

Aquablend SQX Lead Free Thermostatic Surgeon Mixer

Installation and Maintenance Instructions

ATM611L-200

ATM611L-200MB



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product description

The new Lead Free Aquablend SQX is a Point-of-use Thermostatic Clinical Surgeon Mixer with sequential operation. Certified to AS 4032.4, thermostatic mixing at the point of use can provide reduced risk of legionella and other water-borne bacteria, improving water system health.

Designed for easy installation and efficient maintenance, lowering whole-of-life cost.

The SQX range also has outstanding user benefits, providing ergonomic comfort and control, scald protection and both water and energy efficiencies beyond those of traditional tapware.

The spout has unique self-draining function and reduced internal surface area to mitigate legionella growth, and can be removed for disinfection if required.

Pressure compensating 6lpm or 4lpm flow controls and a flow straightener device reduces splashing and airborne water droplets that may carry bacteria.

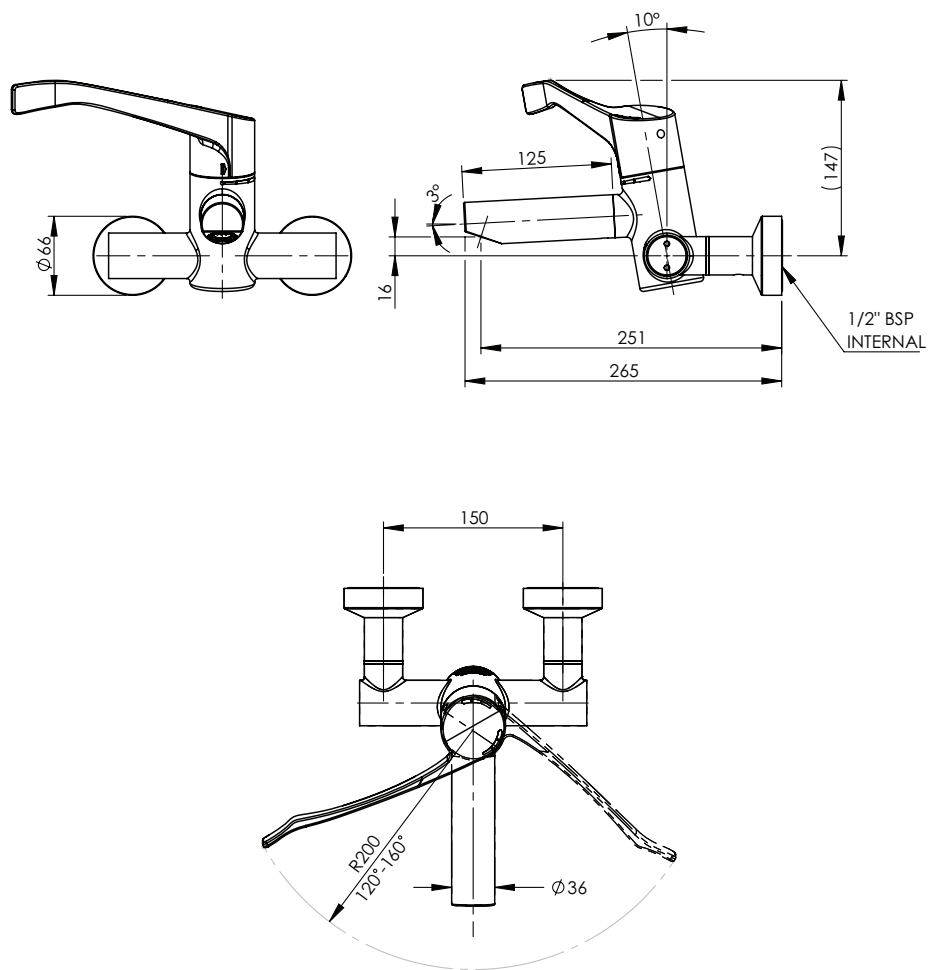
User friendly, ergonomically designed 200mm lever handle is suitable for wrist and elbow activation or AS1428 applications.

Mixer body is cool to touch and non-conductive. Smooth body and handle design aids cleaning and disinfection for clinical areas.

The mixer is serviceable in-situ with all maintenance parts including isolation valves accessible at the tap connection point.

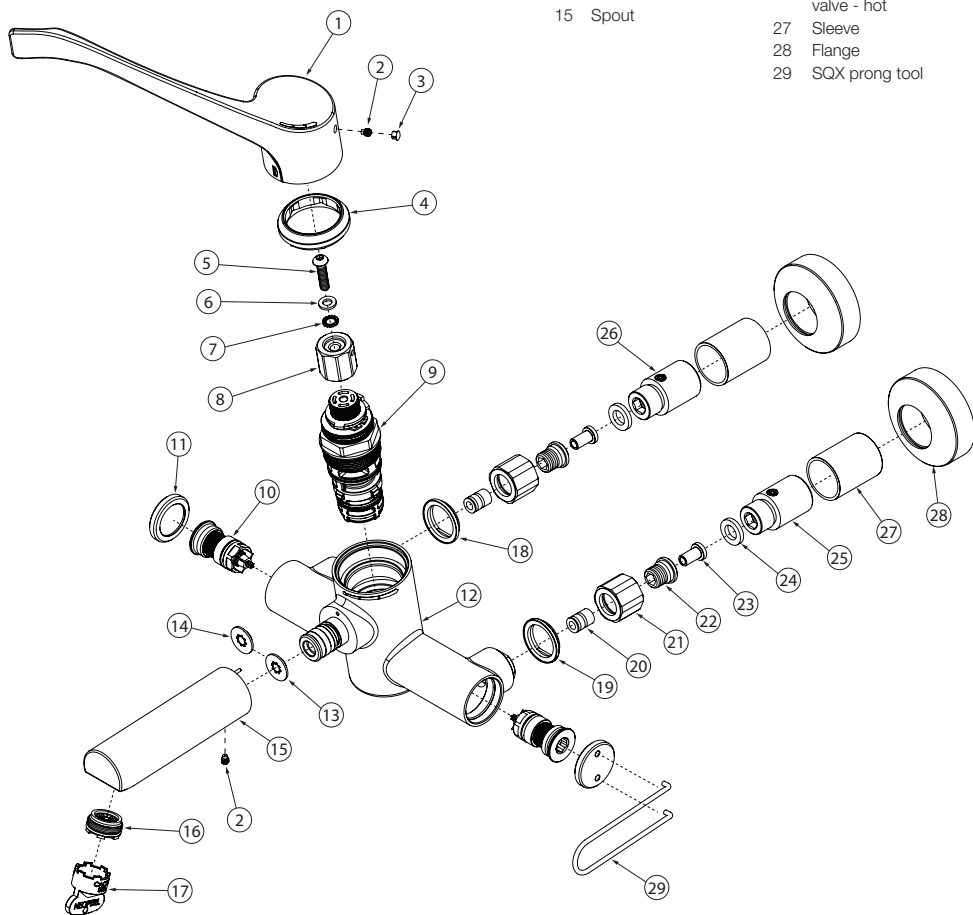
Integral isolating ball valves allow for pre- fitting and flushing prior to final fit off.

