

Aquablend® ESQX® Touch-Free Thermostatic Mixer

Installation and Maintenance Instructions

AUTO SENSE SYSTEM



ON DEMAND SENSOR SYSTEM



WARNING

The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure they do not play with the appliance.

Only the appropriate connector must be used.

The appliance is only to be used with the unit provided.

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product description

Enware Aquablend ESQX Touch-Free Thermostatic Mixer is a hands-free, sensor operated point-of-use thermostatic mixing valve that is installed onto walls above sinks, basins or wash troughs. It operates by sensing a hand in front of the sensor unit.

ESQX has a choice of two types of sensors - "On Demand" and "Active Sense":

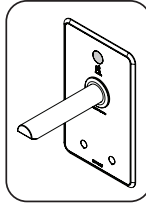
- On Demand Sensor - Place hand in front of sensor to turn on, and valve stays open without hand remaining in the sensor range. Place hand in front of sensor again to turn off. If the solenoid valve remains open for more than 45 seconds, the unit will time-out and close the valve automatically. This is intended to conserve water and prevent overflows. (Flow time setting is adjustable.)
- Active Sense - Activated automatically when hands are in front of the sensor and turns off when hands are removed from sensing zone (subject to after-flow setting).

ESQX consists of two components - "Front-of-Wall Component" and "Back-of-Wall Component".

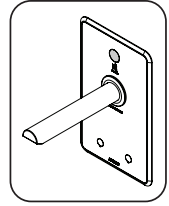
- Front-of-Wall Component has choices of either "On Demand" or "Active Sense" functions, and "200mm" or "230mm" spout.
- Back-of-Wall Component has a choice of "Battery Operated" or "Mains Power". Any "Front-of-Wall Component" can be matched with either "Battery Operated" or "Mains Power" Back-of-Wall Component.

ON DEMAND
Sensor above outlet

200mm Spout
ATWM C1L6L

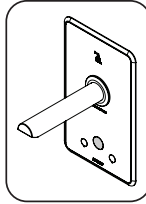


230mm Spout
ATWM C2L6L

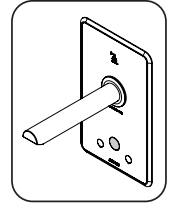


AUTO SENSE
Sensor below outlet

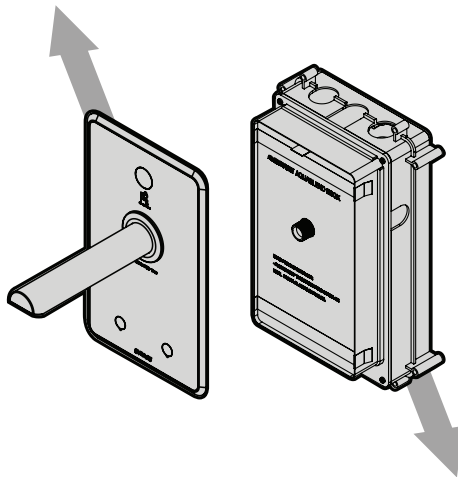
200mm Spout
ATAM C1L6L



230mm Spout
ATAM C2L6L



FRONT-OF-WALL COMPONENT

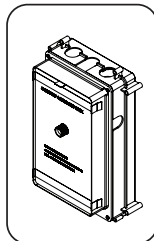


NOTE : FRONT OF WALL component is ordered separately to BACK OF WALL component.

BACK-OF-WALL COMPONENT

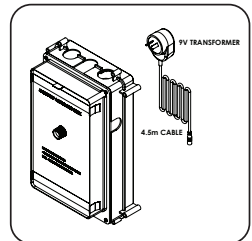
BATTERY OPERATED

3V Battery Operated
In-Wall Component
ATM620L



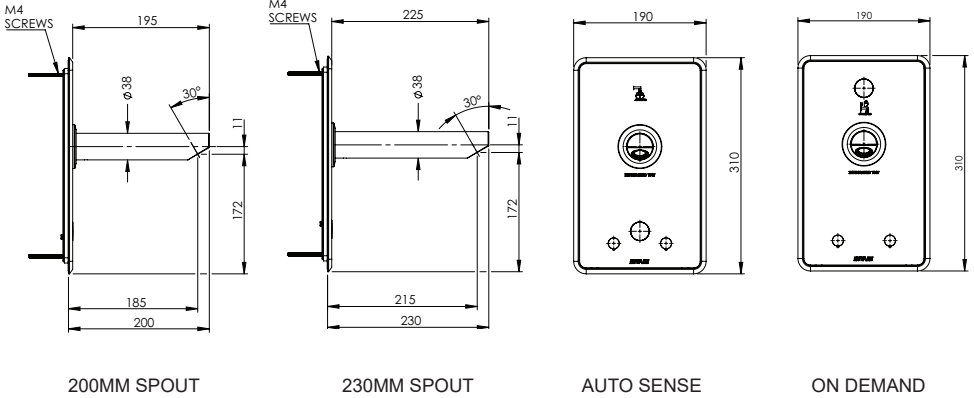
MAINS POWER

9V Mains Power
In-Wall Component
ATM621L

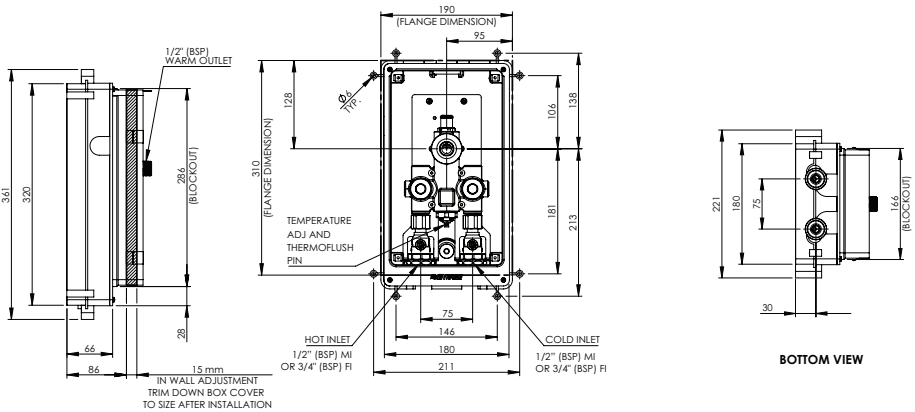


dimensions

FRONT OF WALL COMPONENT



BACK OF WALL COMPONENT



component description

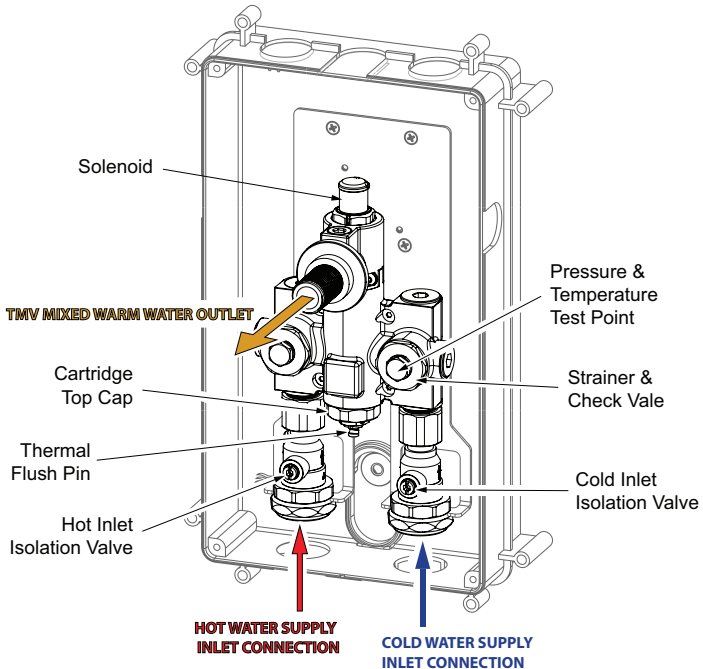
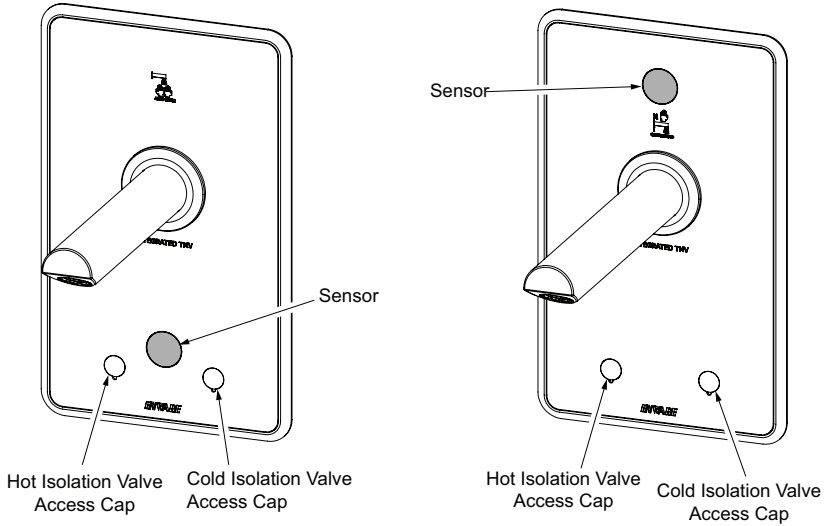


