

Aquablend® Restore Thermostatic Sequential Wall Mixer

Installation and Maintenance Instructions

ATMHE608RH-BOW

ATMRHSQ-FOW



NOTE: THIS DOCUMENT IS TO BE LEFT ONSITE WITH FACILITY MANAGER AFTER INSTALLATION

I00563_15 Jan 2025

1300 369 273 | info@enware.com.au | enware.com.au

ENWARE
A WATTS Brand

contents

	page
PRODUCT DESCRIPTION	3
DIMENSIONS	4
INSTALLATION CONDITIONS	5
COMPONENT DESCRIPTIONS	6
FLOW DIRECTIONS	7
BEFORE INSTALLATION	8
INSTALLATION PROCEDURE	8
MIXER OPERATING INSTRUCTIONS	14
TMV - COMMISSIONING	15
TEMPERATURE ADJUSTMENT	16
SHUT DOWN TEST	17
THERMAL FLUSH OPTION	18
MAINTENANCE AND SERVICING - TMV	20
TROUBLESHOOTING	24
SPARE PARTS	26
COMMISSIONING / SERVICE REPORT	28
PRODUCT WARRANTY FOR AUSTRALIA	31

Aquablend® Restore Thermostatic Sequential Wall Mixer

The Aquablend® Restore Thermostatic Sequential Wall Mixer has been developed to deliver an all new approach to hygiene, safety and convenience for Health Care and Aged Care Ensuites.

The Aquablend® Restore is a point of use (POU) thermostatic mixing valve coupled with a unique 4 way mixer allowing the user to easily and safely mix water for showering at the desired temperature from Cold through to Full Warm. Simultaneously, pre-mixed warm and/or cold water can be delivered to an adjacent fixture for hand washing or WC cistern fill*.

The benefit of this design is by increasing the flow through the Thermostatic Mixer, the risk of legionella or other bacteria developing in the pipework is reduced. As showers generally run for 3-5 minutes every time they are used and at higher flow rates than a basin, this additional and sustained flow ensures the TMV comes up to full operating temperature and pipework is flushed, keeping the risk of legionella and bacteria to a minimum.

The Aquablend® Restore is also equipped with Aquablend® Thermal Flush, allowing safe, controlled hot water sanitising of the Shower and Basin at the same time, without requiring re-commissioning.

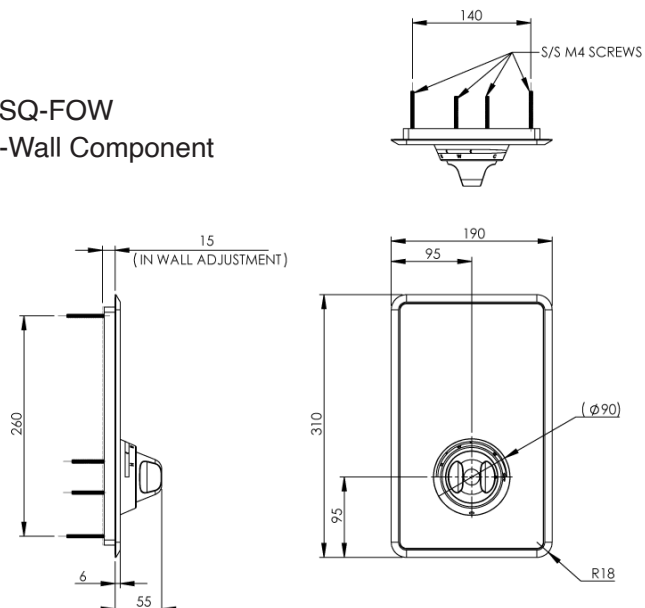
Other Key features of the Aquablend® Restore TMV and Mixer:

- Full Smartflow compatibility ensures informed risk management and performance analysis of the water delivery system.
- Sequential Ceramic Disc Mixing Cartridge ensures ultimate control with cold start up and stop, ensuring warm water is introduced into pipework only when needed.
- Compact wall box allows easy access for servicing, always at a convenient height, with all serviceable items front facing and easily accessible.

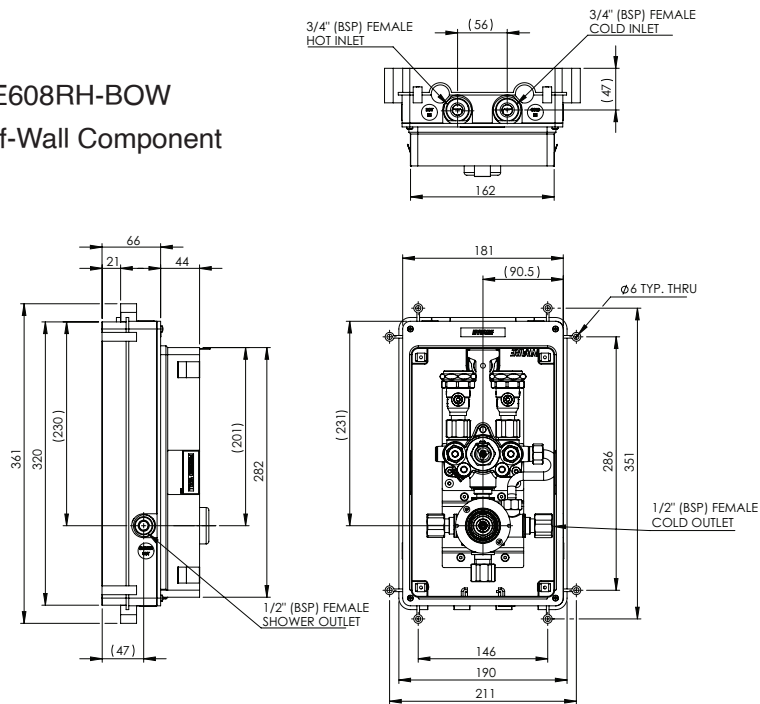
*Additional Warm and Cold take-off can be used to supply a basin mixer, or surgeon mixer at a flow controlled rate. WC Cistern may also be supplied from the cold take-off. 20mm inlet pipework is required to the TMV and warm/ cold bypass pipework must be sized to suitably supply connected fixtures.

dimensions

ATMRHSQ-FOW
Front-of-Wall Component



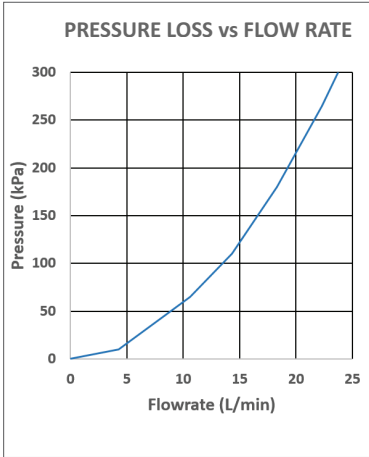
ATMHE608RH-BOW
Back-of-Wall Component



installation conditions

Dynamic Inlet Pressures * For optimum operation it is recommended that the hot and cold water supply pressures be balanced within +/- 10% for both static and dynamic pressures.	Min. 20kPa Max. 500kPa
Static Inlet Pressures For testing purposes / system commissioning	Max. 1000kPa
Hot Temperature Supply Range	Min. 55°C Max. 90°C
Cold Temperature Supply Range	Min. 5°C Max. 30°C
Minimum Temperature Differential Between hot supply and the outlet temperature, required to ensure correct function of valve	10°C
Thermostatic Temperature Range* Set during installation/ commissioning	35 - 48°C (+/-2)
Minimum Flow Rate	4L/min
Maximum Flow Rate - Thermostatic Mixing Valve	23 L/min @ 300 kPa pressure loss as per Flow Sizing Graph

TMV Flow Sizing Graph



compliance

Enware products are to be installed in accordance with the Plumbing Code of Australia and AS/NZS3500. Installations not complying with PCA and AS/NZS3500 may void the product and performance warranty provisions.

Reference should also be made to the Australasian Health Facility Guidelines (AHFG), ABCB and Local Government regulations when considering the choice of, and the installation of these products.

