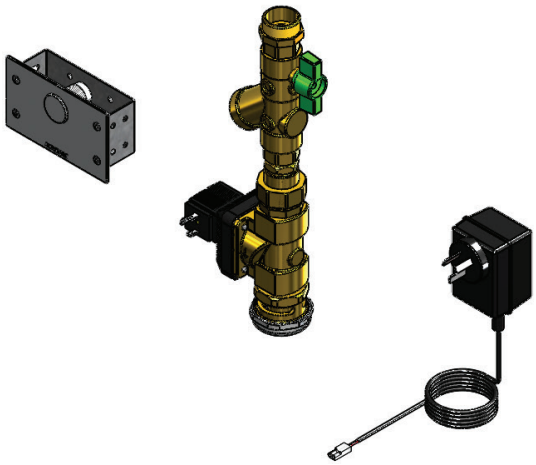
# TOUCH-ACTIVATED SINGLE FLUSH WC FLUSHING SYSTEM - DUCT ACCESS

## Installation & Maintenance Instructions

## EMF400M

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**Call 1300 369 273**
**www.enware.com**

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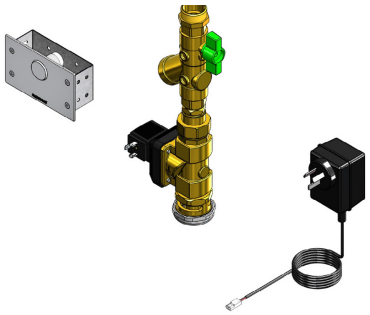
# TOUCH-ACTIVATED SINGLE FLUSH WC FLUSHING SYSTEM - DUCT ACCESS

**Enware's WC flushing systems provide a neat and reliable flushing solution using piezoelectric technology particularly suited for public access applications.**

Uses a WaterMarked solenoid that when combined with an appropriate pan delivers a 5.5 litre flush.

Best suited for duct style installation (flush unit and activation plate MUST be seperated.) Semi concealed installation with a stainless steel panel and security screws. Shut off valve, filter and airbreak included.

**EMF400M**

## FEATURES

- Suitable for AS1428.1 applications
- Piezo touch button control
- Mains power 24V
- Compact face plate
- Vandal resistant torx screws
- 1-year warranty

## Product Codes

| | |
|---|---|
| **EMF400M-1** | Touch-Activated Single Flush WC Flushing System - Duct Access |

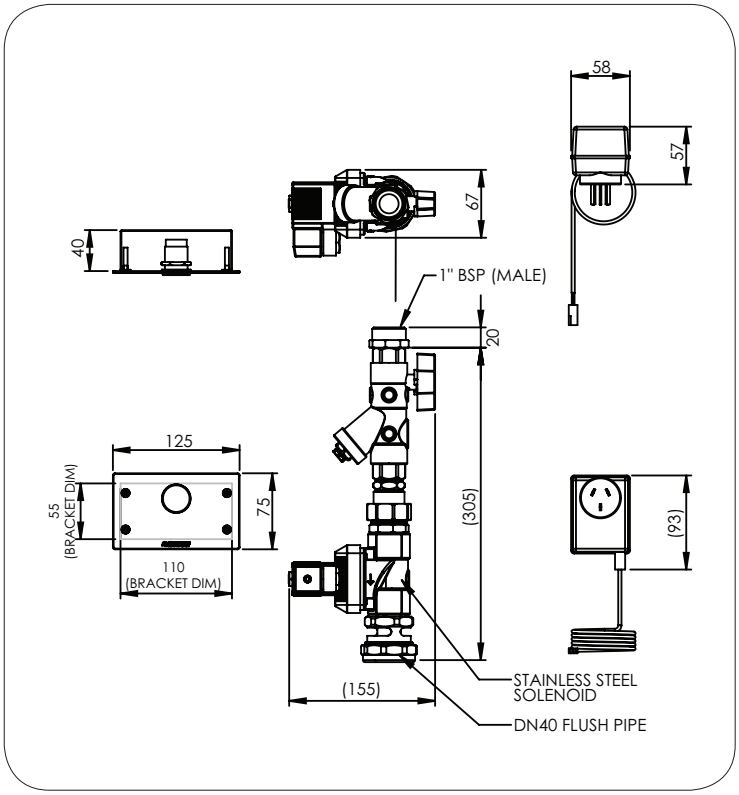
WATER RATING www.waterrating.gov.au 5.5 litres per flush Licence No. 0058

