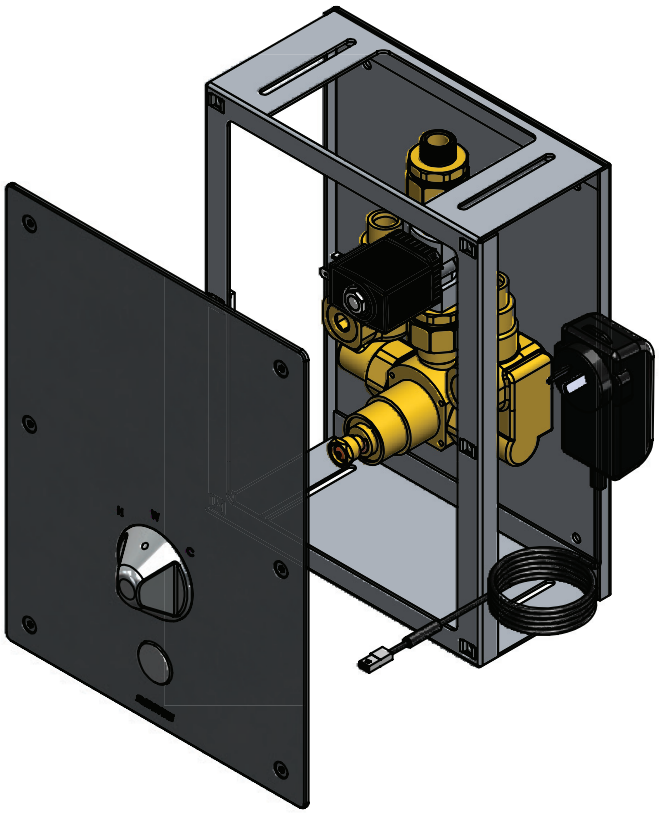
DETENTION DDA ELECTRONIC SHOWER MIXER FRONT ACCESS

Installation Instructions

EMD182DSHR (FRONT OF WALL)

WMS182MIX (IN-WALL)



I00326_FEB23

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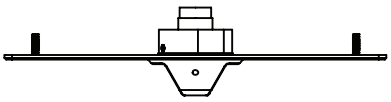
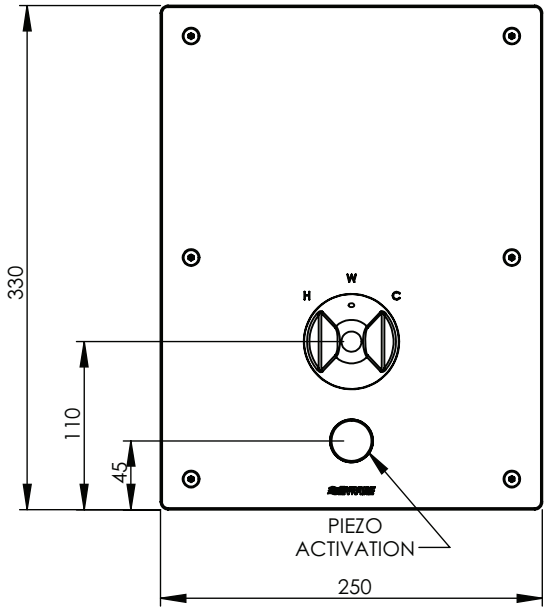
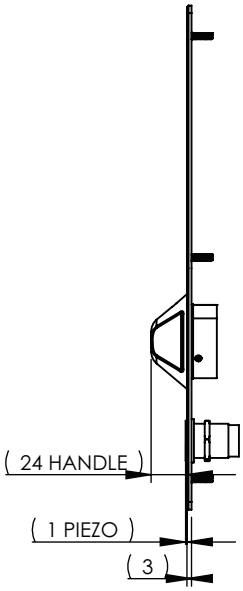
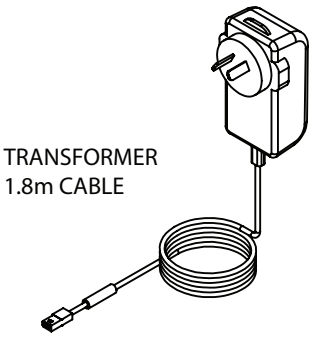
dimensions

EMD182DSHR
(FRONT OF WALL)

