ELECTRONIC TIME FLOW SHOWER MIXER

Installation and Maintenance Instructions

EMD815

I00456_Version 1.0__FEB 23

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technical data

Inlet Connection	15 mm (1/2” BSP)
Recommended Working Pressure	50 - 500 kPa
Maximum Inlet Temperature*	70 °C
Operating Voltage/ Max. Current / Power Consumption	24V DC / 1.25A / Less than 10W
IP Protection Class - Piezo Button	IP68
Flow Time	Adjustable -On Time: min 3 sec - max 10 minutes -Off Time (Lockout): min 0 sec - max 10 minutes -Early Stop function optional -24 hr automatic flush function optional

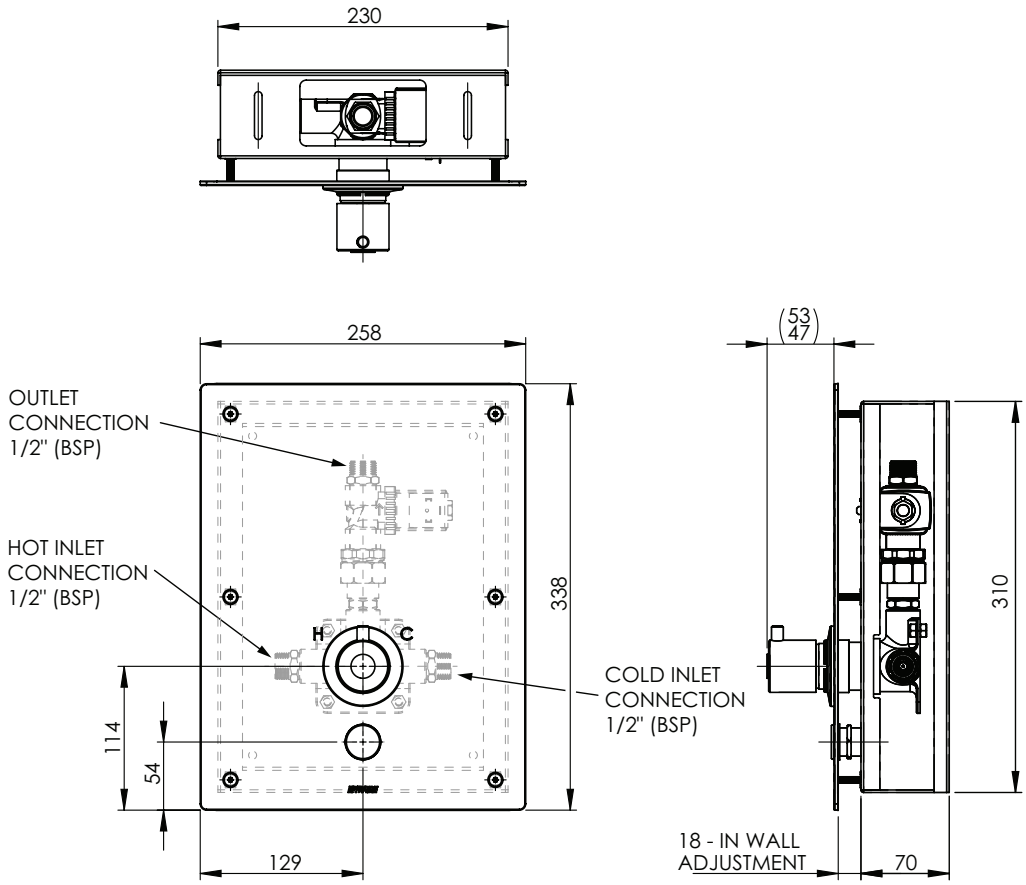
Enware products are to be installed in accordance with the Plumbing Code of Australia (PCA) and AS/NZS3500. Installations not complying with PCA and AS/NZS 3500 may void the product and performance warranty provisions.