WaterMark AS1172.2 WM040116

## Technical Information

| | |
|---|---|
| Water Supply | 300 kPa |
| Connection | Inlet - 1" BSP (25mm) |
| | Outlet - 1 ½" BSP (40mm) |
| Minimum Water Supply Line Size | 1" (25mm) copper pipe |
| Mains Powered | 24V AC transformer |
| Kv Factor | 8.3m³/h |
| Flush Pipe | 1½" (40mm) flush pipe is required below the air break. (Note: use a maximum of 1x90° bend in flush pipe. If an offset is required 2 x 45° bends must be used. Maximum of 1 offset per flush pipe. Air break must be installed in a vertical position at 700mm +/- 100 mm above the pan inlet. |
| Pan | 5.5L (6L) Capacity (1 star) |

Enware products must be installed in accordance with the provisions of AS/NZS3500 and any relevant local regulations. Installations not complying with AS/NZS3500 may void the product and performance warranty provisions. As Enware's product development is ongoing, product specifications may vary over time.

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# IMPORTANT TECHNICAL REQUIREMENTS

**Before proceeding with installation ensure all operating & dimensional specifications are suitable for the intended installation.**

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. Also there must be:

- Minimum 25mm copper supply line
- Minimum 200kPa for valve to operate.
  NOTE: WELS Volume only achieved at 250kPa
- 40mm flush pipe must be used (PVC adaptors to be supplied by the client if required) (See FIG 1.1)
- Only 1 x 90° bend in flush pipe (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.

