The Custodian® Smart Board

The Custodian® Smart Board directly controls and monitors the delivery of water in secure or controlled bathroom environments. The compact and easy to install unit houses the Smartflow data hub, eTMV Mixer, basin/ shower solenoids and service isolation/strainers and check valves.

WMSSB-000

FEATURES

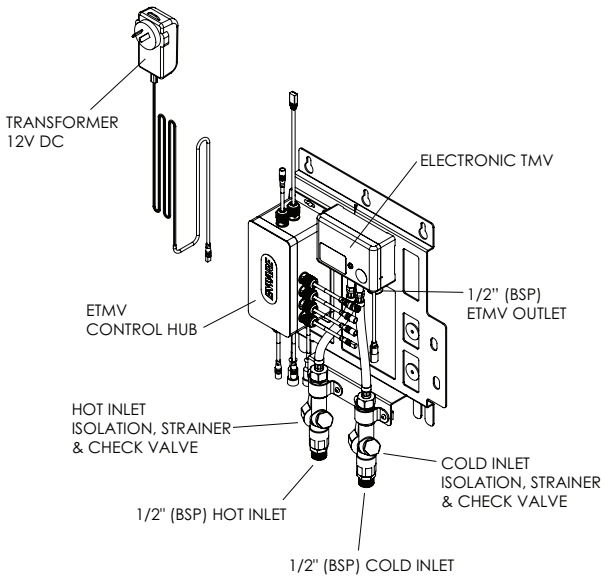
- Rapid installation of pre-assembled and tested plumbing assembly
- Integrated thermostatic temperature control of shower and/or basin
- Toilet full and half flush
- Plug-and-play cable connectors for all fixtures and Smartflow Water Management System

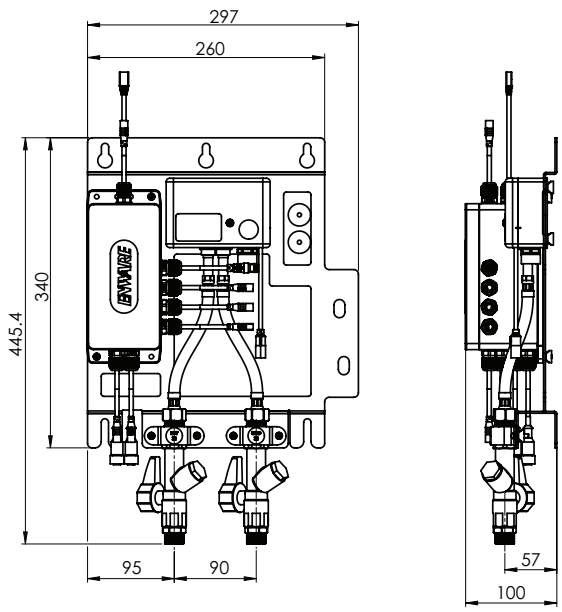
Product Codes

WMSSB-000	Custodian Smart Board
WMSSB-001	Custodian Smart Board with Solenoids

WaterMark WMTS-030 WM40260

WaterMark AS4032.1 WM40175





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Call 1300 369 273
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Technical Information

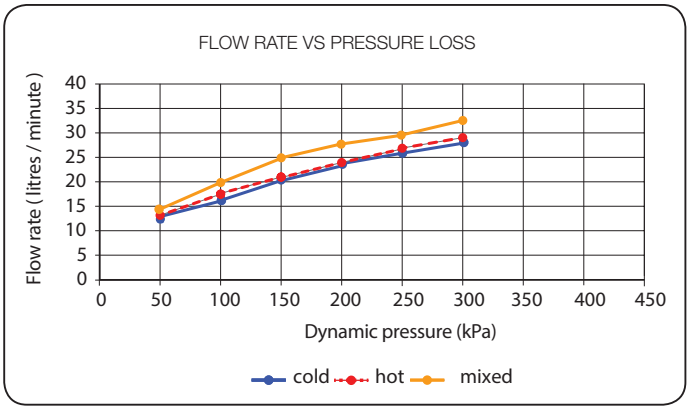
ELECTRONIC TMV

Water Supply	
Inlet Temperatures	Cold: Min. 5°C Max. 30°C Hot: Min. 55°C Max. 85 °C
Outlet Temperature Range (Temperature limits and settings controlled by Smartflow System)	Min. 5 °C Max. 50 °C (+/- 2°C)
Thermal Flush Temperature (Temprorarily enabled by server, activated on site)	Max. 70 °C
Dynamic Inlet Pressures	Min. 100 kPa Max. 500 kPa
Dynamic Pressure Differential Between Hot and Cold Supplies	Must be less than 100 kPa*
Static Inlet Pressure For Testing Purposes / System Commissioning	Max. 1600kPa
Flow Rate	
Minimum Flow Rate	2L /min
Maximum Flow Rate	32 Litres/min @ 300 kPa pressure loss as per flow sizing graph
Connections	
Inlet and Outlet Connections	1/2" BSP Male

SMART BOARD

Product Weight and Dimensions	
Weight	4kg
Dimensions	440mm x 300mm x 100mm

*AS3500.4 clause 1.9.4.2 - The dynamic pressure differential between hot and cold supplies when mixed at a thermostatic mixing valve shall not exceed 10%.
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.
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.



