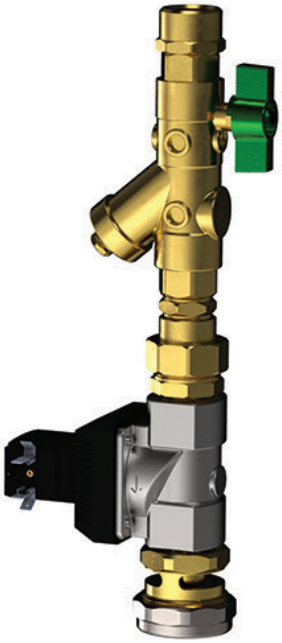
Sensor and Touch-Activated Dual Flush WC Flushing System - Large Panel (Front Access)

Installation and Maintenance Instructions

EMF511MIR-3
EMF511MIR-RW-3



I00361_Version1.2__18Nov22

Call 1300 369 273
www.enware.com.au

Enware Australia Pty Limited
9 Endeavour Rd Caringbah NSW 2229 Australia
Ph: 02 8536 4000 info@enware.com.au

technical data

Water Supply	Minimum 200 kPa Dynamic Pressure* Maximum 500 kPa WELS Flush Volume achieved at 300 kPa
Connection	Inlet - 1” BSP (25mm)
	Outlet - 1 ½” BSP (40mm) with connection for DN40 copper pipe
Minimum Water Supply Line Size	1” (25mm) copper pipe
Power	Mains Power Supply: 240VAC 50/60Hz Operating Voltage: 24V AC
Kv Factor	8.3m³/h
Flush Pipe	1½” (40mm) flush pipe is required below the air break. (Note: use a maximum of 1x90º bend in flush pipe. If an offset is required 2 x 45º bends must be used. Maximum of 1 offset per flush pipe. Air break must be installed in a vertical position at minimum 700mm +/- 100 mm above the pan inlet.
WC Pan	4.5/ 3L Capacity (4 star)
Automatic Flush Sensor range	20 - 100 mm
Automatic Flush Sensor Activation	Hover hand in sensor range to activate Full Flush
Touch Sensor Flush Activation	Press electronic piezo button to activate Full Flush or Half Flush

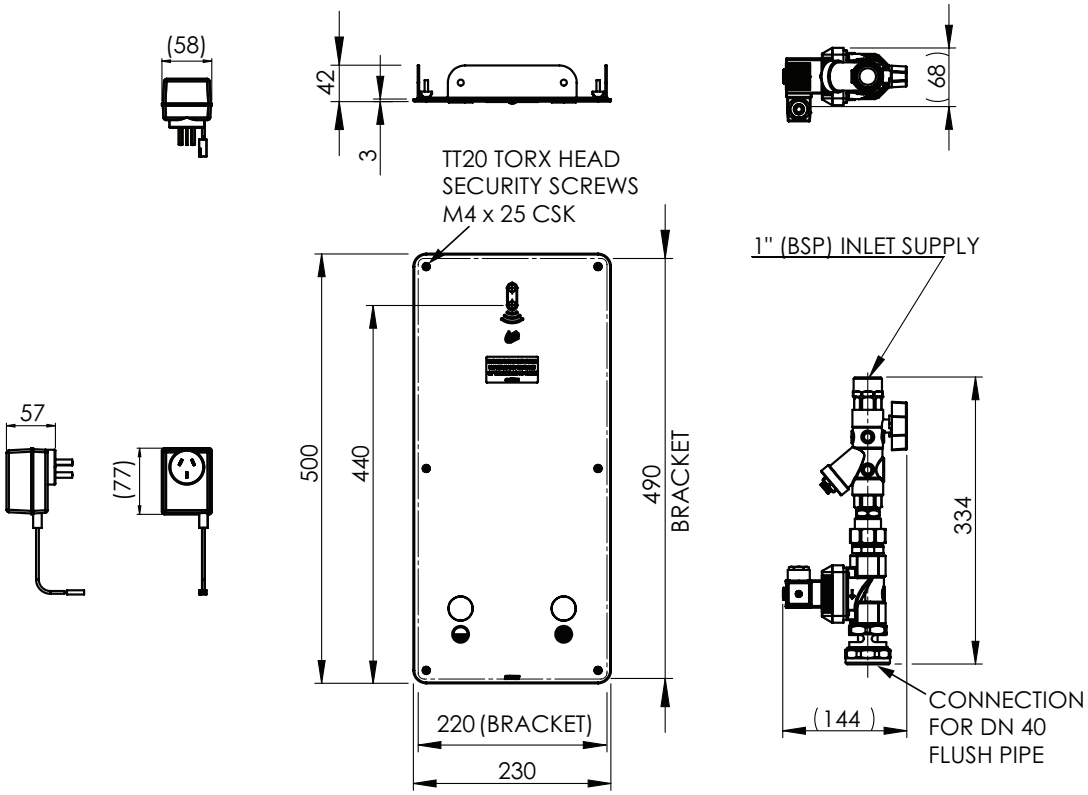
Enware products are to be installed in accordance with the Plumbing Code of Australia (PCA) and AS/NZS3500. Installations not complying with PCA and AS/NZS 3500 may void the product and performance warranty provisions.

