Enware Touch Free Sensor Tap ENM620/ENM621

Installation, Operating & Maintenance Instructions

Active Sense System

Wave On - Wave Off System

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www.enware.com.au

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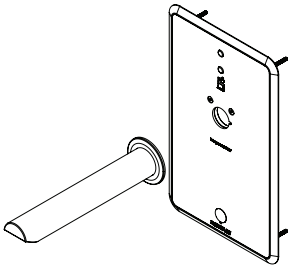
PRODUCT COMPONENTS - FRONT OF WALL

FRONT OF WALL COMPONENT

BATTERY OPERATED

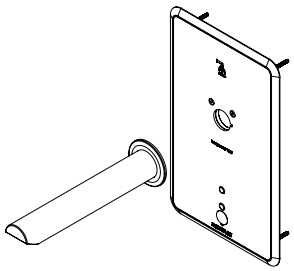


WAVE ON - WAVE OFF
Sensor above outlet

Wave On-Off Front of Wall Component Only with 200mm Fixed Spout with Laminar Flow - Battery Operated

ENMWBC1L3 - 8Lpm
ENMWBC1L5 - 6Lpm
ENMWBC1L6 - 4.5Lpm

BATT



ACTIVE SENSE
Sensor below outlet

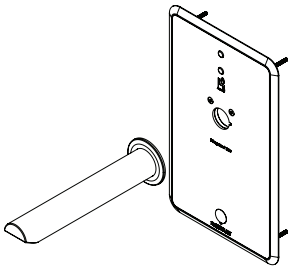
Active Sense Front of Wall Component Only with 200mm Fixed Spout with Laminar Flow - Battery Operated

ENMABC1L3 - 8Lpm
ENMABC1L5 - 6Lpm
ENMABC1L6 - 4.5Lpm

BATT

OR

MAINS POWERED

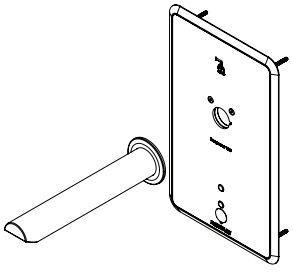


WAVE ON - WAVE OFF
Sensor above outlet

Wave On-Off Front of Wall Component Only with 200mm Fixed Spout with Laminar Flow - Mains Powered

ENMWMC1L3 - 8Lpm
ENMWMC1L5 - 6Lpm
ENMWMC1L6 - 4.5Lpm

MAINS



ACTIVE SENSE
Sensor below outlet

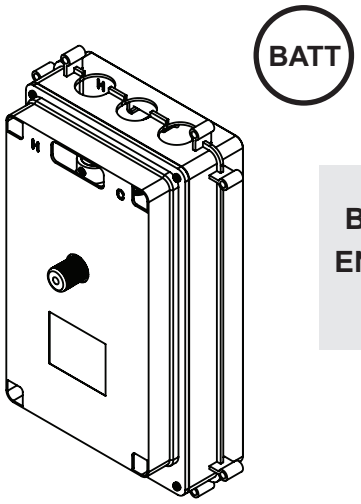
Active Sense Front of Wall Component Only with 200mm Fixed Spout with Laminar Flow - Mains Powered

ENMAMC1L3 - 8Lpm
ENMAMC1L5 - 6Lpm
ENMAMC1L6 - 4.5Lpm

MAINS

PRODUCT COMPONENTS - IN-WALL

IN-WALL COMPONENT



BATTERY OPERATED

ENM620 - 6V Battery Op In-Wall Component

Also available with 230mm Spout:

BATTERY WAVE ON - WAVE OFF:
ENMWBC2L3 - 8 Lpm
ENMWBC2L5 - 6 Lpm
ENMWBC2L6 - 4.5 Lpm

BATTERY ACTIVE SENSE:
ENMABC2L3 - 8 Lpm
ENMABC2L5 - 6 Lpm
ENMABC2L6 - 4.5 Lpm

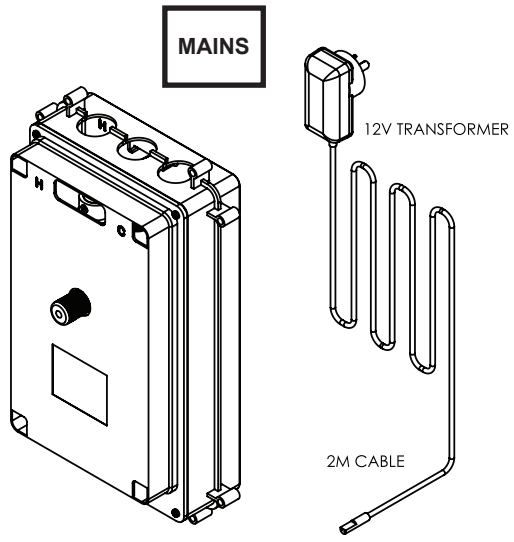
NOTE:

When placing an order, “In Wall” (back of wall) component is ordered separately to “Front of Wall” component.

Battery operated “In Wall” component MUST be paired with Battery “Front of Wall”.

Mains operated “In Wall” component MUST be paired with Mains “Front of Wall”.

Sensors will not operate if components are not paired correctly.