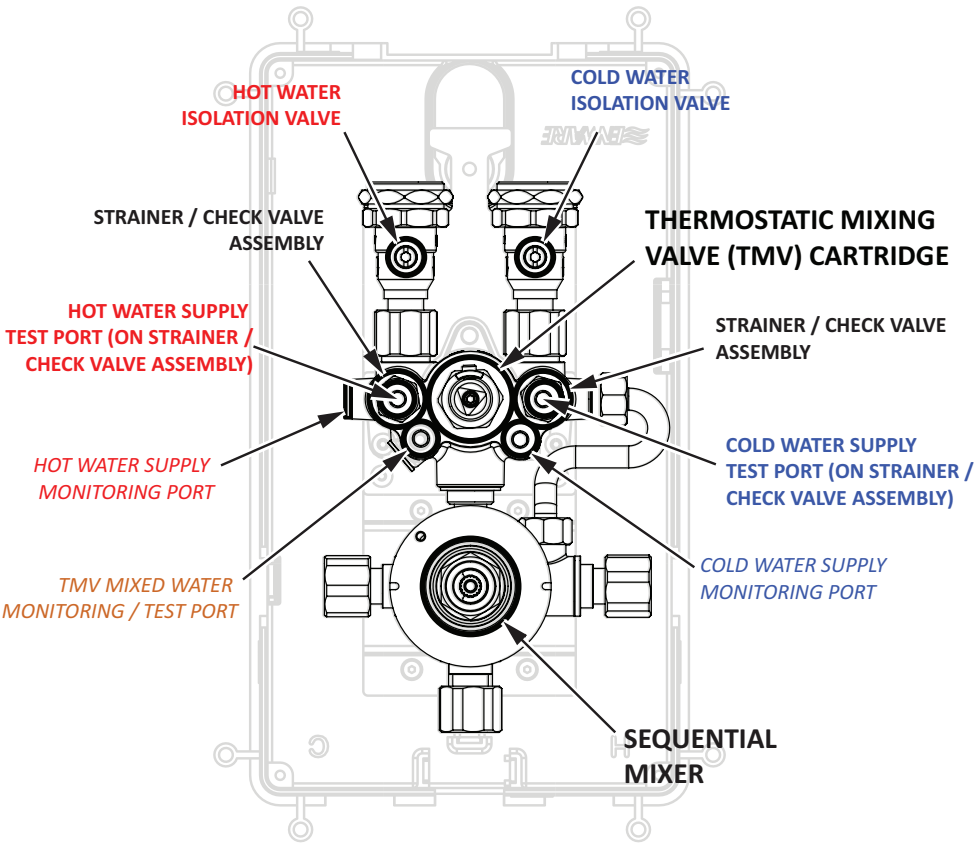
Pressure Reduction Valves may be required to comply with maximum pressure requirements.

For use with potable water only.

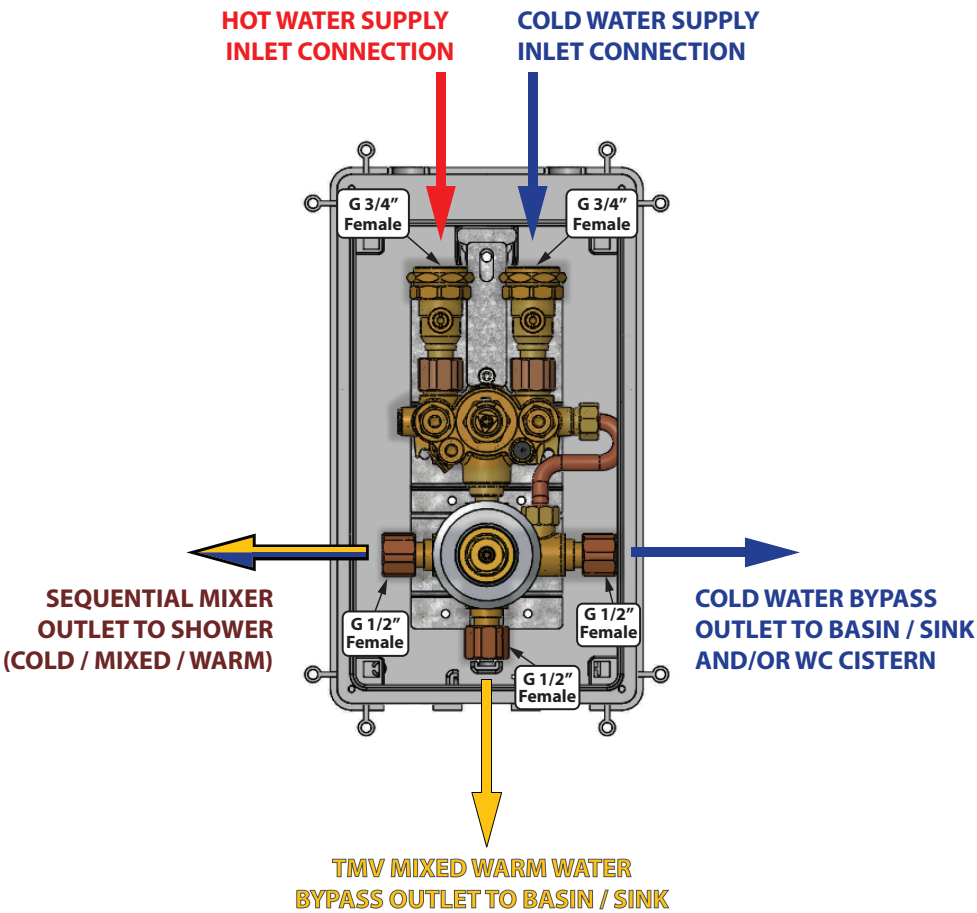
Enware advises:

1. Due to ongoing Research and Development, specifications may change without notice;
2. Component specifications may change on some export models.

component descriptions



flow directions



before installation

This product should be installed using the appropriate Standard, Code of Practice and legislation applicable to each state and following the details outlined in this section. Thermostatic mixing valves must be installed by a qualified plumber.

NOTE: To effectively control microbial hazards during system design, installation, commissioning and maintenance, the requirements outlined in AS/NZS3666 and local legislation shall be adhered to.

Incorrect installation may cause the valve to operate outside specified performance values and may also void warranty.

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 specified in “Installation Conditions” on page 5.

To ensure that the product operates correctly, it is necessary that the pipework is thoroughly flushed with clean water before it is installed as per AS/NZS3500.1. This will remove any physical contaminants from the pipework, ensuring trouble-free operation. During the flushing procedure care should be taken to prevent water damage occurring to the surrounding area.

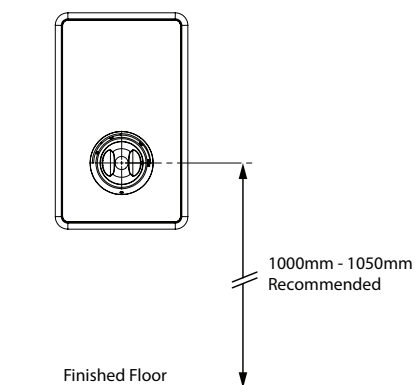
installation procedure

IN-WALL COMPONENTS

STEP 1

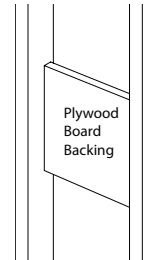
Determine the desired location for the in-wall assembly (box) with relation to the mixer handle height off the floor.

Recommended height 1000 – 1050 mm off the floor.

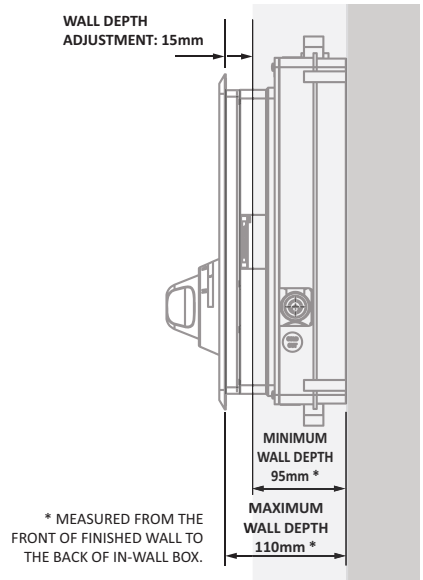


STEP 2

If installing within a frame wall, fit mounting timber in the desired location for box support. Enware recommends 13mm ply wood sheet fixed between two in-wall studs.

