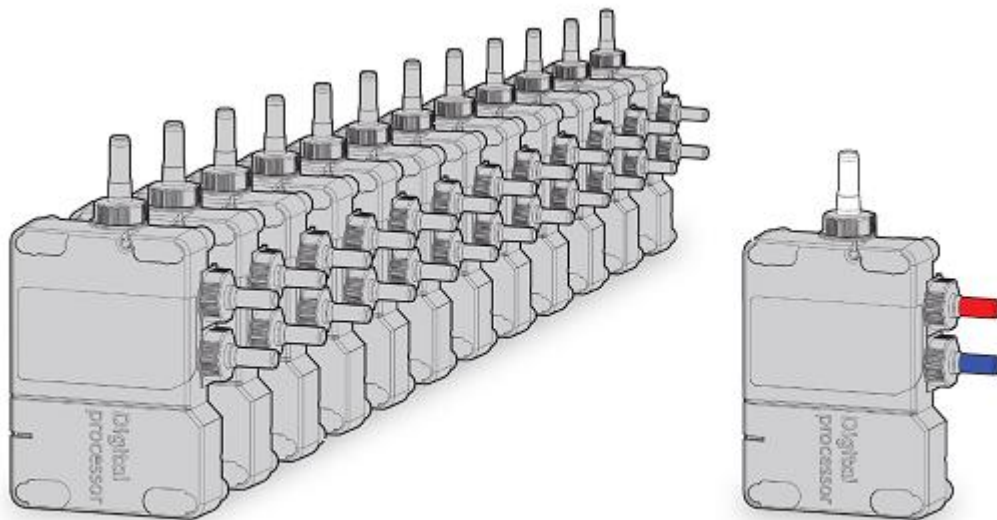


Installation Guide

Digital Water Mixer

for

bathomatic® & iShower®



These instructions are to be left with the user

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Introduction

Thank you for purchasing this quality product from Unique Automation. To enjoy the full potential of your new product, please take time to read this guide thoroughly. Having done so, keep it handy for future reference.

The Digital Water Mixer MK2 (DWM) has been designed utilising the most advance technology to provide continues performance for many year and has been subjected to rigorous testing.

Important Safety Information

Safety information

This product must be installed by a competent personel in accordance with all relevant current Water Supply Regulations.

ALL PRODUCTS REQUIRING AN ELECTRICAL CONNECTION MUST BE INSTALLED BY A QUALIFIED PERSONEL FOLLOWING THE LATEST REVISION OF BS 7671 (WIRING REGULATIONS) AND CERTIFIED TO CURRENT BUILDING REGULATIONS.

Products manufactured/supplied by us are safe and risk-free, provided that they are installed, used and maintained in good working order, in accordance with our instructions and recommendations.

This system should be installed so that other taps or appliances operated elsewhere within the premises do not significantly affect the flow.

The Digital Water Mixer MK2 (DWM) must not be used with a hot water supply temperature of over 65°C.

The DWM is supplied factory pre-set at maximum temperature of 45°C. The maximum temperature is fully adjustable to suit site conditions. If adjusted, we recommend the outlet temperature is set to a MAXIMUM of 46°C.

The DWM must be installed in an accessible location for servicing and maintenance.

The DWM must not be installed in situations where either the ambient temperature is likely to exceed 40°C or where freezing may occur.

The controls must not be installed in situations where the ambient temperature is likely to fall below 5°C or rise above 70°C.

We do not recommend the use of DWM in steam therapy facilities.

This appliance must be earthed.

Cables which are chased into the wall must be protected by a suitably sized conduit or sheathing to allow for removal in the event of service and maintenance purposes.

Surface mounted cables must also be protected by a suitable approved conduit, even in a loft, where there may be a risk of damage from vermin.

The power lead must only be replaced by the manufacturer or his accredited agent. The user controls are supplied from a safety low voltage source. This product is suitable for domestic use only. DWM is supplied complete with one year guarantee.

This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given initial supervision or instruction concerning the use of the product by a person responsible for their safety.

CHILDREN SHOULD BE SUPERVISED TO ENSURE THEY DO NOT PLAY WITH THE PRODUCT.