MAINS POWER

ENM621 - 12V Mains In-Wall Component

Also available with 230mm Spout:

MAINS WAVE ON - WAVE OFF:
ENMWMC2L3 - 8 Lpm
ENMWMC2L5 - 6 Lpm
ENMWMC2L6 - 4.5 Lpm

MAINS ACTIVE SENSE:
ENMAMC2L3 - 8 Lpm
ENMAMC2L5 - 6 Lpm
ENMAMC2L6 - 4.5 Lpm

Enware Touch Free Sensor Tap

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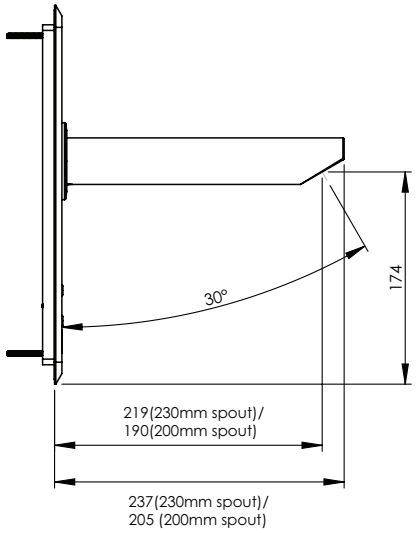
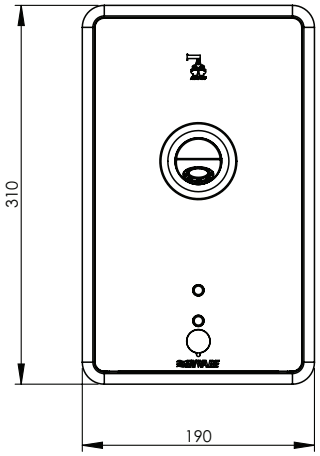
TECHNICAL INFORMATION

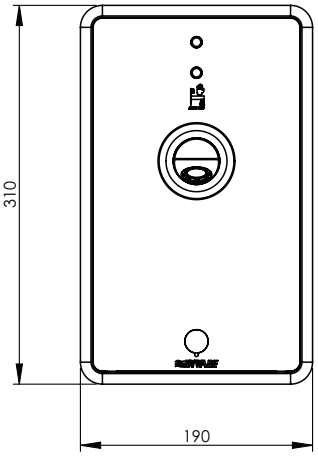
DIMENSIONS

Front of Wall Components



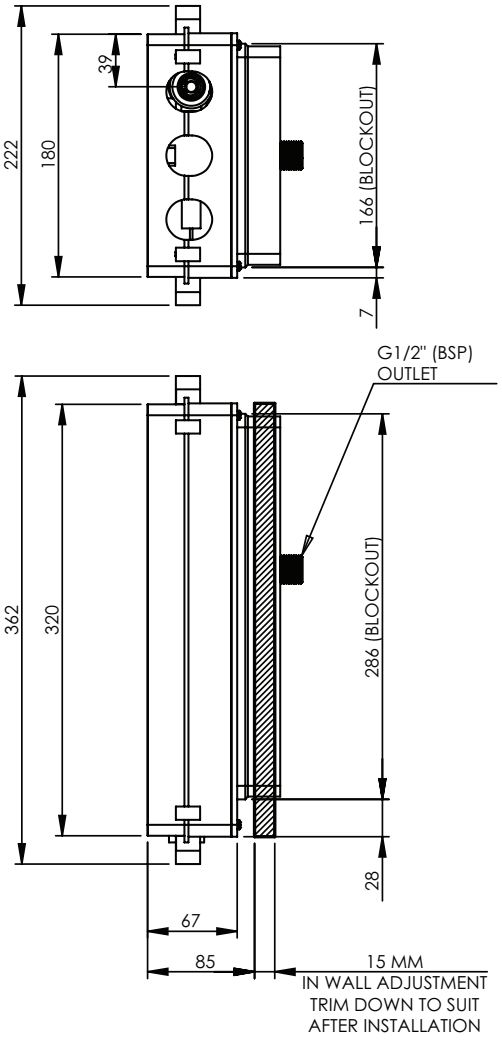


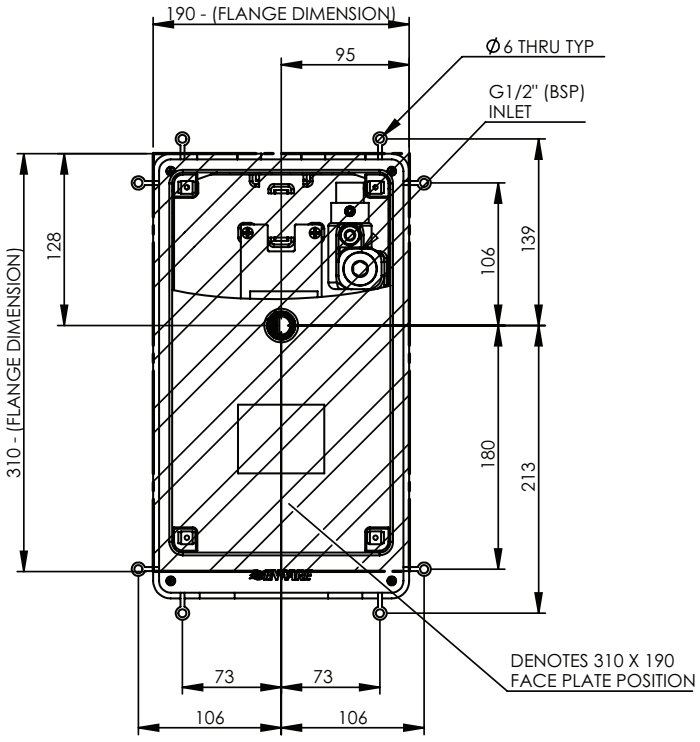
Active sense



Wave on wave off

In-Wall Components





Installation Conditions

Dynamic Inlet Pressures*	Min. 20kPa Max. 500kPa
Static Inlet Pressures For testing purposes/system commissioning	Max. 1000kPa
Maximum Water Temperature	70 °C

Sensor Performance

Active Sense

Sensor Range	250mm (default) Can be set to 170mm
Water Run Time (after hands removed from sensor range)	2 seconds (+/-1)
Maximum flow period (maximum run time for continuous use)	2 minutes

Wave On Wave Off

Sensor Range	20-100mm
Water Run Time (after hands removed from sensor range) 8, 15, 30, 45, 60, 90, 120 or 180 seconds settings available	15 seconds (+/-1) default

* In accordance with AS/NZ3500. Enware products must be installed in accordance with the Plumbing Code of Australia (PCA), AS/NZS3500 and the manufacturer's instructions. Installations not complying with PCA, AS/NZS 3500 and the manufacturer's instructions may void the product and performance warranty provisions.