dimensions



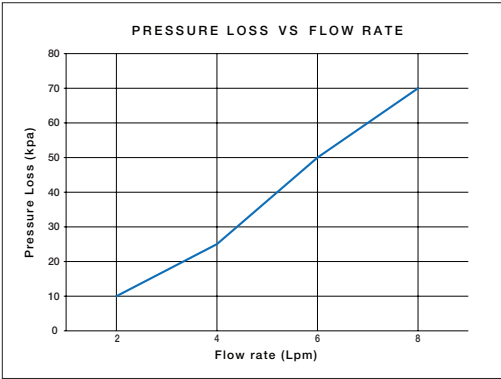
components

- | | | | |
|----|------------------------|----|--|
| 1 | Lever handle 200mm | 16 | Aerator cache laminar flow straightener 24x1 |
| 2 | Grub screw M5 | 17 | Aerator key |
| 3 | Handle plug | 18 | Indicator ring - hot |
| 4 | Dress ring | 19 | Indicator ring - cold |
| 5 | Screw M6x25 BTN | 20 | Pipe breech |
| 6 | Washer | 21 | Union nut |
| 7 | Tooth washer | 22 | Connector |
| 8 | Spline adaptor | 23 | Gasket |
| 9 | Cartridge | 24 | Washer rubber 19x11x3 |
| 10 | Strainer / check valve | 25 | Wall connector isolation valve - cold |
| 11 | Side plug | 26 | Wall connector isolation valve - hot |
| 12 | Body | 27 | Sleeve |
| 13 | Flow control 6L grey | 28 | Flange |
| 14 | Flow control 4L | 29 | SQX prong tool |
| 15 | Spout | | |



installation conditions

Hot Temperature Supply Range	Min 55°C Max 85°C
Cold Temperature Supply Range*	Min 5°C Max 25°C
Thermostatic Temperature Range	Cold to 46°C
Minimum Temperature Differential (between hot supply and the outlet temperature)	10°C
Dynamic Inlet Pressures	Min 20 kPa Max 500 kPa
Permitted Supply Pressure Variation (maximum dynamic pressure differential between hot and cold supplies)	10%
Static Inlet Pressures	1000 kpa (for testing purposes/ system commissioning)
Flow Rate	4 Lpm / 6 Lpm Laminar Flow
Inlet Connection	1/2" BSP Flexi Connector



* Where cold inlet temperature may exceed recommended range due to seasonal variation, a 5°C temperature differential between the inlet cold supply and outlet mixed temperature setting must be maintained.



compliance

Enware products are to be installed in accordance with the Plumbing Code of Australia (PCA) and AS/NZS3500. Installations not complying with PCA and AS/NZS 3500 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.

This product is compliant with the Lead Free requirements of NCC Volume Three.

For use with potable water only.

NOTE: Enware Australia advises:

- 1. Due to ongoing Research and Development, specifications may change without notice.
- 2. Component specifications may change on some export models.
- 3. Refer to warranty statement for warranty details - www.enware.com.au/warranty.

before installation

Aquablend SQX Thermostatic Mixers are WaterMark approved to AS4032.4 and 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.

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 previous page. Incorrect installation may cause the valve to operate outside specified performance values and may also void warranty. Pressure reduction valves may be required to comply with the recommended maximum supply pressure or balanced pressure requirements.

Ensure all supply lines are flushed thoroughly with clean water to remove debris prior to the installation of this product, 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

ROUGH IN

1. Determine height of mixer tap to be installed from finished floor level.
* Recommended spout height (point of water discharge) for Type A and B Clinical Hand Washing Bay is 1120mm off finished floor level when combined with basin at a height of 865mm (Australasian Health Facility Guidelines 2020).
2. Secure the hot and cold 15mm (1/2" BSP) male threaded inlet points with the centres 150mm apart and level, making sure enough thread is left to protrude a minimum of 16mm past finished wall.
(HOT on the left, COLD on the right when facing the wall, as per standard set out) **SEE IMAGE 01**

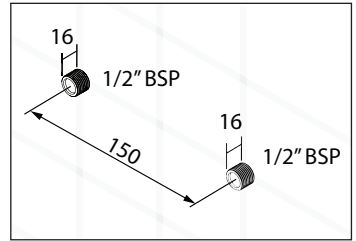


IMAGE 01

FIT OFF

3. When finished wall is complete make sure thread is at a length of 16mm. Cut the thread down if needed.
4. Flush the hot and cold water supply lines with clean water, ensuring all debris has been cleared.
5. Apply thread sealant to 1/2" thread water points. Seal any gaps between thread and wall with silicone.
6. Place chrome dress flange over supply inlets making sure base O-ring is contained in its correct position within the dress flange. **SEE IMAGE 02 & 03**
7. Install isolation valve connector onto 1/2" BSP thread of water supply inlets, and tighten using a 3/8" Allen key until flange is held **FIRMLY** against wall. **SEE IMAGE 04**
8. Close the isolating ball valves using a 3mm Allen key or a flathead screw driver. The line of the slot on the control should be positioned cross-wise to the direction of water flow. **SEE IMAGE 05 & 06**
9. The hot and cold water supplies can now be turned on for testing. Check for leaks.