IMAGE 01

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

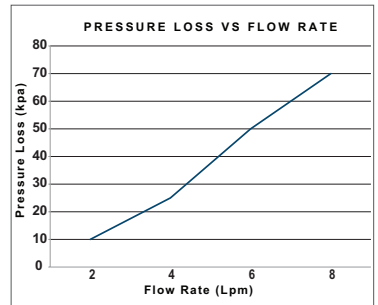


IMAGE 02

SENSOR PERFORMANCE

ON DEMAND SENSOR	
Sensor Range Adjustable to + / - 20%	10–50mm
Water Run Time (After activation) Adjustable	45 seconds (±1) default setting

AUTO SENSE	
Sensor Range Adjustable to + / - 20%	up to 200mm (default)
Water Run Time (After hands have moved from sensor range) - Adjustable	1 second (±1)
Maximum Flow Period Adjustable	2 minutes

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

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

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

For use with potable water only.

NOTE: Enware Australia advises:

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



before installation

THERMOSTATIC MIXER

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.

Thermostatic mixing valves must be installed by a qualified plumber.

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

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

Prior to the installation of the valve, the system must be checked to ensure that the system operating conditions fall within the recommended operating range specified in "Installation Conditions" on page 8. Pressure reduction valves may be required to comply with the recommended maximum supply pressure or balanced pressure requirements.

Ensure all supply lines are flushed thoroughly with clean water to remove debris prior to the installation of this product, as per AS/NZS3500.1. This will remove any physical contaminants from the pipework, ensuring trouble-free operation. During the flushing procedure care should be taken to prevent water damage occurring to the surrounding area.

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 *Sensor Program*.

TOOLS REQUIRED

Installation

4mm Allen key or flat head screwdriver	10mm flat end Allen key	2mm Allen key
2.5mm Allen key	Phillips head screw driver	Temperature adjuster key
Thread cutting tool or hacksaw	Utility knife, hacksaw or similar cutting tool for plastic	Loctite 577 thread sealant or equivalent
Silicone sealant	Spirit level	Spanner
Digital thermometer		

Maintenance

4mm Allen key or flat head screwdriver	2mm Allen key	2.5mm Allen key
Phillips head screw driver	Spanner	Digital thermometer

before installation

LOCATION OF SENSOR

When selecting a location to install the wall-mounted sensor, consider the following:

Obstructions

Ensure that nothing is within range of the sensor. Any obstruction directly in front of, and within possible range of, the sensor can trigger the sensor randomly or constantly turn it on.

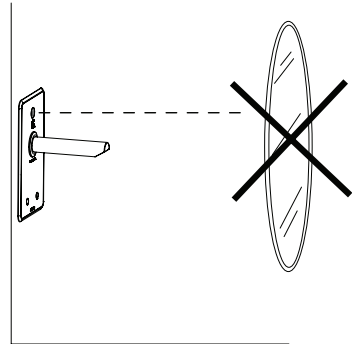
Passing Traffic

Be sure that passing traffic cannot trigger the sensor. Allow at least 400mm clearance between sensor and passing traffic.

Reflections and Lighting

If the sensor unit is installed into a location where a nearby wall or object is reflecting the infrared light back, the unit is effectively blinded and will not operate. Up to 1.5 metre clearance may be necessary from reflective surfaces, such as ceramic tiles and stainless steel, directly in front of, and parallel to, the front face of the sensor. Any bright lighting reflecting off a highly reflective surface such as a stainless steel sink, or a high visibility reflective vest, may also interfere with correct sensor operation.

It is advised NOT TO position taps directly in front of a mirror where the sensor could reflect back causing false operation.



Access to Sensor Tap Components

Ensure that access to transformer/ 240 V power point and cable is available for future maintenance.

It is recommended that cabling is fed through 20mm conduit to allow for servicing and replacement in future.

installation

ROUGH-IN - BACK OF WALL COMPONENTS

1. Determine the desired location for Back-of-Wall Component (box). SEE SENSOR LOCATION - page 8.
2. The box can be fixed to a masonry wall or nogging within a wall frame, by using the fixing lugs on the top and bottom of the box and four suitable screws.

If installing within a framed wall, fit mounting timber in the desired location for box support.
It is recommended to use 13mm plywood fixed between two vertical in wall studs.

In cases where wall space is limited, consider other fixing methods.

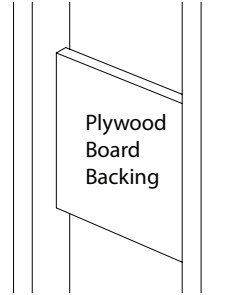


IMAGE 04

Important: The depth of box from finished wall to the back of the box must be between 86-101mm

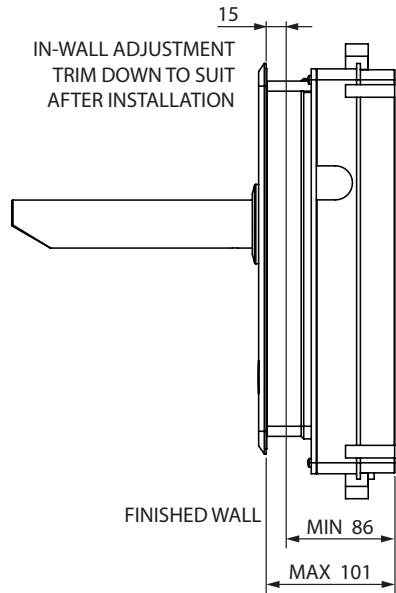


IMAGE 05

- Remove front cover of box. Keep the front cover and 4 screws at hand.

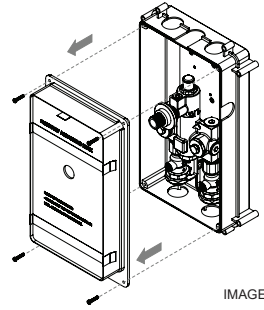


IMAGE 06

- Mark out the fixing point locations while ensuring the box is level. Secure box to the wall support using the fixing lugs on the box and suitable fixing screws.

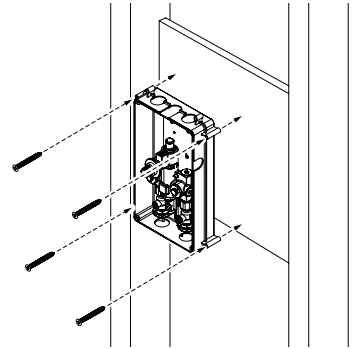
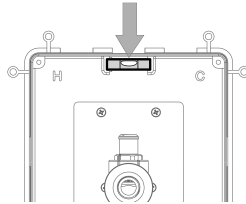


IMAGE 07

- Purge hot and cold supply lines to make sure all debris has been cleared.

Connect hot and cold water supplies to inlet fittings using 3/4" BSP x 1/2" BSP thread connectors. The supply line size is DN15 for hot and cold.

Warning: Heat must not be applied to the inlets of the mixer as this may result in damage to the internal components and void warranty.

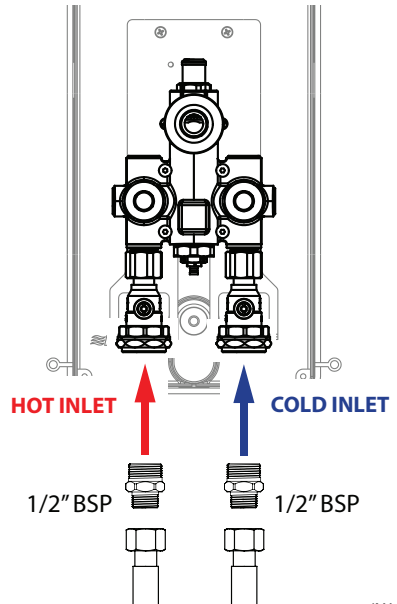


IMAGE 08

6. Check that integral inlet isolation valves are OFF. The line of the slot should be horizontal across the inlet valve.

Turn ON water supply and check the connections for leaks.