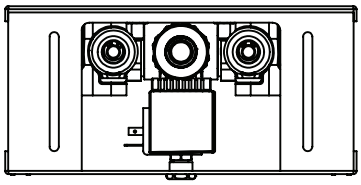


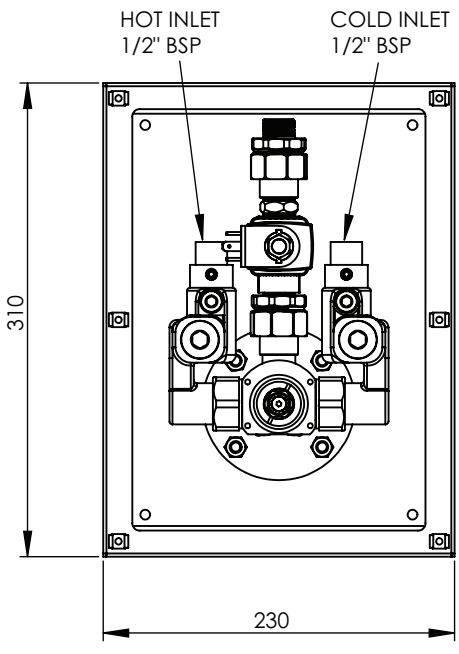


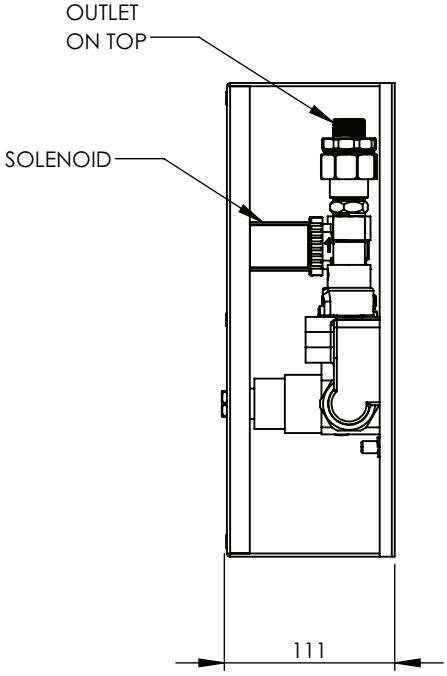




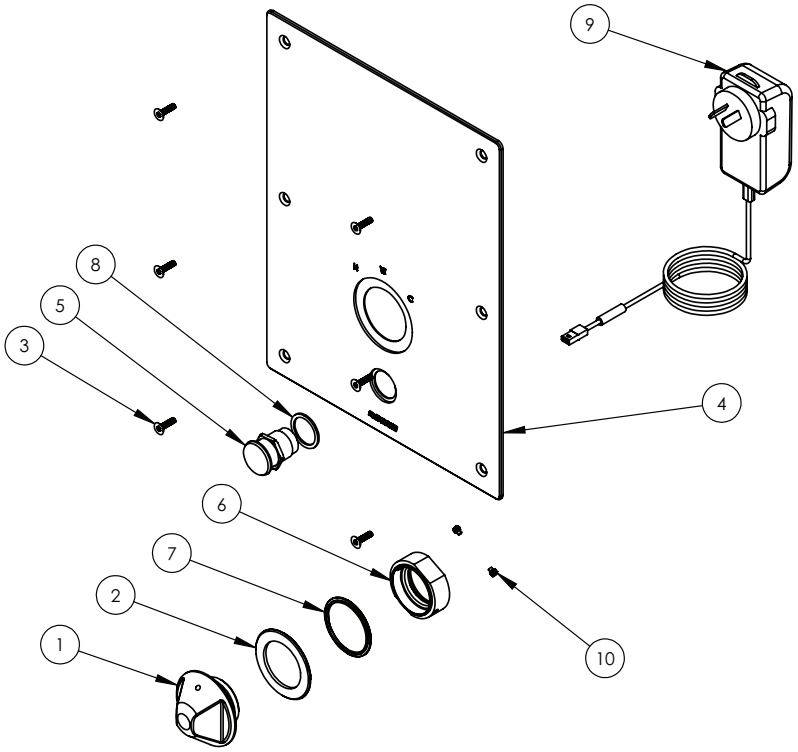
WMS182MIX
(IN-WALL)



