# AQUABLEND® ESQX<sup>TM</sup> TOUCH FREE THERMOSTATIC MIXERS

# Installation and User Guide

**AUTO SENSE SYSTEM** 





ON DEMAND SENSOR SYSTEM





100402\_FEB 23

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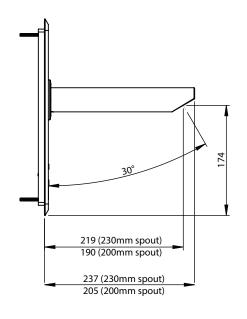


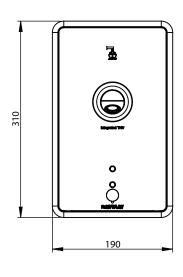
# AQUABLEND® ESQX™ TOUCH FREE THERMOSTATIC MIXERS

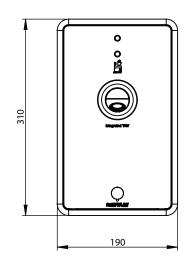
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### FRONT OF WALL COMPONENTS



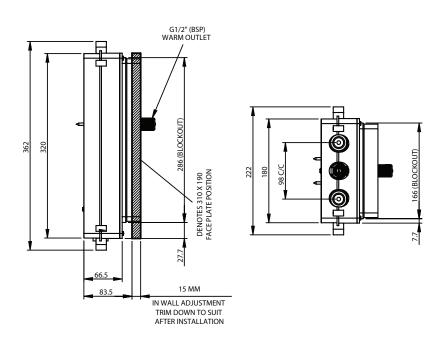


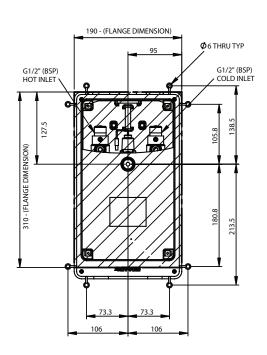


**AUTO SENSE** 

ON DEMAND SENSOR

### IN WALL COMPONENTS





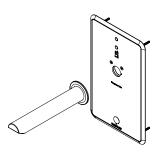
3

NOTE: Enware Australia advises:

- ${\it 1. Due to ongoing Research and Development, specifications may change without notice.}\\$
- 2. Component specifications may change on some export models

# PRODUCT COMPONENTS FRONT OF WALL

# **BATTERY OPERATED**



### ON DEMAND SENSOR

Sensor above outlet

On Demand Sensor Front of Wall Component Only 230mm Fixed Spout with Laminar Flow - Battery Operated

ATWB C2L3 - 8Lpm

ATWB C2L5 - 6Lpm

ATWB C2L6 - 4.5Lpm



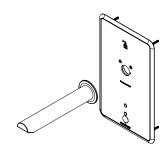
Also available with 200mm spout:

ATWB C1L3 - 8 Lpm

ATWB C1L5 - 6 Lpm

**ATWB C1L6** - 4.5 Lpm





### **AUTO SENSE**

Sensor below outlet

Auto Sense Front of Wall Component Only 230mm Fixed Spout with Laminar Flow - Battery Operated

ATAB C2L3 - 8Lpm

ATAB C2L5 - 6Lpm

**ATAB C2L6** - 4.5Lpm



Also available with 200mm spout:

ATAB C1L3 - 8 Lpm

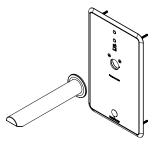
ATAB C1L5 - 6 Lpm

**ATAB C1L6** - 4.5 Lpm



OR

**MAINS POWERED** 



### ON DEMAND

Sensor above outlet

On Demand Sensor Front of Wall Component Only 230mm Fixed Spout with Laminar Flow - Mains Powered

ATWM C2L3 - 8Lpm

ATWM C2L5 - 6Lpm

**ATWM C2L6** - 4.5Lpm



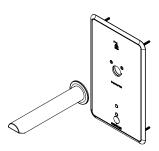
Also available with 200mm spout:

ATWM C1L3 - 8 Lpm

ATWM C1L5 - 6 Lpm

**ATWM C1L6** - 4.5 Lpm

MAINS



### **AUTO SENSE**

Sensor below outlet

Auto Sense Front of Wall Component Only 230mm Fixed Spout with Laminar Flow - Mains Powered

ATAM C2L3 - 8Lpm

ATAM C2L5 - 6Lpm

**ATAM C2L6** - 4.5Lpm

MAINS

Also available with 200mm spout:

ATAM C1L3 - 8 Lpm

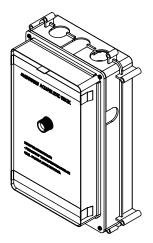
ATAM C1L5 - 6 Lpm

**ATAM C1L6 - 4.5 Lpm** 

MAINS

# PRODUCT COMPONENTS IN WALL





# BATTERY OPERATED

### **ATM620**

6V Battery Operated In-Wall Component



### **NOTE WHEN PLACING AN ORDER**

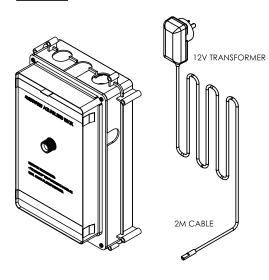
IN WALL
(back of wall)
component
is ordered
separately to
FRONT OF
WALL
component

Battery operated
IN WALL
(back of wall)
component
MUST be paired
with battery
operated
FRONT OF WALL

Mains operated
IN WALL
(back of wall)
component
MUST be paired
with mains
operated
FRONT OF WALL

Sensors will not operate if components are not paired correctly





### **MAINS POWER**

### **ATM621**

12V Mains Power In-Wall Component

MAINS

# **TECHNICAL INFORMATION**

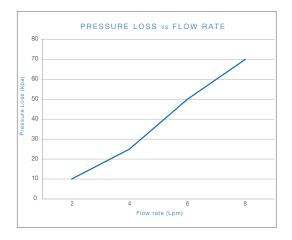
### INSTALLATION CONDITIONS

| Dynamic Inlet Pressures* For optimum operation it is recommended that the hot and cold water supply pressures be balanced within +/- 10% | Min. 20kPa<br>Max. 500kPa |  |
|--|---------------------------|--|
| Static Inlet Pressures For testing purposes / system commissioning   | Max. 1000kPa              |  |
| Hot Temperature Supply Range 55°C - 85°C   |                           |  |
| Cold Temperature Supply Range  | 5°C - 25°C                |  |
| Minimum Temperature Differential  Between hot supply and the outlet temperature  10°C  |                           |  |
| Thermostatic Temperature Range** Set during installation / commissioning   | 35 - 46°C (+/-2)          |  |
| Minimum Flow Rate 2Lpm   |                           |  |

### SENSOR PERFORMANCE

| AUTO SENSE   |                          |
|--|--------------------------|
| Sensor Range<br>Adjustable to + / - 20%                  | up to 250mm<br>(default) |
| Water Run Time   |                          |
| (After hands have moved from sensor range)<br>Adjustable | 2 seconds (±1)           |
| Maximum Flow Period                                      | 0                        |
| Adjustable   | 2 minutes                |

| ON DEMAND SENSOR                 |                 |  |  |  |
|----------------------------------|-----------------|--|--|--|
| Sensor Range                     | 20-100mm        |  |  |  |
| Adjustable to + / - 20%          | 20-100111111    |  |  |  |
| Water Run Time                   | 15 seconds (±1) |  |  |  |
| (After activation)<br>Adjustable | default setting |  |  |  |



- \* In accordance with AS/NZS3500. 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/NZS3500 may void the product and performance warranty provisions.
- \*\* Heated Water Supply AS/NZS3500.4. All heated water installations for sanitary fixtures used primarily for personal hygiene purposes shall deliver heated water at a temperature not exceeding: a) 45°C for healthcare and aged care buildings, early childhood centres, primary and secondary schools and nursing homes, or similar facilities for the aged, the sick, children, or people with disabilities; and b) 50°C for all other situations.











