

AQUALISA

# Quartz™

Digital

Exposed with adjustable height head

Installation guide



# Quartz Digital exposed



**Quartz Digital exposed with adjustable head**

## Components (HP/Combi)



## Components (Gravity pumped)



# 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 Quartz 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.

Quartz Digital is supplied with a 5 year guarantee.

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

The Quartz 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 Quartz 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 Quartz Digital operation and hand them this guide. Complete and post the guarantee card or register online at [www.aqualisa.co.uk](http://www.aqualisa.co.uk)

# Installation instructions

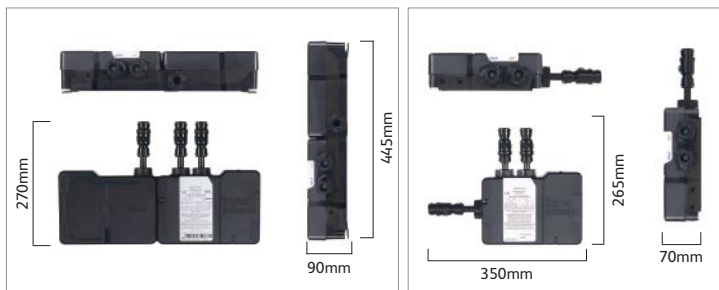
! This product must be installed by a competent person in accordance with the relevant Water Supply Regulations.

! 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.

! The Quartz Digital shower system is supplied with universal fixings intended to secure it to a suitable wall.

1

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



2

Isolation valves are supplied with the Digital processor 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 processor as possible before reducing down to 15mm.



! The inlet supply centres are 48mm. The inlet supply centres deviate from EN1111 and EN1287, but are deemed to be a special case. Please note arrow on isolation valve to indicate direction of flow.

Compression fittings should not be used on the inlet and outlet spigots and may affect the warranty if fitted.

3

Choose the position for your Digital processor as close to the shower control as possible. The processor may be sited in the roof space above the proposed shower 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 processor. Please refer to the system layout diagrams.



!

**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 MUST BE BOARDED TO ENSURE A SAFE WORKING ENVIRONMENT.**

The optimum position for the Digital processor is in the roof space above the shower site to take full advantage of the ease and speed of installation – please refer to the note above.

The distance between the Digital processor and shower control must be within range of the 10m data cable supplied.

4

Place the Digital processor on 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.



5

Flush out the hot and cold supply pipes.

!

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



6

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



!

**DO NOT SOLDER NEAR TO PLASTIC COMPONENTS.**

7

Locate a suitable entry point into the ceiling for the riser rail, avoiding joists and services.

!

The centre of the riser rail stands 45mm from the wall. If this is not suitable, the spacers provided with the fixing brackets will increase the depth to 70mm from the wall.

8

Drill a hole through the ceiling, a minimum of  $\varnothing 30\text{mm}$ , maximum  $\varnothing 40\text{mm}$ .

9

Feed the riser rail assembly containing the supply pipe and data cable through the hole in the ceiling, ensuring that the control is at the desired height, the rail is vertical, and that there is adequate working clearance above the top of the rail in the roof space.



10

Temporarily slide the gel hook up the rail ensuring it is positioned higher than the lower fixing bracket assembly.

11

Place the lower bracket support pillar into position ensuring the locking lug is correctly fitted into the location hole.



12

Carefully slide the fixing bracket over the rail onto the support pillar.



13

Ensuring the rail assembly has been passed through the hole in the ceiling and is at the desired height, mark the screw holes and remove the fixing bracket.

14

Prepare suitable fixings and slide the fixing bracket back over the rail onto the support pillar. Secure to the wall using the screws provided.

15

Place the upper rail bracket support pillar into the desired location ensuring that both the hose restraint and the handset holder are below the rail wall bracket.



16

Slide the fixing bracket over the rail onto the support pillar and repeat the above fixing procedure.



17

Carefully slide the rail end covers onto the fixing brackets flush with the finished wall surface and click the sides firmly into position.



18

Slide the ceiling plate up to the ceiling to cover the entry hole.



The ceiling plate cannot be sited against an uneven surface. If there is coving or an alternative obstruction, please ensure the entry hole is neat and unobtrusive; otherwise the inner tube could be visible within the showering area.



If the ceiling height is over 2.4m (8ft), a Digital riser rail extension kit will be required. Contact our Customer Service Department to purchase a riser rail extension kit (part no: 223217).

19

Connect the outlet pipe to the mixed water outlet on the Digital processor, using the push-fit elbow provided. Using pipe clips as appropriate, ensure that all pipe work is perpendicular to the processor, i.e. not putting any strain on the fittings.

!

Do not solder any additional pipe work to the 15mm copper pipe from the Digital shower system as the low voltage data cable could be damaged.

Instead, use push-fit fittings where necessary, to connect additional copper piping.

TO ENSURE OPTIMUM PERFORMANCE USE THE MINIMUM AMOUNT OF ELBOWS.

TO MAXIMISE FLOW RATES WE RECOMMEND USING COPPER PIPE WITH THE MINIMUM AMOUNT OF ELBOWS.

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.

20

Connect the processor power lead to a double pole 3amp switched fused spur, incorporated in the wiring circuit, in accordance with current wiring rules. Ensure that this is located in an accessible, dry location and not in the bathroom.



!

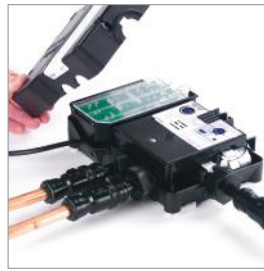
THIS APPLIANCE MUST BE EARTHED.

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.

21

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



22

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 processor box ensuring it is correctly routed within the data cable channel.



!

A further data cable socket has been provided for use with the secondary Digital remote control or Digital diverter. This can be accessed by carefully snapping and removing the entry pillar and connecting the cable as described above.

23

Connect the power to the processor and press the 'Start/stop' button on the controller to turn the shower on. Ensuring the hose washers are fitted at either end of the shower hose, attach the hose and flush the system through for 15 seconds to clear any debris. Turn the shower off and isolate from the electricity supply.



24

Thread the shower hose through the hose restraint.



25

Ensuring the hose washer is in the correct position, depress the anti-swivel locking button on the handset and secure the handset to the hose, then place the handset into the handset holder.



26

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

HP/COMBI PROCESSORS ON BALANCED HP SYSTEMS:

HP/Combi Digital processors fitted to balanced high pressure systems may be set to 'NORMAL HP', or for water economy, 'ECO' modes.

HP/COMBI PROCESSORS ON COMBINATION BOILER SYSTEMS:

For HP/Combi Digital processors 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 shower systems fitted to combination boilers.**

GRAVITY PUMPED PROCESSORS:

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

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



27

Re-instate the electricity supply to the Digital processor. Press the 'Start/stop' button on the controller to turn the shower on.

28

Run the shower 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 Digital processor 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.**



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