

AQUABLEND™ ESQX™ TOUCH FREE THERMOSTATIC MIXERS

Installation and User Guide

AUTO SENSE SYSTEM



ON DEMAND SENSE SYSTEM



I00057_May 19

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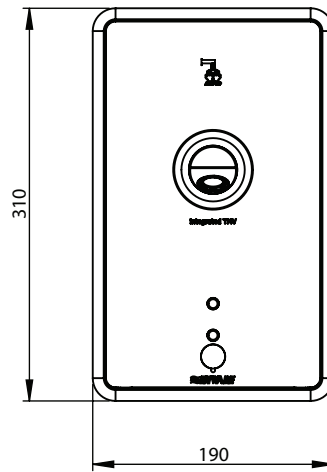
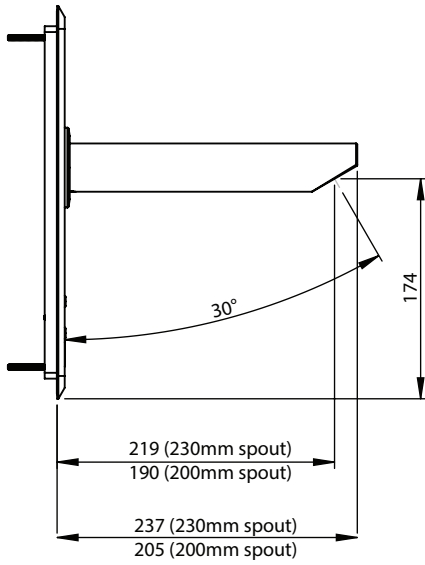


AQUABLEND™ ESQX™ TOUCH FREE THERMOSTATIC MIXERS

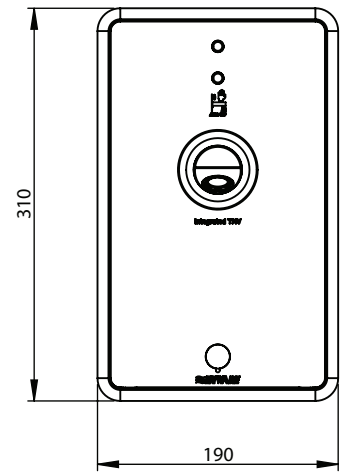
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FRONT OF WALL COMPONENTS

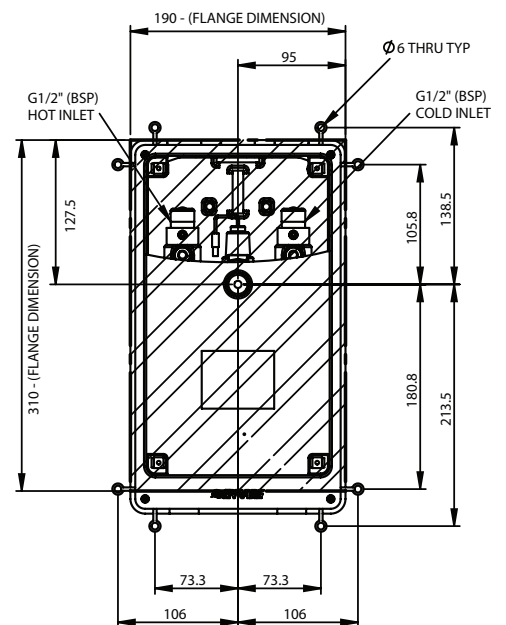
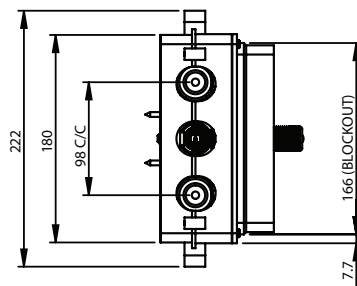
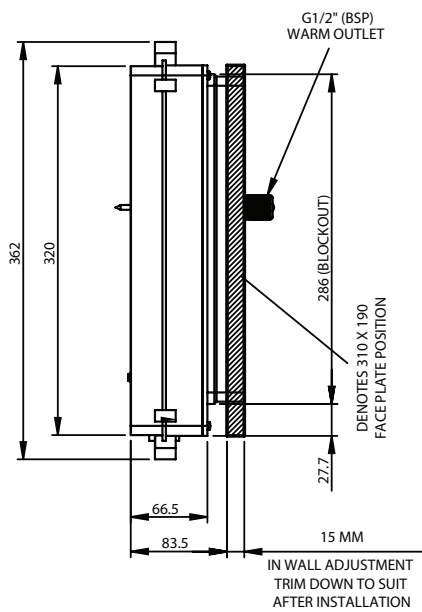


AUTO SENSE



ON DEMAND
SENSOR

IN WALL COMPONENTS

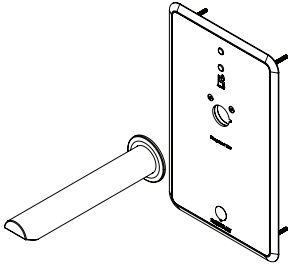


NOTE: Enware Australia advises:

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

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

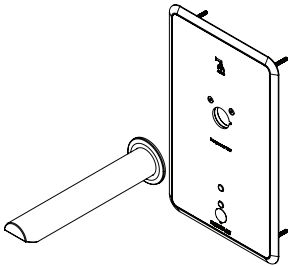


Also available with 200mm spout:

