

CliniMix® CP-BS Duct Mounted Thermostatic Progressive Shower Mixer with GalvinCare® Handle

PRODUCT CODES:

- SMVA22-NB (WM-TMVPMSCSID)

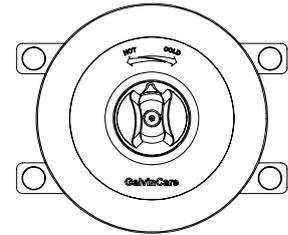


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1.0 INTRODUCTION

The CliniMix® Duct Mounted Thermostatic Progressive Shower Mixer with GalvinCare® Handle is a high-performance thermostatic mixing valve suitable for a wide range of applications. The mixing valve has the following features:

- This progressive shower mixer provides state of the art features to comply with healthcare requirements.
- Enables water to be mixed closer to the point of discharge, minimising stagnant warm water which provides ideal conditions for legionella bacteria to grow.
- Smooth internal components and body reduces scale build-up and bacteria growth.
- Maximum temperature limiter fitted for protection from accidental scalding.
- Clean smooth lines facilitate fast and easy cleaning.
- All servicing and commissioning can be done without removing the device. Easy access isolators help minimise time spent on commissioning and maintenance.
- Designed to provide stable mixed temperature with rapid shut down in the event of cold or hot water supply failure.
- Approved to: TMV3, Department of Health performance specification D08.

IMPORTANT: All CliniMix® Thermostatic Mixers are tested in accordance with Department of Health (DoH) Health technical Memorandum 04-01: Supplement, Performance specification D08: thermostatic mixing valves (healthcare premises). Document to be read in conjunction with CliniMix® Progressive Thermostatic Mixing Valve manual.

2.0 TECHNICAL DATA	
Inlet	½" BSP – Female
Outlet	½" BSP – Female
Headwork	Thermostatic mixing valve
Working Pressure Range (bar)	Min 0.5
	Max 5.0
Working Temperature Range (°C)	Min 5
	Max 65
Check Valves	Type DW14GF
	Size DN10
Finish	Chrome
Minimum Wall Cavity Diameter (mm)	160
NOTE: Galvin Specialised continually strive to improve their products. Specifications may change without notice.	

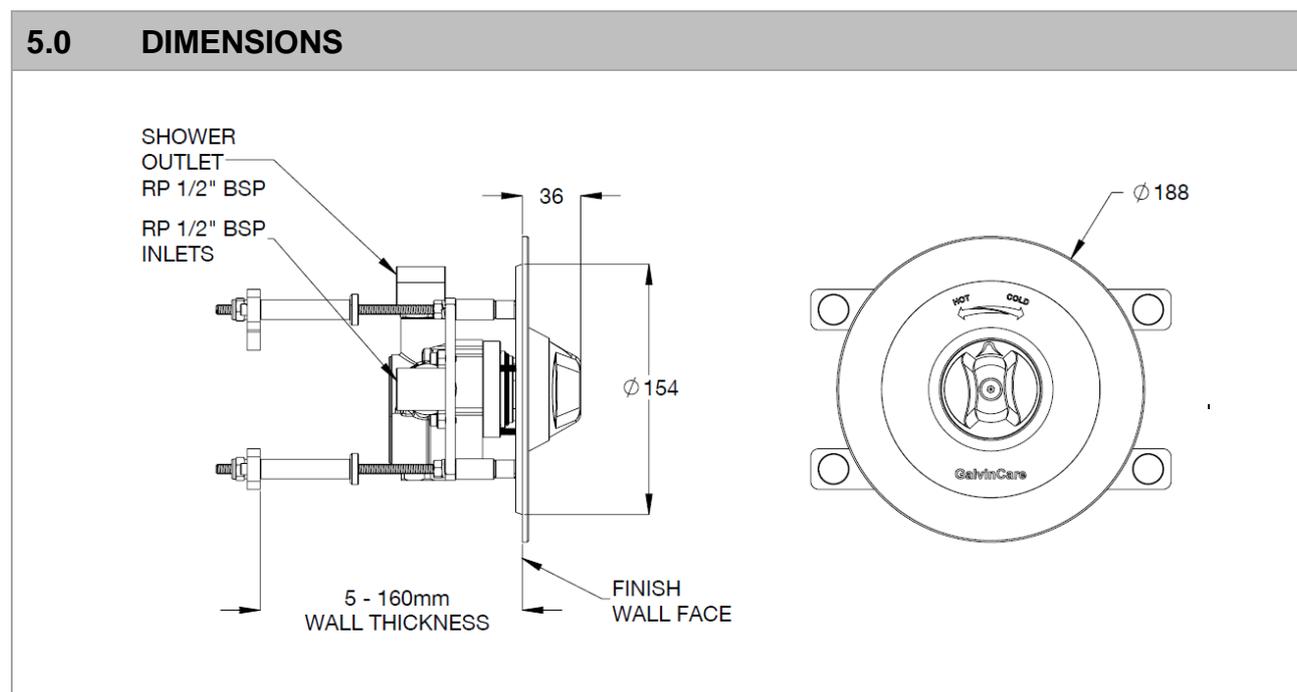
Table 1

3.0 SAFETY

The CliniMix® Duct Mounted Dementia Thermostatic Progressive Shower Mixer with GalvinCare® Handle is a high-performance valve designed to give stable and dependable operation, provided it is installed, commissioned, operated and maintained as per the recommendations outlined in this manual. It should be noted however that this valve should not be considered as an alternative to adequate supervision and duty of care during its use and operation.