7. Turn the integral isolation valves 90° to turn water ON to the valve. (Water may come out of the outlet.) Check all connections for leaks, then turn OFF the isolation valves.

Ensure the isolation ball valves are turned off when conducting a hydrostatic test.

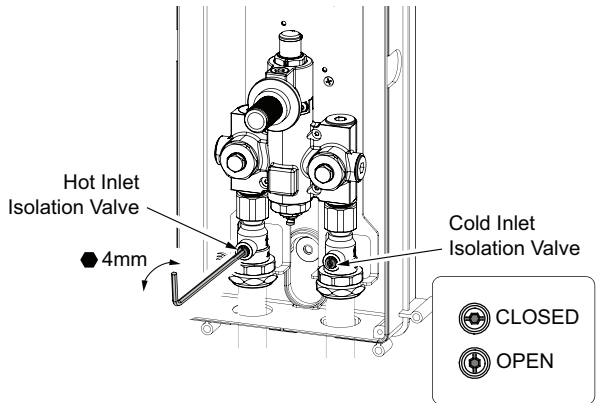


IMAGE 09

8. *This step is for 9V mains power installations only:*

Plug the transformer into a power outlet.

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

Create a hole through one of the sides of the box to feed the cable through, and place the end connector of the 9V transformer in the box. Ensure at least 100mm of cable is available in the box to connect to the sensor. If the cable is not long enough, use an extension cable (available from Enware - see *Spare Parts*).

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.



Extended cable transformer and extension cables are available if extra power cable length is required.

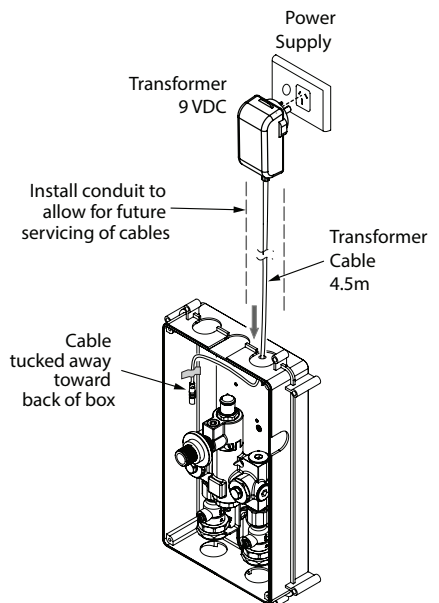


IMAGE 10

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.

9. Re-fit the front cover and secure with the 4 screws. Keep the plastic protective cover on for protection.

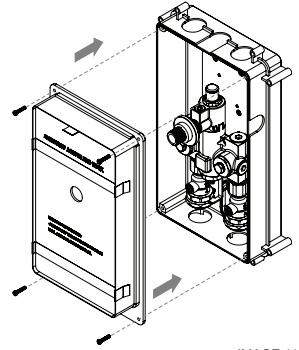


IMAGE 11

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

The wall cut-out size is 286mm high x 166mm wide.

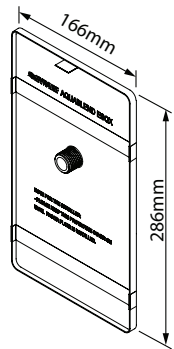


IMAGE 12

FIT OFF - FRONT OF WALL COMPONENTS

11. When the finished wall is complete, trim the protruding section of the box so that it finishes flush with finished wall face. Discard cover.

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

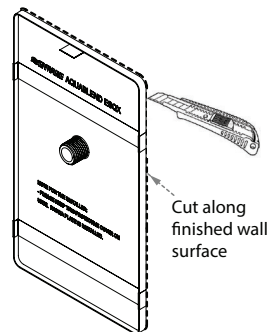


IMAGE 13

12. Seal any gaps between the wall cut-out and the In-wall box, with appropriate silicone sealant.

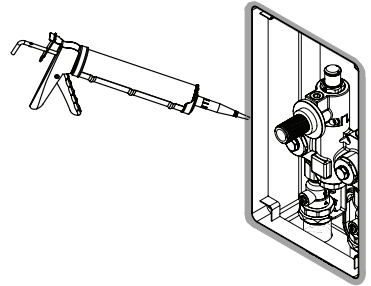


IMAGE 14

13. Fit the chrome back support bracket and secure with four screws supplied.

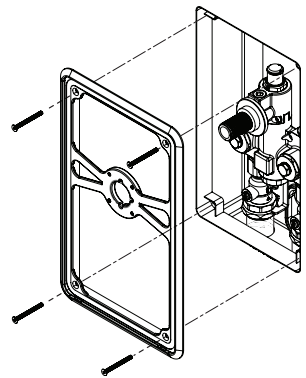


IMAGE 15

14. Adjust the spout support nut so it sits hard against the back of the support bracket.

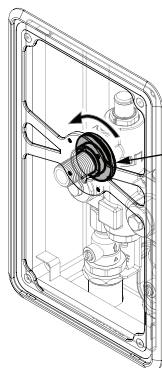


IMAGE 16

Unscrew spout support nut so it is in contact with the back of bracket



IMAGE 17

15. Cut back the 1/2" outlet thread so that 15mm of thread protrudes past the support bracket.

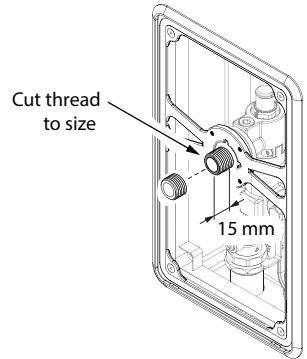


IMAGE 18

16. Dismantle Spout Connector from chrome spout. To do this, take the grub screw out completely using a 2.5mm Allen key. Loosely fit a 1/2" BSP threaded fitting onto Spout Connector, and pull the fitting to take out the Spout Connector.

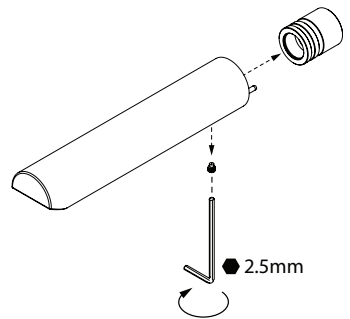


IMAGE 19

17. Apply thread sealant to outlet thread. Screw the spout connector onto the thread. Use a 10mm Allen key on the spout connector to tighten until it finishes in line with the back support bracket.

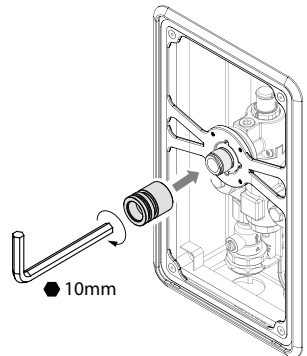


IMAGE 20

18. With the grub screw still detached from the spout, fit the spout over the spout connector, and slowly but firmly push the spout on, so that the anti-rotation pin fits through the small hole on the chrome support bracket. Push the spout on until it bottoms out.

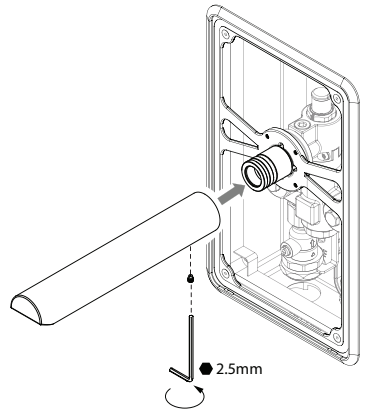


IMAGE 21

Check that the grub screw hole lines up with the groove on the spout connector. Fit the grub screw on and tighten using a 2.5mm Allen key to secure the spout in place.

IMPORTANT: Ensure the grub screw fits into the groove of the spout connector, and it is fitted all the way into the spout.