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

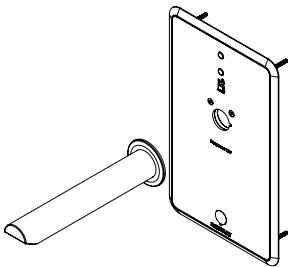
ATAB C1L5 - 6 Lpm

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

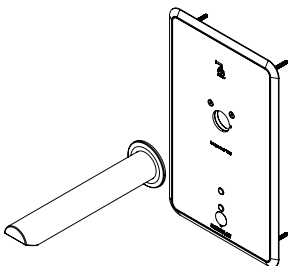


Also available with 200mm spout:

ATWM C1L3 - 8 Lpm

ATWM C1L5 - 6 Lpm

ATWM C1L6 - 4.5 Lpm



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



Also available with 200mm spout:

ATAM C1L3 - 8 Lpm

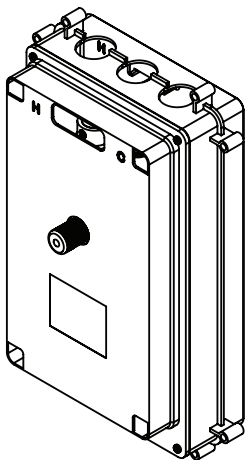
ATAM C1L5 - 6 Lpm

ATAM C1L6 - 4.5 Lpm



PRODUCT COMPONENTS IN WALL

BATT



BATTERY OPERATED

ATM620

6V Battery Operated In-Wall Component

BATT

NOTE WHEN PLACING AN ORDER

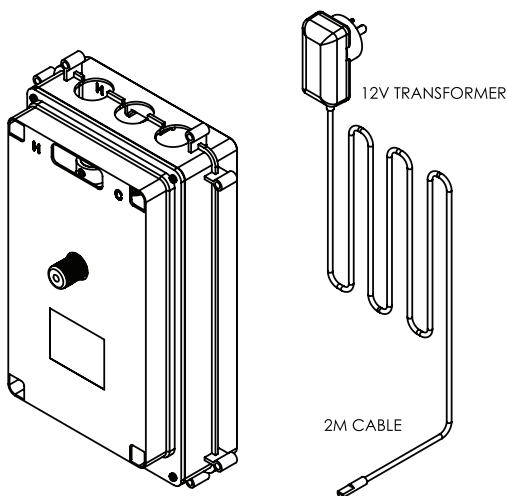
IN WALL (back of wall) component is ordered separately to FRONT OF WALL component

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



MAINS POWER

ATM621

12V Mains Power In-Wall Component

MAINS

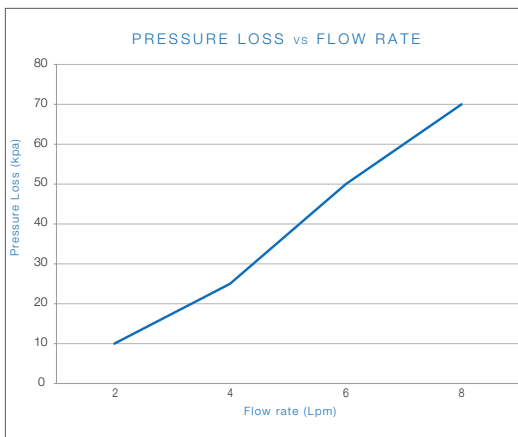
TECHNICAL INFORMATION

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 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 Can be set to 170mm	250mm (default)
Water Run Time After hands have moved from sensor range	2 seconds (±1)
Maximum Flow Period	2 minutes
ON DEMAND SENSOR	
Sensor Range	20-100mm
Water Run Time After activation Other settings available: see user guide	15 seconds (±1) 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.



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. (Refer to STEP 6)



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

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

STEP 6 Secure eSQX™ brass body to the mounting timber using stainless steel screws supplied. SEE IMAGE 3

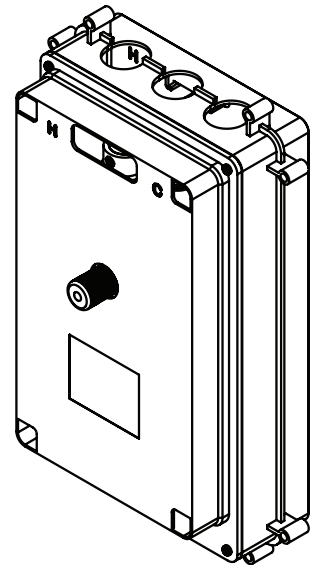


IMAGE 1

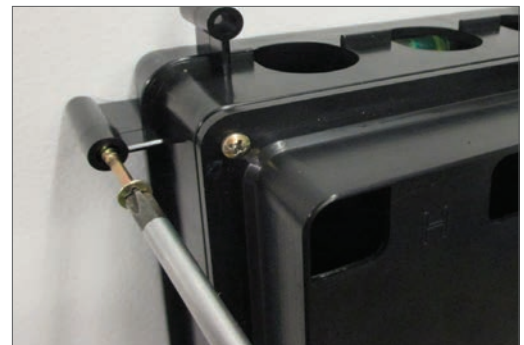


IMAGE 2



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 (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 dust cover (Step 1 - page 12), ensure the cable is tucked away towards the back of the box.