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

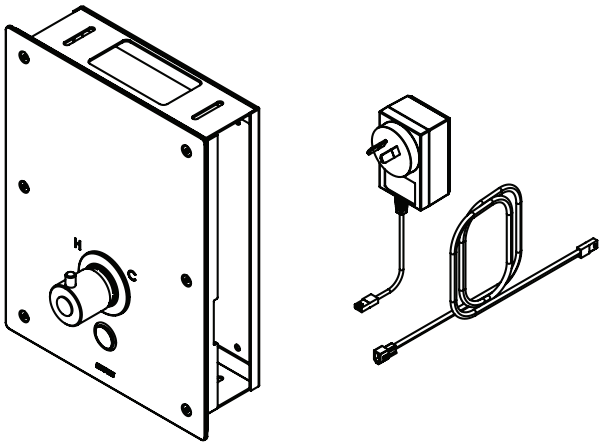
This product must be installed and commissioned by a qualified plumber.

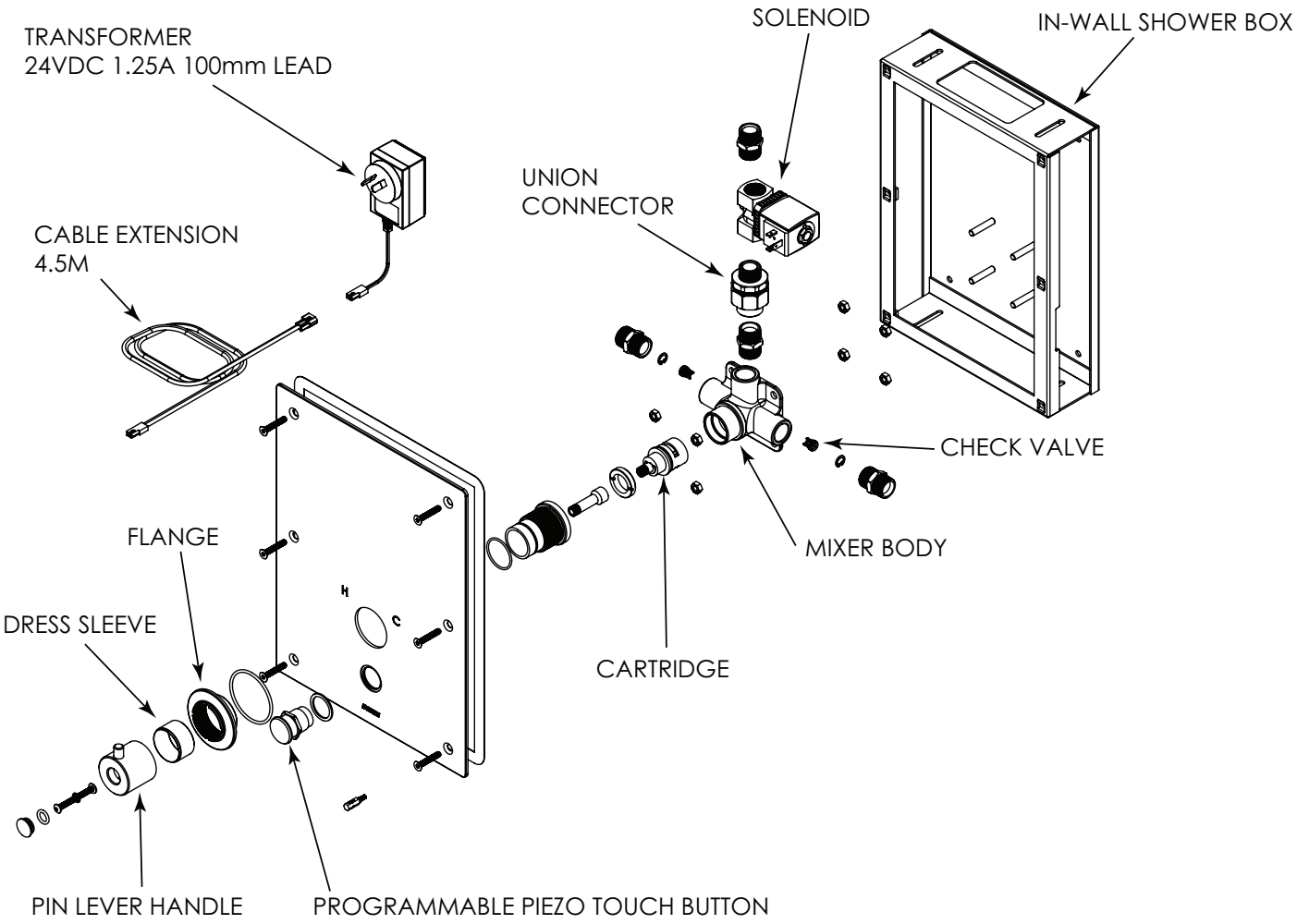
For use with potable water only.

