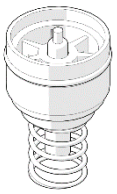
CliniMix® Thermostat, Piston Assembly & Spring for WM-TMV1 and 101.70.00.00

PRODUCT CODES

- **WM-TPKIT-1**

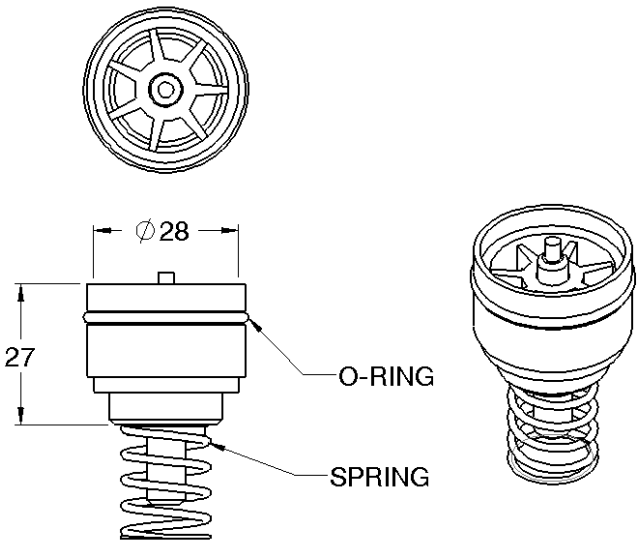
WaterMark
AS 4032.1 WMKA 21989
SAI Global



INTRODUCTION

The CliniMix® Thermostat, Piston Assembly & Spring is a spare part for Galvin Engineering CliniMix® Lead Safe™ Thermostatic Mixing Valves WM-TMV1 and 101.70.00.00.

DIMENSIONS



WM-TPKIT-1

SAFETY

The Galvin Engineering CliniMix® Lead Safe™ Thermostatic Mixing Valve 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 their manual. It should be noted however that this TMV should not be considered as an alternative to adequate supervision and duty of care during its use and operation.

Note: The TMV, inlet controls, pipe work and the surrounding area may become hot when installed which may cause burn injuries. Precautions should be taken to ensure that these surfaces cannot cause such injuries.

INSTALLATION

The Galvin Engineering CliniMix® Thermostat, Piston Assembly & Spring must be installed using the appropriate Standard, Code of Practice and legislation application to each state and following the details outlined in this section.

The Galvin Engineering CliniMix® Thermostat, Piston Assembly & Spring must be installed by a licensed plumber, or where applicable, a licensed plumber who has undertaken T.A.F.E. training in Thermostatic Mixing Valves.

Note: To effectively control microbial hazards during system design, installation, commissioning and maintenance, the requirements outlined in AS/NZ3666 and local legislation shall be adhered to.

Inlets and outlet connections of the TMV are clearly marked. The letters H and C cast into the Thermostatic Mixing Valve body indicates the Hot and Cold Inlet respectively. An arrow cast into the body of the inlet and isolation valves identifies the TMV outlet direction.

If the TMV 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 TMV.

Prior to the replacement of the CliniMix® Thermostat, Piston Assembly & Spring, the system must be checked to ensure that the system operating conditions fall within the recommended operating range of CliniMix® Thermostatic Mixing Valve as detailed in the relevant CliniMix® Thermostatic mixing valve installation instruction. If the hot water supply temperature is greater than 90° Celsius, the TMV and CliniMix® Thermostat, Piston Assembly & Spring may be damaged. A suitable temperature limiting valve must be fitted to the hot water supply, prior to the inlet fittings, if the temperature of the hot water will rise above 90° Celsius. This temperature limiting valve must be installed as per the manufacturer's instructions. It is important that both of the inlet dynamic supply pressures are 500kPa or less. If either supply pressure exceeds 500kPa 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. In order to achieve optimum performance from the TMV it is recommended that the inlet pressures are balanced to within +/-10% of each other.

The water quality conditions should be checked to ensure they do not exceed the limits as listed in AS/NZS 3500.4,

Section 1.11. If they do exceed these limits, then it will be necessary to install a water softener or water treatment device.

NOTE: In some installations, certain types of control devices such as flick mixers and solenoid valves are used. The water pressure may be seen to spike outside that recommended, for the TMV, 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 TMV 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.

To ensure that the TMV operates correctly, it is necessary that the pipe-work is thoroughly flushed with clean water before the TMV 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.

It is a requirement of AS/NZS3500.4.Section 3.3 (a) that "Each thermostatic mixing valve shall have an isolating stop tap/valve, line strainer and non-return valve fitted to the hot and cold water supply lines". The inlet fittings supplied with each TMV will ensure this requirement is met. If the Galvin Engineering CliniMix® Thermostatic Mixing Valve is to be installed without the supplied inlet control valves then it will not be an approved product.

Strainers must be fitted to prevent any particulate contamination from entering the TMV. These strainers should be 60 Mesh stainless steel. Isolating valves are required so that the water supply to the TMV can be isolated in the event that servicing is required. Non-return devices must also be fitted to both the hot and cold inlets to prevent cross-contamination.