STEP 11 Re-fit the 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

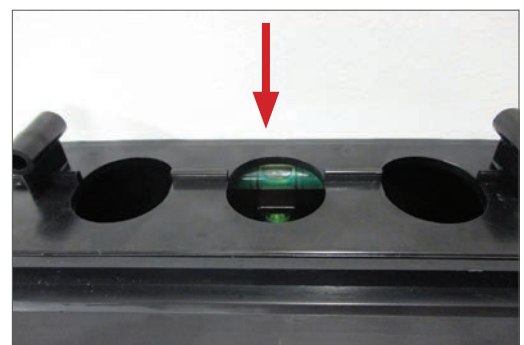
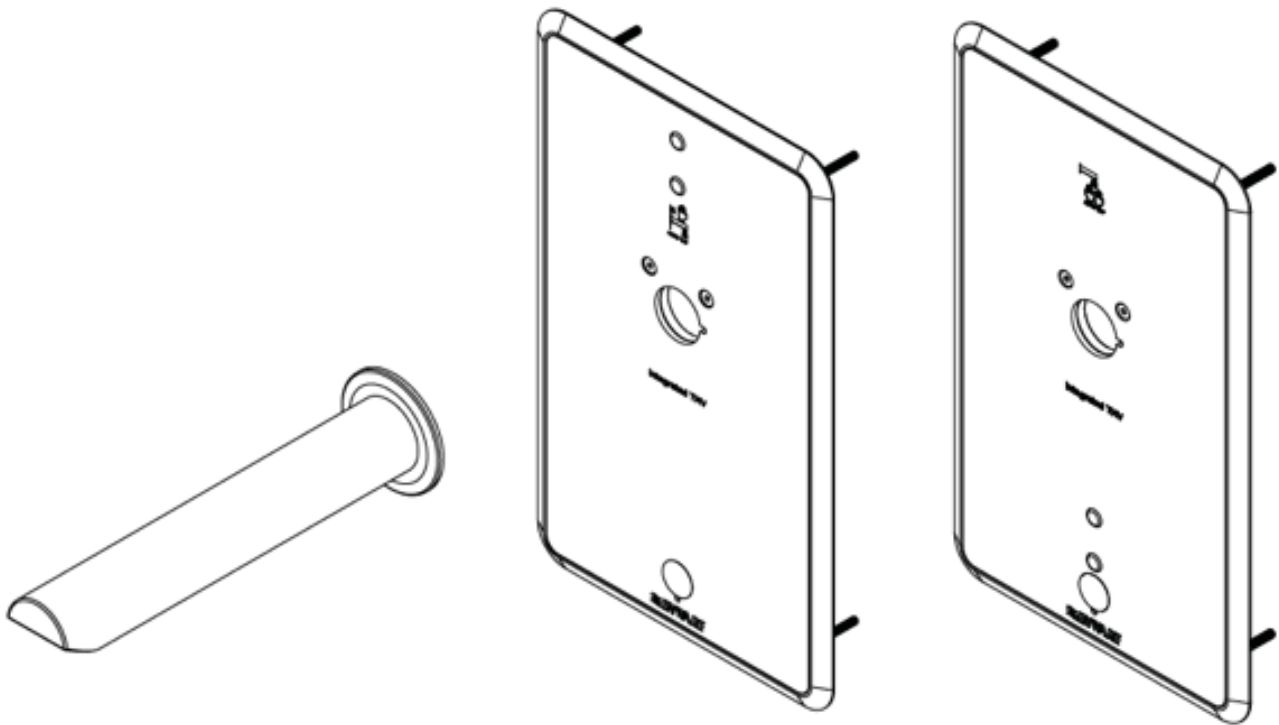


IMAGE 6



IMAGE 7

INSTALLATION PROCEDURE FRONT OF WALL



STEP 1 Once the finished wall is complete, the protruding section of the box needs to be trimmed so it finishes flush with finished wall face. Discard 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

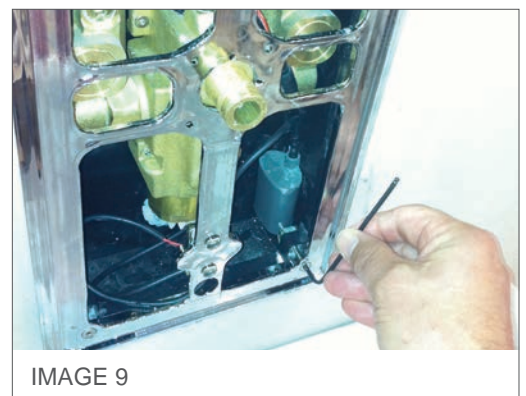


IMAGE 9

- 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 3/8" Allen key, making sure it finishes hard up against the spout support nut. SEE IMAGE 13

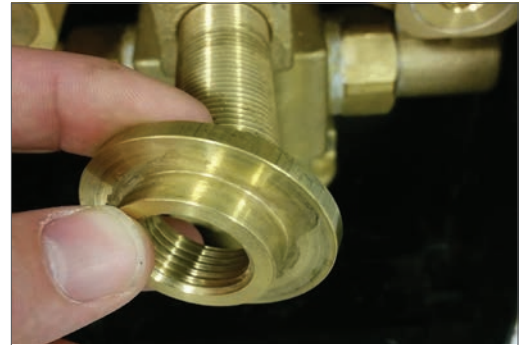


IMAGE 10: SPOUT SUPPORT NUT



IMAGE 11



IMAGE 12



IMAGE 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



IMAGE 14



IMAGE 15

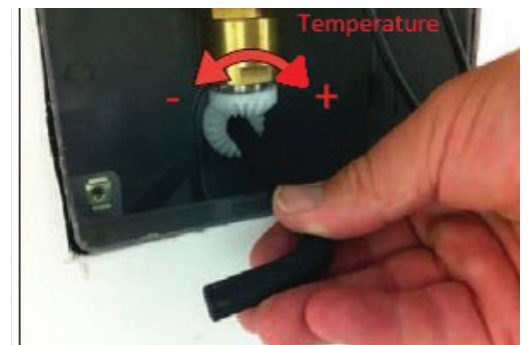


IMAGE 16

FITTING THE FACE PLATE

STEP 9 Remove the spout from spout retainer.