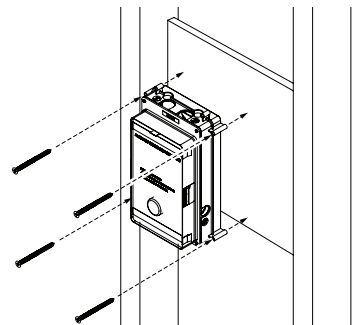
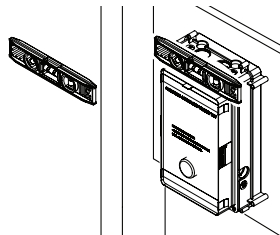


IMPORTANT: The depth of box from finished wall to the back of the box must be **between 95-110mm**.



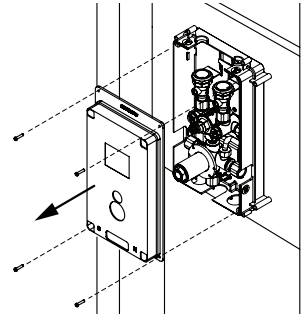
STEP 3

Mark out the fixing point locations while ensuring the box is level, and secure the box to the wall support using the external fixing lugs and suitable fixing screws.



STEP 4

Remove front dust cover. Keep the dust cover and 4 screws at hand.



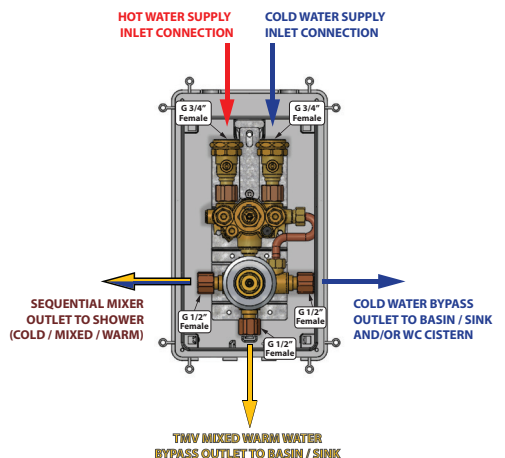
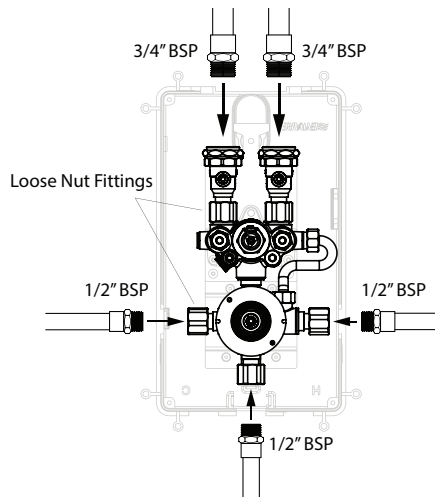
STEP 5

Purge hot and cold supply lines to make sure all debris has been cleared. Connect water supplies to inlet fittings using 3/4" BSP connectors.

Connect pipework to sequential mixer outlet (to shower), hot water bypass, and cold water bypass, using 1/2" BSP loose nut connectors.

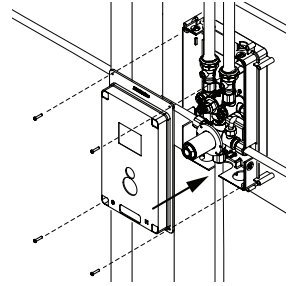
(Refer to FLOW DIRECTIONS on page 7.)

Turn water on, and check for any leaks on connections.



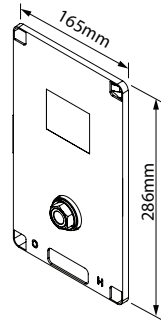
STEP 6

Re-fit the front dust cover and secure with the 4 screws.



The wall is ready to be waterproofed and sheeted. Make sure the sheeting is finished hard up against the protruding section of the box.

The wall cut-out size is 286mm high x 165mm wide.

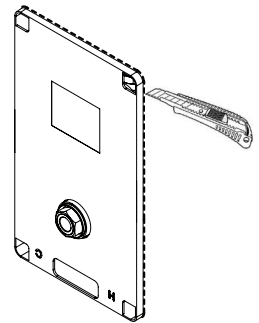


FRONT OF WALL COMPONENTS

STEP 7

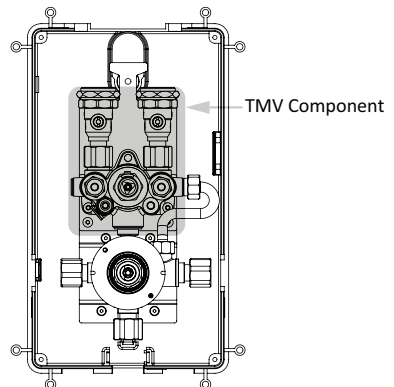
Once the wall is finished, the protruding section of the box needs to be trimmed so it finishes flush with finished wall face. Discard cover.

Check that no part of the box protrudes past the finished wall, and deburr trimmed edges.



STEP 8

Commission the Thermostatic Mixing Valve (TMV) following the Commissioning Procedure on page 15.

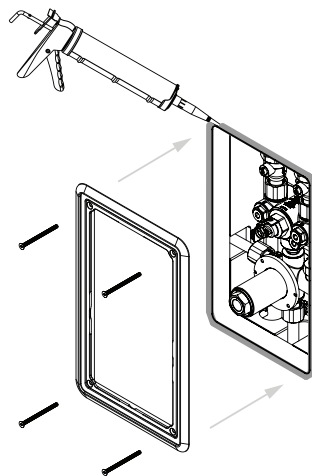


STEP 9

Apply caulking to fill the gap between the in-wall box and the wall cut-out. Ensure any gap is thoroughly sealed.

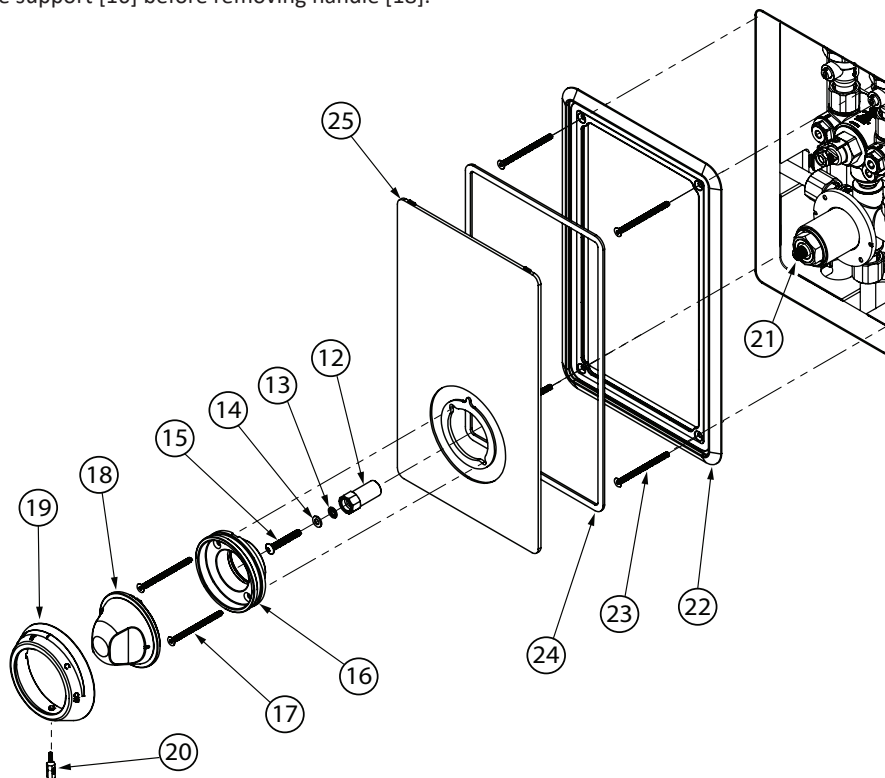
Apply a thin bead of silicone sealant around the perimeter of the cut-out section of the wall, to seal between face plate bracket and the wall.