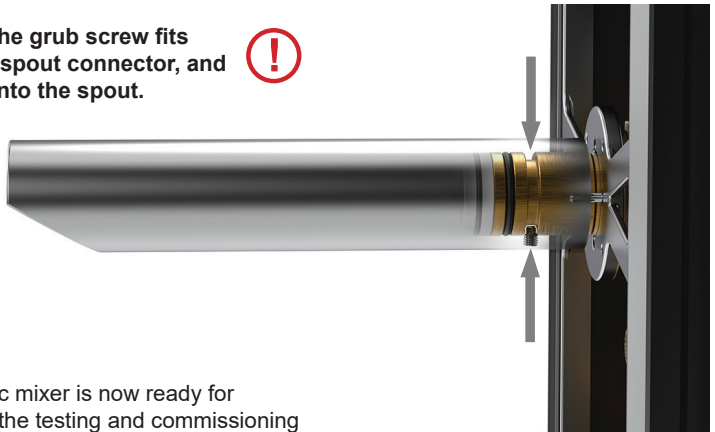


IMAGE 22

19. The ESQX Thermostatic mixer is now ready for commissioning. Follow the testing and commissioning procedure.

SEE COMMISSIONING - PAGE 28

20. Turn OFF the isolation valves.

Remove grub screw from spout, then remove spout from spout connector.

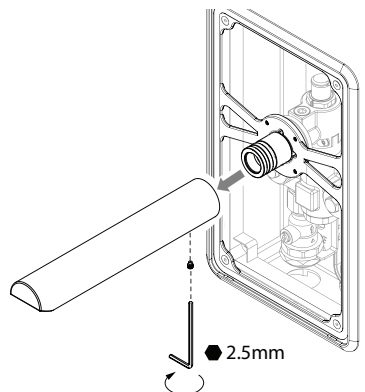
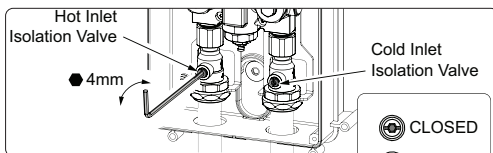



IMAGE 23

21. Take the chrome face plate. Connect the sensor cable marked with POWER label to the battery or transformer.

For 9V mains powered model:

For 9V mains power installation, the transformer **MUST** connect to the sensor cable marked with **POWER** label. 

Cross connection here may damage the sensor and void the product warranty.

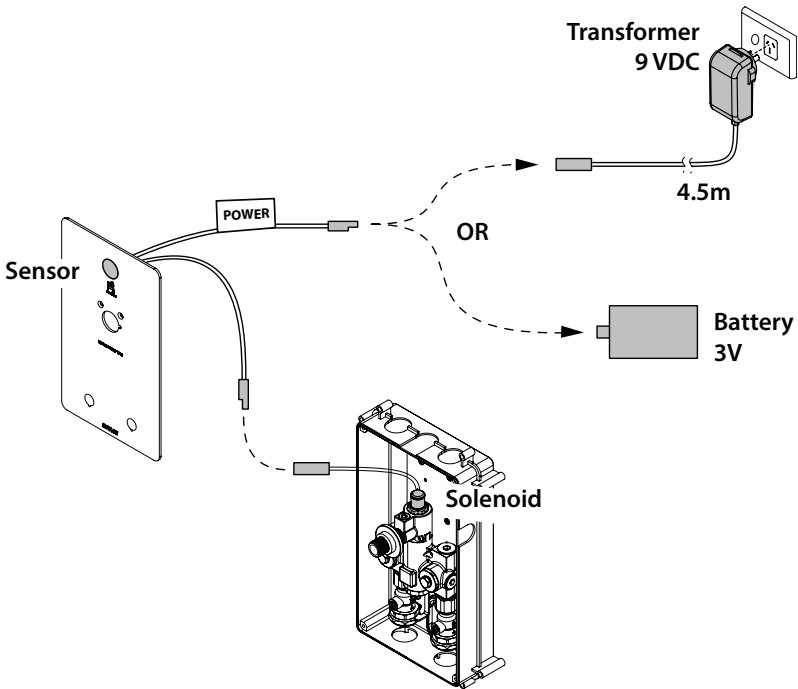


IMAGE 24

When connecting cables, make sure the lines on the two connectors align.



IMAGE 25

For battery operated model: _____

Ensure white line on the cable connector aligns with the white line in the battery holder, then firmly press connector into battery holder.

Peel the backing paper of adhesive on the battery holder bracket, and stick the bracket onto one of the sides on the inside of the box.

Insert battery holder into the bracket in the upside down position with the battery connector facing down. (Facing the connection upside down prevents water pooling near the connection.)

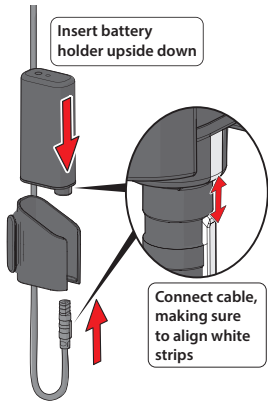


IMAGE 26

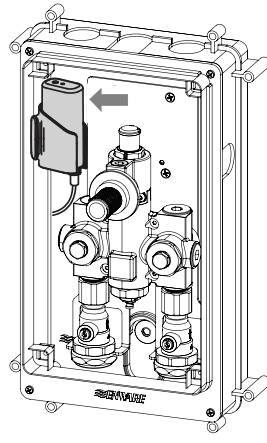


IMAGE 27

22. Connect the other sensor cable to the solenoid.

23. Test operation of sensor:

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.

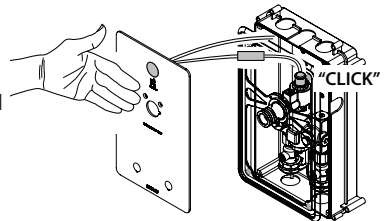


IMAGE 28

(Water is still off due to isolation valves turned off)

24. Take the chrome face plate, carefully push the plate over the spout retainer, then place its 2x lower tabs into the

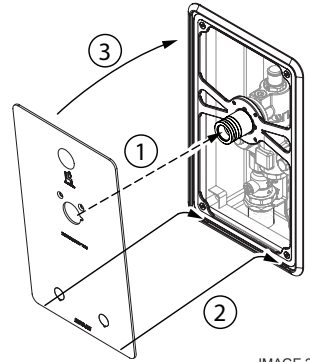


IMAGE 29

2x voids in the base of the face plate bracket until it sits flush.

25. Secure the face plate in place using the 2x M4 Allen head screws and tighten with an Allen key.

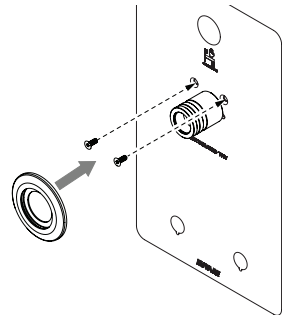


IMAGE 30

26. Place the chrome dress flange over the spout connector, making sure the back O-ring of the flange is in place.

27. 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 through the holes.

28. Fit the grub screw on the underside of the spout, and tighten using the 2.5mm Allen key to secure it in place. Ensure the grub screw fits into the groove of the spout retainer, and is fitted all the way into the spout.

IMPORTANT: Ensure the grub screw fits into the groove of the spout connector, and it is fitted all the way into the spout.

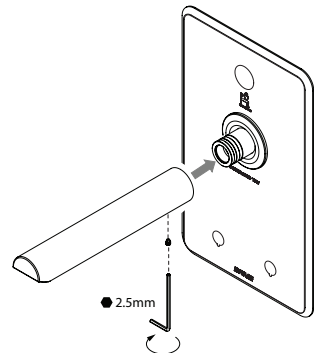


IMAGE 31



IMAGE 32

29. Take off two chrome isolation caps from face plate.
Insert a 4mm Allen key into the temperature adjustment port and turn the integral isolation valves 90° to turn water ON to the valve. As the valve opens, water may flow from the spout as your hand could be in the sensor range to trigger the sensor.

30. Fit the two chrome isolation caps back onto the face plate to complete the installation.

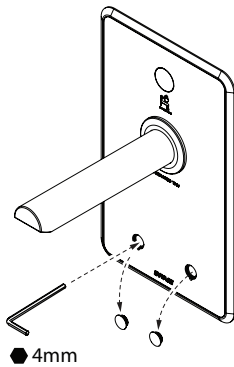


IMAGE 33

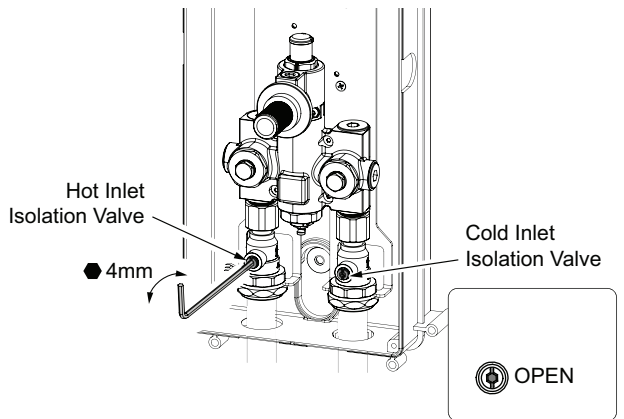


IMAGE 34

operating instructions - ON DEMAND SENSOR

ESQX ON DEMAND SENSOR

TO TURN ON Place hand in front of sensor at 5cm for 1 second. Water starts to flow.