STEP 10 Connect the cables on the sensor to the solenoid and the battery making sure the lines on the two connectors align. SEE IMAGE 17



For 12V mains powered installations, the transformer lead MUST connect to the cable marked 12V, leaving the other cable to the solenoid. Cross connection here will damage the sensor and void the product warranty. SEE IMAGE 18

STEP 11 Activate the sensor by placing your hand in front of sensor about 10cm away for 1 second for On Demand Sensor 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 faceplate, carefully push the plate over the spout retainer, then place its 2x lower tabs into the 2x voids in the base of the faceplate 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 17



IMAGE 18



IMAGE 19



IMAGE 20



IMAGE 21

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 plate.



IMAGE 22



IMAGE 23

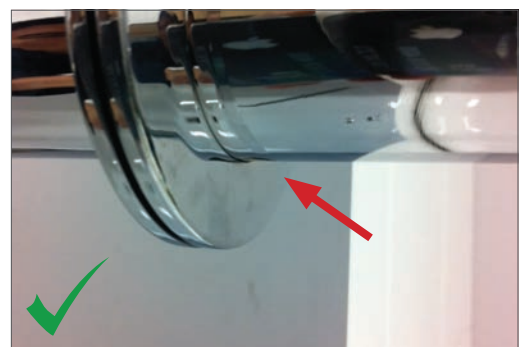


IMAGE 24

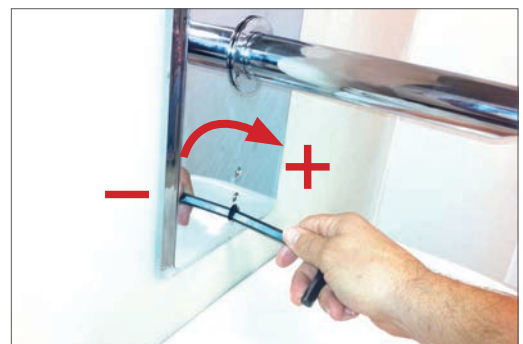


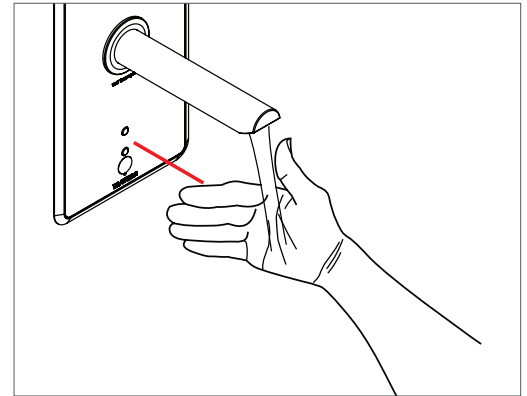
IMAGE 25

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).
- During this time the tap cannot be turned off.
- Maximum continuous flow period is 2 minutes.

OPTIONAL SENSOR FUNCTIONS

- Afterflow can be increased to 4 seconds.
- Default sensor range 250mm can be reduced to 170mm.
- Sensor sensitivity level can be reduced if it is over sensitive.

*After installation this sheet may be affixed adjacent to the tap for user instruction.

USER GUIDE ON DEMAND SENSOR

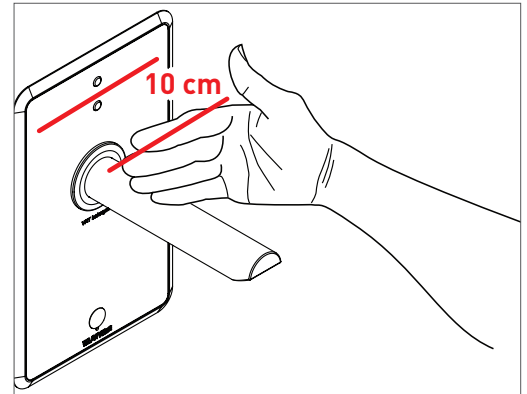
ESQX™ ON DEMAND SENSOR

TO TURN ON

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

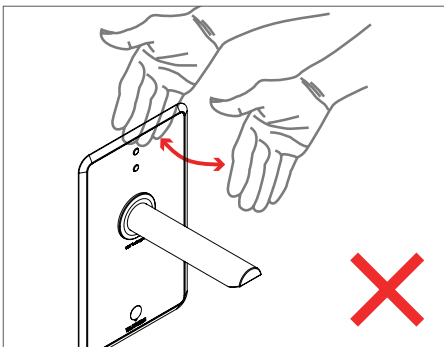
TO TURN OFF

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

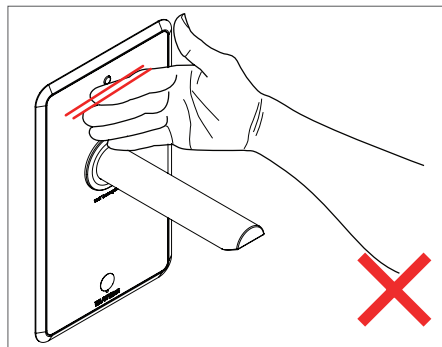


- After turning ON, the tap runs for at least 4 seconds. (Intelligent Afterflow Function).
- During this time the tap cannot be turned off.
- If tap is not turned OFF, it will automatically turn OFF after a set period. (Factory default setting is 15 sec, range 8 sec - 180 sec).
- If optional 15 sec Lockout Time Function is set: after turning OFF the tap cannot be turned ON again for 15 seconds.