Fit the chrome face plate bracket [22] to wall, taking care not to pinch the foam seal that is around the support bracket. Secure the bracket with four M4x60 screws supplied.



STEP 10

To dismantle handle assembly, first remove the grub screw from dress ring [19] using Torx key [20] supplied, and keep the grub screw at hand. Pull dress ring off flange support [16] before removing handle [18].



STEP 11

Fit octagon spline adaptor [12] onto spindle of cartridge [21], then plastic washer [13] and tooth washer [14], and fix into place using M5 screw [15] supplied.

STEP 12

Fit the chrome face plate [25] by first placing its 2x tabs on the top edge into the 2x voids on the top side of the faceplate bracket.

STEP 13

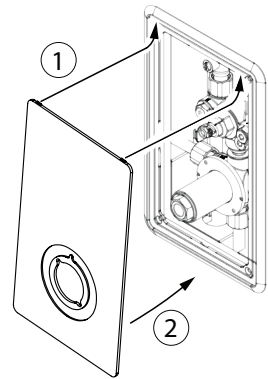
Fit flange support [16], and align key cut-out to the key protrusion on the face plate. Fix the flange support in place using two M4x60 [17] screws supplied.

STEP 14

Fit handle [18] on. Check that the indicator faces the right hand side when the handle is turned clockwise and stops at the OFF position. If the handle does not align, re-fit handle at a different position, or change the position of the spline adaptor [12] fitted in Step 11. SEE OPERATING INSTRUCTIONS NEXT PAGE

STEP 15

Fit the dress ring [19] on, ensuring the key cut-out on the dress ring locates into the key protrusion on the face plate [25]. Fit grub screw back onto the dress ring and secure in place by tightening the grub screw with Torx key [20].



operating instructions

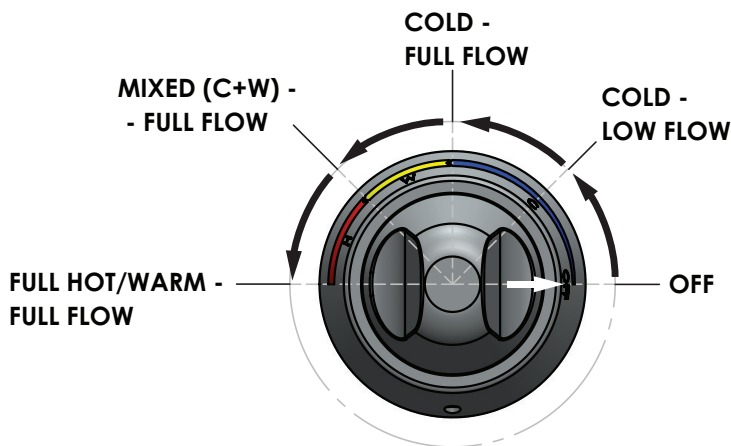
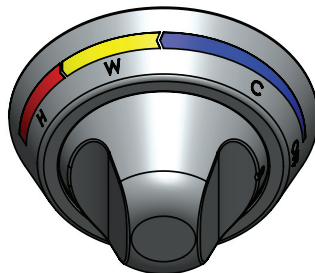
The sequential lever turns progressively from “OFF” to “COLD” to “WARM” / “HOT”.

Starting from OFF position (handle pointing to the right),

To operate the tap, turn the lever anticlockwise. The flow volume gradually increases. At the top position, cold water is at its full flow.

Turning the lever further past COLD, the flow rate stays at maximum but now the water is mixed with more hot / warm water.

At “HOT” position (handle pointing to the left), it is at full temperature and flow supplied to the hot inlet of the mixer, and is no longer mixed with cold water.

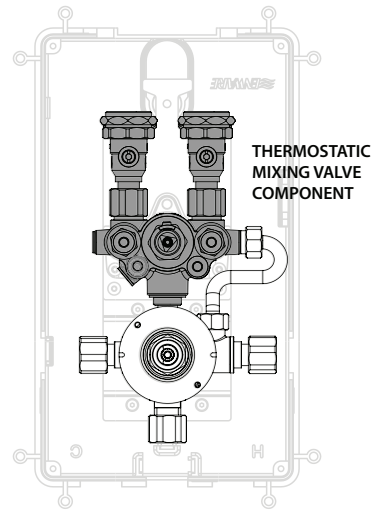


HANDLE POSITIONS

IMAGE 1

thermostatic mixing valve

In accordance with the requirements of AS 4032.3, the Thermostatic Mixing Valve component needs to be commissioned, and serviced annually. A major service is required at intervals of no more than 5 years, where the Thermostatic Element and O-rings are replaced in addition to the annual service.



commissioning of TMV

Upon completion of the installation, the valve should be tested and commissioned as per the procedure outlined below including Temperature Adjustment and Shut Down Test, or as specified by the local authority. The entire procedure should be read thoroughly prior to the commissioning of the valve. A calibrated digital thermometer having rapid response time with maximum temperature hold, 3mm and 4mm Allen keys, and the temperature adjusting key (supplied with product) will be required to check and set the outlet mixed temperature of the valve.

Ensure all outlets that will be serviced by the valve have adequate warning signs posted to ensure that no outlet is used during commissioning.

Open the cold supply line to the valve, then open the hot supply line, ensuring there are no leaks. Open the outlet on basin, or if using the shower outlet, turn the mixer handle to Full Warm - Full Flow position.

Allow the mixed outlet to flow for at least 60 seconds to allow the temperature to stabilise before taking a temperature reading at the outlet with a digital thermometer. The flow rate should be at least 4L/min. The flow rate can be checked with the aid of a known size container and a stopwatch. The temperature should be taken at the closest outlet served by the thermostatic mixing valve. If the outlet temperature requires adjustment, follow steps below.

commissioning of TMV

1. TEMPERATURE ADJUSTMENT

1. Turn on the integral isolation valves using a 4mm Allen key or slotted screw driver (if not already turned on).
SEE IMAGE 4
2. Turn on the basin warm water to full flow, or alternatively, turn sequential shower mixer to “full warm – full flow” position.
3. Check the temperature of the warm water with a hand held digital thermometer.
4. Loosen the temperature adjustment locking grub screw located on the Hex of the top cap using a 3mm Allen key. SEE IMAGE 2
5. Fit supplied key over the adjusting spindle. SEE IMAGE 3
With the thermometer held within the water flow stream, rotate the temperature adjuster key until the desired temperature is achieved.

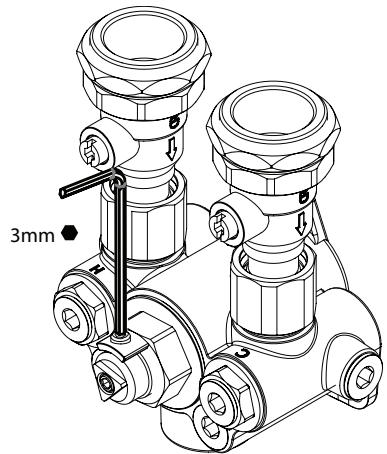


IMAGE 2

- To **increase** the mixed outlet temperature, rotate the spindle anti-clockwise.

- To **decrease** the mixed outlet temperature, rotate the spindle clockwise

6. Allow the mixed outlet temperature to stabilize for 60 seconds and once again take a temperature reading. Repeat the procedure until the desired temperature has been reached.
7. Tighten the temperature adjustment locking grub screw. SEE IMAGE 2
8. Check the outlet temperature is stable over the full range of flow rates and that flow rate is adequate for the application.
9. Close the outlet.
10. The TMV temperature is now set and locked.

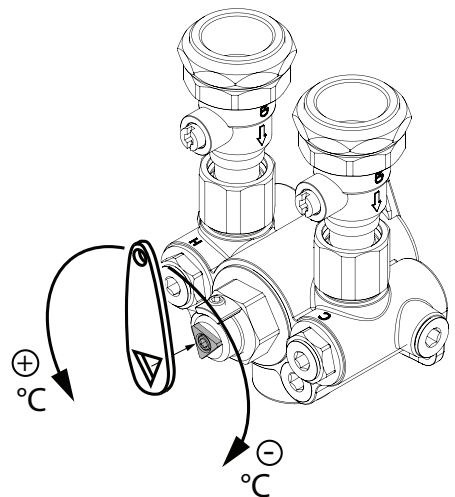


IMAGE 3

2. SHUT DOWN TEST

Now that the mixing valve has been set and locked it is necessary to perform a shut down check.