# **INSTALLATION COMPLIANCE**

### INSTALLATION

The Enware Aquablend® Thermostatic Mixers should be installed using the appropriate Standard, Code of Practice and legislation applicable to each state and following the details outlined in this section.

They must be installed by a licensed plumber, or where applicable, a licensed plumber who has undertaken accredited training in Thermostatic Mixing Valves.

**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.

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

Prior to the installation of the valve, the system must be checked to ensure that the system operating conditions fall within the recommended operating range specified in 'Technical Information - Installation Conditions'.

To ensure that the thermostatic mixer 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.

### Note to Installers:

The Auto Flush function must only be activated after installation, when all plumbing and drainage provisions are in place. This is to prevent inadvertent and accidental water damage.

To turn the Auto-flush function "ON" see page 28/29.



**WARNING**: Do not cut the electrical cable of the sensor tap, or alter the product in any way to suit installation. Damage caused in this way will void warranty.

Transformer with 4.5m Extended Cable (ENMS230) are available if extra power cable length is required

### **TOOLS REQUIRED**

| Supplied service and Allen keys          | 3mm Allen key or flat head screwdriver | 3/8" Flat end Allen key |
|--|--|-------------------------|
| Phillips head screw driver               | Spirit level                           | Spanner                 |
| Loctite 577 thread sealant or equivalent |  |                         |

# INSTALLATION PROCEDURE IN WALL

STEP 1 Determine the desired location for the box with relation to the spout height off the basin. AUSHFG specifies the spout should be 1120mm off finished floor level.\*

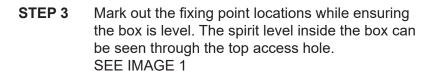
\*Recommended height of spout (point of water discharge) for Type A and Type B Clinical Hand Washing Bay is 1120mm off finished floor level when combined with basin at a height of 865mm, according to AUSHFG (Australasian Health Facility Guidelines).

STEP 2 If installing within a frame wall, fit mounting timber in the desired location for box support. Enware recommend 13mm ply wood fixed between two vertical in wall studs.

**NOTE**: plywood needs to cover the entire back section of the box, so the valve body can be fixed. (See STEP 6)



IMPORTANT: The depth of box from finished wall to the back of the box must be between 85-100mm

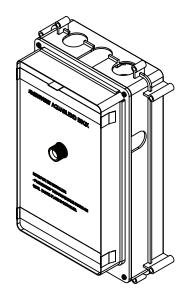


STEP 4 Secure the eSQX™ box to the ply wood support using the external fixing lugs and adequate fixing screws. SEE IMAGE 2

STEP 5 Remove front cover of the box by removing the 4 screws. Keep the front cover and 4 screws at hand.

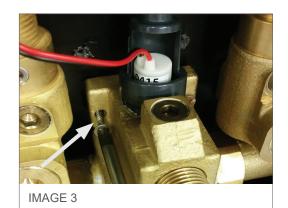
STEP 6 Secure eSQX™ brass body to the mounting timber using stainless steel screws supplied.

SEE IMAGE 3





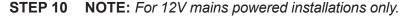




STEP 7 Purge hot and cold supply lines to make sure all debris has been cleared. Connect water supply to inlet fittings using 1/2" BSP loose-nut connectors. SEE IMAGE 4

> **NOTE**: Use loose-nut connectors (#62) or unions for connections to inlets, to allow for easy removal of the valve should there be any need to repair or service the components later on.

- STEP 8 Make sure integral inlet isolation valves are off. The line of the slot should be horizontal across the inlet valve. SEE IMAGE 5
- STEP 9 Turn on the hot and cold water supplies and test the supply pipeline connections for leaks. Do not turn on the integral isolation valves.



Plug the transformer into a power outlet, and place the end connector of the 12V transformer in the box via the cable access hole.

SEE IMAGE 6

Ensure at least 50mm of cable is available in the box to connect to the sensor. If the cable is not long enough, use an extended transformer (ENMS230 available from Enware).

Use a conduit to run the transformer cable between the power point and the box, to allow for easy component replacement in future.



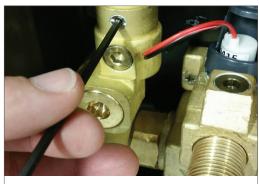
WARNING: Do not cut the electrical cable of the sensor tap, or alter the product in any way to suit installation. Damage caused in this way will void warranty.

To avoid damage to the cable when trimming the front cover (Step 1 - page 10), ensure the cable is tucked away towards the back of the box.

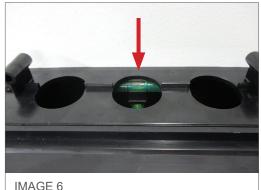
- STEP 11 Re-fit the front /dust cover and secure with the 4 screws.
- STEP 12 The wall is ready to be sheeted. Make sure the sheeting is finished hard against the protruding section of the box. SEE IMAGE 7



**IMAGE 4** 

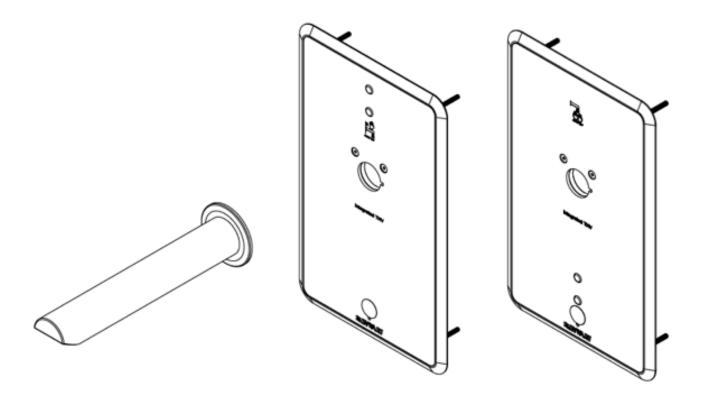


**IMAGE 5** 





# INSTALLATION PROCEDURE FRONT OF WALL



STEP 1 Once the finished wall is complete, trim the protruding section of the box so that it finishes flush with finished wall face. Discard dust cover.

SEE IMAGE 8

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

STEP 2 Fit the chrome back support bracket and secure with four screws supplied. SEE IMAGE 9

10





- STEP 3 Adjust the spout support nut so it sits hard against the back of the support bracket.