** Heated Water Supply AS/NZS 3500.4: 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

WaterMark
AS/NZS 3718 WMKA 1583
SAI Global

NOTE: Enware Australia advises:

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

INSTALLATION COMPLIANCE

Installation

This ENWARE product should be installed using the appropriate Standard, Code of Practice and legislation applicable to each state and following the details outlined in this section.

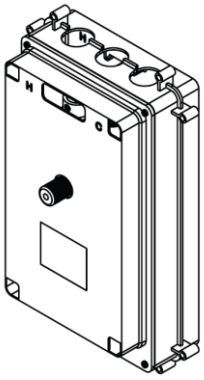
They must be installed by a licensed plumber.

To ensure that the valve operates correctly, it is necessary that the pipework is thoroughly flushed with clean water before it is installed as per AS/NZS 3500.1. 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.

Transformers with 4.5m Extended Cable (ENMS230), 6m or 8m, are available if extra power cable length is required.

IN-WALL COMPONENTS INSTALLATION PROCEDURE



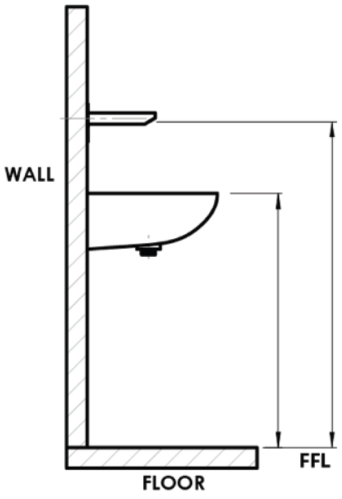
STEP 1.

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.*

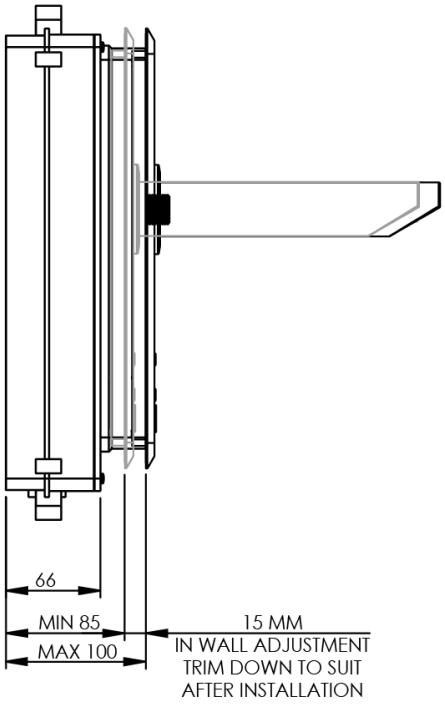
** Recommended height of spout (point of water discharge) for Type A and Type B Clinical Hand Washing Bay is 1120mm off finished floor level when combined with basin at a height of 865mm, according to AUSHFG (Australasian Health Facility Guidelines).*

Suggested heights from finished floor:

Spout outlet	1050mm	
	1120mm to point of water discharge (Australasian Health Facility Guidelines)	
Top of basin	850mm	
	865mm (Australasian Health Facility Guidelines)	
	800 - 830mm (Reference: AS1428.1-2009)	

STEP 2.

If installing within a frame wall, fit mounting timber in the desired location for Box support. Enware recommends 13mm ply wood fixed between two vertical in-wall studs.



Important: The depth of Box from finished wall to the back of the Box must be between 85mm-100mm.

STEP 3.

Mark out the fixing point locations while ensuring the Box is level, and secure the Box to the ply wood support using the external fixing lugs and adequate fixing screws.

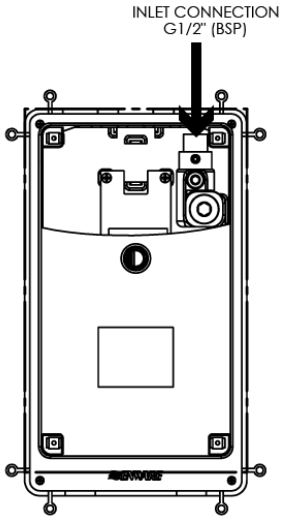
STEP 4.

Remove Box front cover. Keep the front cover and 4 screws at hand.

STEP 5.

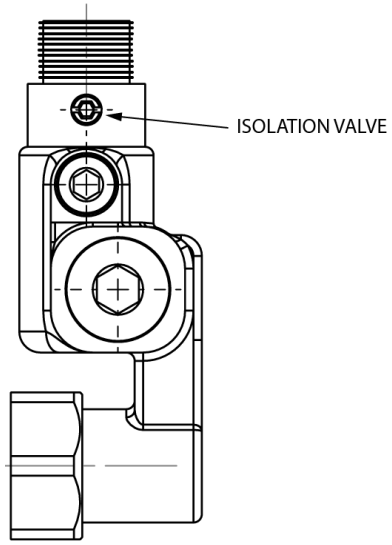
Purge water supply line to make sure all debris has been cleared. Connect water supply to inlet fitting using a 1/2” BSP loose-nut connector.

Note: Use loose-nut connectors (#62) or unions for connection to inlet, to allow for easy removal of the valve should there be any need to repair or service the components in future.



STEP 6.

Make sure integral inlet isolation valve is off. The line of the slot should be horizontal across the inlet valve.