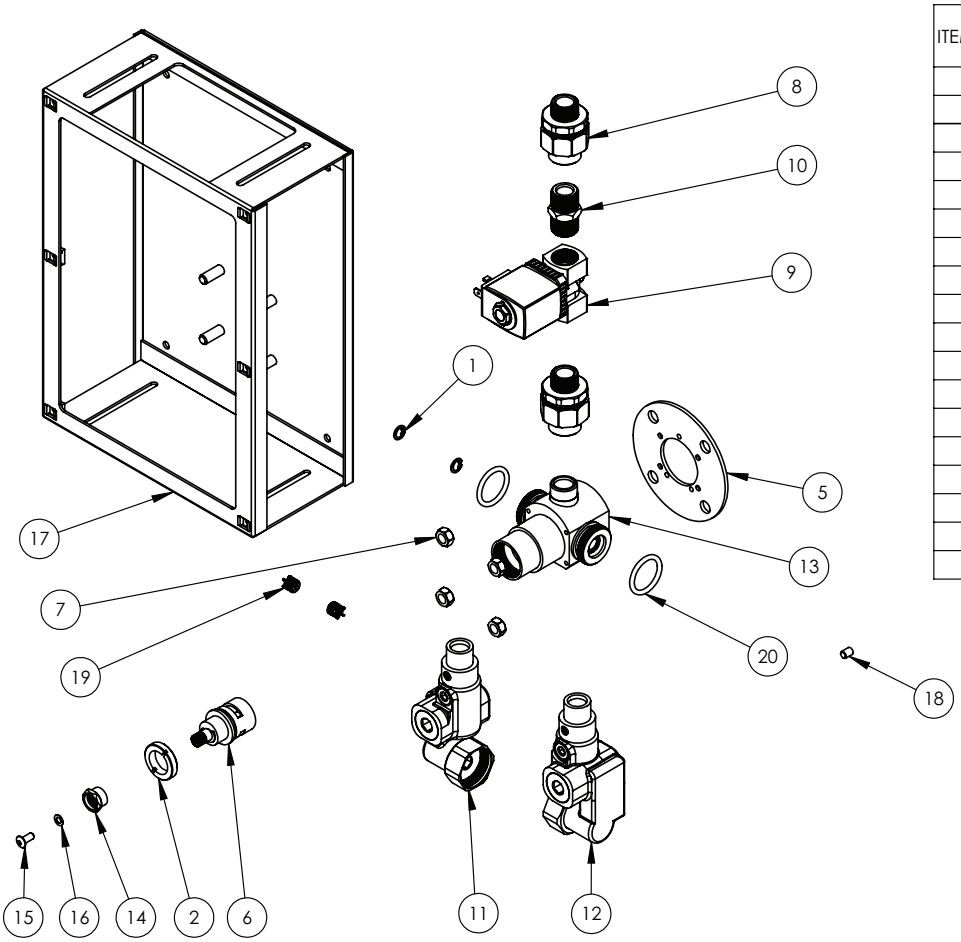




components



ITEM NO.	DESCRIPTION
1	HANDLE ACCESSIBLE EAL PLATE FIXED CHROME
2	BUSH FRONT HANDLE EAL PLATE FIXED
3	SCREW CSK M5X16 304SS TORX SECURITY
4	FACEPLATE DET MIXER & PIEZO EAL
5	SWITCH PIEZO 22MM S/S PROGRAMMABLE
6	LOCK RING FOR HANDLE EAL PLATE FIXED
7	BUSH REAR HANDLE EAL PLATE FIXED
8	WASHER - RED FIBRE 28.5 X 23 X 1.5MM SBA
9	TRANSFORMER PIEZO 24VDC 1.25A 1.8M LEAD
10	SCREW - GRUB M5 DOG POINT



ITEM NO.	DESCRIPTION
1	CIRCLIP 11.7 DIA SS SUIT INLET
2	NUT FIXING MIXER RECESS SQX LEVA
5	DET FIXING PLATE
6	CARTRIDGE MIX PROGRESSIVE 90 Q-TURN
7	NUT HEX M8 304 SS
8	UNION 1/2 MF BRASS TENIX
9	SOLENOID SS 15MM 1/2BSP 24VDC
10	NIPPLE HEX 1/2 BRS (LGE ID)
11	LEFT ISOLATION INLET ASSEMBLY
12	RIGHT ISOLATION INLET ASSEMBLY
13	SEQUENTIAL BODY
14	HANDLE SPLINE ADAPTOR
15	SCREW M5X12 304SS SOC HD LOCTITE
16	FLAT WASHERS SUIT M5
17	BRACKET MOUNTING SUIT DET FLEX
18	GRUB SCREW M6 X 8 SS304
19	VALVE-NON RETURN 10MM
20	ORING BS215

technical data

Inlet Connection	15mm (1/2” BSP) male
Recommended Working Pressure Range	50 - 500 kPa *
Maximum Temperature	70°C *
Operating Voltage	24V DC
Power Consumption	Less than 10 W
Transformer	Input: 230-240 V AC 50Hz Output: 24 V DC 1.2 Amp Cable Length: 1.8 metres
Sensor - Touch Activated	Programmable Sensor Functions: On Time, Lockout (Off Time), Early Stop, Periodic Cycle Flush 24 hrs ON Time 3 sec – max 10 min, OFF Time 6 sec – max 10 min (ON Time in increments of 3 sec)
Solenoid Valve	Stainless Steel

For use with potable water only.

COMPLIANCE

* Enware products are to be installed in accordance with the Plumbing Code of Australia and AS/NZS3500. 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.

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.

This product must be installed and commissioned by a qualified plumber.

installation - rough in

DETERMINE LOCATION OF SHOWER

Determine the desired location for the in-wall assembly (WMS182MIX / shower box) in relation to the height of mixer handle and electronic activation (piezo) button off the floor.

Recommended height is between 1000 – 1100mm off the floor. (Within zone of 900 – 1100mm for AS1428.1.)

Wall depth: **min 111mm – max 117mm** from finished wall surface to the back of box. SEE IMAGE 1

This shower cannot be installed sideways, or upside down. The mixer body must be installed in the correct orientation. This will ensure the handle points in the correct direction and to align with the “H” and “C” markings on the front panel.

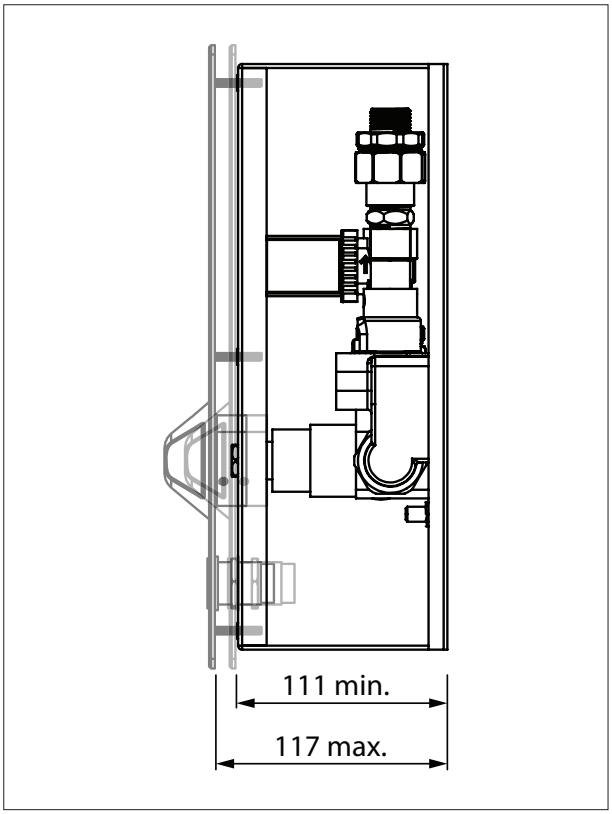


IMAGE 1

IN-WALL BODY COMPONENT

1. Secure the Shower Box to the internal cavity within the wall. The shower box can be fixed to a masonry wall or wall frame using screws suitable for the fixing method. (Fixing screws not supplied.)

   When mounting the shower box, take note of the minimum and maximum wall thickness and the dimensions shown so that the nogging or recess is correctly positioned and takes into account the thickness of the finished wall. SEE IMAGE 1

   Wall depth: **min 111mm – max 117mm** from finished wall surface to the back of box. SEE IMAGE 1

2. Purge hot and cold water lines, and connect water supply pipework to the hot and cold inlets. Connect the shower outlet to the riser leading to shower rose/outlet.
   NOTE: The mixer body has ‘H’ and ‘C’ markings on the bottom side to indicate the appropriate supply required to each side of the mixer.