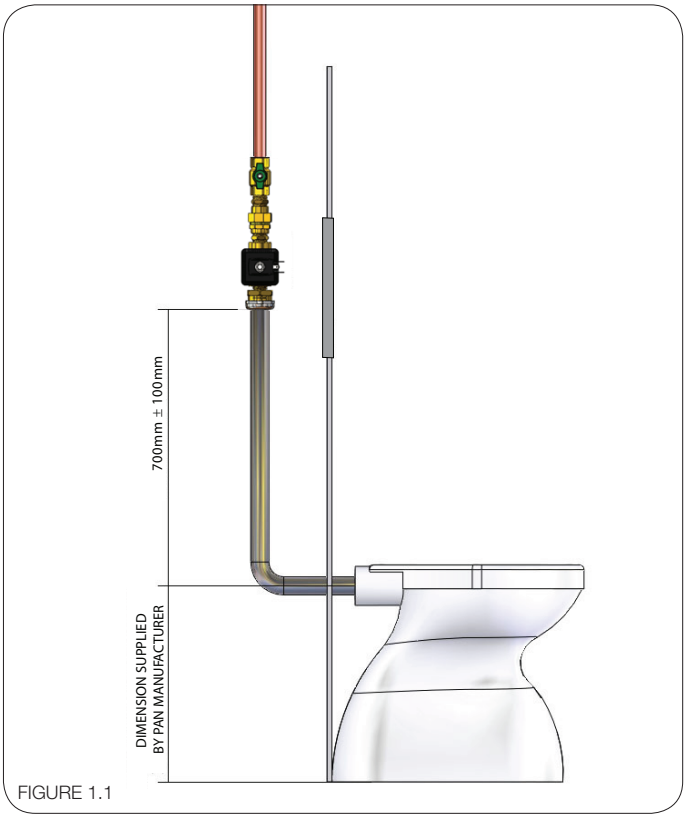


FIGURE 1.1

# INSTALLATION INSTRUCTIONS

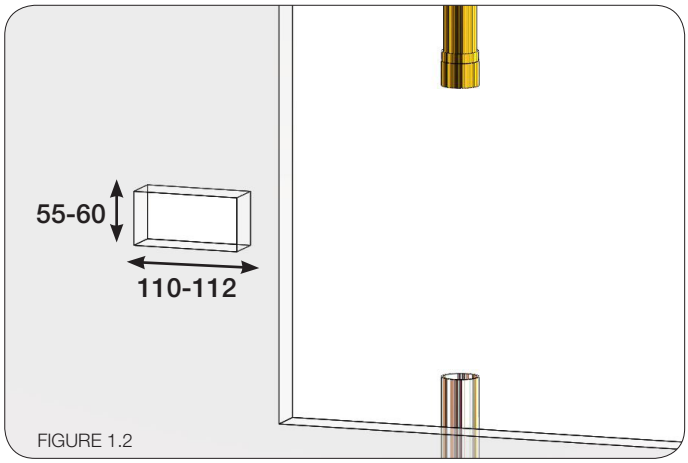


FIGURE 1.2

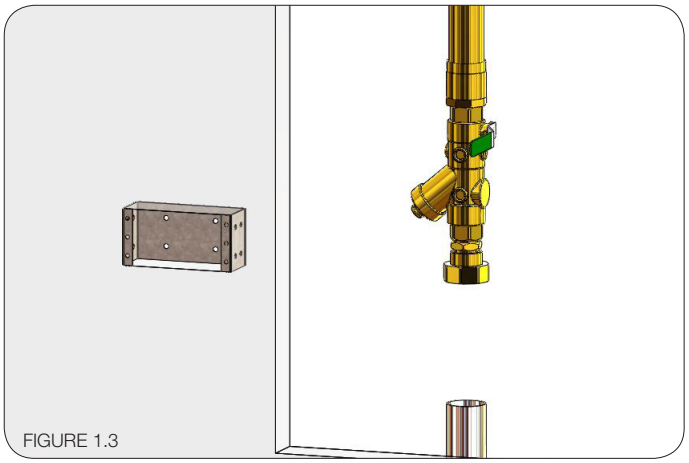


FIGURE 1.3

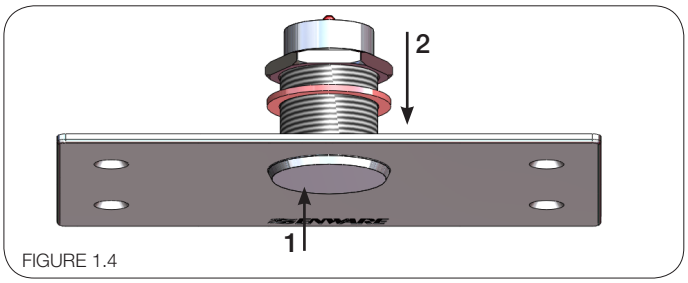