4.0 DESCRIPTION

This manual covers the CliniMix® Duct Mounted Thermostatic Progressive Shower Mixer with GalvinCare® Handle. This product is designed to provide water from ambient cold up to a safe maximum temperature for showering. This mixing valve is supplied with integral isolating valves, strainers, check valves, flow regulators located in-body and a facility for thermal disinfection of the cold inlet side and mixed water outlet.



6.0 WATER SUPPLY CONDITIONS

INTRODUCTION

This CliniMix® Duct Mounted Thermostatic Progressive Shower Mixer with GalvinCare Handle is manufactured to the highest standards. When installed the supply conditions detailed below must be observed.

SUPPLY PRESSURE REQUIREMENTS

This mixer is designed to be installed on all types of plumbing systems.

Hot and cold water supply pressures should be reasonably balanced; however, the mixer will function within specification on unequal pressures up to 10:1.

The mixer has integral isolating valves which permit servicing of the strainer, check valve/flow regulator and thermostatic cartridge. They are also used for thermal disinfection.

The minimum pressure for the correct thermal operation is 0.2 bar. However, to achieve an acceptable flow performance at very low pressures it may be necessary to remove the combined check valve and flow regulators and replace them with simple check valves.

Hot Temperature Supply Range (°C)	55 - 65
Cold Temperature Supply Range (°C)	5 – 20
Maximum Static Pressure (bar)	10.0
Operating Working Pressure (bar)	0.5 – 5.0
Maximum Outlet Pressure (bar)	5.0
Permitted Supply Pressure Variation	10:1
Min. Temp Differential (Mix to Hot) for Fail-Safe	10°C
Factory Set Thermostatic Temp. (°C)	41
Minimum Flow Rate for Stable Outlet Temperature	6 LPM
Maximum Thermostatic Temperature (°C)	43°C

Table 2.

7.0 APPLICATION

This thermostatic mixer has been independently tested by NSF and certified as meeting the requirements of the DoH D08 specification under the TMV3 Scheme as being suitable for use on the following:

Code	Application	Range	Mixed Water Temp
HP-S	Shower	High Pressure	41°C

Table 3.

For information on the following:

Isolation valves	Section 11
Backflow prevention	Section 2 & Section 11
Adjusting mixed water temperature	Section 13

8.0 INSTALLATION

The CliniMix® Thermostatic Progressive Mixing Valves must be installed using the appropriate Standard, Code of Practice and legislation applicable to point of install.

The CliniMix® Thermostatic Progressive Mixing Valves must be installed by a licensed plumber.

If the valve is not installed correctly then it will not function correctly and may put the user in danger. It may also void the warranty of the valve.

Prior to the installation of the valve, the system must be checked to ensure that the system operating conditions fall within the recommended operating range of the CliniMix® Thermostatic Progressive Mixing Valve. If the hot water supply temperature is greater than 90° Celsius, the valve may be damaged. If the temperature of the hot water will rise above 90° Celsius a suitable temperature limiting valve must be fitted to the hot water supply, prior to the inlet fittings. This temperature limiting valve must be installed as per the manufacturer's instructions. It is important that both inlet dynamic supply pressures are 5.0 bar or less. If either supply pressure exceeds 5.0 bar then a suitable pressure reducing valve must be fitted prior to the inlet control valve to reduce the pressure to an acceptable limit.

These pressure reducing valves must be installed as per the manufacturer's instructions. To achieve optimum performance from the valve it is recommended that the inlet pressures are balanced to within 10% of each other.

To ensure that the mixing valve operates correctly, it is necessary that the pipe-work is thoroughly flushed with clean water before the valve is installed. This will remove any physical contaminants from the pipe-work, ensuring trouble-free operation. During the flushing procedure, care should be taken to prevent water damage occurring to the surrounding area.

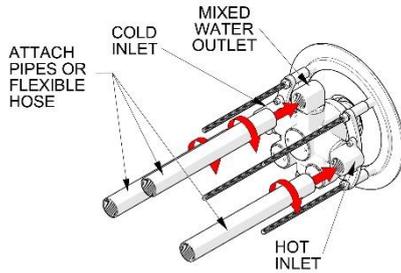
The valve should be installed so it can be easily accessed for maintenance or servicing.

During installation or servicing, heat must not be applied near the mixing valve or inlet fittings, as this will damage the valve and inlet fittings internals. Failure to comply with this requirement will damage the valve and fittings. It will put the user at risk and it will void the warranty of the valve.

Note: To effectively control microbial hazards during system design, installation, commissioning and maintenance, the requirements of local legislation shall be adhered to.

NOTE: In some installations, certain types of tapware devices such as flick mixers and solenoid valves are used. The water pressure may be seen to spike outside that recommended for the valve, during rapid shut off conditions with these types of devices. Even if the spike only lasts a split second it is still considered to be outside the operating conditions and may cause the valve to operate incorrectly. In the event that this does occur, measures must be taken to control the spike, such as the installation of an inline pressure reducing valve directly before the valve inlets.