Technical Information

CONTROL HUB

Power	
Included Power Supply Input Requirements	100-240VAC 50/60Hz
Nominal Input Voltage	12VDC
Input Voltage Tolerance	10%
Typical Power Consumption	1W
Maximum Power Consumption	36W
Environmental Specifications	
Heat Output (BTU/HR)	3.4
Operating Temperature	5 - 50 °C
Communication Ports	
Type of Port	Smartflow Communication Port
Number of Connectors	1
Serial Port Protocol	RS485
Serial Port Speed	38400 baud
Piezo Button Ports	
Number of Inputs	4
Type of Inputs	Piezo Buttons
Number of Connectors	2
Type of Connector	KCC SK5/5 Male
TLI Control Wheel Port	
Number of Connectors	2
Type of Connector	KCC SK9/8 Male
Flushing Solenoid Ports	
Number of Outputs	1
Type of Outputs	10W solenoid
Voltage of Outputs	12V
Number of Connectors	1
Connector Type	KCC SK2/2 Female

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INSTALLATION

The Custodian® Smart Board should be securely fixed to a wall in close proximity to the interface control plate(s), flushing solenoid and within 1.5m of a 240VAC GPO, ideally located above The Custodian® Smart Board. It should be placed in a clean dry environment in an access duct or service duct, or some other appropriate location where it can be accessed for servicing.

Once fitted, the cable connections for the interface control plate(s) and flushing solenoid can be connected. The cable connections should be plugged into the Custodian® Control Hub in the location marked with the same designator. Care should be taken with the position and orientation of the connections.

Next the RJ45 Network cable can be connected to the surface mount RJ45 Jack.

The main Backbone cable will have already been installed and a surface mount RJ45 Jack will be fitted less than 1m above The Custodian® Smart Board location.

Finally connect the included power supply to power The Custodian® Smart Board.

OPERATION

Once installed and commissioned The Custodian® Smart Board can operate as an independent device in Commissioning Mode. The operation and control of the fixtures will be determined by the firmware in the Custodian® Control Hub. The Custodian® Control Hub will operate in this mode until commissioning mode is manually disabled or the firmware is changed. This can be achieved via the software operating on the central control PC via the main Backbone Network Cable, or by a standalone laptop connected directly to the Custodian® Control Hub.

SETTINGS

The parameters able to be configured for the Custodian Smart Hub are:

Global

- Commissioning mode
- Thermal Flushing
- Non-use line purging.
- Cycle flushing
- Start up temperature.
- System operational testing and peak load testing

Basin

- Enable / disable
- Run Time in seconds
- Lockout time (after each use)
- Daily use count limit
- Maximum temperature (overwritten by shower temperature if shower activated)

Shower

- Enable / disable
- Run time in seconds
- Lockout Time
- Daily time limit
- Daily count use limit
- Morning use period
- Evening use period
- Maximum temperature
- Eco pulse timing (water usage green, orange, red indication at interface)
- Time pulse timing (light pulse to track time)
- Water pulse timing

Toilet

- Enable / disable
- Run time (Half Flush)
- Run time (Full Flush)
- Lockout Time
- Daily use count limit

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Electronic Thermostatic Mixing Valve (eTMV)

eTMV is a compact Thermostatic Mixing Valve that uses modern self-controlling multiprocessor technology to monitor and control the temperature and flow, by means of ceramic discs and electromechanical drives.

eTMV does not have a thermostatic wax element or dynamic O-rings that are typically used in traditional thermostatic mixing valves. Instead, ceramic discs and electromechanical drives are contained in a sealed unit, and have no parts to service or replace.

The eTMV is constantly monitored for real-time performance by the Enware Smartflow TMV monitoring system.

eMTV - Maintenance and Servicing

eTMV should be inspected, tested and recommissioned every 12 months, unless the installed conditions dictate more frequent servicing is necessary. (In accordance with AS4032.3 – Section 2.2 and Appendix B 4.2)

Strainer should be cleaned and non-return valves checked for correct operation, on the combination strainer-check-ball valve. Cold water and hot water shut-down tests should be performed and discharge temperatures recorded.

eTMV has no mechanical or electronic actuation component to service or replace. Ceramic discs and electromechanical drives are contained in a sealed unit. There are no serviceable or replacement parts at 12-month or 5-year intervals as described in the Australian Standard AS4032.3 Section B 4.2.

Refer to the Installation and Maintenance Instructions for more information.

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