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



components




TRANSFORMER
24VDC 1.25A 100mm LEAD
SOLENOID
IN-WALL SHOWER BOX
UNION
CONNECTOR
CABLE EXTENSION
4.5M
CHECK VALVE
MIXER BODY
FLANGE
DRESS SLEEVE
CARTRIDGE
PIN LEVER HANDLE
PROGRAMMABLE PIEZO TOUCH BUTTON

installation - rough in

DETERMINE LOCATION OF SHOWER

Wall depth: min 70mm – max 88mm from finished wall surface to the back of box.

This shower cannot be installed sideways, or upside down. The mixer body must be installed in the correct direction, with the 2 inlets on the horizontal plane. This will ensure the handle points in the correct orientation and to align with the “H” and “C” markings on the front panel.

Note: Isolation valves are not included in this product. It is recommended that isolation valves and mesh strainers are fitted on the water supply, for ease of servicing and trouble-free operation.

IN-WALL BODY COMPONENT

1. Ensure plumbing lines are flushed prior to installation, as debris in cartridge will void warranty.
2. Use the Torx bit supplied to take off the front panel fixing screws. Remove front panel from shower box, taking care not to damage cables while doing so. Disconnect spade connectors from solenoid if they are connected.
3. 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 are not supplied.)
   When mounting the shower box, take note of the minimum and maximum wall thickness dimensions shown, so that the nogging or recess is correctly positioned, and takes into account the thickness of the finished wall. **IMAGE 01**
4. 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 red (for hot) and blue (for cold) markings to indicate the appropriate supply required to each side of the mixer.

   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.

   Check valves are supplied fitted at the inlets of the mixer. However this is does not qualify as a backflow prevention device. Where required, the installer must install an appropriate backflow prevention device before a shower hose according to the cross-connection hazard rating.

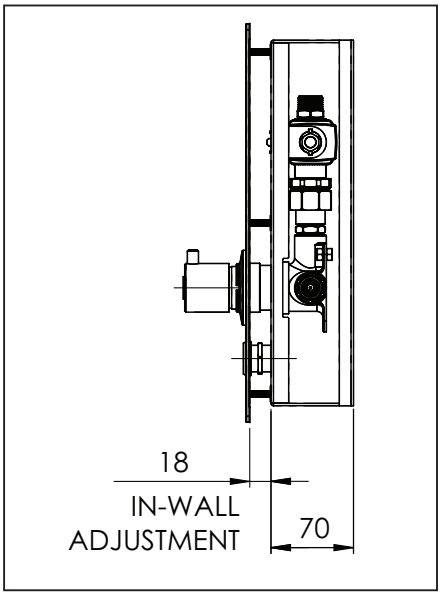
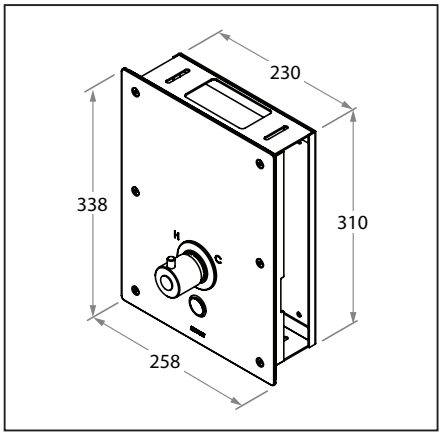
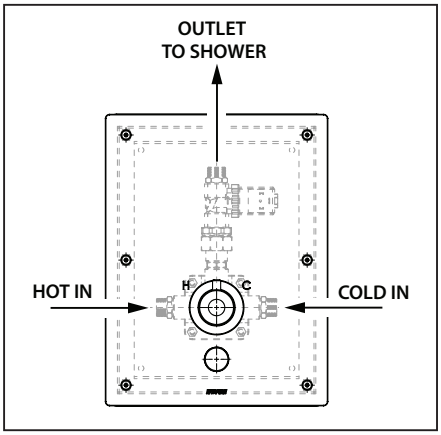