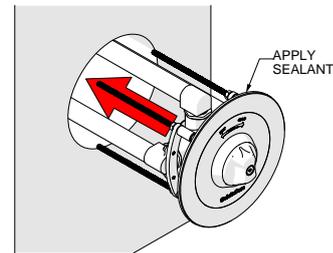
8.1 SHOWER INSTALLATION



1. Attach pipes/hoses

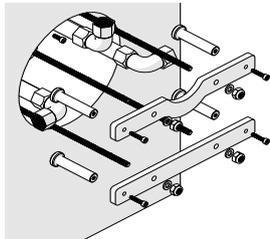
- Fit hot, cold and outlet water pipes or flexible hoses to the elbows before placing the shower unit into the wall.

Note: Do not use heat on these connections as it will damage the Progressive shower unit.



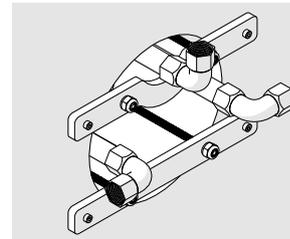
2. Fit Faceplate

- Apply silicon sealant to the lip on the faceplate to seal outer faceplate to the wall.
- Fit the progressive shower unit complete with pipes/flexible hoses into the wall.



3. Secure to wall

- Secure the unit using the supplied back brackets and Nyloc nuts.
- **Note:** Use the spacers if necessary for thinner walls, remove for thicker walls.
- Wipe excess sealant from between faceplate and wall.



4. Fit Outlets & Inlets

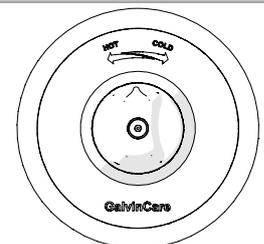
- Fit shower outlet and hot & cold water supplies to the elbows

9.0 OPERATION AND TESTING

After installation, check for leaks and correct operation.

Note: If handle is hard to turn or rubs, follow step 1 of section 11 to remove the handle and loosen the flange (there is no need to remove the flange or inner faceplate). Re-tighten the flange and handle according to steps 7 and 8 of section 11 to ensure easy to use.

As the handle is rotated anti-clockwise the delivered water progresses from cold through warm to the pre-set maximum temperature of approximately 41°C.



10.0 COMMISSIONING

Method for Commissioning Thermostatic Mixing Valves

Purpose

Since the installed supply conditions are likely to be different from those applied in the laboratory tests it is appropriate, at commissioning, to carry out some simple checks and tests on each mixing valve to provide a performance reference point for future in-service tests.

Procedure

Check that:

- a. the thermostatic valve is appropriate for the application or designation.
- b. the water supplies are appropriate for the installation and for the designation of the valve
- c. the mixed water temperature is appropriate for the application.

Adjust the temperature of the mixed water in accordance with the manufacturer’s instructions and the requirement of the application and then carry out the following sequence:

- a. record the temperature of the hot and cold water supplies
 record the pressures of the hot and cold water supplies
- b. record the temperature of the mixed water at the maximum available flow
- c. isolate the cold water supply to the mixing valve and observe and record the mixed water outlet

If there is a flow stream after 5 s then collect any water discharging into a suitably graduated measuring vessel for 60 seconds if the volume of water collected is greater than 120ml then further investigation is needed.

If there is no flow or if the volume of water collected is less than or equal to 120ml, then restore the cold water supply, after 15 seconds record the mixed water temperature.

Verify that this temperature does not differ from the temperature taken in **b)** above by 2°C, (this is a restoration test after a failure of the cold water supply and some deviation of the mixed water outlet temperature may be expected).

If the mixed water temperature differs by more than 2°C from the set temperature taken at **b)** above, then recheck the supply conditions or re-commission.

The valve must then be adjusted and re-commissioned in accordance with the manufacturers’ instructions.

Note: Consider checking the following:

- the supply conditions for normal use are within the conditions specified in table 2;
- the in-line or integral strainers and check valves are clean;
- any isolating valves are fully open;
- the thermostatic mixing valve installation has been undertaken in accordance with the manufacturer’s instructions;
- the temperature differential of the thermostatic mixing valve is appropriate for the supply conditions, in accordance with the manufacturer’s instructions;
- the designation of use of the thermostatic mixing valve matches the intended application, table 2;

NOTE: The final stabilised mixed water temperature should not exceed the values in Table 4.

- d. record the equipment, thermometer etc. used for the measurements

Application	Mixed water temperature °C
Shower	43

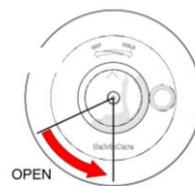
Table 4

Shut Down Test

Once the correct outlet temperature has been achieved, the valves internal mechanism should be exercised at least 3 times by alternately shutting off the hot and cold supplies while the mixer is set in the full hot position.

Shut Down Test 1

With the mixer still set in the full hot position (handle fully turned anti-clockwise) and with both supplies turned on, allow the mixed water temperature to stabilise for at least 15 seconds and note the outlet temperature. While holding a digital thermometer in the outlet flow, quickly isolate the cold water supply to the valve.