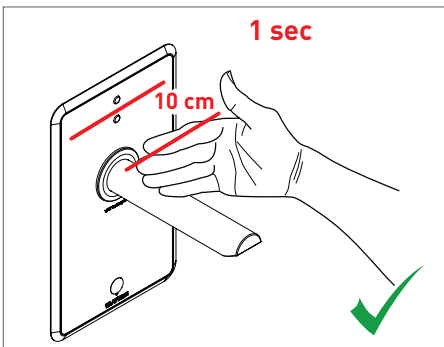
USING THE SENSOR



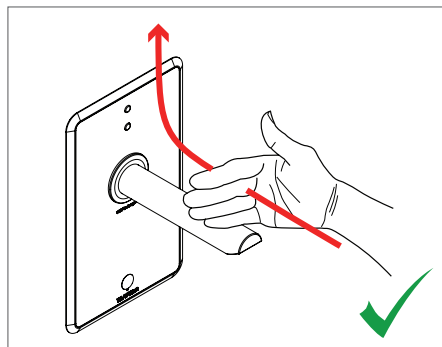
Wave quickly in front of sensor
(does not activate)



Hand too close to sensor
(does not activate)



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



Move hand in towards sensor and
pulling up

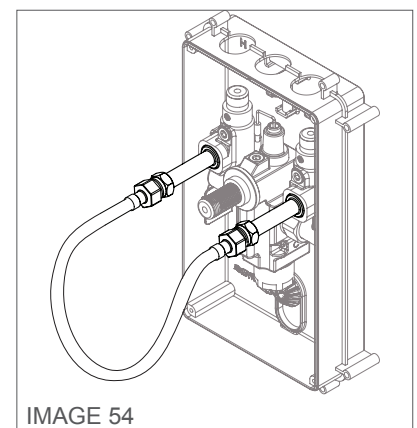
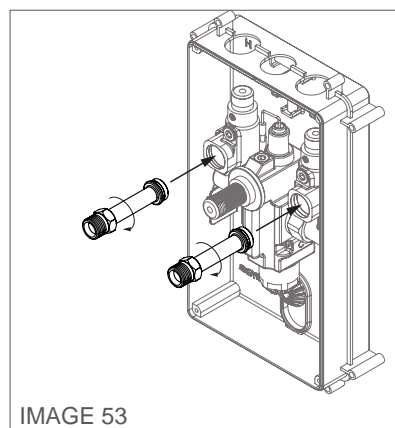
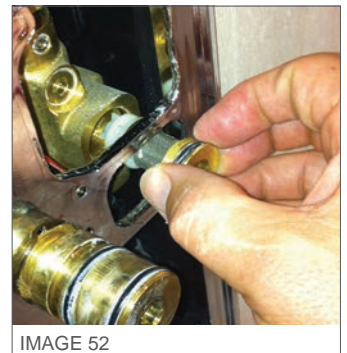
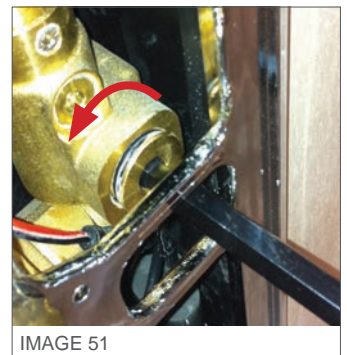
THERMAL DISINFECTION PROCEDURE

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 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



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 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 sensors. 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



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.

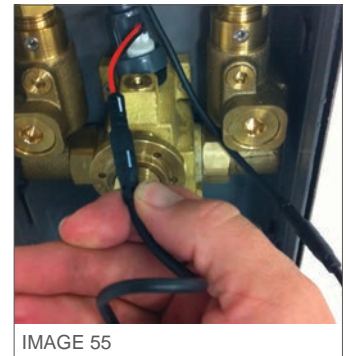


IMAGE 55



IMAGE 56



IMAGE 57

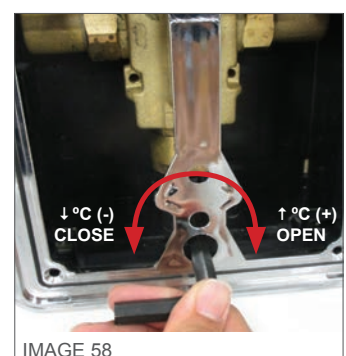


IMAGE 58

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 SQX™ valve:

- The intended installation matches the performance brief of the SQX™ 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.

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 fully open position.

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.