STEP 7.

Turn on the water supply and test the supply pipeline connections for leaks.
Do not turn on the integral isolation valve yet.

STEP 8.

Note – this step is 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, which is located on the top side of Box. 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 (4.5m - 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 Box front cover later, ensure the cable is tucked away towards the back of the box.

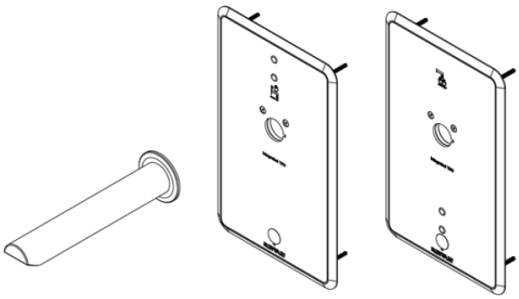
STEP 9.

Re-fit the Box front cover and secure with 4 screws.

STEP 10.

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

FRONT-OF-WALL COMPONENTS INSTALLATION PROCEDURE

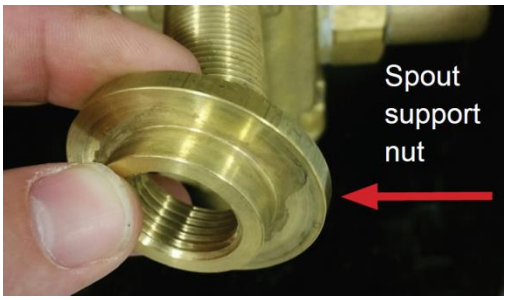


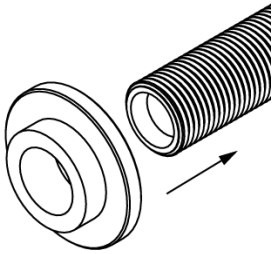
STEP 1.

Once the finished wall is complete, the protruding section of the Box front cover needs to be trimmed so it finishes flush with finished wall face. Discard cover. Check that no part of the Box protrudes past the finished wall except the 1/2" BSP thread for the spout, and deburr trimmed edges of the Box.

STEP 2.

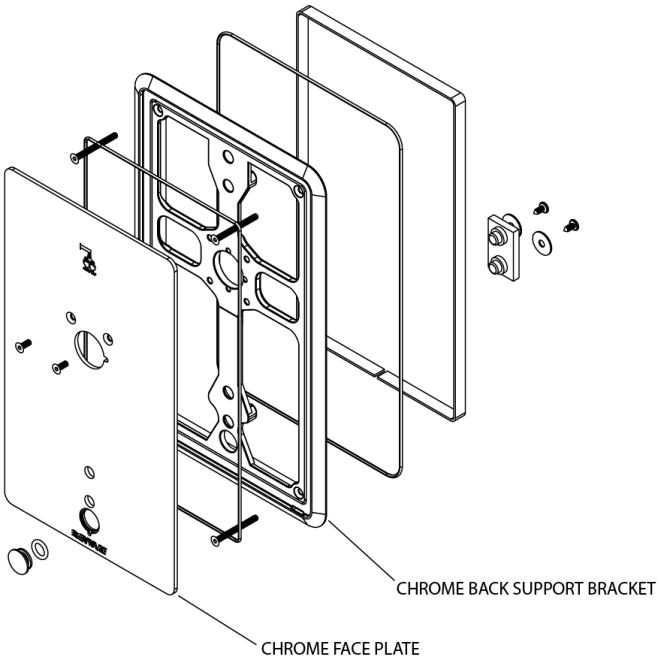
Fit spout support nut onto 1/2" BSP outlet thread.





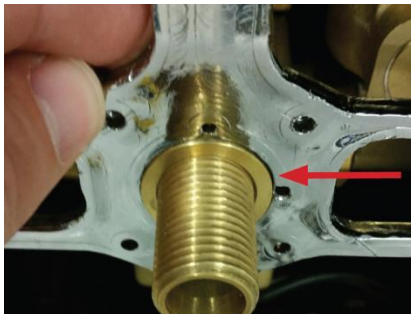
STEP 3.

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



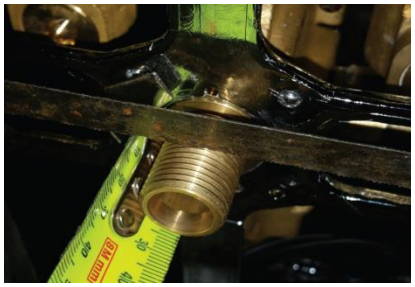
STEP 4.

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



STEP 5.

Cut back the 1/2 inch outlet thread so you are left with 15mm protruding past the support bracket.

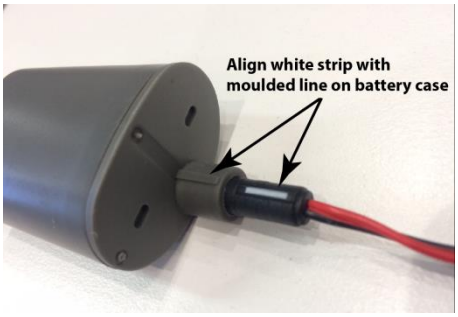


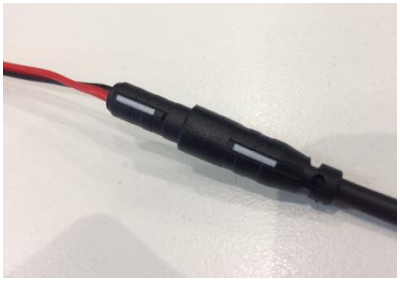
STEP 6.

Apply thread sealant or sealing 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.

