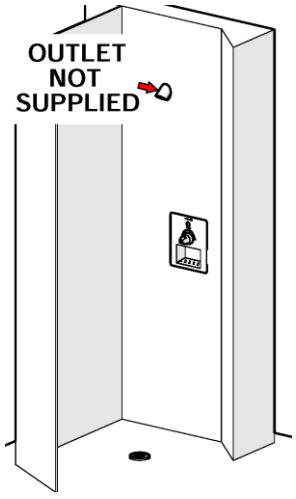
24. Connect the power supply

- Connect the module to the GPO (Not supplied with this unit, must order separately).
- When the button is pushed water should flow from the outlet.

⚠ **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.**

⚠ **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.**

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



Typical Installation

25. Check for correct operation

- Check for correct operation.

⚠ **Shower function: Pressing the illuminated cell call button activates the shower. Once activated the water will flow for the factory preset time of 6 minutes or until deactivated by pressing the button again. Once the time is achieved or the shower is deactivated the factory preset lockout time of 10 minutes will commence.**

⚠ **Shower Pulse Warning (SPW):**
Prior to the shower finishing its preset time the shower will warn the user by pulsing once 30 seconds before finishing allowing the user to quickly finish.

⚠ **Showers Per Day (SPD):**
The shower also has a maximum daily shower feature; the factory setting is 2 showers per day.

⚠ **Run Time:**
The factory preset run time is 6 minutes but can be adjusted from 1-15 minutes in increments of 1 minute.

⚠ **Lockout Time:**
The factory preset lockout time is 10 minutes but can be adjusted from 1-15 minutes in increments of 1 minute. The lockout time feature can be also disabled if required.
Setting details, please contact Galvin Engineering.

TROUBLESHOOTING

PROBLEM	CAUSE	RECTIFICATION
Outer ring on push button not illuminated.	No Power	Check power is reaching transformer
	Leads not connected correctly	Ensure all leads are firmly pushed into connectors
No water flow	No power	Check power is reaching transformer
	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 sensor 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
	Bypass valve lever on the solenoid in the 'open' position	Move the valve handle to the 'closed' position

Maintenance Instructions

Solenoid Valve:

- Turn the water supply off and activate the push button to drain as much water from the installation as possible and then turn the power off at the GPO.
- Depending on the location of the solenoid valve it may be more convenient to remove the solenoid valve completely from the installation to service it.
- The solenoid may be disassembled and checked for debris and cleaned to avoid potential damage to the diaphragm. Please take note of the location of the components and reassemble in the correct order, as there is a spring in the housing that may inadvertently spring out.
- Service or replace the solenoid and re-install into the line. Push the power plug from the sensor back onto the solenoid.
- It is recommended that the line strainer be serviced and cleaned at this stage to ensure that dirt and grit isn't restricting the flow
- Ensure the bypass tap on the valve is in the closed position

Push Button, Face Plate, Control Module and Power Transformer

These items are non-serviceable products. If damaged, they must be replaced.
If there appears to be any problems with these items, please contact Galvin Engineering.

⚠ **Note: Before attempting to replace any of these items check that you have access to re-run the connection leads. If you do not have access or have any doubts, please contact Galvin Engineering for advice before commencing replacement.**

WARRANTY

Galvin Engineering products are covered under our Manufacturer's Warranty. Galvin Engineering products must be installed in accordance with the installation instructions and in accordance with AS 3500 and NCC Volume Three, relevant Australian Standards and local authorities applicable to product being installed. Water and electrical supply conditions must also comply to the applicable national and/or state standards, failing to comply with these provisions may void the product warranty and affect performance of the product.

Please visit www.galvinengineering.com.au to view the full warranty, our Installation Compliance and Maintenance & Cleaning information as well as any other additional information.

DEFINITIONS AND DISCLAMER

Galvin Engineering manufactures a range of products marked as Ligature Resistant or Vandal Resistant. Please visit www.galvinengineering.com.au to read the definition of these terms and the disclaimer that applies to these products.

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