FIGURE 1.4

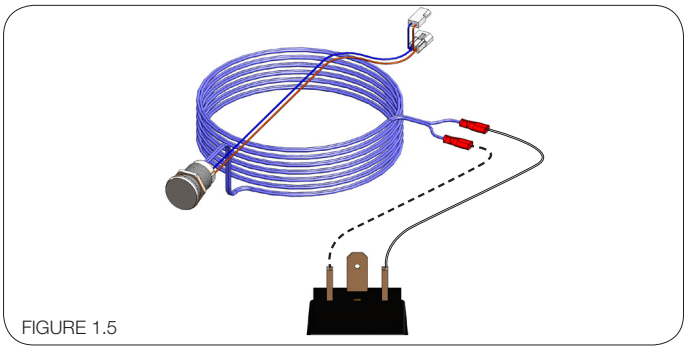


FIGURE 1.5

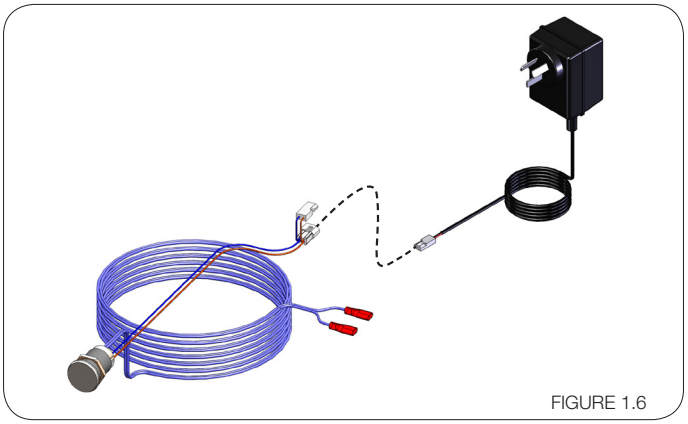


FIGURE 1.6

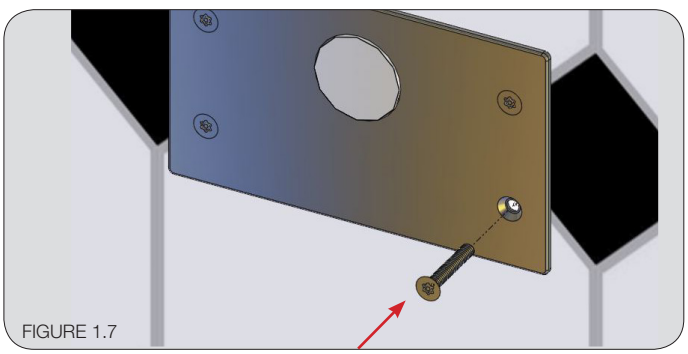
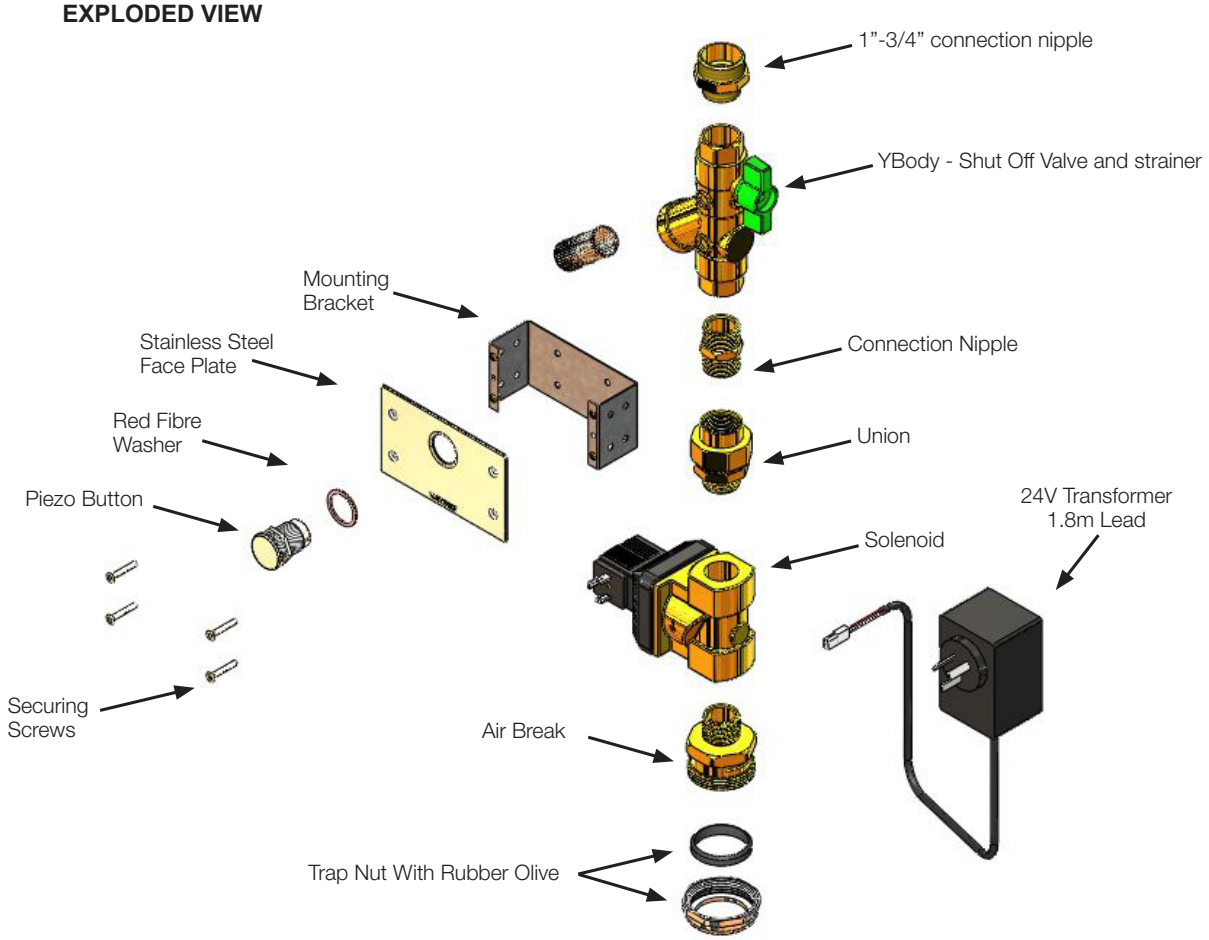