Handle in HOT position

The outlet flow should quickly reduce to be less than 0.1L/min following the isolation. Recording of the temperature should continue after isolation and should not exceed the maximum temperature set out in the applicable standard or code of practice for each state.

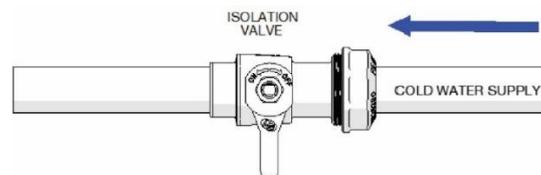


Figure 7

Restore the cold-water supply to the valve. After the mixed water temperature has stabilised note the outlet temperature ensuring the outlet temperature has re-established. The time taken to stabilise the temperature should not exceed the maximum time set out in the applicable standard or code of practice for each state.

Shut Down Test 2

With the mixer still set in full hot position and with both supplies turned on allow the flow to stabilise for at least 15 seconds and record the temperature. Quickly isolate the hot water supply to the valve.

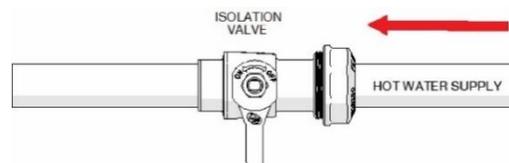


Figure 8

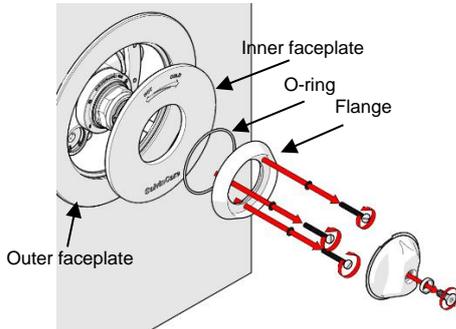
The outlet flow should quickly reduce to be less than 0.4L/min following the isolation. The volume of mixed water discharged for a period of between 5-35 seconds should be measured and should not exceed the maximum volume set out in the applicable standard or code of practice for each state.

Restore the hot water supply to the valve and measure and record the outlet temperature after the mixed water temperature has stabilised. The time taken to stabilise the temperature should not exceed the maximum time set out in the applicable standard or code of practice for each state.

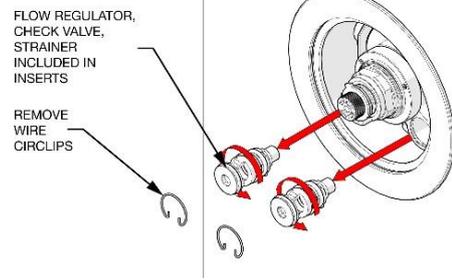
Ensure that all details of the Commissioning Report are completed, and a copy is kept with the installer and owner of the premises.

The valve is now commissioned, and it can be used within the technical limits of operation.

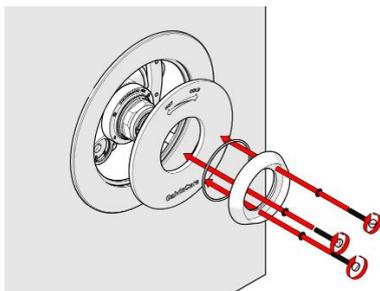
11.0 ISOLATE INLETS AND CLEAN FILTERS



1. To isolate the shower, remove the handle and flange by unscrewing and carefully remove the inner faceplate and o-ring. (As shown)

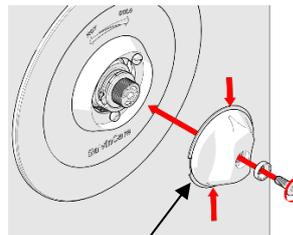


2. Recommended the shower is isolated at supply
3. Remove the two wire clips and unscrew the two assemblies. As they are removed the water supply to the valve will be isolated.
4. The strainers and check valves can now be examined and cleaned or replaced as necessary.
5. Re-assemble the strainer, check valves and re-fit the wire clips.
6. Turn on water supply.

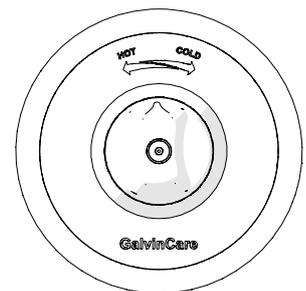


7. Fit the inner faceplate into the outer faceplate. Ensure the marking on the top of the plate is positioned correctly.

Note: Before tightening the flange make sure the handle fits correctly. Put screws into flange and tighten finger tight, the flange should still be able to move. Slide the handle onto spline and move the flange until central to the handle. Remove handle and tighten the screws (it is best to tighten the screws in sequence a little at a time to avoid the flange moving). Refit handle.



Plastic washer



8. Ensure a plastic washer is located in a handle outer groove. Adjust the handle so the arrow shape on top of the handle matches the marking on the faceplate. Squeeze the plastic washer, push the handle into the flange, and fasten the screw.

Note: To make it easier to remove the handle use a M10 screw and fit it into the handle.

