

Aquablend® ESQX® Touch-Free Thermostatic Mixer

Installation and Maintenance Instructions

AUTO SENSE SYSTEM



ON DEMAND SENSOR SYSTEM

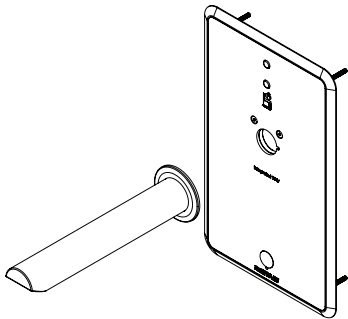


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FRONT-OF-WALL COMPONENT

(Select Any One)



Sensor can use mains or battery.



ON DEMAND

Sensor above outlet

On Demand Sensor Front of Wall Component Only

230mm Fixed Spout with Laminar Flow

ATWM C2L5 - 6Lpm

ATWM C2L6 - 4.5Lpm

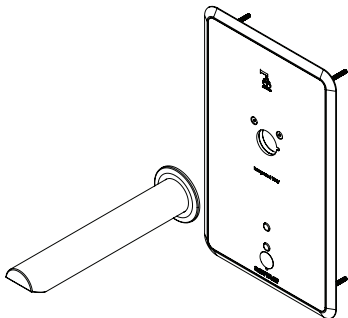
200mm Fixed Spout with Laminar Flow

ATWM C1L5 - 6Lpm

ATWM C1L6 - 4.5Lpm

Custodian Basin Outlet

ATWM-CNBSN - 8Lpm



Sensor can use mains or battery.



AUTO SENSE

Sensor below outlet

Auto Sense Front of Wall Component Only

230mm Fixed Spout with Laminar Flow -

ATAM C2L5 - 6Lpm

ATAM C2L6 - 4.5Lpm

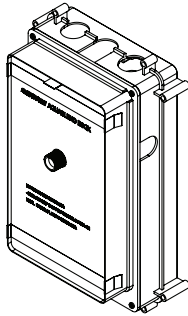
200mm Fixed Spout with Laminar Flow -

ATAM C1L5 - 6Lpm

ATAM C1L6 - 4.5Lpm

IN-WALL COMPONENT

(Select Any One)



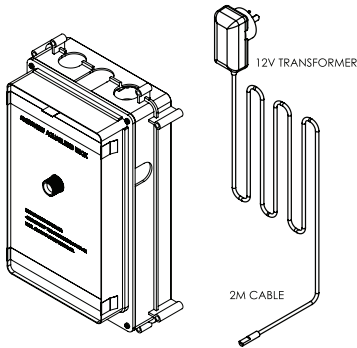
BATTERY OPERATED

6V Battery Operated
In-Wall Component

ATM620

With with Single Probe Kit for
Connection to Smartflow TMV
Monitoring System

ATM620SF



MAINS POWER

12V Mains Power
In-Wall Component

ATM621

With with Single Probe Kit for
Connection to Smartflow TMV
Monitoring System

ATM621SF

NOTE :

FRONT OF WALL component is ordered separately to IN WALL (back of wall) component.
Choose one FRONT-OF-WALL component and one IN-WALL component.

Any FRONT OF WALL component can be combined with any battery or mains power IN-WALL component.

technical information

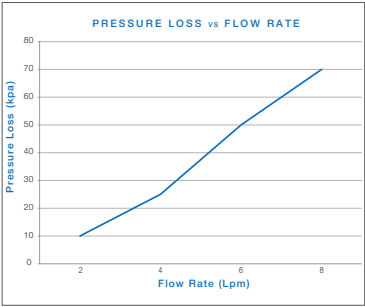
INSTALLATION CONDITIONS

Dynamic Inlet Pressures For optimum operation it is recommended that the hot and cold water supply pressures be balanced within +/- 10%	Min. 20kPa 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	2 Lpm

SENSOR PERFORMANCE

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

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



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 must be installed and commissioned by a qualified plumber.

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.



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 17/18.



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	10mm flat end Allen key
Phillips head screw driver	Spanner	Spirit level
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).