Allow the mixed water temperature to stabilise and note the outlet temperature.

While holding a digital thermometer in the outlet flow, quickly isolate the cold water supply to the valve. The outlet flow should quickly cease flowing. The flow should be less than 0.1L/min following the isolation. Monitor the maximum outlet flow temperature, and record this on the Commissioning Report. The temperature should not exceed that allowed by the applicable standard or code of practice for each state.

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.

Repeat the above test, except this time quickly isolate the hot water supply to the valve. The outlet flow should quickly slow to a trickle. The trickle should typically be less than 0.4L/min@500kPa down to less than 0.1L/min@100kPa following the isolation.

Restore the hot water supply to the valve. After the mixed water temperature has stabilised, measure and record the outlet temperature, ensuring the outlet temperature has re-established.

Ensure that all details of the Commissioning Report are completed and signed by the relevant signatories, 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.

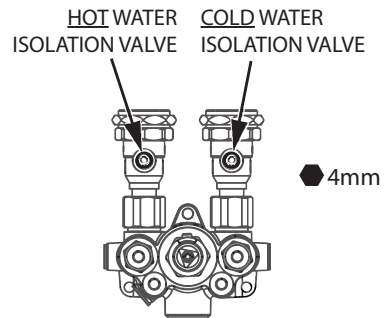


IMAGE 4

thermal flush option

The Aquablend® Restore includes a built-in Thermal Flush feature allowing the facility's maintenance team or licensed service contractors to perform a controlled thermal flush to the TMV and warm water plumbing system for disinfection.

NOTE: The thermal flush procedure is optional and does not form part of commissioning and service requirements set out in AS4032.3.



Before commencing the thermal flush, a site-specific procedure must be implemented to control the risk of scalding. Hot water will run directly to the outlets fed by the Thermostatic Mixing Valve, and precautions shall be taken to prevent the chance of injury.

THERMAL FLUSH PROCEDURE

1. Turn OFF both hot and cold inlet isolation valves on the TMV. SEE IMAGE 7

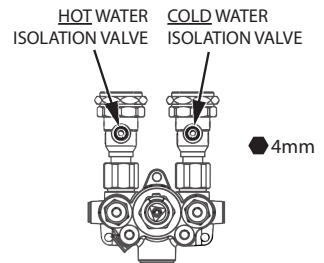


IMAGE 7

2. Check that the temperature adjustment locking grub screw (located on the hex of the top cap) is tight. SEE IMAGE 8

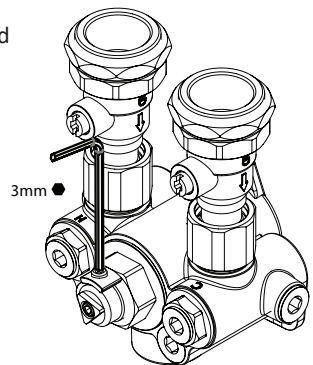


IMAGE 8

3. Insert a 3mm Allen key into the Thermal flush activation point located in the centre of the temperature adjustment screw on the valve's Top Cap. SEE IMAGE 9
4. Wind Thermal Activation Screw anti-clockwise until it stops. A red indicator will be visible.
5. Turn the hot water inlet isolation valve to the ON position.
6. Turn the basin tap warm water to ON position, and / or shower to FULL WARM - FULL FLOW position.



WARNING: Full temperature hot water will flow from the tapware or shower outlet. Care must be taken to prevent scalding.

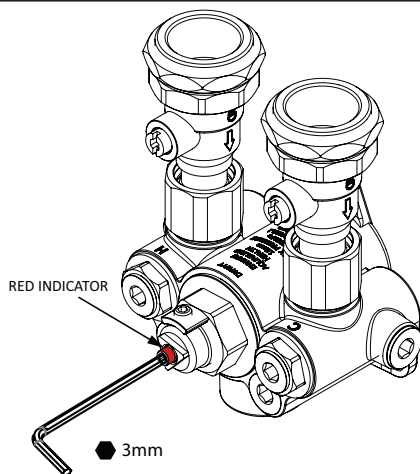


IMAGE 9

7. Once the required time set in the facility's Thermal Flush procedure has passed, turn the hot water inlet isolation valve to the OFF position. SEE IMAGE 7
8. Leaving the basin tap / shower outlet in the ON position, turn the cold water inlet isolation valve to the ON position. SEE IMAGE 7
9. Wind the Thermal Flush activation screw clockwise until it is all the way back in and sitting flush with the temperature adjustment screw. (Note: spurts of cold water will discharge from the tapware outlet during this process.)
10. Turn the hot water TMV inlet valve to the ON position.
11. Check the outlet flow, making sure it is within the required temperature range.
12. Turn the basin tap/ shower outlet OFF.
13. Re-instate front fascia plate and handle. NOTE: If the front fascia plate does not securely fit back to the top cap this indicates the thermal flush has not been disengaged properly. (See Step 9)

maintenance and servicing - TMV

Aquablend® Restore TMV will only require minimal preventative maintenance work to ensure it operates at its optimum level of performance.

The valve shall be serviced annually, unless the installed conditions dictate more frequent servicing is necessary.

Remove Handle and Facia Plate

1. Loosen grub screw on dress ring, and remove dress ring. Remove handle.
2. Remove two screws holding flange support and remove flange support.
3. Remove faceplate, by pulling the bottom side out first.

(See pages 12 - 13)

ANNUAL MAINTENANCE PROCEDURE

Every 12 months the Aquablend® Restore TMV should be inspected and tested. The valve's external surfaces should be given a light wipedown. The valve and surrounding area should be inspected for leaks or water damage and action taken if required. Ensure a clean dry work area is available.

1. Cleaning the Strainers

1. Firstly isolate the hot and cold supplies to the mixing valve by closing the inlet isolation valves. SEE IMAGE 4 page 17
2. With a suitable spanner, remove strainer-check valve assembly. SEE IMAGE 5
3. Clean strainers with a suitable descaling solvent (such as CLR) diluted with water. Check for physical damage and thoroughly rinse with clean water. Strainer-check valve assembly can then be reinstalled into the valve and tightened to a maximum torque of 15Nm into the valve body.

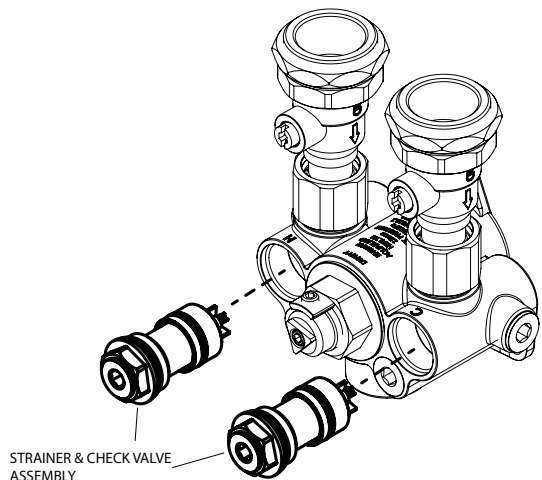


IMAGE 5

2. Non-Return Valve Operation

To check Non-Return Valve on the HOT inlet side, carry out the following steps:

1. Turn OFF the isolation valve on the HOT inlet only (COLD inlet must be open).
2. Unscrew and remove Hot Water Supply Test Port Cap. (SEE IMAGE 6)
After releasing water pressure initially, observe any water leaking through in the Hot Water Supply Test Port.
3. If water continues leaking through this may indicate a fouled or faulty Non-Return Valve. If this is the case, inspect the non-return valve for damage or any debris, and replace the Strainer & Check Valve Assembly if required.
If water does not leak through, this indicates the check valve is working correctly.
4. Replace Hot Water Supply Test Port Cap.
5. Turn back ON the isolation tap on the HOT inlet.