IMAGE 01





5. Loosely fit the handle on the spline of mixer cartridge.
6. Turn on hot and cold water supplies and test for leaks within the pipework.
7. Run the cable for the transformer through a conduit, and leave the connector inside shower box. Power point should be accessible to allow for possible future replacement, repair or service.

   Warning: Do not cut the wires or extend existing cables. Cutting cables will void warranty. Use the correct cable extensions from Enware.

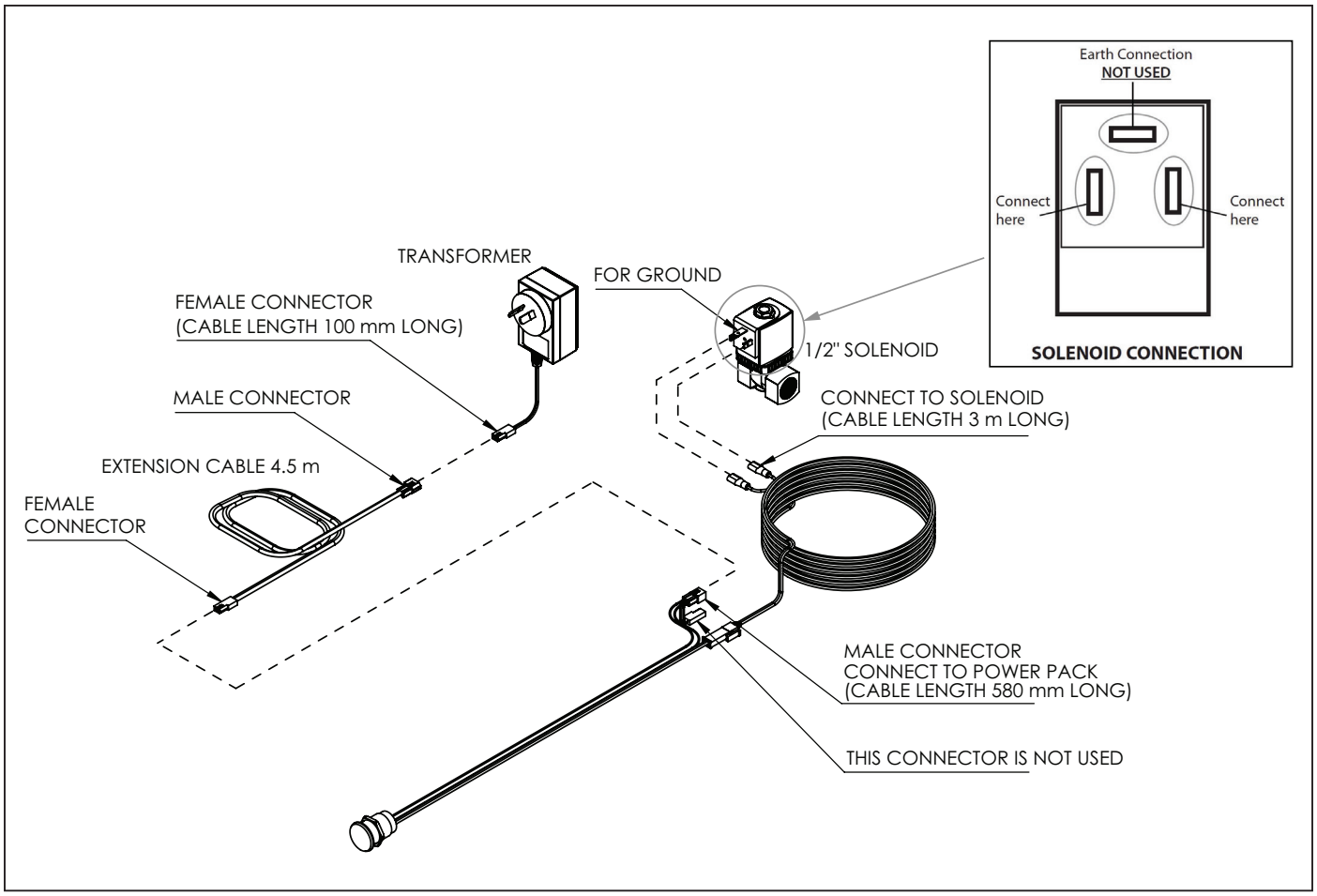


IMAGE 02

8. To test operation, connect power cable to piezo touch button on the front panel. Connect two spade connectors to the two side connectors of the solenoid. **IMAGE 02**