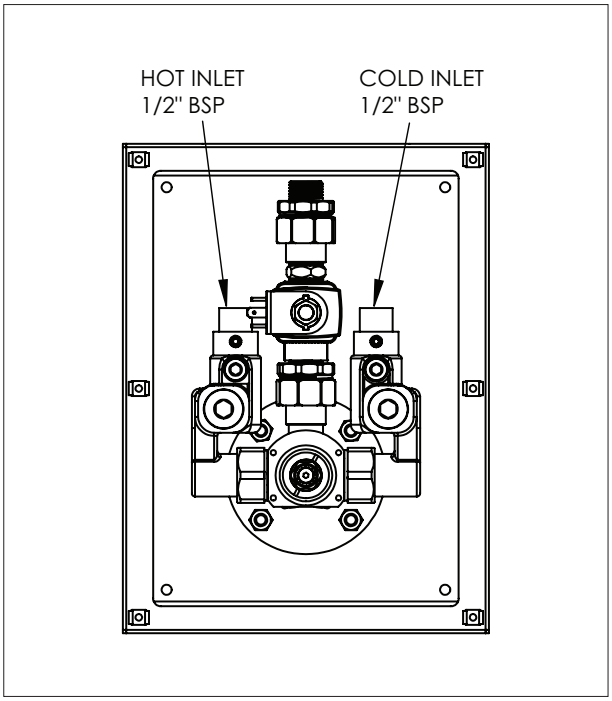


IMAGE 2

installation - rough in

WARNING: Heat must not be applied to the inlets and outlet of the mixer as this will result in damage to the O-rings and cartridge, and void the warranty.

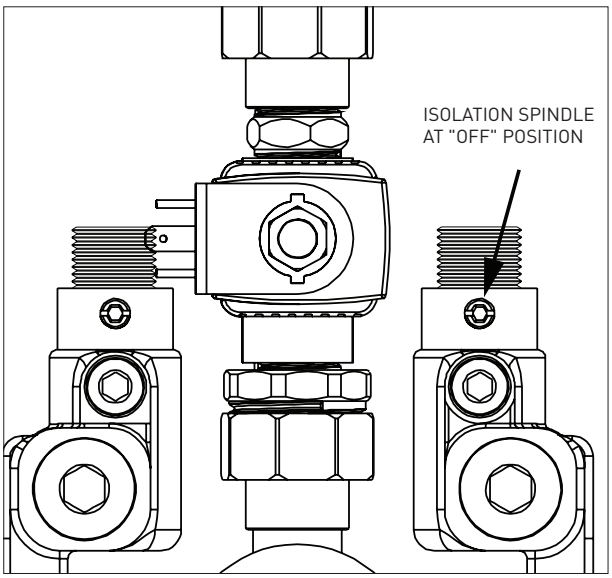


IMAGE 3

3. Check that the isolation valves are closed prior to turning on Hot and Cold Water supplies. The Isolation Valve spindle has a slot which should be in a horizontal position when closed. Use a 3mm Allen Key or slotted screw driver to turn the isolation valve.

4. Turn on Hot and Cold water supply and test for leaks within the pipework connection and Isolation Valves. Open the Hot and Cold Isolation Valves by rotating the isolation spindle 90 degrees.