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

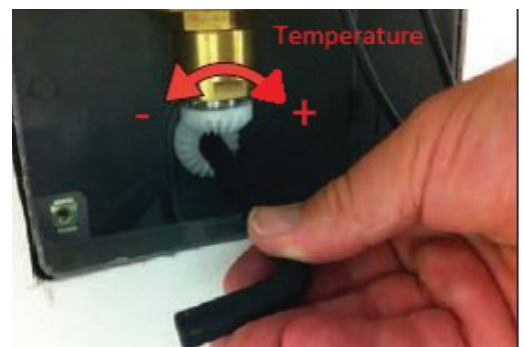


IMAGE 27

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.
- 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. 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™ 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™ SQX™ 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. A sensor deactivation key is available if required.
 - B** Insert a 3/8" 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.

Annual servicing can be done with faceplate bracket in place.

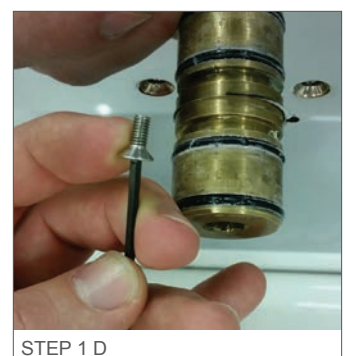
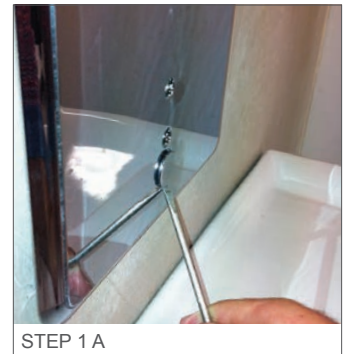
- STEP 2** Isolate the hot and cold supplies to the Aquablend™ eSQX™ Thermostatic Mixing Valve by closing the inlet ball valves found within the inlet connectors - see Image 26 on page 19. During the Annual Service the SQX™ check valve / mesh strainer assemblies need to be removed and cleaned, as directed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



SERVICE AND MAINTENANCE

SERVICING THE STRAINERS AND CHECK VALVES

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

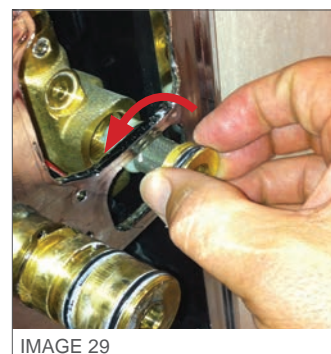
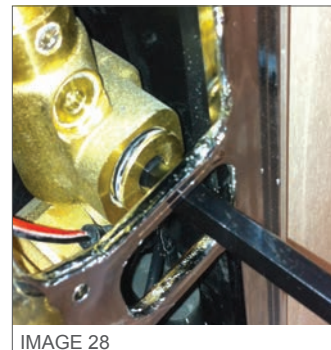
Prior to servicing the strainers, turn off both the hot and cold water supply via the isolation valve within the inlet connectors. SEE IMAGE 26 on page 19.

STEP 1 Using a 3/8" Allen key unscrew the eSQX™ 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.



SERVICING THE THERMOSTATIC CARTRIDGE

Enware Product Code: **ATMS600** - Aquablend™ SQX™ Thermostatic Cartridge
ATMS649 - 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 31

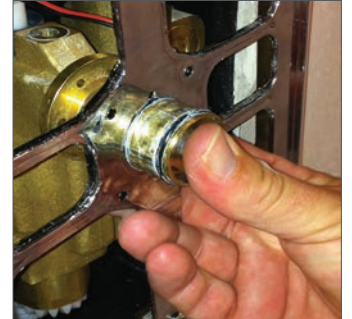


IMAGE 32



IMAGE 33



IMAGE 34

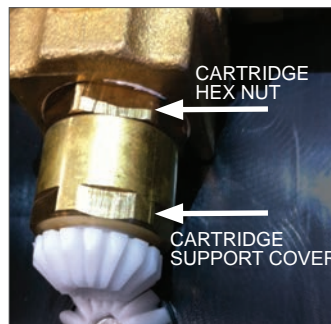


IMAGE 35



IMAGE 36

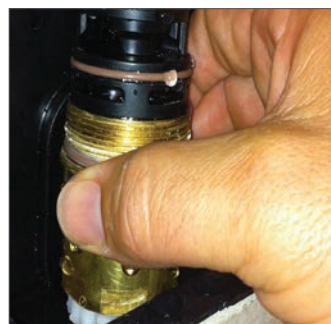


IMAGE 37

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



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

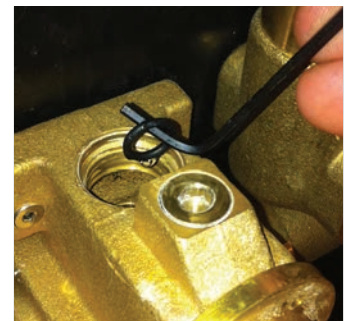


IMAGE 41

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).

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.

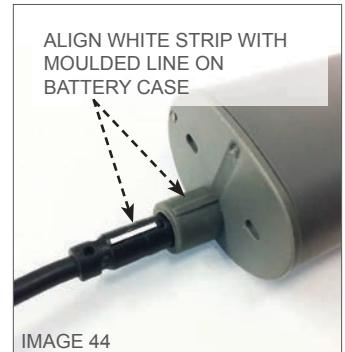
CHANGING THE BATTERY

For battery operated models only.