FIGURE 1.7

1. Separate all parts from packaging & check each part with contents section (**Refer 2.1 on page 5**) Pay attention to the different models variations. Make sure all parts are accounted for before discarding any packaging material If any parts are missing, do not attempt to install your flushing system until missing parts are obtained.
2. Flush water supply lines thoroughly before installing the flush valve. Do not allow dirt, thread sealant or metal particles enter the unit.
3. Fit the flush valve in the required position (take note of installation guidelines). If using PVC flush pipe, a 40mm cap and lining must be fitted to the air break. (cap and lining not supplied)
4. Fix noggins in the correct position for facia plate bracket mounting.
5. Run conduit from solenoid valve to power supply and thread transformer wire through (2m extension lead available from Enware part No. EMDS801)
6. Turn water supply on and check for leaks. (note Ball Valve still in off position.)
7. Turn inlet ball valve on and check for leaks (make sure the solenoid is not connected to power)
8. When the wall is fitted, allow 55mmx110mm cut out for facia plate fixing. **FIGURE 1.2** Note: Ideal button height is approximately 700mm from top of pan.
9. Fit the piezo button to the stainless steel cover plate. Ensure red fibre washer is used. **FIGURE 1.4**
10. Piezo cable connection
    Locate the positive wire from the piezo (indicated by the black strip on the wire). Plug the positive spade connector into one side of the solenoid. Locate the remaining negative wire and plug into the other side of the solenoid.
    **FIGURE 1.5**
11. Connect power
    Plug the transformer lead in to the female socket connection on the Full Flush button cable. This will leave one male connector on the Full Flush cable. (2m extension available if required - EMDS801) **FIGURE 1.6**
12. Fit mounting bracket with in wall cavity.
13. Fit stainless steel face plate with piezo to the mounting bracket in wall **FIGURE 1.7**
14. Turn on shut off valve and transformer. Test system.

# PRODUCT COMPONENTS AND SPARE PARTS LIST

## 2.1 EXPLODED VIEW




## 2.2 SPARE PARTS

| | |
|---|---|
| EMDS800 | 24V Transformer - 1.8M Lead |
| EMFS302 | Switch Piezo 22mm Fixed Full Flush |
| EMFS303 | Solenoid 3/4 24V AC |
| EMFS306 | Rubber Olive |
| EMFS305 | YBody - Shut off valve and strainer |
| EMFS308 | Strainer filter replacement |

## 2.3 OPTIONAL PART

| | |
|---|---|
| EMDS801 | 2m Power to piezo extension lead |

# SERVICE AND MAINTENANCE

### 3.1 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. They can be cleaned as follows:

1. Turn-off the water shut off valve
2. Open the filter cap on the Y body, directly below shut off valve
3. Remove the filter and wash it under running water. It may be necessary to replace the filter (spare parts can be ordered from Enware)
4. Reinsert the filter and refit the filter cap
6. Turn on the water shut off valve
7. Make sure that there is no leakage

### 3.2 SERVICE INSTRUCTIONS

Refer to trouble shooting chart to help determine specific problems.

Complete service instructions are supplied with each spare part kit and these should always be referred to before disassembling any fitting. Spare part kits should be on hand before any complete service of the tap is undertaken.

### 3.3 TROUBLE SHOOTING

Refer to the following trouble shooting chart for specific problems and solutions. Service instructions are supplied with spare part kits

| PROBLEM | CAUSE | RECTIFICATION |
|---|---|---|
| Button pressed - water does not flow | Loose connection on leads | Reconnect electrical connections |
| | Piezo switch is not working | Piezo switch or transformer faulty |
| | Dirty Filter | Refer to 3.1 Filter Cleaning on page 6. |
| | Supply pressure issue | Ensure pressure delivered to unit is above 200kpa and below 500kPa (dynamic) |
| Water does not stop flowing | Debris or scale in the solenoid | Remove solenoid, pull out plunger and spring & clean them. Use scale remover if required. When replacing plunger, ensure spring is in vertical position |
| | Dirty Filter | Refer to 3.1 Filter Cleaning on page 6. |
| | Supply pressure issue | Ensure pressure delivered to unit is above 200kpa and below 500kPa (dynamic) |
| Flush pattern not fully covering bowl | Supply pressure issue | Ensure pressure delivered to unit is above 200kpa and below 500kPa (dynamic) |
| | Supply pipe inadequate size | Ensure supply is 25mm (minimum) |
| | Pan water requirements not met by flushing mechanism | Refer to pan manufacturers instructions. If pan is 6/3L style,look at supply pressure issues. Otherwise replace pans with 6/3L style |
| Too little water delivered | Supply pressure issue | Ensure pressure delivered to unit is above 200kpa and below 500kPa (dynamic) |
| | Supply pipe inadequate size | Ensure supply is 25mm (minimum) |
| | Pan water requirements not met by flushing mechanism | Refer to pan manufacturers instructions. If pan is 6/3L style,look at supply pressure issues. Otherwise replace pans with 6/3L style |

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