12.0 IN SERVICE TESTING

Purpose

The purpose of in-service testing is to maintain assured performance and to provide records of the thermal performance of the thermostatic mixing valve, consistent with this standard and the risk assessment carried out by the water safety group.

In service test Procedure

Carry out the following In-service test sequence:

- a. For all outlets measure and record the temperature of the mixed water at the maximum available flow. If required the mixed water temperature may be readjusted up to a maximum temperature as indicated in table 2.

Note: - After risk assessment a temperature that is lower than the maximum temperature allowable for the designated installation (vulnerable people) can also be set if deemed appropriate to do so.

- b. Isolate the cold water supply to the mixing valve and observe the mixed water outlet.

If there is a flow stream after 5 s then collect any water discharging into a suitably graduated measuring vessel for 60 seconds if the volume of water collected is greater than 120ml then re-commissioning or service work is needed.

If there is no flow or if the volume of water collected is less than or equal to 120ml, then restore the cold water supply, after 15 seconds record the mixed water temperature.

Verify that this temperature does not differ from the temperature taken in a) above by 2°C (this is a restoration test after a failure of the cold water supply and some deviation of the mixed water outlet temperature may be expected).

If the mixed water temperature differs by more than 2°C from the set temperature taken at a) above, then recheck the supply conditions or re-commission.

The valve must then be re-adjusted and re-commissioned in accordance with the manufacturer's instructions.

NOTE: - In-service tests should be carried out with a frequency which identifies a need for service work before an unsafe water temperature can result. In the absence of any other instruction or guidance the procedure described below may be used

Frequency of in-service testing (informative)

In the absence of any other instruction or guidance on the means of determining the appropriate frequency of in-service testing, the following procedure may be used:

Changes to the mixed water outlet temperature may be attributed to a change in the supply conditions from those experienced at the time of the previous audit(s). The water supplies must be audited (see flowchart Stage 1) to ascertain where remedial action is required i.e. supplies or valve.

6 to 8 weeks after commissioning carry out the 1st post-commissioning test

12 to 15 weeks after commissioning carry out the 2nd post-commissioning test

If there is a difference between the 1st and 2nd post-commissioning tests of less than 2°C, then the next in-service test can be deferred to 24 to 28 weeks after commissioning if there is a difference between the 1st and 2nd post-commissioning tests of greater than 2°C, then the next in-service test should be carried out at 18 to 21 weeks after commissioning.

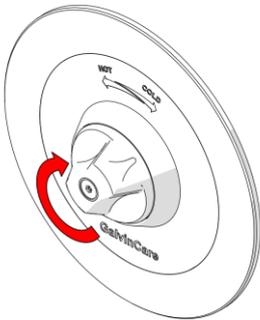
The general principle to be observed after the first 2 or 3 in-service tests is that the intervals of future tests should be set to those which previous tests have shown can be achieved with no more than a small change in mixed water temperature.

During servicing, note the following:

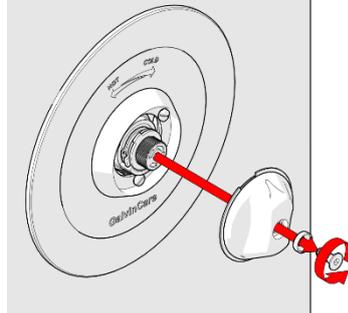
1. Repeat the procedure of recording and checking supply temperatures. (The same type of measuring equipment should be used)
2. If the temperature has changed significantly from the previously recorded values, the following should be checked:
 - a. All integral valve filters are clear of obstruction.
 - b. All integral check valves are clean and working properly to prevent backflow.
 - c. Any isolating valves are fully open.
 - d. The thermostat is free of debris.

When satisfied with the mixed outlet temperatures re-record the temperatures.

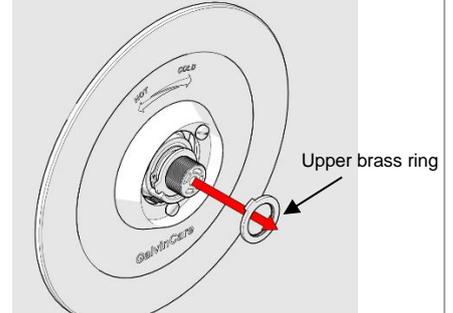
13.0 ADJUSTMENT OF THE MIX TEMPERATURE



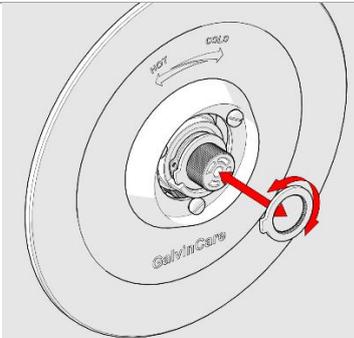
1. Set the handle to cold position.



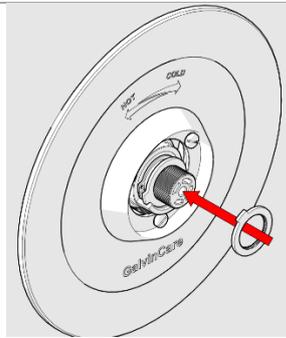
2. Unscrew the tamper proof screw from handle. Pull out handle assembly from the body.