  SEE IMAGES 10 & 11
- STEP 4 Cut back the 1/2" outlet thread so you are left with 15mm protruding past the support bracket. SEE IMAGE 12
- STEP 5 Apply thread sealant or tape to outlet thread and screw on the spout retainer using 3/8" Allen key, making sure it finishes hard up against the spout support nut. SEE IMAGE 13

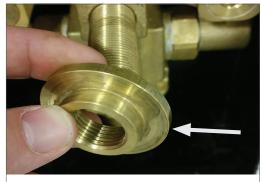


IMAGE 10: SHOWING SPOUT SUPPORT NUT



**IMAGE 11** 



**IMAGE 12** 



11

IIVIAGE 13

# INSTALLATION PROCEDURE FRONT OF WALL

- STEP 6 Locate the spout and take the grub screw out completely. Fit the spout onto the spout retainer. Check that the grub screw hole lines up with the groove on the brass spout retainer, then lock the spout in place using the grub screw. SEE IMAGES 14 & 15
- STEP 7 Commission the valve as stepped out in commissioning procedure on page 19.
- NOTE: Do not high pressure test the supply system, as this may damage the thermostatic cartridge (Max 1000KPa).
- STEP 8 Using the 3/8" Allen key, wind the temperature adjustment gear anti clockwise until it comes to a firm stop. This will close the thermostatic valve. SEE IMAGE 16



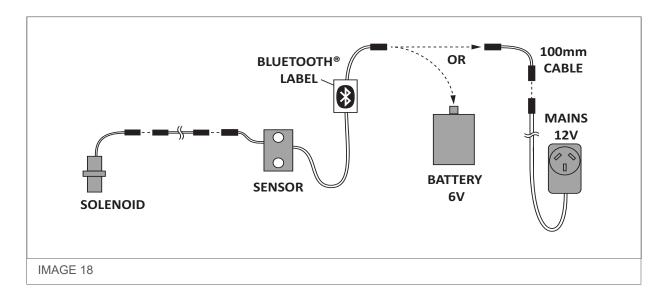




### FITTING THE FACE PLATE

12

- **STEP 9** Remove the spout from spout retainer.
- **STEP 10** Connect the sensor cable marked with Bluetooth label to the battery or transformer.



For connection to transformer, use the 100mm cable adaptor supplied.

Make sure the lines on the two connectors align.

Connect the other sensor cable to the solenoid, with the extension cable supplied.

SEE IMAGE 18

(!)

For 12V mains power installation, the transformer MUST connect to the sensor cable marked with the Bluetooth label, using the 100mm cable adaptor. Cross connection here may damage the sensor and void the product warranty.





**IMAGE 17** 

STEP 11 Activate the sensor by placing your hand in front of sensor about 10cm away for 1 second (for On Demand models), or by holding your hand in front of sensor (for Auto Sense models). Listen for the solenoid to click open.

(Water is still off due to the cartridge position in Step 8). SEE IMAGE 19



NOTE: Do not high pressure test the supply system, as this may damage the thermostatic cartridge (Max 1000KPa).

STEP 12 Take the chrome face plate, carefully push the plate over the spout retainer, then place its 2x lower tabs into the 2x voids in the base of the face plate bracket until it sits flush.

Secure in place using the 2x M4 Allen head screws and tighten with an Allen key. SEE IMAGE 20 and 21



IMAGE 19



IMAGE 20



# INSTALLATION PROCEDURE FRONT OF WALL

- STEP 13 Place the chrome dress flange over the spout connector, making sure the back o-ring of the flange is in place.
- STEP 14 Align the small 3mm hole in dress flange with the hole in the faceplate, and then carefully push on the spout so that the anti-rotation pin fits within the holes. SEE IMAGE 22
- STEP 15 Fit the grub screw on the underside of the spout, and tighten using the 2.5mm Allen key to secure it in place. SEE IMAGE 23 & 24

Ensure the grub screw fits into the groove of the spout retainer, and is fitted all the way into the spout.

STEP 16 Take a 3/8" Allen key, insert into the temperature adjustment port and turn clockwise to open the thermostatic valve. As the valve opens, water may flow from the spout as your hand could be in the sensor range. Turn the temperature adjustment until it stops, then adjust back 1/4 of a turn. Activate the sensor and if required, adjust the temperature to the desired setting. SEE IMAGE 25

(Refer to Page 19 Setting the Outlet Temperature, Steps 3 & 4).

**STEP 17** When complete, fit the chrome temperature adjuster cover onto the face plate.

14



**IMAGE 22** 



**IMAGE 23** 

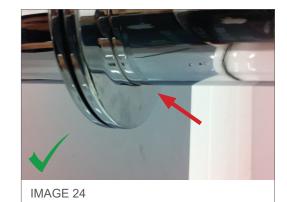


IMAGE 25

# **USER GUIDE** AUTO SENSE

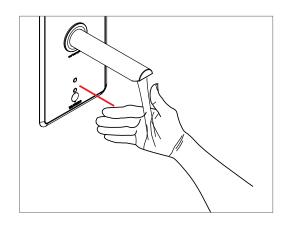
### ESQX™ **AUTO SENSE**

**TO TURN ON** Place hand under spout, in front of sensor.

Water starts to flow.

**TO TURN OFF** Simply move hand away from sensor.

Water flow stops.



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- After turning ON, the tap runs for at least 2 seconds. (Intelligent Afterflow Function).
- Maximum continuous flow period is 2 minutes.

### **OPTIONAL SENSOR FUNCTIONS**

 Afterflow time, maximum flow time, sensor range, and sensor sensitivity can be adjusted, and Auto Flush function can be activated. See Sensor Program on page 28.

<sup>\*</sup>After installation this sheet may be affixed adjacent to the tap for user instruction.

# **USER GUIDE** ON DEMAND SENSOR

### ESQXTM ON DEMAND SENSOR

TO TURN ON

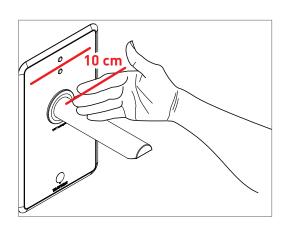
Hover hand in front of sensor for 1 second at a distance of 10cm. Water starts to flow.

TO TURN OFF

Hover hand in front of sensor for 1 second at a distance of 10cm. Water flow stops.

• After turning ON, the tap runs for at least 4 seconds. (Intelligent Afterflow Function).

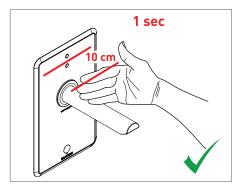
• If tap is not turned OFF, it will automatically turn OFF after a set period. (Factory default setting is 15 sec - adjustable).



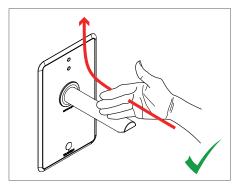
### **OPTIONAL SENSOR FUNCTIONS**

 Afterflow time, maximum flow time, sensor range, and sensor sensitivity can be adjusted, and Auto Flush function can be activated. See Sensor Program on page 28.

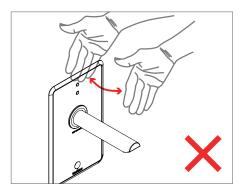
### **USING THE SENSOR**



Place hand in front of sensor at 10cm for 1 sec

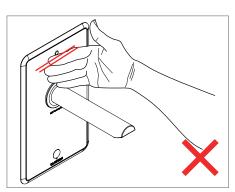


Move hand in towards sensor and pulling up



Wave quickly in front of sensor (does not activate)

16



Hand too close to sensor (does not activate)

# THERMAL DISINFECTION PROCEDURE

### PROCEDURE FOR FLUSHING WITH HOT WATER FOR DISINFECTION

Enware Product Code: ATMS698 - eSQX™ Bypass Adaptor Kit

The internal components can be flushed with full hot water temperature by adding a bypass to strainer / check valve assembly ports, using the following procedure.