In case of limited wall space, use plywood or similar material of lesser thickness, or consider other fixing methods



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

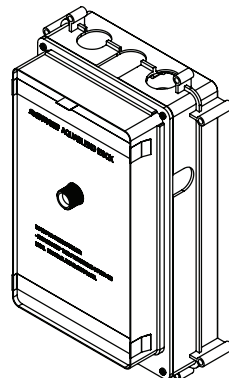


IMAGE 1

STEP 3 Mark out the fixing point locations while ensuring the box is level. The spirit level inside the box can be seen through the top access hole. SEE IMAGE 1

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



IMAGE 2

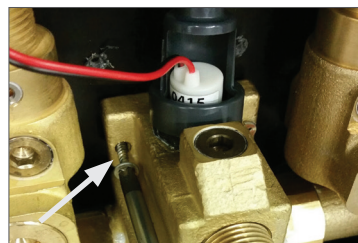


IMAGE 3

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.

STEP 10 **NOTE:** *For 12V mains powered installations only.*
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 or an extension cable (available from Enware - see page 27 - Spare Parts).

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

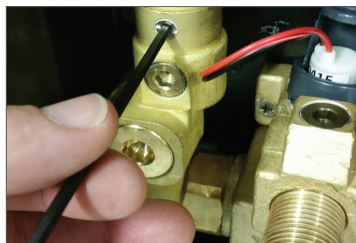


IMAGE 5

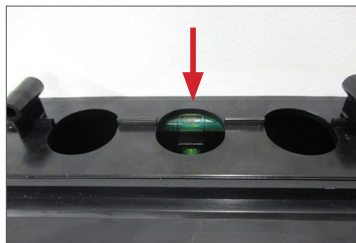
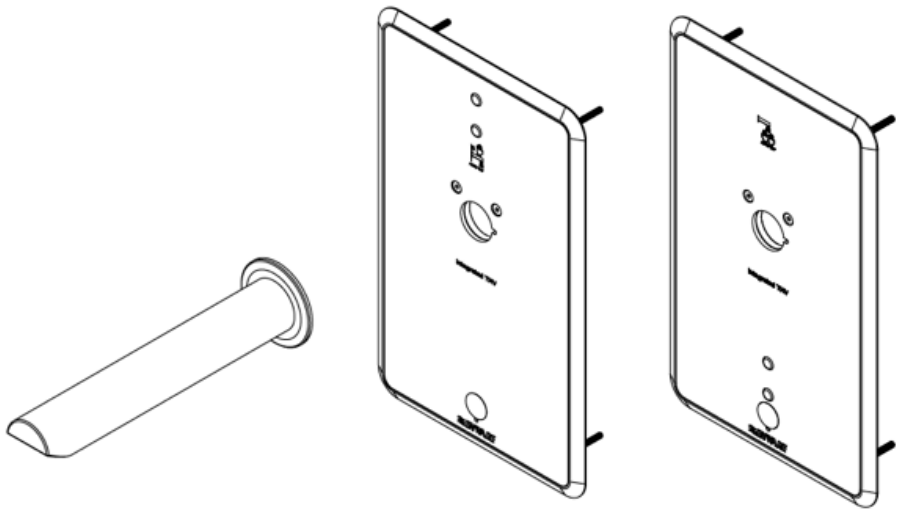


IMAGE 6



IMAGE 7

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



IMAGE 8

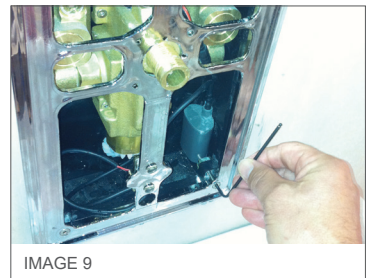


IMAGE 9

- 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 10mm Allen key, making sure it finishes hard up against the spout support nut. SEE IMAGE 13

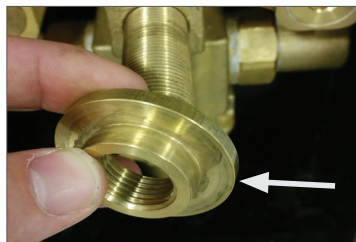


IMAGE 10: SHOWING SPOUT SUPPORT NUT



IMAGE 11



IMAGE 12

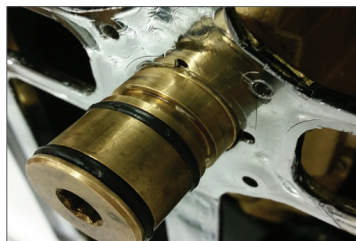


IMAGE 13

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 10mm 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

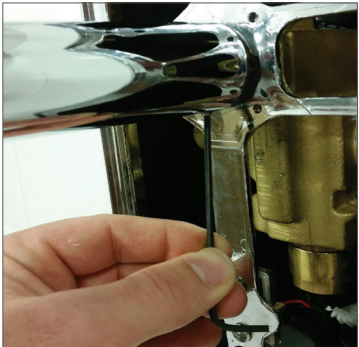


IMAGE 14



IMAGE 15



IMAGE 16

FITTING THE FACE PLATE

STEP 9 Remove the spout from spout retainer.