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.

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.

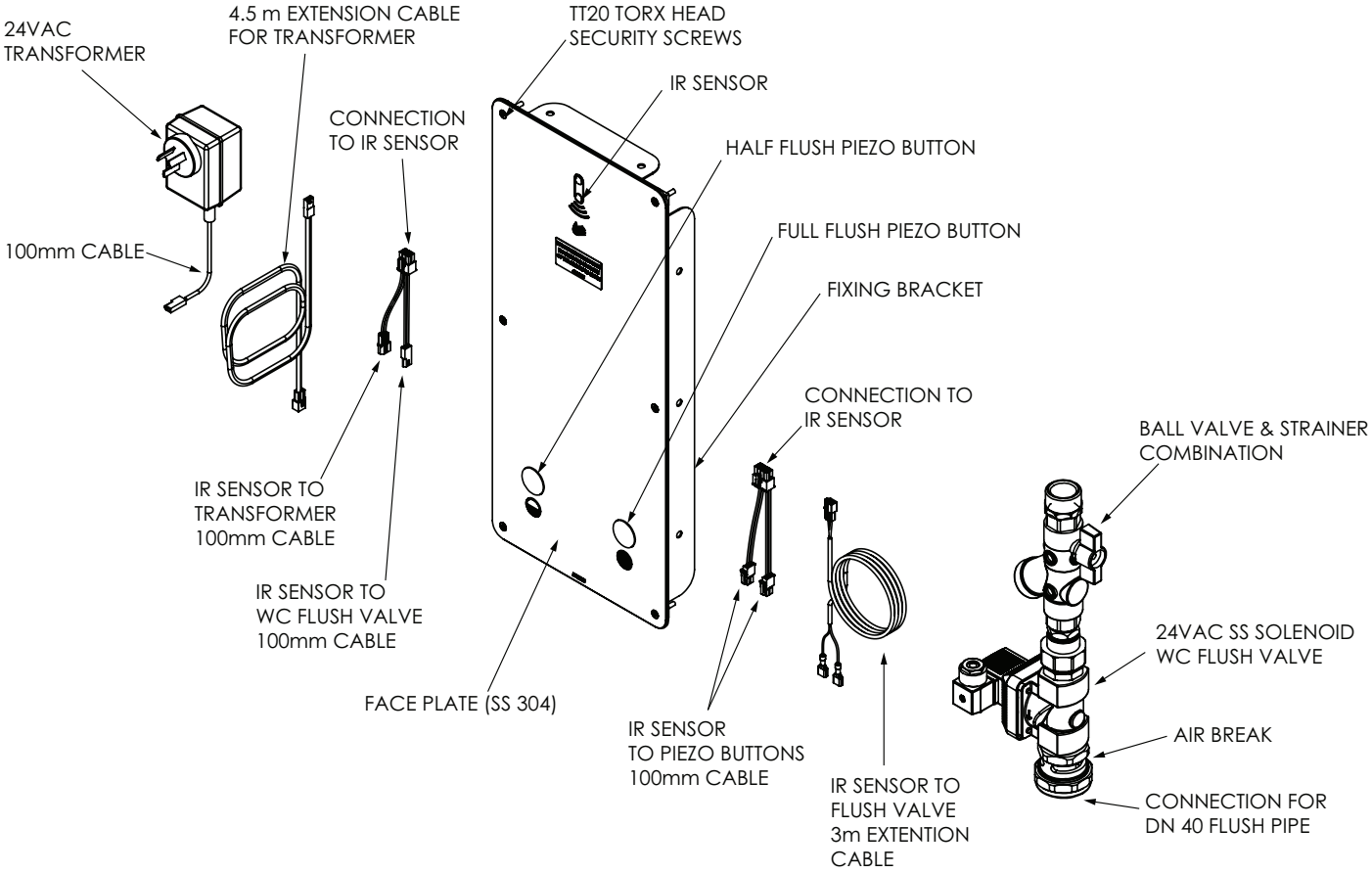
* WELS volume is only achieved at 300kPa. Use a pressure limiting valve to achieve WELS rating where required.

dimensions



All measurements are in millimetres.

components



installation - technical requirements

Before proceeding with installation, ensure all operating and dimensional specifications are suitable for the intended installation.