- STEP 1 To access the internal components, first remove the spout, dress flange and the faceplate as per Steps 1 (A-D) in Annual Maintenance Procedure page 21. Ensure the cartridge is turned to OFF position.
- STEP 2 Turn off the hot and cold water supplies via the integral isolation valves located within each inlet connector. SEE IMAGE 50
- STEP 3 Using a 3/8" Allen key, unscrew the strainer / check valve assembly from both sides and keep at hand. **SEE IMAGES 51 & 52**
- STEP 4 Screw on bypass adaptors to each port by hand where the strainer / check valve assembly was, until the adaptor fitting bottoms out and the port is sealed by its o-ring seal. SEE IMAGE 53
- STEP 5 Now use a flexible hose to connect the two bypass adaptors, to create a bypass between hot and cold strainer / check valve assembly ports. SEE IMAGE 54

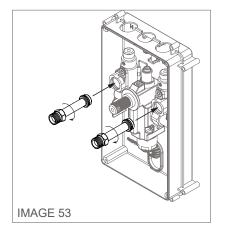


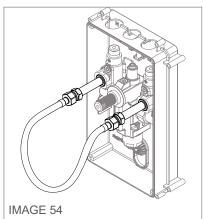






**IMAGE 52** 





# THERMAL DISINFECTION PROCEDURE

- STEP 6 To prepare the valve for hot water flush, it is necessary to make the solenoid stay in the open position. To do this, first activate the sensor to open the solenoid. As soon as a click from solenoid is heard and solenoid opens, disconnect the solenoid cable from sensor at the connector. The solenoid will stay in the open position until later when it is reconnected to the sensor. **SEE IMAGES 55 & 56**
- STEP 7 With the front plate off, temporarily install the spout back on so the water can flow into the basin. SEE IMAGE 57
- STEP 8 Open the integral isolation valve for the hot water supply, while keeping cold side closed. (NOTE: hot water will not flow yet, due to cartridge position being in OFF position.)
- STEP 9 Prepare for hot water to flow out of outlet, taking precautions to address the risk of scalding from the hot water flowing out of the outlet.
- STEP 10 Pasteurisation or heat decontamination procedure can now be carried out according to the methods stated in the relevant standards and regulations.

To start flow of hot water, slowly turn the thermostatic mixer cartridge to OPEN position using 3/8" Allen key. SEE IMAGE 58



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WARNING: Full temperature hot water will flow out of outlet.

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

- **STEP 11** Once decontamination procedure has completed, turn the thermostatic mixer cartridge to OFF position, and turn off hot water supply by closing the isolation valve.
- STEP 12 Unscrew flexible hose and bypass adaptors. Re-fit Strainer / Check Valve Assemblies to ports.
- STEP 13 Connect sensor to solenoid.
- STEP 14 Restore hot and cold water supplies by opening the integral isolation valves.
- STEP 15 Take spout off. Then fit front plate and install spout back on.
- **STEP 16** Commission the valve and set the valve to required temperature, according to the Commissioning Procedure on page 19.





**IMAGE 56** 





# **COMMISSIONING**

### COMMISSIONING OF THE VALVE

Due to the installed water supply conditions being different from those applied in the laboratory test, it is appropriate at commissioning to carry out simple checks and tests on each mixer to provide a performance reference point for future scheduled servicing.

In all cases the following must be checked to ensure correct operational performance of the eSQX valve:

- The intended installation matches the performance brief of the eSQX<sup>™</sup> point of use thermostatic.
- The supply temperatures and pressures are within the permitted range as specified in the Technical table - Installation Conditions on Page 6.

Upon completion of the installation, the valve should be tested and commissioned as per the procedure outlined in this guide or as specified by the local authority. The entire procedure should be read through thoroughly prior to commissioning 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.

To test the temperature, allow the mixed heated water to flow for at least 60 seconds - this allows for a stable temperature reading. For optimum performance, a flow rate of at least 4 Lpm is recommended.

NOTE: The solenoid valve is a latching solenoid - it remains in either open or closed position if power supply is not connected. Factory setting is at open position.

### SETTING OUTLET TEMPERATURE

- STEP 1 Turn on the integral isolation valves using a 2.5mm Allen key or flat head screw driver (if not already turned on).

  SEE IMAGE 26
- STEP 2 Insert the 3/8" Allen key into the mixer's temperature adjustment gear.
- STEP 3 If the thermostatic mixer is closed, turn the tap on by rotating the Allen key clockwise. Check the temperature of the water with a hand held digital thermometer. With the thermometer held within the flow stream, rotate the Allen key until the desired (maximum) temperature is achieved. SEE IMAGE 27
- STEP 4 Once this desired temperature is set, make sure it stays steady for a minimum of 60 seconds. Remove the Allen key without changing the temperature gear position.



IMAGE 26



**IMAGE 27** 

# **COMMISSIONING**

(..continued from previous page)

### CHECK STRAINERS AND NON-RETURN VALVES

Before completing the thermal shut down test, the combined non-return and strainer assemblies need to be checked for cleanliness. (Refer to Servicing the Strainers and Check Valves section on page 19).

- STEP 1 Using a 3/8" Allen key, unscrew the SQX™ check valve / strainer assembly and remove from the mixer. (See IMAGE 28 on page 22.)
- STEP 2 Inspect strainers and check valves for debris. Rinse in clean water if required.
- STEP 3 Re-fit SQX™ check valve / strainer assembly and hand tighten with the Allen key.

### THERMAL SHUT DOWN TEST

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Once the correct outlet temperature has been achieved, the valve's internal mechanism should be exercised by alternately shutting off the hot and cold supplies while the tap is set at its operating temperature.

- TEST 1 While holding a digital thermometer in the outlet flow, quickly isolate the cold water supply to the valve by closing the integral isolation valve on the cold inlet side. The outlet flow should quickly cease flowing. As a rule of thumb the flow should be less than 0.1Lpm following the isolation. Restore the cold water supply to the valve. After the mixed water temperature has stabilised, note the outlet temperature. Ensure 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. As a rule of thumb the trickle should typically be less than 0.4Lpm@500kPa down to less than 0.1Lpm@100kPa following the isolation. Restore the hot water supply to the valve, measure and record the outlet temperature after the mixed water temperature has stabilised. Ensure 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.

# **SERVICE AND MAINTENANCE**

The Enware Aquablend<sup>®</sup> eSQX<sup>™</sup> Electronic Thermostatic Mixing Valve will only require minimal preventative maintenance work to ensure it operates at its optimum level of performance. The valve should be serviced annually, unless the installation conditions dictate more frequent servicing.

### ANNUAL MAINTENANCE PROCEDURE

Every 12 months the Enware Aquablend® eSQX™ Thermostatic Mixer must be inspected and tested. The valve and surrounding area should be inspected for leaks or water damage and appropriate action taken if required.

- **STEP 1** Ensure a clean dry work area is available.
  - A Carefully remove the chrome temperature adjustment cover, using a small flat head screw driver or similar tool. Your hands may activate the sensor during this process. Turn on Cleaning Mode using the Oras App if required (see Page 28.)
  - **B** Insert a 3/8" Allen key into the access port and rotate it anticlockwise until it comes to a firm stop. The thermostatic mixing valve is now closed
  - **C** Remove the spout by loosening the grub screw located on the underside of the spout. Also remove the dress flange ensuring to leave the spout connector in place.
  - **D** Remove the faceplate carefully over the spout connector.

Annual servicing can be done with faceplate bracket in place.

STEP 2 Isolate the hot and cold supplies to the Aquablend® eSQX™
Thermostatic Mixing Valve by closing the inlet ball valves found within the inlet connectors - see Image 26 on page 19. During the Annual Service the SQX™ check valve / mesh strainer assemblies need to be removed and cleaned, as directed in the Servicing the Strainers / Check Valve section following.

A thermal shut down test is performed as specified in the Commissioning Procedure and the temperature is re-set as required. If the valve fails to shut down or fails to maintain its set temperature then refer to Troubleshooting section on page 33.