STEP 10 Connect the sensor cable marked with Bluetooth label to the battery or transformer.

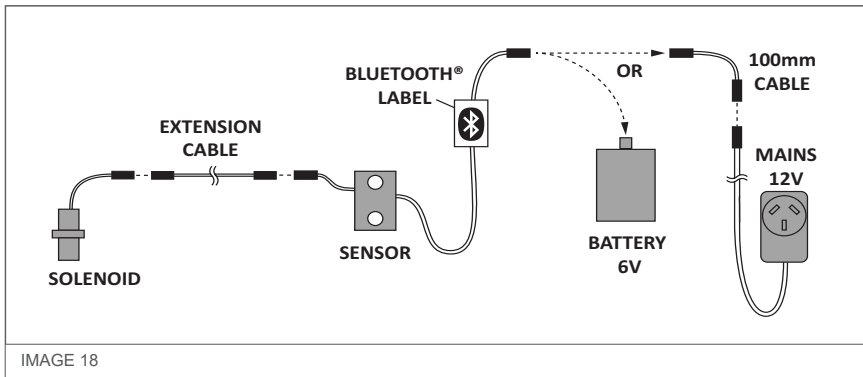


IMAGE 18

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.

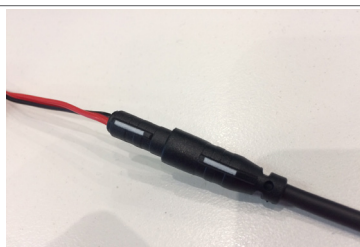
SEE IMAGE 18



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. SEE IMAGE 20

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



IMAGE 19



IMAGE 20



IMAGE 21



For Custodian Basin Outlet (ATWM-CNBSN), see installation instructions for The Custodian Basin Outlet supplied separately for STEP 13 - STEP15.

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 10mm 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.



IMAGE 22



IMAGE 23

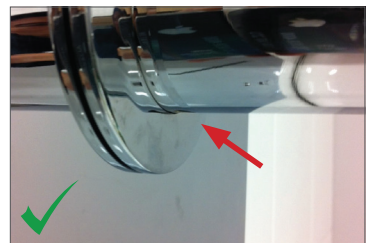


IMAGE 24

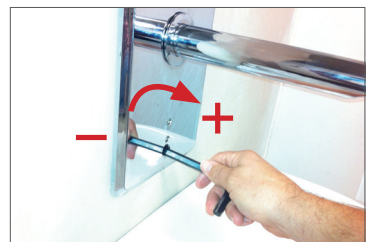
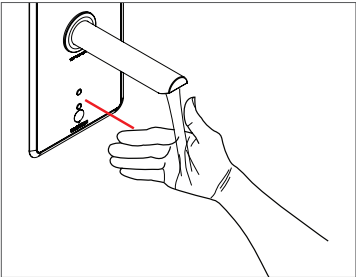


IMAGE 25

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.



- 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.

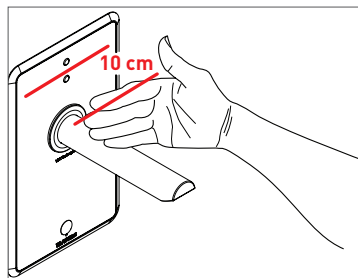
user guide - ON DEMAND SENSOR

ESQX 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.

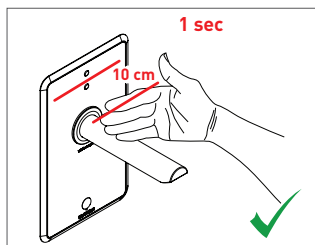
- After turning ON, the tap runs for at least 4 seconds. (Intelligent Afterflow Function).
- If tap is not turned OFF, it will automatically turn OFF after a set period. (Factory default setting is 15 sec - adjustable).



