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Installation guide

iSys™ Digital

Digital diverter

AQUALISA

AQUALISA

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Part No:700981 Issue 01 Jan 14

Please note that calls may be recorded for training and quality purposes
The company reserves the right to alter, change or modify the product specifications without prior warning
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Important information

Safety information

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

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

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 supervision or instruction concerning safe use of the product, understanding the hazards involved, by a person responsible for their safety.

Children should be supervised to ensure they do not play with the product.

Cleaning and user maintenance shall not be made by children without supervision.

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

The shower must not be used with a hot water supply temperature over 65˚C.

The processor is supplied factory pre-set at a 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 Digital processor must be installed in an accessible location for servicing and maintenance.

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

The control must not be installed in situations where the ambient temperature is likely to fall below 5˚C or rise above 40˚C.

We do not recommend the use of iSys Digital 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 control is supplied from a safety low voltage source.

This product is suitable for domestic use only.

iSys Digital is supplied with a 5 year guarantee.

Installation of Digital Gravity Pumped processor (for gravity stored systems)

The iSys Digital Gravity Pumped shower system is designed to operate up to a maximum static pressure of 100kPa ((1 bar)(10 metres head)(14.5psi)).
Under no circumstances must the pumped processor 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 Digital HP/Combi processor (for balanced high pressure and unvented systems, combination boiler systems and separately pumped gravity systems)

Pressures: The iSys Digital HP/Combi shower system 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.

PLEASE NOTE: DUE TO PERFORMANCE CHARACTERISTICS OF COMBINATION BOILERS, SEASONAL INLET TEMPERATURE CHANGE WILL AFFECT THE PROCESSOR OUTLET FLOW RATE RESULTING IN VARYING SHOWER FLOW RATE AND FLOW CONTROL RANGE. INLET TEMPERATURE CHANGE MAY ALSO CAUSE THE TEMPERATURE LED'S TO FLASH; THIS IS NOT NECESSARILY CHANGING THE OUTLET TEMPERATURE.

Special notes for separately pumped gravity systems

We recommend a **MINIMUM** pump rating of 1.5 bar. For optimum performance a 2.5 bar pump should be used for all separately pumped installations.
A twin ended pump is required for use with single outlet Digital products.
A universal type twin ended pump (works on both positive and negative head conditions) is required for use with Digital Divert products.

The minimum actual capacity of the cold water storage cistern should be not less than 225 litres (80 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 incorporates '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. COMPRESSION FITTINGS MUST NOT BE USED.

Pipe sizing

Long pipe runs, on both inlet and outlet, will reduce the flow rate at the shower head, 22mm pipe work should be used on inlets and reduce down to 15mm as close to the valve as possible to reduce pressure losses and help maintain flow rate. If using 15mm pipe, copper pipe is preferred, to optimise performance minimise the number of elbows used. If long pipe runs are unavoidable on the outlet, use copper pipe rather than plastic, particularly if a diverter is used, and minimise the number of elbows as the pipe inserts are very restrictive.

Flushing

Some modern fluxes can be very 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 iSys Digital operation and hand them this guide. Complete and post the guarantee card or register online at www.aqualisa.co.uk

Customer helpline

01959 560010

Got a query? Need a stockist? Our helpline is open from 8.30am to 5.00pm Monday to Friday to answer any questions, guide you through any aspect of your shower installation or advise you of your local stockist.

Product literature

0800 652 3669

Call our literature hotline to receive the latest Aqualisa product brochure containing details of our full range of domestic products.

Website

www.aqualisa.co.uk

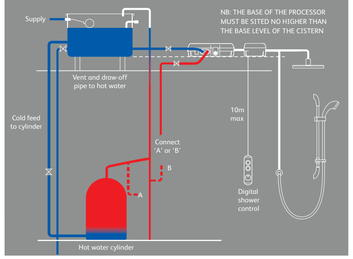
Visit our website for comprehensive product information, details of your nearest stockist and installers, technical advice and more.

Republic of Ireland

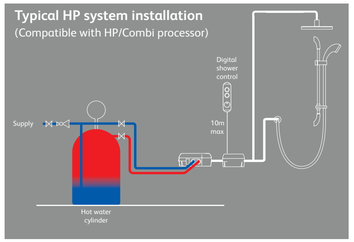
Our products are also available in the Republic of Ireland. If you need any technical advice, details of local stockists or have any other queries, please phone:

Sales enquiries: 01-864-3363
Service enquiries: 01-844-3212

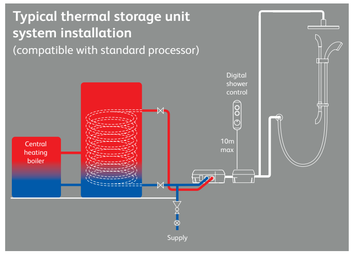
Typical gravity system installation
(Compatible with Gravity pumped processor)