5. Run the cable for the transformer through a conduit, and have the connector inside shower box.

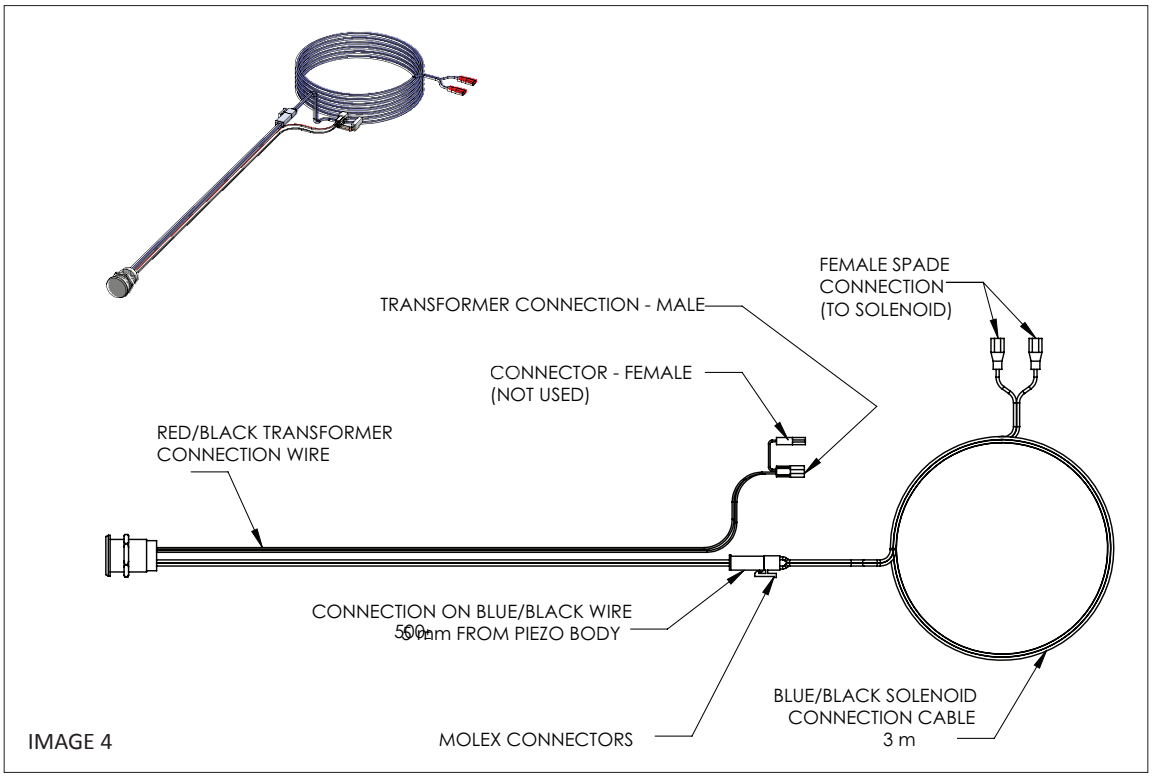


IMAGE 4

WARNING: Do not cut the wires or extend existing cables without using the correct cable extension from Enware. Cutting cables will void warranty.

6. Connect transformer cable to piezo button. SEE IMAGE 4

7. Connect two spade connectors to the two side connectors of the solenoid. SEE IMAGE 5

8. Turn on the power and test operation of the tap.

   Note: Do not touch the piezo button for the first 10 seconds of turning the power on, otherwise the button may enter into programming mode and re-program to a different time setting.

   If the piezo button needs to be re-programmed, refer to “Enware Electronic Piezo Button Program” in the following section.

   Turn mixer handle and test functionality of the shower system. If there is any problem see Troubleshooting Section following or contact Enware.

9. Disconnect piezo button from power supply and solenoid. Close both the Hot and Cold isolation valves to turn off both water supplies, and keep the front panel removed until finishing trades are complete.

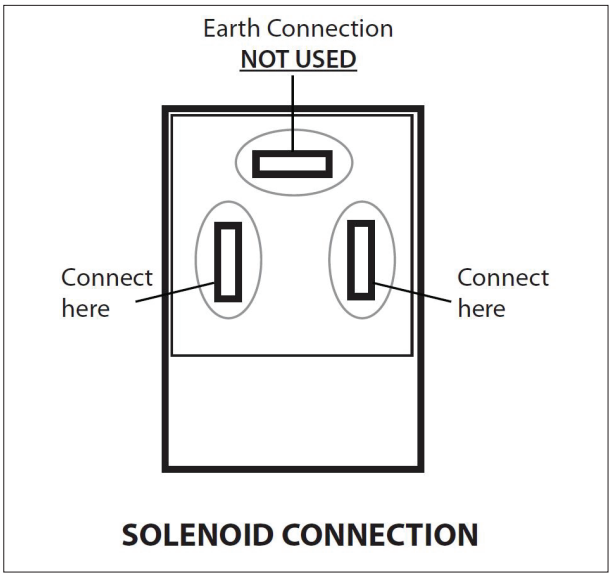


IMAGE 5

installation - fit off (facia and handle)

1. Once finished wall is complete, connect piezo cable to power cable and solenoid.
   Note: Do not touch the piezo button for the first 10 seconds of turning the power on, otherwise the button may enter into programming mode and re-program to a different time setting.
   If the piezo button needs to be re-programmed, refer to “Enware Electronic Piezo Button Program” in the following section.

2. Turn on hot and cold water supplies at isolation valves.

3. Temporarily install the front plate to test the operation of tap. Check that the temperature settings and the orientation of mixer handle align, and adjust the position of handle if required. Press the piezo button and operate the solenoid to ensure system is functional.
   Once tap operation is checked, take the front plate off.

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

5. Run a thin bead of silicone sealant on the back along the top, bottom and side edges of the front plate, to seal between the wall surface and the back of the front plate. Ensure the seal is water-tight.

6. Install the Front Plate by aligning the handle and spline adaptor, then pressing the front plate against the wall. Secure the Front Plate using the 6 Allen key fixing screws provided.
   Wipe off and clean any excess silicone sealant.

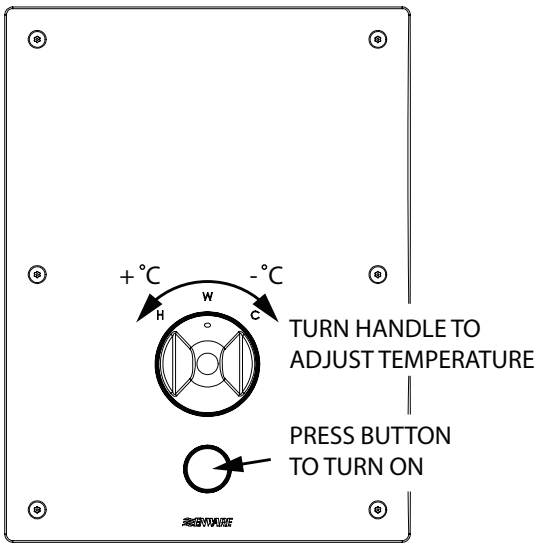
operating the mixer

1. Press the electronic piezo button once to turn on water flow. Water fill flow for the set time duration.

2. To adjust temperature, rotate the temperature adjustment handle towards H to make it hotter, or C for cold.

3. Press the electronic piezo button once to turn off water flow.
   (This function is only available if STOP function is set on button program.)