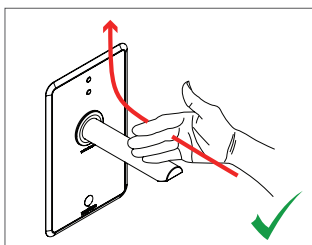
OPTIONAL SENSOR FUNCTIONS

- 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.

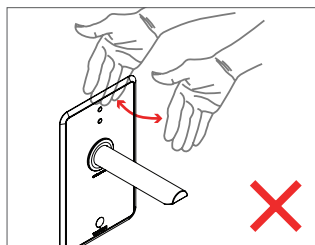
USING THE SENSOR



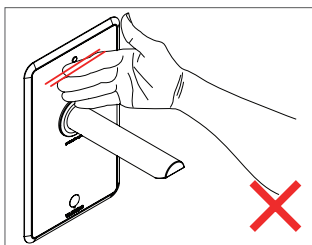
Place hand in front of sensor at 10cm for 1 sec



Move hand in towards sensor and pulling up



Wave quickly in front of sensor (does not activate)



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 10mm 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

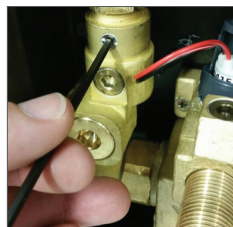


IMAGE 50

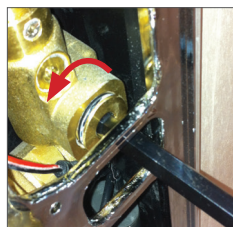


IMAGE 51

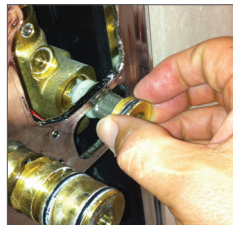


IMAGE 52

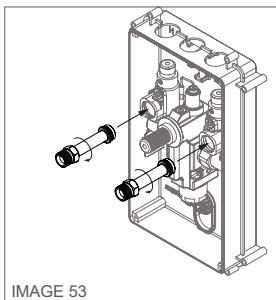


IMAGE 53

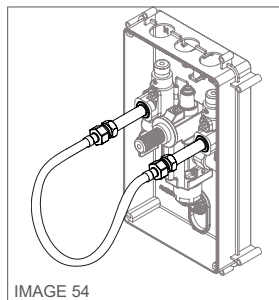


IMAGE 54

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

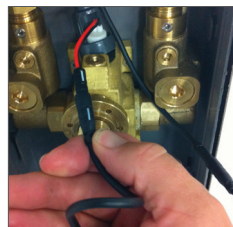


IMAGE 55

STEP 7 With the front plate off, temporarily install the spout back on so the water can flow into the basin. SEE IMAGE 57 Ensure the spout grub screw is fully engaged. (See STEP 15 page 14)

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.)

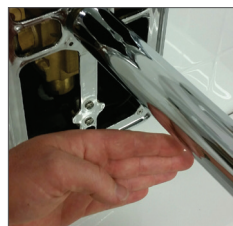


IMAGE 56

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 10mm Allen key. SEE IMAGE 58



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.

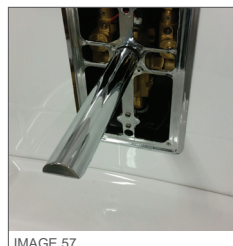


IMAGE 57

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.

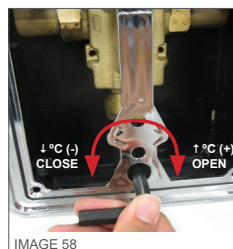


IMAGE 58

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 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.

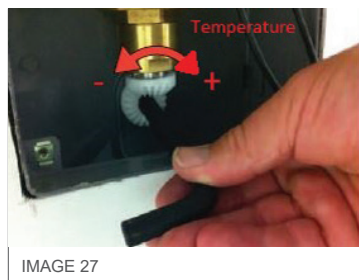
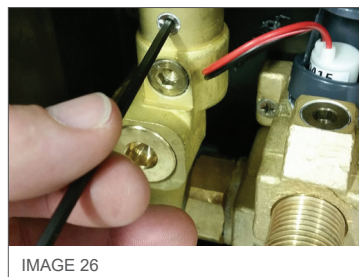
Upon completion of the installation, the valve should be tested and commissioned as per the procedure outlined in this guide or as specified by the local authority. The entire procedure should be read through thoroughly prior to commissioning the valve. A calibrated digital thermometer, having rapid 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 10mm 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.