9. 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.

   Default setting is 4 minutes Run Time, with Early Stop function, and Lock-Out time of 30 seconds once stopped, unless a different time setting was specified. 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.

10. Disconnect piezo button from power supply. Keep the front panel removed until finishing trades are complete.

installation - fit off (front plate and handle)

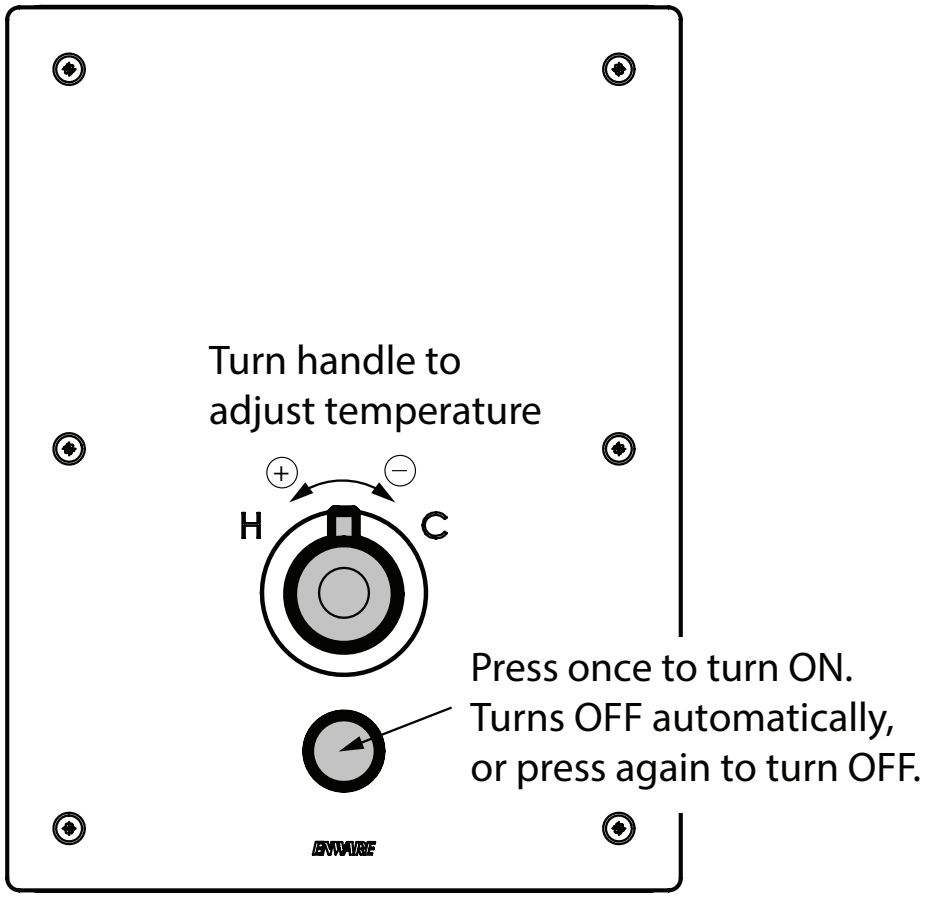
11. Once the wall is finished, re-connect power to piezo cable and connect piezo to solenoid.