~~Installation of the pumped DWM¹~~

(for gravity stored systems)

~~The pumped DWM is designed to operate up to maximum static pressure of 100kPa ((1 bar)(10 metres head)(14.5psi)).~~

~~Under no circumstances must the pumped DWM be connected directly to the water main or in line with another booster pump.~~

~~The minimum actual capacity of the cold water storage cistern should be not less than 225 litres (50 gallons). The capacity of the hot water cylinder must be capable of meeting anticipated demand.~~

Installation of the standard DWM

(for balanced high pressure and unvented systems, combination boiler systems and separately pumped gravity systems)

Pressures: The standard DWM is designed to operate up to a maximum static pressure of 700kPa ((7 bar)(100psi)). Where pressures are likely to exceed 700kPa ((7 bar)(100psi)), a pressure reducing valve must be fitted to the incoming mains supply. A setting of 400kPa ((4 bar)(60psi)) is recommended. It should be noted that daytime pressures approaching 600kPa ((6 bar)(80psi)) can rise above the stated maximum overnight.

Special notes for combination boiler systems

The appliance must have a minimum domestic hot water rating of 24kW (80,000BTU) and be of the type fitted with a fully modulating gas valve.

If in any doubt, please contact the appliance manufacturer before installation commences.

¹ Installed on UA Demonstrator MK3 or supplied in special circumstances

PLEASE NOTE: DUE TO PERFORMANCE CHARACTERISTICS OF COMBINATION BOILERS, BATH FILL RATE MAY VARY WITH CHANGES TO THE MAIN INLET TEMPERATURE AND PRESSURE.

Special notes for separately pumped gravity systems

We recommend a twin ended pump with a MINIMUM pump rating of 1.5 bar. For optimum performance a twin ended 2.5 bar pump should be used.

The minimum actual capacity of the cold water storage cistern should be not less than 225 litres (50 gallons). The capacity of the hot water cylinder must be capable of meeting the anticipated demand.

THIS PRODUCT IS NOT SUITABLE FOR USE WITH A SINGLE ENDED PUMP.

Connections

This product may incorporate 'push-fit' type connections. Tube should be cut using a rotary type cutter and lubricated using a silicone-based lubricant or petroleum jelly (Vaseline or similar) prior to insertion into the fitting.

If plastic pipe is used, the tube insert must not increase the tube diameter or extend the cut-off length by more than 2mm.

THESE FITTINGS ARE NOT SUITABLE FOR STAINLESS STEEL TUBE.

Flushing

Some modern fluxes can be extremely corrosive and, if left in contact, will attack the working parts of this unit. All soldering must be completed and the pipe work thoroughly flushed out in accordance with current Water Supply Regulations prior to connection of the product.

After installation

Familiarise the end user with the DWM and the operation of the entire system and hand them this guide. Complete and post the guarantee card or register online at www.uniqueautomation.co.uk

Caution!

Read all of these instructions and retain this guide for later use.

The electrical installation must comply to the current "Requirements for Electrical Installations", and

The plumbing installation must comply with the requirements of the Water Regulations/Bye-laws or any particular regulations and practices, specified by the local water company or water undertakers.

Make sure that you fully understand how to operate the Digital Water Mixer and

make sure that it is properly maintained in accordance with the instructions given in this manual.

Anyone who may have difficulty understanding or operating the controls of the Digital Water Mixer should be attended whilst using it. Particular consideration should be given to: the young, the elderly, the infirm, the disabled, anyone who suffers from a medical condition that can result in temporary incapacity (e.g. epilepsy or blackouts), anyone inexperienced in the correct operation of the controls.

Sunburn or skin conditions can increase your sensitivity to hot water. Make sure that you set the Digital Water Mixer to a cooler temperature.

If any of the following conditions occur, isolate the electricity and water supplies and contact your installer

If the cover is not correctly fitted and water has entered the appliance case.

If the case is damaged.

If the appliance begins to make an odd noise², smell or smoke.

If the appliance shows signs of a distinct change in performance, indicating a need for maintenance.