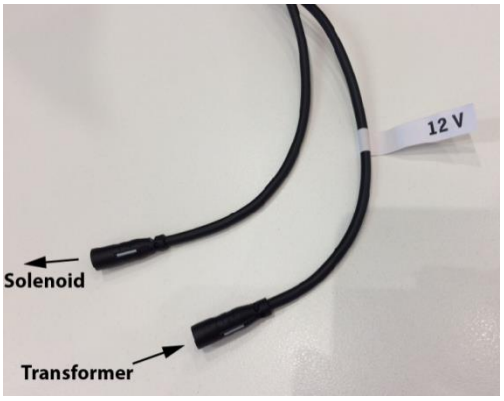
STEP 7.

Connect the cables on the sensor to the solenoid and the battery, making sure the lines on the two connectors align.





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.



STEP 8.

Activate the sensor by placing hand in front of sensor. Test solenoid operation by listening for the solenoid to click open and close. (Water is still off.)

While solenoid is in off position, turn water supply on via the isolation valve. (Valve slot in vertical position). Take care not to activate the sensor while doing so.

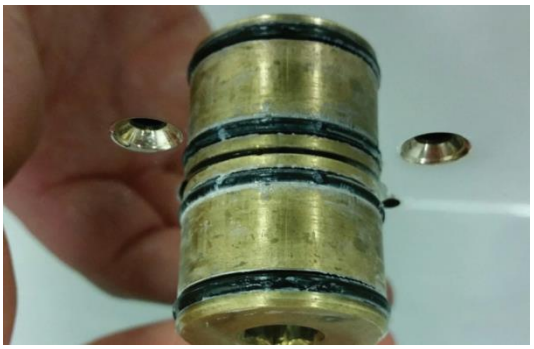
Check for any leaks in joints.

STEP 9.

Before putting the face plate on, to prevent triggering the sensor and activating the valve, turn off water supply to the tap at the main.

STEP 10.

Take the Chrome face plate, carefully push the plate over the spout retainer, then place its 2x lower tabs into the 2x voids in the base of the face plate bracket until it sits flush. Secure in place using the 2x M4 Allen head screws and tighten with an Allen key.



STEP 11.

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

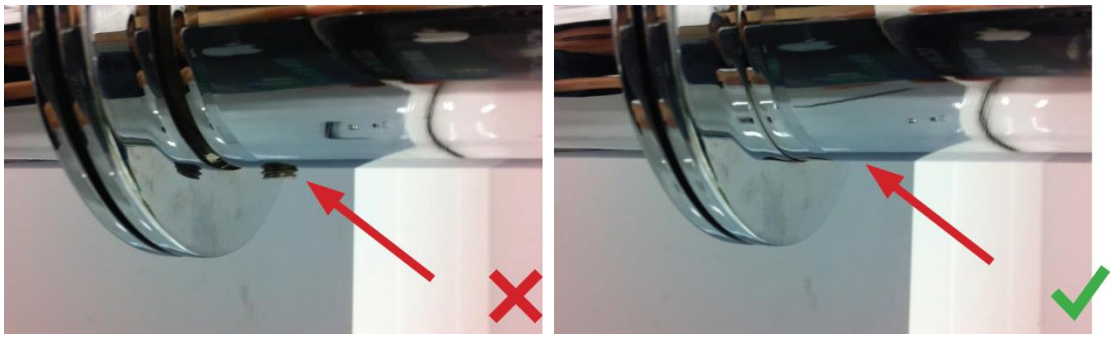
STEP 12.

Align the small 3mm hole in dress flange with the hole in the face plate, and then carefully push on the spout so that the anti-rotation pin fits within the hole.

STEP 13.

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.



STEP 14.

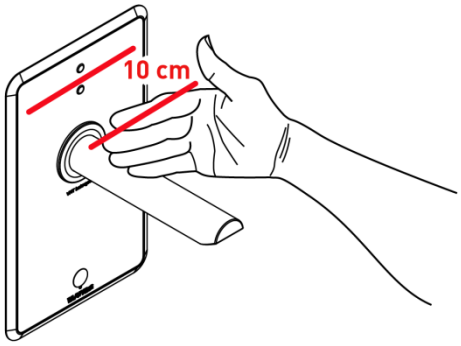
Restore water supply to the ta and test the tap operation.

WAVE-ON WAVE-OFF SENSOR OPERATING INSTRUCTIONS

To turn ON:

Place hand in front of sensor for 1 second, at a distance of 10 cm.

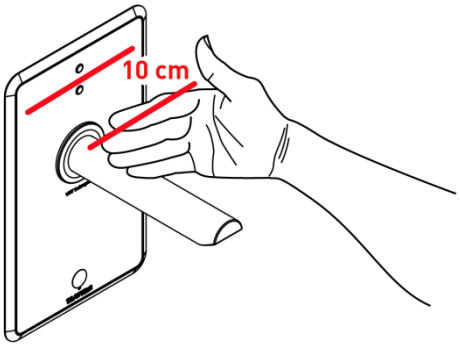
Water starts to flow.



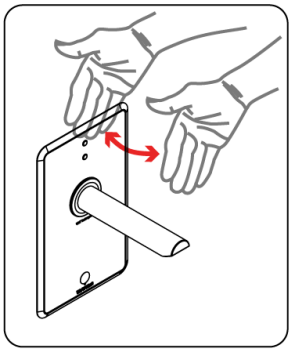
To turn OFF:

Place hand in front of sensor for 1 second, at a distance of 10 cm.

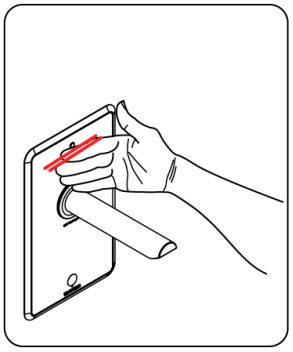
Water flow stops.