IMPORTANT TECHNICAL REQUIREMENTS

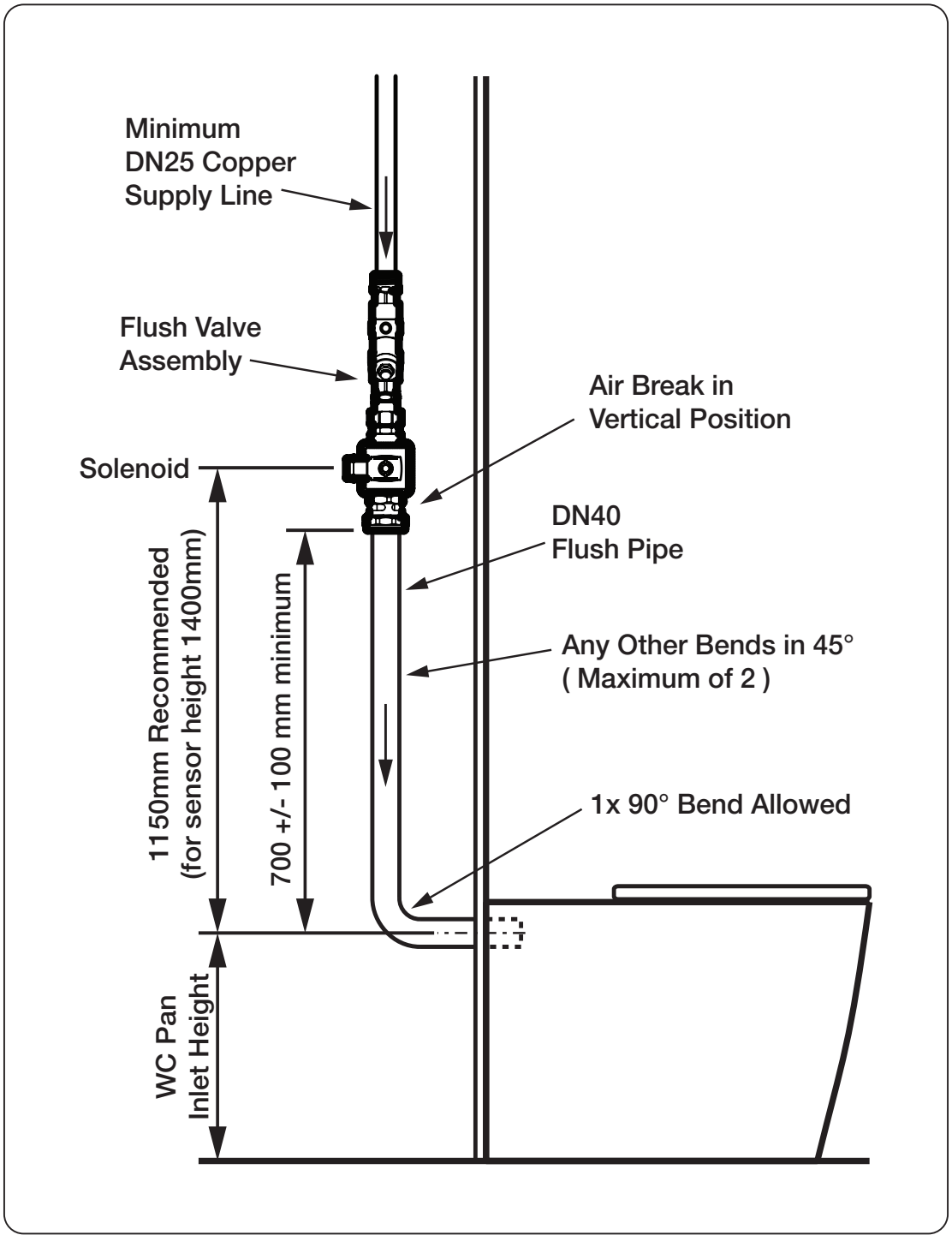
To ensure that the unit works correctly, it is important to ensure that the site and location of installation meets the hydraulic requirements of AS/NZS 3500.1.

In addition, there must be:

- Minimum 25mm copper supply line
- Minimum 200kPa for valve to operate. NOTE: WELS Volume is only achieved at 300kPa
- 40mm flush pipe must be used. Trapnut is suitable for 1-1/2" copper tube. (PVC adaptors / Cap & Lining fittings to be supplied by client if required)
- Maximum of 1 x 90° bend in flush pipe may be used. (Any other bends are required to be 45° - maximum of 2.)
- Air break must be installed in a vertical position.

Pipe work to the valve fixture must be sized according to water service rule calculations and simultaneous demand requirements.

To ensure that the pipeline reticulation system for the valve is designed correctly for the satisfactory performance of the valve, a hydraulic services consultant and/or engineer (or other personnel appropriately qualified in hydraulic services design) must be engaged.