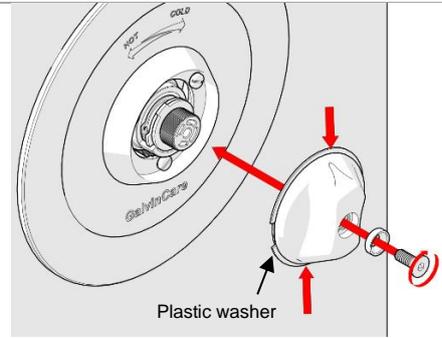
3. Remove the upper brass ring (closure setting ring). Make sure the control rod doesn't rotate during the next steps.



4. Remove the lower brass ring (temperature setting ring) and rotate the brass ring clockwise to increase temperature or anti-clockwise to decrease. Refit to spline in new position.

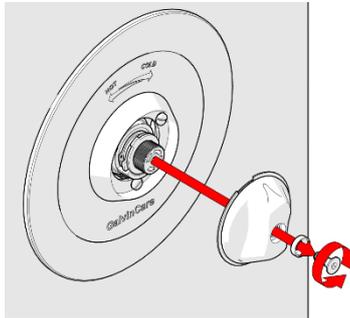


5. Reposition the upper ring in the same position against step.



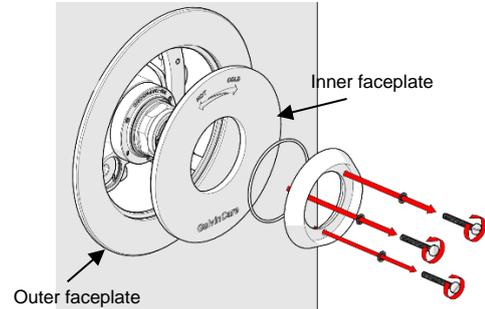
6. Once set, fit the plastic washer in the outer groove of the handle and then reverse step 2. Squeeze the plastic washer to reassemble.
7. Re-test temperature to ensure correct operation.

14.0 REMOVING AND INSPECTING MIXER CARTRIDGE



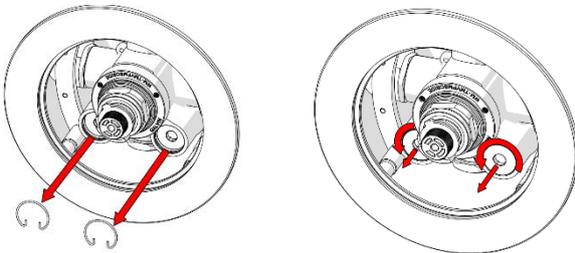
1. Remove handle assembly

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



2. Remove flange and faceplate

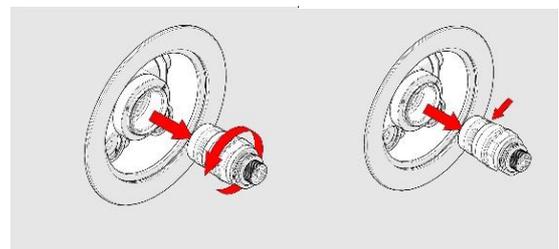
- Unscrew the three screws and pull out the flange and inner faceplate from unit. **Do not remove the outer faceplate.**



3. Isolate the shower

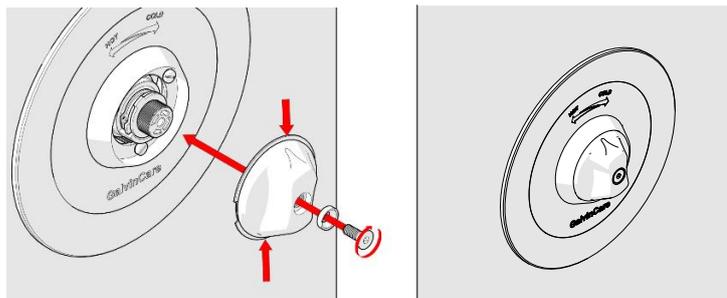
- Recommended the shower is isolated at supply.
- To isolate the shower, remove clips, and loosen the isolators in an anti-clockwise direction until it's flush with the face of the body. This closes the shut off valves.

Do not fully remove isolators.



4. Remove cartridge nut and check cartridge

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



5. Re-assemble

- To re-open the shut off valves tighten the flow regulator/check valve/filter units until tightened (do not over tighten) and refit the two clips.
- Check for leaks and correct operation.
- Ensure a plastic washer is located in a handle outer groove.
- Re-assemble, by reversing steps 4 to 1. For the handle assembly (step 1), squeeze the plastic washer during pushing it on the spline.

Note: Before tightening the flange make sure the handle fits correctly. Put screws into flange and tighten finger tight, the flange should still be able to move. Slide the handle onto spline and move the flange until central to the handle. Remove handle and tighten the screws (it is best to tighten the screws in sequence a little at a time to avoid the flange moving). Refit handle.

15.0 MAINTENANCE

Thermostatic Mixing Valves are precision products and as such any maintenance needs to be undertaken in a clean environment and in accordance with the manufacturer's instructions.