(continued to next page)

(..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 22).

- STEP 1** Using a 10mm 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

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. The flow should be less than 0.1L/min 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. 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, 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 eSQX 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.

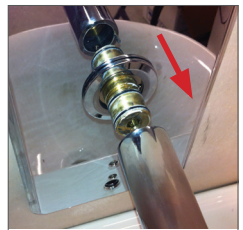
- STEP 1** Ensure a clean dry work area is available.
- A** Carefully remove the chrome temperature adjustment cover, using a small flat head screw driver or similar tool. Your hands may activate the sensor during this process. Turn on Cleaning Mode using the Oras App if required (see Page 28.)
 - B** Insert a 3/8" or 10mm Allen key into the access port and rotate it anti-clockwise 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.



STEP 1 A



STEP 1 B



STEP 1 C

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 reset as required. If the valve fails to shut down or fails to maintain its set temperature then refer to Troubleshooting section on page 33.



STEP 1 D

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

STEP 1 Using a 3/8" or 10mm 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

STEP 3 Ensure there is no debris caught within the sealing faces.

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

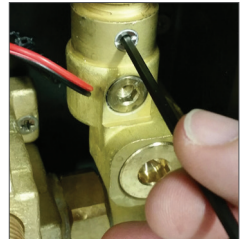


IMAGE 26

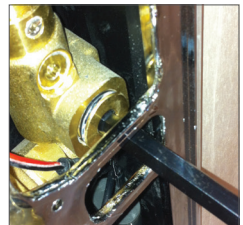


IMAGE 28

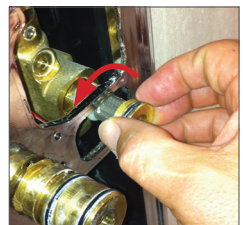


IMAGE 29

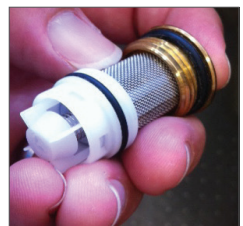


IMAGE 30

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 Using an appropriate size spanner, 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 from old cartridge.

On the new cartridge, remove the upper temperature limiter ring. Then fit the brass cartridge support cover and white plastic temperature gear that were removed from the old cartridge. SEE IMAGE 37A

STEP 5 Lightly grease the new cartridge O-rings and re-assemble by screwing the cartridge 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.

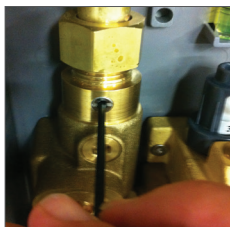


IMAGE 31

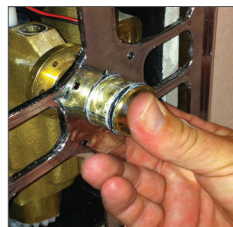


IMAGE 32



IMAGE 33



IMAGE 34

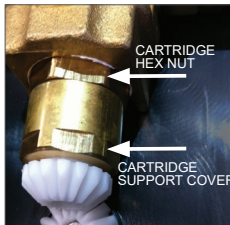


IMAGE 35



IMAGE 36

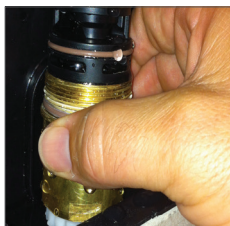


IMAGE 37



IMAGE 37A

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 unwind the solenoid from the mixer body. SEE IMAGES 38 AND 39

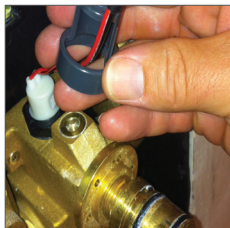


IMAGE 38

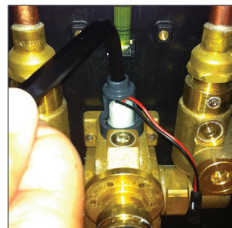


IMAGE 39

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

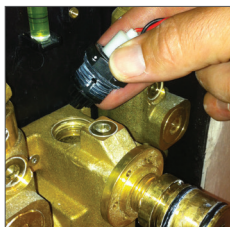


IMAGE 40



IMAGE 41

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

STEP 4 Once the solenoid valve is removed, the internal sealing membrane can be checked for debris or damage by taking off the lower cap. SEE IMAGE 42

If damaged, replace with a new solenoid membrane (Enware part - ENMS212) or complete solenoid (ATMS625).