### **5 YEAR MAINTENANCE PROCEDURE**

Every 5 years the Enware Aquablend® eSQX™ Thermostatic Mixer needs to have a full service carried out. In addition to the Annual Maintenance Procedure listed above, this service requires the Aquablend® SQX™ Thermostatic Mixer Cartridge to be replaced, and it must be replaced as directed in Servicing the Thermostatic Cartridge section on page 23.

After servicing the strainers / check valves and the thermostatic mixer cartridge is replaced, a thermal shut down test is performed and the temperature re set as required. If the valve fails to shut down or fails to maintain its set temperature then refer to Troubleshooting section on page 33.









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# **SERVICE AND MAINTENANCE**

### SERVICING THE STRAINERS AND CHECK VALVES

Enware Product Code: ATMS693 - SQX™ Strainer / Check Valve Assembly (1 Pair)

Prior to servicing the strainers, turn off both the hot and cold water supply via the isolation valve within the inlet connectors. SEE IMAGE 26 on page 19.

- STEP 1 Using a 3/8" Allen key unscrew the SQX™ check valve / strainer assembly and remove from the mixer. SEE IMAGES 28 & 29
- STEP 2 The check valve / strainer 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. SEE IMAGE 30



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When service is complete, re-fit SQX™ check valve / strainer assembly and hand tighten with the Allen key. Test for water tightness.







IMAGE 29



IMAGE 30

### SERVICING THE THERMOSTATIC CARTRIDGE

Enware Product Code: ATMS600 - Aquablend® SQX™ Thermostatic Cartridge ATMS699 - eSQX™ Temperature Control Gear

Ensure the water supplies to both the hot and cold inlets are isolated prior to commencing. SEE IMAGE 31

- STEP 1 Remove the faceplate bracket by loosening the 4x M4 fixing screws and carefully pulling the bracket off the spout connector. SEE IMAGE 32
- STEP 2 Remove the vertical temperature adjustment gear, by unwinding its M5 fixing screw and levering it out of its location on the back face of the box. **SEE IMAGES 33 & 34**
- STEP 3 Use an appropriate size spanner or wrench, unwind the thermostatic cartridge out of the mixer body. Lower the cartridge down into the base of the box until it is free of the mixer body. SEE IMAGES 35, 36 & 37
- STEP 4 Prior to discarding the cartridge, remove the white plastic temperature gear and the brass cartridge support cover, and fit them onto the new cartridge.
- STEP 5 Lightly grease the new cartridge o-rings and re-assemble by screwing it into the mixer body until it reaches a firm stop. Re-fit the temperature gear and recommission the mixer as detailed in Commissioning section on page 19.





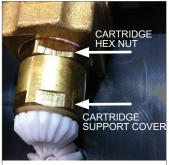




**IMAGE 33** 



IMAGE 34



**IMAGE 35** 



23



# **SERVICE AND MAINTENANCE**

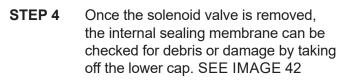
### SERVICING THE SOLENOID VALVE

Enware Product Code: ATMS625 - Solenoid

Prior to servicing, turn off both the hot and cold water supply via the Isolation valve within the inlet connectors. SEE IMAGE 26 on page 19.

Ensure faceplate bracket is removed and the solenoid valve is disconnected from the sensor.

- STEP 1 Place the solenoid key over the base of the solenoid and use an 8mm Allen key to unwind the solenoid from the mixer body. SEE IMAGES 38 AND 39
- STEP 2 When loose, remove the solenoid from the mixer body and check to ensure the bottom sealing o-ring remains assembled on the base of the solenoid valve. SEE **IMAGE 40**
- STEP 3 If the lower sealing o-ring remains in the mixer body use a small Allen key to lever it out if its location within the brass body. SEE IMAGE 41



If damaged, replace with a new solenoid membrane (Enware part - ENMS212).

The membrane and lower cap should be cleaned with a diluted water solution of suitable descaling solvent (such as CLR), checked for physical damage and then thoroughly rinsed with clean water.

- STEP 5 Assemble the membrane into the solenoid ensuring the larger white disc faces inwards and then re-assemble the lower cap including the lower sealing o-ring. SEE IMAGE 43
- STEP 6 Lightly grease the 2 sealing o-rings, then assemble the solenoid into the mixer body and tighten using the solenoid key and the Allen key.
- STEP 7 Test for leaks.

















**IMAGE 43** 

24 Call 1300 369 273

### CHANGING THE BATTERY

For battery operated models only.

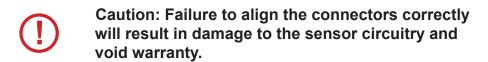
Enware Product Code: **ENMS204** - 6V Lithium 2CR5 Battery

ENMS206 - 6V Lithium 2CR5 Battery with casing

If the mixer fails to function, and there is a RED light displayed within the sensor when trying to activate the product, this means that the battery is low in voltage and needs to be replaced.

- STEP 1 To change the battery, the thermostatic valve must first be closed and the faceplate, spout and dress flange removed as per Step 1A 1D Annual Maintenance Procedure.

  SEE IMAGES 1A, 1B, 1C, 1D, on page 21.
- STEP 2 Remove the battery from within the box, and disconnect it from sensor cable.
- STEP 3 Open the casing cover and change the battery. Use only a 6V Lithium 2CR5 battery (Enware part ENMS204). Replace the battery casing cover.
- STEP 4 Connect the battery casing to the sensor, making sure the white line on the sensor cable connector aligns with the moulded line of the battery casing. SEE IMAGE 44



- **STEP 5** Check that the sensor is working.
  - When the battery is first connected, a red LED should light up in the sensor lens. Activate the sensor and check that the solenoid clicks when the sensor is activated.
- STEP 6 Re-install the battery into the box. Re-assemble the faceplate, dress flange and spout.
- STEP 7 Open the thermostatic valve and restore the temperature setting. Use the 3/8" Allen key to turn the temperature gear clockwise, and adjust until the water from the outlet reaches the desired temperature see Setting the Outlet Temperature in Commissioning section on page 19.



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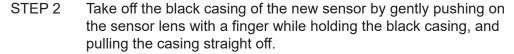
# **SERVICE AND MAINTENANCE**

### REPLACING THE SENSOR

To service the sensor, first close the valve and remove the faceplate, spout and dress flange. Take off the faceplate bracket, then unscrew the 2 screws holding the sensor in place.

STEP 1 Disconnect the sensor from the solenoid and power source.

To remove the sensor, simply place an even pressure on the
2 lenses and firmly press out of its tolerance fit location. SEE
IMAGE 48



Connect the new sensor to the solenoid first, making sure the lines on the two connectors align.

Connect the other connection to the battery or the transformer.

For 12V mains powered version, the transformer lead MUST connect to the cable marked with Bluetooth label, leaving the other cable to connect to solenoid. SEE IMAGE 18 page 13



Warning: Cross connection here will damage the sensor and void the product warranty.

For battery versions, ensure the white line on the sensor cable connector aligns with the moulded line of the battery casing. SEE IMAGE 44 page 25.

The sensor must be oriented so that the text on the back is facing upright. SEE IMAGE 49



**IMAGE 48** 



MAGE 49



IMAGE 45

# ACCESS TO INSPECTION PORTS

As prescribed in AS4032.3, it is necessary to record the hot and cold supply temperatures and pressures during commissioning. This can be done easily with the integral inspection ports located on each inlet connector. see image 45

Close the thermostatic valve and remove spout, dress flange and the faceplate - see Step 1 (A-D) Annual Maintenance Procedure on page 21. Use an M6 Allen key to unscrew the access cover off, then fit a Pete's Plug (Enware part - ATMS1221) to the 1/4" thread port. Measurement probe from thermometer or pressure gauge can be inserted into the Pete's Plug to take measurements.