TO TURN OFF Place hand in front of sensor at 5cm for 1 second. Water flow stops.

- If tap is not turned OFF, it will automatically turn OFF after a set period. (Factory default setting is 45 sec - adjustable).

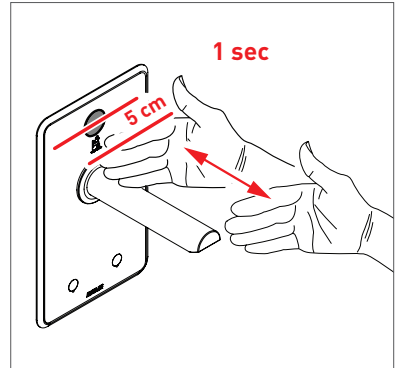
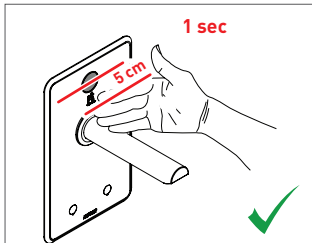


IMAGE 35

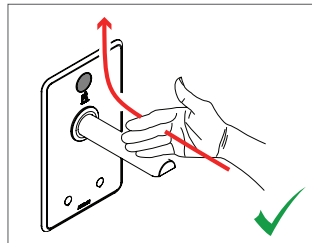
OPTIONAL SENSOR FUNCTIONS

- 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 25.

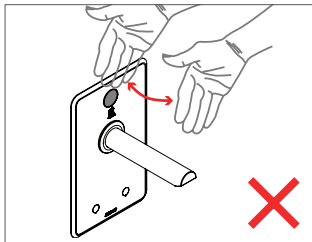
USING THE SENSOR



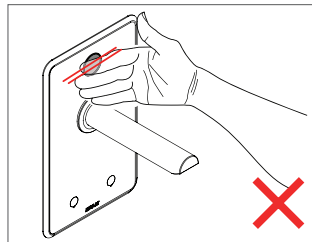
Place hand in front of sensor at 10cm for 1 sec



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)

operating instructions - 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.

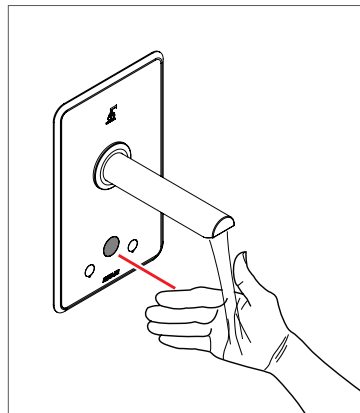


IMAGE 36

- After turning ON, the tap runs for at least 1 second. (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 25.

sensor program

The sensor has a built-in program that can be accessed using the Oras 360 App on a mobile device, to monitor or adjust the sensor program.

Through the Oras 360 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 360 APP

1. Download the Oras 360 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 360 App. Press the "Connect" icon at bottom. 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.

Press the "Identify" button to confirm the sensor selected is correct.
(Sensor will light up and turns water on for 2 seconds.)

Press the "Show" button to access the tap information and settings.

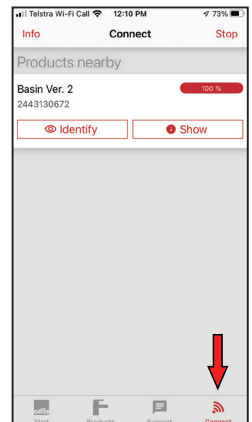


IMAGE 37

The first page shows information about the sensor such as serial number, type, usage and the state of power source or battery life.

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

COMMAND BUTTONS

The lower section has command buttons for the tap.

Use the "Open" or "Close" button to open or close the tap using the App.

"Cleaning mode" turns off the sensor for a fixed period of time so that the tap does not activate while cleaning. (Cleaning mode is indicated by a slow green pulsing light on sensor.)

"Report" function will generate the sensor information to send out as a report using an email or messaging app in the mobile device.

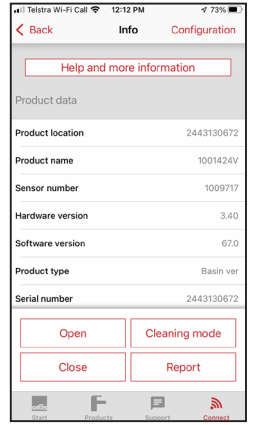


IMAGE 38

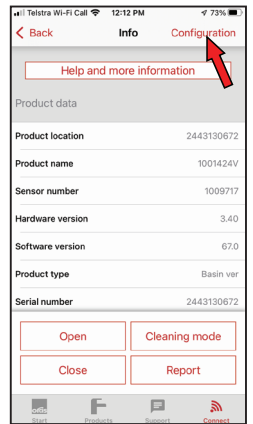


IMAGE 39

CHANGING THE SENSOR PROGRAM SETTINGS

1. To access the sensor program, press the "Configuration" 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 device" 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 next page.

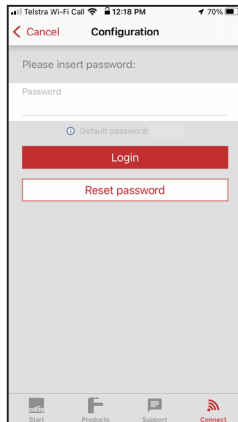


IMAGE 40

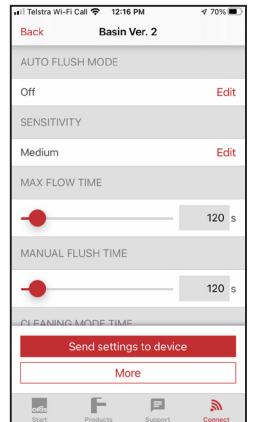


IMAGE 41

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 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 (for Auto Sense). [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, for Auto Sense.)

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%.]

Bluetooth Mode

Bluetooth connectivity on the sensor. [Settings: Always On / Active After Usage / Active After Boot / IR Detection Off]

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 1 up to 40 l/min.]

App Control:

Activate or deactivate command buttons. [All Allowed / Valve Open Disabled / All Disabled]

Product Location:

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

Area Code:

Designate a number of your choice to identify the location / area of the tap.

Change Password:

Set the password of your choice to limit access to the settings by others (e.g. for public places).

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 on Page 8.

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 L/min 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 Unscrew cover cap off the cartridge to access the temperature adjuster. Loosen the temperature adjustment locking grub screw located on the hex of the top cap using 2mm Allen Key. SEE IMAGE 42

STEP 2 Turn on the integral isolation valves using a 2.5mm Allen key or flat head screw driver (if not already turned on). SEE IMAGE 46 Page 29
Water should start to flow out of spout. (If not, connect power to sensor and sensor to solenoid, then activate the solenoid once, and disconnect sensor to leave the solenoid in open state. SEE IMAGE 24 Page 19)

STEP 3 Check the temperature of the water with a hand-held digital thermometer. Fit supplied Temperature Adjuster key over the adjusting spindle. SEE IMAGE 43
With the thermometer held within the flow stream, rotate the Temperature Adjuster key until the desired (maximum) temperature is achieved. SEE IMAGE 44
To increase, turn to the left. To decrease, turn to the right.

STEP 4 Once this desired temperature is set, make sure it stays steady for a minimum of 60 seconds. Remove the Temperature Adjuster key, and lock the temperature by tightening the locking grub screw. SEE IMAGE 42

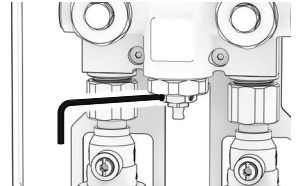


IMAGE 42

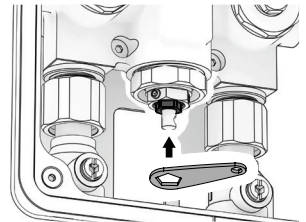


IMAGE 43

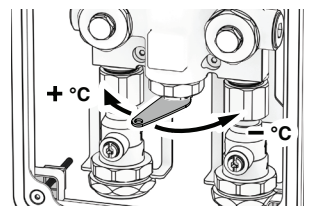


IMAGE 44

(continued to next page)

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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 34).