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.



IMAGE 42



IMAGE 43

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.

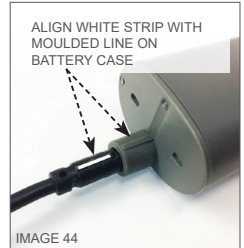
CHANGING THE BATTERY

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



Caution: Failure to align the connectors correctly will result in damage to the sensor circuitry and void warranty.

- STEP 5** Check that the sensor is working.
When the battery is first connected, LED should light up in the sensor lens for the first few seconds. 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 a 3/8" or 10mm 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.

REPLACING THE SENSOR

Enware Product Code: **ENMS239** - On Demand sensor 6V Batt & 12V Mains
ENMS238 - Auto Sense sensor 6V Batt & 12V Mains

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 45

STEP 2 Take off the black casing of the new sensor by gently pushing on the sensor lens with a finger while holding the black casing, and pulling the casing straight off.

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 12



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 46



IMAGE 45

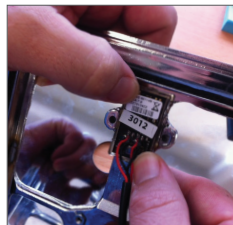


IMAGE 46

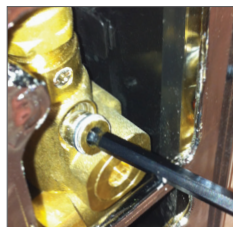


IMAGE 47

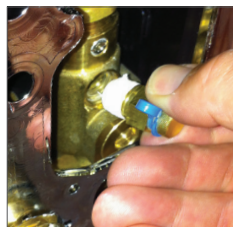


IMAGE 48



IMAGE 49

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 47










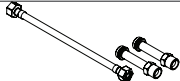
Close the thermostatic valve and remove spout, dress flange and the faceplate - see Step 1 (A-D) Annual Maintenance Procedure on page 21. Use an M6 Allen key to unscrew the access cover off, then fit a Pete's Plug (Enware part - ATMS1221) to the 1/4" thread port. Measurement probe from thermometer or pressure gauge can be inserted into the Pete's Plug to take measurements. SEE IMAGE 48 & 49

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 2 metre lead	ENMS231	
Transformer 12V with 4.5 metre lead	ENMS230	
Extension cable for transformer - 3 metres	673841	
Extension cable for transformer - 8 metres	673840	
Sensor - Auto Sense (6V Battery Op & 12V Mains Power)	ENMS238	
Sensor - On Demand (6V Battery Op & 12V Mains Power)	ENMS239	
Cable for sensor-transformer 100mm M/M KCC SK2/2	693454	
O-ring for SQX strainer / check valve assembly (20x1.5)	672340	
Spout 200mm with 6 lpm laminar flow	SQ101L5	
Spout 200mm with 4.5 lpm laminar flow	SQ101L6	
Spout 230mm with 6 lpm laminar flow	SQ102L5	
Spout 230mm with 4.5 lpm laminar flow	SQ102L6	
Aerator - 8 lpm laminar flow (Cache STD)	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	
Temperature control gear	ATMS699	
Pete's Plug 1/4" Test Point Adaptor	ATMS1221	
eSQX Bypass Adaptor Kit for Thermal Disinfection	ATMS698	

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.)

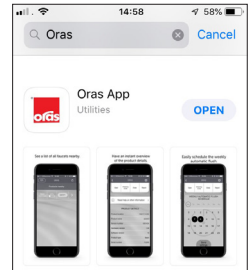
Through the Oras App, you can:

- 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

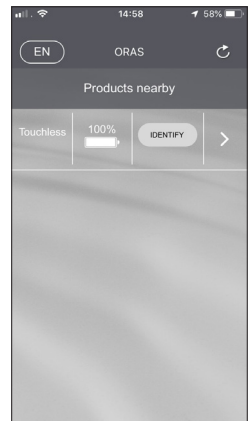


HOW TO USE THE ORAS APP

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



2. Turn on the Bluetooth® wireless connection in your smart phone or tablet settings.
3. 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.