To check Non-Return Valve on the COLD inlet side, repeat the above steps using the COLD inlet side.

3. Recommissioning

The valve must then be recommissioned as per the Commissioning instructions on page 15, including temperature adjustment and the shut down test.

If the valve fails to shut down or fails to maintain its set temperature, refer to Troubleshooting.

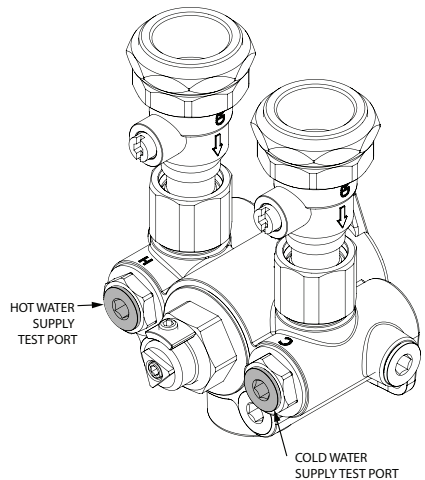


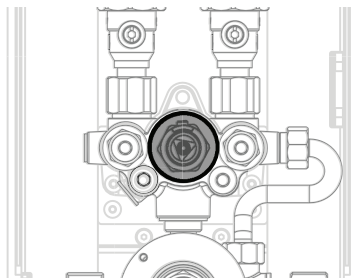
IMAGE 6

5-YEAR SERVICE

In addition to the Annual Maintenance, the Cartridge O-rings and Thermostatic Element must be replaced at intervals not exceeding 5 years from commissioning.

ACCESS TO TMV CARTRIDGE

Use a spanner on the cartridge Top Cap to unscrew cartridge from TMV body. To dismantle cartridge, use a spanner on the hex of the Top Cap, and a 28mm socket wrench on the hex at the bottom of the Cartridge Shell - and unscrew. SEE “Spare Parts - TMV” on page 26. Clean or replace components as required, then re-assemble cartridge. Install cartridge back into body using a spanner. Do not overtighten. (Recommended - 20Nm)

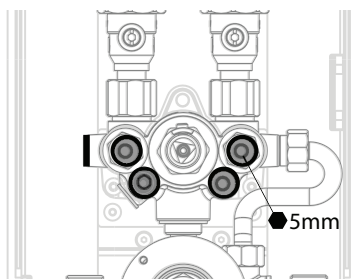


ACCESS TO INSPECTION / MONITORING PORTS

To access the inspection ports, remove handle, dress flange and the faceplate, then shut off water supply to the TMV using the isolation valves.

Using a 5mm Allen key, unwind the access cover and keep at hand.

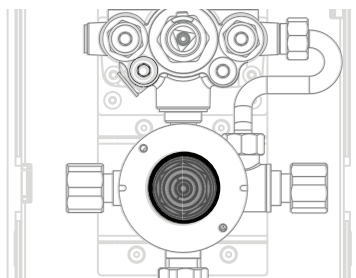
Apply thread tape to a Pete's Plug and screw into the 1/4" thread port. Insert measurement probe into Pete's Plug and open isolation valves. Check for leaks. Operate the TMV/ mixer and conduct tests as required.



SERVICING THE SEQUENTIAL MIXER CARTRIDGE

To replace mixer cartridge, remove handle and dress flange, then unscrew mixer cartridge lock nut. SEE Spare Parts - Mixer on page 27. Pull mixer cartridge out. Replace cartridge, ensuring the locator on the cartridge is aligned with the slot in the body.

Fit octagonal spline adaptor. Fit mixer cartridge and lock nut back into body, and tighten with a spanner. Do not overtighten. (Recommended - 20Nm)



CLEANING

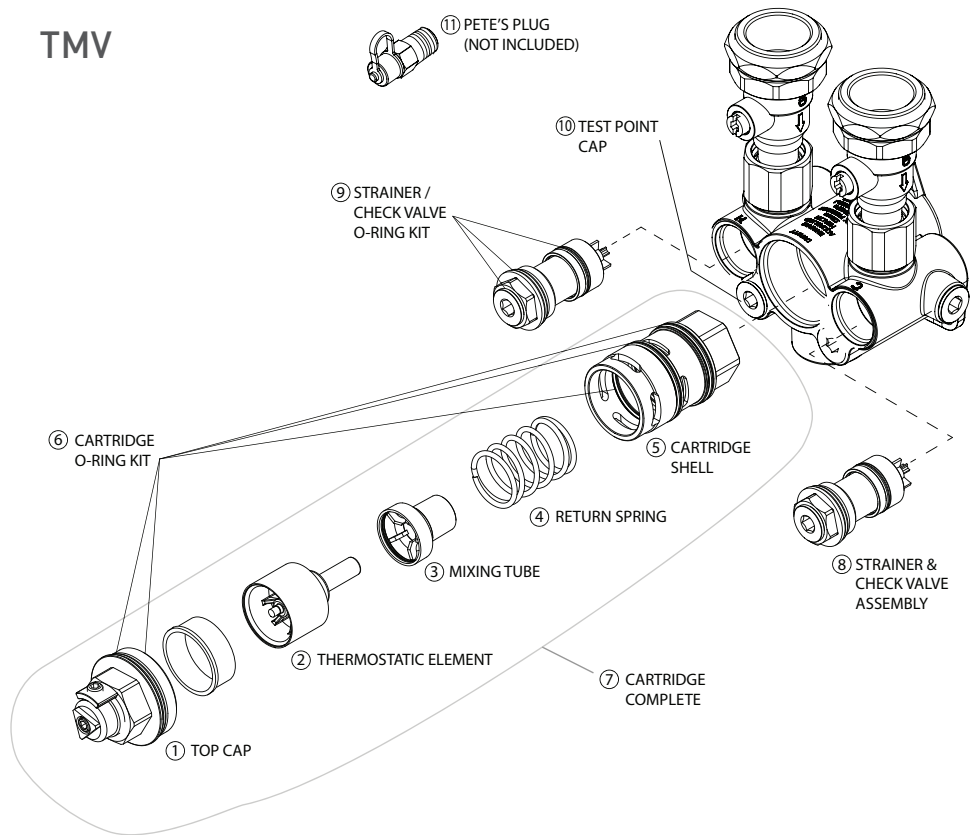
Enware products should be cleaned with a soft damp cloth using only mild liquid detergent or soap and water. Do not use cleaning agents containing a corrosive acid, scouring agent or solvent chemicals. Do not use cream cleaners, as they are abrasive. Use of unsuitable cleaning agents may damage the surface. Any damage caused in this way will not be covered by warranty. If re-greasing spindles or seals, always use a silicon based potable water approved lubricant such as Hydroseal Food Pro, Molykote 111 or Clare FU5.