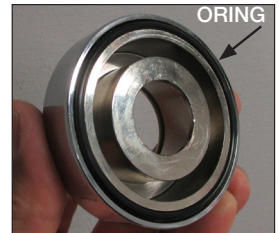


IMAGE 02



IMAGE 03



IMAGE 04



IMAGE 05



IMAGE 06

10. Place the chrome sleeves over each of the isolation connectors and push them back until they come to a stop and they are positioned within the wall flange. Note the orientation of the sleeve – the access hole should be closer to the user, so that when pushed all the way back, the hole can line up with the isolation valve. The sleeve is free to spin right around. **SEE IMAGE 07 & 08**

11. On the main mixer body, place rubber washers inside fixing nuts as shown (if not installed already). **SEE IMAGE 09**

12. Take the main mixer body and screw the loose nut connectors to each isolation valve, making sure to tighten hot and cold sides simultaneously. Use a spanner to tighten, but hold against yourself by inserting a 3mm Allen key or flat head screw driver into the isolation valve control. **SEE IMAGE 10 & 11** Do not over-tighten.



IMAGE 07



IMAGE 08



IMAGE 09



IMAGE 10



IMAGE 11

13. Take grub screw out of spout.
Check that the flow control is fitted in the correct orientation. (4 Lpm flow control fitted standard, 6 Lpm option supplied in carton).

Fit the spout onto tap body, then secure the spout in place with grub screw.

SEE IMAGE 12

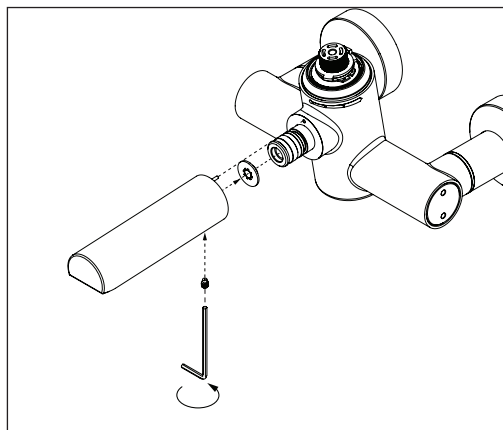


IMAGE 12

14. Fit spline adaptor [8] onto the SQX cartridge spindle [9], then loosely fit handle [1] over the spline adaptor. Rotate the handle anti-clockwise until it stops - the valve is now in full 'OPEN' position. **SEE IMAGE 13 & 14**

15. Open both hot and cold isolation valves by rotating 90°, with the valve slot in line with the flow of water. **SEE IMAGE 15**

16. While the mixer is running, rotate lever handle in a clockwise motion and test water temperature from the outlet to ensure the water temperature changes with the motion of the handle.

17. Continue to turn handle in clockwise motion until the flow of water stops, to the full CLOSED position.

18. Pull the chrome sleeves over the isolation valves so that they come into contact with the colour temperature indicator rings. To do this, rotate the sleeve so that the key slot on the sleeve lines up with that on the colour indicator. When the key slot clicks into place there should be no gap between the sleeve and the indicator, and the access hole faces down. **SEE IMAGE 16 & 17**

19. The SQX Thermostatic mixer is now ready for commissioning. Follow the commissioning procedure as outlined on page 14.

SEE COMMISSIONING - PAGE 14

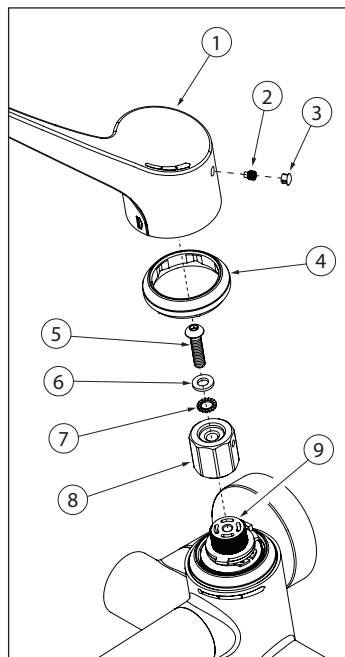


IMAGE 13

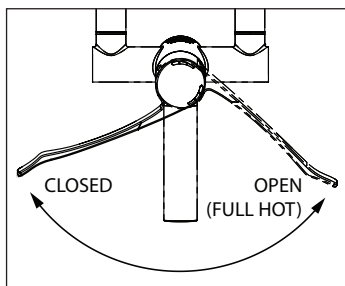


IMAGE 14

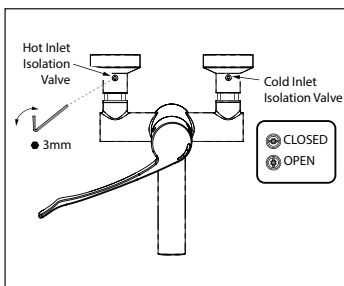


IMAGE 15

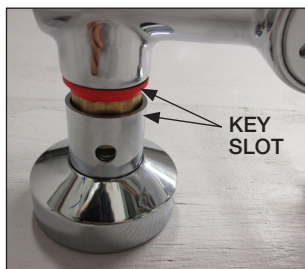


IMAGE 16



IMAGE 17

HANDLE ASSEMBLY & POSITIONING

20. Fit dress ring [4] on the tap body. **SEE IMAGE 19**
21. With the spline adaptor [8] fitted onto the cartridge spindle, loosely place lever handle onto spline adaptor. Check that the valve is in the "OFF" position, where the water flow is turned off and the lever handle comes to a stop when it is rotated clockwise.
22. If the arrow marking on handle does not line up with the marking on tap body, remove the handle and spline adaptor, and re-fit the spline adaptor and handle in the correct position. **SEE IMAGE 20**
23. With the lever handle in correct position, take the lever handle off the spline adaptor. Fit tooth washer [7] and washer [6], and fix the spline adaptor in place using screw [5]. **SEE IMAGE 18**
24. Fit lever handle on and secure in place with grub screw [2], then fit handle plug [3].