The purpose of servicing regularly is to monitor any changes in performance due to changes in either the system or the product. This may highlight the need to adjust either the supply system or the product. These products should be checked at 6 to 8 weeks and again at 12 to 15 weeks after commissioning. The results are to be compared against original commissioning settings.

If there are no significant changes at the mixed temperature outlet then a 6 monthly servicing cycle may be adopted. Otherwise, servicing checks should be carried out more frequently (e.g. every 4 months).

Follow the recommended maintenance procedures detailed in this section.

During servicing, note the following:

3. Repeat the procedure of recording and checking supply temperatures. (The same type of measuring equipment should be used)
4. If the temperature has changed significantly from the previously recorded values, the following should be checked:
 - e. All integral valve filters are clear of obstruction.
 - f. All integral check valves are clean and working properly to prevent backflow.
 - g. Any isolating valves are fully open.
 - h. The thermostat is free of debris.

When satisfied with the mixed outlet temperatures re-record the temperatures.

16.0 DISINFECTION

A disinfection kit is available. For more information please visit www.galvinengineering.com.au.

17.0 TROUBLESHOOTING

PROBLEM	CAUSE	RECTIFICATION
The desired mixed water temperature cannot be obtained, or valve is difficult to set.	<ul style="list-style-type: none"> - Hot and cold supplies are fitted to the wrong connections - Thermostatic cartridge contains debris or is damaged - Strainers contain debris - Non-return devices are damaged 	<ul style="list-style-type: none"> - Refit the valve with Hot/Cold supplies fitted to the correct connections - Clean the Cartridge ensuring that all debris is removed, and components are not damaged. Replace if necessary - Clean strainers ensuring debris is removed - Check non-return device is not jammed. Clean it if necessary - Check for airlocks in the water supply
When the water is set at cold, the blended temperature is too hot	<ul style="list-style-type: none"> - Hot & Cold water supply connections are installed in reverse. 	<ul style="list-style-type: none"> - Refit the valve with Hot/Cold supplies fitted to the correct connections
The thermostatic mixing valve will not shut down	<ul style="list-style-type: none"> - The hot to mix temperature differential is not 10°C or greater - Thermostatic cartridge contains debris or is damaged - Non-return devices are damaged 	<ul style="list-style-type: none"> - Raise hot water temperature - Clean the cartridge ensuring that all debris is not jammed. Clean if necessary
Mix temperature unstable	<ul style="list-style-type: none"> - Flow rate below 2L/min - Thermostatic cartridge contains debris or is damaged - Strainers contain debris - Non-return devices are damaged 	<ul style="list-style-type: none"> - Rectify any pressure deterioration - Clean the cartridge ensuring that all debris is removed, and components are not damaged. Replace if necessary - Clean strainers ensuring debris is removed - Check non-return device is not jammed. Clean if necessary
Mix temperature changing over time	<ul style="list-style-type: none"> - Inlet conditions (pressure or temperatures) are fluctuating - Strainers contain debris 	<ul style="list-style-type: none"> - Install suitable pressure control valves. - Clean strainers ensuring debris is removed
Either full hot or cold flowing from outlet fixture	<ul style="list-style-type: none"> - The upper temperature ring is incorrectly set - Hot/Cold water has migrated to another inlet - No flow from Hot and Cold supplies <ul style="list-style-type: none"> - damaged check valves - Refer also to fault/symptom 1 & 2 	<ul style="list-style-type: none"> - Re-set temperature to between 35-46°C as required - Replace faulty check valves
Water is not flowing from outlet	<ul style="list-style-type: none"> - Hot or cold water failure - Thermostatic cartridge contains debris or damage - Strainers contain debris 	<ul style="list-style-type: none"> - Remove aerator and clean then reinstall - Restore inlet supplies and check mix temperature - Clean the cartridge ensuring that all debris is removed, and components are not damaged. Replace if necessary - Clean strainers

18.0 WARRANTY

The Galvin Engineering CliniMix Thermostatic Progressive Mixing Valves is guaranteed free from manufacturing faults for a period of 12 months, subject to the condition outlines below;

GALVIN ENGINEERING PRODUCT WARRANTY

Subject to the warranty conditions and exclusions set out below, Galvin Engineering products are warranted to be free from defects in materials and/or workmanship for a period of 12 months service life, and if found by Galvin Engineering to be so defective will be replaced as set out below. If the product is sold by a party other than Galvin Engineering, then it is sold by the seller as principal and the seller has no authority from Galvin Engineering to give any additional warranty on behalf of Galvin Engineering.

The benefits of this warranty are in addition to all other rights and remedies which the purchaser may have under the Trade Practices Act or similar laws of each State and Territory in Australia.

Warranty Conditions and Exclusions

Conditions:

1. The TMV must have been installed by a licensed plumber in accordance with the Galvin Engineering Installation Instructions and Application Guidelines supplied with the valve, in accordance with local Plumbing and Drainage Codes at the date of installation and all relevant statutory and local requirements in which the product is installed.
2. Where the product is installed outside the boundaries of a metropolitan area as defined by Galvin Engineering, the cost of transport insurance and travelling shall be the purchaser's responsibility.
3. Where the valve comprises part of a hot water system, installation of that system must be in accordance with its manufacturer's recommendation, the Code and all relevant statutory and local State or Territory requirements.
4. The valve must be returned to Galvin Engineering together with a fully and correctly completed Galvin Engineering Warranty Claim Form.
5. Where the valve is replaced under warranty the replacement valve carries a new warranty as detailed herein.

