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FlushSaver
Smart Toilet Systems

FLUSHSAVER INSTALLATION INSTRUCTIONS TOUCHPAD PANS:
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The standard unit for "Pans" comprises one 24 volt AC Adapter (1A), one Touch Plate Controller, one 24 volt 25mm Solenoid Valve, one Air Gap Valve and one 2m length of Figure Eight cable. An in wall plate and a plastic box to protect the electronics is also supplied. This plastic box should be silicones to the back of the touch plate once all the settings have been chacked and are correct. Also silicone where the wiring enters the plastic box.

- **PLACEMENT OF THE TOUCH PLATE CONTROL UNIT:**
  The Touch Plate incorporates the System Controller and can be placed in any convenient location**. There are two adjustment Pots on the Control Module labelled "Long" and "Short" (i.e. Full and Half flush) that allow you to adjust the length of time the Solenoid Valve stays open for. Clockwise rotation of the pots increases flush time.**

  THESE NEED TO BE ADJUSTED ON INSTALLATION DEPENDING ON THE PRESSURE - FLOW RATE AND THE AMOUNT OF WATER REQUIRED TO FLUSH THE PAN SIZE BEING USED.

SELECTION	SHORT (SECS)	LONG (SECS)
0	.10	.10
1	.20	.30
2	.30	.60
3	.50	1
4	.70	2
5	.90	3
6	1.3	4
7	2	5
8	3	6
9	4	7

This side up on the touch plate backing does mean that !!

The connections to the Touch Plate Controller are as follows:
Power supply to the two "AC 1 & 2" connectors.
Solenoid Valve to "Valve" connectors.

A set Pressure Reduction Valve may be required if the water pressure is greater than 500 KPA (not supplied).
A brass Y strainer is also to be installed on either the branch line or individual unit (either permissible)

NOTE:

- As the input and output point are both A.C. the connectors are not polarity conscious.
- **Ensure adequate Silicon is used to prevent water running down the back of the stainless steel backing plate when cleaning is being carried out.**

- **POWER SUPPLY:**
  A standard mains power point is required for each Control Module. The AC Adapter is connected to the Control Module at the positions marked "AC" on the unit. Do not turn the power on until the installation procedures have been completed.

- **WIRING:**
  The wiring used to and from the control unit is standard "figure 8" cable and is widely available from electrical wholesalers and retailers.
  All wiring should be in conduit.

  DO NOT USE DRILLS TO TIGHTEN THE SCREWS WHEN CONNECTING THE WIRES OR PLATES TO THE BRACKETS

- **EARTHING:**
  An Earthing Stud is provided adjacent to the Valve and AC IN connectors for grounding the metal parts of the "Touch Plate"
  The Solenoid Valve MUST also be earthed via the earth pin on the Valve.
  Consult your electrician as to the best way to earth the Valve & Plate

- **SOLENOID VALVE:**
  The Solenoid Valve should be fitted to the flush pipe at a minimum length 1.2metres from the invert level of the "Pan". The amount of water flowing through the Solenoid Valve can be adjusted at the Control Module by turning the screw thus allowing the Solenoid Valve to remain open for a longer period at the stopcock. Disconnection unions must be installed either side of the solenoid for routine service or maintenance. The Air gap Valve is screwed into the union and then the solenoid Valve and then completely into the flush pipe 50mm pvc female coupling. (Note it is recommended a liquid based jointing product suitable for jointing pvc and bass be used so as to allow the air gap to seat on the internal face of the coupling). Ensure the flush pipe is straight and there is no interference with the water flow after this point no matter how small. Connection onto the Airgap Valve thread should be with a 50mm F.I. coupling (no.2) PVC or Copper F I brazing bush.
  Do not use 50mm Cap and Linings.

  Solenoid Valves must be fitted with disconnection unions on both sides of the Valve for maintenance purposes.

  Torx Slot/Drive heads are used to open the Valves to clean – Available from Blackwoods

- **BACKFLOW PREVENTION:**
  A standard backflow prevention device ***must be installed*** to prevent the contamination of potable water supply. A **Registered Airgap Valve** is supplied for each Solenoid Valve.
  An RPZ Valve model 825y (AS 2845 Lic. No 1049) could also be used AS 3500.1.2 1998.

NOTE: Care should be taken when installing the Airgap Valve as follows:

1. **Ensure the Solenoid Valve and Airgap are vertically aligned with the flush-pipe**
2. **Ensure the Air Gap is installed such that ALL of the 50mm thread is inside the female adaptor.**

It is recommended you use 50mm flush pipe from the Air Gap for a length of 300mm. Should this not be possible please contact your nearest agent for alternative procedures.

- **IN-LINE FILTER:**
  An in-line filter/Y Strainer 200-300 micron MUST be placed after the stopcock to prevent water contaminants from entering the Solenoid Valve and unseating the valves diaphragm.
  OR WE RECOMMEND - http://puretec.com.au/phone/hybrid-g-water-filter-system.html
  Filter of 100-200 Micron

- **PRESSURE REDUCTION VALVE:**
  In installations where there is high water pressure and flow the stop-cock/isolation Valve may have to be partially closed to prevent water escaping from the Air Gap. This causes water turbulence often resulting in a noisy installation. Should this be the case an adjustable pressure limiting valve (350-400KPA) should be placed in the water-line. Where it is a multi storey facility one per floor is required.

SPECIAL NOTES:

You will require a minimum of 25mm water line (unless you are using a pressure vessel) into this area to ensure adequate water flow with a 40mm flush-pipe. Where there are six or more "WC Pans" on the same water line it would be advisable to run a 32mm water line or bigger depending on the number. Minimum water pressure required is 200 KPA (working pressure) with a **minimum water flow of 1.3 litres per second.**

PLEASE NOTE:

Ensure the water line is flushed of any rubbish before the Solenoid Valves are connected to ensure that nothing gets
caught in the seat of the Solenoid Valves to stop them closing correctly & causing damage to the Valve. Should they fail to close correctly the Valves should be checked and cleaned.

A backing box is supplied to be either silicone in place (Touch Pads) or for the plate to be screwed into it (Sensors) & then silicone around the plates to make these a sealed unit. This is done once the wires have been inserted through the appropriate spaces and the timing & lockouts adjusted as required.

Should you require help during or after installation please phone 0408 677 978

FAILURE TO COMPLY WITH THESE INSTALLATION INSTRUCTION VOIDS THE WARRANY