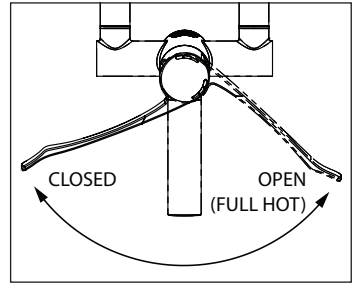


IMAGE 18

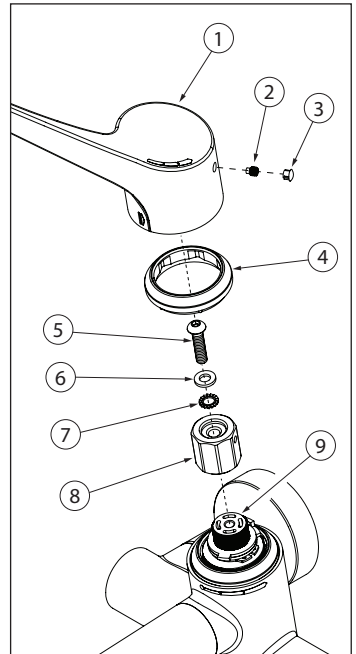


IMAGE 19

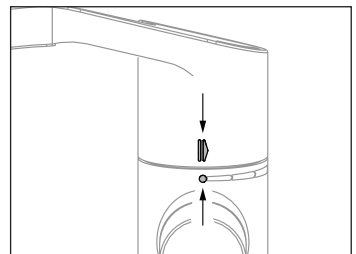


IMAGE 20

operation

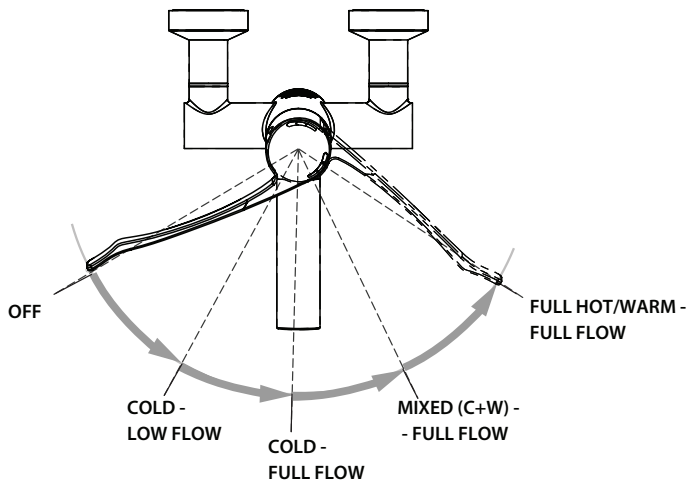
The sequential lever turns progressively from “OFF” to “COLD” to “WARM” / “HOT”.

Starting from OFF position (lever handle to the left),

To operate the tap, turn the lever to the right. The flow volume gradually increases. At the centre 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 (lever handle to the right), 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

temperature adjustment

The ENWARE AQUABLEND SQX Thermostatic Mixers are supplied factory set at a maximum of 41°C +/- 2°C. To alter this temperature, adopt the following procedure:

Note: Changing the maximum set temperature will change the amount of rotation of the handle. Increasing the temperature will mean extra rotation, while decreasing the temperature will result in less rotation.

1. Ensure the mixer is in the 'OFF' position. Remove the screw cap [3] and grub screw [2], then remove handle [1], screw [5,6,7] and spline adaptor [8].
2. With the top of the mixer and cartridge now exposed, remove the upper temperature ring away from the cartridge spline - take care not to remove the lower temperature ring. **SEE IMAGE 22** Loosely re-fit the spline adaptor and handle in this 'OFF' position.
3. Turn the tap on and check the temperature of the water with a hand held digital thermometer. With the thermometer gauge held within the flow stream, continue to move the handle until the desired (Maximum) hot/warm temperature is achieved. **SEE IMAGE 23**
4. Once desired temperature is achieved, remove handle without changing spindle position. Re-fit the upper temperature ring so the lug can form a stop against the brass shoulder on the cartridge. **SEE IMAGE 24 & 25**
5. Loosely re-fit spline adaptor and handle and turn to 'OFF' position. Re-fit handle in its correct "off" position orientation and secure the handle.

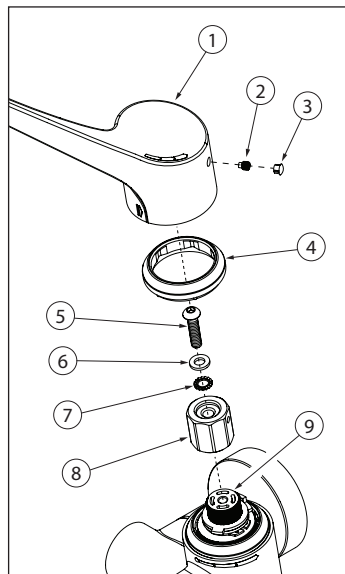


IMAGE 21

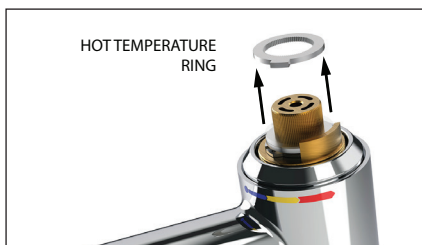


IMAGE 22



IMAGE 23

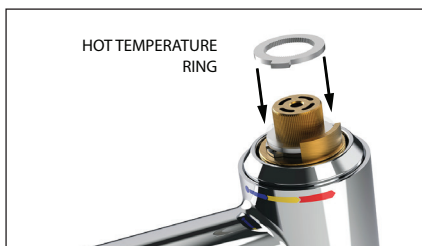


IMAGE 24

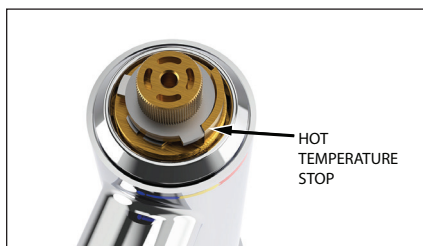


IMAGE 25

commissioning & in-service tests

Since the installed supply conditions are likely to be different from those applied in the laboratory tests, a simple test should be carried out on each mixer at commissioning to provide a performance reference point for future in-service tests. Check the following in all cases to ensure the correct performance of the thermostatic mixer:

- the designation of the thermostatic tap matches the intended application.
- the supply pressures and temperatures are within the range of operating pressures and temperatures for the designation of the valve.
- the supply temperatures are within the range permitted for the tap and by guidance information on the prevention of Legionella etc.