- STEP 1** Using a spanner, unscrew check valve / strainer assembly and remove from the mixer. SEE IMAGE 45
- STEP 2** Inspect strainers and check valves for debris. Rinse in clean water if required.
- STEP 3** Re-fit check valve / strainer assembly and hand tighten with a spanner.

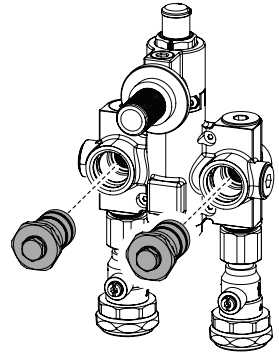


IMAGE 45

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. SEE IMAGE 46. 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.

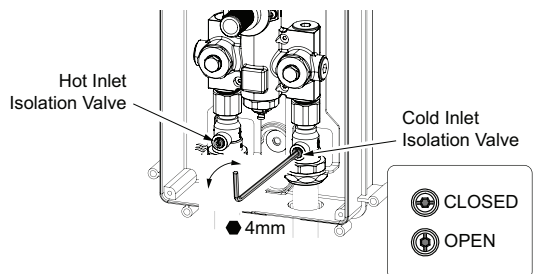


IMAGE 46

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** Take off two chrome isolation caps from face plate. Insert a 4mm Allen key into the access hole and turn the integral isolation valves 90° for both sides to turn water OFF to the valve. SEE IMAGE 47 & 48
Your hands may activate the sensor during this process. Turn on Cleaning Mode using the Oras App if required (see Page 25.)
- B** Remove the spout by first loosening and removing the grub screw located on the underside of the spout. Also remove the dress flange ensuring to leave the spout connector in place. SEE IMAGE 49 & 50
- C** Remove the faceplate carefully over the spout connector. SEE IMAGE 51
- D** Fit the spout back on. Check that the grub screw hole lines up with the groove on the spout connector. Fit the grub back screw on and tighten using a 2.5mm Allen key to secure the spout in place.

Annual servicing can be done with the chrome support bracket and spout in place.

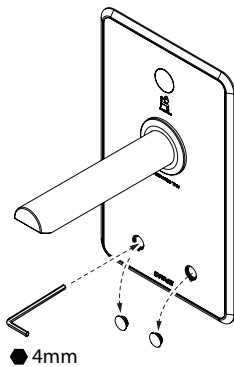


IMAGE 47

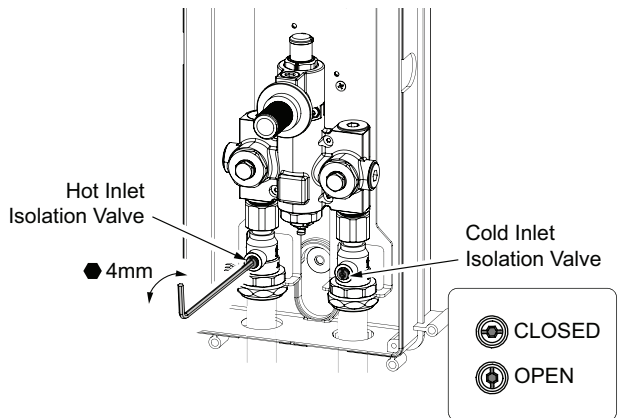
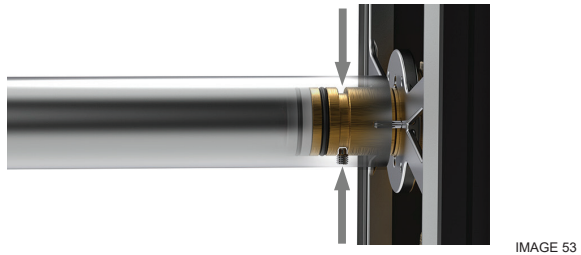
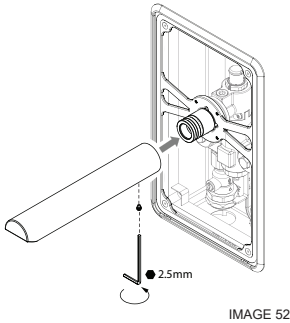
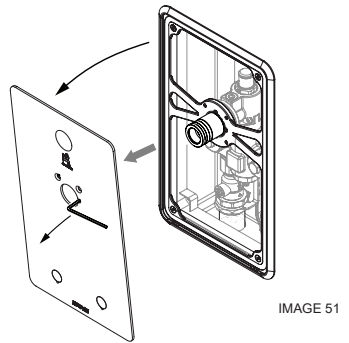
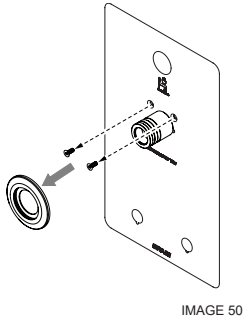
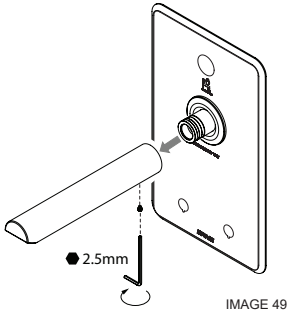


IMAGE 48



STEP 2 Remove the check valve / mesh strainer assemblies to inspect and clean. (Refer to Servicing the Strainers and Check Valves section on page 34).

STEP 3 A thermal shut down test is performed as specified in the Commissioning Procedure (See Page 28) 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 on page 44.

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 35.

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. (See Commissioning Procedure - page 28.) If the valve fails to shut down or fails to maintain its set temperature then refer to Troubleshooting section on page 33.

thermal disinfection procedure

PROCEDURE FOR FLUSHING WITH HOT WATER FOR DISINFECTION

The internal components can be flushed with full hot water temperature by using the Thermal Flush function of the TMV in the following procedure.

- STEP 1** To access the internal components, first remove the spout, dress flange and the faceplate as per Steps 1 (A-C) in Annual Maintenance Procedure page 30.
- STEP 2** Turn OFF the hot and cold water supplies via the integral isolation valves. SEE IMAGE 48
- STEP 3** Unscrew cover cap off the cartridge to access the temperature adjuster. Check that the temperature adjustment locking grub screw (located on the hex of the top cap) is tight, using a 2mm Allen key. SEE IMAGE 42
- STEP 4** Hook the Lift Lever Key onto the thermal flush activation point located in the centre of the temperature adjustment screw on the valve's top cap. SEE IMAGE 54
- STEP 5** Lift the lever up and over all the way until it comes to a stop. SEE IMAGE 55 & 56

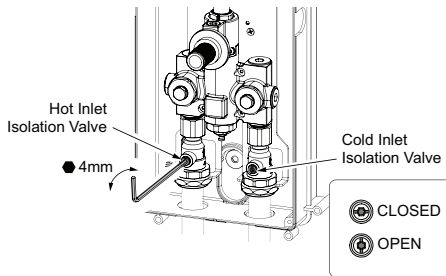


IMAGE 48

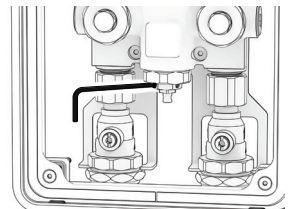


IMAGE 42

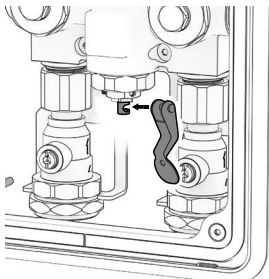


IMAGE 54

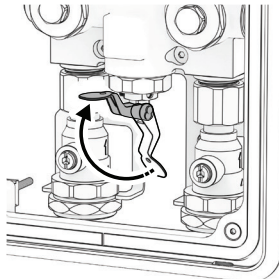


IMAGE 55

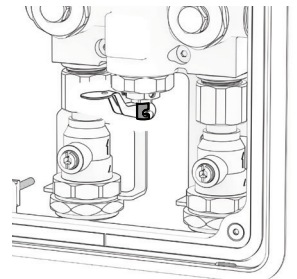


IMAGE 56

-
- 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.
- STEP 7** With the front plate off, temporarily install the spout back on so the water can flow into the basin. Ensure the spout grub screw is fully engaged. (See STEP 18 page 18)
- STEP 8** 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 9** 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, open the integral isolation valve for the hot water supply, while keeping cold side closed. SEE IMAGE 48



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 10** Once the disinfection procedure has completed, turn the hot isolation valve to OFF position.
- STEP 11** Turn the cold water isolation valve to the ON position.
- STEP 12** Slowly push the Lift Lever Key back to the original position. (Note: spurts of cold water will discharge from the spout during this process.)
Remove Lift Lever Key. Screw cover cap back on the cartridge.
- STEP 13** Turn the hot water TMV inlet valve to the ON position.
- STEP 14** Check the outlet flow, making sure it is within the required temperature range.
- Resetting of the temperature or recommissioning of the valve is not required after the Thermal Flush procedure.
- STEP 15** Turn OFF the isolation valves.
- Remove spout from spout connector, reconnect sensor cables and fit front plate and spout back on. (See Steps 20-30 Page 18-22.)