    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.

12. Turn on hot and cold water supplies. Operate the mixer and solenoid to ensure system is still functional.
13. Seal any gaps between the wall cut-out and the shower box, with appropriate silicone sealant.
14. Use foam seal supplied to seal between the wall surface and the back of the front plate. Run a thin bead of silicone sealant along the back top edge of the front plate.
15. Place the front plate over the mixer and push firmly against the wall. Secure the front plate using the six fixing screws provided.
16. Screw on flange over the mixer, and slide the chrome sleeve on.
17. Place handle onto the cartridge spline. Fit the handle fixing screw and tighten to secure the handle.
18. Test the operation of tap. Check that the temperature settings and the orientation of mixer handle align. Adjust the position of handle if required.

operation

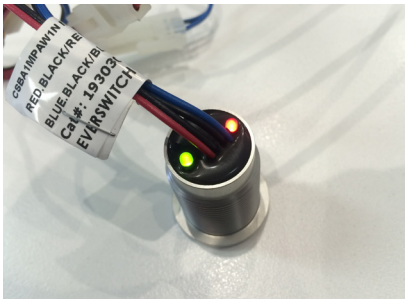
1. Press the touch button once to turn on water flow. Water will flow for the set time duration.
2. To adjust temperature, rotate the temperature adjustment lever towards H to make it hotter, or C for cold.
3. The water will stop automatically after the set time duration.
   Alternatively, press the electronic touch button once to turn off water flow.
   (This function is only available if Early STOP function is set on the piezo touch button program.)
4. If any Lockout Time (or OFF Time) is set, mixer cannot be turned on again until the set time period has passed.



electronic piezo touch button program - features

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 to a different program on site should there be a change of mind.

(Initial default setting for EMD815 is 4 minutes ON Time, with Early Stop, 30 seconds OFF Time)



RUN TIME (ON Time)

The length of time you want the tap to run once it's turned ON.

- Minimum length 3 seconds, maximum length 10 minutes.
- In increments of 3 seconds (3, 6, 9, ..etc.) for up to 30 seconds.
  For more than 30 seconds, in increments of 30 seconds (60, 90, 120, ..etc.) up to 5 minutes.
  For more than 5 minutes, in increments of 1 minute (6 min, 7min, ..etc.) up to 10 minutes.
- Factory default time is 6 seconds.

EARLY STOP

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 Off Time / Lockout 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. (User cannot turn off the tap until Run Time has finished.)
- Factory default setting is "Yes" (with Early STOP)

OFF TIME (Lockout)

The length of time you want the tap to stay OFF once it's stopped. (User cannot turn the tap on again until Lockout time has finished.) This function prevents consecutive use.

- Minimum length 0 seconds, maximum length 10 minutes Off Time.
- In increments of 6 seconds (0, 6, 12, ..etc.) up to 60 seconds.
  For more than 60 seconds, in increments of 60 seconds (7 min, 8min, ..etc.) up to 10 minutes.
- Choose "0" (zero) if you do not want any Lockout time. (That is, allow consecutive use.)
- Factory default setting is "0" (No Off Time).

NOTE: The Lockout time becomes effective every time the switch turns OFF (including when the switch is turned OFF early).