Enware Product Code: **ENMS204** - 6V Lithium 2CR5 Battery
ENMS205 - 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 by pulling the battery casing vertically upward, and then 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.



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

SERVICE AND MAINTENANCE

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

Prior to servicing the mixer, ensure the hot and cold water supplied are isolated via the integral isolation valves located within each inlet connector SEE IMAGE 26 on page 19.

- STEP 1** To access the inspection ports, the thermostatic valve must first be closed and spout, dress flange and the faceplate removed as per Step 1 (A-D) Annual Maintenance Procedure. SEE IMAGES 1A, 1B, 1C, 1D on page 21.
- STEP 2** Using an M6 Allen key, unwind the access cover and keep at hand. SEE IMAGE 45
- STEP 3** Apply thread tape or equivalent to a Pete's Plug (Enware part - ATMS1221) and thread into the 1/4" thread port. SEE IMAGE 46
- STEP 4** Insert measurement probe into Pete's Plug and open isolation valves. Check for leaks. SEE IMAGE 47
- STEP 5** Operate the mixer and conduct in-service tests as required.

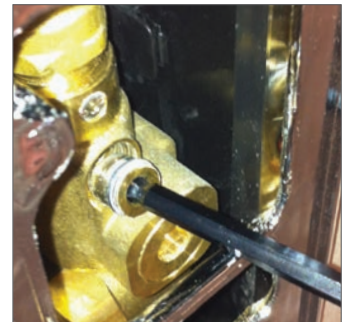


IMAGE 45



IMAGE 46



IMAGE 47

SERVICING THE SENSOR

Enware Product Code: **ENMS236** - Auto Sense 6V Battery Op Sensor
ENMS237 - On Demand Sensor 6V Battery Op Sensor
ENMS238 - Auto Sense 12V Mains Power Sensor
ENMS239 - On Demand Sensor 12V Mains Power Sensor

To service the sensor, first close the valve and remove the faceplate, spout and dress flange. The sensor can be serviced while still assembled in the faceplate bracket or when the bracket is removed from the mixer assembly.

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

STEP 2 Connect the new sensor to the cables, making sure the lines on the two connectors align.

For 12V mains powered versions, the transformer lead **MUST** connect to the cable marked 12V, leaving the other cable to connect to solenoid. SEE IMAGE 18 page 13

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.



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

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

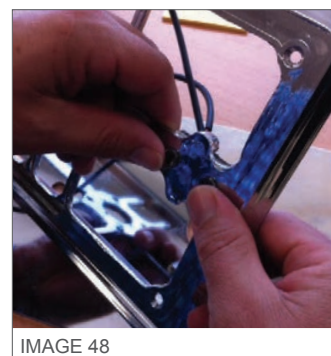


IMAGE 48

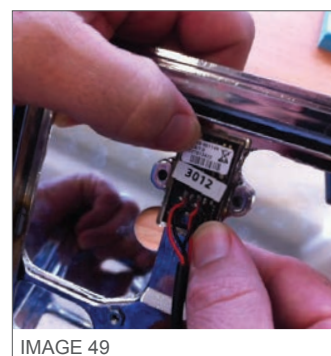


IMAGE 49

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.

CHANGING THE SENSOR PROGRAM

The eSQX™ Mixers come standard with either:

AUTO SENSE

An Auto Sense activation which operates while the user's hands are in the sensor range.

The Auto Sense activation sensor comes with a range of sensitivity functions that can be adjusted in situations where the sensor is subject to interference issues once installed.

ON DEMAND SENSOR

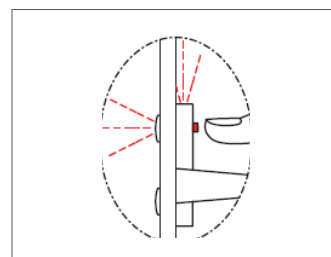
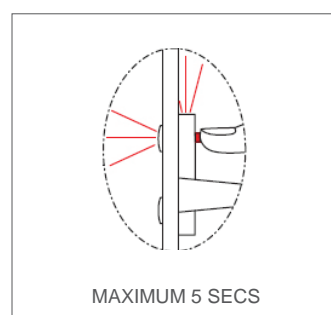
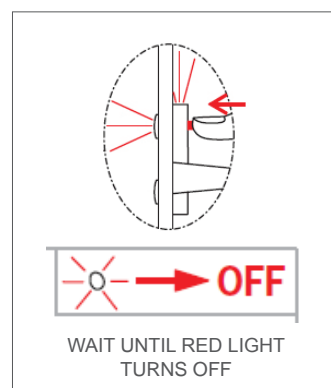
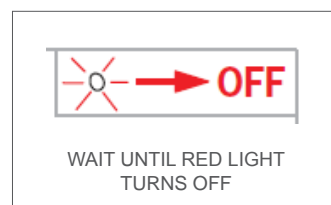
An On Demand Sensor activation where the user places their hand in front of the sensor to turn it on and off.

The On Demand Sensor activation sensor have a range of automatic timed functions to suit different hand wash applications and procedures.

To change the sensor program, follow the programming sequence below in conjunction with the sensor programs nominated in the following pages.