Minimum
DN25 Copper
Supply Line
Flush Valve
Assembly
Air Break in
Vertical Position
Solenoid
DN40
Flush Pipe
Any Other Bends in 45°
(Maximum of 2)
1150mm Recommended
(for sensor height 1400mm)
700 +/- 100 mm minimum
1x 90° Bend Allowed
WC Pan
Inlet Height

before proceeding with installation

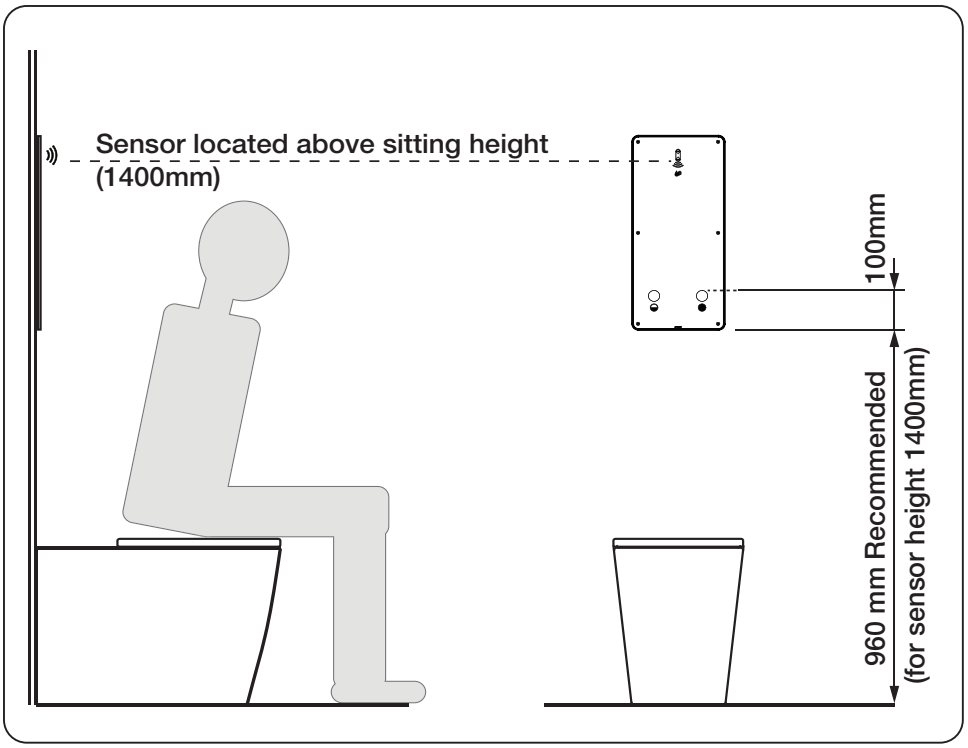
LOCATION OF SENSOR

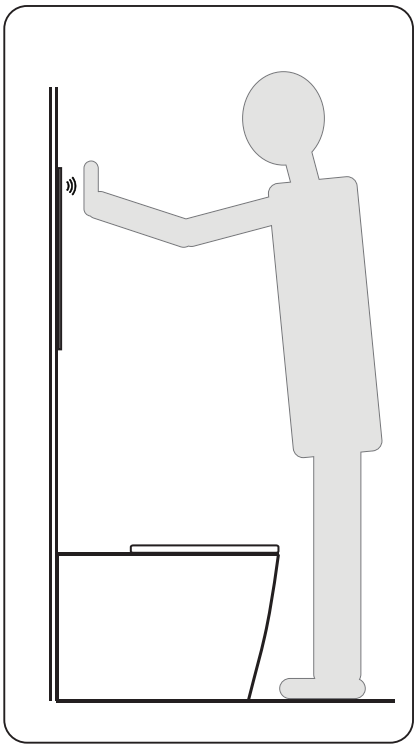
When selecting a location to install the wall sensor, consider the following:

EASE OF OPERATION

The sensor range is 20 - 100mm from sensor plate. Consider ease of operation by the user in standing position while also being placed far enough away from the user to avoid unintentional triggering of the sensor, such as while entering or exiting the toilet cubicle or while the user is seated.

The recommended installation height of the face plate is 960mm from the floor, on the rear wall. At this height, the sensor is at 1400mm which is easy enough to reach in standing position, and the sensor is above the sitting height of the user while also keeping the clearance to avoid unintentional triggering of the sensor.





OBSTRUCTIONS

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

REFLECTIONS AND LIGHTING

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

Do not install sensor directly in front of a mirror.

ACCESS TO FLUSH VALVE COMPONENTS

Ensure that access to the sensor, solenoid valve, transformer/ 240 V power point, and cabling is available for future maintenance when planning or installing assemblies.

• The solenoid valve and power point/ transformer is generally located in the wall but they must be easily accessible for servicing purposes. This may be through an access panel on the wall or via a duct. (For this product the front panel can be used as an access panel for the flush valve.)

• The cable should be located inside the wall cavity to connect to the power pack lead. All wiring, cables, or leads must be installed in such a way that they can be easily removed and replaced if necessary. It is recommended that all cabling is fed through 25mm conduit to allow for servicing and replacement in future.