troubleshooting

FAULT / SYMPTOM	CAUSE	RECTIFICATION
1. 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. • Valve contains debris. • Strainers contain debris. • Non-return devices are damaged • Top Cap and/ or Cartridge O-rings are damaged 	<ul style="list-style-type: none"> • Refit the valve with Hot/ Cold supplies to the correct connections. • Clean the valve ensuring that all debris is removed and components are not damaged. • Clean strainers ensuring debris is removed. • Check non-return device is not jammed. Clean or replace it if necessary. • Check Top Cap and cartridge O-rings for damage. Replace if necessary.
2. The valve will not shut down	<ul style="list-style-type: none"> • The hot to mix temperature differential is not 10°C or greater. • Cartridge O-ring is damaged. • Cartridge seat is damaged or fouled by debris. • Thermostatic Element has failed. 	<ul style="list-style-type: none"> • Raise hot water supply temperature. • Replace cartridge O-rings. • Clean seat using mild descaling solution. • Replace Thermostatic Element.
3. Mix temperature unstable	<ul style="list-style-type: none"> • Debris is fouling valve. • Flow rate below 4L/min. • Strainers are fouled. 	<ul style="list-style-type: none"> • Clean the valve ensuring that all debris is removed and components are not damaged. • Rectify any pressure deterioration. • Clean strainers.
4. Mix temperature changing over time	<ul style="list-style-type: none"> • Inlet conditions (pressures or temperatures) are fluctuating. • Strainers contain debris 	<ul style="list-style-type: none"> • Install suitable pressure control valves to ensure inlet conditions are within those stated in Installation Conditions on page 5. • Clean strainers ensuring debris is removed
5. Either full hot or cold flowing from outlet fixture	<ul style="list-style-type: none"> • Valve is incorrectly set. • Hot/Cold water has migrated to other inlet. • Refer also to fault/symptom 1 & 2 	<ul style="list-style-type: none"> • Adjust mix temperature between 35 - 48°C as required. • Replace faulty non-return valves.
6. No flow from the valve outlet	<ul style="list-style-type: none"> • Hot or cold water failure. TMV has shut down. • Strainers are fouled 	<ul style="list-style-type: none"> • Valve functioning correctly. Restore inlet supplies and check mix temperature. • Clean strainers.
7. Flow rate reduced or fluctuating	<ul style="list-style-type: none"> • Valve or inlet fittings fouled by debris. • Dynamic inlet pressures are not within recommended limits. 	<ul style="list-style-type: none"> • Check valve and inlet fittings for blockages. • Ensure operating conditions are within specified limits and the dynamic inlet pressures are balanced to within +/- 10%.
8. Mixed water temperature too hot or cold	<ul style="list-style-type: none"> • Valve has been tampered with. • Valve incorrectly set. • Inlet temperatures are not within specified limits. 	<ul style="list-style-type: none"> • Readjust valve to required set temperature. • Readjust valve to required set temperature. • Ensure inlet temperatures are within the specified limits as per Installation Conditions on page 5.
9. Mixed water temperature doesn't change when the temperature adjuster is altered	<ul style="list-style-type: none"> • Return spring is missing • Thermostatic element has failed 	<ul style="list-style-type: none"> • Install return spring. • Replace thermostatic element.

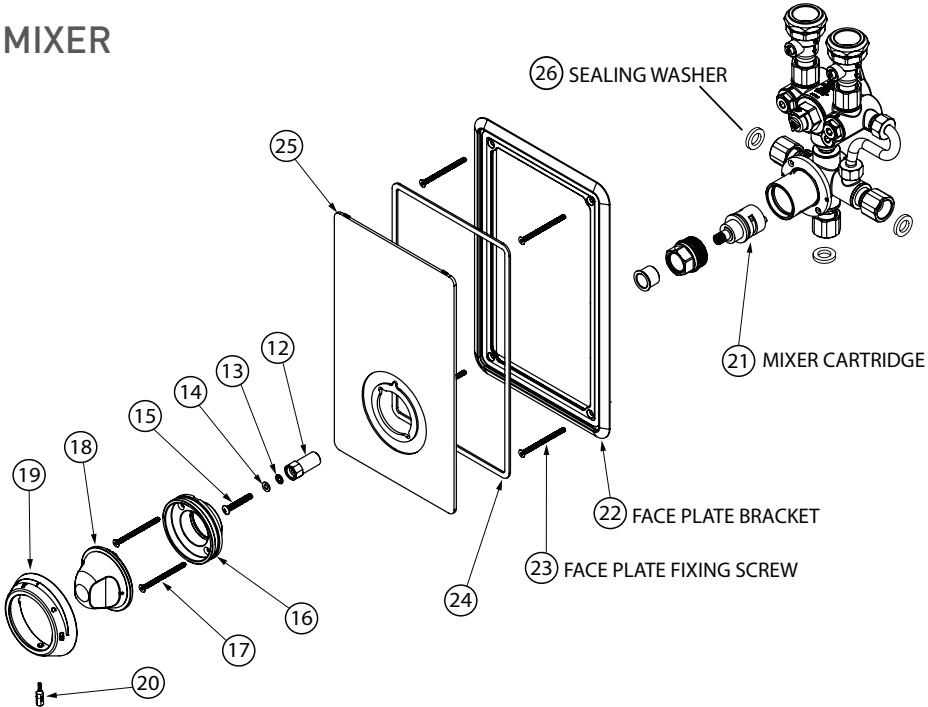
FAULT / SYMPTOM	CAUSE	RECTIFICATION
10. Mixed water temperature adjuster difficult to move	<ul style="list-style-type: none"> • Adjuster at maximum position. • Valve piston into overstroke 	<ul style="list-style-type: none"> • Mixed water is at maximum temperature. No higher mix temperature adjustment is available. • Wind adjuster out until set temperature required is achieved.
11. Hot water flows into the cold water system or vice versa.	Non-return valves.	Replace non-return valves.
12. Valve is noisy.	Water velocity above velocity requirements of AS3500.1.2	Reduce water velocity.
13. Water leaking from shower outlet. Water dripping and does not shut off	Debris is caught inside cartridge Cartridge is worn or damaged Pressure too high	Remove and flush Cartridge, inspect and remove any debris. Replace Cartridge if damaged. Install pressure reduction valve, ensure it is under 500 kPa
14. Water is leaking from spindle	Seal in Cartridge is worn or damaged Pressure too high	Replace Cartridge Install pressure reduction valve, ensure it is under 500 kPa
15. Water is not flowing from mixer. Poor water flow from outlet	Water turned off Aerator or Flow control is blocked by debris.	Turn water on Remove outlet and wash debris from aerator/ flow control. Install an inline strainer.
16. Handle cannot be installed	In-wall assembly (box) is installed too far into the wall	Check that the depth of box from finished wall to the back of the box is between 91-111mm

spare parts



ITEM	DESCRIPTION	ENWARE PRODUCT CODE
1	Top Cap	-
2	Thermostatic Element	-
3	Mixing Tube	-
4	Return Spring	-
5	Cartridge Shell	-
6	Cartridge O-ring Kit	ATMSH314
7	Cartridge Complete	ATMSH313
8	Strainer and Check Valve Assembly	ATMSH316
9	Strainer / Check Valve O-ring Kit	ATMSH315
10	Test Point Cap	-
11	Pete's Plug	ATMS1221

MIXER



ITEM	DESCRIPTION	ENWARE PRODUCT CODE
12	Spline adaptor	-
13	Plastic washer	-
14	Tooth washer	-
15	Screw M5X35 BTN HD HEX SS304	-
16	Flange support	-
17	Screw M4X60 CSK SOCKET CAP SS304 (x2)	ATMSH323
18	Handle	-
19	Dress ring	-
20	Torx key post T-10	-
21	Mixer cartridge sequential 180 deg RTC	LEVSQSBA-180
22	Face plate bracket	ATMSH324
23	Face Plate Fixing Screw (2x) M4X60 CSK SOCKET CAP SS304	ATMSH323
24	Foam seal	-
25	Face plate	-
26	Outlet sealing washer	ATMSH317

Commissioning / Service Report for Thermostatic Mixing Valve

Use a separate form for each valve.

The original report is to be retained on site for a minimum of 7 years.

Copies of the report shall be : provided to the owner/ occupier or the person responsible ; retained by the tester ; and where required, forwarded to the relevant authority.

The test method is in accordance with AS4032.3 Appendix B.

Name of Establishment	(Name)	Owner / Occupier	(Name)
Street Address			
Contact Name	(Name)	Phone	
Date of Test		Work Order No.	