It is important to record the testing done during the commissioning and also to record the temperature of the hot and cold water supplies and the temperature of the mixed water at the maximum setting.

Upon completion of the installation, the valve should be tested and commissioned as per the procedure outlined below or as specified by the local authority. The entire procedure should be read through thoroughly prior to the commissioning of the valve. A calibrated digital thermometer having rapid response time with maximum temperature hold will be required to check and set the outlet mixed temperature of the valve. [ATMS1200 - Aquablend Test Kit]

COMMISSIONING PROCEDURE

TEST & ADJUST MAXIMUM TEMPERATURE

To test the temperature, open the mixer by turning the lever handle to the full "hot" position, and allow mixed heated water to flow for at least 60 seconds to stabilise the temperature before taking a reading at outlet with a digital thermometer. **SEE IMAGE 26**

The temperature should be taken close to the outlet. If the maximum hot or warm outlet temperature setting requires adjustment, follow the Temperature Adjustment instructions on page 13.

SHUT DOWN TEST

Once the correct maximum outlet temperature setting has been achieved, the valve's 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 warm position. Do this at the outlet using the mixer's separate Hot and Cold isolation Valves. **SEE IMAGE 27** This will cause the piston inside the cartridge to travel to its full stroke and ensure that it is moving freely so the valve can operate correctly.

TEST 1

Open mixer to the full hot/ warm position and with both supplies turned fully on at the system's temperatures, allow the mixed water temperature to stabilise and note the outlet temperature.

While holding a digital thermometer in the outlet water 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.

TEST 2

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.

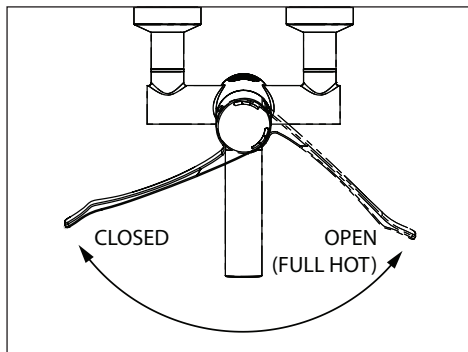


IMAGE 26

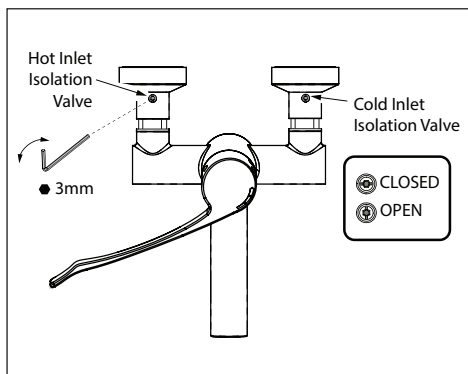


IMAGE 27

IN-SERVICE TESTING

Enware recommends that Thermostatic Mixers have monthly temperature checks and adjustments as needed during the life of the valves.

The purpose of the in-service tests is to regularly monitor and record the performance of the thermostatic taps. Deterioration in performance can indicate the need for service work on the valve and/or the water supplies.

TESTING PROCEDURE:

Using the same measuring equipment or equipment to the same specification as used in the commissioning of the valve, carry out the following sequence:

- Record the temperature of the mixed water outlet.
- Conduct Shut Down Test 1 - Isolate the cold water supply to the tap to witness the flow slow to a slight drip.
- Conduct Shut Down Test 2 - Isolate the hot water supply to the tap to witness the flow slow to slight drip.
- If the mixed water temperature has changed $\pm 2^{\circ}\text{C}$ from the previous test results, then this could indicate the need for the tap to be serviced.

thermal flush disinfection procedure

The Aquablend SQX Thermostatic Mixer 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 Thermostatic Mixer.

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 from the Thermostatic Mixer, and precautions shall be taken to prevent the chance of injury.

THERMAL FLUSH DISINFECTION PROCEDURE:

1. Remove the screw cap [3] and grub screw [2], then remove handle [1], screw [5,6,7] and spline adaptor [8].
SEE IMAGE 28
2. Isolate the Cold water supply by turning the isolation valve 90 degrees into the 'OFF' (CLOSED) position.
SEE IMAGE 29
3. Remove Top Temperature Limiter Ring from the cartridge spline. **SEE IMAGE 30**
4. Re-fit the spline adaptor and handle, and turn the handle all the way to hot. **SEE IMAGE 31**

Warning: Full temperature hot water will flow out of outlet. Care must be taken to prevent scalding.

Maximum hot water temperature allowed for the valve is 70°C for hot water flush, due to limitation of the spout aerator.