- 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 turn OFF automatically after a set period of time. (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.

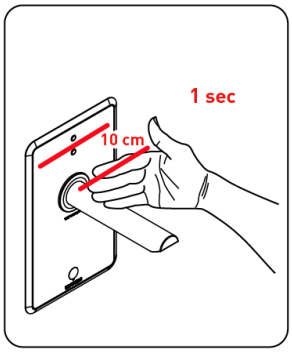


Wave quickly in front of sensor (does not activate)

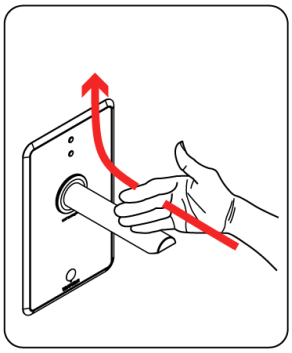


Hand too close to sensor (does not activate)

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



Move hand in towards sensor and pulling up

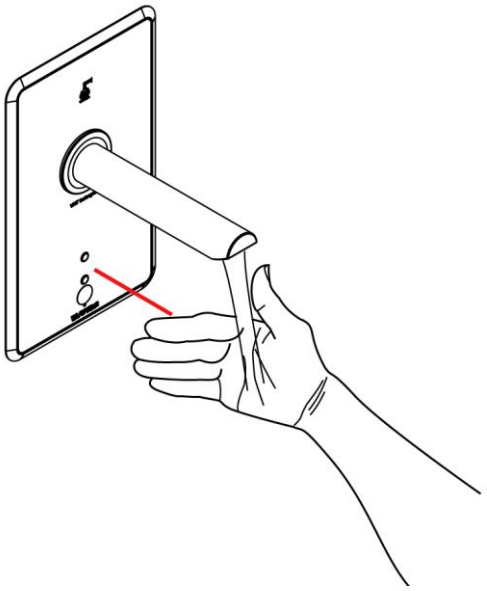


ACTIVE SENSE OPERATING INSTRUCTIONS

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

SERVICE AND MAINTENANCE

The ENWARE Touch Free Sensor Tap will only require minimal preventative maintenance work to ensure it operates at its optimum level of performance.

Every few years or as required, spout aerator and strainer check valve assembly should be checked for debris, and cleaned if required.

If the tap is malfunctioning, refer to Troubleshooting section following.

ACCESSING THE INTERNAL COMPONENTS

To access the internal components of the valve, follow steps below.

STEP 1.

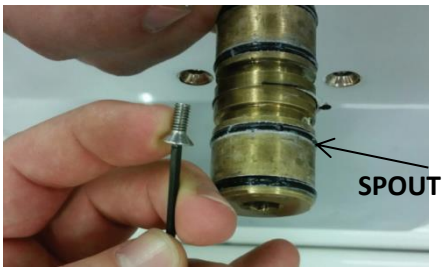
Your hands may activate the sensor during this process. It is recommended to turn off the water supply to the sensor tap, and activate the sensor to drain the water prior to taking off the spout.

STEP 2.

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 retainer in place.

STEP 3.

Remove the face plate carefully over the spout retainer



STEP 4.

Isolate the water supply to the valve by closing the inlet ball valve. The servicing of internal components can now proceed.

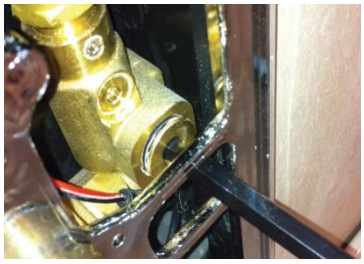
SERVICING THE STRAINERS AND CHECK VALVES

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

Periodically the combined non-return and strainer assemblies need to be checked for cleanliness. Prior to servicing, turn off the water supply to the tap.

STEP 1.

Using a 3/8” Allen key unscrew the check valve/ strainer assembly and remove.



STEP 2.

Inspect strainer and check valve for debris.

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.

Replace with a new strainer/ check valve assembly if required. (Enware Part ATMS693)

STEP 3.

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

Ensure there is no debris caught within the sealing face.

Test for water tightness.

SERVICING THE SOLENOID VALVE

Enware Product Code: ***ENMS207*** *- Solenoid*

STEP 1.

Prior to servicing, turn off the water supply to the tap.

STEP 2.

Remove chrome back support bracket. Disconnect solenoid valve cable from sensor.

STEP 3.

Using a solenoid key and 8mm Allen key, or a spanner, unscrew the solenoid from body.

STEP 4.

Remove the solenoid from the mixer body and check that the bottom sealing O-ring remains assembled on the base of the solenoid valve. If the lower sealing O-ring remains in the mixer body, use a small tool to take it out of its location within the brass body.

STEP 5.

Check internal sealing membrane for debris or damage, by taking off the lower cap. If damaged, replace with a new solenoid membrane (Enware Part - ENMS212).
The membrane and lower cap should be cleaned, checked for physical damage and then thoroughly rinsed with clean water.

STEP 6.

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.

STEP 7.

Lightly grease the 2 sealing O-rings on the outside of the solenoid, then assemble the solenoid into the mixer body and tighten using solenoid key or spanner.

STEP 8.

Restore water supply and test for leaks.

CHANGING THE BATTERY

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 access the battery, firstly turn water supply off to the tap, then remove the face plate, spout and dress flange.

STEP 2.

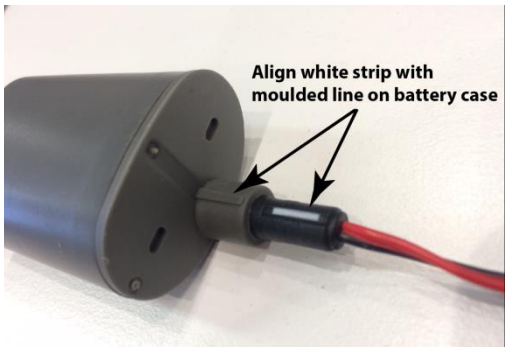
Remove the battery from within the box by pulling the battery casing vertically upward, and then disconnect it from sensor cable.