Valve ID No.		Model No.	
Make of TMV		Size	

Valve location / Building	
Area Serviced by Valve	

Number of Outlets Served	Basin	Shower	Bath
--------------------------	-------	--------	------

Valve installed to requirements of		
1. The local water supply authority	2. The valve manufacturer / supplier requirements	3. The Australian Standards for Plumbing and Drainage
<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
If NO, give details and action taken:		

Valve functioning in accordance with the application requirements:	<input type="checkbox"/> YES <input type="checkbox"/> NO
If NO, give details and action taken:	

Inlet Temperature and Pressure Tests

Inlet Hot Water	Pressure	kPa	Inlet Cold Water	Pressure	kPa
	Temp	°C		Temp	°C
Cold Supply via: mains / tank / pump			Pressure Reduction Valve Fitted: <input type="checkbox"/> YES <input type="checkbox"/> NO		
Hot Water Unit:			PRV : <input type="checkbox"/> YES <input type="checkbox"/> NO		

Temperature of Mixed Warm Water at Outlet (measured at the nearest outlet to the valve)

Set Temperature:	°C	Temperature Range	<input type="checkbox"/> Neonatal and children 38 - 40°C <input type="checkbox"/> Adult 40.5 - 43.5°C <input type="checkbox"/> 45°C max. <input type="checkbox"/> 50°C max.
With 1 Outlet in Use (Low Flow)	°C	Flow Rate With 1 Outlet in Use (Low Flow)	L/min
With All Required Outlets in Use (High Flow)	°C	Flow Rate With All Required Outlets in Use (High Flow)	L/min

Thermal Shut-Off Tests

Hot Water Isolation Test:	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL
Cold Water Isolation Test:	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL

Details of Test and Maintenance:

Type of work carried out:	<input type="checkbox"/> Commissioning	<input type="checkbox"/> Service	<input type="checkbox"/> 5-Year Service
Strainers	<input type="checkbox"/> Cleaned	<input type="checkbox"/> Replaced	
Non-Return Valves	<input type="checkbox"/> Checked	<input type="checkbox"/> Replaced	
O-rings and Seals	<input type="checkbox"/> Checked	<input type="checkbox"/> Replaced (max. 5-year intervals)	
Thermostatic Element	<input type="checkbox"/> Checked	<input type="checkbox"/> Replaced (max. 5-year intervals)	
Valve Replaced	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Other Items Replaced:			

Date of Installation	
Valve installed by	(Name)
Date of Previous Service	
Previous Service by	(Name)
Date of Previous Element/ O-Rings Replacement (5-Year Service)	
Date of This Service / Commissioning	
Date of Next Service Due	
Date Element / O-Rings Replacement (5-Year Service) Due	

It is hereby certified that all the commissioning work has been carried out by the undersigned in accordance with local plumbing requirements for Thermostatic Mixing Valves

Contractor Business Name	(Name)	
Contractor Name (print)	(Name)	Contractor Lic / Cert No.
Phone No		
Name of Authorised Tester (Licensed Plumber)	(Name)	
Signature of Authorised Tester (Licensed Plumber)	(Signature)	Date
Owner / Occupier Signature	(Signature)	Date

product warranty statement - WATTS AUSTRALIA

EFFECTIVE FROM 20 November 2023

This Warranty Statement applies to products supplied by Australian Valve Group Pty Ltd (ACN 068 227 270) (**AVG**) or Enware Pty Ltd (ACN 662 302 767) (**Enware**) (each of AVG and Enware, a Supplier) and installed within Australia.

Subject to the terms and conditions outlined in this Warranty Statement, each Supplier warrants to its customers that a product supplied by it (**Product**) will be free from all defects in material and workmanship under normal usage for the applicable Warranty Period (as set out in the Warranty Table below). The Warranty Period commences from the date of delivery of the relevant Product.

1. Conditions

The warranty provided under this Warranty Statement will not apply in respect of a Product (or any Product defect, fault or resulting damage) if:

- (a) the Product is not installed and maintained in accordance with the requirements of the applicable laws, standards and codes (including, without limitation to, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500);
- (b) the Product is not installed and maintained by a qualified technician in accordance with the relevant installation and operation manual and instructions; and
- (c) any Product defect, faulty or resulting damage arises from:
 - (i) failure by you or any other person to follow the relevant manual or instructions (relating to the handling, storage, installation, fitting, connection, adjustment, maintenance or repair of the Product) published or provided by the Supplier;
 - (ii) failure by you or any other person responsible for the fitting, installation, or other work on the Product to follow or conform to applicable laws, standards and codes (including, without limitation to, the AS/NZ 3500 set of Standards, all applicable State and Territory Plumbing Codes, the Plumbing Code of Australia and directions and requirements of local and other statutory authorities);
 - (iii) any parts or components not manufactured by the Supplier (or otherwise not authorised by the Supplier) are installed or combined with the Product, without the prior authorisation of the Supplier; or
 - (iv) any act or circumstance beyond our control including, without limitation to, accident, abnormal use, vandalism, fouling caused by foreign material, damage from adverse water conditions, chemical, acts of God, damage to buildings, other structures and infrastructure and loss or damage during transit or transportation of the Product, or any abuse, misuse, misapplication, improper installation or connection, or improper maintenance or alteration of the Product.

2. Make a claim

To make a claim under this Warranty Statement, you must notify the relevant Supplier in writing within 7 days of any alleged defect in the Product coming to your attention and provide the Supplier with proof of your purchase of the Product to the relevant Supplier:

- (a) If the Product is supplied by **AVG**, please contact AVG by telephone at 1800 284 287, or by email via its online portal <https://www.wattsau.com.au/support>.
- (b) If the Product is supplied by **Enware**, please complete the Product Service Request form (ENF091), which is available on request from our office (see contact details below), or online via <https://www.enware.com.au/warranty-service-form/>. All notifications and accompanying forms must be sent to Enware marked for the attention of Enware, 9 Endeavour Road, Caringbah NSW 2229. Enware can also be contacted by telephone (1300 369 273) or by email (info@enware.com.au).

On receipt of a notification from you of a claim under this Warranty Statement, the relevant Supplier may contact you requesting you provide reasonably additional evidence, information or details about your claim, or requiring that the relevant Product should be returned to the Supplier (in accordance with the Supplier's instructions) for inspection and testing.

Your failure to comply with any such request within a reasonable amount of time may result in your claim under this Warranty Statement being rejected.

3. Our responsibilities

(a) In the event that the Supplier is reasonably satisfied that there is a defect in the relevant Product within the applicable Warranty Period, the Supplier will, at its option, replace the Product, supply an equivalent product or repair the Product, free of charge. Your costs in making a warranty claim under this Warranty Statement, including any costs in relation to freight, collection, delivery and installation, are to be borne and paid by you. However, if in respect of a Product, it is indicated in the Warranty Table that labour support will be provided, and the Supplier is reasonably satisfied that a defect in the Product takes place during the period that labour support will be provided as indicated in the Warranty Table, the Supplier will bear the costs for delivery, repair and installation of the replacement Product (as applicable).

(b) TO THE EXTENT PERMITTED BY LAW AND SUBJECT TO PARAGRAPH 4 BELOW AND THE OPERATION OF THE AUSTRALIAN CONSUMER LAW:

- (i) THE WARRANTY SET OUT IN THIS WARRANTY STATEMENT IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE SUPPLIER WITH RESPECT TO THE RELEVANT PRODUCT;
- (ii) THE SUPPLIER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED;
- (iii) THE SUPPLIER 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; AND
- (iv) THE REMEDY DESCRIBED IN THIS WARRANTY STATEMENT SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, AND THE SUPPLIER SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, OR LOST PROFITS OR THE COST OF REPAIRING OR REPLACING OTHER PROPERTY WHICH IS DAMAGED IF THE PRODUCT DOES NOT WORK PROPERLY.

4. Australian Consumer Law

This paragraph 4 applies if you are a 'Consumer' (as defined in section 3 of the Australian Consumer Law (**ACL**)) and the Product or services supplied to you falls within the goods or services which, for the purposes of the ACL, are of a kind ordinarily acquired for personal, domestic or household use or consumption.

The Products and services provided by the Supplier come with guarantees that cannot be excluded under the ACL, and noting in this Warranty Statement should be interpreted as attempting to exclude, restrict or modify such guarantees or your rights under the ACL. For major failures with any services, you are entitled:

- (c) to cancel your service contract with us; and
- (d) to a refund for the unused portion, or to compensation for its reduced value.

You are also entitled to choose a refund or replacement for major failures with Products. If a failure with the Product or a service does not amount to a major failure, you are entitled to have the failure rectified in a reasonable time. If this is not done you are entitled to a refund for the Products and to cancel the contract for the service and obtain a refund of any unused portion. You are also entitled to be compensated for any other reasonably foreseeable loss or damage from a failure in the Products or service'.

5. Warranty table

*the applicable period commences on the date of delivery of the Product.

PRODUCT GROUP	PRODUCT SERIES CODES	WARRANTY PERIOD (YEARS)*	LABOUR SUPPORT (YEARS)*
Aquablend Thermostatic Mixing Valves and Spare Parts	ATM	5	5



1300 369 273
info@enware.com.au
enware.com.au