4. If any Lockout Time (or OFF Time) is set, mixer cannot be turned on again for the set period of time once it is turned off.



troubleshooting

PROBLEM	CAUSE	RECTIFICATION
Tap/ Water continues to flow	Debris in solenoid valve	Take solenoid apart and clean debris from plunger or diaphragm
	Piezo button has been re-programmed to a different setting	Re-program piezo button.
	Solenoid diaphragm is damaged	Replace solenoid diaphragm (service kit code 892028)
Piezo button re-programs itself to a different setting	Power supply has been turned off and back on again, and user has touched the piezo	Re-program piezo button. Check power supply, ensure there is a stable, continuous power source.
Tap does not activate	Power turned off	Turn power on.
	Transformer damaged	Replace transformer. Check power supply, protect the transformer from electrical surge.

spare parts

Solenoid 1/2” – DC 24v	897124
Solenoid Service Kit - DC (includes diaphragm, piston and spring to suit DC solenoid 1/2”)	892028
Transformer – DC 24v with 1.8m lead	678284
Extension Cable for Solenoid (Molex Connectors)	EMFS313 (4m) EMFS314 (2m)
Extension Cable for Transformer	EMDS801 (2m) 480222 (4.5m)
Electronic Touch Piezo Button (Programmable)	EMS811 (Default 6 sec ON, specify required time when ordering)

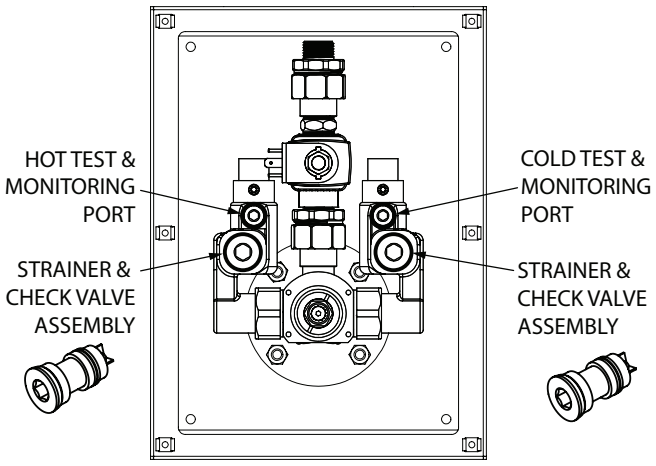
maintenance

Shower mixer will only require minimal preventative maintenance work to ensure it operates at its optimum level of performance.

Periodically the strainer and check valves should be checked for cleanliness.

Cleaning the Strainers

1. Firstly isolate the hot and cold supplies to the mixing valve by closing the inlet isolation valves.
2. With a 6mm Allen Key, remove strainer-check valve assembly.
3. Clean strainers with a suitable descaling solvent (such as CLR) diluted with water. Check for physical damage and thoroughly rinse with clean water.



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. 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.

solenoid maintenance

For long periods of non-use, a minimum activation of 1-2 times per day is recommended.

High frequency of use and high water supply pressures reduce the service life of a solenoid.

If the solenoid is not working correctly or is leaking, go through the following steps to service the solenoid. The most common cause of solenoid malfunction is debris getting caught inside, in which case the solenoid needs to be dismantled and cleaned. Service kits including replacement diaphragms are available.

TO ACCESS THE SOLENOID VALVE

1. Turn water supply off and activate the sensor to drain water from the line. Turn power off to the sensor.
2. In most cases it is easier to remove the complete solenoid valve from the installation to service it. Remove the electrical connectors from the solenoid terminals, undo the water connections on both the water inlet and outlet of the solenoid, and remove the solenoid.
3. The solenoid can be disassembled and checked for debris or damage to the diaphragm. Refer to “Servicing the Solenoid” instructions below. Take note of the location of the components so that it can be reassembled later in the correct order.
4. Service or replace the solenoid and re-install into the line. Push the cable connectors back onto the solenoid terminals.
5. Turn power and water back on and test the tap.

SERVICING THE SOLENOID

Tools required: Spanner, T20 Torx Bit or Slotted Screw Driver

1. Remove the hex nut located on top of the solenoid. **SEE IMAGE 08**
2. Remove the black coil body and plastic cover from the core tube by sliding up. **SEE IMAGE 09**
3. Using a T20 Torx screw driver (star bit) or a slotted screw driver, remove the 4 Torx screws that are holding the core tube. Use the correct size tool and take care not to round the screws heads. Keeping in mind that the plunger inside the core tube is spring loaded, dismantle the valve with care. Take note of the order of parts assembled. **SEE IMAGES 10, 11**
4. Check seat and diaphragm for debris or any damage. **SEE IMAGE 12**