WARNING: Do not cut the wires or extend the existing cables without using the correct lead extension from Enware, as this will void warranty.

BEFORE CONNECTING WATER SUPPLY

• Ensure all supply lines are flushed thoroughly to remove debris prior to the installation of this product. Strainers (40 mesh) are recommended if debris is an ongoing problem.

• A pressure reduction valve may be required to comply with the recommended maximum supply pressure and/or balanced pressure requirements.

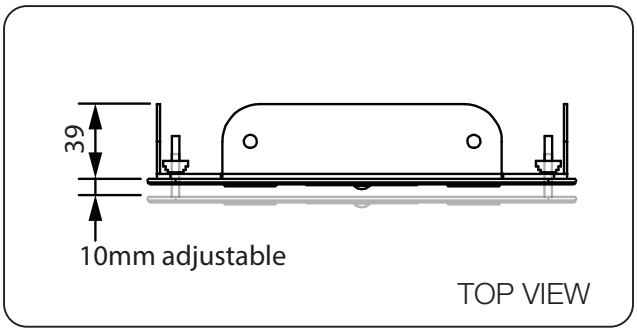
INSTALLATION - IN-WALL

1. Flush the water supply line thoroughly before installing the flush valve. Do not allow debris, dirt, thread sealant or metal particles to enter the flush valve.
2. Fit the flush valve in the required position. (Take note of installation guidelines in Installation - Technical Requirements on Page 4 & 5.)

   If using PVC flush pipe, a 40mm cap and lining must be fitted to the air break. (Cap and lining not supplied)

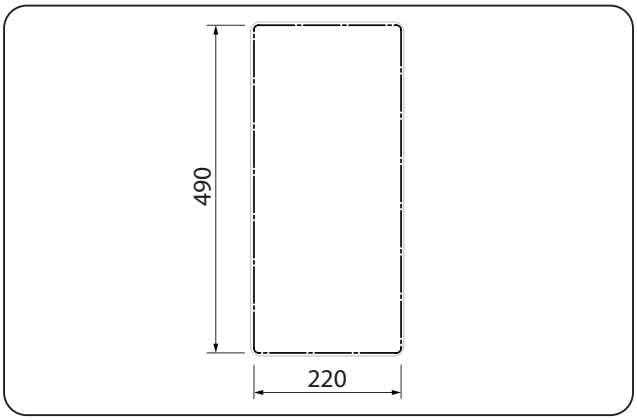
INSTALLING THE SENSOR BRACKET

3. Once the position of the sensor is determined, fix the sensor mounting bracket inside wall. The bracket should be installed flush to the finished wall. There is 10mm of adjustability for the front plate.



WALL BRACKET CUT OUT DIMENSIONS

4. Before the wall is sheeted or finished, allow for a cut out in the finished wall surface, of 220mm wide x 490mm high rectangular hole, and at least 50mm deep to allow for installation of bracket.