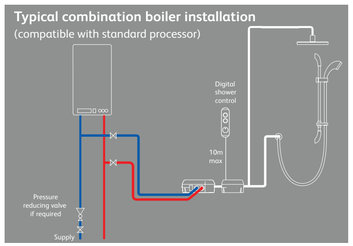
Typical HP system installation
(Compatible with HP/Combi processor)



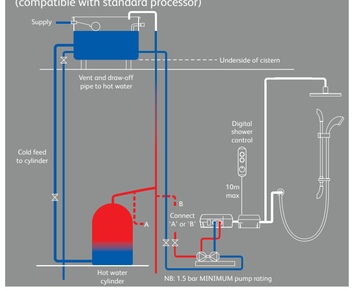
Typical thermal storage unit system installation
(compatible with standard processor)



Typical combination boiler installation
(compatible with standard processor)



Typical pumped system installation
(compatible with standard processor)



iSys Digital concealed with adjustable head and overflow bath fill

iSys Digital exposed with adjustable head and overflow bath fill

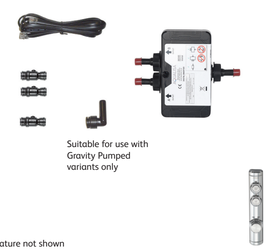
iSys Digital concealed with adjustable and wall mount fixed head

iSys Digital concealed with adjustable and ceiling head

iSys Digital exposed with adjustable and ceiling head

Components

In addition to the components featured within the main product system installation guide, Digital diverter systems also include the following components.



Suitable for use with Gravity Pumped variants only

Literature not shown

iSys™ Digital | Digital diverter

! This product must be installed by a competent person in accordance with the relevant Water Supply Regulations.

! Fit the Digital processor and main controller following the main unit installation instructions provided.

! Prior to connecting the blended supply connections to the shower/bath fittings, follow the procedure below to install the Digital diverter valve.

1 To ensure safe operation and installation of this product, the Digital diverter valve MUST be installed in one of the orientations shown.

! PLEASE NOTE THE ORIENTATIONS MATCH THE PROCESSOR ORIENTATIONS AND ARE SHOWN ON THE DIGITAL DIVERTER VALVE LABEL.

2 In addition to the isolation valves supplied with the Digital processor, isolation valves are also provided for use with the Digital diverter inlet and outlets. All pipe work should be run in 15mm pipe and all pipe work should be supported.

! For optimum performance use copper pipe and minimise the pipe length runs and amount of elbow fittings.

3 Choose the position for your Digital diverter valve as close to the Digital processor as possible, within range of the 2m low voltage connecting data cable provided. Like the Digital processor, the Digital diverter valve may be sited in the roof space above the proposed shower/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 Digital diverter valve and processor.

! The Digital diverter valve inlet has been designed, to enable connection directly inline with the HP/Combi Digital processor outlet isolation valve connection, or off the Gravity Pumped Digital processor outlet, using the cranked elbow connection fitting.

The distance between the Digital diverter valve and processor must be within the 2m range of the patch lead data cable connection provided.

THE PROCESSOR MUST BE SITED IN A POSITION THAT IS SAFELY ACCESSIBLE FOR SERVICING AND COMMISSIONING PURPOSES. WHEN FITTED IN THE LOFT SPACE, THE ROUTE TO AND THE AREA AROUND THE PROCESSOR AND DIVERTER VALVE MUST BE BOARDED TO ENSURE A SAFE WORKING ENVIRONMENT.

4 Place the Digital diverter valve onto a solid mounting surface, adjusting the fixing feet into suitable positions. Mark then drill and prepare suitable fixings before securing the processor to the mounting surface using the screws provided, if suitable.

5 Ensuring the supply pipe work connections have been flushed through in accordance with the main installation instructions provided, connect the processor outlet pipe to the diverter inlet pipe.

! PLEASE NOTE DIRECTION OF ARROW ON ISOLATION VALVE TO INDICATE DIRECTION OF FLOW.

HP/Combi processor

Processor connected directly to diverter valve

Processor connected to diverter with additional pipe

Gravity Pumped processor

Processor connected directly to diverter valve

Processor connected to diverter with additional pipe

! IMAGES SHOWN ARE AERIAL VIEWS AND ARE FOR ILLUSTRATIVE PURPOSES ONLY.

6 Ensure that the isolation valves are connected to the diverter valve outlets, with the arrows correctly aligned according to the direction of flow.