FLUSH 24 HRS

Automatically activates the tap 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 tap to automatically turn on every 24 hrs after last use.
- Choose "No" if you do not want this function.
- Default factory setting is "No" (without 24 hr flush).

electronic piezo touch button program - program setting procedure

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 will need to be taken off the wall to access them.
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. [Step 1] 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. [Step 2] Once the program number 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. [Step 3] 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. **Button needs to be pressed at least once, even if the OFF time is not required.**) 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 Select Program Number				**Step 2** Set ON Time		**Step 3** Set OFF Time	
When Red LED is on				When Green LED is on		When Red LED is on	
Program Number (Number of presses)		**Early Stop**	**Flush 24h**	**On Time (sec)**	**Increment Step (sec)**	**Off Time (sec)**	**Increment Step (sec)**
For Run Time 3 - 30 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
For Run Time 30sec - 5min	**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
For Run Time 1 - 10 min	**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
Factory	**13**	Yes	No	6	-	0	-

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 WMS8302)
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 button	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

Cartridge (1/4 turn 90° progressive sequential mixer)	**WMS6200**
Solenoid 1/2" (24V DC, Stainless Steel)	**EMS816**
Solenoid service kit (1/2” DC)	**WMS8302**
Transformer 24VDC with 4.6m cable	**EMDS802**
Extension cable for Transformer	**EMDS801**
Electronic Touch Piezo Button (Programmable)	**EMS811** (Default 6 sec ON Time / Early Stop / No OFF Time. Specify required time when ordering.)

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.