STEP 3.

Open the casing cover and change the battery. Use only 6V Lithium 2CR5 battery (Enware Part ENMS204). Fit the battery casing cap 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.



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

STEP 5.

When the battery is first connected, 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 face plate, dress flange and spout.

STEP 7.

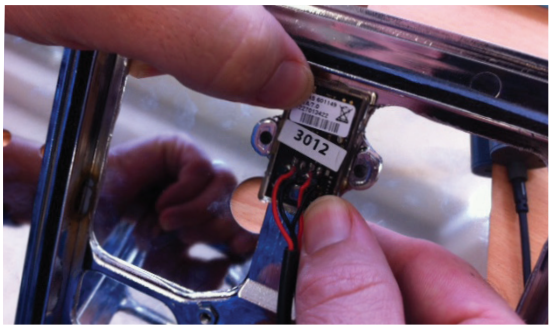
Restore water supply to the tap and test the tap operation.

Servicing the Sensor

Enware Product Code:
ENMS236 - Active Sense 6V Battery Op Sensor
ENMS237 - Wave On/Off 6V Battery Op Sensor
ENMS238 - Active Sense 12V Mains Power Sensor
ENMS239 - Wave On/Off 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 face plate bracket or when the bracket is removed from the mixer assembly.

Replacing the Sensor

	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.
	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 the solenoid. For battery versions, ensure the white line on the sensor cable connector aligns with the moulded line of the battery casing. **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.

Cleaning

Enware Product 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.

THERMAL DISINFECTION PROCEDURE

When required for disinfection purposes, the internal components can be flushed with full hot water temperature (maximum 70 °C) by using the following procedure.

1. To access the internal components, first turn water off to the sensor tap, then remove the spout, dress flange and the face plate.
2. 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 open position, until it is connected to the sensor again at a later stage.
3. With the front plate off, temporarily install the spout back on so the water can flow into the basin.
4. 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.
5. 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, restore water supply to the sensor tap.

   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.

   …

6. Once decontamination procedure has completed and the water supply to the sensor tap is turned off, connect sensor to solenoid.
7. Fit front plate and spout back on.
8. Restore water supply to the sensor tap.

CHANGING THE SENSOR PROGRAM

The eSQX Mixers come standard with either:

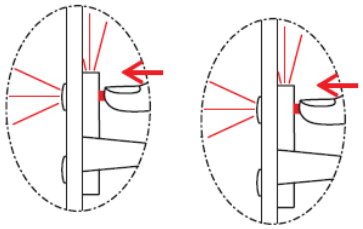
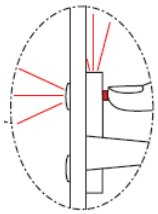
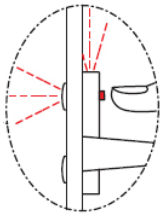
1) An Active Sense activation which operates while the user's hands are in the sensor range. **or**

2) A Wave on/off activation where the user places their hand in front of the sensor to turn it on and off.

The Active 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.

The Wave On/Off activation sensors 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.

Sensor Programming Sequence	
1. Disconnect power to sensor.	
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.	 Wait until red light turns off.
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.	 Wait until red light turns off. 
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.	 max 5 s
5. Once the program is chosen, wait for 5 seconds. The LED will blink back to confirm the program number it is set to.	
6. The sensor is now set.	

PROGRAM - ACTIVE SENSOR

ACTIVE SENSOR						
Sensor is set after user stops pressing button for more than 5 seconds		Sensor activation range	Intelligent afterflow	Sensor sensitivity level *	Max flow time	Autoflow interval
No # of presses	Program description					
1	Automatic on sensor range max. 170mm standard afterflow.	20-170mm	2S +/- 1s	1	2 mins	
2 (Default setting)	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	Automatic flow OFF	–	–	–		Off
8	Automatic flow 12h ON	–	–	–		12H

* Sensitivity level:

1 - most sensitive,

2 - less sensitive for difficult light conditions or interference,

3 - the least sensitive for the most difficult light conditions or interference.

PROGRAM - WAVE ON/OFF

WAVE ON/ OFF SENSING						
Sensor is set after user stops pressing button for more than 5 seconds		Sensor activation range	Intelligent afterflow	Sensor sensitivity level	Max flow time	Lock out time after off
Program # of presses	Program description					
1	Automatic off - wave on/wave off active - with 8 second runtime- sensor range 20-100mm	20-100mm	4s +/- 1s	1	8 sec	0 sec
2 (Default setting)	Automatic off - wave on/wave off active - with 15 second runtime- sensor range 20-100mm	20-100mm	4s +/- 1s	1	15 sec	0 sec
3	Automatic off - wave on/wave off active - with 30 second runtime- sensor range 20-100mm	20-100mm	4s +/- 1s	1	30 sec	0 sec
4	Automatic off - wave on/wave off active - with 45 second runtime- sensor range 20-100mm	20-100mm	4s +/- 1s	1	45 sec	0 sec
5	Automatic off - wave on/wave off active - with 60 second runtime- sensor range 20-100mm	20-100mm	4s +/- 1s	1	60 sec	0 sec
6	Automatic off - wave on/wave off active - with 120 second runtime- sensor range 20-100mm	20-100mm	4s +/- 1s	1	120 sec	0 sec
7	Automatic off - wave on/wave off active - with 180 second runtime- sensor range 20-100mm	20-100mm	4s +/- 1s	1	180 sec	0 sec
8	Automatic off - wave on/wave off 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 - wave on/wave off 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 - wave on/wave off 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 - wave on/wave off 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 - wave on/wave off 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 - wave on/wave off 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	Automatic Flow OFF	–	–	–	–	–
16	Automatic Flow 12h ON	–	–	–	–	–