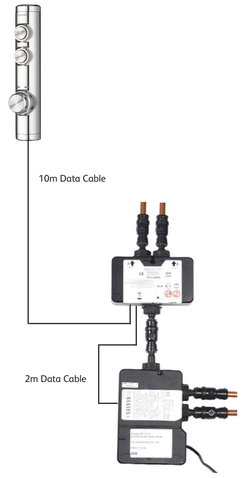
7 Run the pipes from the mixed water outlets on the Digital diverter valve through the wall to the proposed siting for the shower hose outlet, fixed head arm or bath outlet, depending on the system purchased.

! 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.

8 Unscrew the single fixing screw from the diverter valve lid, and carefully pull the lid clear.

! If fitting this system complete without the secondary Digital remote control, please refer to the wiring diagram below and follow instructions 9 to 11, ignoring instructions 12 to 16.



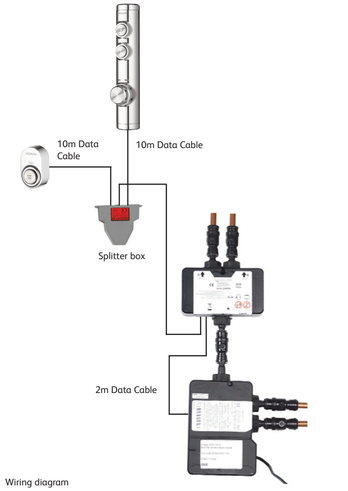
Wiring diagram

9 Plug one end of the 2m data cable (supplied with the Digital Diverter) into the open entry port of the main processor box.

10 Plug the other end of the 2m data cable (supplied with the Digital Diverter) into **port 2** on the Digital Diverter.

11 Plug the end of the 10m low voltage data cable feeding from the main controller into **port 1** on the Digital Diverter.

! If fitting this system complete with a secondary Digital remote control, please refer to the wiring diagram below and follow instructions 12 to 16, ignoring instructions 9 to 11 above.



Wiring diagram

12 Plug one end of the 2m data cable (supplied with the Digital Diverter) into the open entry port of the main processor box.

13 Plug the other end of the 2m data cable (supplied with the Digital Diverter) into **port 2** on the Digital Diverter.

14 Plug the end of the attached data cable feeding from the splitter box into **port 1** of the Digital Diverter.

15 Plug the end of the 10m low voltage data cable feeding from the main controller, as well as the end of the 10m low voltage data cable feeding from the remote button, into the two side by side entry ports on the splitter junction box as shown.

! If fitting this system complete with a secondary Digital remote control, the remote control data cable should be plugged into the splitter box, NOT the main Digital processor secondary entry port.

Please note, the 10m low voltage data cables can be plugged into either of the side by side entry ports of the splitter junction box, this will not affect the operation of this product.

16 Resume installation following the main and shower/bath fittings installation instructions provided prior to completing the commissioning procedure.

! iSys controllers are supplied with a temporary, clear protective film on the controls, please remove film once the product has been installed.

Setting the default/master outlet

1. Select position 1 (Outlet A) or position 2 (Outlet B) using the Digital Diverter switch, to determine the default master outlet.

Shower Control User Guide

1. Turn the temperature dial to the required setting.

2. Press the 'Start/stop' button on the control, to turn the shower on.

3. The red and blue LED display's will flash until the selected temperature has been reached.
4. When the LED display's are constant, step into your shower and enjoy!
5. The temperature may be adjusted once in the shower.
6. Press the 'Boost' button on the control to increase the strength of the shower when desired.
   N.B. If installed on a combination boiler system, the strength of the 'Boost' button will depend on the performance capability of your combination boiler.

7. Press and hold the 'Start/stop' button on the control to divert.
8. Press the 'Start/stop' button on the control, to turn the shower off.

Cleaning and maintenance

Your iSys Digital shower system should be cleaned using only a soft cloth and washing up liquid.

DO NOT USE ABRASIVE CLEANERS

To reduce the need for chemical descaling in hard water areas, your shower head incorporates a 'clear flow' system, whereby any scale build up can be broken down by gently rubbing the flexible tips of the jets during use. This procedure should be completed regularly, as often as once a week in some hard water areas, as scale build up can affect the spray pattern and cause the shower to perform poorly. Failure to descale the shower head can affect the internal seals and may affect the warranty.

Cleaning and maintenance should not be undertaken by children without supervision by a person responsible for their safety.

Should chemical descaling of the head become necessary, remove the shower head fully and immerse in a mild proprietary descalent.

IIT IS IMPERATIVE THAT DESCALING IS CARRIED OUT STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SUBSTANCES THAT ARE NOT SUITABLE FOR PLASTICS AND ELECTROPLATED SURFACES MUST NOT BE USED.