DO NOT operate this appliance if water leaks from this appliance.

DO NOT operate this appliance if it is frozen. If suspected of being frozen, isolate and contact us for advice.

When this appliance has reached the end of its serviceable life, it should be disposed of in a safe manner, in accordance with current local authority recycling, or waste disposal policy.

DO NOT allow the Digital Water Mixer to be run dry.

Mains connections are exposed when the cover is removed.

Moving parts are exposed when the cover is removed.

Do not turn on the electrical supply until the plumbing has been completed.

DWM MK2 MAY LOOK LIKE OTHER PRODUCT OF THIS TYPE IN YOUR MARKET PLACE, BUT THIS DOES NOT IMPLY THAT THE DWM IS THE SAME.

DWM CAN ONLY BE REPLACED BY THE MANUFACTURER OR HIS ACCREDITED AGENT.

DWM IN UNIQUE AUTOMATION BATHROOM SYSTEMS CARRY SYSTEM SPECIFIC IDS

IF YOU SYSTEM ALLOWS EXPANSION PLEASE CONSULT THE MANUFACTURER OR HIS ACCREDITED AGENT. UPGRADING YOUR SYSTEM WITHOUT THE APPROPRIATE GUIDANCE MAY HAVE UNDESIRE CONSEQUENCES.

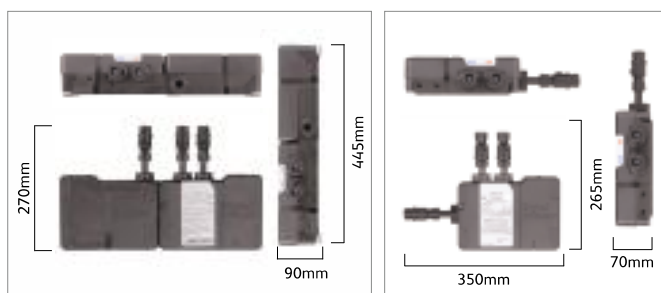
² Periodically the Digital Mixer will run a self test sounding similar to when it is in operation

Step-by-step instructions

Plumbing Connection

In addition to the guide below it is essential that the written instructions overleaf are read and understood and that you have all the necessary components (shown overleaf) before commencing installation.

To ensure safe operation and installation of this product, the DWM MUST be installed in one of the orientations shown.



Isolation valves may be supplied with the DWM and must be fitted on both inlets and the blended water outlet. All pipe work should be run in 15mm pipe. All pipe work should be supported. For externally pumped gravity fed installations, 22mm pipe work should be run as close to the DWM as possible before reducing down to 15mm. The inlet supply centres are 48mm.



When installing multiple DWM ensure adequate supply pipe sizing to a manifold from where it is reduced to 15mm to the individual DWM. An adequately sized manifold can be used to combine the outlets for discharge into a bath or large shower. It is advisable to run 32mm- 50mm supply pipework.

The inlet supply centres deviate from EN1111 and EN1287, but are deemed to be a special case.

Compression fittings should not be used on the inlet and outlet spigots.

Choose the position for your DWM as close to the bath control as possible.

The DWM may be sited in the roof space above the proposed bath site, in the airing cupboard or behind a screwed bath panel if more convenient. If siting in the roof space, ensure that freezing cannot occur and that no insulation material is placed under or over the DWM. Please refer to the system layout diagrams overleaf.

The distance between the DWM and bath control must be within range of the 10m data cable supplied.

THE DWM MUST BE SITED IN A POSITION SO THAT ACCESS CAN BE GAINED FOR TESTING AND SERVICE PURPOSES.

Place the DWM on a solid mounting surface, and place the fixing feet into suitable positions. Mark then drill and prepare suitable fixings before securing the DWM to the mounting surface using the screws provided.



Flush out the hot and cold supply pipes.

The maximum hot water inlet temperature must be no more than 65 °C.

Attach the supply pipes to the DWM, ensuring that the cold and hot feeds are fitted into the appropriately marked inlets.



DO NOT SOLDER NEAR TO PLASTIC COMPONENTS.