IMAGE 46

## 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.



# **SPARE PARTS**

| Description  | Part Code |     |
|--|-----------|-----|
| Aquablend® SQX™ Thermostatic Cartridge                           | ATMS600   |     |
| SQX™ Strainer / check valve assembly (pair)                      | ATMS693   |     |
| Solenoid with solenoid key                                       | ATMS625   |     |
| Solenoid service kit (membrane)                                  | ENMS212   |     |
| Battery (6V Lithium 2CR5)  | ENMS204   |     |
| Battery (6V Lithium 2CR5) and casing                             | ENMS206   |     |
| Transformer 12V with 2m lead                                     | ENMS231   | ng  |
| Transformer 12V with 4.5m lead                                   | ENMS230   |     |
| Sensor - Auto Sense 6V Battery Op                                | ENMS236   |     |
| Sensor - On Demand Sensor 6V Battery Op                          | ENMS237   |     |
| Sensor - Auto Sense 12V Mains Power                              | ENMS238   |     |
| Sensor - On Demand Sensor 12V Mains Power                        | ENMS239   |     |
| O-ring for SQX™ strainer / check valve assembly (20x1.5)         | 672340    |     |
| Spout 200mm with 8 lpm laminar flow                              | SQ101L3   |     |
| Spout 200mm with 6 lpm laminar flow                              | SQ101L5   |     |
| Spout 200mm with 4.5 lpm laminar flow                            | SQ101L6   |     |
| Spout 230mm with 8 lpm laminar flow                              | SQ102L3   |     |
| Spout 230mm with 6 lpm laminar flow                              | SQ102L5   |     |
| Spout 230mm with 4.5 lpm laminar flow                            | SQ102L6   |     |
| Aerator - 8 lpm laminar flow                                     | 673415    |     |
| Aerator - 6 lpm laminar flow                                     | 673416    |     |
| Aerator - 4.5 lpm laminar flow                                   | 673417    |     |
| Spout grub screw - M5 Dog point                                  | 672453    |     |
| Face plate fixing screw (each) (socket HD cap SS304 M4 x 10 CSK) | 671484    |     |
| Pete's Plug 1/4" Test Point Adaptor                              | ATMS1221  |     |
| eSQX Bypass Adaptor Kit for Thermal Disinfection                 | ATMS698   | 600 |

# **SENSOR PROGRAM**

The sensor has a built-in program that can be accessed using the Oras App on a mobile device, to monitor or adjust the sensor program. (Available on sensors with Bluetooth® connectivity.)

Through the Oras App, you can:

- Identify the Bluetooth® sensors in the vicinity
- Access all important product information and adjust current settings with secure password access
- Set periodic automatic flushing to avoid water becoming stagnant
- Turn the tap on or off remotely
- Turn the tap off for a set time, for cleaning
- Report the product information and settings made directly to your email
- Keep track of the remaining battery life
- Monitor water consumption

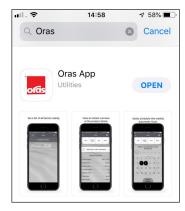
### HOW TO USE THE ORAS APP

1. Download the Oras App from the App Store in an iOS device, or from the Google Play store in an Android device.









🔀 Bluetooth®

- 2. Turn on the Bluetooth® wireless connection in your smart phone or tablet settings.
- Open the Oras App. All Bluetooth® compatible tap sensors in the vicinity will be listed automatically. (If the product is not listed, check that the sensor tap has power turned on or the battery plugged in.)
- 4. Select the desired sensor and access the settings through your phone or tablet device.





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The first page shows details about the sensor.

For explanation on the information listed, see the explanation page (press the (i) button on the App).

To access Command Buttons and Sensor Program Settings, contact Enware Technical Services on **1300 369 273**, or email **oraspassword@enware.com.au**, for access password.

### **COMMAND BUTTONS**

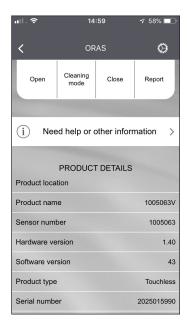
Use the command buttons to open or close the tap using the App, or activate Cleaning Mode (turns off the sensor for a set period of time to allow for cleaning, indicated by green pulsing light indicator on sensor). Report function sends the sensor information to your email.

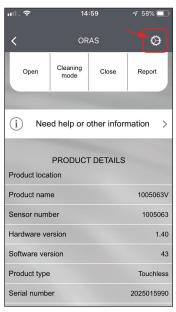
### HOW TO CHANGE THE SENSOR PROGRAM SETTINGS

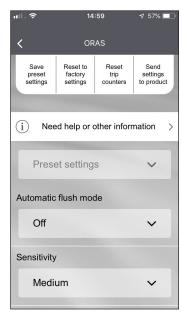
- 1. To access the sensor function program, press the settings button .
- 2. Enter the password. (Contact Enware for default password, or your selected password if already registered).
- 3. Change the settings as desired.
  Once the settings are set in the App, send the settings to the sensor tap. (Press the "Send settings to product" button.)
- Activate the sensor tap several times for the new settings to come into effect.

For explanation on the program settings listed, see the explanation page (press the (i) button on the App), or refer to next page.









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# **SENSOR PROGRAM** SETTINGS

### **Automatic Flush Mode:**

Can set the tap to turn on by itself periodically to flush the water in the line, to prevent the water becoming stagnant. [Set the flush duration (s) and interval (hrs or weekly schedule). Default setting is OFF.]

### Sensitivity:

Reduce the sensitivity (Low) if bright lighting or environmental disturbance is affecting sensor function. Increase the sensitivity (High) if sensor is not detecting the user well. [Set to High, Medium or Low.]

### Max IR power:

Reduce the maximum power of sensor if sensor malfunctions due to the sensor picking up the opposite wall or objects at a far distance. [Settings 0=20%, 1=40%, 2=60%, 3=80%, 4= 100%]

### Max Flow Time:

Set the maximum length of time the water can run for per activation while the user is in the sensor range. If the water runs for longer than this time, the sensor goes to Vandalism state and turns off. It will stay closed until the object in the sensor range is removed, and the sensor will return to normal mode. [Set the time from 2 to 1800 seconds.]

### Manual Flush Time:

Set the maximum length of time the water can run for per activation when activated by the App using a mobile device. [Set the time from 1 to 1800 seconds.]

### Cleaning Mode Time:

Set the length of time the tap will be turned off for Cleaning Mode (activated by the App using a mobile device). [Set the time from 2 to 1800 seconds.]

### After Flow Time:

Set the length of time the tap runs for after user moves hand away from sensor range. [Set from 1 to 20 seconds.]

### Intelligent After Flow Mode:

Turn on to allow the sensor to control and vary the After Flow Time down to 1 sec depending on how long the user is inside the sensor range. (In addition to normal After Flow mode)

### Open Distance (Sensor Range):

Set the sensor detection range. [Settings: Short - reduces the sensor range distance by -20%; Optimal - factory setting; Long - increases sensor range distance by +20%.]

### **Operation Mode:**

- Automatic (Auto Sense) Tap turns on and stays on as long as the user is within sensor range, up to the max flow time. Turns off when the user is out of sensor range.
- **Hand shower** Short swing activates hand shower mode. The waterflow stops after the max flow time or when a hand is again in the sensor range. If a hand is in the range longer than 1s, it activates the Automatic mode.
- Manual ON/ AUTO OFF If hand is within sensor range for longer than Activation Delay Time, the tap turns on and runs for the fixed duration of the maximum flow time without interruption. Set the Activation delay time from 1 to 20 seconds.
- ON/OFF (On Demand Sensor): Hover hand in front of sensor to turn the tap on. Stops after max flow time, or if hand is again in the sensor range. (Not suitable if sensor is located below spout.)