service & maintenance

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**

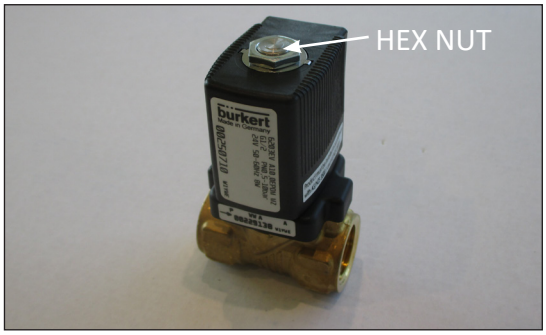


IMAGE 08

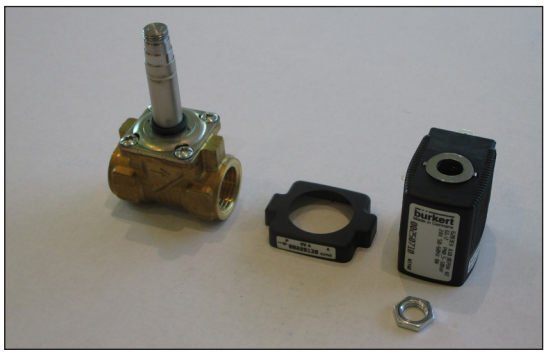


IMAGE 09

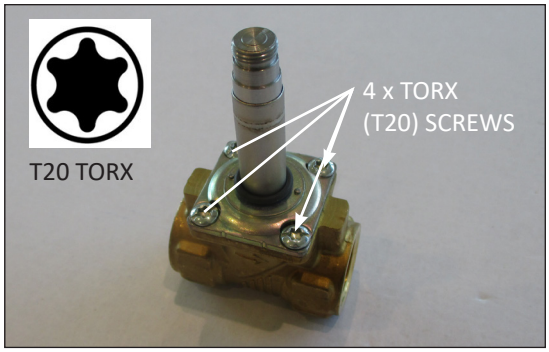


IMAGE 10

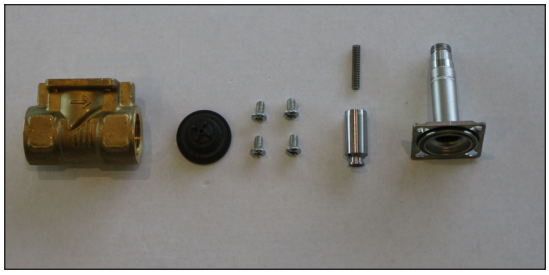


IMAGE 11

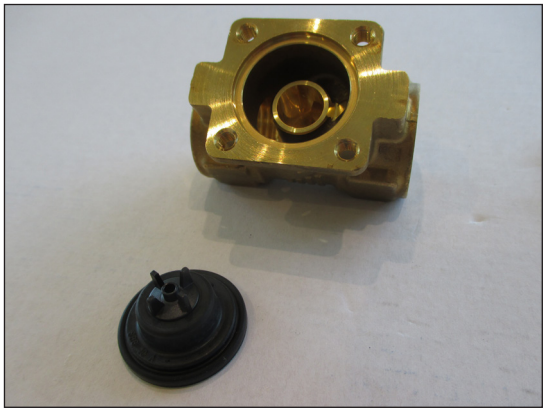


IMAGE 12

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**

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.

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.

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

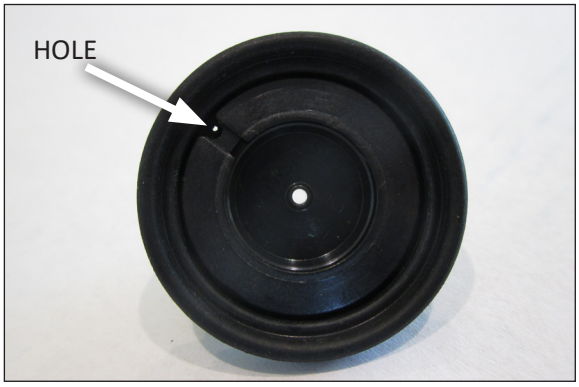


IMAGE 13

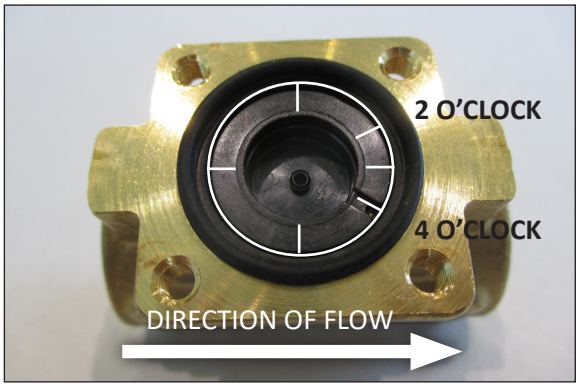


IMAGE 14

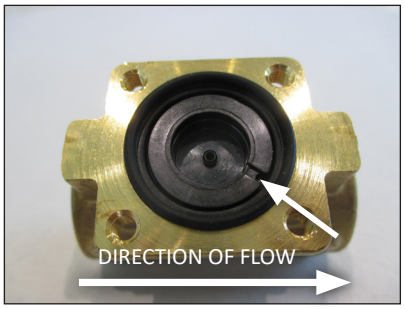


IMAGE 15

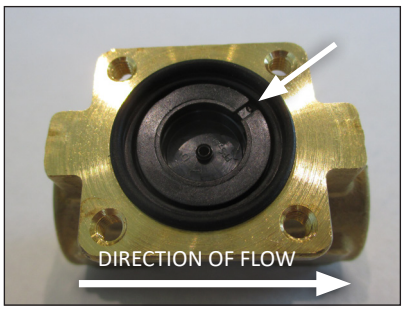


IMAGE 16

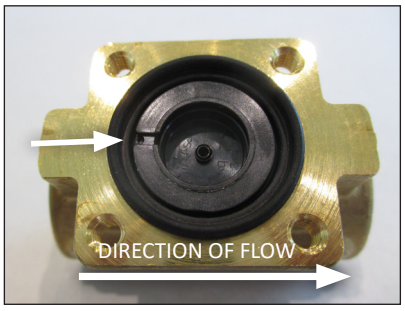


IMAGE 17

product warranty for Australia

Effective February 2022

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 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, 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 and provide us with proof of your purchase of the product and completed the Online Product Service and Warranty Form available on website **www.enware.com.au/warranty-service-form**.
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.

**Conditional warranty: 2 years parts and labour warranty, then 1 year parts only warranty applies on the complete assembly*

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.


ENWARE

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