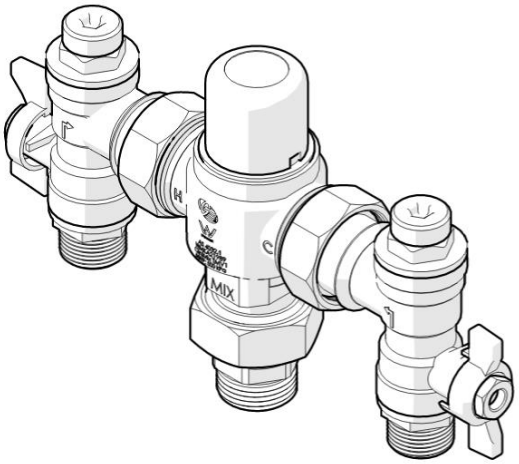
Ensure that the test plugs in the top of the inlet fittings are tight.

The TMV should be installed so it can be easily accessed for maintenance or servicing. The valve can be installed in a wall cavity, under a basin or on a wall; however it is essential that the mixing valve and inlet fittings are easily accessible for servicing.

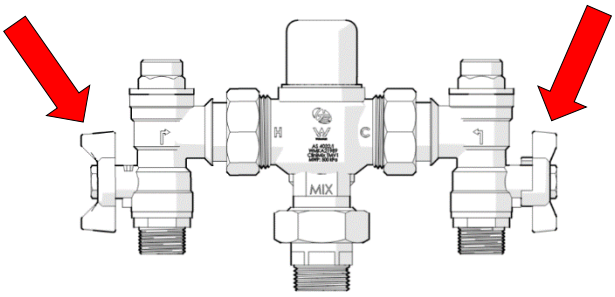
During installation or servicing, heat must not be applied near the TMV or inlet fittings, as this will damage the valve and inlet fittings internals. It will put the user at risk, and it will void the warranty of the TMV.

Note: The Galvin Engineering CliniMix® Lead Safe™ Thermostatic Mixing Valve is intended mainly for use in applications with set temperatures below 45° Celsius. When installed at higher set temperature, the performance may be less than specified in AS4032.1. In such situations consideration should be given to the question of whether an alternative device, i.e. a tempering valve approved to AS4032.2 would provide a greater margin for safety in reducing scalding accidents.

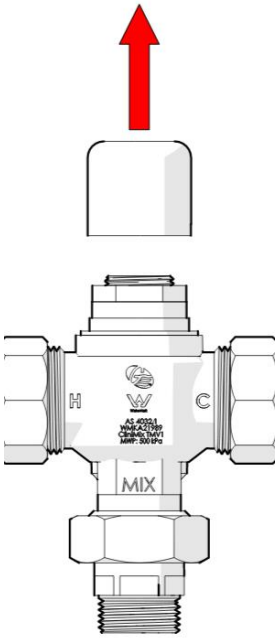
INSTALLATION



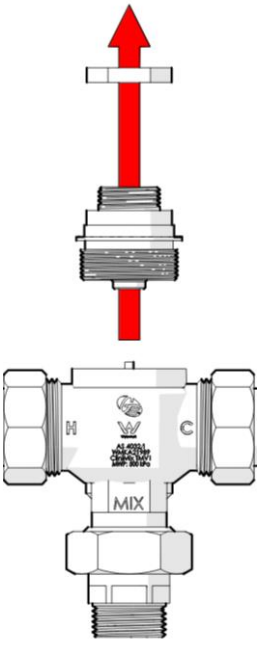
1. Ensure a clean dry work area is available.



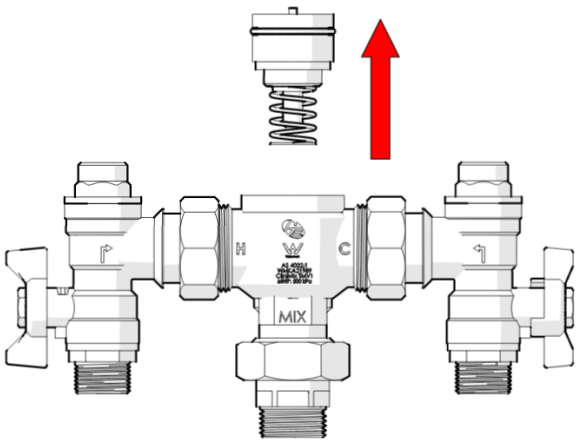
2. Isolate the hot and cold supplies to the mixing valve by closing the inlet ball valves.