Exclusions:

Replacement work will be carried out as set out in the Galvin Engineering Warranty above, but the following exclusions may cause the warranty to become void, and may incur a service charge including cost of parts where:

1. Damage has been caused by accident, Acts of God, misuse, incorrect installation, incorrect installation of the water supply system of which the product forms a part or attempts to disassemble the valve.
2. It is found that there is nothing wrong with the product
3. The failure of the valve is due in part or in whole to faulty manufacture/installation of the hot water supply system of which the product forms part.
4. The valve has failed directly or indirectly as a result of excessive water pressure or temperature outside the Supply Pressure Requirements, or corrosive environment.
5. The valve has failed due to foreign matter either from installation or the water supply.
6. The failure of the valve is due to scale formation in the waterways of the valve.
7. The failure of the valve is due in part, or in whole, to installation not in conformance with the requirements of the Code.
8. Galvin Engineering reserves the right to change its specifications without prior notice and will not accept liability for any claim arising from such change.
9. Subject to any statutory provisions to the contrary, claims for damage to furniture, carpets, walls, foundations or any other consequential loss either directly or indirectly due to leakage from the valve are also excluded from warranty cover.

Supplied throughout Europe and the UK by

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Galvin Engineering Thermostatic Mixing Valve or Tempering Valve Commissioning Report and/or Maintenance Report

Note:

1. Please use a separate form for each valve.
2. The original copy of the report is to be given to the owner/occupier and retained on site for a minimum of 7 years.

Cross off appropriate box

Thermostatic Mixing Valve Tempering Valve

Commissioning Report Maintenance Report

Name of Establishment: _____

Address of Establishment: _____

Phone Number: _____ Date: _____ Work Order #: _____

Contact Person: _____ Make & Model of Hot Water System: _____

Temperature of Hot Water to the Valve: _____ Temperature of Cold Water to the Valve: _____

Hot Water Pressure: _____ kPa Cold Water Pressure: _____ kPa

Make of Mixing Valve: _____ Model No: _____ Size: _____

Valve Location/Building: _____

Valve Identification No: _____

Total No of Valves on the Site/Building: _____

No of Outlets Serviced by this Valve: Baths () Basins () Showers ()

Other Outlets - Details _____

Valves Installed to the requirements of:

The Valves manufacturers requirements	Yes	No
The specifications and drawings for the project	Yes	No
The Local Water Supply or Authority	Yes	No

If No, give details and actions taken:



Galvin Engineering Thermostatic Mixing Valve or Tempering Valve Commissioning Report and/or Maintenance Report

Test Results

Valve considered satisfactory for use: Yes No

If No, state the reason and action taken:

Commissioning Work

It is hereby certified that all the commissioning work has been carried out by the undersigned in accordance with the requirements of the Codes of Practice indicated prior.

Date of Valve Commissioned:

Name of Licensed Plumber: _____ License/Cert No: _____

License Plumbers Signature: _____

Telephone No. _____

Owner/occupiers signature: _____ Date: _____

Date of Initial Service Due: _____



Galvin Engineering Thermostatic Mixing Valve or Tempering Valve Commissioning Report

Valve Location/Building : _____

Room or Area: _____

Work Order No.: _____

Warm Water Outlet Fixture No.	*Name/Type/Size and location of Outlet Fixture (Bath, Shower, Basin, Other)	Flow rate of Design Water (LPS)		Temp of Warm Water (C)	
		One Outlet in Use	**All Req'd Outlets in Use	One Outlet in Use	**All Req'd Outlets in Use
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					

*Give details of brand and model designation.

** Commensurate with the design flow rate for the mixing valve.

Note: An accurate digital thermometer is necessary for the temperature measurements

Prescribed temperature range for warm water _____ C to _____ C

Thermal shutdown at both minimum and maximum design flow rates

(Passed/Failed) Yes No Name of Plumber: _____

License/Cert No. _____

Licensee's Signature: _____ Date: _____ Telephone Number: _____

Galvin Engineering Thermostatic Mixing Valve or Tempering Valve Commissioning/Maintenance Report

The following information is to be provided by the site manager/owner/occupier.

Valve size and installation recommended by : _____

Valves supplied by: _____

Date of Installation: _____ Drawing No. _____

Service Manual on Site: Yes No

Commissioning Tests for new installation or valve replacement. Yes

This set of testing procedures and report received and witnessed by (Print Name): _____

Temperature setting at completion of commissioning _____ C

Position: _____ Signature: _____

Date: _____

Maintenance Tests. Yes

Date of Previous Service: _____

Previous Service carried out by: _____

Reason for Maintenance Tests: _____

This Test and report Witnessed by: _____

The valve has been operating/performing satisfactorily for the previous 12 months: Yes No

Comment on monthly Temperature Tests carried out by the owner: _____

Temperature setting at time of completion: _____ C

Current Report received and witnessed by:

Name: _____

Position: _____

Signature: _____ Date: _____