5. Once the required time set in the facility's Thermal Flush procedure has passed, turn the handle / spline back to warm water temperature.
6. Turn "ON" (OPEN) cold water supply at the Isolation valve.
7. Set the outlet temperature as required, and fit the Top Temperature Limiter Ring back on.
See Temperature Adjustment Instructions - page 13
8. Re-install handle and isolation cover.
See Handle Assembly & Positioning - page 11

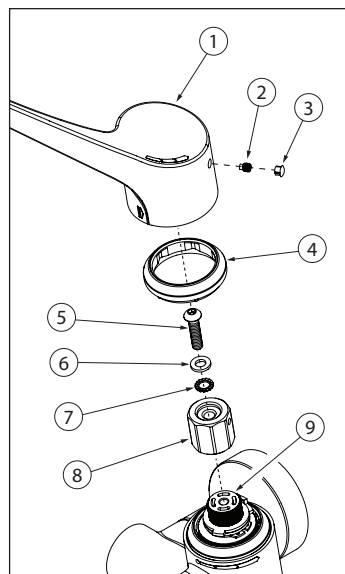


IMAGE 28

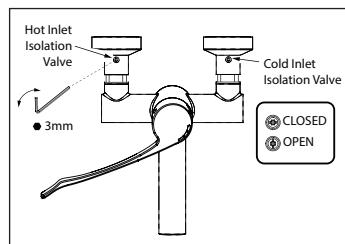


IMAGE 29

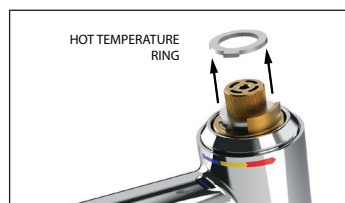


IMAGE 30

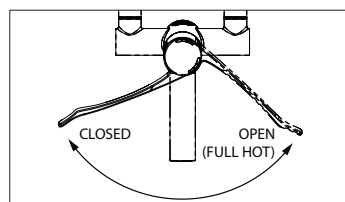


IMAGE 31

maintenance

The AQUABLEND SQX Thermostatic Mixer will only require minimal preventative maintenance work to ensure it operates at its optimum level of performance. The valve should be commissioned and serviced annually, unless the installed conditions dictate more frequent servicing is necessary.

ANNUAL MAINTENANCE PROCEDURE

Every 12 months the AQUABLEND SQX Thermostatic Mixer should be inspected and tested. The valve should be given a light wipe down of the external surface. The valve and surrounding area should be inspected for leaks or water damage and appropriate action taken if required.

Ensure a clean dry work area is available. Firstly isolate the hot and cold supplies to the AQUABLEND SQX Thermostatic Mixer by closing the inlet ball valves found at the wall connection.

During the annual service, the SQX Check valve/mesh strainer assemblies need to be removed and cleaned, as directed in Servicing the Mixer section below.

The AQUABLEND SQX Thermostatic Mixer should then be commissioned - thermal shut down tests are performed and the temperature is reset as required. (Follow the procedure outlined in Commissioning Procedure on page 14 and Temperature Adjustment on page 13).

If the valve fails to shut down or fails to maintain its set temperature, then refer to Troubleshooting on page 21.

FIVE-YEAR MAINTENANCE PROCEDURE

Every five years the AQUABLEND SQX thermostatic Mixer needs to have a full service carried out. This service consists of the same procedure as the "Annual Maintenance Procedure", and in addition the AQUABLEND SQX Thermostatic Mixer Cartridge must be replaced, as directed in the section below - Servicing the Mixer. [ATMS600L - SQX Thermostatic Mixer Cartridge]

After replacing the thermostatic mixer cartridge, AQUABLEND SQX Thermostatic Mixer should then be commissioned - thermal shut down tests are performed and the temperature is reset as required. (Follow the procedure outlined in Commissioning Procedure on page 14 and Temperature Adjustment on page 13).

If the valve fails to shut down or fails to maintain its set temperature, then refer to Troubleshooting on page 21.

servicing the mixer

TURN OFF WATER

 Prior to servicing the mixer, water supply must be turned off.

1. Push the wall connector sleeve in and twist to reveal isolation valves. **SEE IMAGE 32**
2. Turn off both hot and cold water supplies using an Allen key to turn the isolation valve 90°. **SEE IMAGE 33**
3. Open the mixer to ensure water supplies have been isolated correctly and no water flows from outlet prior to servicing the mixer.

STRAINER & CHECK VALVE ASSEMBLY

1. Using SQX prong tool, unwind the side plug and remove from tap body, being careful not to scratch Chrome surface. **SEE IMAGE 33 & 34**
2. Use an M10 Allen key to unscrew the strainer/ check valve assembly, and remove from mixer **SEE IMAGE 35,36,37.**
3. Once removed, check sealing O-rings for damage or debris, and replace if needed.

The strainer/check valve assembly should be cleaned with a dilute water solution of suitable descaling solvent (such as CLR), checked for physical damage and then thoroughly rinsed with clean water.

4. Re-fit strainer/check valve assembly ensuring the O-rings have been lightly greased and then fit side plugs. Turn on water supplies and test for leaks.

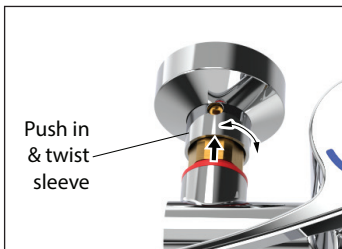


IMAGE 32

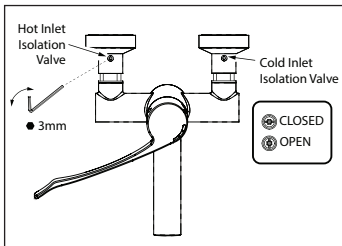


IMAGE 32

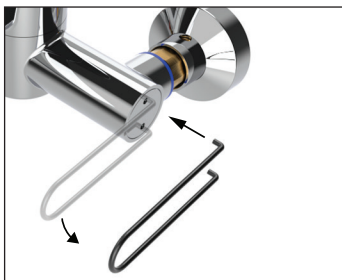


IMAGE 33

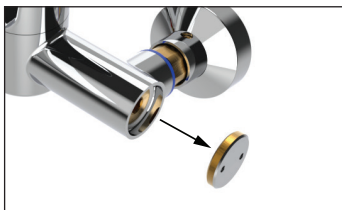


IMAGE 34

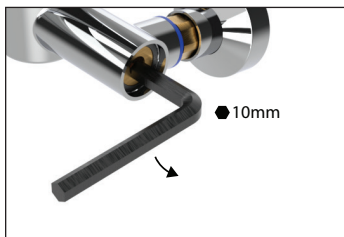


IMAGE 35

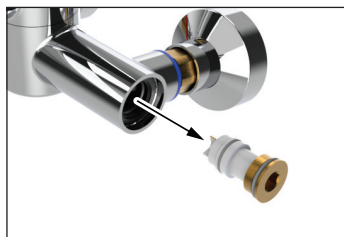


IMAGE 36



IMAGE 37

SQX THERMOSTATIC MIXER CARTRIDGE

Remove the screw cap [3] and grub screw [2], then carefully lift the handle [1] straight up out of position. Remove screw [5,6,7] and spline adaptor [8]. **SEE IMAGE 28**

Using the supplied cartridge socket on the brass headwork, turn the cartridge counter-clockwise until it reaches the end of its threads, and then pull it out of the mixer body.