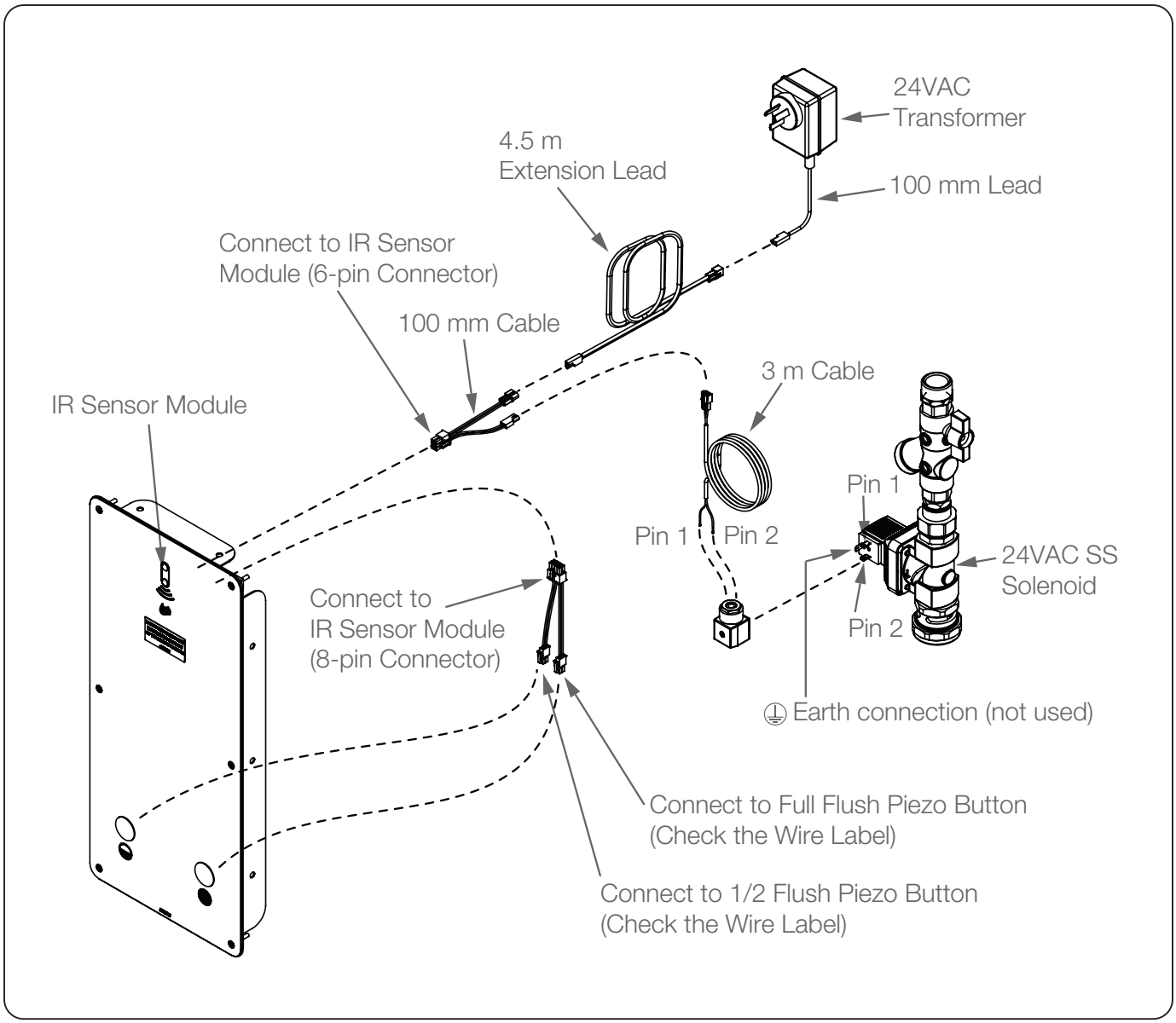


TRANSFORMER AND CABLES

5. It is recommended that all cabling is fed through 25mm conduit to make servicing and replacement easier. The solenoid valve and power point/ transformer are generally located either in the wall space or in the ceiling but must be easily accessible for servicing. This may be through an access panel on the wall or the ceiling.

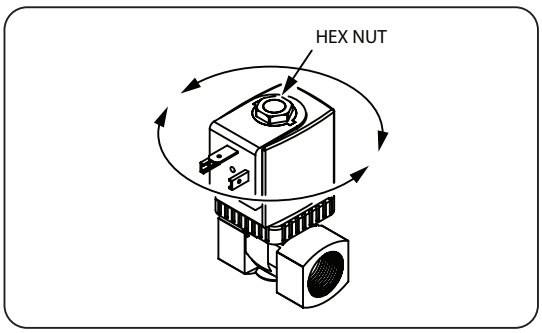
   The transformer has a 4.5 metre lead to the sensor and the solenoid cable has a 3 metre lead from the sensor to the solenoid. Additional lead lengths up to 15 metres can be accommodated with extension cables (available separately from Enware).

6. Plug the 24V AC transformer into the 240V AC power point.
   Connect cables as shown in Wiring Diagram next page.



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

Note the black casing for solenoid can be turned around to suit the direction of wiring connection, by first loosening the hex nut on top.



TESTING

7. Turn water supply on and check for leaks.
8. Connect all electrical components together temporarily, and test operation of the flush valve.
9. Once correct operation of the flush valve is confirmed, disconnect the sensor plate and turn off the power to the transformer.

   The tap is now ready for sheeting or finishing of the wall.

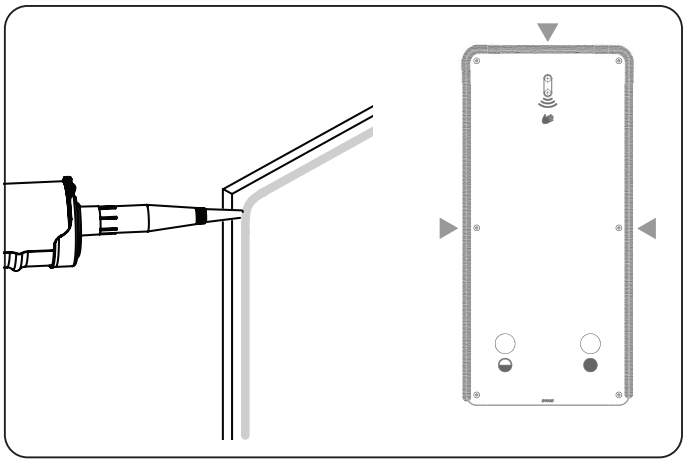
INSTALLATION AFTER THE WALL IS FINISHED

MOUNTING THE SENSOR PLATE

10. The stainless steel sensor plate is always mounted flush to the wall. Feed the transformer cable through the conduit and make the connection to the sensor by joining the line plug and socket, observing the polarity of the plug. Fix the sensor panel using four screws provided.