The Bluetooth® trademark and logos are property of Bluetooth SIG, Inc., and their usage is licensed for Orasgroup. Other brands and trade names are property of the respective owners. Apple, the Apple logo, iPhone, iPad, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Google Play and the Google Play logo are trademarks of Google Inc.

The first page shows details about the sensor.

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

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

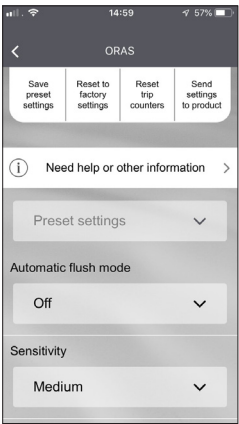
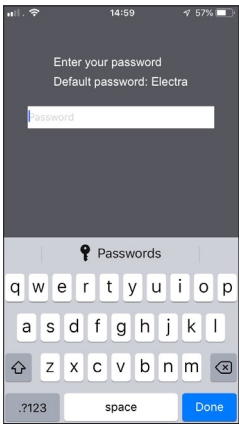
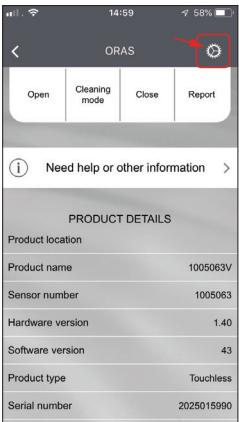
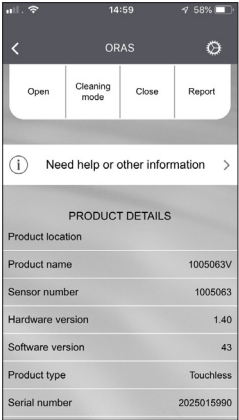
COMMAND BUTTONS

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.)
- 4. 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 ⓘ button on the App), or refer to next page.



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 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			
----------------------------------	--	--	--

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
<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
If NO, give details and action taken:		

Hot Water	Pressure	kPa	Cold Water	Pressure	kPa
	Temp	°C		Temp	°C
Cold Water Supply via			Pressure Reducing Valve Fitted	<input type="checkbox"/> YES <input type="checkbox"/> NO	

Details of work carried out:

<input type="checkbox"/> Serviced	<input type="checkbox"/> Commissioned
<input type="checkbox"/> Visually inspected and clean valve components	<input type="checkbox"/> Checked function of non-return valve
<input type="checkbox"/> Replaced O-rings and lubricate	<input type="checkbox"/> Reassemble v Dismantle
<input type="checkbox"/> Set temperature	<input type="checkbox"/> 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

troubleshooting

PROBLEM	CAUSE	RECTIFICATION
The desired mixed water cannot be obtained, or temperature is difficult to set	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
	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 shut down during thermal shut down test	Flow rate is below 4Lpm	Rectify any supply pressure deterioration
	Supply hot water temperature is too low	Check supply hot water temperature is set to: 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 temperature unstable	Flow rate is below 4Lpm	Rectify any supply pressure deterioration
	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

PROBLEM	CAUSE	RECTIFICATION
Water is not flowing from outlet	Water is turned off	Ensure water supply is turned on
	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
	Sensor is blocked by an object in front of sensor	Remove interfering object
Either full hot or cold flowing from outlet fixture	The temperature cam is incorrectly set	Re-set temperature
	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 temperature too 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 temperature doesn't change when the temperature cam 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 from outlet	Solenoid is blocked by debris	Dismantle solenoid, remove debris and clean
	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 by reflections off mirror or high-visibility vest	Remove interfering object, or adjust sensor range and / or sensitivity by reprogramming the sensor (refer to sensor programming on pages 28-30)
	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 constantly blinks	Low voltage	Replace battery
	Battery is running out, or power supply is insufficient	Check if power cable is not pinched or damaged. Check power supply
Water stops slowly	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 - solenoid valve / sensor / battery / 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 statement - WATTS AUSTRALIA

EFFECTIVE FROM 20 November 2023

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

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

1. Conditions

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

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

2. Make a claim

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

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

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

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

3. Our responsibilities

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

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

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

4. Australian Consumer Law

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

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

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

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

5. Warranty table

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

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