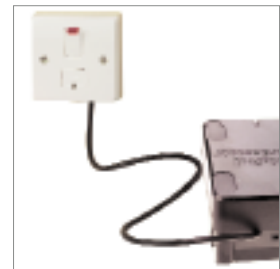
Run a pipe from the mixed water outlet on the DWM through to the proposed siting for the bath fill outlet.

Suitable non restrictive double check valves (not supplied) **MUST** be fitted to the blended outlet pipe in line with current Water Supply Regulations.

Electrical Connection

BEFORE ANY ELECTRICAL ADJUSTMENT IS ATTEMPTED, THE ELECTRICITY SUPPLY MUST BE TURNED OFF AT THE MAINS SWITCH. ELECTRICAL INSTALLATION MAY ONLY BE CARRIED OUT BY A QUALIFIED PERSON.

Connect the DWM power lead to a double pole 3³ amp fuse switched spur incorporated in the fixed wiring circuit, in accordance with current wiring rules. Ensure that this is located in an accessible, dry location and not in the bathroom.



WHEN MULTIPLE DWM ARE INSTALLED ENSURE A SINGLE BRAKER CAN POWER CYCLE THE ENTIRE SYSTEM.

THIS APPLIANCE MUST BE EARTHED

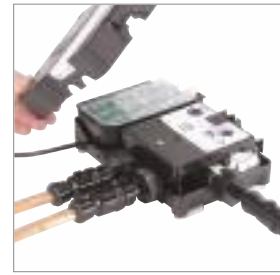
We recommend protecting surface mounted cables in suitable approved conduit to avoid the risk of damage from vermin.

The data cable and power lead should also be clipped in place with 'P' clips or similar to avoid accidents. Ensure the data cable does not run in parallel with the power cable. If the data cable needs to run in parallel with the power cable ensure 150mm distance between.

³ Every DWM needs to be connected to its own fused srup

Unscrew the single fixing on top of the DWM box and carefully tilt the lid up and off the location lugs and pull the lid clear.

Connect the low voltage data cable into the socket adjacent to the temperature adjuster as indicated on the label. Feed the cable out of the DWM box ensuring it is correctly routed within the data cable channel.



A further data cable socket has been provided for use with multiple DWM. This can be accessed by carefully snapping and removing the entry pillar and connecting the cable as described above.

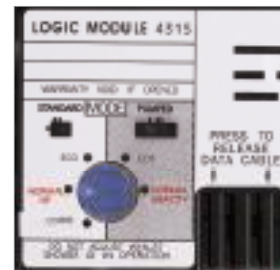


Water Supply Mode Select

The DWM are supplied factory set with the flow rate at either 'NORMAL HP' or 'NORMAL GRAVITY' mode depending on which system has been ordered.

STANDARD DWM ON BALANCED HP SYSTEMS:

Standard DWM fitted to balanced high pressure systems may be set to 'NORMAL HP' or for water economy 'ECO' modes.



N.B. We recommend the DWM is set to 'NORMAL HP' mode.

STANDARD DWM ON COMBINATION BOILER SYSTEMS:

For Standard DWMs installed on combi boiler systems, for optimum performance we recommend setting the flow rate to the 'COMBI' mode.

N.B. The 'ECO' flow rate mode should not be selected for bath systems fitted to combination boilers.

PUMPED DWMS:

Pumped DWMs fitted to gravity systems may be set to 'NORMAL GRAVITY' or for water economy 'ECO' flow rate modes.

N.B. We recommend the DWM is set to 'NORMAL GRAVITY' mode.

WHEN MAKING ANY ADJUSTMENT TO THE DWM SETTINGS THE POWER MUST BE ISOLATED.

Run the bath at maximum temperature (factory pre set to 45° C). If required, maximum temperature adjustment can be made with a flat bladed screwdriver using the 'MAX' TEMP ADJUSTMENT' control as indicated. When the temperature



has been set to the desired position carefully replace the DWM lid and secure the fixing hand tight only.

Site conditions can affect temperature settings, installer to adjust as required.

ALL COPPER PIPE WORK MUST BE CROSS-BONDED AND CONNECTED TO A RELIABLE EARTHING POINT.