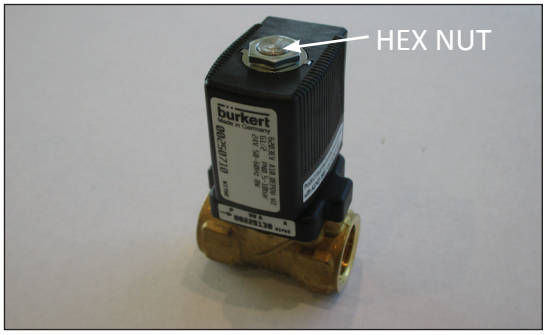


IMAGE 08

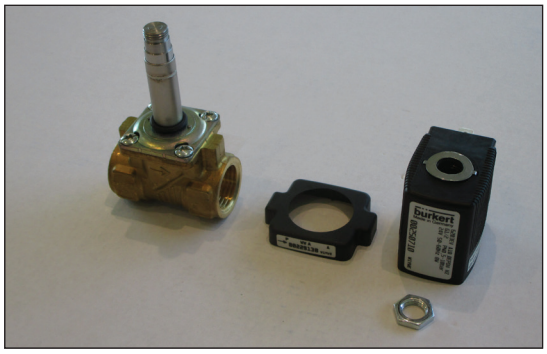


IMAGE 09

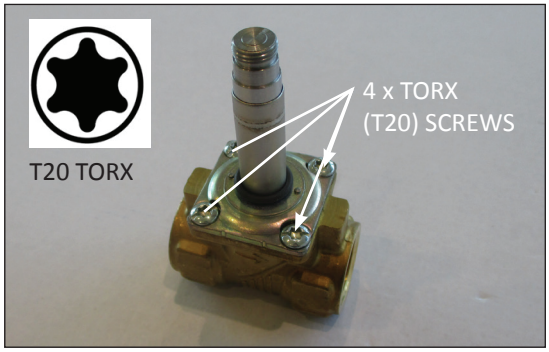


IMAGE 10

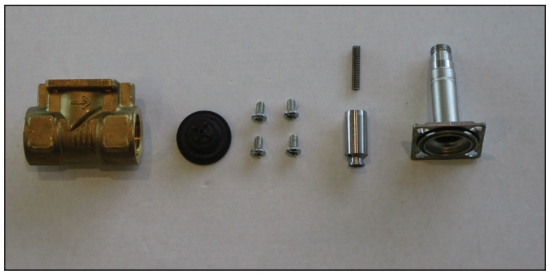


IMAGE 11

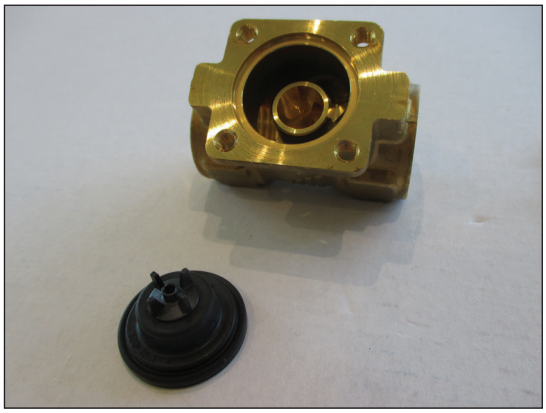


IMAGE 12

5. Note the small hole in the rubber diaphragm. It is important that this hole is clear and not obstructed by debris. Clean the diaphragm by rinsing with water. **SEE IMAGE 13**
6. Replace any component that is damaged.
   (Service Kit code 892028)
7. To reassemble, firstly place the rubber diaphragm in correct position. The hole in the diaphragm should be assembled either at 2 O'clock or 4 O'clock position, when the direction of flow is going from left to right, as shown below. The arrow is indicated on the solenoid body. **SEE IMAGES 14-17**

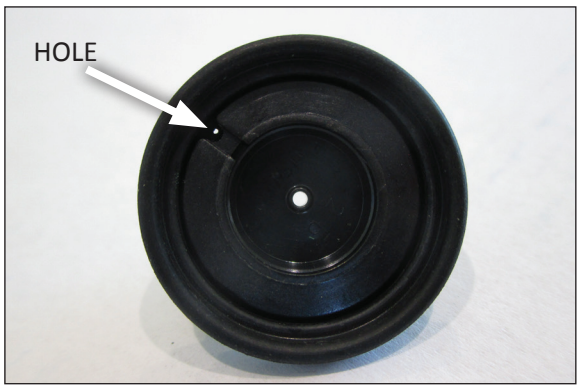


IMAGE 13

Note: Do not apply grease to internal components of solenoid. Grease can deteriorate over time and cause the solenoid to malfunction.

8. Reassemble the plunger with spring into the core tube. Check that the spring is reassembled back together inside the core tube, and no foreign material is in the core tube to restrict the plunger movement.

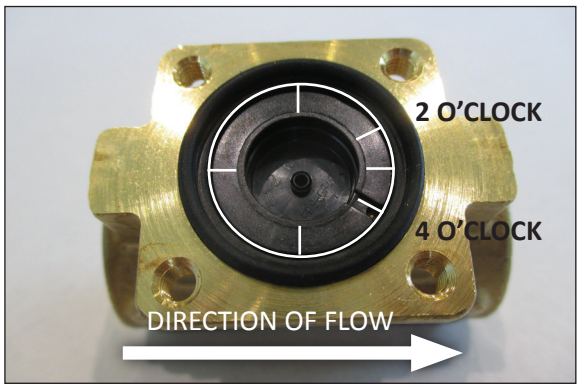


IMAGE 14

9. Once this is done, place the core tube back on top of the valve and tighten back up with the 4 Torx screws.

10. Once the core tube is tightened, place the plastic cover which goes over the core tube. This covers the screws. When doing so, ensure the sticker on the plastic has the same flow direction as the body.

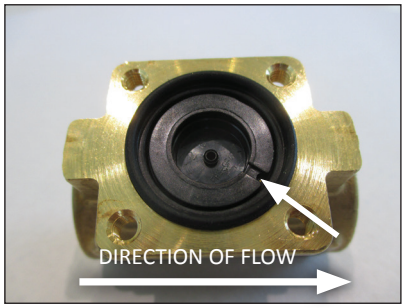


IMAGE 15

11. Finally place the black coil body back over the core tube, and tighten the hex nut back up.

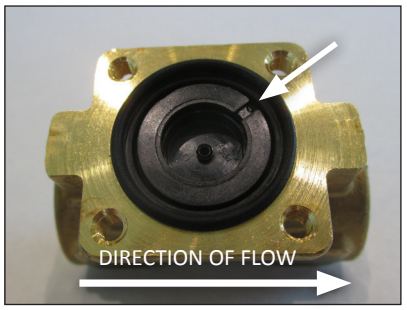


IMAGE 16

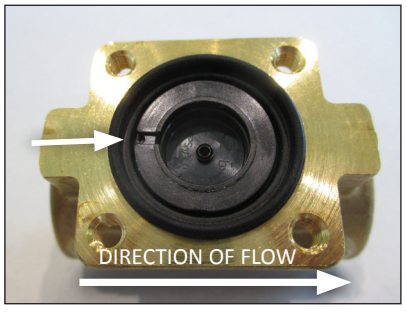
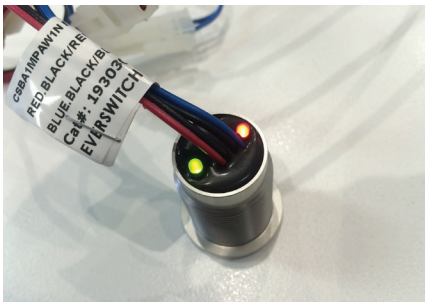


IMAGE 17

enware electronic piezo touch button program

Enware Programmable Piezo Button is a touch-activated electronic switch that can be easily set to a desired timing. Its versatility allows it to be set again to a different program on site should there be any change of mind.