- STEP 1** Disconnect power to sensor.
- STEP 2** Reconnect power and wait 5 seconds. The red LED light in the sensor lens will turn on for 3 seconds, and then turn off by itself.
- STEP 3** Now press and hold the blue button located on the back of the sensor - the red LED will turn on. Keep holding for 3 seconds until the LED turns off. Release the button and you are now in program mode.
- STEP 4** Within 5 seconds, choose your program by pressing the button the same number of times that corresponds with the program number in the program chart. Eg. If you want program 2, press the button twice. Each press will make the red LED light blink. Refer to program charts.
- STEP 5** Once the program is chosen, wait for 5 seconds. The LED will blink back to confirm the program number it is set to.

The sensor is now set.



PROGRAMMING AUTO SENSE

AUTO SENSE

Sensor is set 5 seconds after user stops pressing button to set program number		SENSOR ACTIVATION RANGE	INTELLIGENT AFTERFLOW	SENSOR SENSITIVITY LEVEL *	MAX FLOW TIME	AUTOFLOW INTERVAL
Number of presses	PROGRAM DESCRIPTION					
1	Automatic on - sensor range max. 170mm - standard afterflow.	20-170mm	2S +/- 1s	1	2 mins	
2 <i>Default setting</i>	Automatic on - sensor range max. 250mm - standard afterflow 250mm spout setting	20-250mm	2S +/- 1s	1	2 mins	
3	Automatic on - sensor range max. 170mm (4s +/- 1) second afterflow Sensitivity level 2*	20-170mm	4S +/- 1s	2	2 mins	
4	Automatic on - sensor range max. 250mm (4s +/- 1) second afterflow Sensitivity level 2*	20-250mm	4S +/- 1s	2	2 mins	
5	Automatic on - sensor range max. 170mm (4s +/- 1) second afterflow Sensitivity level 3*	20-170mm	4S +/- 1s	3	2 mins	
6	Automatic on - sensor range max. 250mm (4s +/- 1) second afterflow Sensitivity level 3*	20-250mm	4S +/- 1s	3	2 mins	
7 <i>Default setting</i>	Automatic flow OFF Flush - Approx 1 minute	–	–	–		OFF <i>Factory setting</i>
8	Automatic flow 12h ON	–	–	–		12H

* SENSITIVITY LEVEL

- 1 Most sensitive 2 Less sensitive for difficult light conditions or interference 3 Least sensitive for the most difficult light conditions or interference

PROGRAMMING ON DEMAND SENSOR

ON DEMAND SENSOR

Sensor is set 5 seconds after user stops pressing button to set program number		SENSOR ACTIVATION RANGE	INTELLIGENT AFTERFLOW	SENSOR SENSITIVITY LEVEL *	MAX FLOW TIME	LOCK OUT TIME AFTER OFF
Number of presses	PROGRAM DESCRIPTION					
1	Automatic off - On Demand Sensor active with 8 second runtime Sensor range 20-100mm	20-100mm	4s +/- 1s	1	8 sec	0 sec
2 <i>Default setting</i>	Automatic off - On Demand Sensor active with 15 second runtime Sensor range 20-100mm	20-100mm	4s +/- 1s	1	15 sec	0 sec
3	Automatic off - On Demand Sensor active with 30 second runtime Sensor range 20-100mm	20-100mm	4s +/- 1s	1	30 sec	0 sec
4	Automatic off - On Demand Sensor active with 45 second runtime Sensor range 20-100mm	20-100mm	4s +/- 1s	1	45 sec	0 sec
5	Automatic off - On Demand Sensor active with 60 second runtime Sensor range 20-100mm	20-100mm	4s +/- 1s	1	60 sec	0 sec
6	Automatic off - On Demand Sensor active with 120 second runtime Sensor range 20-100mm	20-100mm	4s +/- 1s	1	120 sec	0 sec
7	Automatic off - On Demand Sensor active with 180 second runtime Sensor range 20-100mm	20-100mm	4s +/- 1s	1	180 sec	0 sec
8	Automatic off - On Demand Sensor active with 15 second runtime Sensor range 20-100mm 15 second lock out time after off	20-100mm	4s +/- 1s	1	15 sec	15 sec
9	Automatic off - On Demand Sensor active with 30 second runtime Sensor range 20-100mm 15 second lock out time after off	20-100mm	4s +/- 1s	1	30 sec	15 sec
10	Automatic off - On Demand Sensor active with 45 second runtime Sensor range 20-100mm 15 second lock out time after off	20-100mm	4s +/- 1s	1	45 sec	15 sec
11	Automatic off - On Demand Sensor active with 60 second runtime Sensor range 20-100mm 15 second lock out time after off	20-100mm	4s +/- 1s	1	60 sec	15 sec
12	Automatic off - On Demand Sensor active with 120 second runtime Sensor range 20-100mm 15 second lock out time after off	20-100mm	4s +/- 1s	1	120 sec	15 sec
13	Automatic off - On Demand Sensor active with 180 second runtime Sensor range 20-100mm 15 second lock out time after off	20-100mm	4s +/- 1s	1	180 sec	15 sec
14	Nurse mode A 10 sec ON 30 sec OFF 20 sec ON	20-100mm				
15 <i>Default setting</i>	Automatic Flow OFF Approx 1 minute	-	-	-	-	-
16	Automatic Flow 12h ON	-	-	-	-	-

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:

COMMISSIONING AND / OR MAINTENANCE REPORT

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

TROUBLESHOOTING

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
Either full hot or cold flowing from outlet fixture	Strainers contain debris	Clean strainers ensuring debris is removed
	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 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 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 (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 - 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

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.
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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