SEE IMAGE 39 & 40

IMPORTANT: DO NOT TAKE CARTRIDGE APART

Install new SQX Thermostatic Mixer Cartridge, taking care not to pinch or damage the sealing O-rings on the cartridge.

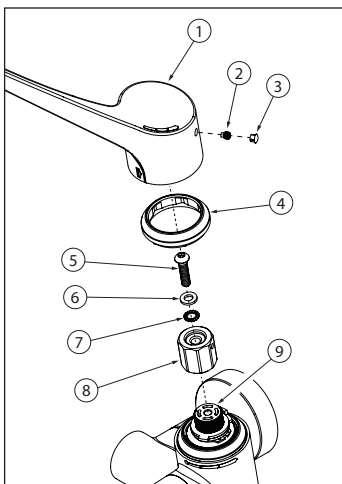


IMAGE 38

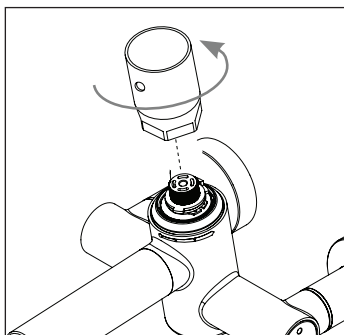


IMAGE 39



IMAGE 40

REMOVABLE SPOUT & AERATOR

Remove grub screw [2] from underside of spout using 2.5mm Allen key, then pull spout [15] straight out. Take out flow controller [13] and clean. **SEE IMAGE 41**

Clean aerator [16] periodically. Unscrew the aerator using aerator key [17], then inspect and reverse rinse aerator to clear any debris. Replace aerator if necessary.

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.

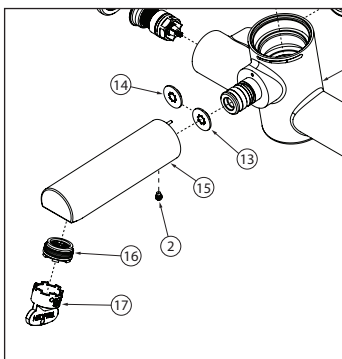
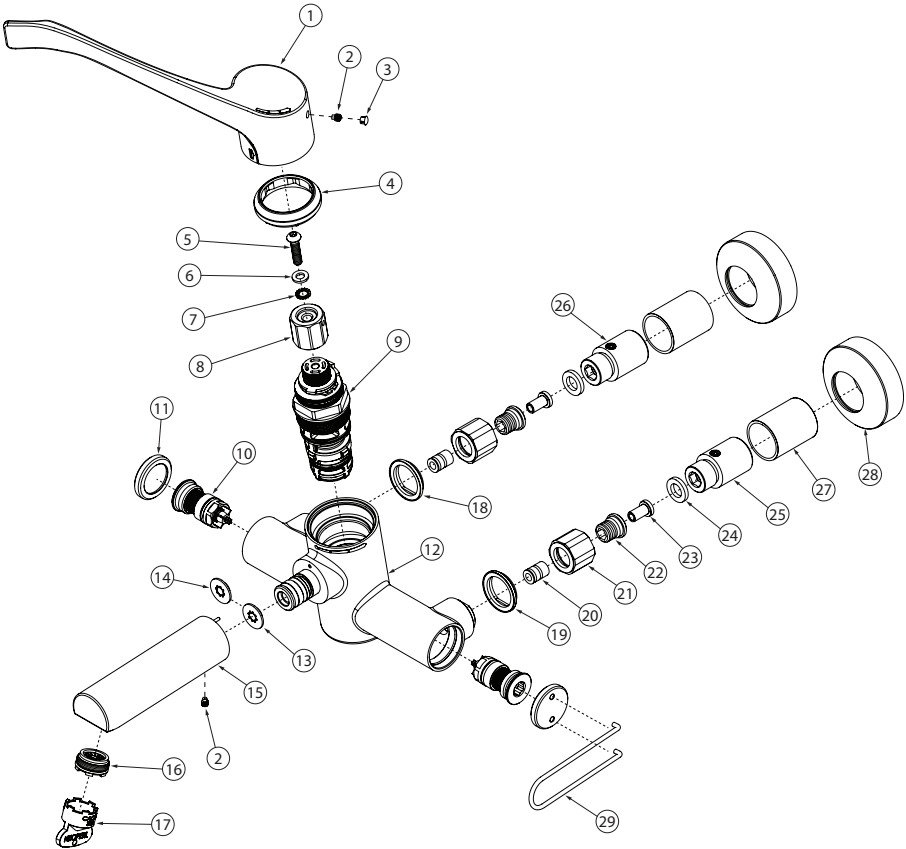


IMAGE 41

spare parts

Description	Sales Code
SQX cartridge Parts: [9]	ATMS600L
Strainer / check valve (each) Parts: [10]	ATMS803
Lever handle 200mm Parts: [1] [2] [3]	ATMS816
Handle fixing kit Parts: [2] [3] [4] [5] [6] [7] [8]	ATMS818
Spout Parts: [15]	ATMS812
Flow controls (4 Lpm, 6 Lpm) and flow straightener, 2x spout O-rings and pin Parts: [13] [14] [16] [17]	ATMS813
Inlet assembly complete Parts: [18] [19] [20] [21] [22] [23] [24] [25] [27] [28]	ATMS825
Tool pack (ATMS8100 cartridge removal tool, prong tool, Allen keys) Parts: [29]	ATMS824
Plug kit Parts: [11 x2]	ATMS826



troubleshooting

Refer to the following troubleshooting /fault-finding chart for specific problems and solutions. Service instructions are supplied with spare part kits