The electronic button timing program offers the following features:

Run Time (ON Time)

- The length of time you want the valve to turn on.
- Minimum length 3 seconds, maximum length 10 minutes.
- In increments of 3 seconds. (3, 6, 9, 12 .... etc)
- Factory default time is 6 seconds.

Off Time (Lockout)

- The length of time you want the valve to stay off once stopped.
- Minimum length 0 seconds, maximum length 10 minutes Off Time.
- In increments of 3 seconds (3, 6, 9, 12 .... etc)
- Choose “0” (zero) if you do not want any Lockout time. (i.e. allow consecutive use.)
- This function prohibits the user from turning on the valve again for the set period of time - that is, the valve is “locked out” once turned off. It is useful when you want to limit the length of a shower to a set time and prevent consecutive use, excessive use or water wastage. The Lockout time becomes effective every time the switch turns off.

Early Stop

- Once turned on, this function allows the user to stop the flow of water even if the set Run Time has not finished yet. For example, a shower is set to run for 3 minutes but user decides to turn it off at 1 minute. (Note that any lockout time still applies once it is turned off.)
- Choose “Yes” if you want this function.
- Choose “No” if you want the water to flow for the set Run Time without interruption.
- Default factory setting is “No” (without Stop).

Flush 24 hrs

- Automatically activates the valve every 24 hrs and runs for the set Run Time, particularly useful for Legionella control and reducing the risk of bacteria growth in the water supply line.
- Choose “Yes” if you want the valve to automatically turn on every 24 hrs.
- Choose “No” if you do not want this function.
- Default factory setting is “No” (without 24 hr flush).

adjusting the run time - setting a new program on piezo switch

1. To set the button to a new program, firstly turn the power OFF to the button. This can be done by either turning the power OFF at the power point, or disconnecting the power connection close to the button.
2. You will need to be able to see the two LED's – green and red – located at the back of the piezo button, so the front facia panel may need to be taken off the wall to access it.
3. Connect or turn ON the power to the switch. As soon as the power is on, a 3-second programming window opens. If the switch is not pressed in this time frame, both RED and GREEN LED's flash alternately, and the switch returns to the last program it was set to.
4. Press the switch ONCE within the 3-second programming window. Red LED turns on.
5. Without delay, press the switch to select the program number. Press the switch slowly but firmly at 1-second intervals. (e.g. 4 presses to select program 4). The green LED blinks every time the switch is pressed. Valid programs are 1 to 12. Pressing the switch 13 times returns the switch to factory settings as per table.
6. Once the program No. has been selected, the RED LED will turn off and the GREEN LED will turn on. The switch is now ready to set the "ON time". Each press of the switch will increase the "ON time" by the indicated increments. e.g. If program no.4 has been selected the increments are by 3 seconds each (one press-3 sec; 2 presses-6 sec and so on), therefore pressing the switch 4 times will set the "ON time" to 12 seconds. The RED LED blinks for each press of the switch.
7. Now the "ON time" has been selected, the GREEN LED will turn off and the RED LED will turn on. The switch is now ready to set the "OFF time". Each press of the switch will cause the GREEN LED to blink, increasing the "OFF time" by the increments indicated on table. e.g. If program no.4 has been selected the increments are by 6 sec, starting at 0 sec. (one press – 0 sec; 2 presses – 6 sec and so on for program 4. Button has to be pressed at least once.) Refer to table.
8. Once the "OFF time" is set, the GREEN and RED LED's will blink alternately indicating that the switch is exiting the program mode.
9. Switch is now set.

programming table

Step 1			**Step 2**		**Step 3**	
Select Software Configuration						
Red LED is ON			**Green LED is ON**		**Red LED is ON**	
No. of Presses	Stop	Flush 24h	On Time(Sec)	Increment Step (Sec)	Off Time (Sec)	Increment Step (Sec)
1	No	No	3--30	3	0-60	6
2	Yes	No	3--30	3	0-60	6
3	No	Yes	3--30	3	0-60	6
4	Yes	Yes	3--30	3	0-60	6
5	No	No	30-300	30	0-60	6
6	Yes	No	30-300	30	0-60	6
7	No	Yes	30-300	30	0-60	6
8	Yes	Yes	30-300	30	0-60	6
9	No	No	60-600	60	0-600	60
10	Yes	No	60-600	60	0-600	60
11	No	Yes	60-600	60	0-600	60
12	Yes	Yes	60-600	60	0-600	60
13	Yes	No	6	-	0	-

product warranty for Australia

Effective 1 September 2014

Enware Australia (“we” or “us”) warrants that this product (also referred to as “our goods”) will be free from all defects in materials and workmanship for 12 months 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 Plumbing Code of Australia (PCA), and 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, provide us with proof of your purchase of the product and have completed the Online Product Service and Warranty Form available on website www.enware.com.au.
All notifications and accompanying forms must be sent to us marked for the attention of the Enware Australia, 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 or infrastructure and loss or damage during product transit or transportation.

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.

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