SERVICING THE STRAINERS AND CHECK VALVES

Enware Product Code: **ENMS317** - Strainer / Check Valve Assembly (1 Pair)

Prior to servicing the strainers, turn off both the hot and cold water supplies via the isolation valve within the inlet connectors. SEE IMAGE 48

STEP 1 Using spanner, unscrew the check valve / strainer assembly and remove from the mixer. SEE IMAGE 57

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.

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

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

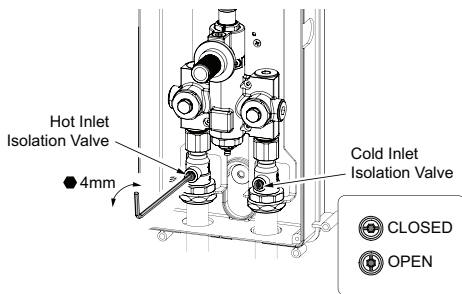


IMAGE 48

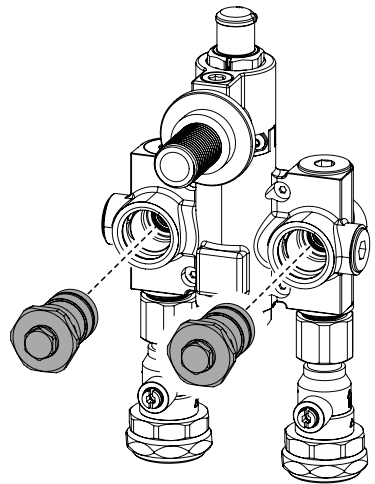


IMAGE 57

REPLACING THE THERMOSTATIC CARTRIDGE

Enware Product Code: **ATMS650L** - Aquablend ESQX Thermostatic Cartridge

Ensure the water supplies to both the hot and cold inlets are isolated prior to commencing.
SEE IMAGE 48

STEP 1 Using an appropriate size spanner, unscrew 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 IMAGE 58

STEP 2 Lightly grease the new cartridge O-rings and re-assemble by screwing the cartridge into the mixer body until it reaches a firm stop. Tighten cartridge with a spanner.

STEP 3 Proceed to commissioning of the valve as required for servicing.

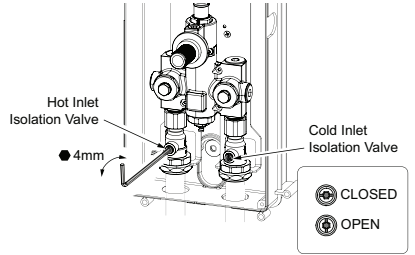


IMAGE 48

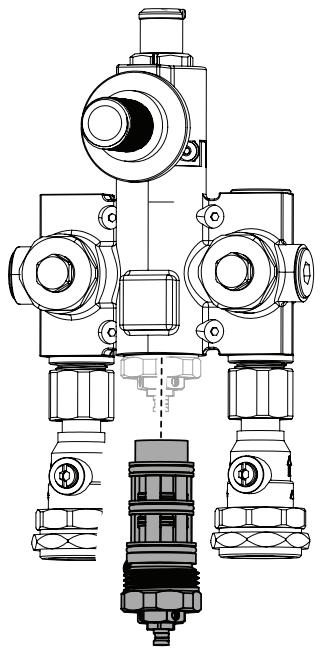


IMAGE 58

SERVICING THE SOLENOID VALVE

Enware Product Code: **ENMS240** - Solenoid

Prior to servicing, turn off both the hot and cold water supplies via the isolation valve within the inlet connectors. SEE IMAGE 48

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

STEP 1 Place the solenoid key or spanner over the base of the solenoid and unscrew the solenoid from the mixer body. SEE IMAGE 59

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 59

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.

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.

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

STEP 5 Assemble the membrane back into the solenoid then re-assemble the lower cap including the lower sealing O-ring.

STEP 6 Lightly grease the 2 sealing O-rings, then assemble the solenoid into the mixer body and tighten using the solenoid key and the Allen key.

STEP 7 Test for leaks.

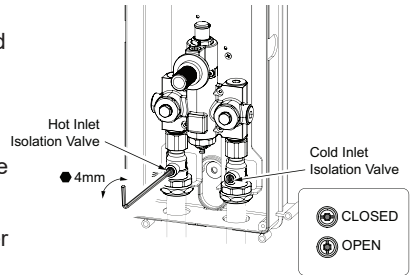


IMAGE 48

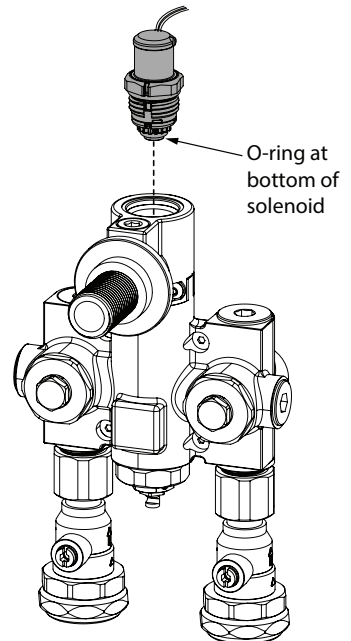


IMAGE 59

CHANGING THE BATTERIES

For battery operated models only.

Enware Product Code: **ENMS263** - Battery Holder
ENMS247 - Battery Lithium AA 1.5V (x 2)

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 isolation valves must first be closed and spout, dress flange and faceplate removed as per Steps 1 (A-C) in Annual Maintenance Procedure page 30.
- 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 two 1.5V Lithium batteries. Fit the battery casing cover back on.
- 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 60

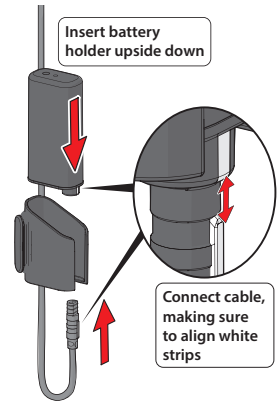


IMAGE 60



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. Turn on isolation valves and reinstate the valve. (See Steps 20-30 Page 18-22.)

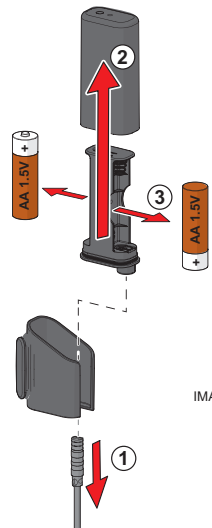


IMAGE 61

REPLACING THE SENSOR

Enware Product Code: **ENMS254** - Sensor On Demand / Auto Sense - 3V & 9V

To service the sensor, first close the isolation valves and remove spout, dress flange and the face plate, as per Steps 1 (A-C) in Annual Maintenance Procedure page 30.

STEP 1 Disconnect the sensor from the solenoid and power source. To remove the sensor, unscrew the retaining nut on the rear side of face plate. SEE IMAGE 62

STEP 2 Feed cables of the new sensor through the sensor hole of face plate. Fit the sensor in the hole and fix it in place using retaining nut from the rear side of face plate. SEE IMAGE 62

The sensor must be oriented so that the text on the back is facing upright. SEE IMAGE 46

STEP 3 Connect the cable marked with "POWER" label to the battery or the transformer. SEE Step 21 on Page 19



Warning: Cross connection here will damage the sensor and void the product warranty. Ensure POWER cable is only connected to Transformer or Battery.

STEP 4 Connect the other sensor cable to solenoid, making sure the lines on the two connectors align.

STEP 5 Reinstall face plate, dress flange and spout. Turn on isolation valves and reinstate the valve. (See Steps 20-30 Page 18-22.)

STEP 6 If required, re-program the sensor setting using Oras 360 App. SEE Sensor Program on page 25.