IMPORTANT:

Before fixing the sensor plate to wall, apply a thin bead of silicone sealant behind the plate along the top and side edges. Ensure that the plate is thoroughly sealed to the wall and that no water can get in behind the plate. Any water entering behind the sensor plate will cause damage to sensor components and void warranty.

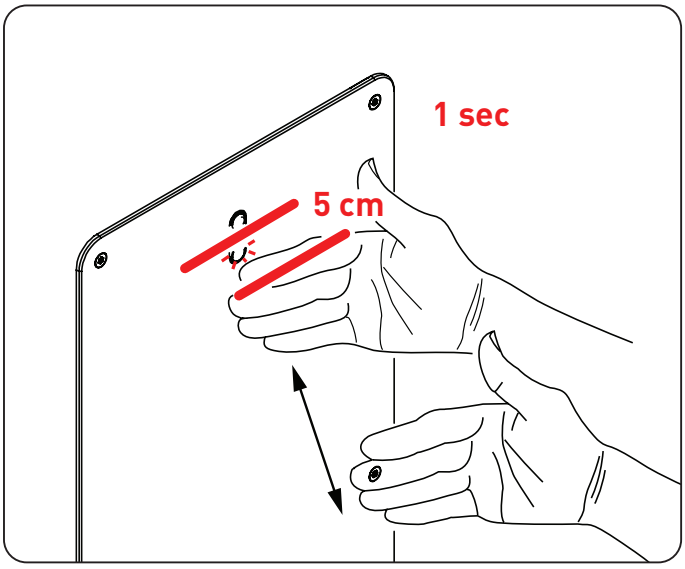


11. Apply the supplied instructions sticker label on the sensor plate or on the wall close to the sensor.

TESTING

12. Turn on the power to the unit and test the unit.
    If there is any problem see Troubleshooting on page 14.

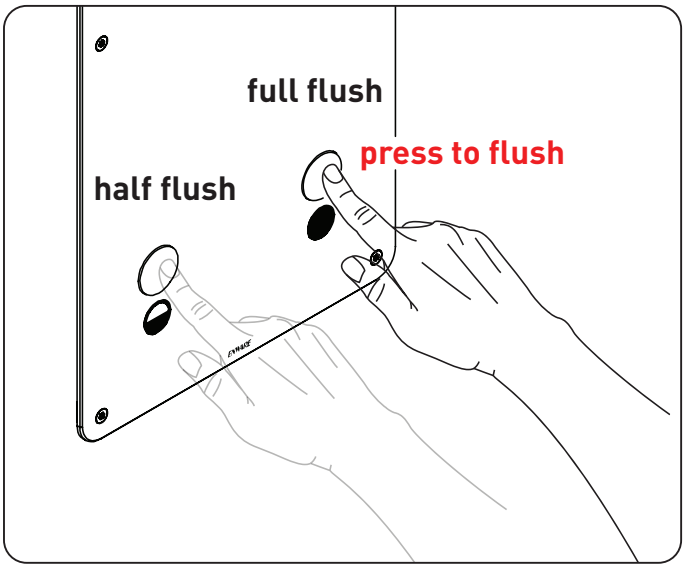
operation



USING SENSOR TO FLUSH
(Touch Free)

Hover your hand in front of sensor 5cm away for 1 second.

Full Flush is activated.



USING TOUCH BUTTON TO FLUSH

Press the touch button once to activate flush.