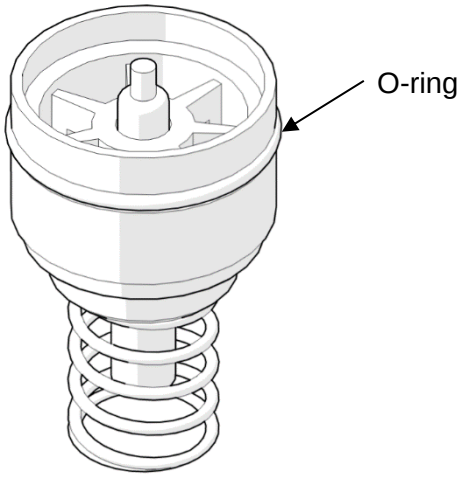
3. Pry off the plastic cap using a small screwdriver or similar.



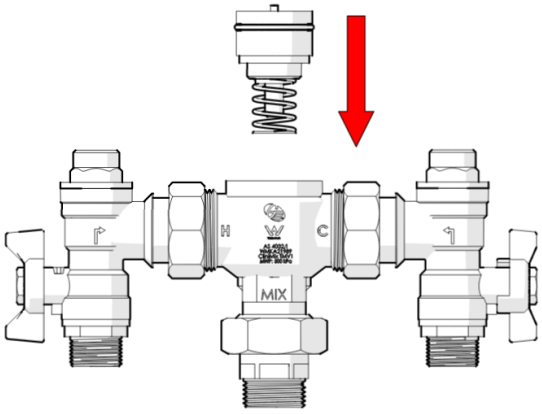
4. Remove brass Top Assembly with a suitable spanner. Care must be taken to ensure that the underside of the Top Assembly does not receive even the slightest damage.



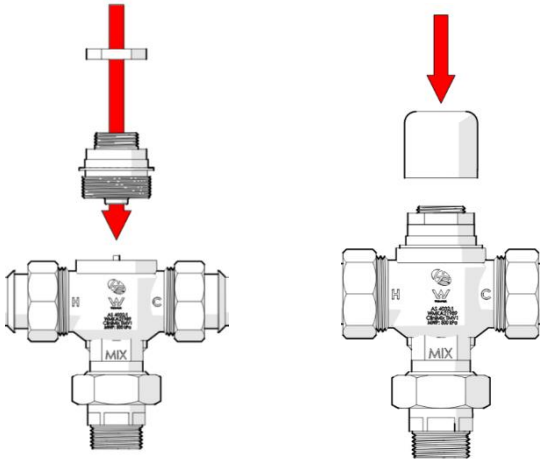
5. Gently remove the element/piston assembly.



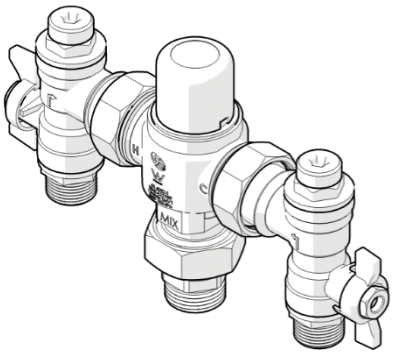
6. Lightly grease O-rings if required. (use only potable water approved silicon-based lubricating grease such as Molykote111)



7. Insert new element/piston assembly taking extreme caution not to damage any surface of the piston.



8. Refit the TMV Top assembly back to the body and tighten to a maximum torque of 10Nm.



9. The valve must then be recommissioned as per 101.70.00.00 Installation Instructions Section 8 including temperature adjustments and shut down test.

WARRANTY

The Galvin Engineering CliniMix® Thermostat, Piston Assembly & Spring is guaranteed free from manufacturing faults for a period of 12 months, subject to the conditions and exclusions set out below;

GALVIN ENGINEERING PRODUCT WARRANTY

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 Thermostatic Mixing Valve (TMV) and the CliniMix® Thermostat, Piston Assembly & Spring must have been installed by a licensed plumber in accordance with this document and in accordance with the National Plumbing and Drainage Code AS/NZS3500 (the Code) current at the date of installation and all relevant statutory and local requirements in the State or Territory 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 TMV 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 CliniMix® Thermostat, Piston Assembly & Spring to Galvin Engineering together with a fully and correctly completed Galvin Engineering Warranty Claim Form.

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 of attempts to disassemble the TMV.
2. It is found that there is nothing wrong with the product
3. The failure of the CliniMix® Thermostat, Piston Assembly & Spring 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 TMV has failed directly or indirectly as a result of excessive water pressure or temperature outside the Application Guidelines, thermal input or corrosive environment.
5. The TMV has failed due to foreign matter either from installation or the water supply.
6. The failure of the TMV is due to scale formation in the waterways of the TMV.
7. The failure of the TMV 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 TMV are also excluded from warranty cover.

TROUBLESHOOTING		
PROBLEM	**CAUSE**	**RECTIFICATION**
The valve will not shut down.	- The hot to mix temperature differential is not high enough. - Sealing seat is damaged or fouled by debris	- Raise hot water temperature. - Replace piston O-rings - Clean seat. - Replace element assembly
Temperature adjuster difficult to move.	- Adjustment at maximum mix temperature stops. - Valve piston over set.	- Mixed water is at maximum temperature no higher mix. - Wind adjuster out until set temperature required is achieved.