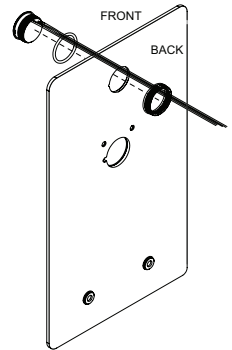
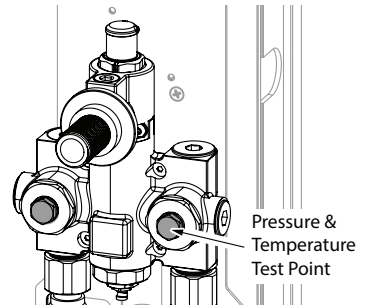


IMAGE 62

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 check valve/ strainer cap.

Close the isolation valves and remove spout, dress flange and the faceplate - see Steps 1 (A-C) in Annual Maintenance Procedure page 30. Use 4mm 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 a thermometer or pressure gauge can be inserted into the Pete's Plug to take measurements.

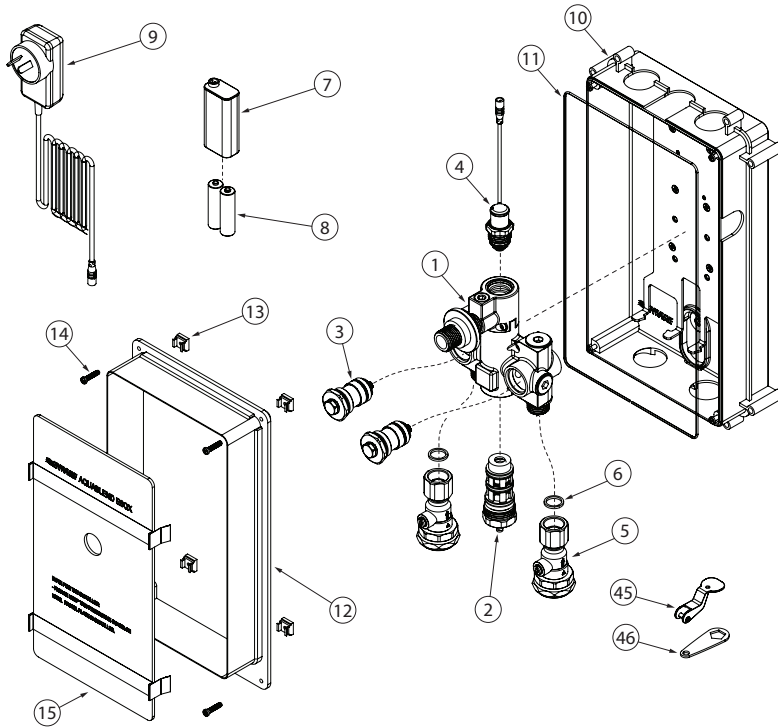


CLEANING

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.

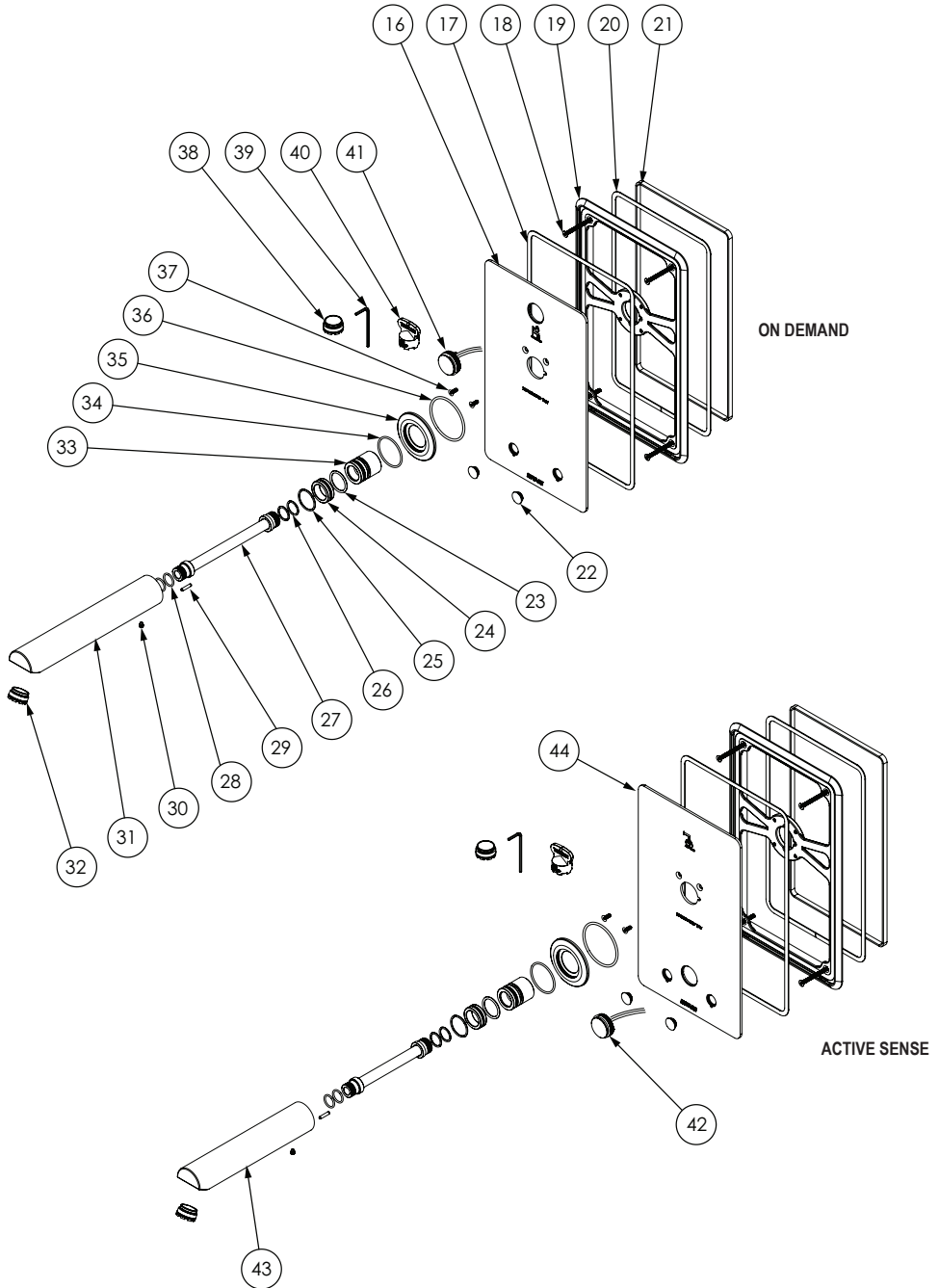
If re-greasing spindles or seals, always use a silicon based potable water approved lubricant such as Hydroseal Food Pro.

spare parts - BACK OF WALL COMPONENT



Description	Parts	Part Code
Aquablend ESQX Thermostatic Cartridge	[2]	ATMS650L
ESQX Strainer / check valve assembly (pair)	[3 x2]	ENMS317
Temperature Adjuster Key & Lift Lever	[45] [46]	ATMS518
Solenoid with solenoid key	[4]	ENMS240
Isolation valve (each)	[5] [6]	ENMS318
Battery Holder	[7]	ENMS263
Battery Lithium AA 1.5V (x 2)	[8]	ENMS247
Transformer 9V with 4.5 metre lead	[9]	ENMS210
Extension cable for transformer - 3 metres		673841
Extension cable for transformer - 8 metres		673840
Pete's Plug 1/4" Test Point Adaptor		ATMS1221

spare parts - FRONT OF WALL COMPONENT



Description	Parts	Part Code
Sensor - On Demand/ Auto Sense - 3V Battery Op & 9V Mains (Use Oras 360 App to select sensor function)	[41]	ENMS254
Face plate for On Demand Sensor	[16]	ENMS309
Face plate for Auto Sense	[44]	ENMS310
Seal tape kit for face plate	[17] [21]	ENMS311
Screws for face plate and bracket	[37 x2] [18 x4]	ENMS312
Isolation valve access plug and O-ring (pair)	[22x2]	ENMS313
O-ring pack for FOW ESQX	[23] [25] [26x2] [28x2] [34] [36]	ENMS314
Spout 200mm for ESQX	[44] [30] [29] [28x2] [27] [26x2] [25] [24] [23] [33]	ENMS315
Spout 230mm for ESQX	[31] [30] [29] [28x2] [27] [26x2] [25] [24] [23] [33]	ENMS316
Aerator - 6 lpm laminar flow (Cache STD)	[32]	MK602
Aerator - 4.5 lpm laminar flow (Cache STD)	[38]	MK601
Spout grub screw - M5 Dog point	[30]	672453
Face plate fixing screw (each) (socket HD cap SS304 M4 x 10 CSK)	[37]	671484

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



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