service & maintenance

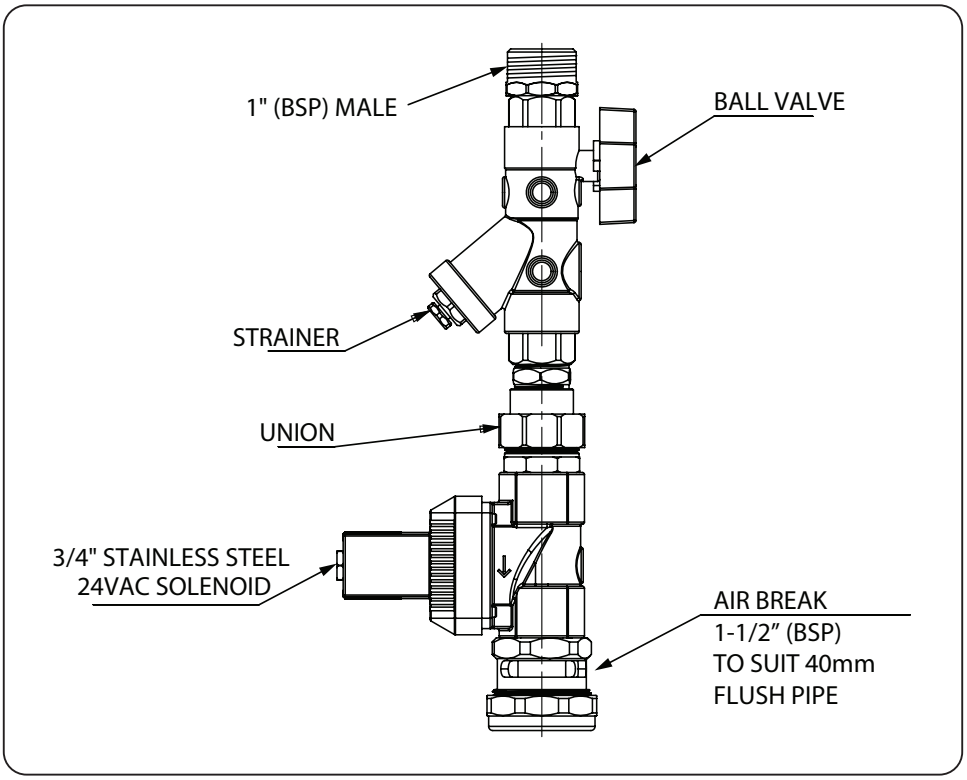
REGULAR MAINTENANCE

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.

FILTER CLEANING

This flush valve is provided with a stainless steel filter preventing foreign particles from entering the lines. If the water flow has decreased, this may be because the filter is clogged. The valve can be cleaned as follows:

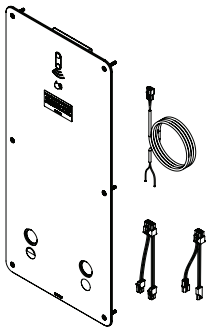
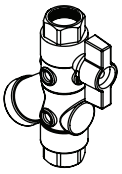
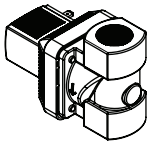
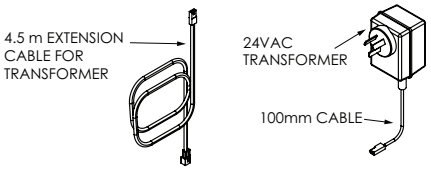
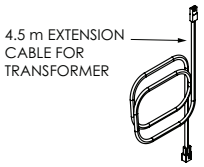
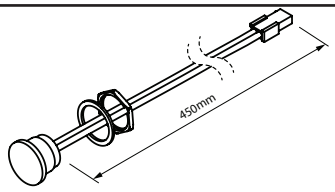
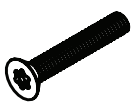
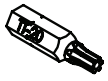
1. Turn off the isolation ball valve.
2. Open the strainer cap on the Y body, directly below the ball valve.
3. Remove the filter and wash it under running water.
4. Re-insert the filter and refit the strainer cap.
5. Turn on the isolation ball valve. Check that there is no leakage.



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 corrosive acid, scouring agent, solvent chemicals or cream cleaners. Use of unsuitable cleaning agents may damage the surface. Any damage caused in this way will not be covered by warranty.

spareparts

Name		Part Code
Sensor with face plate and screws		**EMFS311**
Ball valve Y-strainer combination 3/4"		**EMFS305**
Solenoid SS316 3/4" BSP 24VAC		**EMFS303**
Service kit for solenoid 3/4" AC		**EMFS820**
Transformer 24VAC with 4.5m cable		**EMDS803**
Transformer extension cable 4.5m		**480222**
Piezo touch button (DC 300mm cable)		**WMS800**
Sensor to transformer / solenoid connector cable 0.1m		**673830**
Sensor to piezo button connector cable 0.1m		**670374**
Fixing screw for sensor plate M4x25 CSK TT20 Torx Security		**672480**
TT20 Torx fixing screw bit		**672483**
Face plate mounting bracket		**690028**

troubleshooting

Refer to the following troubleshooting chart for specific problems and solutions.

PROBLEM	CAUSE	RECTIFICATION
Water does not flow	Loose connection on leads	Reconnect electrical connections
	Dirty or blocked filter	Refer to Filter Cleaning on page 12
	Supply pressure issue	Ensure the **dynamic** pressure delivered to unit is above 200kpa and below 500kPa
Water does not stop flowing	Debris or scale in the solenoid	Dismantle and clean solenoid. Use solenoid service kit to replace diaphragm if required
Flush pattern not fully covering bowl Too little water delivered	Supply pressure issue	Ensure the **dynamic** pressure delivered to unit is above 200kpa and below 500kPa
	Supply pipe inadequate size	Ensure supply is DN25 minimum
	Pan water requirements not met by flushing mechanism	Ensure pan has matching WELS rating.

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 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 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/product-service-enquiry.
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 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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