TROUBLESHOOTING

PROBLEM	CAUSE	RECTIFICATION
1. Water is not flowing from outlet	a) Water turned off b) Isolation valve is turned off c) Aerator is blocked by debris d) Power is turned off while solenoid is in closed position e) Solenoid locked up due to supply pressure being too high f) Water supply failure g) Strainers contain debris	a) Ensure water supply is turned on, b) Check isolation valve is turned on c) Clean, then re-install or replace aerator d) Turn power supply on and activate sensor e) 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. f) Restore inlet supply g) Clean strainers ensuring debris is removed
2. Leaking or dripping from outlet	a) Solenoid is fouled by debris b) Supply water pressures are too high c) Thermostatic cartridge contains debris, is damaged or o-rings are worn d) Thermostatic cartridge is not fitted tightly	a) Dismantle solenoid and clean b) Check pressure and install a pressure reduction valve c) Clean the cartridge ensuring that all debris is removed and components are not damaged. Replace if necessary. d) Tighten cartridge
12. Tap turns on randomly or erratically	a) Sensor beam interference by reflections off mirror or high-visibility vest b) Incompatible lighting or electrical interference in the environment	a) Remove interfering object, or Adjust sensor range or sensitivity by reprogramming the sensor (refer to sensor programming) b) Remove interference, or Adjust sensor range or sensitivity by reprogramming the sensor (refer to sensor programming)
13. Battery only lasts a few weeks or days	a) Sensor has been permanently damaged due to reversed polarity (being incorrectly connected)	a) Replace sensor and battery. (A new battery typically lasts between 3 to 5 years, depending on frequency of use). Follow steps in “Changing the Battery”.
14. Sensor red light constantly blinks	a) Low voltage b) Battery is running out, or power supply is insufficient	a) Replace battery. b) Check if power cable is not pinched or damaged. Check power supply.
15. Water stops slowly – long after flow period greater than 1 sec if hands have been in sensor range for longer than 5 seconds	a) Solenoid has debris caught in the mechanism.	a) Remove solenoid and inspect solenoid membrane for debris. Remove debris and/or replace solenoid if damaged. Follow steps in Maintenance and Servicing instructions.
16. Constant flow of water	a) Solenoid valve is damaged or solenoid has debris caught in the mechanism b) Electronic component failure – solenoid valve/ sensor/ battery/power supply c) Power supply is turned off d) Sensor is constantly activated by an object in front of sensor	a) Remove solenoid and inspect solenoid membrane for debris. Remove debris and/or replace solenoid if damaged. b) Follow steps in Maintenance and Servicing instructions and replace if needed. c) Turn on power supply d) Remove interfering object

CARE AND MAINTENANCE

Enware Product 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. Epoxy coated surfaces should only be cleaned with a cloth and clear water or mild detergent. Use of unsuitable cleaning agents may damage the surface. Any damage caused in this way will not be covered by warranty.

If re-greasing always use a silicon based potable water approved lubricant such as Hydroseal 'O' Ring Lubricant or Molykote 111 silicone based grease.

PRODUCT WARRANTY

PRODUCT WARRANTY FOR AUSTRALIA
Effective 1 September 2014

Enware Australia Pty Limited (ACN 003 988 314) ("we" or "us") warrants that this product (also referred to as "our goods") will be free from all defects in materials and workmanship for 3 years* from the date of purchase.

Our liability under this warranty is limited at our option to the repair or replacement of the defective product or part, the cost of repair of the defective product or part or the supply of an equivalent product or part, in each case if we are satisfied the loss or damage was due to a defect in the materials or workmanship of the product or part.

All products must be installed in accordance with the manufacturer's instructions, the PCA, AS/NZS3500 including any other applicable regulatory requirements.

MAKING A CLAIM

To make a claim under this warranty you must notify us in writing within 7 days of any alleged defect in the product coming to your attention and provide us with proof of your purchase of the product together with a completed Product Service Request form (ENF091), which is available on request from our office (see contact details below).

All notifications and accompanying forms must be sent to us marked for the attention of the Enware Australia Pty Limited, 9 Endeavour Road, Caringbah NSW 2229. We can also be contacted by telephone (1300 369 273) or by email (info@enware.com.au).

Your costs in making a claim under this warranty, including all freight, collection and delivery costs, are to be borne and paid by you. We also reserve the right at our cost to inspect any alleged defect in the product wherever it is located or installed or on our premises.

EXCEPTIONS

This warranty does not apply in respect of any damage or loss due to or arising from:

a) Failure by you or any other person to follow any instructions for use (including instructions and directions relating to the handling, storage, installation, fitting, connection, adjustment or repair of the product) published or provided by us;
b) 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 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); or
c) Any act or circumstance beyond our control including faulty installation or connection, accident, abnormal use, acts of God, damage to buildings, other structures and infrastructure and loss or damage during transit or transportation of the product.

OTHER CONDITIONS

Except as provided or referred to in this document, we accept no other or further liability for any damages or loss (including indirect, consequential or economic loss) and whether arising in contract, tort or otherwise.

Any benefits available to you under this warranty are in addition to any non-excludable rights or remedies you may have under applicable legislation, including as a "consumer" under the Australian Consumer Law. To that extent you need to be aware that: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

* 3 Years: 2 years Oras parts and labour warranty from the date of purchase. After 2 years an additional 1 year Enware replacement part warranty is applicable to the electronics and sensor only. This extended parts only warranty is applicable to Oras Electronics products purchased within Australia.

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Quality Endorsed Company