### Flow Rate For Consumption Calculation:

Set the flow rate of the tap outlet to monitor water consumption. [Set from 0.1 up to 40 l/min.]

### **Product Location:**

Enter the name of your choice to identify the location of the tap.

### Password:

Set the password of your choice to limit access to the settings by others (e.g. for public places). Default password for factory setting is "Electra".

# **COMMISSIONING AND / OR MAINTENANCE REPORT**

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

### **PLEASE NOTE:**

- 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 3. each valve.
- The original report is to be given to the owner / occupier and retained on site for a minimum of 7 years.
- All details are to be filled in. Incomplete reports will not be accepted.

| Name of<br>Establishment     |                                     |                                    |            |                     |                              |   |           |
|------------------------------|-------------------------------------|------------------------------------|------------|---------------------|------------------------------|---|-----------|
| Street Address               |                                     |                                    |            |                     |                              |   |           |
| Suburb                       |                                     |                                    |            | State               |                              |   | Post Code |
| Phone No.                    |                                     |                                    |            | Contact Name        |                              |   |           |
| Date                         |                                     |                                    |            |                     | Work Order No                | -   |           |
| Make and Model o             | of Hot V                            | Vater                              | Unit       |                     |                              |   |           |
| Make of                      |                                     |                                    |            | M                   | odel No                      |   |           |
| Mixing Valve                 |                                     |                                    |            | Si                  | ze                           |   |           |
| Valve ID No.                 |                                     |                                    |            | Total No. of Mixing |                              | g   |           |
| Cartridge<br>Serial No.      |                                     |                                    |            |                     | Valves on Site /<br>Building |   |           |
| Valve Location /<br>Building |                                     |                                    |            |                     |                              |   |           |
| Area serviced by valve       |                                     |                                    |            |                     |                              |   |           |
| Outlet type (mark            | with X)                             | ) Bath                             |            | Basin               |                              |   | Shower    |
| Valve installed to r         | Valve installed to requirements of: |                                    |            |                     |                              |   |           |
| 1. The local water authority | supply                              | ly 2. The valve n supplier require |            |                     |                              | 3. The Australian Standards for Plumbing and Drainage |           |
| □YES □NO                     |                                     |                                    | □ YES □ NO |                     | ) □YE                        |   | □NO       |
| If NO, give details          | and ac                              | ction ta                           | aken:      |                     |                              |   |           |

# **COMMISSIONING AND / OR MAINTENANCE REPORT**

| 11 () ()   | Pressure   | kPa             |                           | Cold Water                     |                           | Pressure   | kPa        |
|--|--|-----------------|---------------------------|--------------------------------|---------------------------|------------|------------|
| Hot Water  | Temp   | °C              | _                         |                                |                           | Temp       | °C         |
| Cold Water<br>Supply via   |  |                 |                           | Pressure Reducing Valve Fitted |                           | □ YES □ NO |            |
| Details of work carr   | ied out: □ S   | Serviced        |                           |                                | □ Comm                    | issioned   |            |
|  | /isually inspect<br>elean valve co<br>Replaced o-rin<br>Set temperatur | mpone<br>gs and | nd<br>ents<br>d lubricate | □ Check<br>non-re<br>□ Reass   | ed function<br>turn valve | smantle    |            |
| List of items replace  | and nart   | Service Kit N   | lo l                      |                                |                           |            |            |
| numbers during this  | •  | Other Parts     | 10.                       |                                |                           |            |            |
| 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: |  |                 |                           |                                |                           | °C):       |            |
| Previous service ca  | 9.   |                 | Date of pre               |                                |                           |            |            |
| Valve installed by:  |  |                 | Date of ins               |                                |                           |            |            |
| It is hereby certified accordance with loc   |  |                 |                           |                                |                           |            | rsigned in |
| Contractor Busine  | ss Name  |                 |                           |                                |                           |            |            |
| Contractor Name (  |  |                 |                           | Cont                           | ractor Lic / (            | Cert No    |            |
| Signature Licensed   | d Plumber  |                 |                           |                                |                           |            |            |
| Contractors Phone  |  |                 |                           | 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

# **TROUBLESHOOTING**

| PROBLEM  | CAUSE  | RECTIFICATION   |  |
|--|--|---|--|
| The desired mixed water cannot be obtained, or | Hot and cold supplies are fitted to the wrong connections (cross connection) | Re-fit the valve with hot / cold supplies fitted to the correct connections   |  |
| temperature is difficult to set                | Thermostatic cartridge contains debris or is damaged                         | Clean the cartridge ensuring that all debris is removed and components are not damaged. Replace cartridge if necessary                |  |
|  | Strainers contain debris   | Clean strainers ensuring debris is removed  |  |
|  | Water supply pressures are not within specification                          | Check that the dynamic pressures of hot and cold water supplies are between 20kPa - 500 kPa and within 10% of each other              |  |
|  | Supply hot / cold water temperatures are not within specification            | Check supply hot water temperature is set to: min 55°C - max.85°C, cold 5°C - 25°C  |  |
|  | Non-return device is jammed or faulty.                                       | Check non-return device is not jammed. Clean or replace if necessary  |  |
| The valve will not                             | Flow rate is below 4Lpm  | Rectify any supply pressure deterioration   |  |
| shut down during<br>thermal shut down<br>test  | Supply hot water temperature is too low                                      | Check supply hot water temperature is set to:<br>min 55°C - max.85°C, cold 5°C - 25°C   |  |
|  | Thermostatic cartridge contains debris or is damaged                         | Clean the cartridge ensuring that all debris is removed and components are not damaged. Replace if necessary                          |  |
|  | Strainers contain debris   | Clean strainers ensuring debris is removed  |  |
|  | Non-return device is jammed or faulty  | Check non-return device is not jammed. Clean or replace if necessary  |  |
| Mixed water                                    | Flow rate is below 4Lpm  | Rectify any supply pressure deterioration   |  |
| temperature<br>unstable                        | Thermostatic cartridge contains debris or is damaged                         | Clean the cartridge ensuring that all debris is removed and components are not damaged. Replace if necessary                          |  |
|  | Strainers contain debris   | Clean strainers ensuring debris is removed  |  |
|  | Inlet conditions (pressures or temperatures) are fluctuating                 | Install suitable pressure control devices to ensure inlet conditions are within specification as stated in Technical Table on page 6. |  |
|  | Non-return device is jammed or faulty  | Check non-return device is not jammed. Clean or replace if necessary  |  |
| Mixed water temperature changing over time     | Inlet conditions (pressures or temperatures) are fluctuating                 | Install suitable pressure control devices to ensure inlet conditions are within specification as stated in Technical Table on page 6. |  |
|  | Strainers contain debris   | Clean strainers ensuring debris is removed  |  |
| Water is leaking from mixer body               | Mixer body o-rings are worn or damaged                                       | Replace sealing o-rings   |  |
|  | Fitting connections have loosened  | Tighten all connections and threads, ensure they are sealed   |  |