	FAULT / SYMPTOM	CAUSE	RECTIFICATION
1	The desired mixed water temperature cannot be obtained or valve is difficult to set.	- Hot and cold supplies are fitted to wrong connections - Thermostatic cartridge contains debris or damaged - Strainers contain debris - Non-return devices are damaged	- Refit the valve with Hot/Cold supplies fitted to the correct connections - Clean or replace cartridge - Clean strainers ensuring debris is removed - Check non-return device is not jammed, Clean or replace it if necessary
2	The thermostatic mixing valve will not thermally shut down	- Hot to mix temperature differential is not 10°C or greater - Thermostatic cartridge contains debris or damaged - Non-return devices are damaged	- Raise hot water temperature - Clean or replace cartridge - Check non-return device is not jammed, Clean or replace it if necessary
3	Mix temperature unstable	- Flow rate below 2L/min. - Thermostatic cartridge contains debris or damaged - Strainers contain debris - Non-return devices are damaged	- Rectify any pressure deterioration - Clean or replace cartridge - Clean strainers ensuring debris is removed - Check non-return device is not jammed, Clean or replace it if necessary
4	Mix temperature changing over time	- Inlet conditions (pressures or temperatures) are fluctuating - Strainers contain debris	- Install suitable pressure control valves to ensure inlet conditions are within those stated on page 6 - Clean strainers ensuring debris is removed
5	Water is leaking from mixer body	Mixer body O-rings are worn or damaged, or contain debris.	- Replace strainer cap O-rings - Replace hob base sealing O-rings
6	Either full hot or cold flowing from outlet fixture	- Upper temperature ring incorrectly set. - Hot/Cold water has migrated to other inlet - Damaged check valves - Refer also to fault/symptom 1 & 2	- Re-set temperature as per instructions on page 13 to between 35 - 46°C as required - Replace faulty check valves
7	Water is not flowing from outlet	- Aerator or flow controller is blocked - Hot or cold water failure - Thermostatic cartridge contains debris or damaged - Strainers contain debris	- Remove aerator and spout, clean then reinstall - Restore inlet supplies and check mix water temperature - Clean or replace cartridge - Clean strainers
8	Flow rate reduced or fluctuating	- Thermostatic cartridge, strainers or inlet fittings fouled by debris - Dynamic inlet pressures are not within recommended limits	- Check Thermostatic cartridge, strainers and inlet fittings for blockages - Ensure operating conditions are within specified limits and the dynamic inlet pressures are balanced to within +/- 10%
9	Mixed water temperature too hot or cold	- Upper temperature ring is incorrectly set or tampered with - Inlet temperatures are not within specified limits	- Re-set temperature as stated on page 13 to between 35 - 45°C as required - Ensure inlet temperatures are within the specified limits of 55 - 85°C for Hot; and 5 - 25°C for Cold.
10	Mixed water temperature doesn't change when the handle is rotated	Thermostatic cartridge contains debris, has failed or is damaged.	Clean the Cartridge ensuring that all debris is removed and components are not damaged. Replace if necessary
11	Leaking from outlet	- Cartridge is damaged or O- rings split. - Supply pressures too high - Cartridge has come loose in mixer body. - Thermostatic cartridge contains debris or damaged.	- Replace cartridge - Check pressure and install a pressure reduction valve - Ensure Thermostatic cartridge is tightened to 10nm in mixer body - Clean or replace cartridge
12	Water comes on when handle is in closed position	- Mixer has been installed incorrectly or not tightened to a firm stop. - Lever handle not installed correctly	- Re-install or replace cartridge. Refer to service instructions on page 19 - Adjust position of lever handle. Refer to handle installation on page 11

commissioning / maintenance report

PRINT ALL DETAILS or MARK WITH AN X IN BOXES IN BOXES TO INDICATE CHOICE

PLEASE NOTE:

1. In all cases the Licensee is to submit this report within 7 working days after commissioning and / or servicing the valve.

2. Use a separate form for each valve.

3. The original report is to be given to the owner / occupier and retained on site for a minimum of 7 years.

4. All details are to be filled in. Incomplete reports will not be accepted.

Name of Establishment			
Street Address			
Suburb		State	Post Code
Phone No.		Contact Name	
Date		Work Order No.	

Make and Model of Hot Water Unit			
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Make of Mixing Valve		Model No	
		Size	

Valve ID No.		Total No. of Mixing Valves on Site / Building	
Cartridge Serial No.			

Valve Location / Building			
Area serviced by valve			

Outlet type (mark with X)	Bath	Basin	Shower
---------------------------	------	-------	--------

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
☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
If NO, give details and action taken:		

Hot Water	Pressure	kPa	Cold Water	Pressure	kPa
	Temp	°C		Temp	°C
Cold Water Supply via			Pressure Reducing Valve Fitted	☐ YES ☐ NO	

Details of work carried out:

☐ Serviced	☐ Commissioned
☐ Visually inspected and clean valve components	☐ Checked function of non-return valve
☐ Replaced O-rings and lubricate	☐ Reassemble v Dismantle
☐ Set temperature	☐ Thermal shut down test

List of items replaced and part numbers during this visit:	Service Kit No.	
	Other Parts	

Temperature range of warm water at outlet:

☐ Neonatal and children 38-40°C ☐ Adult 40.5-43.5°C Set Temperature (°C):

Date of this service / commissioning:		Date of next service due:	
Previous service carried out by:		Date of previous service:	
Valve installed by:		Date of installation:	

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		
Contractor Name (print)		Contractor Lic / Cert No
Signature Licensed Plumber		
Contractors Phone No		Date
Owner / Occupier Signature		Date

NOTE: A duplicate copy of this report is to be retained at the site for any inspection by authorised persons



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