# **TROUBLESHOOTING**

| PROBLEM  | CAUSE   | RECTIFICATION  |  |  |  |  |
|--|---|--|--|--|--|--|
| Water is not flowing   | Water is turned off   | Ensure water supply is turned on   |  |  |  |  |
| from outlet  | Isolation valves are turned off, or only one supply is turned on          | Check integral isolation valves are turned on  |  |  |  |  |
|  | Aerator or flow control is blocked by debris                              | Clean, then re-install or replace aerator / flow control   |  |  |  |  |
|  | Power is turned off while solenoid is in closed position                  | Turn power supply on and activate sensor   |  |  |  |  |
|  | Solenoid locked up due to supply pressure being too high                  | Release water pressure from solenoid, either by unscrewing the strainer / check valve assembly, or by unscrewing the solenoid. Sensor tap should start working again. Install a Pressure Reduction Valve (PRV) before the tap to prevent the problem recurring |  |  |  |  |
|  | Mixer cartridge temperature cam is turned off                             | Turn mixer on by turning the cam clockwise   |  |  |  |  |
|  | Hot or cold water failure   | Restore inlet supplies and check mix temperature   |  |  |  |  |
|  | Thermostatic cartridge contains debris or is damaged                      | Clean the cartridge ensuring that all debris is removed and components are not damaged. Replace if necessary   |  |  |  |  |
|  | Strainers contain debris  | Clean strainers ensuring debris is removed   |  |  |  |  |
| Either full hot or cold flowing from   | The temperature cam is incorrectly set                                    | Re-set temperature   |  |  |  |  |
| outlet fixture   | Hot / cold water has migrated to other inlet - faulty check valves        | Replace faulty non-return valves   |  |  |  |  |
|  | Refer to first two problems on troubleshooting chart on page 33.          |  |  |  |  |  |
| Flow rate reduced or fluctuating   | Thermostatic cartridge, strainers or inlet fittings are blocked by debris | Check thermostatic cartridge, strainers and inlet fittings for blockages and ensure debris is removed  |  |  |  |  |
|  | Dynamic inlet pressures are not within recommended limits                 | Ensure operating conditions are within specified limits and the dynamic inlet pressures are nominally balanced to within +/- 10%   |  |  |  |  |
| Mixed water<br>temperature too<br>hot or cold  | The upper temperature Cam is incorrectly set or tampered with             | Re-set temperature (as per instructions on setting the outlet temperature on page 19) to between 35 - 46°C as required   |  |  |  |  |
|  | Inlet temperatures are not within specified limits                        | Ensure inlet temperatures are within the specified limits  |  |  |  |  |
| Mixed water<br>temperature doesn't<br>change when the<br>temperature cam<br>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   |  |  |  |  |

| PROBLEM  | CAUSE  | RECTIFICATION  |  |
|--|--|--|--|
| Leaking or dripping  | Solenoid is blocked by debris  | Dismantle solenoid, remove debris and clean  |  |
| from outlet  | Supply water pressures are too high  | Check pressure and install a pressure reduction valve  |  |
|  | Thermostatic cartridge contains debris, is damaged or o-rings are worn                     | Clean the cartridge ensuring that all debris is removed and components are not damaged. Replace if necessary   |  |
|  | Thermostatic cartridge is not fitted tightly   | Tighten cartridge  |  |
| Tap turns on randomly or erratically   | Sensor beam interference<br>by reflections off mirror or<br>high-visibility vest           | Remove interfering object, or adjust sensor range and / or sensitivity by reprogramming the sensor (refer to sensor programming on pages 29 & 30)                    |  |
|  | Incompatible lighting or electrical interference in the environment                        |  |  |
| Battery only lasts a few weeks or days   | Sensor has been permanently damaged due to reversed polarity (being incorrectly connected) | Replace sensor and battery. A new battery typically lasts between 3 to 5 years, depending on frequency of use  |  |
| Sensor red light   | Low voltage  | Replace battery  |  |
| constantly blinks  | Battery is running out, or power supply is insufficient                                    | Check if power cable is not pinched or damaged. Check power supply   |  |
| Water stops slowly (long afterflow period greater than 1 sec if hands have been in sensor range for longer than 5 seconds) | Solenoid has debris caught in the mechanism  | Remove solenoid and inspect solenoid membrane for debris. Remove debris and / or replace solenoid if damaged. Follow steps in Maintenance and Servicing instructions |  |
| Constant flow of water   | Solenoid valve is damaged or solenoid has debris caught in the mechanism                   | Remove solenoid and inspect solenoid membrane for debris. Remove debris and / or replace solenoid if damaged   |  |
|  | Electronic component failure -<br>solenoid valve / sensor / battery /<br>power supply      | Follow steps in Maintenance and Servicing instructions and replace if needed   |  |
|  | Power supply is turned off   | Turn on power supply   |  |
|  | Sensor is constantly activated by an object in front of sensor                             | Remove interfering object  |  |

# **PRODUCT WARRANTY**

The Enware Aquablend® eSQX™ Touch Free Thermostatic Mixer is guaranteed to be free from manufacturing defects and is covered by a conditional 5 Year warranty cartridge replacement, subject to the conditions outlined below.

### **ENWARE PRODUCT WARRANTY**

Subject to the warranty conditions and exclusions set out below ENWARE valves are warranted to be free from defects in material and / or workmanship for a period of 24 months service life and if found by ENWARE to be so defective will be replaced or repaired for a period of 2 years inclusive of parts and labour on the complete assembly; an additional 3 Years warranty, parts supply only is applicable to the thermostatic cartridge component assembly. If the valve is sold by a party other than ENWARE then it is sold by that seller as principal and the seller has no authority from ENWARE to give any additional warranty on behalf of ENWARE.

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

### WARRANTY CONDITIONS

- 1. The valve must have been installed by a licensed plumber in accordance with the ENWARE Installation Instructions and Application Guidelines supplied with the valve, and in accordance with the National Plumbing and Drainage Code AS3500 (the Code) current at the date of installation and all relevant statutory and local requirements in the State or Territory in which the valve is installed.
- 2. Where the valve is installed outside the boundaries of a metropolitan area as defined by ENWARE, the cost of transport insurance and travelling shall be the purchaser's responsibility.
- 3. Where the valve comprises part of a hot water system, installation of that system must be in accordance with its manufacturer's recommendations, the Code and all relevant statutory and local State or Territory requirements.
- 4. The valve must be returned to ENWARE with a fully and correctly completed ENWARE Warranty Claim Form. To make a claim under this warranty you must notify us in writing within 7 days of any alleged defect in the product coming to your attention and provide us with proof of your purchase of the product and completed the Online Product Service and Warranty Form available on website www.enware.com.au/ product-service-enquiry.
- 5. Where the valve is replaced under warranty the replacement valve carries a new warranty as detailed herein.

### WARRANTY EXCLUSIONS

Replacement work will be carried out as set out in the ENWARE 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 of the hot water system of which the valve forms a part or attempts to disassemble the valve.
- 2. The product is not installed, maintained or operated according to the instructions supplied by ENWARE.
- 3. It is found that there is nothing wrong with the valve.
- 4. The failure of the valve is due in part or in whole to faulty manufacture / installation of the hot water system of which the valve forms part.
- 5. The valve has failed directly or indirectly as a result of excessive water pressure or temperature outside the Application Guidelines, thermal input or corrosive environment.
- 6. The valve has failed due to foreign matter either from installation or the water supply.
- 7. The failure of the valve is due to scale formation in the waterways of the valve.
- 8. The failure of the valve is due in part, or in whole, to installation not in conformance with the requirements of the Code.

ENWARE reserves the right to change its specifications without prior notice and will not accept liability for any claim arising from such change.

Subject to any statutory provisions to the contrary, claims for damage to furniture, carpets, walls, foundations or any other consequential loss either directly or indirectly due to leakage from the valve are also excluded from warranty cover.

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